



**INVITATION FOR BID
(IFB) #11-2455-OV
Manatee Convention Center and Visitors Bureau
Electrical Remodeling Project, Palmetto, FL**

Manatee County, a political subdivision of the State of Florida, (hereinafter the "County") will receive sealed bids from individuals, corporations, partnerships, and other legal entities organized under the laws of the State of Florida or authorized to conduct business in the State of Florida.

NON-MANDATORY INFORMATION CONFERENCE

In order to insure that all prospective bidders have sufficient information and understanding of the County's needs, an **Information Conference** will be held **July 26, 2011 at 9:00 AM.** **Location: Manatee Convention and Visitors Bureau, 1 Haben Boulevard, Convention Center Lobby, Palmetto, FL 34221.** Attendance is not mandatory, but is highly encouraged.

A Site Inspection shall take place immediately following the Information Conference. An Inspection of the Site is a requirement to bid on this project.

REF: B.04 An inspection of the project site shall be acknowledged in Section 00300, Bid Form, page 00300-1.

DEADLINE FOR CLARIFICATION REQUESTS: July 29, 2011
(Reference Bid Article A.06)

TIME AND DATE DUE: August 8, 2011 at 1:00 PM
Manatee County Purchasing, 1112 Manatee Avenue West, Bradenton, FL 34205

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Important Note: Lobbying is prohibited (reference Bid Article A.08)

FOR INFORMATION CONTACT:
Olga Valcich (941) 743-3055 / olga.valcich@mymanatee.org

AUTHORIZED FOR RELEASE: 

SECTION 00010
INFORMATION TO BIDDERS

A.01 OPENING LOCATION

These bids will be **publicly opened** at **Manatee County Purchasing, 1112 Manatee Avenue West, Suite 803, Bradenton, Florida 34205** in the presence of County officials at the time and date stated, or soon thereafter. All bidders or their representatives are invited to be present.

Any bids received after the stated time and date will not be considered. It shall be the sole responsibility of the bidder to have their bid **delivered to the Manatee County Purchasing Division** for receipt on or before the stated time and date. If a bid is sent by **U.S. Mail**, the bidder shall be responsible for its timely delivery to the Purchasing Division. Bids delayed by mail shall not be considered, shall not be opened at the public opening, and arrangements shall be made for their return at the respondent's request and expense.

A.02 SEALED & MARKED

One original and two copies of your **signed bid** shall be submitted in one **sealed package**, clearly marked on the outside **"Sealed Bid #11-2455-OV / Manatee County Convention Center Electrical Remodeling Project, Palmetto, FL."**

Address package to: Manatee County Purchasing Division
 1112 Manatee Avenue West, Suite 803
 Bradenton, Florida 34205

A.03 SECURING OF DOCUMENTS

Complete individual copies of the bidding documents for the project and/or products can be obtained, free of charge, at the **Manatee County Administration Building located at: 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205; Phone No. 941-749-3014 between the hours of 8:00 AM to 4:00 PM Monday through Friday,** exception of holidays. Complete set of the bidding document must be used in preparing bids. The County assumes no responsibility for errors and misinterpretations resulting from the use of incomplete sets of bidding document.

A.04 BID DOCUMENTS

Bids on <http://www.mymanatee.org>. Bid documents and the Notices of Source Selection related to those Bids are available for download in a portable document format (.PDF) file on the Manatee County web page on the Purchasing tab under "Bids." You may view and print these files using Adobe Acrobat software. You may download a free copy of this software (Adobe) from the County's web page if you do not have it. **Manatee County collaborates with the Manatee Chamber of Commerce** on distributing solicitations using the RFP Tool web page on the Chambers website: <http://www.Manateechamber.com> to post Bid documents in a portable document

A.04 BID DOCUMENTS (Continued)

format (.PDF) file. This step is in addition to the posting on Manatee County Government web pages.

Manatee County may also use an internet service provider to distribute Bids. A link to that service, <http://www.DemandStar.com>, is provided on this website under the Tab "DemandStar". Participation in the DemandStar system is not a requirement for doing business with Manatee County.

Note: The County posts the Notice of Source Selection seven calendar days prior to the effective date of the award.

IT IS THE RESPONSIBILITY OF EACH VENDOR, PRIOR TO SUBMITTING THEIR BID, TO CONTACT THE MANATEE COUNTY PURCHASING OFFICE (see contact information on page one of this document) TO DETERMINE IF ADDENDA WERE ISSUED AND TO MAKE SUCH ADDENDA A PART OF THEIR BID .

A.05 MODIFICATION OF BID SPECIFICATIONS

If a bidder wishes to recommend changes to the bid specifications, the bidder shall furnish in writing, data and information necessary to aid the County in evaluating the request to modify the specifications. The County is not obligated to make any changes to the bid specifications. Unless an addendum is issued, the bid specifications shall remain unaltered. **Bidders must fully comply with the bid specifications, terms, and conditions.**

A.06 DEADLINE FOR CLARIFICATION REQUESTS

July 29, 2011 (close of business) shall be the deadline to submit all inquiries, suggestions, or requests concerning interpretation, clarification or additional information pertaining to the Invitation for Bids to the Manatee County Purchasing Office.

This deadline has been established to maintain fair treatment for all potential bidders, while maintaining the expedited nature of the Economic Stimulus that the contracting of this work may achieve.

A.07 CLARIFICATION & ADDENDA

Each bidder shall examine all Invitation for Bids documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to the Invitation for Bids shall be made through the Manatee County Purchasing Office. The County shall not be responsible for oral interpretations given by any County employee, representative, or others. The issuance of a written addendum is the only official method whereby interpretation, clarification or additional information can be given.

A.07 CLARIFICATION & ADDENDA (Continued)

If any addenda are issued to this Invitation for Bid, the County will Broadcast the addenda on the Demand Star distribution system to "Planholders" on this web service, and post the documents on the Purchasing Division's web page at <http://www.mymanatee.org> which can be accessed by clicking on the "Purchasing" button and then clicking on the "Bids" button. It shall be the responsibility of each bidder, prior to submitting their bid, to contact Manatee County Purchasing (see contact on page 1) to determine if addenda were issued and to make such addenda a part of their bid.

A.08 LOBBYING

After the issuance of any Invitation For Bid, prospective bidders, or any agent, representative or person acting at the request of such bidder shall not contact, communicate with or discuss any matter relating in any way to the Invitation For Bid with any officer, agent or employee of Manatee County other than the Purchasing Director or as directed in the Invitation For Bid. This prohibition begins with the issuance of any Invitation For Bid, and ends upon execution of the final contract or when the invitation has been canceled. Violators of this prohibition shall be subject to sanctions as provided in the Manatee County Purchasing Code.

The County reserves the right to amend or to add to the names listed as persons to contact. All amendments or additions to the names listed as persons to contact shall be issued by the Purchasing Division, in writing.

A.09 UNBALANCED BIDDING PROHIBITED

Manatee County recognizes that large and/or complex projects will often result in a variety of methods, sources and prices; however, where in the opinion of the County such variation does not appear to be justified, given bid specifications and industry and market conditions, the bid will be presumed to be unbalanced. Examples of unbalanced bids will include:

1. Bids showing omissions, alterations of form, additions not specified or required conditional or unauthorized alternate bids.
2. Bids quoting prices that substantially deviate, either higher or lower, from those included in the bids of competitive bidders for the same line item unit costs.
3. Bids where the unit costs offered are in excess of or below reasonable cost analysis values.

In the event the County determines that a bid is presumed unbalanced, it will request the opportunity to, and reserves the right to, review all sources quotes, bids, price lists, letters of intent, etc., which the bidder obtained and upon which the bidder relied upon to develop the bid. The County reserves the right to reject as non-responsive any

A.09 UNBALANCED BIDDING PROHIBITED (Continued)

presumptive unbalanced bids where the bidder is unable to demonstrate the validity and/or necessity of the unbalanced unit costs.

A.10 FRONT END LOADING OF BID PRICING PROHIBITED

Prices offered for performance and/or acquisition activities to occur early in the project schedule, such as: mobilization, clearing and grubbing; or maintenance of traffic, that are substantially higher than pricing of competitive bidders within the same portion of the project schedule, will be presumed to be front end loaded. Front end loaded bids could reasonably appear to be an attempt to obtain unjustified early payments creating a risk of insufficient incentive for the Contractor to complete the work or otherwise creating an appearance of an under-capitalized bidder.

In the event the County determines that a bid is presumed to be front end loaded, it will request the opportunity to, and reserves the right to, review all source quotes, bids, price lists, letters of intent, etc., which the bidder obtained and upon which the bidder relied upon to develop the pricing or acquisition timing for these bid items. The County reserves the right to reject as non-responsive any presumptive front end loaded bids where the bidder is unable to demonstrate the validity and/or necessity of the front end loaded costs.

A.11 WITHDRAWAL OF OFFERS

Vendors may withdraw offers as follows: a) Mistakes discovered before the opening of a solicitation may be withdrawn by written notice from the bidder submitting the offer. This request must be received in the office designated for receipt of offers in the solicitation document prior to the time set for delivery and opening of the offers. A copy of the request shall be retained and the unopened offer returned to that vendor. b) After the responses to a solicitation are opened or a selection has been determined, but before a contract is signed, a vendor alleging a material mistake of fact may be permitted to withdraw their offer if: (1) the mistake is clearly evident on the solicitation document; or (2) the bidder submits evidence which clearly and convincingly demonstrates that a mistake was made. Request to withdraw and offer must be in writing and approved by the Purchasing Official.

A.12 IRREVOCABLE OFFER

Any bid may be withdrawn up until the date and time set for opening of the bid. Any bid not so withdrawn shall, upon opening, constitute an irrevocable offer for a period of 90 days to sell to Manatee County the goods or services set forth in the attached specifications until one or more of the bids have been duly accepted by the County.

A.13 BID EXPENSES

All expenses for making bids to the County are to be borne by the bidder.

A.14 RESERVED RIGHTS

The County reserves the right to accept or reject any and/or all bids, to waive irregularities and technicalities, and to request resubmission. Also, the County reserves the right to accept all or any part of the bid and to increase or decrease quantities to meet additional or reduced requirements of the County. Any sole response received by the first submission date may or may not be rejected by the County depending on available competition and current needs of the County. For all items combined, the bid of the lowest responsive, responsible bidder will be accepted, unless all bids are rejected. The lowest responsible bidder shall mean **that bidder who makes the lowest bid to sell goods and/or services of a quality which** conforms closest to or most exceeds the quality of goods and/or services set forth in the attached specifications or otherwise required by the County, and who is fit and capable to perform the bid as made.

To be responsive, a bidder shall submit a bid which conforms in all material respects to the requirements set forth in the Invitation For Bid. To be a responsible bidder, the bidder shall have the capability in all respects to perform fully the contract requirements, and the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment, and credit which will assure good faith performance. Also, the County reserves the right to make such investigation as it deems necessary to determine the ability of any bidder to furnish the service requested. Information the County deems necessary to make this determination shall be provided by the bidder. Such information may include, but shall not be limited to: current financial statements, verification of availability of equipment and personnel, and past performance records.

A.15 APPLICABLE LAWS

Bidder must be authorized to transact business in the State of Florida. All applicable laws and regulations of the State of Florida and ordinances and regulations of Manatee County will apply to any resulting agreement. Any involvement with any Manatee County procurement shall be in accordance with Manatee County Purchasing Code of Laws as amended. Any actual or prospective bidder who is aggrieved in connection with the solicitation or award of a contract may protest to the Board of County Commissioners of Manatee County as required in Section 2-26/61 of the Purchasing Code.

A protest with respect to this Invitation For Bid shall be submitted in writing prior to the scheduled opening date of this bid, unless the aggrieved person did not know and could not have been reasonably expected to have knowledge of the facts giving rise to such protest prior to the scheduled opening date of this bid. The protest shall be submitted within seven calendar days after such aggrieved person knows or could have reasonably been expected to know of the facts giving rise thereto.

A.16 COLLUSION

By offering a submission to this Invitation For Bid, the bidder certifies that he has not divulged, discussed or compared their bid with other bidder, and has not colluded with any other bidder or parties to this bid whatsoever. Also, bidder certifies, and in the case

A.16 COLLUSION (Continued)

of a joint bid each party thereto certifies as to their own organization, that in connection with this bid:

- a. any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices and/or cost data, with any other bidder or with any competitor;
- b. any prices and/or cost data quoted for this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder, prior to the scheduled opening, directly or indirectly to any other bidder or to any competitor;
- c. no attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition;
- d. the only person or persons interested in this bid, principal or principals is/are named therein and that no person other than therein mentioned has any interest in this bid or in the contract to be entered into; and
- e. no person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding or a commission, percentage, brokerage, or contingent fee excepting bona fide employees or established commercial agencies maintained by bidder for purpose of doing business.

A.17 CODE OF ETHICS

With respect to this bid, if any bidder violates or is a party to a violation of the Code of Ethics of Manatee County per Manatee County Purchasing Code Ordinance 08-43, Article 3, Ethics in Public Contracting, and/or the State of Florida per Florida Statutes, Chapter 112, Part III, Code of Ethics for Public Officers and Employees, such bidder may be disqualified from performing the work described in this bid or from furnishing the goods or services for which the bid is submitted and shall be further disqualified from submitting any future bids for work or for goods or services for Manatee County. The County anticipates that all statements made and materials submitted in a bid will be truthful. If a bidder is determined to be untruthful in its bid or any related presentation, such bidder may be disqualified from further consideration regarding this Invitation For Bid.

A.18 BID FORMS

Bids must be submitted on attached County forms, although additional pages may be attached. **Bidders must fully complete all pages of the Bid Forms for both Bid A and Bid B. Bid Forms must be executed by an authorized signatory who has the legal authority to make the offer and bind the company. Bidders must fully comply with all specifications, terms and conditions.**

A.19 LEGAL NAME

Bids shall clearly indicate the legal name, address and telephone number of the bidder. Bids shall be signed above the typed or printed name and title of the signer. The signer must have the authority to bind the bidder to the submitted bid.

A.20 DRUG FREE WORK PLACE

The Manatee County Board of County Commissioners adopted a policy regarding bidders maintaining a Drug Free Work Place, prohibiting the award of bids to any person or entity that has not submitted written certification to the County that it has complied with those requirements. A Drug Free Work Place Certification Form is attached to this bid for this purpose.

A.21 BE GREEN

All Bidders are encouraged to use as many environmentally preferable "green" products, materials, supplies, etc. as possible in order to promote a safe and healthy environment. Environmentally preferable are products or services that have a reduced adverse effect on the environment. Provide detail of your organization's initiative and its ability to meet the goal of environmental sustainability.

A.22 PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES

A person or affiliate who has been placed on the State's convicted vendor list following a conviction for a public entity crime, as that term is defined in Florida Statute § 287.133, may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals or replies 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 Statute § 287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted list.

In addition, the Manatee County Code prohibits the award of any contract to any person or entity who/which has, within the past 5 years, been convicted of, or admitted to in court or sworn to under oath, a public entity crime or of any environmental law that, in the reasonable opinion of the purchasing official, establishes reasonable grounds to believe the person or business entity will not conduct business in a responsible matter.

A.22 PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES (Continued)

To insure compliance with the foregoing, the Code requires all persons or entities desiring to contract with the County to execute and file with the purchasing official an affidavit, executed under the pain and penalties of perjury, confirming that person, entity and any person(s) affiliated with the entity, does not have such a record and is therefore eligible to seek and be awarded business with the County.

In the case of a business entity other than a partnership or a corporation, such affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, such affidavit shall be executed by the general partner(s). A Public Contracting and Environmental Crimes Certification is attached for this purpose.

A.23 DISCOUNTS

Any and all discounts must be incorporated in the prices contained in the bid and not shown separately. The prices as shown on the bid form shall be the price used in determining award.

A.24 TAXES

Manatee County is exempt from Federal Excise and State Sales Taxes. (F.E.T. Exempt Cert. No. 59-78-0089K; FL Sales Tax Exempt Cert. NO 85-8012622206C-6); therefore, the vendor is prohibited from delineating a separate line item in his bid for any sales or service taxes. Nothing herein shall affect the vendor's normal tax liability.

A.25 DESCRIPTIVE INFORMATION

Unless otherwise specifically provided in the specifications, all equipment, materials and articles incorporated in the work covered by this contract shall be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided in the specifications, reference to any equipment, material, article or patented process, by trade name, brand name, make or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.

A.26 AMERICANS WITH DISABILITIES ACT

The Board of County Commissioners of Manatee County, Florida, does not discriminate upon the basis of any individual's disability status. This non-discrimination policy involves every aspect of the County's functions including one's access to, participation, employment, or treatment in its programs or activities. Anyone requiring reasonable accommodation for an **Information Conference** or **Bid Opening** should contact the person named on the first page of this bid document at least twenty-four (24) hours in advance of either activity.

A.27 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

Manatee County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 and the Regulations of the Department of Commerce (15 CFR, Part 8) issued pursuant to such Act, hereby notifies all vendors that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this advertisement and will not be discriminated against on the grounds of race, color or national origin in consideration for an award.

A.28 MBE/WBE

The State of Florida, **Office of Supplier Diversity** provides the certification process and the database for identifying certified MBE/WBE firms. This service may be directly accessed at: <http://www.osd.dms.state.fl.us/iframe.htm>

If you have any questions regarding this State service, please contact their office at (850) 487-0915.

A.29 MATHEMATICAL ERRORS

In the event of multiplication/extension error(s), the unit price shall prevail. In the event of addition error(s) the extension totals will prevail. All bids shall be reviewed mathematically and corrected, if necessary, using these standards, prior to additional evaluation.

A.30 DISCLOSURE

Upon receipt, all inquires and responses to inquires related to this Invitation for Bid become "Public Records" and are subject to public disclosure consistent with Chapter 119, Florida Statutes.

Bids become "Public Records" ten (10) days after the bid opening or if an award decision is made earlier than this time as provided by Florida Statue 119.071. No announcement or review of the bid documents shall be conducted at the public opening of the bids.

Based on the above, Manatee County will receive bids at the date and time stated, and will make public at the opening the names of the business entities of all that submitted an offer and any amount presented as a total offer without any verification of the mathematics or the completeness of the offer. Upon the expiration of the statutory term for exemption the actual documents may be inspected or copied. When County staff have completed a mathematic validation and inspected the completeness of the offers, tabulation shall be posted on www.mymanatee.org.

**NOTE: ANY OR ALL STATEMENTS CONTAINED IN THE FOLLOWING SECTIONS:
BASIS OF AWARD, TERMS AND CONDITIONS OF THE CONTRACT, OR
SPECIFICATIONS, WHICH VARY FROM THE INFORMATION TO BIDDERS,
SHALL HAVE PRECEDENCE**

END OF SECTION "A"

SECTION 00020
BASIS OF AWARD

B.01 BASIS OF AWARD

Award shall be to the responsive, responsible bidder meeting specifications and having the lowest Total Bid Price for **Bid "A"**, or the lowest Total Bid Price for **Bid "B"**, for the requirements listed on the Bid Form for the Work as set forth in this Invitation For Bid. Bid Prices shall include costs for furnishing all labor, equipment and/or materials for the completion of the Work in accordance with and in the manner set forth and described in the Contract Documents to the County's satisfaction within the prescribed time.

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price". The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

In evaluating bids, the County shall consider the qualifications of the bidders; and if required, may also consider the qualifications of the subcontractors, suppliers, and other persons and organizations proposed. County may also consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work.

Whenever two or more bids are equal with respect to price, quality and service, the bid received from a local business shall be given preference in award. Whenever two or more bids which are equal with respect to price, quality and service are received, and neither of these bids are received from a local business, the award shall be determined by a chance drawing conducted by the Purchasing Office and open to the public.

Local business is defined as a business duly licensed and authorized to engage in the sale of goods and/or services to be procured, which has a place of business in Manatee County with full time employees at that location.

B.02 SUBCONTRACTORS

Subcontractors shall be bound by the terms and conditions of this contract insofar as it applies to their Work, but this shall not relieve the prime contractor from the full responsibility of the County for the proper completion of all Work to be executed under this contract.

The employment of unauthorized aliens by any vendor is considered a violation of Section 274 (e) of the Immigration and Employment Act. If the vendor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of this agreement.

B.03 QUALIFICATIONS OF BIDDERS

Each bidder must secure all licenses required (in accordance with Chapter 489 Florida Statutes) for the Work which is the subject of this bid; and, upon request, shall submit a true copy of all applicable licenses. The License requirement for this project is a **Certified Electrical Contractor. A copy of the Certified Electrical Contractor's license shall be submitted with this Bid.**

Contractor shall have a minimum of three (3) years experience.

To demonstrate qualifications to perform the Work, each bidder must be prepared to submit within five days of County's request; written evidence such as financial data, previous experience, present commitments and other such data as may be requested. Bidder must be able to provide evidence of Bidder's qualification to do business in the state of Florida. Each bidder shall submit as a portion of their bid, a completed Contractor's Questionnaire included as Section 00430.

A complete list of all subcontractors proposed for any portion of the Work may be requested of any Bidder deemed necessary by the County. Subcontracts shall be awarded only to those subcontractors considered satisfactory by the County.

B.04 INSPECTION OF SITE

Prior to submission of a bid, each bidder shall visit the site to become familiar with all conditions that may affect services that are required to completely execute the full intent of these specifications. Site visit shall be acknowledged in Section 00300, Bid Form, page 00300-1. An Inspection of the Site is a requirement to bid on this project.

Contractors are required to contact site personnel and schedule an appointment for the Inspection of the Site.

Contact: Mr. John Rowland, Construction Coordinator, Phone: 941-748-4501 / Ext. 5843 and Rachel Harrison, Assistant Operations Manger, Convention and Visitors Bureau, Phone: 941-722-3244 / Ext. 238.

B.05 PREPARATION OF CONTRACT

A written notice confirming award or recommendation thereof will be forwarded to the Successful Bidder accompanied by the required number of unsigned counterparts of the Agreement. Within 10 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement with any other required documents to County. (Note: Contract must be approved in accordance with the Manatee County Code of Laws, Chapter 2-26, Manatee County Purchasing Ordinance and the Standards and Procedures approved by the County Administrator).

END OF SECTION "B"

SECTION 00030
GENERAL TERMS AND CONDITIONS OF THE CONTRACT

C.01 CONTRACT FORMS

The agreement resulting from the acceptance of a bid shall be in the form of the agreement stated in this bid.

C.02 ASSIGNMENT OF CONTRACT

Contractor shall not assign, transfer, convey, sublet or otherwise dispose of this Contract or of his right, title, or interest therein, or his power to execute such Contract, or to assign any monies due or to become due there under to any other person, firm or corporation unless first obtaining the written consent of the County. The giving of such consent to a particular subcontractor assignment shall not dispense with the necessity of such consent to any further or other assignment.

C.03 COMPLETION OF WORK

The Work will be completed and ready for final inspection within the specified calendar days from the date the Contract Time commences to run. Two bids shall be considered based on **Bid "A" 120 calendar days** and **Bid "B" based on 130 calendar days**. The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

C.04 LIQUIDATED DAMAGES

If the Contractor refuses or fails to prosecute the Work, or any separable part thereof, with such diligence as will hinder its completion within the time specified, the County may seek damages. The actual damages for delay will be impossible to determine and in lieu thereof, the Contractor shall pay to the County the sum of **\$1,148.00** as fixed, agreed, and liquidated damages for each calendar day of the delay until the Work is finally accepted by the County and the Contractor and his Surety shall be liable for the amount thereof.

C.05 PAYMENT

In accordance with the Prompt Payment Act, Florida Statute 218.71, Contractor may apply for partial payment on monthly estimates, based on the amount of Work done or completed in compliance with the provisions of the Contract. Contractor shall submit an application, on a form provided or approved by the County, of an approximate estimate of the proportionate value of the Work done, items and locations of the Work performed up to and including the last day of the period then ending. The County will then review said estimate and make any necessary revisions so that the estimate can receive approval for payment. If the Contractor and the County do not agree on the approximate estimate of the proportionate value of the Work done for any pay period, the determination of the County will be binding. The amount of said estimate after deducting any required retainage and all previous payments shall be due and payable to the Contractor within 20 business days after approval by the County. **If Agent approval is required, payment shall be due 25 business days after the pay estimate has been approved by the Agent for the County.**

C.05 PAYMENT (Continued)

It is the Contractor's responsibility for the care of the materials. Any damage to or loss of said materials is the full responsibility of the Contractor. Any Periodical Pay Estimate signed by the Contractor shall be final as to the Contractor for any or all work covered by the Periodical Pay Estimate. Any requests for payment of materials stored on site must be accompanied with a paid receipt. The Contractor warrants and guarantees that title to all work, materials and equipment covered by any application for payment, whether incorporated in the project or not, will pass to the County at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereafter referred to as "Liens").

The Contractor agrees to furnish an affidavit stating that all laborers, material men, and subcontractors have been paid on the project for Work covered by the application for payment and that a partial or complete release of lien, as may be necessary, be properly executed by the material men, laborers, subcontractors on the project for Work covered by the application for payment, sufficient to secure the County from any claim whatsoever arising out of the aforesaid Work.

When the Contractor has completed the Work in compliance with the terms of the Contract Documents, he shall notify the County in writing that the project is ready for final inspection. The County will then advise the Contractor as to the arrangements for final inspection and what Work, if any, is required to prepare the project or a portion thereof for final inspection. When the County determines the project or portion thereof is ready for final inspection, the County shall perform same. Upon completion of final inspection, the County will notify Contractor of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies. When all such errors have been corrected, a final re-inspection will be made. The process will be repeated until, in the opinion of the County, the project has been completed in compliance with the terms of the Contract Documents.

When final acceptance has been made by the County, the County will make final payment of the Contract amount, plus all approved additions, less approved deductions and previous payments made. The Contract will be considered complete when all work has been finished, the final inspection made, approved as-builts received, and the project finally accepted in writing by the County. The Contractor's responsibility shall then terminate except as otherwise stated.

C.06 RETAINAGE

A **retainage** of 2.5% of the total contract amount shall be withheld from payments after 75% completion of the Work. Upon substantial completion, this retainage shall be reduced to 1% of the total contract amount plus such amount as the County may reasonably deem necessary to repair, replace, complete or correct any damaged, defective, incorrect or incomplete work. Upon final acceptance, the remaining retainage shall be included in the final payment.

C.07 WARRANTY AND GUARANTEE PROVISIONS

All work, materials, and equipment furnished as defined herein shall be guaranteed and warranted by the contractor for a minimum period of three (3) years, unless otherwise specified, from final acceptance by the County to be free from defects due either to faulty materials or equipment or faulty workmanship.

All materials, equipment, and workmanship furnished and installed by the contractor is warranted and guaranteed by the contractor to be such as to meet the required standards and to accomplish the purpose and function of the project as defined, detailed, and specified herein.

The County shall, following discovery thereof, promptly give written notice to the contractor of faulty materials, equipment, or workmanship within the period of the guarantee and the contractor shall promptly replace any part of the faulty equipment, material, or workmanship at his own cost. These warranty and guarantee provisions create no limitations on the County as to any claims or actions for breach of guaranty or breach of warranty that the County might have against parties other than the contractor, and do not constitute exclusive remedies of the County against the contractor.

C.08 ROYALTIES AND PATENTS

The contractor shall pay all royalties and license fees for equipment or processes in conjunction with the equipment and/or services being furnished. Contractor shall defend all suits or claims for infringement of any patent, trademark or copyright, and shall save the County harmless from loss on account thereof, including costs and attorney's fees.

C.09 AUTHORIZED PRODUCT REPRESENTATION

The contractor, by virtue of submitting the name and specifications of a manufacturer's product, will be required to furnish the named manufacturer's product. Failure to perform accordingly may, in the County's sole discretion, be deemed a breach of contract, and shall constitute grounds for the County's immediate termination of the contract.

C.10 REGULATIONS

It shall be the responsibility of the bidder to assure compliance with any OSHA, EPA and/or other federal or state of Florida rules, regulations or other requirements, as each may apply.

C.11 CANCELLATION

Any failure of the contractor to furnish or perform the Work (including, but not limited to, commencement of the Work, failure to supply sufficient skilled workers or suitable materials or equipment) in accordance with the contract, the County may order the stop of the Work, or any portion thereof, until the cause for such order has been eliminated.

C.11 CANCELLATION (Continued)

If the contractor persistently fails to perform the Work in accordance with the contract, the County reserves the right to terminate the contract and select the next qualified bidder or re-advertise this procurement in part or in whole. The County reserves the right to cancel all or any undelivered or unexecuted portion of this contract with or without cause.

C.12 INDEMNIFICATION

The contractor covenants and agrees to indemnify and save harmless the County, its agents and employees, from and against all claims, suits, actions, damages, causes of action, or judgments arising out of the terms of the resulting agreement for any personal injury, loss of life, or damage to the property sustained as a result of the performance or non-performance of services or delivery of goods; from and against any orders, judgments, or decrees, which may be entered against the County, its agents or employees; and from and against all costs, attorney's fees, expenses and other liabilities incurred in the defense of any such claim, suit or action, and the investigation thereof. Nothing in the award, resulting agreement, contract or Purchase Order shall be deemed to affect the rights, privileges and immunities of the County as set forth in Florida Statute Section 768.28.

C.13 MANUALS, SCHEMATICS, HANDBOOKS

All manuals, schematics and handbooks shall be provided which are applicable to the equipment delivered. An operators manual, parts manual and technician manual must also be provided. Parts lists (manuals) must include OEM part numbers for items not manufactured by the bidder. Vendor shall furnish two (2) copies of each.

C.14 INSURANCE

The contractor will not commence work under a contract until all insurance under this section and such insurance coverage as might be required by the County has been obtained. The contractor shall obtain, and submit to Purchasing within 10 calendar days of request, at his expense, the following minimum amounts of insurance (inclusive of any amounts provided by an umbrella or excess policy):

a. **Workers' Compensation/Employers' Liability**

Part One - There shall be no maximum limit (other than as limited by the applicable statute) for liability imposed by Florida Workers' Compensation Act or any other coverage required by the contract documents which are customarily insured under Part One of the standard Workers' Compensation Policy.

Part Two - The minimum amount of coverage required by the contract documents which are customarily insured under Part Two of the standard Workers' Compensation Policy shall be:

<u>\$100,000</u>	(Each Accident)
<u>\$500,000</u>	(Disease-Policy Limit)
<u>\$100,000</u>	(Disease-Each Employee)

C.14 INSURANCE (Continued)**b. Commercial General Liability**

The limits are to be applicable only to work performed under this contract and shall be those that would be provided with the attachment of the Amendment of Limits of Insurance (Designated Project or Premises) endorsement (ISO Form CG 25 03) a Commercial General Liability Policy with the following minimum limits.

General Aggregate:

Products/Completed Operations Aggregate	<u>\$1,000,000</u>
Personal and Advertising Injury Each Occurrence	<u>\$300,000</u>
Fire Damage (Any One Fire)	<u>\$Nil</u>
Medical Expense (Any One Person)	<u>\$Nil</u>

c. Business Auto Policy

Each Occurrence Bodily Injury and Property Damage Liability Combined	<u>\$300,000</u>
Annual Aggregate (if applicable):	<u>\$1,000,000</u>

d. Owners Protective Liability Coverage

The minimum OPC Policy limits per occurrence and, if subject to an aggregate, annual aggregate to be provided by the contractor shall be the same as the amounts shown above as the minimum per occurrence and general policy aggregate limits respectively required for the Commercial General Liability coverage. The limits afforded by the OPC Policy and any excess policies shall apply only to the County and the County's officials, officers, agents and employees and only to claims arising out of or in connection with the work under this contract.

e. Property Insurance

If this contract includes construction of or additions to above ground buildings or structures, contractor shall provide "**Builder's Risk**" insurance with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

f. Installation Floater

If this contract does not include construction of or additions to above ground building or structures, **but does involve** the installation of machinery or equipment, contractor shall provide an "**Installation Floater**" with the minimum amount of insurance to be 100 % of the value of such addition (s), building (s), or structure(s).

C.14 INSURANCE (Continued)**g. Certificates of Insurance and Copies of Policies**

Certificates of Insurance in triplicate evidencing the insurance coverage specified in the six above paragraphs a., b., c., d., e., and f., shall be filed with the Purchasing Director before operations are begun. The required certificates of insurance shall name the types of policy, policy number, date of expiration, amount of coverage, companies affording coverage, and also shall refer specifically to the bid number, project title and location of project. Insurance shall remain in force at least one year after completion and acceptance of the project by the County, in the amounts and types as stated herein, with coverage for all products and services completed under this contract.

ADDITIONAL INSURED: The contractor shall name Manatee County as additional insured in each of the applicable policies.

If the initial insurance expires prior to the completion of operations and/or services by the contractor, renewal certificates of insurance and required copies of policies shall be furnished by the contractor and delivered to the Purchasing Official thirty (30) days prior to the date of their expiration.

Nothing herein shall in any manner create any liability of the County in connection with any claim against the contractor for labor, services, or materials, or of subcontractors; and nothing herein shall limit the liability of the contractor or contractor's sureties to the County or to any workers, suppliers, material men or employees in relation to this contract.

h. Retainage:**(Contract under \$ 100,000)**

A **retainage** of 10% of the total contract amount shall be withheld from all payments until 50% of the Work has been completed. After 50% completion, the retainage shall be reduced to 5% of the total contract amount, and one half of the previously withheld amount shall be paid to the Contractor. The remaining retainage shall be included in the final payment.

(Contract over \$ 100,000)

A **retainage** of 2.5% of the total contract amount shall be withheld from payments after 75% completion of the Work. Upon substantial completion, this retainage shall be reduced to 1% of the total contract amount plus such amount as the Owner reasonably deem necessary to repair, replace, complete or correct any damaged, defective, incorrect or incomplete work.

C.15 BID BOND/CERTIFIED CHECK

By offering a submission to this Invitation For Bid, the bidder agrees should the bidder's bid be accepted, to execute the form of contract and present the same to Manatee County for approval within 10 days after being notified of the awarding of the contract. The bidder further agrees that failure to execute and deliver said form of contract **within 10 days** will result in damages to Manatee County and as guarantee of payment of same a bid bond/certified check shall be enclosed within the submitted sealed bid in the amount of five (5%) percent of the total amount of the bid.

The bidder further agrees that in case the bidder fails to enter into a contract, as prescribed by Manatee County, the bid bond/certified check accompanying the bid shall be forfeited to Manatee County as agreed liquidated damages. If the County enters into a contract with a bidder, or if the County rejects any and/or all bids, accompanying bond will be promptly returned.

C.16 PERFORMANCE AND PAYMENT BONDS

The successful bidder shall furnish surety bonds as security for faithful performance of the contract awarded as a result of this bid, and for the payment of all persons performing labor and/or furnishing material in connection therewith. Surety of such bonds shall be in an amount equal to the bid award (100% each) and from a duly authorized and nationally recognized surety company, authorized to do business in Florida, satisfactory to this County. The attorney-in-fact who signs the bonds must file with the bonds a certificate and effective dated copy of power-of-attorney. (Reference Florida Statute 255.05)

Furnishing the performance and payment bonds shall be requisite to execution of a contract with the County. Said performance and payment bonds will remain in force for the duration of the contract with the premiums paid by the contractor. Failure of successful bidder to execute such contract and to supply the required bonds shall be just cause for annulment of the award.

The County may then contract with another acceptable bidder or re-advertise this Invitation For Bid. If another bidder is accepted, and notice given within 90 days after the opening of bids, this acceptance shall bind the bidder as though they were originally the successful bidder.

Failure of the County at any time, to require performance by the contractor of any provisions set out in the contract will in no way affect the right of the County, thereafter, to enforce the provisions. Bonds to remain in effect for one year after final payment becomes due.

C.17 NO DAMAGES FOR DELAY

No claim for damages or any claim other than for an extension of time shall be made or asserted against the County by reason of any delays. The Contractor shall not be entitled to an increase in the Total Contract Price or payment or compensation of any kind from the County or direct, indirect, consequential impact or other costs, expenses for damages, including but not limited to costs of acceleration or inefficiency arising because of delay, disruption, interference or hindrance from any cause whatsoever, provided, however, that this provision shall not preclude recover or damages by the Contractor for hindrance or delays due solely to fraud, bad faith, or active interference on part of the County or its agents. Otherwise, the Contractor shall be entitled to extensions of the Contract Time as sole and exclusive remedy for such resulting delay, in accordance with and to the extent specifically provided above.

C.18 NO INTEREST

Any monies not paid by the County when claimed to be due to the Contractor under this Contract shall not be subject to interest including prejudgment interest. Any monies not paid by the County when claimed to be due to the Contractor for damages awarded in

C.19 CONSTRUCTION OF CONTRACT

This Contract and the rights and responsibilities hereunder shall not be construed more strongly against either party, regardless of the extent to which such party may have participated in the preparation hereof.

END OF SECTION "C"

SECTION 00100
BID SUMMARY

D.01 THE WORK

The **Certified Electrical Contractor** shall furnish and install a complete and operational Electrical System(s) at the Manatee Convention and Visitors Bureau. Work shall include, but is not limited to: **the Conference Toilet(s) Area, Conference Center, Arena Lobby, Arena Lighting, and the Exterior of the Facility** as indicated on the Drawings enclosed. All required work is included in the Drawings and Specifications. All ancillary work required to implement the full system(s) are also indicated and included on the Drawings.

The Contractor shall furnish all labor, superintendence, materials, plant, power, light, heat, fuel, water, tools, appliances, equipment, supplies, shop drawings, working drawings and other means of construction necessary or proper for performing and completing the work. The Contractor shall obtain and pay for all required permits necessary for completion of the work. He shall perform and complete the work in the manner best calculated to promote rapid construction consistent with safety or life and property and to the satisfaction of the Engineer, and in strict accordance with the Contract Documents, whether specifically indicated in the Contract Documents or not.

The Contractor shall perform the work complete, in place and ready for continuous service and shall include any repairs, replacements, and / or restoration required as a result of damages caused prior to acceptance by the Owner.

The project site is Manatee Convention and Visitors Bureau, Palmetto, FL 34221.

D.02 SUBCONTRACTORS, SUPPLIERS AND OTHERS

The identity of subcontractors, suppliers, and other persons and organizations (including those who are to furnish the principal items of material and equipment) may be requested by the County for each bid item from any of the Bidders; and the Bidder shall respond within five days after the date of such request. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such subcontractor, supplier, persons or organization if requested by County. If County, after due investigation, has reasonable objection to any proposed subcontractor, supplier, other person or organization, County may, before the Notice of Award is given, request the apparent successful Bidder to submit an acceptable substitute without an increase in Contract Price or Contract Time.

If apparent successful Bidder declines to make any such substitution, County may award the contract to the next lowest qualified Bidder that proposes to use acceptable subcontractors, suppliers, and other persons who County does not make

D.02 SUBCONTRACTORS, SUPPLIERS AND OTHERS (Continued)

written objection to. Contractor shall not be required to employ any subcontractor, supplier, other person or organization who Contractor has reasonable objection to.

Subcontractors shall be bound by the terms and conditions of this contract insofar as it applies to their Work, but this shall not relieve the prime contractor from the full responsibility to the County for the proper completion of all Work to be executed under this contract.

D.03 BIDS

Bids are to be submitted in triplicate, one original and two copies, upon the County supplied forms. All blank spaces must be filled in as noted with amounts extended and totaled and no changes shall be made in the wording of the forms or in the items mentioned therein. In the event a change is made in your submittal, the Bidder shall write its initials by the change. Any bid may be rejected which contains any omissions, alterations, irregularities of any kind, or which shall in any manner fail to conform to bid requirements.

A bid made by an individual, either in his/her own or proper person or under a trade or firm name, shall be executed under the individual's signature. If made by a partnership, the bid shall be executed by two or more of the general partners. If made by a corporation, the bid shall be executed by its President or other legally authorized corporate officer or agent.

D.04 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Bid Documents thoroughly; (b) visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work; (c) consider federal, state, and local codes, laws, and regulations that may affect costs, progress, performance, or furnishing of the Work; (d) study and carefully correlate Bidder's observations with the Bid Documents; and (e) notify County of all conflicts, errors, or discrepancies in the Bid Document.

The accuracy of the existing utility locations shown on the plans is approximate and without express or implied warranty. Each Bidder may, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine his Bid for performing and furnishing the Work in accordance with the time price and other terms and conditions of the Contract Documents.

County will provide each Bidder access to the site to conduct such explorations and tests. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands

D.04 EXAMINATION OF CONTRACT DOCUMENTS AND SITE (Continued)

designated for use by Contractor in performing the Work identified in the Contract Documents.

All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by County unless otherwise provided in the Contract Documents.

D.05 MATERIALS AND WORKMANSHIP

All materials and apparatus required for this Work, except as specifically specified otherwise, shall be new, of first class quality, and shall be furnished, delivered, connected and finished in every detail. Construction shall be prescribed by good industry practice and in accordance with manufacturer's recommendations for the type being installed.

Use skilled workman trained and experienced in the necessary trades and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this section.

D.06 REGULATIONS AND MATERIAL DISPOSAL

It shall be the responsibility of the contractor to assure compliance with any OSHA, EPA, federal, state, and/or local rules, regulations or other requirements as each may apply.

D.07 DISCRETIONARY WORK

This Bid Item entails minor increases (that may be directed by staff) to existing bid item quantities or minor modification items not bid which were unforeseen and necessary during the construction to provide a safe, complete project in accordance with Bid Documents. (This will not affect the requirement for change orders involving major modifications to the project.) Payment for all Work under this item shall be made only at the County's discretion in order to satisfactorily complete the project. In general, this item is for unanticipated conflicts and/or design changes required during construction which are necessary to complete the project without changing the initial scope of Work and without costly delays.

END OF SECTION "D"

SECTION 00150
MANATEE COUNTY LOCAL PREFERENCE LAW AND VENDOR REGISTRATION

E.01 Vendor Registration

All vendors are encouraged to register with Manatee County using the on-line "Vendor Registration" web page on www.mymanatee.org.

Enclosed are a copy of the current Manatee County law that details the County's Local Preference and the County's definition of a Local Business.

If you assert that your firm meets the stated definition of a Local Business, we ask that in addition to registering on the County's Web page, you fill out the attached "**Affidavit As To Local Business Form**" that is included in this section, have the completed document notarized, and mail the original to the following address: Manatee County Administration Center, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205.

Your cooperation in registering your business with Manatee County will enhance our opportunities to identify sources for goods and services, plus identify Local Businesses. This information is used for soliciting quotations up to \$250,000.00 and for competitive solicitations of larger purchases.

You will note that Manatee County collaborates with the Manatee Chamber of Commerce, posting bids on www.manateechamber.com as well as using the same vendor categories for registration.

Our staff can assist you with your registration as needed. Our office hours are 8:00 A.M. to 5:00 P.M., Monday through Friday on regular business days. Please call (941) 749-3014 if you wish to have a purchasing staff member assist you.

Quick steps to registration: **www.mymanatee.org**

A link to "Purchasing" is listed under "Quick Links" on page one of the County Web Site.

On the left hand side of the Purchasing Web page, click on "Vendor Registration".

This will bring up the Vendor Registration form for on-line input. Please note that the definition of a "Local Business" changed on March 17, 2009. The Web page will be updated to include the current Law which has been provided in this section of the bid.

Thank you for reviewing this information and considering registering your business with Manatee County. Registration is not mandatory; however, by taking the time to register, you are helping the County to provide timely notifications of quotation, bid and proposal opportunities to your business.

E.02 Section 2-26-6. Local preference, tie bids, local business defined.

(a) Whenever a responsible local business bidder and a responsible non-local business bidder are found, upon the opening of bids, to have both submitted the lowest responsive bid, the bid of the local bidder shall be awarded the contract. Should more than one responsible local business bidder match the responsible non-local business bidder's lowest responsive bid, or should no responsible local business bidder match the lowest responsive bid but two or more responsible non-local business bidders submit lowest responsive bids for equal amounts, then the award of the contract shall be determined by a chance drawing, coin toss, or similar tie-breaking method conducted by the purchasing office and open to the public. Any bidders seeking to be recognized as local businesses for purposes of this local business preference provision may be required by the terms of the bid announcement to certify they meet the definition of local business set forth in this section, and to register as a local business with the county in the manner prescribed by the county to facilitate the county's ability to track the award of contracts to local businesses and to allow the county to provide future notifications to its local businesses concerning other bidding opportunities.

(b) Nothing herein shall be deemed to prohibit the inclusion of requirements with respect to operating and maintaining a local place of business in any invitation for bids when the bidder's location materially affects the provisions of the services or supplies that are required by the invitation.

(c) Local business is defined as a business legally authorized to engage in the sale of the goods and/or services to be procured, and which certifies within its bid that for at least six (6) months prior to the announcement of the solicitation of bids it has maintained a physical place of business in Manatee, Desoto, Hardee, Hillsborough, Pinellas or Sarasota County with at least one full-time employees at that location.

(d) **Each solicitation for bids made by the county shall contain terms expressly describing the local business preference policies of the county, and shall provide that by electing to submit a bid pursuant to a request for bids, all bidders are deemed to understand and agree to those policies.**

(e) For all contracts for architecture, professional engineering, or other professional services governed by Florida Statute § 287.055, the Consultants' Competitive Negotiation Act, the county shall include the local business status of a firm among the factors considered when selecting which firms are "most highly qualified." In determining which firm is the "most qualified" for purposes of negotiating a satisfactory contract, preference shall be given to a local business where all other relevant factors are equal.

(f) Local preference shall not apply to the following categories of contracts:

1. Goods or services provided under a cooperative purchasing agreement or similar "piggyback" contract;
2. Contracts for professional services subject to Florida Statute § 287.055, the Consultants' Competitive Negotiation Act, except as provided for in subsection (e) above;

E.02 Section 2-26-6. Local preference, tie bids, local business defined. (Continued)

3. Purchases or contracts which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference;
4. Purchases or contracts made pursuant to a non-competitive award process, unless otherwise provided by this section;
5. Any bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either the county commission or county administrator, or where such suspension is, in the opinion of the county attorney, required by law.

(g) To qualify for local preference under this section, **a local business must certify to the County that it:**

1. Has not within the five years prior to the bid announcement admitted guilt or been found guilty by any court or state or federal regulatory enforcement agency of violation of any criminal law, or a law or administrative regulation regarding fraud;
2. Is not currently subject to an unresolved citation or notice of violation of any Manatee County Code provision, except citations or notices which are the subject of a current legal appeal, as of the date of the bid announcement;
3. Is not delinquent in the payment of any fines, liens, assessments, fees or taxes to any governmental unit or taxing authority within Manatee County, except any such sums which are the subject of a current legal appeal.

Ref: Ordinance 09-21 and 09-23 **PASSED AND DULY ADOPTED** in open session, with a quorum present and voting, on the 17th day of March, 2009.

Contractors Note: Contractors who have previously submitted an **AFFIDAVIT AS TO LOCAL BUSINESS** are not required to resubmit an AFFIDAVIT, provided that any and all information has remained unchanged.

END OF SECTION "00150"

**MANATEE COUNTY GOVERNMENT
AFFIDAVIT AS TO LOCAL BUSINESS
(Complete and Initial Items B-F)**

A. Authorized Representative

I, [name] _____, am the [title] _____

and the duly authorized representative of: [name of business] _____
_____, and that I possess direct personal knowledge to make informed responses to these certifications and the legal authority to make this Affidavit on behalf of myself and the business for which I am acting; and by electing to submit a bid pursuant to this Invitation for Bids, shall be deemed to understand and agree to the local business preference policies of Manatee County; and that I have the direct knowledge to state that this firm complies with all of the following conditions to be considered to be a Local Business as required by the Manatee County Code of Law, Section 2-26-6.

B. Place of Business: I certify that the above business is legally authorized to engage in the sale of goods and/or services and has a physical place of business in Manatee, DeSoto, Hardee, Hillsborough, Pinellas or Sarasota County with at least one (1) fulltime employee at that location. The physical address of the location which meets the above criteria is: _____ [Initial] _____

C. Business History: I certify that business operations began at the above physical address with at least one fulltime employee on [date] _____ [Initial] _____

D. Criminal Violations: I certify that within the past five years of the date of this Bid announcement, this business has not admitted guilt nor been found guilty by any court or local, state or federal regulatory enforcement agency of violation of any criminal law or administrative regulation regarding fraud. [Initial] _____

E. Citations or Code Violations: I certify that this business is not currently subject to any unresolved citation or notice of violation of any Manatee County Code provision, with the exception of citations or notices which are the subject of a legal current appeal within the date of this bid announcement. [Initial] _____

F. Fees and Taxes: I certify that within this business is not delinquent in the payment of fines, liens, assessments, fees or taxes to any governmental unit or taxing authority within Manatee County, with the exception of those which are the subject of a legal current appeal. [Initial] _____

Each of the above certifications is required to meet the qualification of "Local Business" under Manatee County Code of Law, 2-26-6.

Signature of Affiant _____

STATE OF FLORIDA

COUNTY OF _____

Sworn to (or affirmed) and subscribed before me this _____ day of _____, 20____, by (name of person making statement).

(Notary Seal) Signature of Notary: _____

Name of Notary (Typed or Printed) _____

Personally Known _____ OR Produced Identification _____ Type of Identification Produced _____

Submit executed copy to Manatee County Purchasing, Suite 803, 1112 Manatee Avenue W., Bradenton, FL 34205.

**BID FORM – IFB #11-2455-OV
SECTION 00300**

**For: Manatee Convention Center / Electrical Remodeling Project
Palmetto, FL**

Bid "A" Based on 120 Calendar Day Completion

Bid Item	Bid Item Description	U/M	Extended Total
1.6	Subtotal of Conference Toilets	1 LS	\$
2.17	Subtotal of Conference Center	1 LS	\$
3.9	Subtotal of Arena Lobby	1 LS	\$
4.7	Subtotal of Arena Lighting	1 LS	\$
5.14	Subtotal of Exterior	1 LS	\$
	DISCRETIONARY FUNDS		\$50,000.00
	TOTAL OF MANATEE CONVENTION CENTER ELECTRICAL BID PACKAGE		\$

Item	Base Bid "A" Based on 120 CALENDAR DAY COMPLETION	Qty/UM	Extended Total
	<u>BID ALTERNATE ITEM DESCRIPTION / ARENA LIGHTING</u>		
4A1	Arena Lighting – Theatrical Stage / Lighting Rigging and Backbone for Arena West End Stage Location (Items 1 – 4) on Plan Sheet E4.0 with all Associated Wiring required.	1 LS	\$
4A2	Arena Lighting – Theatrical Spot / Lighting for Arena West End Stage Location (Items 1 - 3) on Plan Sheet E-4.0 and Notes 2 and 3 on Plan Sheet E-4.2 and E-4.3.	1 LS	\$
4A3	Arena Lighting – Addition of additional Dimmable Fluorescent Fixtures indicated Type CA to be tied into existing Light Electrical Services, installed as indicated on Sheet E-4.2 and E-4.3	1 LS	\$

BID FORM FOR BASE BID "A"
Based on a 120 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haban Boulevard, Palmetto, FL 34221

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price". The County has the sole authority to select the bid based on the Completion Time which is the best interest of the County. Only one award shall be made.

We, the undersigned, hereby declare that we have carefully reviewed the bid documents, and with full knowledge and understanding of the aforementioned herewith submit this bid, meeting each and every specification, term, and condition contained in the Invitation for Bids.

We understand that the bid technical specifications, terms, and conditions in their entirety shall be made a part of any agreement or contract between Manatee County and the successful bidder. Failure to comply shall result in contract default, whereupon, the defaulting contractor shall be required to pay for any and all re-procurement costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid shall be addressed as follows:

Person's Name: _____

Physical Address: _____ Phone: _____

Date: _____ FL Contractor License# _____

Bidder is a WBE/MBE Vendor? _____ Certification _____

COMPANY'S NAME: _____

AUTHORIZED SIGNATURE(S): _____

Name and Title of Above Signer(s) _____

CO. MAILING ADDRESS: _____

STATE OF INCORPORATION _____ (if applicable)

TELEPHONE: (____) _____ FAX: (____) _____

Email address: _____

Acknowledge Addendum No. ____ Dated: ____ Acknowledge Addendum No. ____ Dated ____

Acknowledge Addendum No. ____ Dated: ____ Acknowledge Addendum No. ____ Dated ____

SIGN AND CONFIRM DATE OF PROJECT VISIT: _____ DATE: _____

BID FORM SECTION 00300
Bid "A" Based on 120 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "A" Based on 120 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	CONFERENCE TOILETS			
1.1	Conference Toilets – Demolition. Removal and disposal of Existing Lighting indicated on Plan Sheet E-1.0.	\$	1 LS	\$
1.2	Conference Toilets – Lighting. Type E Fixture.	\$	15 EA	\$
1.3	Conference Toilets – Lighting. Type L Fixture.	\$	2 EA	\$
1.4	Conference Toilets – Lighting. Installation and Electrical Connections of all Lights indicated on Plan Sheet E-1.0 / Testing.	\$	1 LS	\$
1.5	Conference Toilets – Provide and Install Control Devices and Power Packs as indicated on Plan Sheet E-1.0 / Testing.	\$	1 LS	\$
1.6	SUBTOTAL OF CONFERENCE TOILETS:			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "A" Based on 120 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "A" Based on 120 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
CONFERENCE CENTER				
2.1	Conference Center – Demolition. Removal of Existing Lighting indicated on Plan Sheet E-2.1.	\$	1 LS	\$
2.2	Conference Center – Lighting. Type A Fixture.	\$	14 EA	\$
2.3	Conference Center – Lighting. Type B Fixture.	\$	13 EA	\$
2.4	Conference Center – Lighting. Type C Fixture.	\$	6 EA	\$
2.5	Conference Center – Lighting. Type D Fixture.	\$	157 EA	\$
2.6	Conference Center – Lighting. Type E Fixture.	\$	32 EA	\$
2.7	Conference Center – Lighting. Type EX Fixture.	\$	22 EA	\$
2.8	Conference Center – Lighting. Type F Fixture.	\$	71 EA	\$
2.9	Conference Center – Lighting. Type G Fixture.	\$	12 EA	\$
2.10	Conference Center – Lighting. Type H1 Fixture.	\$	2 EA	\$
2.11	Conference Center – Lighting. Type H2 Fixture.	\$	8 EA	\$
2.12	Conference Center – Lighting. Type J Fixture.	\$	88 EA	\$
2.13	Conference Center – Lighting. Type K Fixture	\$	28 EA	\$
2.14	Conference Center – Lighting. Installation and Electrical Connections of all Lighting Devices indicated on Plan Sheet E-2.2 / Testing.	\$	1 LS	\$

BID FORM SECTION 00300
Bid "A" Based on 120 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	<u>Base Bid "A" Based on 120 CALENDAR DAY COMPLETION</u>	Unit Cost	Qty/UM	Extended Total
	CONFERENCE CENTER			
2.15	Conference Center – Lighting Control System and Control Devices as indicated on Plan Sheet E-2.2.	\$	1 LS	\$
2.16	Conference Center – Wiring of each Control Circuit and Control Devices as indicated on Plan Sheet E-2.2 / Termination to Lighting Control System / Testing.	\$	1 LS	\$
2.17	SUBTOTAL OF CONFERENCE CENTER:			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "A" Based on 120 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "A" Based on 120 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	ARENA LOBBY			
3.1	Arena Lobby – Demolition. Removal of Existing Lighting indicated on Plan Sheet E-3.1.	\$	1 LS	\$
3.2	Arena Lobby – Lighting. Type B Fixture.	\$	20 EA	\$
3.3	Arena Lobby – Lighting. Type C Fixture.	\$	12 EA	\$
3.4	Arena Lobby – Lighting. Type E Fixture.	\$	4 EA	\$
3.5	Arena Lobby – Lighting. Type EX Fixture.	\$	6 EA	\$
3.6	Arena Lobby – Lighting. Installation and Electrical Connections of all Lighting Devices indicated on Plan Sheet E-3.2 / Testing.	\$	1 LS	\$
3.7	Arena Lobby – Wiring of Lobby Restrooms, Lighting and Control Devices and Power Packs for Lobby Restrooms as indicated on Plan Sheet E-3.2 / Testing.	\$	1 LS	\$
3.8	Arena Lobby – Lighting Control System and Control Devices as indicated on Plan Sheets E-3.3 / E-3.4 and E-3.5	\$	1 LS	\$
3.9	SUBTOTAL OF ARENA LOBBY:			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "A" Based on 120 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "A" Based on 120 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	ARENA LIGHTING			
4.1	Arena Lighting – Demolition. Removal of Existing Lighting indicated on Plan Sheet E-4.1.	\$	1 LS	\$
4.2	Arena Lighting – Lighting. Type A Fixture.	\$	72 EA	\$
4.3	Arena Lighting – Lighting. Type B Fixture	\$	24 EA	\$
4.4	Arena Lighting – Lighting. Type C Fixture	\$	72 EA	\$
4.5	Arena Lighting – Lighting. Type D Fixture	\$	16 EA	\$
4.6	Arena Lighting – Lighting. Installation and Electrical Connections of all Lighting Devices indicated on Plan Sheet E-4.2 and E-4.3 / Testing.	\$	1 LS	\$
4.7	SUBTOTAL OF ARENA LIGHTING:			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "A" Based on 120 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haban Boulevard, Palmetto, FL 34221

Item	Base Bid "A" Based on 120 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	EXTERIOR LIGHTING			
5.1	Exterior – Demolition. Removal of Existing Lighting indicated on Plan Sheet E-5.1.	\$	1 LS	\$
5.2	Exterior – Lighting. Type N Fixture.	\$	2 EA	\$
5.3	Exterior – Lighting. Type P Fixture.	\$	15 EA	\$
5.4	Exterior – Lighting. Type Q Fixture.	\$	32 EA	\$
5.5	Exterior – Lighting. Type R Fixture and Base.	\$	1 EA	\$
5.6	Exterior – Lighting. Type S Fixture.	\$	8 EA	\$
5.7	Exterior – Lighting. Type T Fixture.	\$	12 EA	\$
5.8	Exterior – Lighting. Type U Fixture.	\$	16 EA	\$
5.9	Exterior – Lighting. Type V Fixture.	\$	2 EA	\$
5.10	Exterior – Lighting. Type W Fixture.	\$	16 EA	\$
5.11	Exterior – Lighting. Extension of Conduit / Conductor Systems from Lighting Control Cabinet to the Service Points on the Exterior of the Facility.	\$	1 LS	\$

BID FORM SECTION 00300
Bid "A" Based on 120 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haban Boulevard, Palmetto, FL 34221

Item	Base Bid "A" Based on 120 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	EXTERIOR LIGHTING			
5.12	Exterior – Lighting. Installation and Electrical Connections of all Lights indicated on Plan Sheet E-5.2 / Testing.	\$	1 LS	\$
5.13	Exterior – Power. Extension of Conduit / Conductor Systems to the Exterior of the Facility to the Power Locations. (Outlets and Kiosks).	\$	1 LS	\$
5.14	SUBTOTAL OF EXTERIOR			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "A" Based on 120 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "A" Based on 120 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	BID ALTERNATE ITEM DESCRIPTION / ARENA LIGHTING			
4A1	Arena Lighting – Theatrical Stage / Lighting Rigging and Backbone for Arena West End Stage Location (Items 1 – 4) on Plan Sheet E4.0 with all Associated Wiring required.	\$	1 LS	\$
4A2	Arena Lighting – Theatrical Spot / Lighting for Arena West End Stage Location (Items 1 - 3) on Plan Sheet E-4.0 and Notes 2 and 3 on Plan Sheet E-4.2 and E-4.3.	\$	1 LS	\$
4A3	Arena Lighting – Addition of additional Dimmable Fluorescent Fixtures indicated Type CA to be tied into existing Light Electrical Services, installed as indicated on Sheet E-4.2 and E-4.3	\$	1 LS	\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

**INVITATION FOR BID
(IFB) #11-2455-OV
Manatee Convention Center and Visitors Bureau
Electrical Remodeling Project, Palmetto, FL**

Bid "B" (Next Section)

BID FORM – IFB #11-2455-OV

SECTION 00300

Bid "B" Based on 130 Calendar Day Completion

**For: Manatee Convention Center / Electrical Remodeling
Project
Palmetto, FL**

BID FORM – IFB #11-2455-OV**SECTION 00300****Bid “B” Based on 130 Calendar Day Completion**

**For: Manatee Convention Center / Electrical Remodeling Project
Palmetto, FL**

Bid Item	Bid Item Description	U/M	Extended Price
1.6	Subtotal of Conference Toilets	1 LS	\$
2.17	Subtotal of Conference Center	1 LS	\$
3.9	Subtotal of Arena Lobby	1 LS	\$
4.7	Subtotal of Arena Lighting	1 LS	\$
5.14	Subtotal of Exterior Lighting	1 LS	\$
	DISCRETIONARY FUNDS		\$50,000.00
	TOTAL OF MANATEE CONVENTION CENTER ELECTRICAL BID PACKAGE		\$

Item	Base Bid “B” Based on 130 CALENDAR DAY COMPLETION	Qty/UM	Extended Total
	<u>BID ALTERNATE ITEM DESCRIPTION / ARENA LIGHTING</u>		
4A1	Arena Lighting – Theatrical Stage / Lighting Rigging and Backbone for Arena West End Stage Location (Items 1 – 4) on Plan Sheet E4.0 with all Associated Wiring required.	1 LS	\$
4A2	Arena Lighting – Theatrical Spot / Lighting for Arena West End Stage Location (Items 1 - 3) on Plan Sheet E-4.0 and Notes 2 and 3 on Plan Sheet E-4.2 and E-4.3.	1 LS	\$
4A3	Arena Lighting – Addition of additional Dimmable Fluorescent Fixtures indicated Type CA to be tied into existing Light Electrical Services, installed as indicated on Sheet E-4.2 and E-4.3	1 LS	\$

BID FORM FOR BASE BID "B"
Based on a Completion Date of 130 Calendar Days

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price". The County has the sole authority to select the bid based on the Completion Time which is the best interest of the County. Only one award shall be made.

We, the undersigned, hereby declare that we have carefully reviewed the bid documents, and with full knowledge and understanding of the aforementioned herewith submit this bid, meeting each and every specification, term, and condition contained in the Invitation for Bids.

We understand that the bid technical specifications, terms, and conditions in their entirety shall be made a part of any agreement or contract between Manatee County and the successful bidder. Failure to comply shall result in contract default, whereupon, the defaulting contractor shall be required to pay for any and all re-procurement costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid shall be addressed as follows:

Person's Name: _____

Physical Address: _____ Phone: _____

Date: _____ FL Contractor License# _____

Bidder is a WBE/MBE Vendor? _____ Certification _____

COMPANY'S NAME: _____

AUTHORIZED SIGNATURE(S): _____

Name and Title of Above Signer(s) _____

CO. MAILING ADDRESS: _____

STATE OF INCORPORATION _____ (if applicable)

TELEPHONE: (____) _____ FAX: (____) _____

Email address: _____

Acknowledge Addendum No. ____ Dated: ____ Acknowledge Addendum No. ____ Dated ____

Acknowledge Addendum No. ____ Dated: ____ Acknowledge Addendum No. ____ Dated ____

SIGN AND CONFIRM DATE OF PROJECT VISIT: _____ DATE: _____

BID FORM SECTION 00300
Bid "B" Based on 130 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "B" Based on 130 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	CONFERENCE TOILETS			
1.1	Conference Toilets – Demolition. Removal and disposal of Existing Lighting indicated on Plan Sheet E-1.0.	\$	1 LS	\$
1.2	Conference Toilets – Lighting. Type E Fixture.	\$	15 EA	\$
1.3	Conference Toilets – Lighting. Type L Fixture.	\$	2 EA	\$
1.4	Conference Toilets – Lighting. Installation and Electrical Connections of all Lights indicated on Plan Sheet E-1.0 / Testing.	\$	1 LS	\$
1.5	Conference Toilets – Provide and Install Control Devices and Power Packs as indicated on Plan Sheet E-1.0 / Testing.	\$	1 LS	\$
1.6	SUBTOTAL OF CONFERENCE TOILETS:			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "B" Based on 130 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "B" Based on 130 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	CONFERENCE CENTER			
2.1	Conference Center – Demolition. Removal of Existing Lighting indicated on Plan Sheet E-2.1.	\$	1 LS	\$
2.2	Conference Center – Lighting. Type A Fixture.	\$	14 EA	\$
2.3	Conference Center – Lighting. Type B Fixture.	\$	13 EA	\$
2.4	Conference Center – Lighting. Type C Fixture.	\$	6 EA	\$
2.5	Conference Center – Lighting. Type D Fixture.	\$	157 EA	\$
2.6	Conference Center – Lighting. Type E Fixture.	\$	32 EA	\$
2.7	Conference Center – Lighting. Type EX Fixture.	\$	22 EA	\$
2.8	Conference Center – Lighting. Type F Fixture.	\$	71 EA	\$
2.9	Conference Center – Lighting. Type G Fixture.	\$	12 EA	\$
2.10	Conference Center – Lighting. Type H1 Fixture.	\$	2 EA	\$
2.11	Conference Center – Lighting. Type H2 Fixture.	\$	8 EA	\$
2.12	Conference Center – Lighting. Type J Fixture.	\$	88 EA	\$
2.13	Conference Center – Lighting. Type K Fixture	\$	28 EA	\$
2.14	Conference Center – Lighting. Installation and Electrical Connections of all Lighting Devices indicated on Plan Sheet E-2.2 / Testing.	\$	1 LS	\$

BID FORM SECTION 00300
Bid "B" Based on 130 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	<u>Base Bid "B" Based on 130 CALENDAR DAY COMPLETION</u>	Unit Cost	Qty/UM	Extended Total
	CONFERENCE CENTER			
2.15	Conference Center – Lighting Control System and Control Devices as indicated on Plan Sheet E-2.2.	\$	1 LS	\$
2.16	Conference Center – Wiring of each Control Circuit and Control Devices as indicated on Plan Sheet E-2.2 / Termination to Lighting Control System / Testing.	\$	1 LS	\$
2.17	SUBTOTAL OF CONFERENCE CENTER:			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "B" Based on 130 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "B" Based on 130 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	ARENA LOBBY			
3.1	Arena Lobby – Demolition. Removal of Existing Lighting indicated on Plan Sheet E-3.1.	\$	1 LS	\$
3.2	Arena Lobby – Lighting. Type B Fixture.	\$	20 EA	\$
3.3	Arena Lobby – Lighting. Type C Fixture.	\$	12 EA	\$
3.4	Arena Lobby – Lighting. Type E Fixture.	\$	4 EA	\$
3.5	Arena Lobby – Lighting. Type EX Fixture.	\$	6 EA	\$
3.6	Arena Lobby – Lighting. Installation and Electrical Connections of all Lighting Devices indicated on Plan Sheet E-3.2 / Testing.	\$	1 LS	\$
3.7	Arena Lobby – Wiring of Lobby Restrooms, Lighting and Control Devices and Power Packs for Lobby Restrooms as indicated on Plan Sheet E-3.2 / Testing.	\$	1 LS	\$
3.8	Arena Lobby – Lighting Control System and Control Devices as indicated on Plan Sheets E-3.3 / E-3.4 and E-3.5	\$	1 LS	\$
3.9	SUBTOTAL OF ARENA LOBBY:			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "B" Based on 130 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "B" Based on 130 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	ARENA LIGHTING			
4.1	Arena Lighting – Demolition. Removal of Existing Lighting indicated on Plan Sheet E-4.1.	\$	1 LS	\$
4.2	Arena Lighting – Lighting. Type A Fixture.	\$	72 EA	\$
4.3	Arena Lighting – Lighting. Type B Fixture	\$	24 EA	\$
4.4	Arena Lighting – Lighting. Type C Fixture	\$	72 EA	\$
4.5	Arena Lighting – Lighting. Type D Fixture	\$	16 EA	\$
4.6	Arena Lighting – Lighting. Installation and Electrical Connections of all Lighting Devices indicated on Plan Sheet E-4.2 and E-4.3 / Testing.	\$	1 LS	\$
4.7	SUBTOTAL OF ARENA LIGHTING:			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "B" Based on 130 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "B" Based on 130 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
EXTERIOR LIGHTING				
5.1	Exterior – Demolition. Removal of Existing Lighting indicated on Plan Sheet E-5.1.	\$	1 LS	\$
5.2	Exterior – Lighting. Type N Fixture.	\$	2 EA	\$
5.3	Exterior – Lighting. Type P Fixture.	\$	15 EA	\$
5.4	Exterior – Lighting. Type Q Fixture.	\$	32 EA	\$
5.5	Exterior – Lighting. Type R Fixture and Base.	\$	1 EA	\$
5.6	Exterior – Lighting. Type S Fixture.	\$	8 EA	\$
5.7	Exterior – Lighting. Type T Fixture.	\$	12 EA	\$
5.8	Exterior – Lighting. Type U Fixture.	\$	16 EA	\$
5.9	Exterior – Lighting. Type V Fixture.	\$	2 EA	\$
5.10	Exterior – Lighting. Type W Fixture.	\$	16 EA	\$
5.11	Exterior – Lighting. Extension of Conduit / Conductor Systems from Lighting Control Cabinet to the Service Points on the Exterior of the Facility.	\$	1 LS	\$

BID FORM SECTION 00300
Bid "B" Based on 130 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	Base Bid "B" Based on 130 CALENDAR DAY COMPLETION	Unit Cost	Qty/UM	Extended Total
	EXTERIOR LIGHTING			
5.12	Exterior – Lighting. Installation and Electrical Connections of all Lights indicated on Plan Sheet E-5.2 / Testing.	\$	1 LS	\$
5.13	Exterior – Power. Extension of Conduit / Conductor Systems to the Exterior of the Facility to the Power Locations. (Outlets and Kiosks).	\$	1 LS	\$
5.14	SUBTOTAL OF EXTERIOR LIGHTING			\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

BID FORM SECTION 00300
Bid "B" Based on 130 Calendar Day Completion

For: **IFB #11-2455-OV / Manatee Convention Center and Visitors Bureau**
Location: 1 Haben Boulevard, Palmetto, FL 34221

Item	<u>Base Bid "B" Based on 130 CALENDAR DAY COMPLETION</u>	Unit Cost	Qty/UM	Extended Total
BID ALTERNATE ITEM DESCRIPTION / ARENA LIGHTING				
4A1	Arena Lighting – Theatrical Stage / Lighting Rigging and Backbone for Arena West End Stage Location (Items 1 – 4) on Plan Sheet E4.0 with all Associated Wiring required.	\$	1 LS	\$
4A2	Arena Lighting – Theatrical Spot / Lighting for Arena West End Stage Location (Items 1-3) on Plan Sheet E-4.0 and Notes 2 and 3 on Plan Sheet E-4.2 and E-4.3.	\$	1 LS	\$
4A3	Arena Lighting – Addition of additional Dimmable Fluorescent Fixtures indicated Type CA to be tied into existing Light Electrical Services, installed as indicated on Sheet E-4.2 and E-4.3	\$	1 LS	\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

**SWORN STATEMENT
THE FLORIDA TRENCH SAFETY ACT**

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR BY AN OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This Sworn Statement is submitted with IFB No. #11-2455-OV
2. This Sworn Statement is submitted by _____
whose business address is _____
and, if applicable, its Federal Employer Identification Number (FEIN) is _____.
If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement _____.
3. Name of individual signing this Sworn Statement is: _____,
Whose relationship to the above entity is: _____.
4. The Trench Safety Standards that will be in effect during the construction of this project shall include, but are not limited to: Laws of Florida, Chapters 90-96, TRENCH SAFETY ACT, and OSHA RULES AND REGULATIONS 29 CFR 1926.650 Subpart P, effective October 1, 1990.
5. The undersigned assures that the entity will comply with the applicable Trench Safety Standards and agrees to indemnify and hold harmless the Owner and Engineer, and any of their agents or employees from any claims arising from the failure to comply with said standard.
6. The undersigned has appropriated the following costs for compliance with the applicable standards:

Trench Safety Measure (Description)	Units of Measure (LF, SY)	Unit Quantity	Unit Cost	Extended Cost
a. _____	_____	_____	\$ _____	_____
b. _____	_____	_____	\$ _____	_____
c. _____	_____	_____	\$ _____	_____
d. _____	_____	_____	\$ _____	_____

7. The undersigned intends to comply with these standards by instituting the following procedures:

_____.

THE UNDERSIGNED, in submitting this Bid, represents that they have reviewed and considered all available geotechnical information and made such other investigations and tests as they may deem necessary to adequately design the trench safety system(s) to be utilized on this project.

(AUTHORIZED SIGNATURE / TITLE)

SWORN to and subscribed before me this ____ day of _____, 20____.
(impress official seal)

Notary Public, State of Florida
My commission expires: _____

SECTION 00430
CONTRACTOR'S QUESTIONNAIRE
(Submit in Triplicate)

The Bidder warrants the truth and accuracy of all statements and answers herein contained.
(Include additional sheets if necessary.)

THIS QUESTIONNAIRE MUST BE COMPLETED AND SUBMITTED WITH YOUR BID.

1. LICENSE # and COMPANY'S NAME: _____
CO. PHYSICAL ADDRESS: _____
TELEPHONE NUMBER: (____) _____ FAX (____) _____
EMAIL ADDRESS: _____

2. Bidding as an; individual ___a partnership___ a corporation; ___a joint venture; ___

3. If a partnership: list names and addresses of partners; if a corporation: list names of officers, directors, shareholders, and state of incorporation; if joint venture: list names and address of ventures' and the same if any venture are a corporation for each such corporation, partnership, or joint venture:

4. Your organization has been in business under this firm's name as a _____
for how many years? _____

5. Describe and give the date and owner of the last three government projects you've completed which are similar in cost, type, size, and nature as the one proposed (for a public entity). Include contact name and phone number:

6. Have you ever been assessed liquidated damages under a contract during the past five (5) years? If so, state when, where (contact name, address, and phone number) and why.

7. Have you ever failed to complete work awarded to you? If so, state when, where and provide Contact name, address, phone number and why?

8. Have you ever been debarred or prohibited from bidding on a governmental entity's construction project? If yes, name the entity and describe the circumstances:

9. Name three individuals, governmental entities, or corporations for which you have performed similar work and to which you refer. Include contact name and phone number:

1. _____
2. _____
3. _____

10. What specific steps have you taken to examine the physical conditions at or contiguous to the site, including but not limited to, the location of existing underground facilities? State date of site visit.

11. What specific physical conditions, including, but not limited to, the location of existing underground facilities have you found which will, in any manner, affect cost, progress, performance, or finishing of the work?

12. Will you subcontract any part of this Work? If so, describe which major portion(s):

13. If any, list (with contract amount) WBE/MBE to be utilized:

14. What equipment do you own to accomplish this Work?

15. What equipment will you purchase/rent for the Work? (Specify which)

16. Provide detail of your organization’s initiative to meet the goal of encouraging and promoting environmentally preferable “green” products. **Reference Article A.21, “Be Green”, Section 00010 “Information To Bidders”.**

17. List the following in connection with the Surety which is providing the Bond(s):

Surety's Name: _____

Surety's Address: _____

Name, address and phone number of Surety's resident agent for service of process in Florida:

Phone: (_____) _____

Email: _____

SECTION 00491
Drug Free Work Place Certification

SWORN STATEMENT PURSUANT TO SECTION 6-101 (7) (B),
MANATEE COUNTY PURCHASING CODE

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

This sworn statement is submitted to the Manatee County Board of County Commissioners by _____
[Print individual's name and title]

_____ for _____

Whose business address is _____?

and (if applicable) its Federal Employer Identification Number (FEIN) is _____
(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____)

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it will provide a drug free work place by:

(1) providing a written statement to each employee notifying such employee that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance as defined by . 893.02(4), Florida Statutes, as the same may be amended from time to time, in the person's or entity's work place is prohibited specifying the actions that will be taken against employees for violation of such prohibition. Such written statement shall inform employees about:

- (i) the dangers of drug abuse in the work place;
- (ii) the person's or entity's policy of maintaining a drug free environment at all its work places, including but not limited to all locations where employees perform any task relating to any portion of such contract, business transaction or grant;
- (iii) any available drug counseling, rehabilitation, and employee assistance programs; and
- (iv) the penalties that may be imposed upon employees for drug abuse violations.

2) Requiring the employee to sign a copy of such written statement to acknowledge his or her receipt of same and advice as to the specifics of such policy. Such person or entity shall retain the statements signed by its employees. Such person or entity shall also post in a prominent place at all of its work places a written statement of its policy containing the foregoing elements (i) through (iv).

(3) Notifying the employee in the statement required by subsection (1) that as a condition of employment the employee will:

- (i) abide by the terms of the statement; and
- (ii) notify the employer of any criminal drug statute conviction for a violation occurring in the work place no later than five (5) days after such a conviction.

(4) Notifying the County within ten (10) days after receiving notice under subsection (3) from an employee or otherwise receiving actual notice of such conviction.

(5) Imposing appropriate personnel action against such employee up to and including termination; or requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.

(6) Making a good faith effort to continue to maintain a drug free work place through implementation of sections (1) through (5) stated above.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT:

- (1) Such person or entity has made false certification.
- (2) Such person or entity violates such certification by failing to carry out the requirements of sections (1), (2), (3), (4), (5), or (6) or subsection 3-101 (7) (B); or
- (3) Such a number of employees of such person or entity have been convicted of violations occurring in the work place as to indicate that such person or entity has failed to make a good faith effort to provide a drug free work place as required by subsection 3-101(7) (B).

[Signature]

STATE OF FLORIDA
COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____, 2010

by _____.

Personally known _____ OR produced identification _____

[Type of identification]

My commission expires _____

Notary Public Signature

[Print, type or stamp Commissioned name of Notary Public]

Signatory Requirement: In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION
SWORN STATEMENT PURSUANT TO ARTICLE 5,
MANATEE COUNTY PURCHASING CODE

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

This sworn statement is submitted to the Manatee County Board of County Commissioners by

_____ [print individual's name and title]

_____ for _____ [print name of entity submitting sworn statement]

Whose business is: _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____ If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it has not:

(1) been convicted of bribery or attempting to bribe a public officer or employee of Manatee County, the State of Florida, or any other public entity, including, but not limited to the Government of the United States, any state, or any local government authority in the United States, in that officer's or employee's official capacity; or

(2) been convicted of an agreement or collusion among bidders or prospective bidders in restraint of freedom of competition, by agreement to bid a fixed price, or otherwise; or

(3) been convicted of a violation of an environmental law that, in the sole opinion of the County's Purchasing Official, reflects negatively upon the ability of the person or entity to conduct business in a responsible manner; or

(4) made an admission of guilt of such conduct described in items (1), (2) or (3) above, which is a matter of record, but has not been prosecuted for such conduct, or has made an admission of guilt of such conduct, which is a matter of record, pursuant to formal prosecution. An admission of guilt shall be construed to include a plea of nolo contendere; or

(5) where an officer, official, agent or employee of a business entity has been convicted of or has admitted guilt to any of the crimes set forth above on behalf of such and entity and pursuant to the direction or authorization of an official thereof (including the person committing the offense, if he is an official of the

business entity), the business shall be chargeable with the conduct herein above set forth. A business entity shall be chargeable with the conduct of an affiliated entity, whether wholly owned, partially owned, or one which has common ownership or a common Board of Directors. For purposes of this Form, business entities are affiliated if, directly or indirectly, one business entity controls or has the power to control another business entity, or if an individual or group of individuals controls or has the power to control both entities. Indicia of control shall include, without limitation, interlocking management or ownership, identity of interests among family members, shared organization of a business entity following the ineligibility of a business entity under this Article, or using substantially the same management, ownership or principles as the ineligible entity.

Any person or entity, who claims that this Article is inapplicable to him/her's/it because a conviction or judgement has been reversed by a court of competent jurisdiction, shall prove the same with documentation satisfactory to the County's Purchasing Official. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with the County.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT **SUCH PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.**

[Signature]

STATE OF FLORIDA
COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____, 2010 by
_____.

Personally known _____ OR produced _____
[Type of identification]

_____ My commission expires _____
Notary Public Signature

[Print, type or stamp Commissioned name of Notary Public]

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

SECTION 00500
FORM OF AGREEMENT
BETWEEN THE
COUNTY OF MANATEE, FLORIDA
AND THE CONTRACTOR AS IDENTIFIED BELOW
ON THE BASIS OF A STIPULATED UNIT COST CONTRACT PRICE

THIS AGREEMENT is made and entered into by and between the COUNTY OF MANATEE, a political subdivision of the state of Florida, hereinafter referred to as the "COUNTY" and _____, hereinafter referred to as the "CONTRACTOR," duly authorized to transact business in the state of Florida, with offices located at _____(PHONE)_____.

Article 1. WORK

CONTRACTOR shall furnish all labor, materials, supplies, and other items required to complete the Work for IFB No. **IFB#11-2455-OV / Manatee Convention Center Electrical Remodeling Project, Palmetto, FL** in strict accordance with Contract Documents and any duly authorized subsequent addenda thereto, all of which are made a part hereof.

Article 2. ENGINEER

The County of Manatee, Project Management Department, is responsible as the COUNTY and SCHENKELSHULTZ ARCHITECTURE hereinafter referred to as "ENGINEER," designed this project and is responsible for technical/engineering reviews and decisions. The ENGINEER is a member of the COUNTY'S project management team which is collectively responsible in ensuring the Work is completed in accordance with the Contract Documents. All communications **including original invoices** involving this project will be addressed to Mr. Jerry N. Zoller. Copies of all communications, including **copies of invoices** involving this project will be addressed to **Mr. Frank Monhart.**

County of Manatee
Property Management Department
Attn: Mr. Frank Monhart Project Manager
IFB#11-2455-OV
1112 Manatee Avenue West, Suite
Bradenton, FL 34208
Phone (941) 748-4501, Ext. 5844

Jerry N. Zoller, AIA, P.A.
914 14th Street West
Attn: Mr. Jerry N. Zoller
Bradenton, FL 34208
Phone: 941-748-4465

Where the terms ENGINEER and/or COUNTY are used in the Contract Documents, it shall mean the COUNTY'S project management team.

Article 3. CONTRACTOR'S REPRESENTATIONS

In order to induce COUNTY to enter into this Agreement, CONTRACTOR makes the following representations:

- 3.1 CONTRACTOR has familiarized itself with the nature and extent of the Bid Documents, Work, site, locality and all local conditions and laws and regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 3.2 CONTRACTOR has studied carefully all drawings of the physical conditions upon which CONTRACTOR is entitled to rely.
- 3.3 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies which pertain to the physical conditions at or contiguous to the site or which otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Bid Documents; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.
- 3.4 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Bid Documents with respect to existing underground facilities at or contiguous to the site and assumes responsibility for the accurate location of said underground facilities. Any additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said underground facilities conducted by the CONTRACTOR will be done at the CONTRACTOR'S expense.

- 3.5 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Bid.
- 3.6 CONTRACTOR has given COUNTY written notice of all conflicts, errors or discrepancies that have been discovered in the Bid Documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR.
- 3.7 CONTRACTOR shall schedule and perform the Work subject to COUNTY'S approval and shall hold COUNTY harmless from all liabilities incurred due to CONTRACTOR'S failure to coordinate with the COUNTY.

Article 4. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between COUNTY and CONTRACTOR concerning the Work consist of the following:

- 4.1 This Agreement and Bid Document **IFB#** _____
- 4.2 Performance and/or other Bonds and Insurance Certificate(s)
- 4.3 Drawings (not attached)
- 4.4 Addenda numbers ___ to ___ inclusive.
- 4.5 CONTRACTOR'S Bid Form and any other information submitted by Contractor prior to Notice of Award.

- 4.6 The following which may be delivered or issued after the effective date of the Agreement and are not attached hereto: all written Change Orders and other documents amending, modifying, or supplementing the Contract Documents.
- 4.7 The documents listed in paragraphs above are attached to this Agreement (except as noted otherwise above). There are no Contract Documents other than those listed above in this Article 4.

Article 5. MISCELLANEOUS

- 5.1 Terms used in this Agreement are defined in Article 1 of the General Conditions.
- 5.2 No assignment by a party hereto of any rights under or interest in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law); and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignee from any duty or responsibility under the Contract Documents.
- 5.3 COUNTY and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

The OWNER will pay, and the CONTRACTOR will accept in full consideration for the performance of the Work (IFB No. #11-2455-OV / Manatee Convention Center / Electrical Remodeling Project, Palmetto, FL) subject to additions and deduction as provided therein, the sum of

_____ for Bid “” based on Completion Time of XXX calendar days and the sum of \$1,148.00 as liquidated damages for each calendar day of delay.

CONTRACTOR

BY: _____
Signature

Name and Title of Signer (printed)

Date: _____

MANATEE COUNTY GOVERNMENT

BY: _____ For the County
Signature

R. C. “Rob” Cuthbert, C.P.M., CPPO, Purchasing Official
Name and Title of Signer

Date: _____

SECTION 00700
GENERAL CONDITIONS

ARTICLE I - DEFINITIONS

Whenever used in the Bid Documents, the following terms have the meaning indicated which are applicable to both the singular and plural thereof:

Addendum - Written or graphic instruments issued prior to the opening of bids which clarify or change the bidding documents or the contract documents.

Agreement - The written Agreement between County and Contractor covering the Work to be performed; other contract documents are attached to the Agreement and made a part thereof as provided therein.

Amendment - A written amendment of the contract documents, signed by County and Contractor on or after the effective date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly work related aspects of the contract documents.

Application for Payment - The form accepted by Project Representative which is to be used by Contractor in requesting progress or final payments and which is to include such supporting documentation as is required by the contract documents.

Award - Acceptance of the bid from the person, firm, or corporation which in the County's sole and absolute judgment will under all circumstances best serve the public interest. Award shall be made by a majority vote of a quorum of Manatee County Board of County Commissioners in open session; or by the Purchasing Official in accordance with Manatee County Code of Laws.

Bid - The offer of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

Bidder - One who submits a bid directly to the County, as distinct from a sub-bidder, who submits a bid to a Bidder.

Bidding Documents - Consists of the Invitation For Bid, which includes but is not limited to: the bid form, drawings, Contract Documents, terms and conditions, and the proposed contract documents (including all Addenda issued prior to receipt of bids); and becomes a part of the Agreement.

Bonds - Performance and payment bonds and other instruments of security.

Change Order - A document recommended by Project Representative which is signed by Contractor and County and authorizes an addition, deletion, or revision in the Work or an adjustment in the contract price or the contract time, issued on or after the effective date of the Agreement.

Compensable Delay - Any delay beyond the control and without the fault or negligence of the Contractor resulting from County-caused changes in the Work, differing site conditions, suspensions of the Work, or termination for convenience by County.

Contract Documents - The Agreement, Addenda (which pertain to the contract documents), Contractor's bid (including documentation accompanying the bid and any post-bid documentation submitted prior to the Notice of Award), the bonds, the specifications and the drawings, together with all amendments, modifications and supplements issued on or after the effective date of the Agreement.

Contract Price - The monies payable by County to Contractor under the contract documents as stated in the Agreement.

Contract Time - The number of days or the date stated in the Notice to Proceed for the completion of the Work.

Contractor - The person, firm or corporation with whom County has entered into an Agreement.

County - Manatee County, Florida, Board of County Commissioners.

Days - All references to days are to be considered calendar days except as specified differently.

Defective - An adjective which when modifying the work refers to work that is unsatisfactory, faulty or deficient, or does not conform to the contract documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the contract documents, or has been damaged prior to Project Representative's recommendation of final payment (unless responsibility for the protection thereof has been assumed by County).

Discretionary – Payment for all work that shall be made only at the County's discretion in order to satisfactorily complete the project in accordance with the Plans and Specifications.

Drawings - The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by Engineer and are referred to in the bidding and contract documents.

Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective (date of execution).

Excusable Delay - Any delay beyond the control and without the negligence of the Contractor, the County, or any other contractor caused by events or circumstances such as, but not limited to, acts of God or of the public enemy, fires, floods, freight embargoes, acts of government other than County, or epidemics. Labor disputes and above average rainfall shall give rise only to excusable delays.

Float or Slack Time - The time available in the progress schedule during which an unexpected activity can be completed without delaying substantial completion of the Work.

Inexcusable Delay - Any delay caused by events or circumstances within the control of the Contractor, such as inadequate crewing, slow submittals, etc., which might have been avoided by the exercise of care, prudence, foresight, or diligence on the part of the Contractor.

Non-prejudicial Delay - Any delay impacting a portion of the Work within the available total float or slack time and not necessarily preventing completion of the Work within the contract time.

Notice of Award - The written notice to the successful bidder stating Award has been approved by the Board of County Commissioners; or by the Purchasing Official in accordance with Ordinance 09-52, Manatee County Purchasing Code.

Notice of Intent to Award - The written notice to the apparent low bidder stating Award has been recommended with final Award to be authorized by the Board of County Commissioners.

Notice to Proceed - Written notice by County (after execution of contract) to Contractor fixing the date on which the contract time will commence to run and on which Contractor shall start to perform (ten (10) days from date of such notice) Contractor's obligations under the contract documents.

Preconstruction Conference - Prior to starting the Work, a meeting scheduled by County with Contractor to review the Work schedules, to establish procedures for handling shop drawings and other submissions, for processing periodical pay estimates, and such other matters as may be pertinent to the project.

Prejudicial Delay - Any excusable or compensable delay impacting the Work and exceeding the total float available in the progress schedule, thus preventing completion of the Work within the contract time unless the Work is accelerated.

Pre-operation Testing - All field inspections, installation checks, water tests, performance tests and necessary corrections required of Contractor to demonstrate that individual components of the work have been properly constructed and do operate in accordance with the contract documents for their intended purposes.

Project - The total construction of which the Work to be provided under the contract documents may be the whole or a part as indicated elsewhere in the contract documents.

Project Representative - The authorized representative of County who is assigned to the project or any part thereof.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.

Specifications - Those portions of the contract documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Subcontractor - An individual or corporation having a direct contact with Contractor or with any other subcontractor for the performance of a part of the Work at the site. Such person or firm has contractual relations with the Contractor, not with the County.

Substantial Completion - The Work (or a specified part thereof) has progressed to the point when, in the opinion of the Engineer as evidenced by Engineer's definitive certificate of Substantial Completion, it is sufficiently complete in accordance with contract documents so that the work can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due.

Successful Bidder - The lowest qualified, responsible and responsive bidder to whom an award is made.

Supplier - A manufacturer, fabricator, supplier, distributor, materialman or vendor.

Underground Facilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments and any encasement containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Unit Price Work - Work to be paid for on the basis of unit prices.

Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the contract documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the contract documents.

Work Directive Change - A written directive to contractor, issued on or after the effective date of the Agreement and signed by County and recommended by Project Representative ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed or to emergencies. A work directive change may not change the contract price or the contract time; but is evidence that the parties expect that the change directed or documented by a work directive change will be incorporated in a subsequently issued change order following negotiations by the parties as to its effect, if any, on the contract price or contract time.

ARTICLE 2 - PRELIMINARY MATTERS

Computation of Time: When time is referred to in the contract documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or legal holiday, such day will be omitted from the computation.

- 2.1 The Contractor must submit a proposed schedule of the Work at the preconstruction conference. The purpose of this schedule is to enable the County to govern the Work, to protect the functions of the local government and its citizens and to aid in providing appropriate surveillance. The County shall have the right to reschedule work provided such rescheduling is in accord with the remainder of terms of the contract. The schedule shall show, as a minimum, the approximate dates on which each segment of the work is expected to be started and finished, the proposed traffic flows during each month, the anticipated earnings by the Contractor for each month and the approximate number of crews and equipment to be used. The County, after necessary rescheduling and obtaining additional information for specific purposes, shall review and approve the schedule. The Contractor shall also forward to the County, as soon as practicable after the first day of each month, a summary report of the progress of the various parts of the work under the contract, in fabrication and in the field, stating the existing status, estimated time of completion and cause of delay, if any. Together with the summary report, the Contractor shall submit any necessary revisions to the original schedule for the County's review and approval. In addition, more detailed schedules may be required by the County for daily traffic control.
- 2.2 A Notice to Proceed may be given at any time within thirty (30) days after the effective date of the Agreement. The contract time will commence at the time specified in such notice. Contractor shall start to perform the Work on the date specified in the notice to proceed, but no work shall be done at the site prior to the date on which the contract time commences to run.
- 2.3 If at any time the materials and appliances to be used appear to the County as insufficient or improper for securing the quality of work required or the required rate of progress, the County may order the Contractor to increase his efficiency or to improve the character of his work and the Contractor shall conform to such an order. The failure of the County to demand any increase of such efficiency of any improvement shall not release the County from his obligation to secure the quality of work or the rate of progress necessary to complete the Work within the limits imposed by the contract. The County may require the Contractor to remove from the Work such employees as the County deems incompetent, careless, insubordinate or otherwise objectionable, or whose continued employment on the Work is deemed to be contrary to the County's interest.
- 2.4 The County reserves the right to let other Contracts in connection with this Work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and execution of their Work, and promptly connect and coordinate the Work with theirs.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, RE-USE

- 3.1 The contract documents comprise the entire Agreement between County and Contractor concerning the work. The contract documents are complementary; what is called for by one is as binding as if called for by all. The contract documents will be construed in accordance with the laws and ordinances of the State of Florida and the County of Manatee.

Should a conflict exist within the contract documents, the precedence in ascending order of authority are as follows: 1) Standard Printed Contract Documents, 2) Special Conditions, 3) General Conditions and 4) Drawings. Note: Computed dimensions shall govern over scaled dimensions.

- 3.2 It is the intent of the contract documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the contract documents. Any work, materials or equipment that may reasonably be inferred from the contract documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials, or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the contract documents) shall be effective to change the duties and responsibilities of County, Contractor or Engineer, or any of their agents or employees from those set forth in the Contract Documents.

- 3.3 The contract documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

- 3.3.1 A Formal Written Amendment
- 3.3.2 A Change Order
- 3.3.3 Administrative Contract Adjustment (ACA)

- 3.4 In addition, the requirements of the contract documents may be supplemented and minor variations and deviations in the Work may be authorized in one or more of the following ways:

- 3.4.1 Discretionary Work – Field Directive
- 3.4.2 Engineer's approval of a Shop Drawing or sample.

ARTICLE 4 - CONTRACTOR'S RESPONSIBILITIES

- 4.1 Contractor shall keep on the Work at all times during its progress a competent resident superintendent; who shall be the Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.
- 4.2 Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the contract documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto and except as otherwise indicated in the contract documents, all Work at the site shall be performed during regular working hours and Contractor will not permit overtime work or the performance of work on Saturday, Sunday or legal holiday without County's written consent given after prior notice to Engineer (at least 72 hours in advance).
- 4.2.1 Contractor shall pay for all additional engineering charges to the County for any overtime work which may be authorized. Such additional engineering charges shall be a subsidiary obligation of Contractor and no extra payment shall be made by County on account of such overtime work. At County's option, overtime costs may be deducted from Contractor's monthly payment request or Contractor's retainage prior to release of final payment.
- 4.3 Unless otherwise specified, Contractor shall furnish and assume full responsibility for all bonds, insurance, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
- 4.4 All materials and equipment shall be of good quality and new, except as otherwise provided in the contract documents. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instruction of the applicable supplier except as otherwise provided in the contract documents.
- 4.5 Contractor shall be fully responsible to County for all acts and omissions of the subcontractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between County or Engineer and any such subcontractor, supplier or other person or organization, nor shall it create any obligation on the part of County to pay or to see to the payment of any monies due any such subcontractor, supplier or other person or organization.

- 4.6 **Permits:** Unless otherwise provided, Contractor shall obtain and pay for all construction permits and licenses. County shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work.
- 4.7 During the progress of the Work, Contractor shall keep the premises free from accumulation of waste materials rubbish and other debris resulting from the Work. At the completion of the Work, Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials and shall leave the site clean and ready for occupancy by County. Contractor shall restore to original conditions all property not designated for alteration by the Contract Documents.
- 4.8 Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.
- 4.9 **Safety and Protection:** Contractor shall comply with the Florida Department of Commerce Safety Regulations and any local safety regulations. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to:
- 4.9.1 all employees on the work and other persons and organizations who may be affected thereby;
 - 4.9.2 all the work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
 - 4.9.3 other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for the protection required by public authority or local conditions. Contractor shall provide reasonable maintenance of traffic way for the public and preservation of the County's business, taking into full consideration all local conditions. Contractor's duties and responsibilities for the safety and protection of the work shall continue until such time as all the work is completed.

- 4.10 **Emergencies:** In emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, Contractor, without special instruction or authorization from Engineer or County, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give County prompt written notice if Contractor believes that any significant changes in the work or variations from the contract documents have been caused thereby. If County determines that a change in the contract documents is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variation.
- 4.11 For substitutes not included with the bid, but submitted after the effective date of the Agreement, Contractor shall make written application to Engineer for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will also contain an itemized estimate of all costs and delays or schedule impacts that will result directly or indirectly from review, acceptance and provisions of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by the Engineer in evaluating the proposed substitute. Engineer may require Contractor to furnish at Contractor's expense, additional data about the proposed substitute. In rendering a decision, County/Engineer and Contractor shall have access to any available float time in the construction schedule. In the event that substitute materials or equipment not included as part of the bid, but proposed after the effective date of the agreement, are accepted and are less costly than the originally specified materials or equipment, then the net difference in cost shall be credited to the County and an appropriate change order executed.
- 4.11.1 If a specific means, method, technique, sequence of procedure of construction is indicated in or required by the contract documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to Engineer if Contractor submits sufficient information to allow Engineer to determine that the substitute proposed is equivalent to that indicated or required by the contract documents.
- 4.11.2 Engineer will be allowed a reasonable time within which to evaluate each proposed substitute. Engineer will be the sole judge of acceptability and no substitute will be ordered, installed or utilized without Engineer's prior written acceptance which will be evidenced by either a change order or an approved shop drawing. County may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- 4.11.3 Contractor shall reimburse County for the charges of Engineer and Engineer's Consultants for evaluating each proposed substitute submitted after the effective date of the Agreement and all costs resulting from any delays in the work while the substitute was undergoing review.

- 4.12 The Contractor shall furnish, free of charge, all labor, stakes, surveys, batter boards for structures, grade lines and other materials and supplies and shall set construction stakes and batter boards for establishing lines, position of structures, slopes and other controlling points necessary for the proper prosecution of the construction work. Where rights-of-way, easements, property lines or any other conditions which make the lay-out of the project or parts of the project critical are involved, the Contractor will employ a competent surveyor who is registered in the State of Florida for lay-out and staking. These stakes and marks shall constitute the field control by and in accord with which the Contractor shall govern and execute the work. The Contractor will be held responsible for the preservation of all stakes, marks and if for any reason any of the stakes or marks or batter boards become destroyed or disturbed, they will be immediately and accurately replaced by the Contractor.
- 4.13 The Contractor has, by careful examination, satisfied himself as to the nature and location of the work and all other matters which can in any way affect the work under this contract, including, but not limited to details pertaining to boring, as shown on the drawings, are not guaranteed to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. The Contractor shall examine boring data, where available, and make his own interpretation of the subsoil investigations and other preliminary data, and shall base his bid on his own opinion of the conditions likely to be encountered. In no event shall an extension of time be considered for any conditions that existed at the time of bidding, nor shall the Contractor receive extra compensation for completion of the project as intended by the drawings and in keeping with the contact documents. No verbal agreement or conversation with any officer, agent or employee of the County, before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.
- 4.14 If the Contractor, in the course of the work, finds that the drawings and/or Contract Documents cannot be followed, he shall immediately inform the County in writing, and the County shall promptly check the accuracy of the information. Any work done after such discovery, until any necessary changes are authorized, will be done at the Contractor's risk.

ARTICLE 5 - OWNER'S RESPONSIBILITIES

- 5.1 County shall furnish the data required of County under the contract documents promptly and shall make payments to the Contractor within a reasonable time (no more than 45 days) after the Work has been accepted by the County. The form of all submittals, notices, change orders and other documents permitted or required to be used or transmitted under the contract documents shall be determined by the County/Engineer. Standard County forms shall be utilized.
- 5.2 The County shall provide the lands upon which the Work under this contract is to be done, except that the Contractor shall provide all necessary additional land required for the erection of temporary construction facilities and storage of his materials, together with right of access to same.

- 5.3 The County shall have the right to take possession of and use any completed portions of the work, although the time for completing the entire work or such portions may not have expired, but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents.

ARTICLE 6 - CHANGES IN THE WORK

- 6.1 Without invalidating the Agreement and without notice to any surety, County may, at any time, order additions, deletions or revisions in the Work. These will be authorized by a written amendment, a change order, or a work directive change. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the contract documents (except as otherwise specifically provided).
- 6.2 Contractor shall not be entitled to an increase in the contract price or an extension of the contract time with respect to any Work performed that is not required by the contract documents as amended, modified and supplemented.
- 6.3 County and Contractor shall execute appropriate change orders (or written amendments) covering changes in the Work which are ordered by County, or which may be required because of acceptance of defective Work.
- 6.4 At any time Engineer may request a quotation from Contractor for a proposed change in the Work and within twenty-one (21) calendar days after receipt, Contractor shall submit a written and detailed proposal for an increase or decrease in the contract price or contract time for the proposed change. Engineer shall have 21 calendar days after receipt of the detailed proposal to respond in writing. The proposal shall include an itemized estimate of all costs and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in sufficient detail to reasonably permit an analysis by Engineer of all material, labor, equipment, subcontracts, overhead costs and fees, and shall cover all Work involved in the change, whether such Work was deleted, added, changed or impacted. Notwithstanding the request for quotation, Contractor shall carry on the Work and maintain the progress schedule. Delays in the submittal of the written and detailed proposal will be considered non-prejudicial.

ARTICLE 7 - CHANGE OF CONTRACT PRICE

- 7.1 The contract price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at his expense without change in the contract price.
- 7.2 The contract price may only be changed by change order or by a written amendment. Any claim for an increase or decrease in the contract price shall be based on written notice delivered by the party making the claim to the other party. Notice of the amount of the claim with supporting data shall be delivered within ten (10) days from the beginning of such occurrence and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event.

- 7.3 The value of any Work covered by a change order or of any claim for an increase or decrease in the contract price shall be determined in one of the following ways (at County's discretion):
- 7.3.1 Where the Work involved is covered by unit prices contained in the contract documents, cost will be determined by application of such unit prices to the quantities of the items involved.
 - 7.3.2 By mutual acceptance of lump sum.
 - 7.3.3 On the basis of the cost of the Work, plus a 20% Contractor's fee for overhead and profit. (Contractor shall submit an itemized cost breakdown together with supporting data.)
- 7.4 Either County or Contractor may make a claim for an adjustment in the contract price. The unit price of an item of unit price Work shall be subject to re-evaluation and adjustment under the following conditions:
- 7.4.1 If the total cost of a particular item of unit price Work amounts to 5% or more of the contract price and the variation in the quantity of the particular item of unit price Work performed by Contractor differs by more than 15% from the estimated quantity of such item indicated in the Agreement; and
 - 7.4.2 If there is no corresponding adjustment with respect to any other item of Work; and
 - 7.4.3 If a Contractor believes that it has incurred additional expense as a result thereof; or
 - 7.4.4 If County believes that the quantity variation entitles it to an adjustment in the unit price; or
 - 7.4.5 If the parties are unable to agree as to the effect of any such variations in the quantity of unit price Work performed.

ARTICLE 8 - CHANGE OF CONTRACT TIME

- 8.1 Contract time may only be changed by a change order or a written amendment. Any claim for an extension or shortening of the contract time shall be based on written notice delivered by the party making the claim to the other party. Notice of the extent of the claim with supporting data shall be delivered within fifteen (15) days from detection or beginning of such occurrence and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event.

- 8.2 The contract time will be extended in an amount equal to time lost due to delays beyond the control of Contractor. Such delays shall include, but not be limited to, acts or neglect by County or others performing additional work; or to fires, floods, epidemics, abnormal weather conditions or acts of God.
- 8.3 All time limits stated in the contract documents are of the essence.

ARTICLE 9 - WARRANTY, TEST/INSPECTION, CORRECTION

- 9.1 Contractor warrants (for a minimum period of three years or as otherwise stated herein) and guarantees to County that all work will be in accordance with the contract documents and will not be defective; that County, representatives of County, governmental agencies with jurisdictional interests will have access to the work at reasonable time for their observation, inspecting and testing (Contractor shall give Engineer timely notice of readiness of the work for all required approvals and shall assume full responsibility, including costs, in obtaining required tests, inspections, and approval certifications and/or acceptance, unless otherwise stated by County).
- 9.2 If any work (including work of others) that is to be inspected, tested, or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice. Neither observations by Engineer nor inspections, tests, or approvals by others shall relieve Contractor from Contractor's obligations to perform the work in accordance with the contract documents.
- 9.3 If the work is defective, or Contractor fails to supply sufficient skilled workers, or suitable materials or equipment, or fails to furnish or perform the work in such a way that the completed work will conform to the contract documents, County may order Contractor to stop the work, or any portion thereof and terminate payments to the Contractor until the cause for such order has been eliminated. Contractor shall bear all direct, indirect and consequential costs for satisfactory reconstruction or removal and replacement with non-defective work, including, but not limited to fees and charges of engineers, architects, attorneys and other professionals and any additional expenses experienced by County due to delays to other Contractors performing additional work and an appropriate deductive change order shall be issued. Contractor shall further bear the responsibility for maintaining schedule and shall not be entitled to an extension of the contract time and the recovery of delay damages due to correcting or removing defective work.
- 9.3.1 If Contractor fails within seven (7) days after written notice to correct defective work, or fails to perform the work in accordance with the contract documents, or fails to comply with any other provision of the contract documents, County may correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, County may exclude Contractor from all or part of the site, take possession of all or part of the work, Contractor's tools, construction equipment and machinery at the site or for which County has paid

Contractor but which are stored elsewhere. All direct, indirect and consequential costs of County in exercising such rights and remedies will be charged against Contractor in an amount approved as to reasonableness by Engineer and a change order will be issued incorporating the necessary revisions.

- 9.3.2 If within three years after the date of completion or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special guarantee required by the contract documents, any work is found to be defective, Contractor shall promptly, without cost to County and in accordance with County's written instructions, either correct such defective work or if it has been rejected by County, remove it from the site and replace it with non-defective work. If Contractor does not promptly comply with the terms of such instruction, County may have the defective work corrected/removed and all direct, indirect and consequential costs of such removal and replacement will be paid by Contractor.

ARTICLE 10 - SUSPENSION/TERMINATION OF WORK

- 10.1 County may, at any time and without cause, suspend the work or any portion thereof for a period of not more than ninety (90) days by written notice to Contractor, which will fix the date on which work will be resumed. Contractor shall be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension if Contractor makes an approved claim therefore.
- 10.2 County may terminate the contract if Contractor commences a voluntary case under any chapter of the Bankruptcy Code or any similar action by filing a petition under any other federal or state law relating to the bankruptcy or insolvency; if a petition is filed against the Contractor under any chapter of the Bankruptcy Code or similar relief under any other federal or state law; if Contractor persistently fails to perform the work in accordance with the contract documents; if Contractor disregards laws or regulations of any public body having jurisdiction or the Engineer; or otherwise violates in any substantial way any provisions of the contract.
- 10.2.1 County may, after giving Contractor (and the surety, if there is one) seven (7) days written notice and to the extent permitted by laws and regulations, terminate the services of Contractor; exclude Contractor from the site and take possession of the work and of all Contractor's tools, construction equipment and machinery at the site and use the same to the full extent they could be used (without liability to Contractor for trespass or conversion); incorporate in the work all materials and equipment stored at the site or for which county has paid Contractor but which are stored elsewhere, and finish the work as County may deem expedient. In such case, Contractor shall not be entitled to receive any further payment beyond an amount equal to the value of material and equipment not incorporated in the work, but delivered and suitably stored, less the aggregate of payments previously made. If the direct and indirect costs of completing the work exceed the unpaid balance of the contract price, Contractor shall pay the difference to County. Such costs incurred by County shall be verified by County and incorporated in

a change order; but in finishing the work, County shall not be required to obtain the lowest figure for the work performed. Contractor's obligations to pay the difference between such costs and such unpaid balance shall survive termination of the Agreement.

- 10.3 If, through no act or fault of Contractor, the work is suspended for a period of more than ninety (90) days by County or under an order of court or other public authority, or Engineer fails to act on any application or fails to pay Contractor any sum finally determined to be due; then Contractor may, upon seven (7) days written notice to County terminate the Agreement and recover from County payment for all work executed, any expense sustained plus reasonable termination expenses. In lieu of terminating the Agreement, if Engineer has failed to act on any application of payment or County has failed to make any payment as aforesaid, Contractor may upon seven (7) days written notice to County stop the work until payment of all amounts then due.

ARTICLE 11 - CONTRACT CLAIMS

- 11.1 The rendering of a decision by Engineer with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment) will be a condition precedent to any exercise by County or Contractor of such right or remedies as either may otherwise have under the contract documents or by laws or regulations in respect of any such claim, dispute or other matter. No action, either at law or at equity, shall be brought in connection with any such claim, dispute or other matter later than thirty (30) days after the date on which County/Engineer has rendered such written decision in respect thereof. Failure to bring an action within said thirty (30) day period shall result in Engineer's decision being final and binding on the Contractor. In no event may any such action be brought after the time at which instituting such proceedings would be otherwise barred by the applicable statute of limitations.
- 11.2 Before bringing any action in court pertaining to any claim, dispute or other matter in question(s) arising out of or relating to the contract documents or the breach thereof, or Engineer's final decision, except for claims which have been waived by the making and acceptance of final payment, the Contractor shall first submit written notice(s) of contract claims to the Purchasing Official for a decision; the Contractor may request a conference with the Purchasing Official. Claims include, without limitation, disputes arising under the contract and those based upon breach of contract, mistake, misrepresentation, or other cause for modification or revision. Contract claims shall use the process detailed in Section 2-26-63, Manatee County Purchase Code, Ordinance 09-52.

ARTICLE 12 - RESIDENT PROJECT REPRESENTATIVE - DUTIES, RESPONSIBILITIES

- 12.1 Resident Project Representative is Engineer/County's Agent, who will act as directed by and under the supervision of the Engineer, and who will confer with County/Engineer regarding his actions. Resident Project Representative's dealing in matters pertaining to the on-site work shall, in general, be only with the

County/Engineer and Contractor and dealings with subcontractors shall only be through or with the full knowledge of Contractor.

12.2 Resident Project Representative will:

- 12.2.1 Review the progress schedule, schedule of shop drawing submissions and schedule of values prepared by Contractor and consult with County/Engineer concerning their acceptability.
- 12.2.2 Attend preconstruction conferences. Arrange a schedule of progress meetings and other job conferences as required in consultation with County/Engineer and notify those expected to attend in advance. Attend meetings and maintain and circulate copies of minutes thereof.
- 12.2.3 Serve as County/Engineer's liaison with Contractor, working principally through Contractor's superintendent and assist him in understanding the intent of the contract documents. As requested by County/Engineer, assist in obtaining additional details or information when required at the job site for proper execution of the Work.
- 12.2.4 Receive and record date of receipt of shop drawings and samples, receive samples which are furnished at the site by Contractor and notify County/Engineer of their availability for examination.
- 12.2.5 Advise County/Engineer and Contractor or his superintendent immediately of the commencement of any work requiring a shop drawing or sample submission if the submission has not been approved by the County/Engineer.
- 12.2.6 Conduct on-site observations of the work in progress to assist County/Engineer in determining if the work is proceeding in accordance with the contract documents and that completed work will conform to the contract documents.
- 12.2.7 Report to County/Engineer whenever he believes that any work is unsatisfactory, faulty or defective or does not conform to the contract documents, or does not meet the requirements of any inspections, tests or approvals required or if work has been damaged prior to final payment; and advise County/Engineer when he believes work should be corrected or rejected or should be uncovered of observation or requires special testing, inspection or approval.
- 12.2.8 Verify that tests, equipment and system start-ups and operating and maintenance instructions are conducted as required by the contract documents and in the presence of the required personnel, and that Contractor maintains adequate records thereof; observe, record and report to Engineer appropriate details relative to the test procedures and start-ups.

- 12.2.9 Accompany visiting inspectors representing public or other agencies having jurisdiction over the project; record the outcome of these inspections and report to County/Engineer.
- 12.2.10 Transmit to Contractor, County/Engineer's clarifications and interpretations of the contract documents.
- 12.2.11 Consider and evaluate Contractor's suggestions or modifications in drawings or Contract Documents and report them with recommendations to County/Engineer.
- 12.2.12 Maintain at the job site orderly files for correspondence, reports of job conferences, shop drawings and sample submissions, reproductions of original contract documents including all addenda, change orders, field orders, additional drawings issued subsequent to the execution of the contract, County/Engineer's clarifications and interpretations of the contract documents, progress reports and other project related documents.
- 12.2.13 Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions; list of visiting officials and representatives or manufacturers, fabricators, suppliers and distributors; daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures. Send copies to County/Engineer.
- 12.2.14 Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment.
- 12.2.15 Furnish County/Engineer periodic reports as required of progress of the work and Contractor's compliance with the approved progress schedule and schedule of shop drawing submissions.
- 12.2.16 Consult with County/Engineer in advance of scheduling major tests, inspections or start of important phases of the work.
- 12.2.17 Report immediately the occurrence of any accident.
- 12.2.18 Review applications for payment with Contractor for compliance with the established procedure for their submission and forward them with recommendations to County/Engineer, noting particularly their relation to the schedule of values, work completed and materials and equipment delivered at the site but not incorporated in the work.
- 12.2.19 During the course of the work, verify that certificates, maintenance and operations manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed, and deliver this material to County/Engineer for his review prior to final acceptance of the work.

- 12.2.20 Before County/Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- 12.2.21 Conduct final inspection in the company of County/Engineer and Contractor and prepare a final list of items to be completed or corrected.
- 12.2.22 Verify that all items on final list have been completed or corrected and make recommendations to County/Engineer concerning acceptance.
- 12.3 Except upon written instructions of County/Engineer, Resident Project Representative;
- 12.3.1 Shall not authorize any deviation from the contract documents or approve any substitute materials or equipment;
- 12.3.2 Shall not exceed limitations on County/Engineer's authority as set forth in the contract documents;
- 12.3.3 Shall not undertake any of the responsibilities of Contractor, Subcontractors or Contractor's Superintendent, or expedite the work;
- 12.3.4 Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the contract documents;
- 12.3.5 Shall not advise on or issue directions as to safety precautions and programs in connection with the work;
- 12.3.6 Shall not authorize County to occupy the project in whole or in part; and
- 12.3.7 Shall not participate in specialized field or laboratory tests.

ARTICLE 13 - APPRENTICES

- 13.1 If Successful Contractor employs Apprentices, he shall be governed and shall fully comply with the provisions of Florida State Statute 446.011.

END OF SECTION

DIVISION 1 INDEX

01100.....	SUMMARY
01150.....	MEASUREMENT AND PAYMENT
01152.....	REQUEST FOR PAYMENT
01250.....	SUBSTITUTION PROCEDURES
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SECTION 01100 SUMMARY

PART 1 – GENERAL

1.01 SUMMARY

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes:

1. Project information.
2. Work covered by Contract Documents.
3. Works by Owner.
4. Work under separate contracts.
5. Future work.
6. Purchase contracts.
7. Contractor-furnished and installed products.
8. Access to site.
9. Coordination with occupants.
10. Work restrictions.
11. Specifications and drawing conventions.

B. Related Section:

1. Division 01 Section for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

A. Project Identification: Manatee County Convention and Civic Center
Electrical Bid Set

1. Project Location: Manatee County Convention and Civic Center
1 Haben Boulevard
Palmetto, FL 34221

- B. Owner: Manatee County Government
 - 1. Owner's Representative: Frank Monhart, AIA
Project Manager Construction Services Division
Property Management Department
1112 Manatee Avenue West, Suite #868
Bradenton, FL 34205
- C. Engineer: Global MEP & Fire Engineering, Inc.
8450 Linger Lodge Road
Bradenton, FL 34202
- D. Other Owner Consultants: The Owner has retained the following design professionals who have prepared designated portions of the Contract Documents:
 - 1. Architect: Jerry N. Zoller, AIA, P.A.
914 14th Street West
Bradenton, FL 34205

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of the Project is defined by the Contract Documents and consists of the following:
 - 1. Scope shall include but is not limited to the replacement of the lighting and the lighting control systems. The systems installation will require new fixtures, some new control devices, use of existing wiring and extension of new circuiting to new devices, all indicated in the drawing package. Minor other electrical revisions and new construction is required.
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.

1.5 WORKS BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or standard operation by Owner. Coordinate the Work of this Contract with facility operations performed by Owner.
- B. Preceding Work: The Contractor shall diligently coordinate new mechanical systems ordering, fabrication, transportation and receipt of equipment to assure the strict timeline for replacement of all rooftop equipment meets the available schedule. It is the responsibility of the contractor to observe all required facility accesses.

1.6 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations and staging. Contractor shall coordinate all site use and accesses with the Owner. All use of the site for staging shall be at the risk of the contractor.
- B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb

portions of Project site beyond areas in which the Work is indicated. This facility shall maintain operation throughout the period of construction for this project.

1. Limits: Confine construction operations to occupied and unoccupied spaces of building interior and building exterior.
 2. Limits: Limit site disturbance, including crane operations, staging and clearing of project waste to areas pre approved by Manatee County personnel, and facility staff.
 3. Driveways, Walkways and Entrances: Keep driveways loading areas, and entrances serving premises clear and available to Owner, Owner's employees, public, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. All deliveries to site shall be the full responsibility of the contractor. No Manatee County or facility personnel shall be involved in and project related deliveries or correspondence.
- C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations. All construction shall be covered by dust tight barrier to minimize impact on facility. All exterior work shall be performed as to minimize impact on weathertight condition; contractor shall not leave any open cut or trench unmanned.

1.7 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 2. Contractor shall maintain a construction schedule, provide to Owner and Engineer. Schedule shall outline all start and complete dates. Notify the Owner not less than 72 hours in advance of activities that will affect Owner's operations.
- B. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
 2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
- C. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.
1. Contractor shall prepare a Request for Certificate of Substantial Completion for all Work. Owner acceptance of the completed Work does not constitute acceptance or Substantial Completion.
 2. Before Certificate of Substantial Completion, lighting, controls, and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed, and all training for operation of new controls system shall be performed. On occupancy, Owner will operate and maintain lighting and electrical systems serving occupied portions of Work.
 3. Upon completion, Owner will assume responsibility for maintenance and custodial service for occupied portions of Work.

1.8 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to working hours of 7:00 a.m. to 6:00 p.m., Monday through Friday and weekends. For all work in occupied areas:
1. Weekend Hours: as required. Prior acceptance by the Owner is required, in written form.
 2. Hours for Systems Shutdowns: Coordinate any outages with Owner at least 72 hours in advance.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner.
1. Notify Owner not less than 72 hours in advance of proposed utility interruptions.
 2. Obtain Owner's written permission before proceeding with utility interruptions.

- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner, even for non-standard working hours.
 - 1. Notify Owner not less than 72 hours in advance of proposed disruptive operations.
 - 2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Non-smoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor air intakes, or on roof.
- F. Controlled Substances: Use of tobacco products and other controlled substances on the Project site is not permitted.
- G. Employee Identification: Provide identification tags for Contractor personnel working on the Project site. Require personnel to utilize identification tags at all times.
- H. Employee Screening: Comply with Owner's requirements regarding drug and background screening of Contractor personnel working on the Project site.
 - 1. Maintain list of approved screened personnel with Owner's Representative prior to any operations on site.

1.9 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by the Successful Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

- C. Drawing Coordination: Requirements for materials and products identified on the Drawings are described in detail in the Specifications. One or more of the following are used on the Drawings to identify materials and products:
1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 2. Abbreviations: Materials and products are identified by abbreviations. If there is any confusion with contract documents, contractor shall follow written Request for Information Procedures.
 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF 01100

SECTION 01150 MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1.01 SUMMARY

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for measurement and payment. Contractor shall prepare invoice payment request matching items and totals to be outlined in a detailed Schedule of Values, to be submitted prior to commencement of work. Schedule of Values shall include detailed breakdown of Contractor efforts, outlining work required for each item of the Bid Form, itemized by discipline of work, major pieces of equipment, work items, subcontractor work, quantities, etc.

- B. Related Sections:

- 1. Division 01 Section “Summary” for Phased requirements of work to be completed, and construction timelines.

- B. The scope of this section of the Contract Documents is to further define the items included in each Bid Item in the Bid Form section of the Contract Documents. Payment will be made based on the specified items included in the description in this section for each bid item.

- C. All contract prices included in the Bid Form section will be full compensation for all required work, identified or not, required, including but not limited to shop drawings, working drawings, labor, materials, tools, equipment, incidentals and mobilization necessary to complete the requirements of this project, as shown on the Drawings and Specifications in the Contract Documents. Actual quantities of each item bid on a unit price basis will be determined upon completion of the construction in the manner set up for each item in this section of the Specifications. Payment for all items listed in the Bid Form will constitute full compensation for all work required to render a complete product, specified to be performed under this Contract. Contractor shall itemize each Bid Form Item in a detailed Schedule of Values, to include estimated and measured values.

1.3 BID FORM ITEMS

- A. Item 1 – Conference Toilets

- 1. Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. All overhead required for this portion of this project shall be included, and submitted in an itemized breakdown. Payment for all work included under this Bid Item shall represent

full compensation in accordance with the price bid for the work required. All work covered for Item 1 is included in Sheet E-1.0.

- 1.1 Demolition of all items indicated on drawing Sheet E-1.0.
- 1.2 Cost of Type E fixtures, quantity as indicated.
- 1.3 Cost of Type L fixtures, quantity as indicated.
- 1.4 Cost of installation and connection of lighting as indicated.
- 1.5 Cost to provide and install control and power pack devices as indicated.
- 1.6 Subtotal for the Conference Toilets.

B. Item 2 – Conference Center.

2. Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. All overhead required for this portion of this project shall be included, and submitted in an itemized breakdown. Payment for all work included under this Bid Item shall represent full compensation in accordance with the price bid for the work required. All work covered for Item 2 is included in Sheets E2.0 – E2.2.

- 2.1 Demolition of all items indicated on drawing Sheet E-2.1.
- 2.2 Cost of Type A fixtures, quantity as indicated.
- 2.3 Cost of Type B fixtures, quantity as indicated.
- 2.4 Cost of Type C fixtures, quantity as indicated.
- 2.5 Cost of Type D fixtures, quantity as indicated.
- 2.6 Cost of Type E fixtures, quantity as indicated.
- 2.7 Cost of Type EX fixtures, quantity as indicated.
- 2.8 Cost of Type F fixtures, quantity as indicated.
- 2.9 Cost of Type G fixtures, quantity as indicated.
- 2.10 Cost of Type H1 fixtures, quantity as indicated.
- 2.11 Cost of Type H2 fixtures, quantity as indicated.
- 2.12 Cost of Type J fixtures, quantity as indicated.
- 2.13 Cost of Type K fixtures, quantity as indicated.

- 2.14 Cost of installation and connections of all lighting as indicated on Sheet E2.2.
- 2.15 Cost of the Lighting Control System, all devices and panels as indicated on Sheet E2.2.
- 2.16 Cost of installation of wiring of each control circuit and termination to Lighting Control Panel, as indicated on Sheet E2.2.
- 2.17 Subtotal of Conference Center.

C. Item 3 – Arena Lobby.

- 3. Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. All overhead required for this portion of this project shall be included, and submitted in an itemized breakdown. Payment for all work included under this Bid Item shall represent full compensation in accordance with the price bid for the work required. All work covered for Item 3 is included in Sheets E3.0 – E3.5.
 - 3.1 Demolition of all items indicated on drawing Sheet E-3.1.
 - 3.2 Cost of Type B fixtures, quantity as indicated.
 - 3.3 Cost of Type C fixtures, quantity as indicated.
 - 3.4 Cost of Type E fixtures, quantity as indicated.
 - 3.5 Cost of Type EX fixtures, quantity as indicated.
 - 3.6 Cost of installation and connections of lighting as indicated.
 - 3.7 Cost to provide and install Lobby Restrooms control and power pack devices, and wiring fixtures as indicated.
 - 3.8 Cost of the Lighting Control System, all devices and panels as indicated on Sheets E3.3, E-3.4, and E-3.5.
 - 3.9 Subtotal of Arena Lobby.

D. Item 4 – Arena Lighting.

- 4. Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. All overhead required for this portion of this project shall be included, and submitted in an itemized breakdown. Payment for all work included under this Bid Item shall represent full compensation in accordance with the price bid for the work required. All work covered for Item 4 is included in Sheets E4.0 – E4.3.

- 4.1 Demolition of all items indicated on drawing Sheet E-4.1.
- 4.2 Cost of Type A fixtures, quantity as indicated.
- 4.3 Cost of Type B fixtures, quantity as indicated.
- 4.4 Cost of Type C fixtures, quantity as indicated.
- 4.5 Cost of Type D fixtures, quantity as indicated.
- 4.6 Cost of installation and connections of all lighting as indicated on Sheets E4.2 and E-4.3.
- 4.7 Subtotal of Arena Lighting.

Bid Alternate 4A1. Theatrical Stage Lighting, rigging, and backbone cabling to Lighting Control System for West End stage location, as indicated on Sheet E-4.0 and Keyed Notes 2 and 3 on sheets E-4.2 and E-4.3. This cost is independent of all other project costs, and shall be an all inclusive bid for the work required for the installation and operation of the Theatrical Stage Lighting.

Bid Alternate 4A2. Theatrical Spot Lighting fixtures and accessories as indicated on Sheet E-4.0 This cost is independent of all other project costs, and shall be an all inclusive bid for the work required for the installation and operation of the Theatrical Spot Lighting.

Bid Alternate 4A3. Additional Type CA fixtures to be installed and tied to existing circuit serving Type C fixtures, as indicated on Sheets E-4.2 and E-4.3. This cost is independent of all other project costs, and shall be an all inclusive bid for the work required for the installation and operation of the new Type CA fixtures.

E. Item 5 – Exterior.

5. Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. All overhead required for this portion of this project shall be included, and submitted in an itemized breakdown. Payment for all work included under this Bid Item shall represent full compensation in accordance with the price bid for the work required. All work covered for Item 5 is included in Sheets E5.0 – E5.2.
 - 5.1 Demolition of all items indicated on drawing Sheet E-5.1.
 - 5.2 Cost of Type N fixtures, quantity as indicated.
 - 5.3 Cost of Type P fixtures, quantity as indicated.
 - 5.4 Cost of Type Q fixtures, quantity as indicated.

- 5.5 Cost of Type R fixture and Base as indicated.
- 5.6 Cost of Type S fixtures, quantity as indicated.
- 5.7 Cost of Type T fixtures, quantity as indicated.
- 5.8 Cost of Type U fixtures, quantity as indicated.
- 5.9 Cost of Type V fixtures, quantity as indicated.
- 5.10 Cost of Type W fixtures, quantity as indicated.
- 5.11 Cost for extension of Control Circuits (conduit/conductor system) from new Lighting Control Cabinet to the service locations on the Facility Exterior.
- 5.12 Cost for the installation of all lighting on the Facility Exterior and testing, as indicated on Sheet E-5.2.
- 5.13 Cost for the installation of Control Circuits (conduit/conductor system) from exterior of the facility to the Power locations (Outlets and Kiosks).
- 5.14 Subtotal of Exterior.

F. Item 6 – Discretionary Work.

- 1. Payment for all work included in this Bid Item and listed in the Bid Form shall be made only at the Owner’s discretion, in order to satisfactorily complete any additions to the Plans and Specifications in order to render the project.

G. Bid Alternates – Items 4A1, 4A2, and 4A3.

- 1. Acceptance for each individual Bid Alternate item shall be based on County decision, and shall not be contingent on any other cost for this project. Each Bid Alternate line item shall include full costs for all work included, rendering a complete and operable system for each item. Bid Alternates will be evaluated based on available funding.

1.4 SUBMITTALS

A. Submit three copies of each item request for consideration.

- 1. Schedule of Values:
 - a. Schedule of Values shall be submitted for Owner and Engineer review prior to commencement of Work. Schedule shall itemize work for each Bid Form item.

2. Request for Payment:

- a. Request for Payment shall indicate each item on the approved Schedule of Values. A percentage of completion for each line item for the Schedule of Values shall be the basis for payment request

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF 01150

SECTION 01152 REQUEST FOR PAYMENT

PART 1 – GENERAL

1.01 SUMMARY

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUBMITTALS

- A. Submit Applications for Payment to the Project Manager or as directed at the preconstruction meeting, in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor. Contractor redline drawings shall be reviewed by Engineer prior to approval of each Payment Application.
- B. Submit payment requests in the form provided by the Owner with itemized data typed in accordance with the Bid Form.
 - 1. Provide construction photographs in accordance with Contract Documents to substantiate request for payment.

1.3 SUBMITTAL PROCEDURE

- A. Submit applications for payment at the times stipulated in the Agreement, and as approved by Owner.
- B. Number: Submit three (3) copies of each application; all signed and certified by the Contractor.

1.4 FINAL PAYMENT

- A. Submit request for Substantial Completion for approval by Engineer and Owner prior to submittal of Final Payment.
- B. Submit contractor redline drawings for approval by Engineer and Owner prior to submittal.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF 01152

SECTION 01250 SUBSTITUTION PROCEDURES

PART 1 – GENERAL

1.01 SUMMARY

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Sections:
 - 1. Division 01 Section “Product Requirements” for requirements for submitting comparable product submittals for products by listed manufacturers.
 - 2. Divisions 02 through 49 Sections for specific requirements and limitations for substitutions.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include drawing numbers and titles, and specific referenced equipment identification tags on drawings.
 - 1. Substitution Request Form: Use CSI Form 13.1A.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or modifications needed

- to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
- c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of engineers and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - j. Cost information, including a proposal of change in the Contract Sum. Outline original cost of equipment in base bid, and any adjustments for substitution, if the Owner accepts substitution.
 - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Engineer's Action: If necessary, Engineer will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Engineer will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Engineer's Supplemental Instructions for minor changes in the Work.

- b. Use product specified if Engineer does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

- A. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 – PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
 - 1. Conditions: Engineer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents, specifically as indicated in this specification, and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. Owner and Engineer approve any cost modifications to the Construction Documentation in advance of substitution.
- B. Substitutions for Convenience: Engineer will consider requests for substitution if received within 30 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Engineer.
 - 1. Conditions: Engineer will consider Contractor's request for substitution when

the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:

- a. Requested substitution does not require extensive revisions to the Contract Documents.
- b. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- c. Substitution request is fully documented and properly submitted.
- d. Requested substitution will not adversely affect Contractor's construction schedule.
- e. Requested substitution has received necessary approvals of authorities having jurisdiction.
- f. Requested substitution is compatible with other portions of the Work.
- g. Requested substitution has been coordinated with other portions of the Work.
- h. Requested substitution provides specified warranty.
- i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- j. Owner and Engineer approve any cost modifications to the Construction Documentation in advance of substitution.

PART 3 – EXECUTION

NOT USED

END OF 01250

SECTION 01310 PROJECT MANAGEMENT AND COORDINATION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General project coordination procedures.
 - 2. Administrative and supervisory personnel.
 - 3. Coordination drawings.
 - 4. Requests for Information (RFIs).
 - 5. Project meetings.
- B. Each contractor shall participate in coordination requirements. Prime contractor shall assume responsibility for general coordination, and scheduling project meetings as required.
- C. Related Sections:
 - 1. Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 2. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

- A. RFI: Request from Owner, Engineer, or Contractor seeking information from each other during construction.

1.4 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required obtaining the best results where installation of one part of the Work depends on installation of other components, before or after its own installation. Multiple projects are to

- occur in the facility during the same timeframe. It is imperative that the contractor coordinate all works with other trades operation on site.
2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 3. Make adequate provisions are made for coordination with other contractors where electrical systems are installed in or on other contractor's work. It is the responsibility of this contractor to schedule their work to accommodate items provided by other contractors.
- B. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations, included in different Sections that depend on each other for proper installation, connection, and operation.
1. Schedule construction operations in sequence required obtaining the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 2. Coordinate installation of different components with other contractors to ensure maximum performance and accessibility for required maintenance, service, and repair, and provide minimal impact on existing facility.
 3. Make adequate provisions to accommodate items scheduled for later installation.
- C. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
1. Prepare similar memoranda for Owner, Engineer, and separate contractors if coordination of their Work is required.
- D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's construction schedule.
 2. Preparation of the schedule of values.
 3. Delivery and processing of submittals.
 4. Progress meetings.
 5. Pre-installation conferences.
 6. Project closeout activities.

7. Startup and adjustment of systems.
 8. Project closeout activities.
- E. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.
- 1.5 COORDINATION DRAWINGS
- A. Coordination Drawings, General: Prepare coordination drawings in accordance with requirements in individual Sections, where installation is not completely shown on Shop Drawings, where space constraints, existing conditions and availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
 - b. Coordinate the addition of trade-specific information to the coordination drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
 - c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
 - e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
 - f. Indicate required installation sequences.
 - g. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Engineer indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire protection, fire alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
 2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
 3. Structural Penetrations: Indicate penetrations and openings required for all new structural work. Indicate all planned repairs to weatherproofing.
 4. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
 5. Electrical Work: Show the following:
 - a. Runs of vertical and horizontal conduit 1-1/4 inch diameter and larger.
 - b. Panel board, switchboard, switchgear, transformer, busway, generator, and motor control center locations.
 - c. Location of pull boxes and junction boxes, dimensioned from column center lines.
 6. Review: Engineer will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are the Contractor's responsibility. If the Engineer determines that the coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, the Engineer will so inform the Contractor, who shall make changes as directed and resubmit.
 7. Coordination Drawing Prints: Prepare coordination drawing prints in accordance with requirements of Division 01 Section "Submittal Procedures."

1.6 KEY PERSONNEL

- A. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
1. Post copies of list in project meeting room, in temporary field office, and send

to Owner's representative and Engineer. Keep list current at all times.

1.7 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified. Contractor shall maintain a formal RFI log, sequentially numbering each RFI.
1. Engineer will return RFIs submitted to Engineer by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
 3. RFI log shall be kept current. RFI log shall include date of RFI submission, date of response, and status of each RFI throughout the project (indicated in Part F.).
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Engineer.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

- C. RFI Forms: AIA Document G716.
- D. Engineer's Action: Engineer will review each RFI, determine action required, and respond. Allow seven working days for Engineer's response for each RFI. RFIs received by Engineer after 1:00 p.m. will be considered as received the following working day.
 - 1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Engineer's actions on submittals.
 - f. Incomplete RFIs or inaccurately prepared RFIs.
 - 2. Engineer's action may include a request for additional information, in which case Engineer's time for response will date from time of receipt of additional information.
 - 3. Engineer's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Engineer in writing within 10 days of receipt of the RFI response.
- E. On receipt of Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties, including Owner and Engineer. Review response and notify Engineer within seven days if Contractor disagrees with response.
- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use CSI Log Form 13.2B.
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Engineer.
 - 4. RFI number including RFIs that were dropped and not submitted.
 - 5. RFI description.
 - 6. Date the RFI was submitted.

7. Date Engineer's response was received.
8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.8 PROJECT MEETINGS

- A. General: Owner shall schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Owner shall notify Contractor and Engineer of scheduled meeting dates and times.
 2. Agenda: Owner shall prepare and distribute the agenda to all invited attendees.
 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Meeting minutes shall be distributed to everyone concerned, including Contractor and Engineer, within seven days of the meeting.
- B. Preconstruction Conference: Owner will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Engineer.
 1. Conduct the conference to review responsibilities and personnel assignments.
 2. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Owner shall provide agenda for preconstruction meeting. Contractor shall be present and prepared to discuss coordination aspects, timeline, and other items required.
 4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Pre-installation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.
 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Engineer and Owner of scheduled meeting dates.

2. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 3. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
 4. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Closeout Conference: Schedule and conduct a Project closeout conference, at a time convenient to Owner and Engineer, but no later than 30 days prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; and suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of record documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties and release of all liens.
 - d. Requirements for preparing sustainable design documentation.
 - e. Requirements for preparing operations and maintenance data.
 - f. Requirements for demonstration and training.
 - g. Preparation of Contractor's punch list.
 - h. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - i. Submittal procedures.
 - j. Coordination of separate contracts.
 - k. Owner's partial occupancy requirements.
 - l. Responsibility for removing temporary facilities and controls.

4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: Conduct progress meetings at regular intervals.
1. Coordinate dates of meetings with preparation of payment requests.
 2. Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, major supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time, and the period for construction as outlined by the County.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Progress cleaning.
 - 10) Quality and work standards.
 - 11) Status of correction of deficient items.

- 12) Field observations.
 - 13) Status of RFIs.
 - 14) Status of proposal requests.
 - 15) Pending changes.
 - 16) Status of Change Orders.
 - 17) Pending claims and disputes.
 - 18) Documentation of information for payment requests.
4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- F. Coordination Meetings: Owner shall conduct Project coordination meetings at regular intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.
1. Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.

- c. Review present and future needs of each contractor present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Change Orders.
3. Reporting: Owner shall record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF 01310

SECTION 01330 SUBMITTAL PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Sections:
 - 1. Division 01 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 2. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
 - 3. Division 01 Section "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted

by the Engineer and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Initial Submittal: Submit concurrently with start-up construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category: Action, informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Engineer's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings will be provided by Engineer for Contractor's use in preparing submittals.
 1. Engineer will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.
 - a. Engineer makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.

3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for re-submittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including re-submittals.
1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Re-submittal Review: Allow 15 days for review of each re-submittal.
 4. Sequential Review: Where sequential review of submittals by Engineer's consultants, Owner, or other parties is indicated, allow 15 days for initial review of each submittal.
 5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Engineer and to Engineer's consultants, allow 15 days for review of each submittal. Submittal will be returned to Engineer before being returned to Contractor.
- D. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Engineer.
 3. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.

- c. Name of Engineer.
 - d. Name of Contractor.
 - e. Name of supplier.
 - f. Name of manufacturer.
 - g. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Re-submittals shall include an R number suffix after another decimal point (e.g., 061000.01.R1).
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
 - j. Location(s) where product is to be installed, as appropriate.
 - k. Other necessary identification.
- E. Options: Identify options requiring selection by the Engineer.
- F. Deviations: Identify any deviations from the specified products on Contract Documents on submittals.
- G. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Engineer observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
- 1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Engineer.
- H. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will return submittals, without review, received from sources other than Contractor.
- 1. Transmittal Form: Use AIA Document G810.
 - 2. Transmittal Form: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).

3. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- J. Re-submittals: Make re-submittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked with approval notation from Engineer's action stamp.
- K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- L. Use for Construction: Use only final submittals that are marked with approval notation from Engineer's action stamp.
- M. Submittal Log: Contractor shall maintain a current Submittal Log outlining a sequential submission numbering of all submittals, the date of the submission, the date of the Engineer's response, and the status of the submission response (approved, rejected, revise and resubmit), and any further action required on the log. The Submittal Log shall be forwarded to the Owner, the Engineer, and all respondent parties on Distribution List on a weekly basis.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
1. Action Submittals: Submit six paper copies of each submittal, unless otherwise indicated. Engineer will return four copies.
 2. Informational Submittals: Submit two paper copies of each submittal, unless otherwise indicated. Engineer will not return copies.
 3. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 01 Section "Closeout Procedures."
 4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

- a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on the accompanying shop drawings.
 5. Submit Product Data before or concurrent with Samples.

6. Submit Product Data in the following format:
 - a. PDF electronic file.

- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Submit Shop Drawings in the following format:
 - a. Six opaque (bond) copies of each submittal. Engineer will return four copies.

- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.

3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Engineer will return submittal with options selected.
 5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product indicated in the Contract Documents.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
 5. Submit product schedule in the following format:
 - a. Three paper copies of product schedule or list, unless otherwise indicated. Engineer will return two copies.

- F. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."
- G. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- H. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- I. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- J. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- K. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- L. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 01 Section "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ENGINEER'S ACTION

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Engineer will review each submittal, make marks to indicate

corrections or modifications required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.

- C. Informational Submittals: Engineer will review each submittal and will not return it, or will return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.
- D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Engineer.
- E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

*** END OF SECTION ***

SECTION 01600 PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Sections:
 - 1. Division 01 Section "Substitution Procedures" for requests for substitutions.

1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 2. Engineer's Action: If necessary, Engineer will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Engineer will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Form of Approval: As specified in Division 01 Section "Submittal Procedures."
 - b. Use product specified if Engineer does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Basis of Design product substitution shall only be allowed where substitution has been approved prior to receipt of bids. Engineer shall review substitution documentation, and provide written response to Bidder prior to date of receipt of bids. Without prior approval, in writing from Engineer, a Basis of Design substitution will not be accepted for this project.

1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
1. Contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Engineer will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.

3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents. Product warranties shall start no at approval of Substantial Completion of complete project, no exceptions.
1. **Manufacturer's Warranty:** Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. **Special Warranty:** Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. **Special Warranties:** Prepare a written document that contains appropriate terms and identification, ready for execution.
1. **Manufacturer's Standard Form:** Modified to include Project-specific information and properly executed.
 2. **Specified Form:** When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.

- C. Submittal Time: Comply with requirements in Division 01 Section "Submittal Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Engineer will make selection.
 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
 6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 3. Products:
 - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that comply with requirements. Comparable products or substitutions for Contractor's convenience will not be considered, unless otherwise indicated.

- b. Non-restricted List: Where Specification includes a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
4. Manufacturers:
- a. Restricted List: Where Contract Documents include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered, unless otherwise indicated.
 - b. Non-restricted List: Where Contract Documents do not include a list of available manufacturers, provide a product that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
- C. Visual Matching Specification: Where Specifications require "match Engineer's sample", provide a product that complies with requirements and matches Engineer's sample. Engineer's decision will be final on whether a proposed product matches.
- 1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Division 01 Section "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Engineer from manufacturer's full range" or similar phrase, select a product that complies with requirements. Engineer will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.
- 2.2 COMPARABLE PRODUCTS
- A. Conditions for Consideration: Engineer will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Engineer may return requests without action, except to record noncompliance with these requirements:
- 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.

2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of engineers and owners, if requested.
5. Samples, if requested.

PART 3 – EXECUTION

NOT USED

END OF 01600

SECTION 01730 EXECUTION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation of the Work.
4. Cutting and patching.
5. Coordination of Owner-installed products.
6. Progress cleaning.
7. Starting and adjusting.
8. Protection of installed construction.
9. Correction of the Work.

- B. Related Sections:

1. Division 01 Section "Submittal Procedures" for submitting surveys.
2. Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS

- A. Cutting and Patching Plan: Submit plan describing procedures at least 10 days prior to the time cutting and patching will be performed. Include the following information:

1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.
 3. Products: List products to be used for patching and firms or entities that will perform patching work.
 4. Dates: Indicate when cutting and patching will be performed.
 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate how long services and systems will be disrupted.
- B. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.5 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
1. Structural Elements: When cutting and patching structural elements, notify Engineer of locations and details of cutting and await directions from the Engineer before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Other construction elements include but are not limited to the following:
 - a. Water, moisture, or vapor barriers.
 - b. Membranes and flashings.
 - c. Exterior curtain-wall construction.
 - d. Equipment supports.
 - e. Piping, ductwork, vessels, and equipment.

- f. Noise- and vibration-control elements and systems.
 - 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Engineer's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
 - B. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
 - C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.
- 1.6 WARRANTY
- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
 - 1. For projects requiring compliance with sustainable design and construction practices and procedures, utilize products for patching that comply with requirements of Division 01 Section "Sustainable Design Requirements."
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Engineer for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning project work, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.

2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Dimensioning on Contract Documents is for identification purposes only. Contractor shall confirm all measurements prior to any fabrications for this project. Take field measurements as required fitting the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions

outside the control of the Contractor, submit a request for information to Engineer according to requirements in Division 01 Section "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Engineer promptly.
- B. General: Engage qualified professionals to lay out the Work using accepted surveying practices.
 - 1. Coordinate with other contractors operating in the facility throughout the length of this contract. Coordinate with other contractors as needed to locate new electrical elements of Project in new structures or areas to be installed by others.
 - 2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 3. Inform installers of lines and levels to which they must comply.
 - 4. Check the location, level and plumb, of every major element as the Work progresses.
 - 5. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Engineer. Report lost or destroyed permanent benchmarks or control points promptly.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated. All electrical pathways and boxes shall be concealed in existing or new installations.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, boxes, and wiring in new finished areas. Coordinate with installing contractors for site and pergola installations within structures. No exposed conduit systems or boxes will be allowed.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Engineer.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Temporary Support: Provide temporary support of work to be cut.
- C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- D. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements of Division 01 Section "Summary."
- E. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.
- F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.
 - 5. Electrical Services: Cut off pipe or conduit in ceilings, walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to

prevent entrance of moisture or other foreign matter after cutting.

6. Proceed with patching after construction operations requiring cutting are complete.
- G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 3. Ceilings: Patch, repair, or re-hang in place ceilings as necessary to provide an even-plane surface of uniform appearance.
 4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.
 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
 2. Pre-installation Conferences: Include Owner's construction personnel at pre-installation conferences covering portions of the Work that are to receive Owner's work. Attend pre-installation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

3.8 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Utilize containers intended for holding waste materials of type to be stored.
 4. Coordinate progress cleaning for joint-use areas where more than one installer has worked.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
1. Remove liquid spills promptly.
 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Division 01 Section "Construction Waste Management and Disposal."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.9 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Division 01 Section "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Division 01 Section "Quality Requirements."

3.10 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.11 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF 01730

SECTION 01740 CONSTRUCTION WASTE AND DISPOSAL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Salvaging nonhazardous demolition and construction waste.
 - 2. Recycling nonhazardous demolition and construction waste.
 - 3. Disposing of nonhazardous demolition and construction waste.

1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 ACTION SUBMITTALS

- A. Waste Management Plan: Submit plan within 30 days of date established for the Notice to Proceed.

1.5 QUALITY ASSURANCE

- A. Waste Management Coordinator Qualifications: Experienced firm, with a record of successful waste management coordination of Projects with similar requirements.
- B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

- C. Waste Management Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to waste management including, but not limited to, the following:
1. Review and discuss waste management plan including responsibilities of waste management coordinator.
 2. Review requirements for documenting quantities of each type of waste and its disposition.
 3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
 4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
 5. Review waste management requirements for each trade.

1.6 WASTE MANAGEMENT PLAN

- A. General: Develop a waste management plan according to ASTM E 1609 and requirements of this Section. Plan shall consist of waste identification, waste reduction work plan, and cost/revenue analysis.
- B. Waste Identification: Indicate anticipated types and quantities of demolition waste generated by the Work. Use Form CWM-2 for demolition waste. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Use Form CWM-4 for demolition waste. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
 4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.

6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
 1. Comply with Division 01 Section "Temporary Facilities and Controls" for operation, termination, and removal requirements.
- B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
 1. Distribute waste management plan to everyone concerned.
 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
 2. Comply with Division 01 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site weekly and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 1. Except as otherwise specified, do not allow waste materials that are to be disposed of to accumulate on-site.

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
 - D. Disposal: Transport waste materials and dispose of at designated spoil areas.
 - E. Disposal: Transport waste materials off Owner's property daily and legally dispose of them.

END OF 01740

SECTION 01770 CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Substantial Completion procedures.
2. Final completion procedures.
3. Warranties.
4. Final cleaning.

- B. Related Sections:

1. Division 01 Section "Photographic Documentation" for submitting final completion construction photographic documentation.
2. Division 01 Section "Execution" for progress cleaning of Project site.
3. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
4. Division 01 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
5. Division 01 Section "Demonstration and Training" for requirements for instructing Owner's personnel.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.

1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
2. Advise Owner of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.

4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 5. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 7. Complete startup testing of systems.
 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 13. Complete final cleaning requirements, including touchup painting.
 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Engineer, which must be completed or corrected before certificate will be issued.
1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected. All re-inspection costs shall be the responsibility of the Contractor.
 2. Results of completed inspection will form the basis of requirements for final completion.

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
 2. Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.

3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report and warranty.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Engineer.
 - d. Name of Contractor.
 - e. Page number.
 4. Submit list of incomplete items in the following format:
 - a. Electronic file.
 - b. Three paper copies of product schedule or list, unless otherwise indicated. Engineer will return response.

1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Engineer for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 - 4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - 1. Use cleaning products that meet Green Seal GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - h. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - i. Remove labels that are not permanent.
 - j. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates.
 - k. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - l. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.

- m. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - n. Leave Project clean and ready for occupancy.
- C. Construction Waste Disposal: Comply with waste disposal requirements in Division 01 Section "Construction Waste Management and Disposal."

END OF 01770

SECTION 01780 OPERATION AND MAINTENANCE

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Product maintenance manuals.
 - 5. Systems and equipment maintenance manuals.
- B. Related Sections:
 - 1. Division 01 Section "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual specification sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Where applicable, clarify and update reviewed manual content to correspond to modifications and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically-indexed file. Submit on digital media acceptable to Engineer.
 - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically-linked

operation and maintenance directory.

- b. Enable inserted reviewer comments on draft submittals.
- 2. Three paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Engineer will return two copies.
- C. Initial Manual Submittal: Submit draft copy of each manual at least 30 days before commencing demonstration and training. Engineer will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Engineer will return copy with comments.
 - 1. Correct or modify each manual to comply with Engineer's comments. Submit copies of each corrected manual within 15 days of receipt of Engineer's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: Include a section in the directory for each of the following:
 - 1. List of documents.
 - 2. List of systems.
 - 3. List of equipment.
 - 4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
1. Title page.
 2. Table of contents.
 3. Manual contents.
- B. Title Page: Include the following information:
1. Subject matter included in manual.
 2. Name and address of Project.
 3. Name and address of Owner.
 4. Date of submittal.
 5. Name and contact information for Contractor.
 6. Name and contact information for Engineer.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 2. File Names and Bookmarks: Enable bookmarking of individual documents based upon file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily

navigated file tree. Configure electronic manual to display bookmark panel upon opening file.

- F. **Manuals, Paper Copy:** Submit manuals in the form of hard copy, bound and labeled volumes.
1. **Binders:** Heavy-duty, three-ring, vinyl-covered, loose leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
 - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
 2. **Dividers:** Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 3. **Protective Plastic Sleeves:** Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
 4. **Supplementary Text:** Prepared on 8-1/2-by-11-inch white bond paper.
 5. **Drawings:** Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 OPERATION MANUALS

- A. **Content:** In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
1. **System, subsystem, and equipment descriptions.** Use designations for systems and equipment indicated on Contract Documents.

2. Performance and design criteria if Contractor is delegated design responsibility.
3. Operating standards.
4. Operating procedures.
5. Operating logs.
6. Wiring diagrams.
7. Control diagrams.
8. Precautions against improper use.

B. Descriptions: Include the following:

1. Product name and model number. Use designations for products indicated on Contract Documents.
2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.

C. Operating Procedures: Include the following, as applicable:

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Programmable and weekend operating instructions.

D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

2.4 PRODUCT MAINTENANCE MANUALS

A. Content: Organize manual into a separate section for each product, material, and

finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

- B. Source Information: List each product included in manual identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Inspection procedures.
 - 2. Types of cleaning agents to be used and methods of cleaning.
 - 3. List of cleaning agents and methods of cleaning detrimental to product.
 - 4. Schedule for routine cleaning and maintenance.
 - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

2.5 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents.

For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

- C. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training video recording, if available.
- D. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- E. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 - 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.

2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
1. Do not use original project record documents as part of operation and maintenance manuals.
 2. Comply with requirements of newly prepared record Drawings in Division 01 Section "Project Record Documents."
- G. Comply with Division 01 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF 01780

SECTION 01790 DEMONSTRATION AND TRAINING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
 - 3. Demonstration and training video recordings.

1.3 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
 - 1. Indicate proposed training modules utilizing manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of live instructional module.
- B. Qualification Data: For facilitator.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.
- D. Evaluations: For each participant and for each training module, submit results and documentation of performance-based test.

1.4 CLOSEOUT SUBMITTALS

- A. Demonstration and Training Video Recordings: Submit two copies within seven days of end of each training module.
 - 1. Identification: On each copy, provide an applied label with the following information:
 - a. Name of Project.
 - b. Name and address of videographer.
 - c. Name of Engineer.

- d. Name of Contractor.
 - e. Date of video recording.
2. Transcript: Prepared on 8-1/2-by-11-inch paper, punched and bound in heavy-duty, three-ring, vinyl-covered binders. Mark appropriate identification on front and spine of each binder. Include a cover sheet with same label information as the corresponding video recording. Include name of Project and date of video recording on each page.
 3. At completion of training, submit complete training manual(s) for Owner's use.

1.5 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, experienced in operation and maintenance procedures and training.
- C. Videographer Qualifications: A professional videographer who is experienced photographing demonstration and training events similar to those required.
- D. Pre-instruction Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to demonstration and training including, but not limited to, the following:
 1. Inspect and discuss locations and other facilities required for instruction.
 2. Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.
 3. Review required content of instruction.
 4. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

1.6 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Engineer.

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.

- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.

 - 2. Documentation: Review the following items in detail:
 - a. Emergency manuals.
 - b. Operations manuals.
 - c. Maintenance manuals.
 - d. Project record documents.
 - e. Identification systems.
 - f. Warranties and bonds.
 - g. Maintenance service agreements and similar continuing commitments.

 - 3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.

- c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
4. Operations: Include the following, as applicable:
- a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Safety procedures.
 - f. Instructions on stopping.
 - g. Normal shutdown instructions.
 - h. Operating procedures for emergencies.
 - i. Operating procedures for system, subsystem, or equipment failure.
 - j. Required sequences for electric or electronic systems.
 - k. Special operating instructions and procedures.
5. Troubleshooting: Include the following:
- a. Diagnostic instructions.
 - b. Test and inspection procedures.
6. Repairs: Include the following:
- a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Division 01 Section "Operations and Maintenance Data."
- B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Engineer will furnish an instructor to describe basis of system design, operational requirements, criteria, and regulatory requirements.
 - 2. Owner will furnish an instructor to describe Owner's operational philosophy.
 - 3. Owner will furnish Contractor with names and positions of participants.
- C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with Owner with at least seven days' advance notice.
- D. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of an oral performance-based test.
- E. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

3.3 DEMONSTRATION AND TRAINING VIDEO RECORDINGS

- A. General: Engage a qualified commercial videographer to record demonstration and training video recordings. Record each training module separately. Include classroom instructions and demonstrations, board diagrams, and other visual aids, but not student practice.
 - 1. At beginning of each training module, record each chart containing learning objective and lesson outline.
- B. Video Recording Format: Provide high-quality color video recordings with menu navigation in format acceptable to Engineer.

- C. Recording: Mount camera on tripod before starting recording, unless otherwise necessary to show area of demonstration and training. Display continuous running time.
- D. Narration: Describe scenes on video recording by audio narration by microphone while video recording is recorded. Include description of items being viewed.
- E. Transcript: Provide a transcript of the narration. Display images and running time captured from videotape opposite the corresponding narration segment.
- F. Pre-Produced Video Recordings: Provide video recordings used as a component of training modules in same format as recordings of live training.

END OF 01790



MANATEE CONVENTION CENTER ELECTRICAL BID SET



PREPARED FOR:



PREPARED BY:

 **GLOBAL MEP & FIRE ENGINEERING, INC.**
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ELECTRICAL SHEET INDEX

SHEET	DESCRIPTION
E-0.0	ELECTRICAL BID SET COVER SHEET
E-1.0	CONFERENCE CENTER TOILETS – ELECTRICAL PLANS AND SPECS
E-2.0	CONFERENCE CENTER – ELECTRICAL LIGHTING CONTROL RISER AND SPECIFICATIONS
E-2.1	CONFERENCE CENTER – ELECTRICAL EXISTING PLAN
E-2.2	CONFERENCE CENTER – ELECTRICAL PROPOSED
E-3.0	ARENA LOBBY – ELECTRICAL SCHEDULES, NOTES, AND SPECIFICATIONS
E-3.1	ARENA LOBBY – ELECTRICAL EXISTING PLAN
E-3.2	ARENA LOBBY – ELECTRICAL ARENA LOBBY PROPOSED PLANS
E-3.3	ARENA LOBBY – ELECTRICAL SOUTH ARENA PLAN
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E-5.0	EXTERIOR RENOVATIONS – ELECTRICAL SCHEDULES AND DETAILS
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E-5.2	EXTERIOR RENOVATIONS – ELECTRICAL PROPOSED PLAN
E-6.0	ELECTRICAL SPECIFICATIONS

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ELECTRICAL BID SET:
**MANATEE COUNTY
CONVENTION CENTER**
1 HABEN BOULEVARD
PALMETTO, FLORIDA

JOB NO
DATE June 24, 2011
DRAWN P/JF
CHECKED P/JF
REVISIONS
ISSUED FOR BID
April 19, 2011
ELECTRICAL BID SET
July 7, 2011

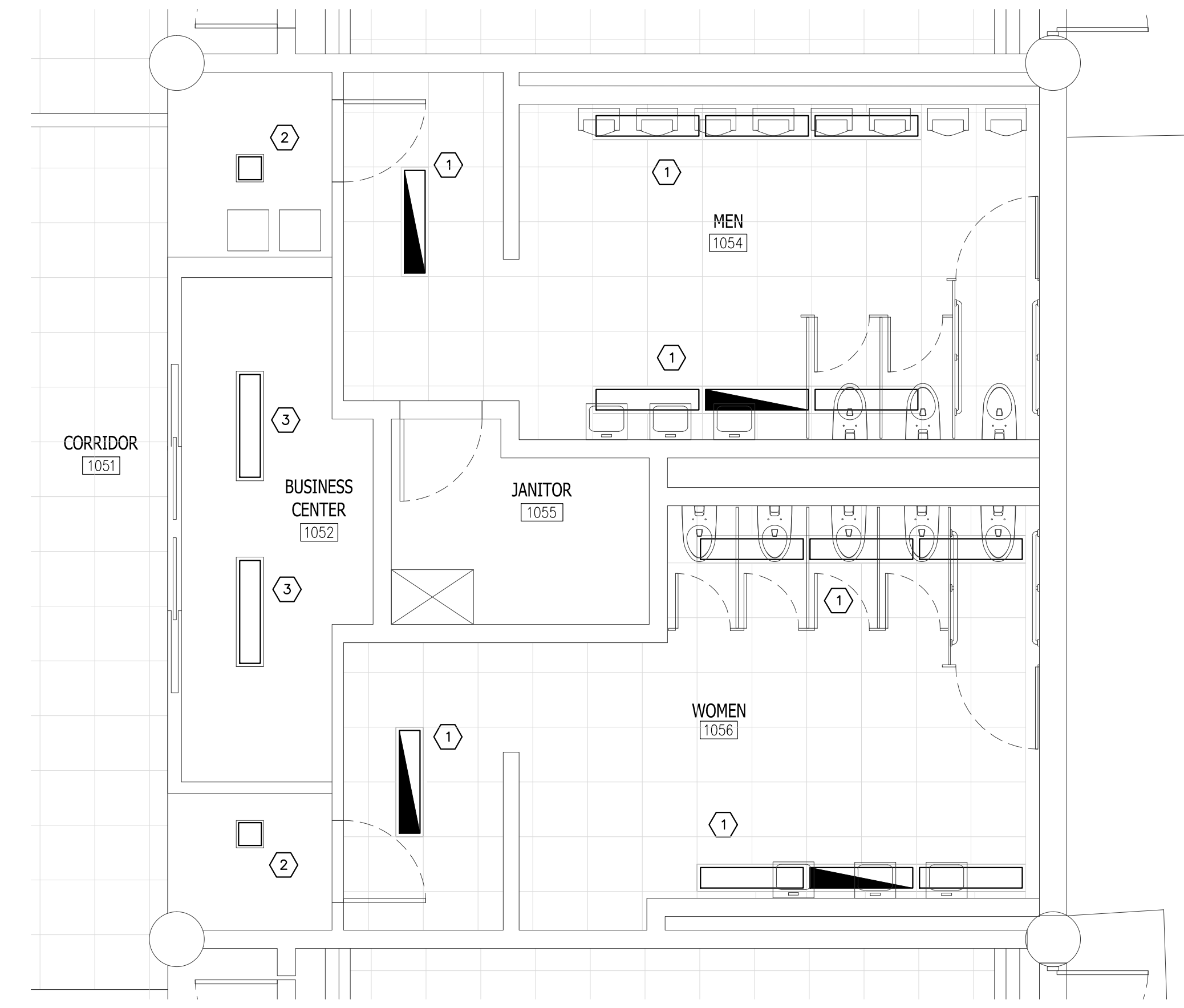
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LIGHT FIXTURE SCHEDULE							
TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		VOLTS	MOUNTING	REMARKS
			QTY	TYPE			
E	GOETHAM	AF-1/26TRT-6AR-MVOLT	1	26W TRT	120/277V	HARD CEILING	6" ROUND, OPEN RECESSED, COMPACT FLUORESCENT CAN
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
L	LITHONIA	ZSP65-2541SHO-RAT25-MVOLT-SEB95	2	54W	120/277V	GRID CEILING	2' X 4', 2-LAMP LENSED TROFFER. SPECIFICATION PREMIUM GRADE, HIGH PERFORMANCE, STATIC #12 PATTERN ACRYLIC, 0.125" THICK, REVERSE APEX DIFFUSER LENS. NOTE: INSTALL (2) "DGA24" DRYWALL FRAMES IN BUSINESS CENTER.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						

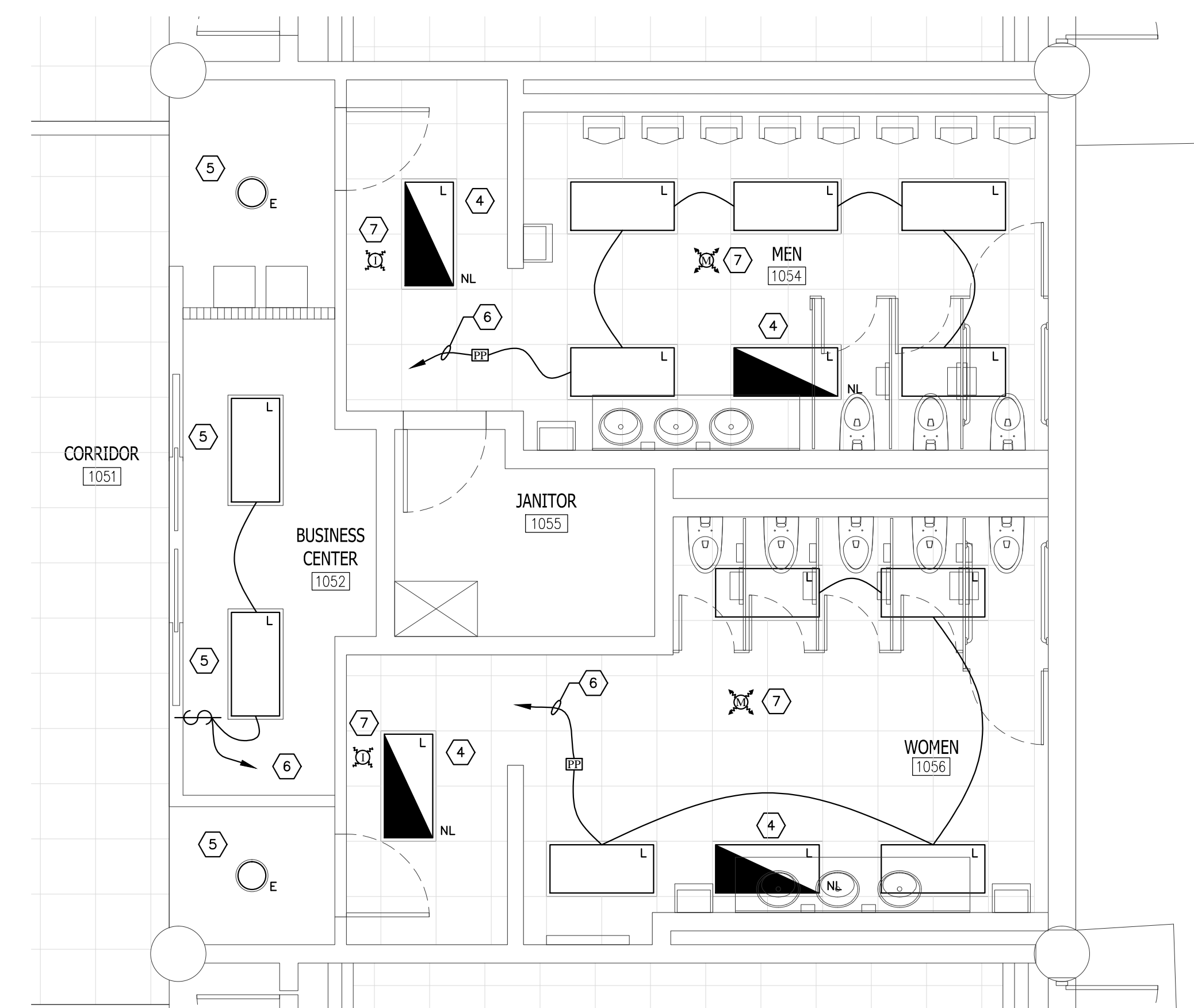
- GENERAL NOTES**
- **GENERAL NOTES APPLY TO ALL ELECTRICAL SHEETS**
- DRAWINGS ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO THE ARCHITECT/ ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.
 - EXISTING TO REMAIN ELECTRICAL CIRCUITRY DOWNSTREAM AND UPSTREAM OF DEMOLISHED DEVICES SHALL BE MAINTAINED. PROVIDE ALL ELECTRICAL COMPONENTS (BOXES, CONDUIT, WIRING, ETC.) AS REQUIRED.
 - ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO CUT, CAPTURE AND EXTEND OR REROUTE EXISTING CONDUITS AND CONDUCTORS AS REQUIRED TO ACCOMMODATE NEW DUCTWORK TO BE INSTALLED. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.
 - DO NOT SCALE FROM THESE DRAWINGS.
 - ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
 - ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
 - USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, E.G SHALL BE INCREASED PROPORTIONATELY. PER NEC 250.122 (B).
 - WHERE NON-FUSED DISCONNECT IS NOT PROVIDED "WITHIN SIGHT" OF MOTOR (OR HEATER UNIT). FEEDER (AND/OR BRANCH CIRCUIT) OVER-CURRENT DEVICE SERVING SUCH MOTOR (OR HEATER) SHALL HAVE APPROVED "LOCKED-OFF" PROVISION.

- LIGHTING FIXTURES (SEE "LIGHTING FIXTURE SCHEDULE")**
- NL NOTE: THE FOLLOWING ABBREVIATIONS APPLY TO LIGHTING FIXTURES WHERE INDICATED:
- A NL INDICATES NIGHT LIGHT.
LETTER (i.e. "A") INDICATES FIXTURE TYPE.
- INDICATES FIXTURE CONNECTED TO THE LIFE SAFETY BRANCH OF THE GENERATOR FOR EMERGENCY LIGHTING. DO NOT MOUNT SWITCHES CONTROLLING FIXTURE IN SAME BOX AS OTHER NON-EMERGENCY SWITCHES. DO NOT SHARE CONDUIT SYSTEM WITH OTHER NON-EMERGENCY CIRCUITS.
NOTE: THE FIXTURE IS FED FROM A CIRCUIT WITH GENERATOR BACKUP (LIFE SAFETY BRANCH) BUT DOES NOT HAVE AN INTEGRAL BATTERY.
- PIR PASSIVE INFRARED (PIR) OCCUPANCY SENSOR. 360° 450 SQ. FT. COVERAGE. LEVITON #OSC04-INW. CONNECT TO LOCAL POWER PACK.
- MTI MULTI-TECHNOLOGY (PIR & ULTRASONIC) OCCUPANCY SENSOR. 360° 1000 SQ. FT. COVERAGE. LEVITON #OSC10-MNW. CONNECT TO LOCAL POWER PACK.
- OSP OCCUPANCY SENSOR POWER PACK. 20A @120/277VAC. PROVIDE QUANTITY AS NEEDED. LEVITON #OSP20-OD0. CONNECT TO LOCAL OCCUPANCY SENSORS.
- S SINGLE POLE SWITCH, RECESS MOUNT 48" AFF TO CENTER OF BACKBOX.

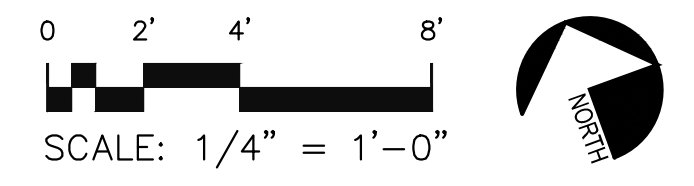
- KEYED NOTES**
- DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING TROFFERS IN THIS AREA. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE.
 - DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING SQUARE FIXTURE. PATCH AND REPAIR DRYWALL FINISH AND PREPARE FOR NEW ROUND FIXTURE. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE.
 - DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING FIXTURES IN HARD CEILING AREA. PATCH AND REPAIR DRYWALL FINISH AND PREPARE FOR NEW FIXTURES. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE.
 - INSTALL NEW "NIGHT LIGHT" FIXTURES. EXTEND EXISTING CIRCUITING TO NEW FIXTURES.
 - INSTALL NEW FIXTURES IN HARD CEILING. EXTEND EXISTING CIRCUITING TO NEW FIXTURES.
 - INTERCEPT EXISTING CIRCUIT FROM NORTH ARENA LIGHTING (ROOM 1038) RELAY CABINET. CONNECT TO NEW POWER PACK AS SHOWN.
 - CONNECT ALL OCCUPANCY SENSORS IN THIS ROOM TO LOCAL POWER PACK.



1 ELECTRICAL PARTIAL DEMOLITION CEILING PLAN
1/4" = 1'-0"



2 ELECTRICAL PARTIAL PROPOSED CEILING PLAN
1/4" = 1'-0"



PREPARED BY:
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RENOVATE CONFERENCE TOILETS FOR:
MANATEE COUNTY CONVENTION CENTER
1 HABEN BOULEVARD

JOB NO 1019-F
DATE Apr. 8, 2011
DRAWN P/JF
CHECKED P/JF
REVISIONS
ISSUED FOR BID
April 19, 2011
ELECTRICAL BID SET
July 7, 2011

CONDUIT AND WIRE SCHEDULE				
C/B	POLE	WIRE SIZE (BASE ON TYPE THW)	CONDUIT	PHASE
20A	1	0-#12, 1-#12 E.G.	3/4"	1Ø 2W
20A	2	0-#12, 1-#12 E.G.	3/4"	1Ø 2W
20A	3	0-#12, 1-#12 E.G.	3/4"	3Ø 3W
20A	3	0-#12, 1-#12 N, 1-#12 E.G.	3/4"	3Ø 4W
25A	1	2-#10, 1-#10 E.G.	3/4"	1Ø 2W
25A	2	2-#10, 1-#10 E.G.	3/4"	1Ø 2W
25A	3	3-#10, 1-#10 E.G.	3/4"	3Ø 3W
25A	3	3-#10, 1-#10 N, 1-#10 E.G.	3/4"	3Ø 4W
30A	1	2-#10, 1-#10 E.G.	3/4"	1Ø 2W
30A	2	2-#10, 1-#10 E.G.	3/4"	1Ø 2W
30A	3	3-#10, 1-#10 E.G.	3/4"	3Ø 3W
30A	3	3-#10, 1-#10 N, 1-#10 E.G.	3/4"	3Ø 4W
35A	3	3-#8, 1-#8 E.G.	1"	3Ø 3W
35A	3	3-#8, 1-#8 N, 1-#8 E.G.	1"	3Ø 4W
40A	2	2-#8, 1-#8 E.G.	1"	1Ø 2W
40A	3	3-#8, 1-#8 E.G.	1"	3Ø 3W
40A	3	3-#8, 1-#8 N, 1-#8 E.G.	1"	3Ø 4W
45A	2	2-#8, 1-#8 E.G.	1"	1Ø 2W
45A	3	3-#8, 1-#8 E.G.	1"	3Ø 3W
45A	3	3-#8, 1-#8 N, 1-#8 E.G.	1"	3Ø 4W
50A	2	2-#8, 1-#8 E.G.	1"	1Ø 2W
50A	3	3-#8, 1-#8 E.G.	1"	3Ø 3W
50A	3	3-#8, 1-#8 N, 1-#8 E.G.	1"	3Ø 4W
60A	2	2-#6, 1-#6 E.G.	1"	1Ø 2W
60A	3	3-#6, 1-#6 E.G.	1"	3Ø 3W
60A	3	3-#6, 1-#6 N, 1-#6 E.G.	1 1/4"	3Ø 4W
70A	2	2-#4, 1-#8 E.G.	1"	1Ø 2W
70A	3	3-#4, 1-#8 E.G.	1 1/4"	3Ø 3W
70A	3	3-#4, 1-#4 N, 1-#8 E.G.	1 1/4"	3Ø 4W
80A	2	2-#4, 1-#8 E.G.	1"	1Ø 2W
80A	3	3-#4, 1-#8 E.G.	1 1/4"	3Ø 3W
80A	3	3-#4, 1-#4 N, 1-#8 E.G.	1 1/4"	3Ø 4W
90A	2	2-#3, 1-#8 E.G.	1 1/4"	1Ø 2W
90A	3	3-#3, 1-#8 E.G.	1 1/4"	3Ø 3W
90A	3	3-#3, 1-#3 N, 1-#8 E.G.	1 1/2"	3Ø 4W
100A	2	2-#3, 1-#8 E.G.	1 1/4"	1Ø 2W
100A	3	3-#3, 1-#8 E.G.	1 1/4"	3Ø 3W
100A	3	3-#3, 1-#3 N, 1-#8 E.G.	1 1/2"	3Ø 4W

- NOTES:**
- ALL CONDUCTORS SHALL BE COPPER
 - ALL CONDUIT SHALL HAVE GROUNDING CONDUCTOR INSTALLED.
 - CONDUIT BELOW GRADE OUTSIDE OF BUILDING SHALL BE 1" MINIMUM.
 - SIZING OF CONDUCTORS MUST BE ALTERED FOR DERATING PER N.E.C. OR VOLTAGE DROP CONSIDERATIONS.
 - SEE RISER DIAGRAM FOR SIZING OF CIRCUITS GREATER THAN 100A.
 - USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 277 VOLT BRANCH CIRCUITS LONGER THAN 200 FEET. WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, E.G. SHALL BE INCREASED PROPORTIONATELY. PER NEC 250.122 (B).
 - MC CABLE SHALL BE ALLOWED. CONDUCTORS FOR MC CABLE SHALL BE THHN. JACKET SHALL BE THE MANUFACTURER'S STANDARD SIZE FOR CONDUCTORS UTILIZED.

LIGHT FIXTURE SCHEDULE							
TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		VOLTS	MOUNTING	REMARKS
			QTY	TYPE			
A	PEERLESS	CRW22-54TSHO-WHR-120V-SCEP	2	54W TSHO	120/277V	WALL MOUNT	INDIRECT, WALL MOUNTED 4' LINEAR FLUORESCENT FIXTURE WITH SCULPTURED END CAPS, FINE TEXTURED WHITE POLYESTER POWER PAINT.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
B	GOTHAM	AF-3/42TRT-AR-MVOLT	2	42W TRT	120/277V	CEILING GRID	8" ROUND COMPACT FLUORESCENT DOWNLIGHT, HORIZONTAL LAMP, SEMI-SPECULAR OPEN REFLECTOR
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
C	KIRLIN	FRS-11106-MOD	2	57W	120/277V	SLOPE CEILING	2-LAMP SQUARE 11" X 11" REGRESSED LENS DOWNLIGHT, ACRYLIC ENAMELED ALUMINUM HOUSING, SPECULAR ALZAK ALUMINUM REFLECTOR.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
D	GOTHAM	AF-2/26TRT-BAR-MVOLT	2	26W TRT	120/277V	CEILING GRID	8" ROUND COMPACT FLUORESCENT DOWNLIGHT, HORIZONTAL LAMP, SEMI-SPECULAR OPEN REFLECTOR
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
E	GOTHAM	AF-1/26TRT-6AR-MVOLT	1	26W TRT	120/277V	HARD CEILING	8" ROUND COMPACT FLUORESCENT DOWNLIGHT, HORIZONTAL LAMP, SEMI-SPECULAR OPEN REFLECTOR
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
EL	LITHONIA	AFN-W	2	6W	120/277V	WALL MOUNT	EMERGENCY EGRESS LIGHT, COMPACT, LOW-PROFILE, ARCHITECTURAL DESIGN WITH DIE-CAST ALUMINUM HOUSING, FIELD PAINTABLE FINISH, LEAD CALCIUM BATTERY.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
EX	LITHONIA	ED0-1/2-R-EL	LED	3W	120/277V	CEILING OR WALL MOUNT	SURFACE MOUNT, EDGE-LIT EXIT SIGN, EXTRUDED BRUSHED ALUMINUM FINISH LAMP HOUSING.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
F	GOTHAM	AFW-2/26TRT-BAR-MVOLT	2	26W TRT	120/277V	CEILING GRID	8" ROUND COMPACT FLUORESCENT OPEN WALLWASH DOWNLIGHT, HORIZONTAL LAMP, SEMI-SPECULAR OPEN REFLECTOR
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
G	WINONA	4101-F	2	13W CFQ	120/277V	WALL MOUNT	"SYNTAX" DECORATIVE WALL SCONCE, COORDINATE LENS AND FINISH OPTIONS WITH ARCHITECT/OWNER.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
H1	WINONA	4100-26-F39	2/2	39W/18W	120/277V	PENDANT	"TRIANTA" CEILING CHANDELIER, 26" WIDTH, DIMMABLE BALLAST, COORDINATE LENS AND FINISH OPTIONS WITH ARCHITECT/OWNER.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
H2	WINONA	4100-39-F55/27	4/2	55W/27W	120/277V	PENDANT	"TRIANTA" CEILING CHANDELIER, 39" WIDTH, DIMMABLE BALLAST, COORDINATE LENS AND FINISH OPTIONS WITH ARCHITECT/OWNER.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
J	GOTHAM	AF-2/32TRT-BAR-MVOLT	2	32W TRT	120/277V	CEILING GRID	8" ROUND COMPACT FLUORESCENT DOWNLIGHT, HORIZONTAL LAMP, SEMI-SPECULAR OPEN REFLECTOR
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
K	KIRLIN	IRR-04014	1	50W MR16 (12V)	120V LINE	CEILING MOUNT	OPEN, ADJUSTABLE, 4" ROUND SPOT LIGHT, ELECTRONIC DIMMABLE STEPDOWN (120V/12V) 90°C AC TRANSFORMER, SPECULAR, CLEAR ALUMINUM SELF-FLANGED ANGLE CUT CONE TRIM.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
L	LITHONIA	2SPG5-254TSHO-RA125-MVOLT-GE995	2	54W	120/277V	GRID CEILING	2' X 4', 2-LAMP LENSED TROFFER, SPECIFICATION PREMIUM GRADE, HIGH PERFORMANCE, STATIC, #12 PATTERN ACRYLIC, 0.125" THICK, REVERSE APEX DIFFUSER LENS.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						

NOTE: PROVIDE HI-LUME BALLAST FOR ALL DIMMABLE FIXTURES. USE ADVANCE MARK 7 IF HI-LUME NOT AVAILABLE.

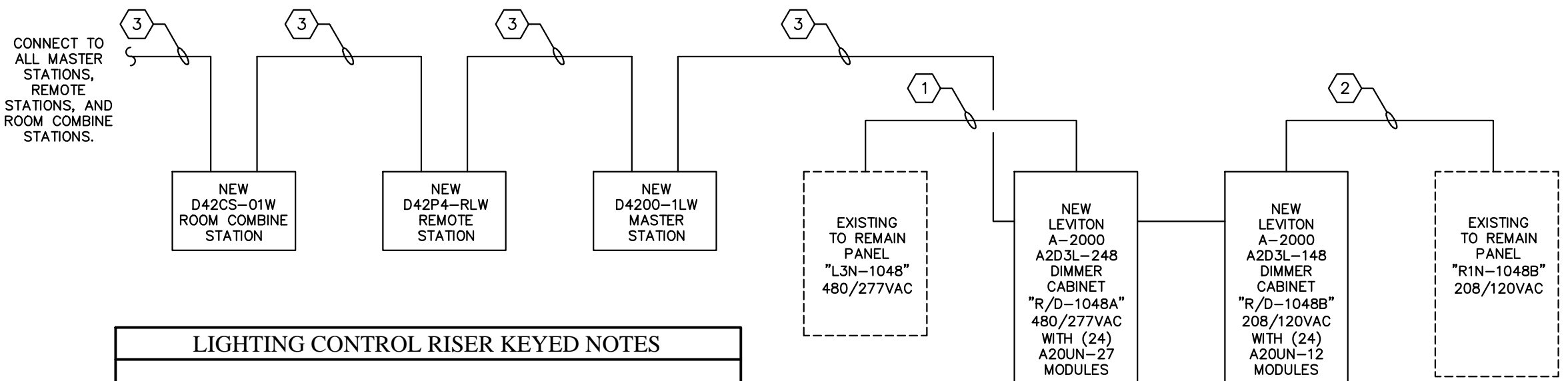
- GENERAL NOTES**
- **GENERAL NOTES APPLY TO ALL ELECTRICAL SHEETS**
- OTHER CONSTRUCTION WORK WILL BE OCCURRING CONCURRENTLY WITH THIS PROJECT. CONTRACTOR SHALL BE AWARE OF THIS AND COORDINATE WITH OTHER CONTRACTORS AND TRADES.
 - DRAWINGS ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO THE ARCHITECT/ ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.
 - EXISTING TO REMAIN ELECTRICAL CIRCUITRY DOWNSTREAM AND UPSTREAM OF DEMOLISHED DEVICES SHALL BE MAINTAINED. PROVIDE ALL ELECTRICAL COMPONENTS (BOXES, CONDUIT, WIRING, ETC.) AS REQUIRED.
 - ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO CUT, CAPTURE AND EXTEND OR REROUTE EXISTING CONDUITS AND CONDUCTORS AS REQUIRED TO ACCOMMODATE NEW DUCTWORK TO BE INSTALLED. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.
 - DO NOT SCALE FROM THESE DRAWINGS.
 - ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
 - ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
 - USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, E.G. SHALL BE INCREASED PROPORTIONATELY. PER NEC 250.122 (B).
 - WHERE NON-FUSED DISCONNECT IS NOT PROVIDED "WITHIN SIGHT" OF MOTOR (OR HEATER UNIT), FEEDER (AND/OR BRANCH CIRCUIT) OVER-CURRENT DEVICE SERVING SUCH MOTOR (OR HEATER) SHALL HAVE APPROVED "LOCKED-OFF" PROVISION.

LIGHTING FIXTURES (SEE "LIGHTING FIXTURE SCHEDULE")

- NL NOTE: THE FOLLOWING ABBREVIATIONS APPLY TO LIGHTING FIXTURES WHERE INDICATED:
- NL INDICATES NIGHT LIGHT.
 - UPPER CASE LETTER (i.e. 'A') INDICATES FIXTURE TYPE.
- INDICATES FIXTURE CONNECTED TO THE LIFE SAFETY BRANCH OF THE GENERATOR FOR EMERGENCY LIGHTING. DO NOT MOUNT SWITCHES CONTROLLING FIXTURE IN SAME BOX AS OTHER NON-EMERGENCY SWITCHES. DO NOT SHARE CONDUIT SYSTEM WITH OTHER NON-EMERGENCY CIRCUITS.
- NOTE: THE FIXTURE IS FED FROM A CIRCUIT WITH GENERATOR BACKUP (LIFE SAFETY BRANCH) BUT DOES NOT HAVE AN INTEGRAL BATTERY.
- RECESSED DOWNLIGHT
 - RECESSED WALL WASH DOWNLIGHT
 - RECESSED SPOT LIGHT
 - RECESSED DOWNLIGHT CONNECTED TO LIFE SAFETY BRANCH OF THE GENERATOR.
- EXIT SIGN WITH BATTERY PACK MOUNTED 7'-6" AFF. FROM CEILING, OR AS INDICATED. FACES AND ARROWS AS INDICATED. CONNECT FIXTURE TO LIGHTING CIRCUIT SERVING THE AREA, AHEAD OF ANY SWITCHING OR CONTROLS.
- EMERGENCY EGRESS LIGHTING UNIT WITH BATTERY PACK MOUNTED 7'-6" AFF OR AS INDICATED. CONNECT FIXTURE TO LIGHTING CIRCUIT SERVING THE AREA, AHEAD OF ANY SWITCHING OR CONTROLS.
- EXIT SIGN AND EMERGENCY EGRESS LIGHTING COMBO UNIT WITH BATTERY PACK MOUNTED 7'-6" AFF OR FROM CEILING. CONNECT FIXTURE TO LIGHTING CIRCUIT SERVING THE AREA, AHEAD OF ANY SWITCHING OR CONTROLS.
- PASSIVE INFRARED (PIR) OCCUPANCY SENSOR. 360°. 450 SQ. FT. COVERAGE. LEVITON #05C04-INW. CONNECT TO LOCAL POWER PACK.
- MULTI-TECHNOLOGY (PIR & ULTRASONIC) OCCUPANCY SENSOR. 360°. 1000 SQ. FT. COVERAGE. LEVITON #05C10-MNW. CONNECT TO LOCAL POWER PACK.
- OCCUPANCY SENSOR POWER PACK, 20A @120/277VAC. PROVIDE QUANTITY AS NEEDED. LEVITON #05P20-000. CONNECT TO LOCAL OCCUPANCY SENSORS.
- NEW LIGHTING CIRCUIT.
- EXISTING LIGHTING CIRCUIT.
- SINGLE POLE SWITCH, RECESS MOUNT 48" AFF TO CENTER OF BACKBOX.
- LEVITON D42CS-01W ROOM COMBINE STATION, RECESS MOUNT 48" AFF TO CENTER OF BACKBOX.
- LEVITON D24P24-RLW REMOTE STATION, RECESS MOUNT 48" AFF TO CENTER OF BACKBOX.
- LEVITON D4200 MASTER STATION, SURFACE MOUNT 60" AFF TO CENTER.

FIXTURE "C" NOTES

- REMOVE ONE EXISTING FIXTURE AND SEND TO MANUFACTURER (KIRLIN).
- MANUFACTURER SHALL MODIFY NEW FIXTURE TO FIT EXISTING SLOPE CEILING ADAPTOR.
- CONTRACTOR SHALL RE-FINISH SLOPE CEILING ADAPTOR (POWDER COAT), COLOR BY ARCHITECT.



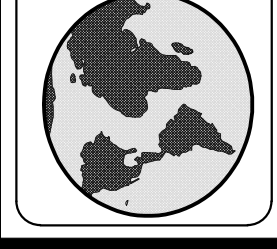
- LIGHTING CONTROL RISER KEYED NOTES**
- EXTEND 20A CIRCUIT FROM EXISTING 20A/3-POLE, 480VAC CIRCUIT BREAKER IN EXISTING PANEL "L3N-1048" TO NEW DIMMER CABINET.
 - EXTEND 40A CIRCUIT FROM 40A/3-POLE, 208VAC CIRCUIT BREAKER IN EXISTING PANEL "R1N-1048" TO NEW DIMMER CABINET.
 - BELDEN 1502R MULTI-CONDUCTOR, MULTIMEDIA CONTROL CABLE, PROVIDE BELDEN 1502R IN ANY RETURN PLENUM SPACES. TYPICAL FOR ALL MASTER STATIONS, REMOTE STATIONS, AND ROOM COMBINE STATIONS.

LIGHTING CONTROL RISER

ELECTRICAL SHEET INDEX

SHEET	DESCRIPTION
E-2.0	CONFERENCE CENTER - ELECTRICAL LIGHTING CONTROL RISER AND SPECIFICATIONS
E-2.1	CONFERENCE CENTER - ELECTRICAL EXISTING PLAN
E-2.2	CONFERENCE CENTER - ELECTRICAL PROPOSED

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 1 HABEN BOULEVARD PALMETTO, FLORIDA

RENOVATIONS TO CONFERENCE CENTER FOR:
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- DEMOLITION KEYED NOTES**
- 1 DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING LIGHT FIXTURE. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE.
 - 2 DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING SQUARE FIXTURE. PATCH AND REPAIR DRYWALL. FINISH AND PREPARE FOR NEW ROUND FIXTURE. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE.
 - 3 DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING FIXTURES IN HARD CEILING AREA. PATCH AND REPAIR DRYWALL. FINISH AND PREPARE FOR NEW FIXTURES. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE.
 - 4 REMOVE EXISTING LIGHTING CONTROLS (SWITCHES, DIMMERS, PANELS, ETC). PREPARE FOR INSTALLATION OF NEW LIGHTING CONTROLS PER SHEET E.3.0. INSTALL BLANK COVER PLATES ON UNUSED BOXES.
 - 5 REMOVE EXISTING LIGHTING CONTROL CABINET "R/D-1048". CAP AND MAINTAIN EXISTING INPUT CIRCUITING AND MAKE SAFE FOR RE-USE.
 - 6 RELOCATE EXISTING TO REMAIN UN-LABELED ENCLOSURE LOCATED TO THE RIGHT OF "R/D-1048".

LEGEND

ETR	EXISTING TO REMAIN
REM	REMOVE EXISTING DEVICE
REP	REPLACE EXISTING DEVICE WITH NEW DEVICE. MAINTAIN EXISTING CIRCUIT.
REL	RELOCATE EXISTING DEVICE
NEW	NEW DEVICE IN NEW LOCATION

WORK IN THIS AREA PART OF "MANATEE COUNTY CONVENTION CENTER CONFERENCE CENTER TOILETS" PROJECT(1019-F).

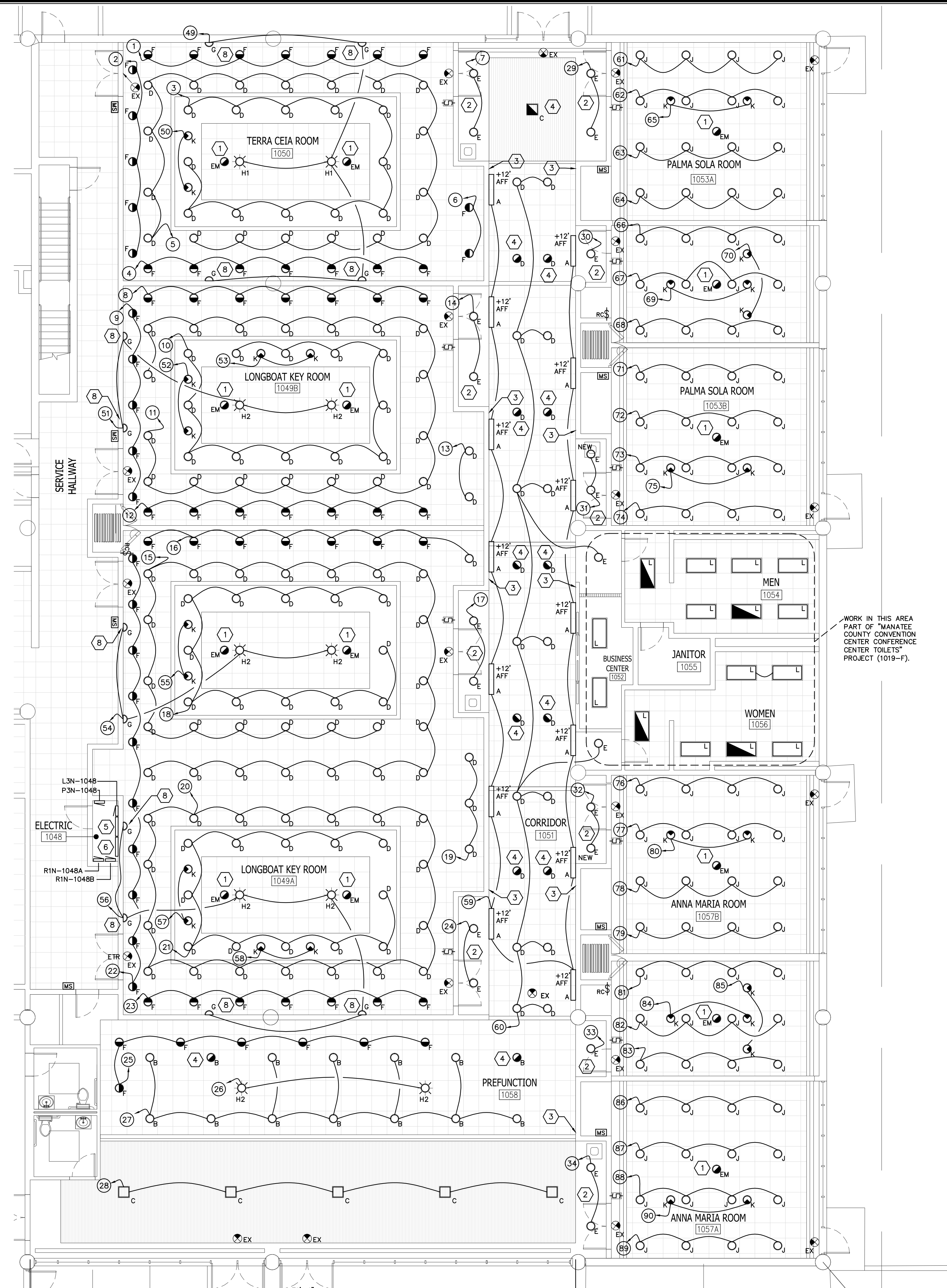
1 ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"

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- KEYED NOTES**
- 1 INSTALL NEW FIXTURES. EXTEND EXISTING CIRCUITING TO NEW FIXTURES.
 - 2 INSTALL NEW FIXTURES IN HARD CEILING. EXTEND EXISTING CIRCUITING TO NEW FIXTURES.
 - 3 RECESSED DOUBLE-GANG DEEP WALL BOX MOUNTED AT 56" AFF FOR FUTURE POWER/DATA TO SIGNAGE, WITH (1) 3/4" CONDUIT AND (1) 1" CONDUIT TO ACCESSIBLE SPACE ABOVE CEILING. INSTALL PULLSTRINGS AND BUSHINGS IN EACH CONDUIT. COORDINATE FINAL LOCATIONS WITH OWNER PRIOR TO COMMENCING WORK.
 - 4 EXTEND EXISTING LIFE SAFETY/NIGHT LIGHT CIRCUIT TO THESE FIXTURES.
 - 5 NEW LEVITON A-2000, 480/277VAC DIMMER CABINET "R/D-1048A"
 - 6 NEW LEVITON A-2000, 208/120VAC DIMMER CABINET "R/D-1048B"
 - 7 CONNECT TO EXISTING CIRCUIT FROM NORTH ARENA LIGHTING (ROOM 1038) RELAY CABINET.
 - 8 REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATIONS OF WALL SCONCES.

NEW LIGHTING CIRCUITS

277V CIRCUITS		120V CIRCUITS	
1 D-277	25 D-277	49 D-120	73 D-120
2 D-277	26 D-277	50 D-120	74 D-120
3 D-277	27 D-277	51 D-120	75 D-120
4 D-277	28 D-277	52 D-120	76 D-120
5 D-277	29 D-277	53 D-120	77 D-120
6 D-277	30 D-277	54 D-120	78 D-120
7 D-277	31 D-277	55 D-120	79 D-120
8 D-277	32 D-277	56 D-120	80 D-120
9 D-277	33 D-277	57 D-120	81 D-120
10 D-277	34 D-277	58 D-120	82 D-120
11 D-277	35 SPARE	59 D-120	83 D-120
12 D-277	36 SPARE	60 D-120	84 D-120
13 D-277	37 SPARE	61 D-120	85 D-120
14 D-277	38 SPARE	62 D-120	86 D-120
15 D-277	39 SPARE	63 D-120	87 D-120
16 D-277	40 SPARE	64 D-120	88 D-120
17 D-277	41 SPARE	65 D-120	89 D-120
18 D-277	42 SPARE	66 D-120	90 D-120
19 D-277	43 EXTERIOR	67 D-120	91 SPARE
20 D-277	44 EXTERIOR	68 D-120	92 SPARE
21 D-277	45 EXTERIOR	69 D-120	93 EXTERIOR
22 D-277	46 EXTERIOR	70 D-120	94 EXTERIOR
23 D-277	47 EXTERIOR	71 D-120	95 EXTERIOR
24 D-277	48 EXTERIOR	72 D-120	96 EXTERIOR

LIGHTING CIRCUITS KEY

X-YYY
 X: DENOTES DIMMING (D) OR RELAY (R) CIRCUIT
 YYY: DENOTES VOLTAGE (120 OR 277)

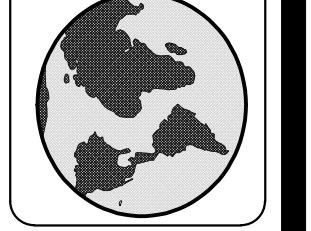
- CONFERENCE CENTER LIGHTING NOTES**
1. PROVIDE DEDICATED HOT AND NEUTRAL CONDUCTORS FOR EACH LIGHTING CIRCUIT. NO SHARED NEUTRALS.
 2. ALL LIGHTING SHALL BE CONNECTED TO NEW HOMERUN CIRCUITS FROM ROOM 1048.
 3. CIRCUITS 43-48 AND 93-96 ARE RELAY CIRCUITS FOR FUTURE EXTERIOR LIGHTING.

LEGEND

ETR	EXISTING TO REMAIN
REM	REMOVE EXISTING DEVICE
REP	REPLACE EXISTING DEVICE WITH NEW DEVICE. MAINTAIN EXISTING CIRCUIT.
REL	RELOCATE EXISTING DEVICE
NEW	NEW DEVICE IN NEW LOCATION

1 ELECTRICAL PROPOSED REFLECTED CEILING PLAN
 1/8" = 1'-0"

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 ELECTRICAL BID SET July 7, 2011

LIGHT FIXTURE SCHEDULE							
TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		MOUNTING	REMARKS	
			QTY	TYPE	VOLTS		
B	PINNACLE	CJ22-3TSH0-G1-277-10-W	3	24W TSHO	277V	CEILING GRID	"CONVERA" ARCHITECTURAL RECESSED LUMINAIRE, FORMED COLD ROLLED STEEL HOUSING, TWIN-ARCHED WING OPTICS WITH HIGH REFLECTIVE WHITE REFLECTORS, POWDER-COAT WHITE PAINTED FINISH ON EXPOSED TRIM.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
C	KIRLIN	FRS-11106-MOD	2	57W	120/ 277V	SLOPE CEILING	2-LAMP SQUARE 11" X 11" REGRESSED LENS DOWNLIGHT, ACRYLIC ENAMELED ALUMINUM HOUSING, SPECULAR ALZAK ALUMINUM REFLECTOR.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
EX	LITHONIA	EDG-1/2-R-EL	LED	3W	120/ 277V	CEILING OR WALL MOUNT	SURFACE MOUNT, EDGE-LIT EXIT SIGN, EXTRUDED BRUSHED ALUMINUM FINISH LAMP HOUSING.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						

CONDUIT AND WIRE SCHEDULE				
C/B	POLE	WIRE SIZE (BASE ON TYPE THW)	CONDUIT	PHASE
20A	1	02-#12, 1-#12 E.G.	3/4"	1φ 2W
20A	2	02-#12, 1-#12 E.G.	3/4"	1φ 2W
20A	3	03-#12, 1-#12 E.G.	3/4"	3φ 3W
20A	3	03-#12, 1-#12 N., 1-#12 E.G.	3/4"	3φ 4W
25A	1	2-#10, 1-#10 E.G.	3/4"	1φ 2W
25A	2	2-#10, 1-#10 E.G.	3/4"	1φ 2W
25A	3	3-#10, 1-#10 E.G.	3/4"	3φ 3W
25A	3	3-#10, 1-#10 N., 1-#10 E.G.	3/4"	3φ 4W
30A	1	2-#10, 1-#10 E.G.	3/4"	1φ 2W
30A	2	2-#10, 1-#10 E.G.	3/4"	1φ 2W
30A	3	3-#10, 1-#10 E.G.	3/4"	3φ 3W
30A	3	3-#10, 1-#10 N., 1-#10 E.G.	3/4"	3φ 4W
35A	3	3-#8, 1-#10 E.G.	1"	3φ 3W
35A	3	3-#8, 1-#8 N., 1-#10 E.G.	1"	3φ 4W
40A	2	2-#8, 1-#10 E.G.	1"	1φ 2W
40A	3	3-#8, 1-#10 E.G.	1"	3φ 3W
40A	3	3-#8, 1-#8 N., 1-#10 E.G.	1"	3φ 4W
45A	2	2-#8, 1-#10 E.G.	1"	1φ 2W
45A	3	3-#8, 1-#10 E.G.	1"	3φ 3W
45A	3	3-#8, 1-#8 N., 1-#10 E.G.	1"	3φ 4W
50A	2	2-#8, 1-#10 E.G.	1"	1φ 2W
50A	3	3-#8, 1-#10 E.G.	1"	3φ 3W
50A	3	3-#8, 1-#8 N., 1-#10 E.G.	1"	3φ 4W
60A	2	2-#6, 1-#10 E.G.	1"	1φ 2W
60A	3	3-#6, 1-#10 E.G.	1"	3φ 3W
60A	3	3-#6, 1-#6 N., 1-#10 E.G.	1 1/4"	3φ 4W
70A	2	2-#4, 1-#8 E.G.	1"	1φ 2W
70A	3	3-#4, 1-#8 E.G.	1 1/4"	3φ 3W
70A	3	3-#4, 1-#4 N., 1-#8 E.G.	1 1/4"	3φ 4W
80A	2	2-#4, 1-#8 E.G.	1"	1φ 2W
80A	3	3-#4, 1-#8 E.G.	1 1/4"	3φ 3W
80A	3	3-#4, 1-#4 N., 1-#8 E.G.	1 1/4"	3φ 4W
90A	2	2-#3, 1-#8 E.G.	1 1/4"	1φ 2W
90A	3	3-#3, 1-#8 E.G.	1 1/4"	3φ 3W
90A	3	3-#3, 1-#3 N., 1-#8 E.G.	1 1/2"	3φ 4W
100A	2	2-#3, 1-#8 E.G.	1 1/4"	1φ 2W
100A	3	3-#3, 1-#8 E.G.	1 1/4"	3φ 3W
100A	3	3-#3, 1-#3 N., 1-#8 E.G.	1 1/2"	3φ 4W

- NOTES:
- ALL CONDUCTORS SHALL BE COPPER
 - ALL CONDUIT SHALL HAVE GROUNDING CONDUCTOR INSTALLED.
 - CONDUIT BELOW GRADE OUTSIDE OF BUILDING SHALL BE 1" MINIMUM.
 - SIZING OF CONDUCTORS MUST BE ALTERED FOR DERATING PER N.E.C. OR VOLTAGE DROP CONSIDERATIONS.
 - SEE RISER DIAGRAM FOR SIZING OF CIRCUITS GREATER THAN 100A.
 - USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 277 VOLT BRANCH CIRCUITS LONGER THAN 200 FEET. WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, E.G. SHALL BE INCREASED PROPORTIONATELY, PER NEC 250.122 (B).
 - MC CABLE SHALL BE ALLOWED. CONDUCTORS FOR MC CABLE SHALL BE THHN. JACKET SHALL BE THE MANUFACTURER'S STANDARD SIZE FOR CONDUCTORS UTILIZED.

GENERAL NOTES

GENERAL NOTES APPLY TO ALL ELECTRICAL SHEETS

- OTHER CONSTRUCTION WORK WILL BE OCCURRING CONCURRENTLY WITH THIS PROJECT. CONTRACTOR SHALL BE AWARE OF THIS AND COORDINATE WITH OTHER CONTRACTORS AND TRADES.
- DRAWINGS ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO THE ARCHITECT/ ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.
- EXISTING TO REMAIN ELECTRICAL CIRCUITRY DOWNSTREAM AND UPSTREAM OF DEMOLISHED DEVICES SHALL BE MAINTAINED. PROVIDE ALL ELECTRICAL COMPONENTS (BOXES, CONDUIT, WIRING, ETC.) AS REQUIRED.
- ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO CUT, CAPTURE AND EXTEND OR REROUTE EXISTING CONDUITS AND CONDUCTORS AS REQUIRED TO ACCOMMODATE NEW DUCTWORK TO BE INSTALLED. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.
- DO NOT SCALE FROM THESE DRAWINGS.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
- USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, E.G. SHALL BE INCREASED PROPORTIONATELY, PER NEC 250.122 (B).
- WHERE NON-FUSED DISCONNECT IS NOT PROVIDED "WITHIN SIGHT" OF MOTOR (OR HEATER UNIT), FEEDER (AND/OR BRANCH CIRCUIT) OVER-CURRENT DEVICE SERVING SUCH MOTOR (OR HEATER) SHALL HAVE APPROVED "LOCKED-OFF" PROVISION.
- ALL EXISTING LIGHTING CIRCUITS SHALL REMAIN IN PLACE AND BE RE-CONNECTED TO NEW RELAY AND DIMMING CABINETS.
- CONTRACTOR SHALL CONTACT ENVISION LIGHTING AT 727-575-8488 FOR LEVITON LIGHTING CONTROL PACKAGE PRICING AND INFORMATION.

FIXTURE "C" NOTES

- REMOVE ONE EXISTING FIXTURE AND SEND TO MANUFACTURER (KIRLIN).
- MANUFACTURER SHALL MODIFY NEW FIXTURE TO FIT EXISTING SLOPE CEILING ADAPTOR.
- CONTRACTOR SHALL RE-FINISH SLOPE CEILING ADAPTOR (POWDER COAT). COLOR BY ARCHITECT.

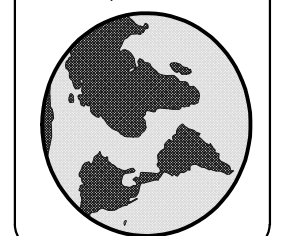
LIGHTING FIXTURES (SEE "LIGHTING FIXTURE SCHEDULE")

- NL NOTE: THE FOLLOWING ABBREVIATIONS APPLY TO LIGHTING FIXTURES WHERE INDICATED:
 UPPER CASE LETTER (i.e. 'A') INDICATES FIXTURE TYPE.
 'NL' INDICATES NIGHT LIGHT.
- INDICATES FIXTURE CONNECTED TO THE LIFE SAFETY BRANCH OF THE GENERATOR FOR EMERGENCY LIGHTING. DO NOT MOUNT SWITCHES CONTROLLING FIXTURE IN SAME BOX AS OTHER NON-EMERGENCY SWITCHES. DO NOT SHARE CONDUIT SYSTEM WITH OTHER NON-EMERGENCY CIRCUITS.
 NOTE: THE FIXTURE IS FED FROM A CIRCUIT WITH GENERATOR BACKUP (LIFE SAFETY BRANCH) BUT DOES NOT HAVE AN INTEGRAL BATTERY.
- EXIT SIGN WITH BATTERY PACK MOUNTED 7'-6" AFF. FROM CEILING, OR AS INDICATED. FACES AND ARROWS AS INDICATED. CONNECT FIXTURE TO LIGHTING CIRCUIT SERVING THE AREA, AHEAD OF ANY SWITCHING OR CONTROLS.
- EMERGENCY EGRESS LIGHTING UNIT WITH BATTERY PACK MOUNTED 7'-6" AFF OR AS INDICATED. CONNECT FIXTURE TO LIGHTING CIRCUIT SERVING THE AREA, AHEAD OF ANY SWITCHING OR CONTROLS.
- EXIT SIGN AND EMERGENCY EGRESS LIGHTING COMBO UNIT WITH BATTERY PACK MOUNTED 7'-6" AFF OR FROM CEILING. CONNECT FIXTURE TO LIGHTING CIRCUIT SERVING THE AREA, AHEAD OF ANY SWITCHING OR CONTROLS.
- PASSIVE INFRARED (PIR) OCCUPANCY SENSOR. 360° 450 SQ. FT. COVERAGE. LEVITON #05C04-INW. CONNECT TO LOCAL POWER PACK.
- MULTI-TECHNOLOGY (PIR & ULTRASONIC) OCCUPANCY SENSOR. 360°, 1000 SQ. FT. COVERAGE. LEVITON #05D10-MINW. CONNECT TO LOCAL POWER PACK.
- OCCUPANCY SENSOR POWER PACK. 20A @120/277VAC. PROVIDE QUANTITY AS NEEDED. LEVITON #05P20-000. CONNECT TO LOCAL OCCUPANCY SENSORS.
- NEW LIGHTING CIRCUIT.
- EXISTING LIGHTING CIRCUIT.

ELECTRICAL SHEET INDEX

SHEET	DESCRIPTION
E-3.0	ARENA LOBBY - ELECTRICAL SCHEDULES, NOTES, AND SPECIFICATIONS
E-3.1	ARENA LOBBY - ELECTRICAL EXISTING PLAN
E-3.2	ARENA LOBBY - ELECTRICAL ARENA LOBBY PROPOSED PLANS
E-3.3	ARENA LOBBY - ELECTRICAL SOUTH ARENA PLAN
E-3.4	ARENA LOBBY - ELECTRICAL NORTH ARENA PLAN
E-3.5	ARENA LOBBY - ELECTRICAL LIGHTING CONTROLS RISER

PREPARED BY:
GLOBAL MEP & FIRE ENGINEERING, INC.
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 8450 LINDSEY COCKE ROAD, BRADENTON, FL 34202
 PHONE 941-364-2525 FAX 941-236-5833
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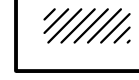
RENOVATE ARENA LOBBY FOR:
MANATEE COUNTY CONVENTION CENTER
 PALMETTO, FLORIDA

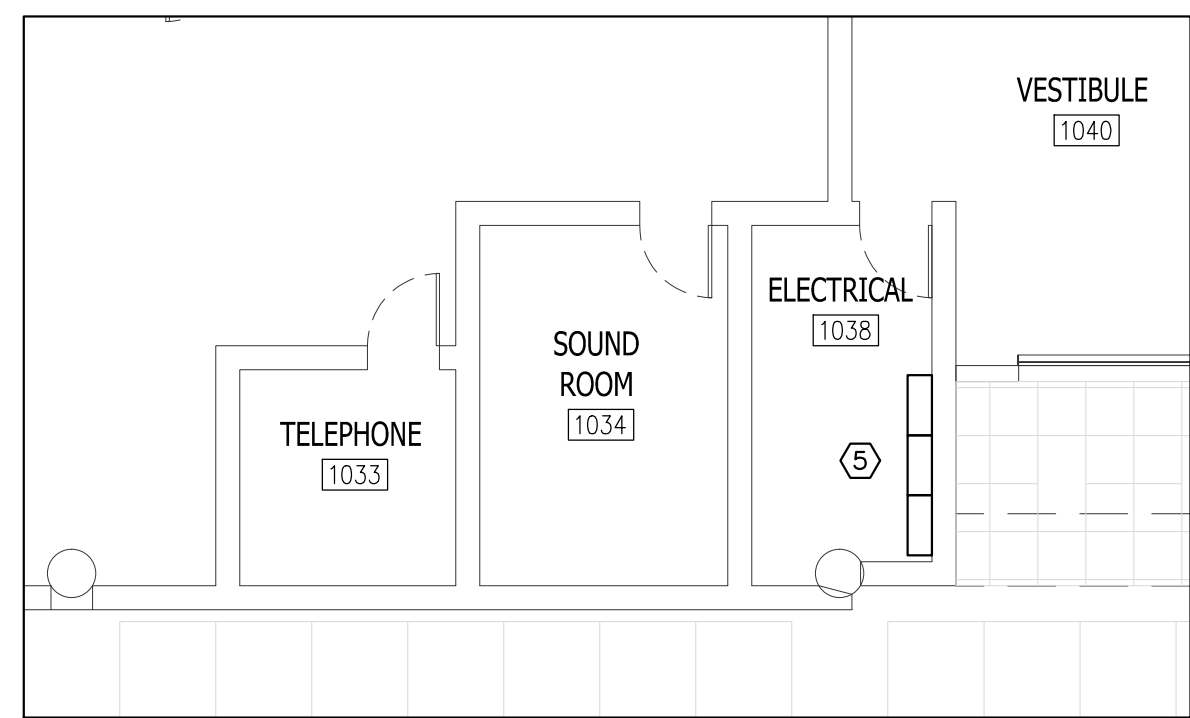
JOB NO	1019-D
DATE	Apr. 8, 2011
DRAWN	PJF
CHECKED	PJF
REVISIONS	
ISSUED FOR BID	
April 19, 2011	
ELECTRICAL BID SET	
July 7, 2011	

E-3.0

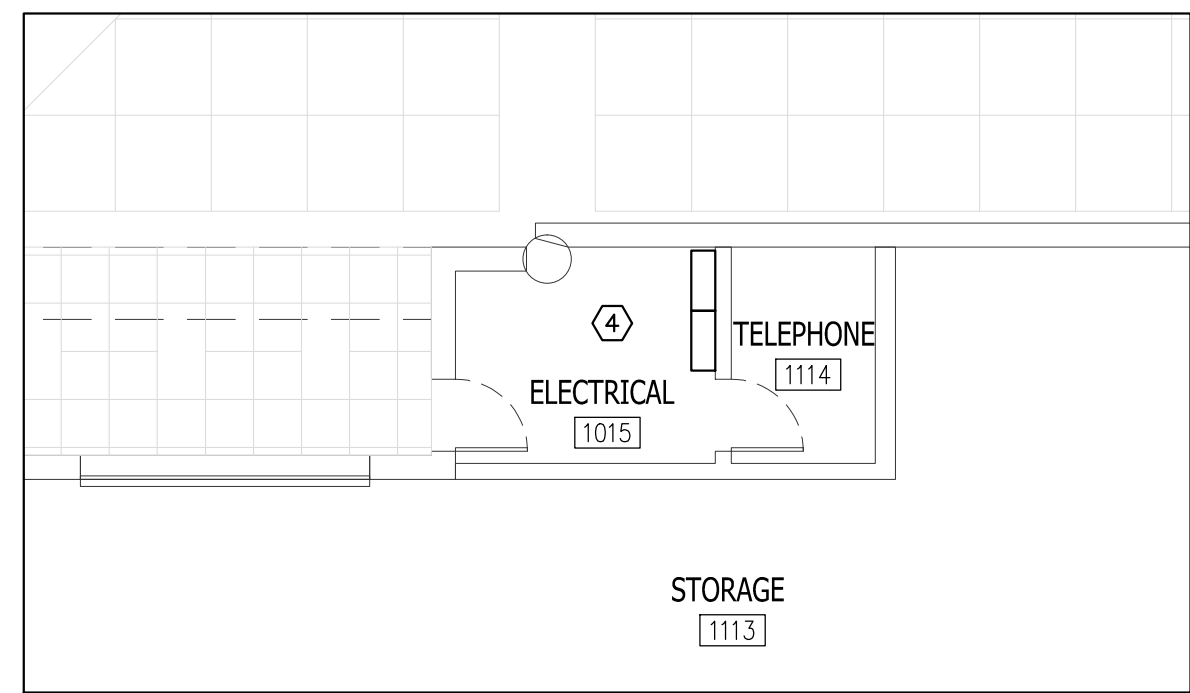
- DEMOLITION KEYED NOTES**
- DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING LIGHT FIXTURES IN THIS AREA. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE.
 - DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING SQUARE FIXTURE. PATCH AND REPAIR DRYWALL FINISH AND PREPARE FOR NEW ROUND FIXTURE. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE.
 - DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING LINEAR WALL WASH FIXTURE. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE.
 - REMOVE EXISTING LIGHTING CONTROL CABINET "R/D-1015". LABEL AND MAINTAIN ALL EXISTING FEEDER AND LIGHTING CIRCUITS FOR RE-USE.
 - REMOVE EXISTING LIGHTING CONTROL CABINET "R/D-1038". LABEL AND MAINTAIN ALL EXISTING FEEDER AND LIGHTING CIRCUITS FOR RE-USE.

LEGEND

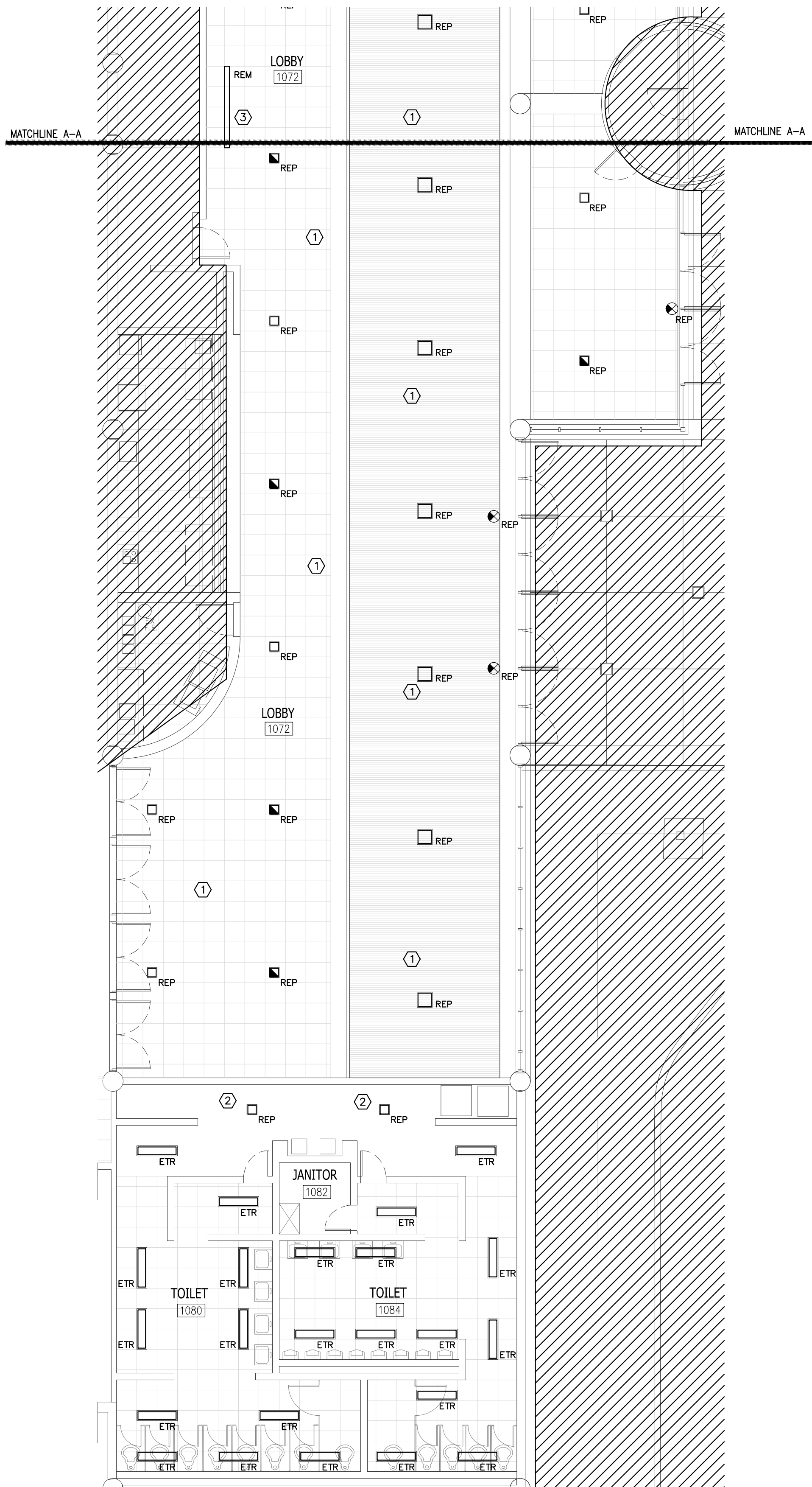
ETR	EXISTING TO REMAIN
REM	REMOVE EXISTING DEVICE
REP	REPLACE EXISTING DEVICE WITH NEW DEVICE. MAINTAIN EXISTING CIRCUIT.
REL	RELOCATE EXISTING DEVICE
NEW	NEW DEVICE IN EXISTING LOCATION
	HATCHING INDICATES AREAS NOT INCLUDED IN SCOPE



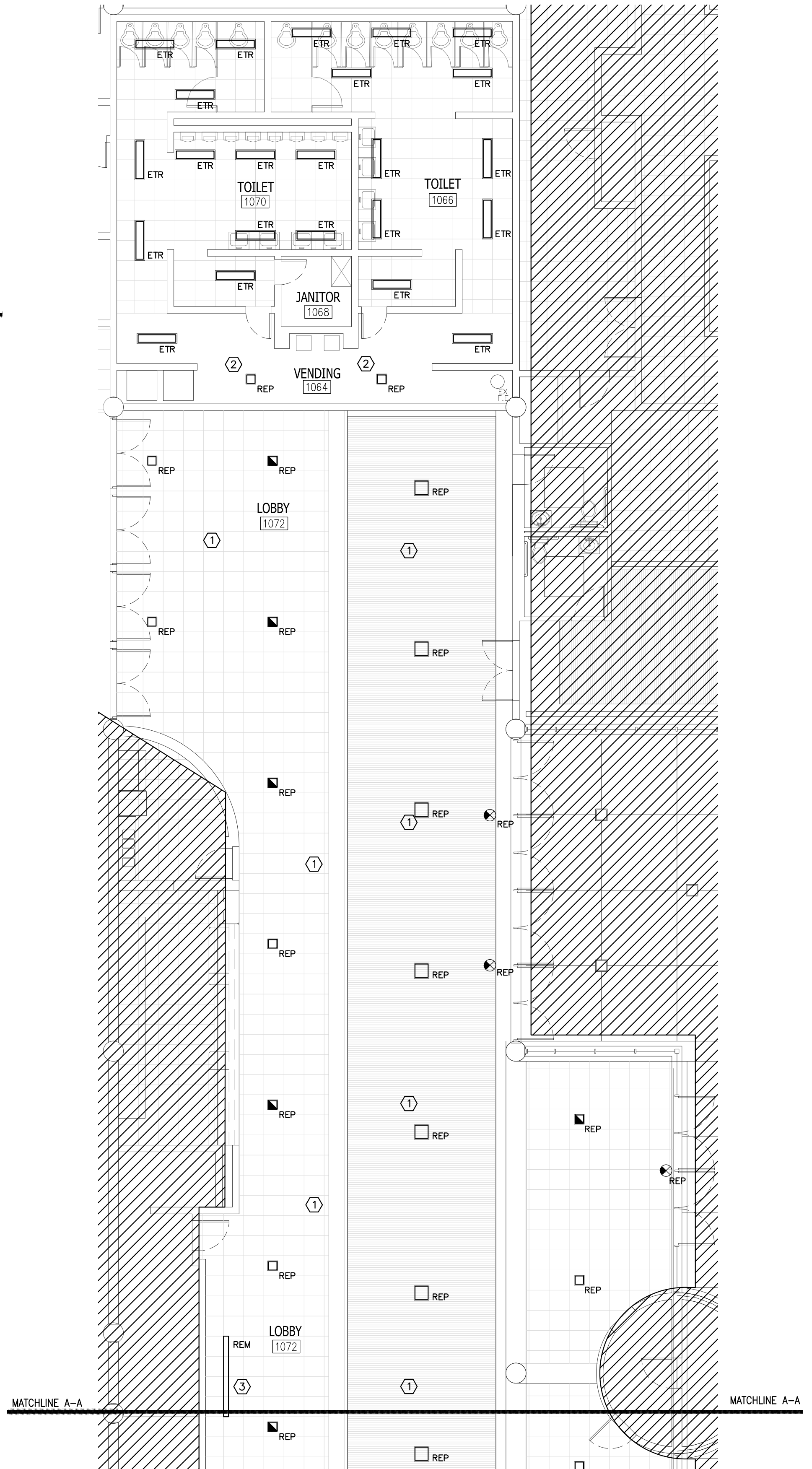
3 ELECTRICAL DEMOLITION PARTIAL PLAN
1/8" = 1'-0"



4 ELECTRICAL DEMOLITION PARTIAL PLAN
1/8" = 1'-0"



2 ELECTRICAL SOUTH ARENA LOBBY DEMOLITION PLAN
1/8" = 1'-0"



1 ELECTRICAL NORTH ARENA LOBBY DEMOLITION PLAN
1/8" = 1'-0"


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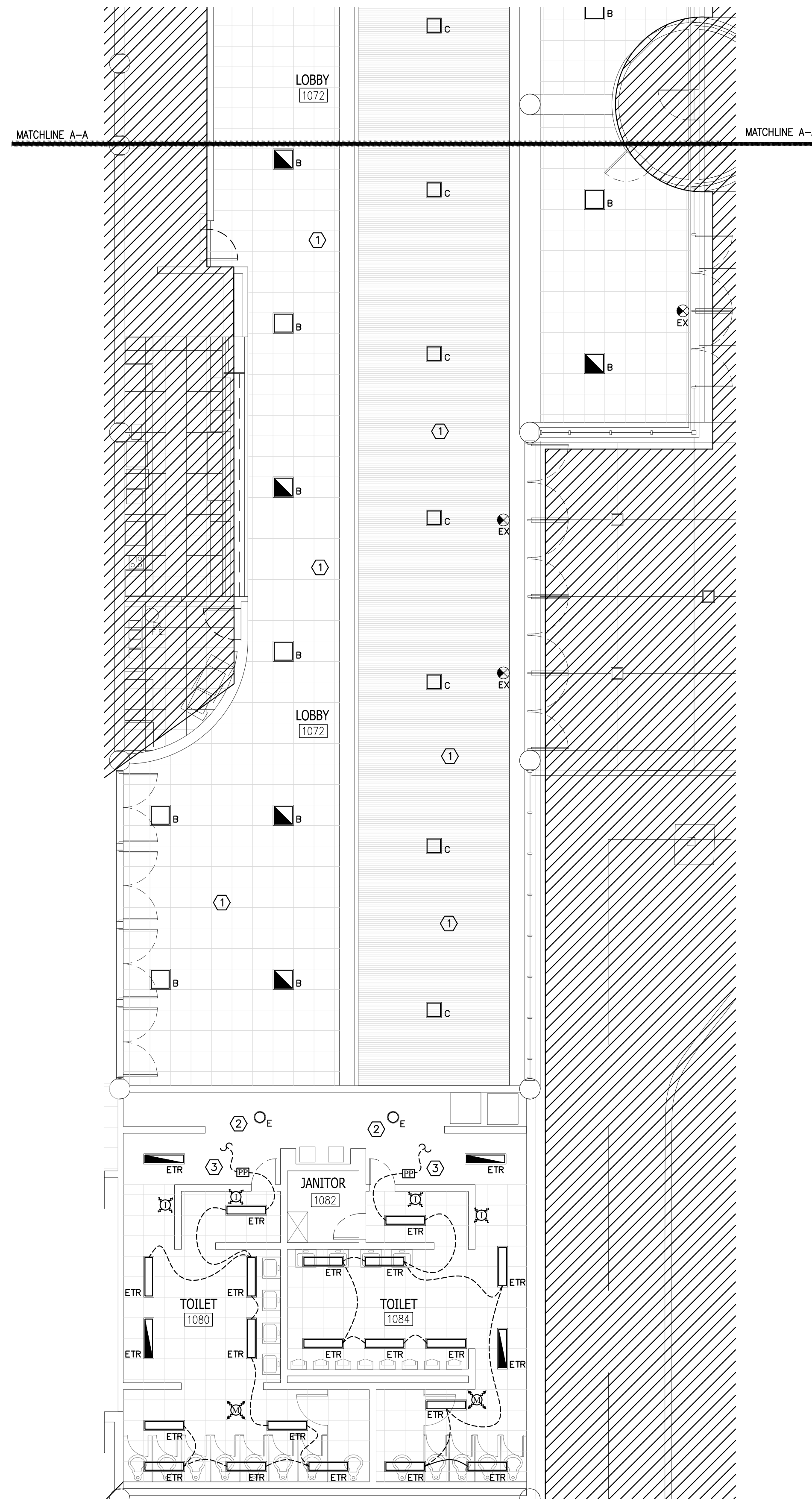
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RENOVATE ARENA LOBBY FOR:
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PALMETTO, FLORIDA
1 HABEN BOULEVARD

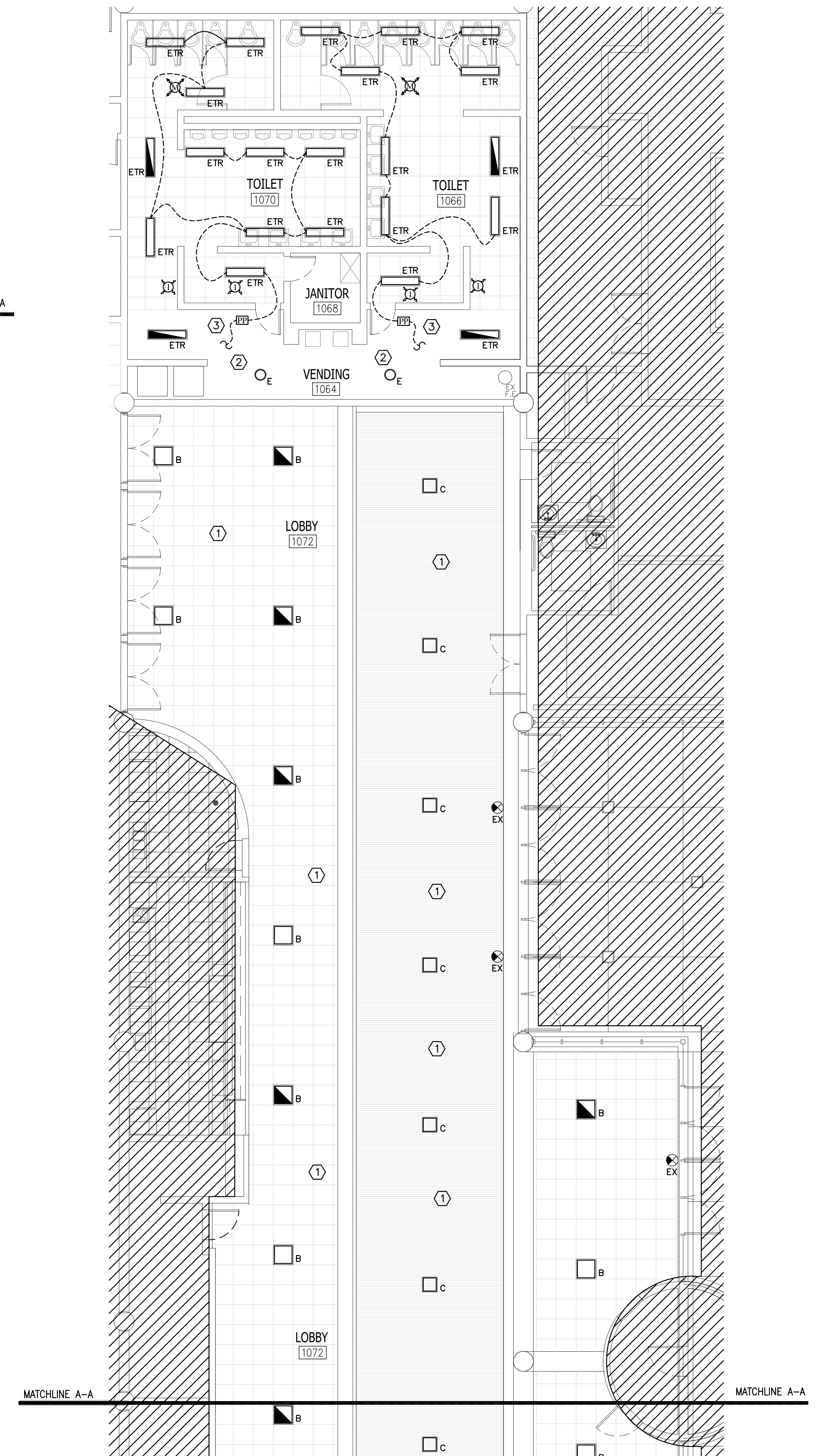
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KEYED NOTES	
①	INSTALL NEW FIXTURES. EXTEND EXISTING CIRCUITING TO NEW FIXTURES. MAINTAIN ALL DOWNSTREAM CONNECTIONS. TYPICAL.
②	INSTALL NEW FIXTURES IN HARD CEILING. EXTEND EXISTING CIRCUITING TO NEW FIXTURES. MAINTAIN ALL DOWNSTREAM CONNECTIONS.
③	INTERCEPT EXISTING CIRCUIT SERVING RESTROOM. INSTALL NEW OCCUPANCY SENSOR POWER PACK TO CONTROL RESTROOM LIGHTS. CONNECT RESTROOM OCCUPANCY SENSORS TO CONTROL POWER PACK.

LEGEND	
ETR	EXISTING TO REMAIN
REM	REMOVE EXISTING DEVICE
REP	REPLACE EXISTING DEVICE WITH NEW DEVICE. MAINTAIN EXISTING CIRCUIT.
REL	RELOCATE EXISTING DEVICE
NEW	NEW DEVICE IN EXISTING LOCATION
	HATCHING INDICATES AREAS NOT INCLUDED IN SCOPE



 2 ELECTRICAL PROPOSED SOUTH ARENA LOBBY PLAN
1/8" = 1'-0"



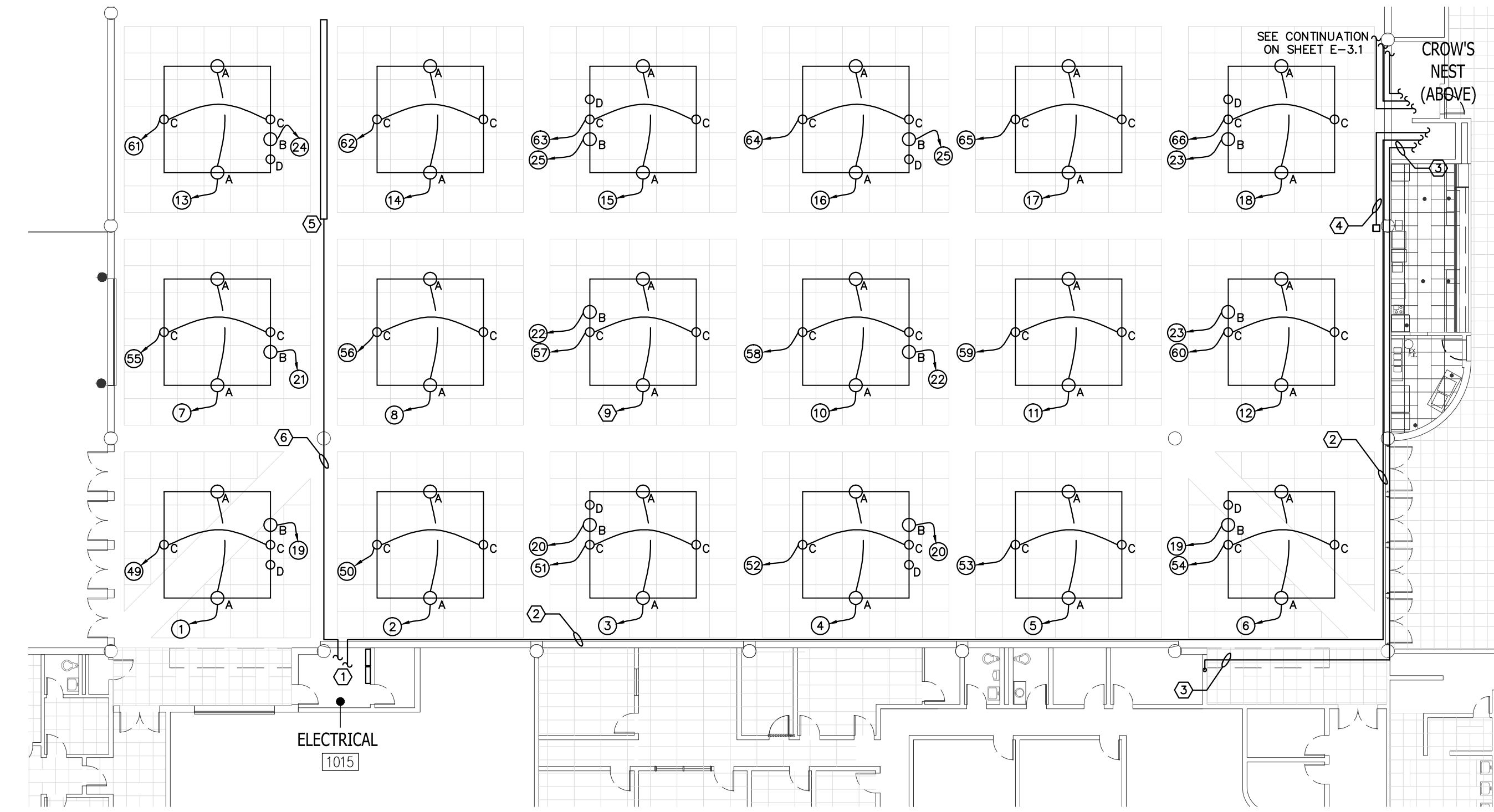
 1 ELECTRICAL PROPOSED NORTH ARENA LOBBY PLAN
1/8" = 1'-0"

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RENOVATE ARENA LOBBY FOR:
MANATEE COUNTY CONVENTION CENTER
PALMETTO, FLORIDA
1 HABEN BOULEVARD

JOB NO 1019-D
DATE Apr. 8, 2011
DRAWN P/JF
CHECKED P/JF
REVISIONS
ISSUED FOR BID
April 19, 2011
ELECTRICAL BID SET
July 7, 2011



1 ELECTRICAL PROPOSED SOUTH ARENA PLAN
1/16" = 1'-0"

SOUTH ELECTRICAL ROOM 1015
480/277VAC RELAY PANEL SCHEDULE
"R3N-1015"
Cabinet Provided with Branch Breakers and 225A Main Lugs

Existing Circuit Number	New Relay Number	Voltage	Function	Notes
100	1	277	Arena HID Lights	Console, Touch Screen, Presets
101	2	277	Arena HID Lights	Console, Touch Screen, Presets
102	3	277	Arena HID Lights	Console, Touch Screen, Presets
103	4	277	Arena HID Lights	Console, Touch Screen, Presets
104	5	277	Arena HID Lights	Console, Touch Screen, Presets
105	6	277	Arena HID Lights	Console, Touch Screen, Presets
106	7	277	Arena HID Lights	Console, Touch Screen, Presets
107	8	277	Arena HID Lights	Console, Touch Screen, Presets
108	9	277	Arena HID Lights	Console, Touch Screen, Presets
109	10	277	Arena HID Lights	Console, Touch Screen, Presets
110	11	277	Arena HID Lights	Console, Touch Screen, Presets
111	12	277	Arena HID Lights	Console, Touch Screen, Presets
112	13	277	Arena HID Lights	Console, Touch Screen, Presets
113	14	277	Arena HID Lights	Console, Touch Screen, Presets
114	15	277	Arena HID Lights	Console, Touch Screen, Presets
115	16	277	Arena HID Lights	Console, Touch Screen, Presets
116	17	277	Arena HID Lights	Console, Touch Screen, Presets
117	18	277	Arena HID Lights	Console, Touch Screen, Presets
300	19	277	Arena Worklights	Console, Touch Screen, Presets
301	20	277	Arena Worklights	Console, Touch Screen, Presets
302	21	277	Arena Worklights	Console, Touch Screen, Presets
303	22	277	Arena Worklights	Console, Touch Screen, Presets
304	23	277	Arena Worklights	Console, Touch Screen, Presets
305	24	277	Arena Worklights	Console, Touch Screen, Presets
306	25	277	Arena Worklights	Console, Touch Screen, Presets
400	26	277	Arena Cove	Console, Touch Screen, Presets
401	27	277	Arena Cove	Console, Touch Screen, Presets
500	28	277	Basketball Lights	Console, Touch Screen, Presets
501	29	277	Basketball Lights	Console, Touch Screen, Presets
913	30	277	Parking Lot South	Tm e Clock & Photo Cell
914	31	277	Parking Lot East	Tm e Clock & Photo Cell
FUTURE	32	277	Future Landscape Ltg.	Tm e Clock & Photo Cell
FUTURE	33	277	Future Landscape Ltg.	Tm e Clock & Photo Cell
SPARE	34	277	SPARE	
SPARE	35	277	SPARE	
SPARE	36	277	SPARE	
SPARE	37	277	SPARE	
SPARE	38	277	SPARE	
SPARE	39	277	SPARE	
SPARE	40	277	SPARE	
SPACE	41	277	SPACE	
SPACE	42	277	SPACE	
SPACE	43	277	SPACE	
SPACE	44	277	SPACE	
SPACE	45	277	SPACE	
SPACE	46	277	SPACE	
SPACE	47	277	SPACE	
SPACE	48	277	SPACE	

SOUTH ELECTRICAL ROOM 1015
120/208V DIMMING PANEL SCHEDULE
"D1N-1015"
Cabinet Provided with 175A Main Lugs

Existing Circuit Number	New Dimmer Number	Voltage	Function	Notes
37	49	120	Arena Incandescent Lights	Console and Presets
38	50	120	Arena Incandescent Lights	Console and Presets
39	51	120	Arena Incandescent Lights	Console and Presets
40	52	120	Arena Incandescent Lights	Console and Presets
41	53	120	Arena Incandescent Lights	Console and Presets
42	54	120	Arena Incandescent Lights	Console and Presets
43	55	120	Arena Incandescent Lights	Console and Presets
44	56	120	Arena Incandescent Lights	Console and Presets
45	57	120	Arena Incandescent Lights	Console and Presets
46	58	120	Arena Incandescent Lights	Console and Presets
47	59	120	Arena Incandescent Lights	Console and Presets
48	60	120	Arena Incandescent Lights	Console and Presets
49	61	120	Arena Incandescent Lights	Console and Presets
50	62	120	Arena Incandescent Lights	Console and Presets
51	63	120	Arena Incandescent Lights	Console and Presets
52	64	120	Arena Incandescent Lights	Console and Presets
53	65	120	Arena Incandescent Lights	Console and Presets
54	66	120	Arena Incandescent Lights	Console and Presets
SPACE	67	120	Space for Theatrical Option	See Add Alternate #1
SPACE	68	120	Space for Theatrical Option	See Add Alternate #1
SPACE	69	120	Space for Theatrical Option	See Add Alternate #1
SPACE	70	120	Space for Theatrical Option	See Add Alternate #1
SPACE	71	120	Space for Theatrical Option	See Add Alternate #1
SPACE	72	120	Space for Theatrical Option	See Add Alternate #1

SOUTH ARENA LIGHTING CIRCUITS

277V		120V
HID LIGHTS	ALCOVES	DIMMABLE LIGHTS
1 R-100	26 R-400	49 D-37
2 R-101	27 R-401	50 D-38
3 R-102		51 D-39
4 R-103	28 R-500	52 D-40
5 R-104	29 R-501	53 D-41
6 R-105		54 D-42
7 R-106	30 R-913	55 D-43
8 R-107	31 R-914	56 D-44
9 R-108		57 D-45
10 R-109	32 FUTURE LANDSCAPE LIGHTING	58 D-46
11 R-110	33 FUTURE LANDSCAPE LIGHTING	59 D-47
12 R-111	34 SPARE	60 D-48
13 R-112	35 SPARE	61 D-49
14 R-113	36 SPARE	62 D-50
15 R-114	37 SPARE	63 D-51
16 R-115	38 SPARE	64 D-52
17 R-116	39 SPARE	65 D-53
18 R-117	40 SPARE	66 D-54
	41 SPARE	67 SPARE, SEE ADD ALTERNATE #1
	42 SPARE	68 SPARE, SEE ADD ALTERNATE #1
	43 SPARE	69 SPARE, SEE ADD ALTERNATE #1
	44 SPARE	70 SPARE, SEE ADD ALTERNATE #1
	45 SPARE	71 SPARE, SEE ADD ALTERNATE #1
	46 SPARE	72 SPARE, SEE ADD ALTERNATE #1
	47 SPARE	
	48 SPARE	
	49 SPARE	

- Ⓧ D-XXX DENOTES EXISTING RELAY CIRCUIT
- Ⓧ R-XXX DENOTES EXISTING DIMMER CIRCUIT

LEGEND	
A	EXISTING TO REMAIN MAIN HID LIGHTS
B	EXISTING TO REMAIN HOUSE/WORK LIGHTS.
C	EXISTING TO REMAIN DIMMABLE INCANDESCENT.
D	EXISTING TO REMAIN EMERGENCY LIGHT. NO CONNECTION TO LIGHTING CONTROL PANELS.

KEYED NOTES	
1	INSTALL NEW LIGHTING CONTROL CABINETS "R3N-1015" AND "D1N-1015". CONNECT EXISTING LIGHTING BRANCH CIRCUITS ACCORDING TO LIGHTING CIRCUIT SCHEDULE ON SHEET E-3.1. SEE RISER, SHEET E4.0
2	DMX CONTROL WIRE, LUMACAN CONTROL CABLE AND (4) #18 AWG CONTROL WIRES IN 3/4" PVC CONDUIT FROM CROW'S NEST. SEE LIGHTING CONTROLS RISER SHEET E4.0.
3	LUMANET CONTROL WIRE AND (7) #18 AWG CONTROL WIRES IN 3/4" CONDUIT FROM CROW'S NEST. SEE LIGHTING CONTROLS RISER SHEET E4.0.
4	DMX CABLE FROM CROW'S NEST TO DMX INPUT RECEPTACLE ON ARENA FLOOR. COORDINATE LOCATION WITH OWNER. SEE LIGHTING CONTROLS RISER SHEET E4.0.

BID ALTERNATE KEYED NOTES	
5	DISTRIBUTION EQUIPMENT CONNECTOR STRIP. APPROXIMATE LOCATION. SEE ADD ALTERNATE #1 SHEET E1.0.
6	PROVIDE AND INSTALL (6) 20A/120VAC CIRCUITS TO CONNECTOR STRIPS FROM "D1N-1015". SEE ADD ALTERNATE #1 SHEET E1.0.

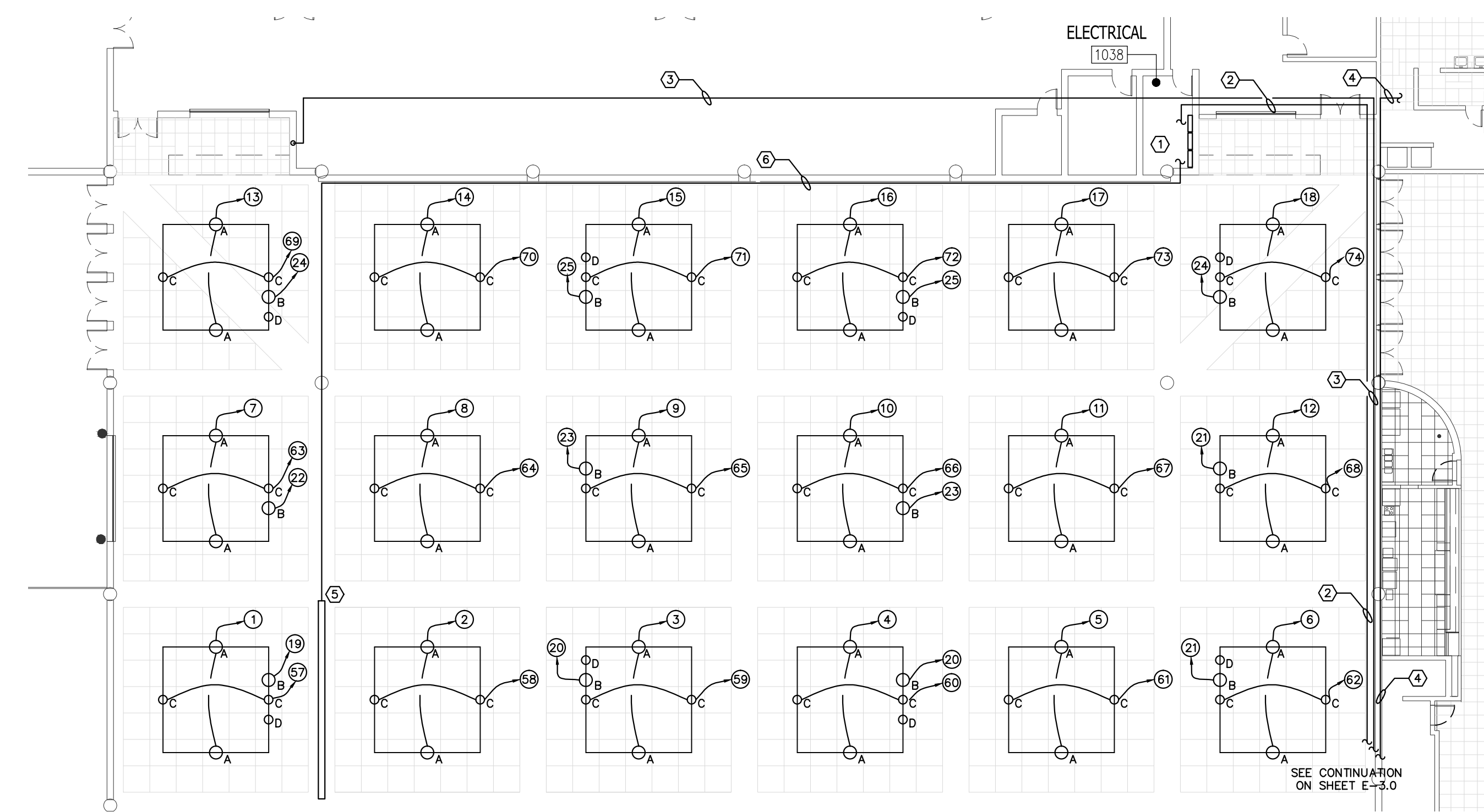
NOTE: ROUTING OF CONTROLS CONDUITS SHOWN ARE DIAGRAMMATIC IN NATURE. ONLY CONTRACTOR SHALL DO TAKE OFF TO DETERMINE ACTUAL ROUTING AND LENGTH.

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RENOVATE ARENA LOBBY FOR:
MANATEE COUNTY CONVENTION CENTER
PALMETTO, FLORIDA
1 HABEN BOULEVARD

JOB NO	1019-D
DATE	Apr. 8, 2011
DRAWN	P/JF
CHECKED	P/JF
REVISIONS	
ISSUED FOR BID	
April 19, 2011	
ELECTRICAL BID SET	
July 7, 2011	



1 ELECTRICAL PROPOSED SOUTH NORTH CONTROLS PLAN
1/16" = 1'-0"

NORTHELECTRICAL ROOM 1038 480/277VAC RELAY PANEL SCHEDULE "R3-1038" Cabinet Provided with Branch Breakers and 225A Main Lugs				
Existing Circuit Number	New Relay Number	Voltage	Function	Notes
118	1	277	Arena HID Lights	Console, Touch Screen, Presets
119	2	277	Arena HID Lights	Console, Touch Screen, Presets
120	3	277	Arena HID Lights	Console, Touch Screen, Presets
121	4	277	Arena HID Lights	Console, Touch Screen, Presets
122	5	277	Arena HID Lights	Console, Touch Screen, Presets
123	6	277	Arena HID Lights	Console, Touch Screen, Presets
124	7	277	Arena HID Lights	Console, Touch Screen, Presets
125	8	277	Arena HID Lights	Console, Touch Screen, Presets
126	9	277	Arena HID Lights	Console, Touch Screen, Presets
127	10	277	Arena HID Lights	Console, Touch Screen, Presets
128	11	277	Arena HID Lights	Console, Touch Screen, Presets
128	12	277	Arena HID Lights	Console, Touch Screen, Presets
130	13	277	Arena HID Lights	Console, Touch Screen, Presets
131	14	277	Arena HID Lights	Console, Touch Screen, Presets
132	15	277	Arena HID Lights	Console, Touch Screen, Presets
133	16	277	Arena HID Lights	Console, Touch Screen, Presets
134	17	277	Arena HID Lights	Console, Touch Screen, Presets
135	18	277	Arena HID Lights	Console, Touch Screen, Presets
307	19	277	Arena Worklights	Console, Touch Screen, Presets
308	20	277	Arena Worklights	Console, Touch Screen, Presets
309	21	277	Arena Worklights	Console, Touch Screen, Presets
310	22	277	Arena Worklights	Console, Touch Screen, Presets
311	23	277	Arena Worklights	Console, Touch Screen, Presets
312	24	277	Arena Worklights	Console, Touch Screen, Presets
313	25	277	Arena Worklights	Console, Touch Screen, Presets
402	26	277	Arena Alcove Lights	Console, Touch Screen, Presets
403	27	277	Arena Alcove Lights	Console, Touch Screen, Presets
502	28	277	Basketball Lights	Console, Touch Screen, Presets
503	29	277	Basketball Lights	Console, Touch Screen, Presets
900	30	277	Security	Time Clock, Photo Cell & PB. See Note
901	31	277	Security	Time Clock, Photo Cell & PB. See Note
902	32	277	Security	Time Clock, Photo Cell & PB. See Note
903	33	277	Security	Time Clock, Photo Cell & PB. See Note
907	34	277	Conference Toilets	Constant On, Local Occupancy Sensor
908	35	277	N. Arena Toilets	Constant On, Local Occupancy Sensor
909	36	277	S. Arena Toilets	Constant On, Local Occupancy Sensor
910	37	277	Arena Lobby	Console, Touch Screen, Presets
911	38	277	Arena Lobby	Console, Touch Screen, Presets
912	39	277	Entrance Lights	Time Clock & Photo Cell
915	40	277	Fire Lane	Time Clock & Photo Cell
916	41	277	East Parking Lights	Time Clock & Photo Cell
917	42	277	#3 South Parking Lights	Time Clock & Photo Cell
918	43	277	#3 North Parking Lights	Time Clock & Photo Cell
919	44	277	#4 Parking Lights	Time Clock & Photo Cell
Future	45	277	Future Landscape Lights	Time Clock & Photo Cell
Future	46	277	Future Landscape Lights	Time Clock & Photo Cell
Future	47	277	Future Landscape Lights	Time Clock & Photo Cell
Spare	48	277	Spare	

Note: Circuits 900, 901, 902, & 903 are emergency. They will be separately fed directly with 20A Emergency/Normal circuit from Panel "L3E-1038". These circuits will not pass through the breaker magazine provided on the cabinet. The relays will be separated from the rest of the cabinet with a barrier. Contractor must connect the feed and load circuits within the barrier section of the cabinet. The emergency condition will be signaled from a dry contact closure on the upstream ATS provided by others. When the contact is received these relays will lock on until they are released by the signal from the ATS.

NORTHELECTRICAL ROOM 1038 208/120VAC RELAY PANEL SCHEDULE "R1-1038" Cabinet Provided with Branch Breakers and 150A Main Circuit Breaker				
Existing Circuit Number	New Relay Number	Voltage	Function	Notes
700	49	120	Bleacher Aisle Lights	Console, Presets & PB
701	50	120	Bleacher Aisle Lights	Console, Presets & PB
920	51	120	Landscape	Time Clock and Photo Cell
921	52	120	Landscape	Time Clock and Photo Cell
922	53	120	Landscape	Time Clock and Photo Cell
PC	54	120	Security	Time Clock and Photo Cell
Future	55	120	Future Landscape Ltg.	Time Clock and Photo Cell
Spare	56	120	Spare	

Note #1 - One existing circuit labeled "PC" on the existing panels and thought to be a 120V security light has been included in this schedule. The actual existence of this circuit needs to be confirmed.

Note #2 - Existing 600 series circuits are to be abandoned according to Rachael Harrison. These are 120V outlets in the arena ceiling lighting grid that are not used. Confirm.

Note #3 - Existing 900 series circuits are to be abandoned according to Rachael Harrison. Confirm.

NORTH ELECTRICAL ROOM 1038 208/120VAC DIMMING PANEL SCHEDULE "D1N-1038" Cabinet Provided with 150A Main Circuit Breaker				
Existing Circuit Number	New Dimmer Number	Voltage	Function	Notes
55	57	120	Arena Incandescent Lights	Console and Presets
56	58	120	Arena Incandescent Lights	Console and Presets
57	59	120	Arena Incandescent Lights	Console and Presets
58	60	120	Arena Incandescent Lights	Console and Presets
59	61	120	Arena Incandescent Lights	Console and Presets
60	62	120	Arena Incandescent Lights	Console and Presets
61	63	120	Arena Incandescent Lights	Console and Presets
62	64	120	Arena Incandescent Lights	Console and Presets
63	65	120	Arena Incandescent Lights	Console and Presets
64	66	120	Arena Incandescent Lights	Console and Presets
65	67	120	Arena Incandescent Lights	Console and Presets
66	68	120	Arena Incandescent Lights	Console and Presets
67	69	120	Arena Incandescent Lights	Console and Presets
68	70	120	Arena Incandescent Lights	Console and Presets
69	71	120	Arena Incandescent Lights	Console and Presets
70	72	120	Arena Incandescent Lights	Console and Presets
71	73	120	Arena Incandescent Lights	Console and Presets
72	74	120	Arena Incandescent Lights	Console and Presets
SPARE	75	120	Space for Theatrical Option	
SPARE	76	120	Space for Theatrical Option	
SPARE	77	120	Space for Theatrical Option	
SPARE	78	120	Space for Theatrical Option	
SPARE	79	120	Space for Theatrical Option	
SPARE	80	120	Space for Theatrical Option	

NORTH ARENA LIGHTING CIRCUITS				
277V		120V		
HID LIGHTS	ALCOVE LIGHTS	BLEACHER AISLES	DIMMABLE LIGHTS	
1 R-118	26 R-402	49 R-700	57 D-55	
2 R-119	27 R-403	50 R-701	58 D-56	
3 R-120	BASKETBALL LIGHTS		59 D-57	
4 R-121	28 R-502	51 R-920	60 D-58	
5 R-122	29 R-503	52 R-921	61 D-59	
6 R-123	EXTERIOR SECURITY LIGHTS		62 D-60	
7 R-124	30 R-900	53 R-922	63 D-61	
8 R-125	31 R-901	54 PC	64 D-62	
9 R-126	32 R-902	55 FUTURE LANDSCAPE LIGHTING	65 D-63	
10 R-127	33 R-903	56 SPARE	66 D-64	
11 R-128	COMMON AREA LIGHTS		67 D-65	
12 R-129	34 R-908	EXTERIOR - PARKING LOT		68 D-66
13 R-130	35 R-908	39 R-912	75 SPACE, SEE ADD ALTERNATE #1	
14 R-131	36 R-909	40 R-915	76 SPACE, SEE ADD ALTERNATE #1	
15 R-132	37 R-910	41 R-916	77 SPACE, SEE ADD ALTERNATE #1	
16 R-133	38 R-911	42 R-917	78 SPACE, SEE ADD ALTERNATE #1	
17 R-134	WORK LIGHTS		79 SPACE, SEE ADD ALTERNATE #1	
18 R-135	39 R-912	43 R-918	80 SPACE, SEE ADD ALTERNATE #1	
	40 R-915	44 R-919		
	41 R-916	45 FUTURE LANDSCAPE LIGHTING		
	42 R-917	46 FUTURE LANDSCAPE LIGHTING		
	43 R-918	47 FUTURE LANDSCAPE LIGHTING		
	44 R-919	48 SPARE		
	45 FUTURE LANDSCAPE LIGHTING			
	46 FUTURE LANDSCAPE LIGHTING			
	47 FUTURE LANDSCAPE LIGHTING			
	48 SPARE			

XX D-XXX DENOTES EXISTING RELAY CIRCUIT
XX R-XXX DENOTES EXISTING DIMMER CIRCUIT

LEGEND	
A	EXISTING TO REMAIN MAIN HID LIGHTS
B	EXISTING TO REMAIN HOUSE/WORK LIGHTS.
C	EXISTING TO REMAIN DIMMABLE INCANDESCENT.
D	EXISTING TO REMAIN EMERGENCY LIGHT. NO CONNECTION TO LIGHTING CONTROL PANELS.

KEYED NOTES	
1	INSTALL NEW LIGHTING CONTROL CABINETS "R1-1038", "R2-1038", AND "D1N-1038". CONNECT EXISTING BRANCH CIRCUITS ACCORDING TO LIGHTING CIRCUIT SCHEDULE ON SHEET E-3.2. SEE RISER, SHEET E4.0.
2	DMX CONTROL WIRE, LUMACAN CONTROL CABLE, AND (4) #18 AWG CONTROL WIRES IN 3/4" PVC CONDUIT FROM CROW'S NEST. SEE LIGHTING CONTROLS RISER SHEET E4.0.
3	LUMANET CONTROL WIRE AND (7) #18 AWG CONTROL WIRES IN 3/4" CONDUIT FROM CROW'S NEST. SEE LIGHTING CONTROLS RISER SHEET E4.0.
4	DMX CABLE FROM CROW'S NEST TO DMX INPUT RECEPTACLE ON ARENA FLOOR. COORDINATE LOCATION WITH OWNER. SEE LIGHTING CONTROLS RISER SHEET E4.0.

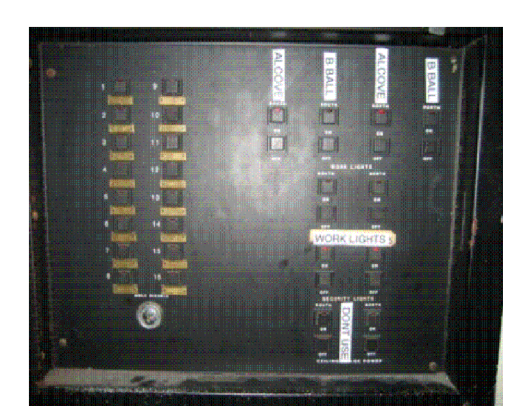
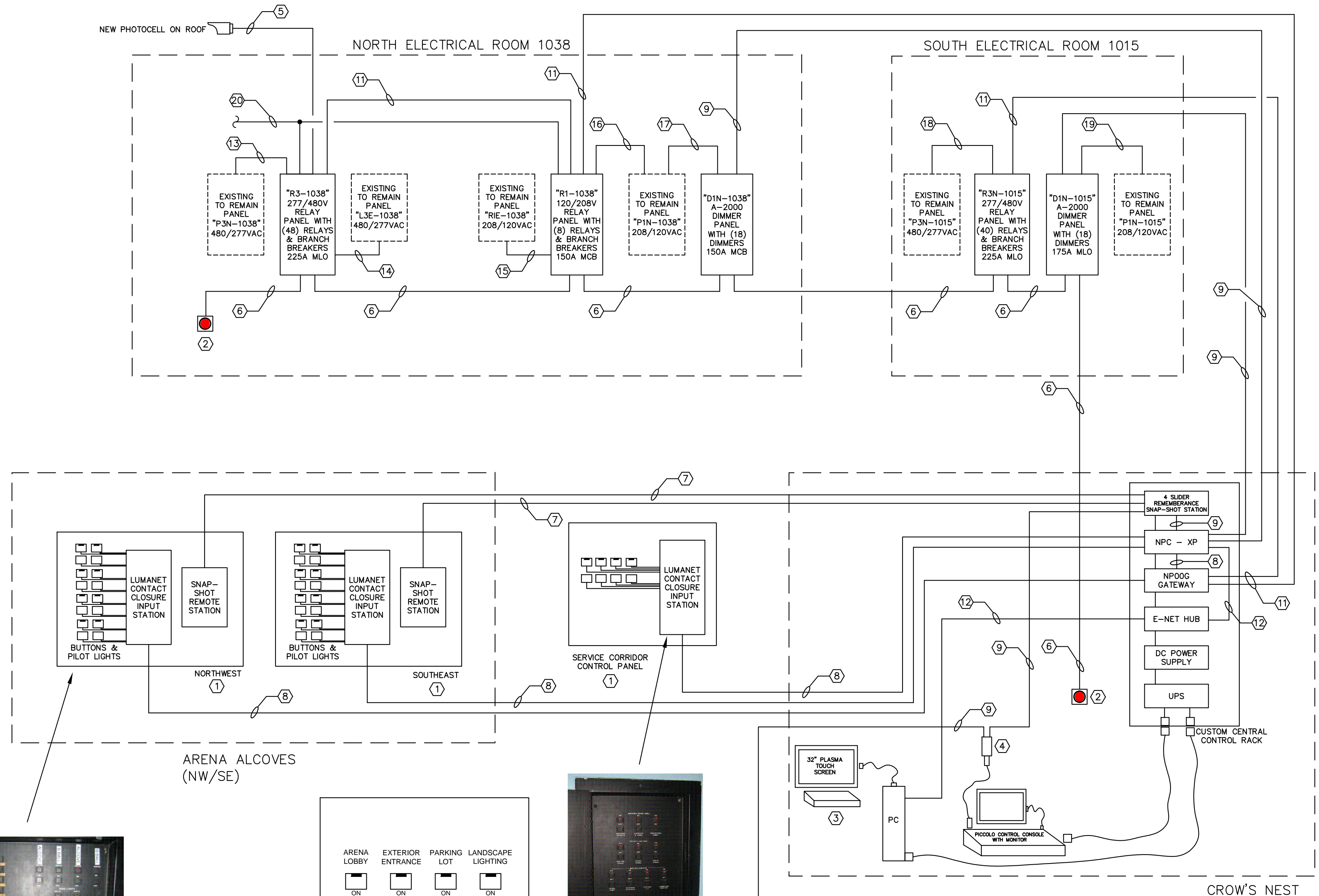
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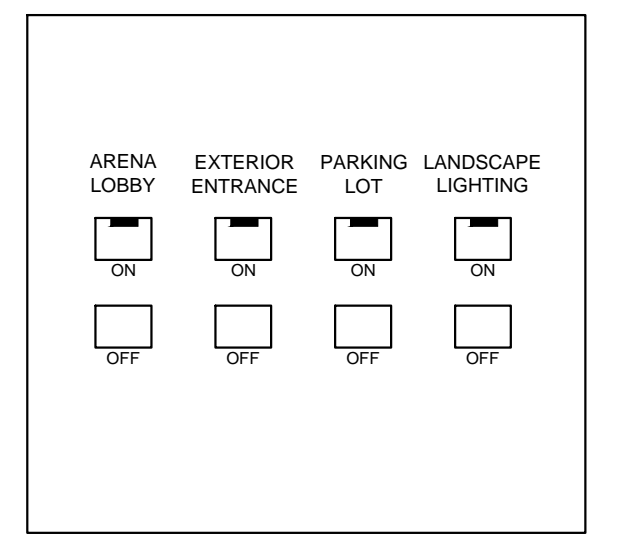
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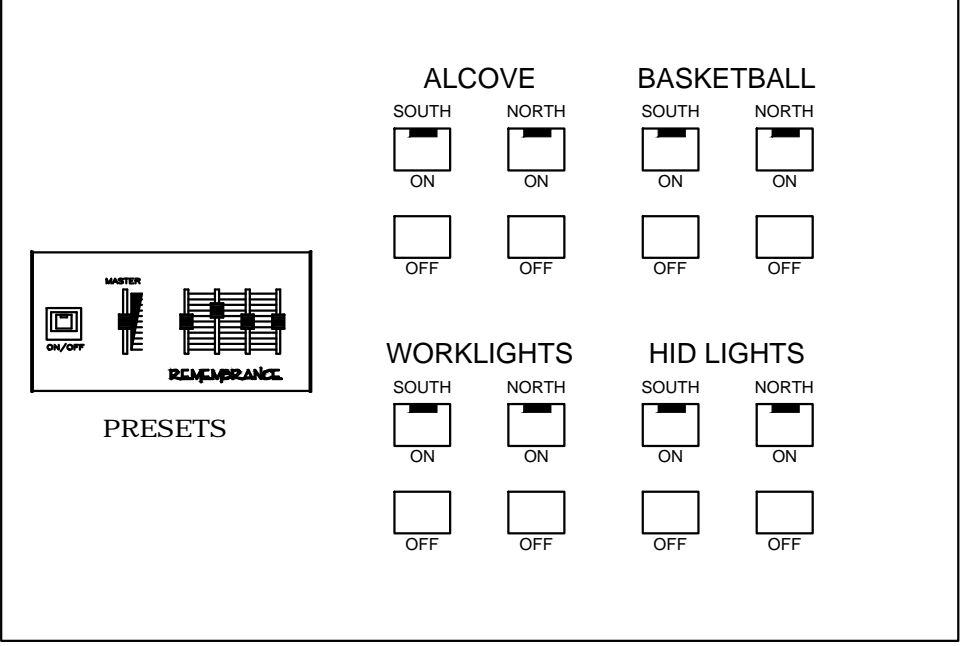
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PICTURE OF EXISTING PANEL (Typical of 2) REPLACE CONTROL SURFACES WITH PANELS AS SHOWN BELOW



PICTURE OF EXISTING PANEL. REPLACE CONTROL SURFACE NEW SURFACE TO HAVE (4) PAIRS OF (2) BUTTONS, (4) "ON" BUTTONS TO HAVE PILOT LIGHTS. BUTTONS WILL CONTROL "ARENA LOBBY", "EXTERIOR ENTRANCE", "PARKING LOT", AND "LANDSCAPE LIGHTING" AS SHOWN TO THE LEFT.



- ### KEYED NOTES
- REUSE EXISTING ENCLOSURES PROVIDE NEW CONTROL SURFACES
 - EMERGENCY ON PUSHBUTTON STATION. LARGE MUSHROOM HEAD RED ILLUMINATED SWITCH, PROVIDED WITH BACKBOX. 2PDT ALTERNATE ACTION SWITCH. 5VDC AND 24VDC CONTACTS
 - PC PROVIDED WITH CUSTOM LUMAGRAPHICS AND LUMASCHEDULER PROGRAM
 - DMX INPUT RECEPTACLE FOR CONTROL CONSOLE. CONTRACTOR SHALL PROVIDE SINGLE GANG BACKBOX.
 - (4) #18 AWG CONTROL WIRES (3 + PLUS SPARE).
 - (4) #18 AWG CONTROL WIRES (3 + PLUS SPARE). TYPICAL THIS RUN.
 - (7) #18 AWG CONTROL WIRES (6 + PLUS SPARE).
 - LUMANET CONTROL WIRE.
 - DMX CONTROL WIRE.
 - DMX INPUT RECEPTACLE ON ARENA FLOOR. CONTRACTOR SHALL PROVIDE SINGLE GANG BACKBOX. COORDINATE LOCATION WITH OWNER.
 - LUMACAN CONTROL CABLE.
 - COLORNET II CONTROL CABLE.
 - EXTEND NEW 1-1/2" CONDUIT WITH (4) #3AWG AND (1) #6 CU E.G. FROM EXISTING 100A/3-POLE, 480VAC CIRCUIT BREAKER IN EXISTING PANEL "P3N-1038" TO NEW RELAY CABINET "R3-1038".
 - EXTEND NEW 20A, 1φ, 2-WIRE CIRCUIT FROM EXISTING 20A/1-POLE, 277VAC CIRCUIT BREAKER IN EXISTING PANEL "L3E-1038" TO NEW RELAY CABINET "R3-1038" TO FEED MODULE(S) FOR EXISTING CIRCUITS 900, 901, 902, AND 903. FEEDER BRANCH CIRCUITS MUST ENTER AND TERMINATE IN BARRIERED SECTION.
 - EXTEND (2) NEW 20A, 1φ, 2-WIRE CIRCUITS FROM EXISTING 20A/1-POLE, 120VAC CIRCUIT BREAKERS IN EXISTING PANEL "R1E-1038" TO NEW RELAY CABINET "R1-1038" TO FEED MODULE(S) FOR EXISTING CIRCUITS 700 AND 701. FEEDER BRANCH CIRCUITS MUST ENTER AND TERMINATE IN BARRIERED SECTION.
 - EXTEND NEW FEEDER TAP, 2" CONDUIT WITH (4) #1/0AWG AND (1) #6 CU E.G. FROM EXISTING 300A/3-POLE, 480VAC CIRCUIT BREAKER IN EXISTING PANEL "P1N-1038" TO 150A MCB IN NEW RELAY CABINET "R1-1038".
 - EXTEND NEW FEEDER TAP, 2" CONDUIT WITH (4) #1/0AWG AND (1) #6 CU E.G. FROM EXISTING 300A/3-POLE, 480VAC CIRCUIT BREAKER IN EXISTING PANEL "P1N-1038" TO 150A MCB IN NEW DIMMER CABINET "D1N-1038".
 - EXTEND NEW 45A, 3φ, 4-WIRE CIRCUIT FROM EXISTING 45A/3-POLE, 480VAC CIRCUIT BREAKER IN EXISTING PANEL "P3N-1015" TO NEW RELAY CABINET "R3N-1015".
 - EXTEND NEW 2-1/2" CONDUIT WITH (4) #4/0AWG AND (1) #4 CU E.G. FROM EXISTING 250A/3-POLE, 208VAC CIRCUIT BREAKER IN EXISTING PANEL "P1N-1015" TO NEW DIMMER CABINET "D1N-1015".
 - LOW VOLTAGE DRY CONTACT CLOSURE FROM ATS "A3E-1032", TERMINATE ON EMERGENCY INPUT TERMINALS FOR "R3-1038" AND "D1-1038"

- ### GENERAL NOTES
- LIGHTING CONSOLE SHALL BE ABLE TO CONTROL ALL DIMMED AND SWITCHED CIRCUITS.
 - LUMAGRAPHICS TOUCH SCREEN SHALL BE CAPABLE OF CONTROLLING ALL DIMMED AND SWITCHED CIRCUITS.
 - SNAPSHOT STATION SHALL BE CAPABLE OF ADDRESSING ALL DIMMED AND SWITCHED CIRCUITS.

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CONDUIT AND WIRE SCHEDULE

C.B.	POLES	WIRE SIZE (TYPE THW)	CONDUIT	PHASE
20A	1	2-#12, 1-#12 E.G.	3/4"	1φ 2W
20A	2	2-#12, 1-#12 E.G.	3/4"	1φ 2W
20A	3	3-#12, 1-#12 E.G.	3/4"	3φ 3W
20A	3	3-#12, 1-#12 N., 1-#12 E.G.	3/4"	3φ 4W
25A	1	2-#10, 1-#10 E.G.	3/4"	1φ 2W
25A	2	2-#10, 1-#10 E.G.	3/4"	1φ 2W
25A	3	3-#10, 1-#10 E.G.	3/4"	3φ 3W
25A	3	3-#10, 1-#10 N., 1-#10 E.G.	3/4"	3φ 4W
30A	1	2-#10, 1-#10 E.G.	3/4"	1φ 2W
30A	2	2-#10, 1-#10 E.G.	3/4"	1φ 2W
30A	3	3-#10, 1-#10 E.G.	3/4"	3φ 3W
30A	3	3-#10, 1-#10 N., 1-#10 E.G.	3/4"	3φ 4W
35A	3	3-#8, 1-#10 E.G.	1"	3φ 3W
35A	3	3-#8, 1-#8 N., 1-#10 E.G.	1"	3φ 4W
40A	2	2-#8, 1-#10 E.G.	1"	1φ 2W
40A	3	3-#8, 1-#10 E.G.	1"	3φ 3W
40A	3	3-#8, 1-#8 N., 1-#10 E.G.	1"	3φ 4W
45A	2	2-#8, 1-#10 E.G.	1"	1φ 2W
45A	3	3-#8, 1-#10 E.G.	1"	3φ 3W
45A	3	3-#8, 1-#8 N., 1-#10 E.G.	1"	3φ 4W
50A	2	2-#8, 1-#10 E.G.	1"	1φ 2W
50A	3	3-#8, 1-#10 E.G.	1"	3φ 3W
50A	3	3-#8, 1-#8 N., 1-#10 E.G.	1"	3φ 4W
60A	2	2-#6, 1-#10 E.G.	1"	1φ 2W
60A	3	3-#6, 1-#10 E.G.	1"	3φ 3W
60A	3	3-#6, 1-#6 N., 1-#10 E.G.	1 1/4"	3φ 4W
70A	2	2-#4, 1-#8 E.G.	1"	1φ 2W
70A	3	3-#4, 1-#8 E.G.	1 1/4"	3φ 3W
70A	3	3-#4, 1-#4 N., 1-#8 E.G.	1 1/4"	3φ 4W
80A	2	2-#4, 1-#8 E.G.	1"	1φ 2W
80A	3	3-#4, 1-#8 E.G.	1 1/4"	3φ 3W
80A	3	3-#4, 1-#4 N., 1-#8 E.G.	1 1/4"	3φ 4W
90A	2	2-#3, 1-#8 E.G.	1 1/4"	1φ 2W
90A	3	3-#3, 1-#8 E.G.	1 1/4"	3φ 3W
90A	3	3-#3, 1-#3 N., 1-#8 E.G.	1 1/2"	3φ 4W
100A	2	2-#3, 1-#8 E.G.	1 1/4"	1φ 2W
100A	3	3-#3, 1-#8 E.G.	1 1/4"	3φ 3W
100A	3	3-#3, 1-#3 N., 1-#8 E.G.	1 1/2"	3φ 4W

- NOTES:
- ALL CONDUCTORS SHALL BE COPPER
 - ALL CONDUIT SHALL HAVE GROUNDING CONDUCTOR INSTALLED.
 - CONDUIT BELOW GRADE OUTSIDE OF BUILDING SHALL BE 1" MINIMUM.
 - SIZING OF CONDUCTORS MUST BE ALTERED FOR DERATING PER N.E.C. OR VOLTAGE DROP CONSIDERATIONS.
 - SEE RISER DIAGRAM FOR SIZING OF CIRCUITS GREATER THAN 100A.
 - USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 277 VOLT BRANCH CIRCUITS LONGER THAN 200 FEET. WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, E.G. SHALL BE INCREASED PROPORTIONATELY. PER NEC 250.122 (B).
 - WHERE MC CABLE IS ALLOWED BY THE AHJ, THE CONDUCTORS FOR MC CABLE SHALL BE THIN JACKET SHALL BE THE MANUFACTURER'S STANDARD SIZE FOR CONDUCTORS UTILIZED.

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		VOLTS	MOUNTING	REMARKS
			QTY	TYPE			
A	LITHONIA	TE-400M-E17-M-277	1	400W PULSE START	277V	ARENA GRID	MAIN HD LIGHTS. TOTALLY ENCLOSED HIGH BAY "PULSE START" DOWNLIGHTS. PROVIDE WITH DCY22-400 (COLOR) CYLINDRICAL DECORATIVE SHADE. COORDINATE FINISH WITH ARCHITECT/OWNER.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
B	LITHONIA	TE-400M-E17-M-277	1	400W PULSE START	277V	ARENA GRID	HOUSE/WORK LIGHTS. TOTALLY ENCLOSED HIGH BAY "PULSE START" DOWNLIGHTS. PROVIDE WITH DCY22-400 (COLOR) CYLINDRICAL DECORATIVE SHADE. COORDINATE FINISH WITH ARCHITECT/OWNER.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
C	KIRLIN	ISR-09067-37	1	500W T4	120V	ARENA GRID	DIMMABLE INCANDESCENT. ROUND HIGH CEILING AREA LIGHT. FORMED CYLINDRICAL METAL HOUSING WITH SPECULAR METAL REFLECTOR. COORDINATE FINISH WITH ARCHITECT/OWNER.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
CA	KIRLIN	ISR-09067-37	1	500W T4	120V	ARENA GRID	ADD ALTERNATE. DIMMABLE INCANDESCENT. ROUND HIGH CEILING AREA LIGHT. FORMED CYLINDRICAL METAL HOUSING WITH SPECULAR METAL REFLECTOR. COORDINATE FINISH WITH ARCHITECT/OWNER.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						
D	KIRLIN	ISR-09067-37	1	500W T4	120V	ARENA GRID	EMERGENCY LIGHT. ROUND HIGH CEILING AREA LIGHT. FORMED CYLINDRICAL METAL HOUSING WITH SPECULAR METAL REFLECTOR. COORDINATE FINISH WITH ARCHITECT/OWNER.
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING						
	OWNER APPROVED EQUAL FROM SESCO LIGHTING						
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING						

GENERAL NOTES

- **GENERAL NOTES APPLY TO ALL ELECTRICAL SHEETS**
- OTHER CONSTRUCTION WORK WILL BE OCCURRING CONCURRENTLY WITH THIS PROJECT. CONTRACTOR SHALL BE AWARE OF THIS AND COORDINATE WITH OTHER CONTRACTORS AND TRADES.
 - DRAWINGS ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO THE ARCHITECT/ ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.
 - EXISTING TO REMAIN ELECTRICAL CIRCUITRY DOWNSTREAM AND UPSTREAM OF DEMOLISHED DEVICES SHALL BE MAINTAINED. PROVIDE ALL ELECTRICAL COMPONENTS (BOXES, CONDUIT, WIRING, ETC.) AS REQUIRED.
 - ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO CUT, CAPTURE AND EXTEND OR REROUTE EXISTING CONDUITS AND CONDUCTORS AS REQUIRED TO ACCOMMODATE NEW DUCTWORK TO BE INSTALLED. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.
 - DO NOT SCALE FROM THESE DRAWINGS.
 - ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
 - ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
 - USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, E.G. SHALL BE INCREASED PROPORTIONATELY. PER NEC 250.122 (B).
 - WHERE NON-FUSED DISCONNECT IS NOT PROVIDED "WITHIN SIGHT" OF MOTOR (OR HEATER UNIT), FEEDER (AND/OR BRANCH CIRCUIT) OVER-CURRENT DEVICE SERVING SUCH MOTOR (OR HEATER) SHALL HAVE APPROVED "LOCKED-OFF" PROVISION.
 - ALL EXISTING LIGHTING CIRCUITS SHALL REMAIN IN PLACE AND BE RE-CONNECTED TO NEW RELAY AND DIMMING CABINETS.

ADD ALTERNATE #1

- THEATRICAL STAGE LIGHTING FOR WEST END STAGE POSITION.
- PROVIDE AND INSTALL (6) LEVITON "A200D-012" DUAL 20A INCANDESCENT DIMMERS, (3) EACH IN "D1N-1015" AND "D1N-1038" DIMMER PANELS.
 - PROVIDE AND INSTALL (2) 30' LONG LEVITON DISTRIBUTION EQUIPMENT CONNECTOR STRIPS WITH (12) STAGE PIN CONNECTORS ON 18" PIGTAILS ON (6) CIRCUITS. PROVIDE WITH SINGLE PIPE HANGERS AND CIRCUIT NUMBERS.
 - CONNECTOR STRIPS SHALL BE MOUNTED TO BOTTOM OF STRUCTURE ON WEST END OF ARENA. COORDINATE FINAL LOCATION WITH OWNER.
 - PROVIDE AND INSTALL (12) 20A/120VAC CIRCUITS TO CONNECTOR STRIPS, (6) EACH FROM "D1N-1015" TO CONNECTOR STRIP #1 AND FROM "D1N-1038" TO CONNECTOR STRIP #2.

ADD ALTERNATE #2

- THEATRICAL SPOTLIGHTS FOR WEST END STAGE POSITION.
- PROVIDE THE FOLLOWING ITEMS FOR OWNER INSTALLATION:
- (12) LEVITON "LEL26-05B" LEO ELLIPSOIDAL SPOTLIGHTS. 26 DEGREE BEAM ANGLE. INCLUDES C-CLAMP, COLOR FRAME, CORD, AND STAGE PIN CONNECTOR.
 - (4) LEVITON "LELAC-PTN" PATTERN HOLDERS.
 - (14) LEVITON "LOGLA-000" GLA LAMPS, 575W, 115V, 3050K, 1500HR.

ADD ALTERNATE #3

- ADDITIONAL DIMMABLE INCANDESCENT FIXTURES.
- PROVIDE AND INSTALL (36) "CA" FIXTURES AS SHOWN ON FLOOR PLANS E-3.0 AND E-3.1.
 - CONNECT "CA" FIXTURES TO EXISTING CIRCUITS FOR "C" FIXTURES ON ARENA LIGHTING GRIDS.
- NOTE: ADD ALTERNATE #1 AND ADD ALTERNATE #2 ARE IN "MANATEE COUNTY CONVENTION CENTER ARENA LOBBY" PROJECT.

ELECTRICAL SHEET INDEX

SHEET	DESCRIPTION
E-4.0	ARENA LIGHTING - ELECTRICAL SCHEDULES, NOTES, AND SPECIFICATIONS
E-4.1	ARENA LIGHTING - ELECTRICAL EXISTING ARENA CEILING PLAN
E-4.2	ARENA LIGHTING - ELECTRICAL PROPOSED SOUTH ARENA PLAN
E-4.3	ARENA LIGHTING - ELECTRICAL PROPOSED NORTH ARENA PLAN

PREPARED BY:
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 PALMETTO, FLORIDA
 1 HABEN BOULEVARD

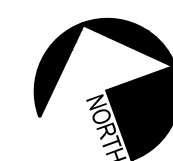
RENOVATE ARENA LIGHTING FOR:
MANATEE COUNTY CONVENTION CENTER
 PALMETTO, FLORIDA

JOB NO	1019-H
DATE	Apr. 8, 2011
DRAWN	PJF
CHECKED	PJF
REVISIONS	
ISSUED FOR BID	
April 19, 2011	
ELECTRICAL BID SET	
July 7, 2011	



LEGEND

REP REPLACE EXISTING DEVICE WITH NEW DEVICE.
MAINTAIN EXISTING CIRCUIT.



1 ELECTRICAL EXISTING ARENA CEILING PLAN
1/16" = 1'-0"

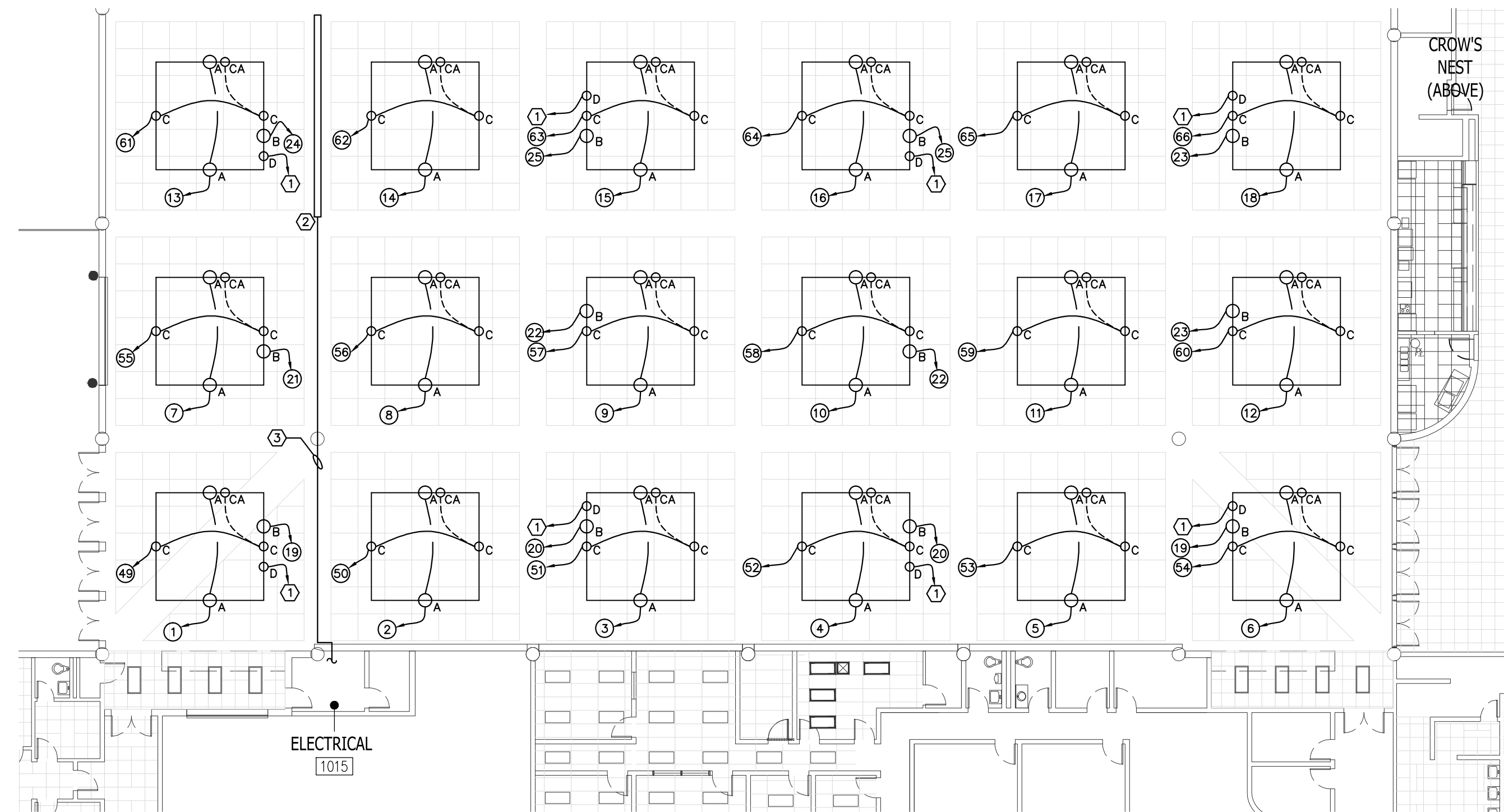
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RENOVATE ARENA LIGHTING FOR:
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E-4.1



1 ELECTRICAL PROPOSED SOUTH ARENA CEILING PLAN
1/16" = 1'-0"

CONTROL PANEL TERMINATION INFORMATION PROVIDED ON THIS SHEET FOR REFERENCE ONLY. LIGHTING CIRCUIT TERMINATIONS AT LIGHTING CONTROLS CABINETS TO BE PERFORMED WITH ARENA LOBBY PORTION.

SOUTH ARENA LIGHTING CIRCUITS		
277V		120V
HID LIGHTS	ALCOVES	DIMMABLE LIGHTS
① R-100	26 R-400	49 D-37
② R-101	27 R-401	50 D-38
③ R-102	BASKETBALL	
④ R-103	28 R-500	51 D-39
⑤ R-104	29 R-501	52 D-40
⑥ R-105	PARKING LOT	
⑦ R-106	30 R-913	53 D-41
⑧ R-107	31 R-914	54 D-42
⑨ R-108	32 FUTURE LANDSCAPE LIGHTING	55 D-43
⑩ R-109	33 FUTURE LANDSCAPE LIGHTING	56 D-44
⑪ R-110	34 SPARE	57 D-45
⑫ R-111	35 SPARE	58 D-46
⑬ R-112	36 SPARE	59 D-47
⑭ R-113	37 SPARE	60 D-48
⑮ R-114	38 SPARE	61 D-49
⑯ R-115	39 SPARE	62 D-50
⑰ R-116	40 SPARE	63 D-51
⑱ R-117	41 SPARE	64 D-52
	42 SPARE	65 D-53
	43 SPARE	66 D-54
	44 SPARE	67 SPACE, SEE ADD ALTERNATE #1
	45 SPARE	68 SPACE, SEE ADD ALTERNATE #1
	46 SPARE	69 SPACE, SEE ADD ALTERNATE #1
	47 SPARE	70 SPACE, SEE ADD ALTERNATE #1
	48 SPARE	71 SPACE, SEE ADD ALTERNATE #1
	49 SPARE	72 SPACE, SEE ADD ALTERNATE #1
WORK LIGHTS		
19 R-300		
20 R-301		
21 R-302		
22 R-303		
23 R-304		
24 R-305		
25 R-306		

Ⓧ D-XXX DENOTES EXISTING RELAY CIRCUIT
Ⓧ R-XXX DENOTES EXISTING DIMMER CIRCUIT

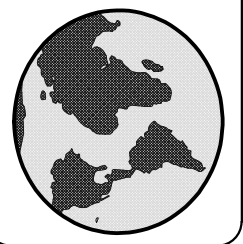
LEGEND	
ETR	EXISTING TO REMAIN
REM	REMOVE EXISTING DEVICE
REP	REPLACE EXISTING DEVICE WITH NEW DEVICE. MAINTAIN EXISTING CIRCUIT.
REL	RELOCATE EXISTING DEVICE
NEW	NEW DEVICE IN EXISTING LOCATION

KEYED NOTES	
①	CONNECT NEW FIXTURE TO EXISTING LIFE SAFETY CIRCUIT.

ADD ALTERNATE KEYED NOTES	
②	DISTRIBUTION EQUIPMENT CONNECTOR STRIP, APPROXIMATE LOCATION. SEE ADD ALTERNATE #1, SHEET E4.0.
③	PROVIDE AND INSTALL (6) 20A/120VAC CIRCUITS TO CONNECTOR STRIPS FROM "D1N-1015". SEE ADD ALTERNATE #1 SHEET E1.0.

2 ELECTRICAL PROPOSED LIGHTING CONTROLS SCHEDULES
NO SCALE

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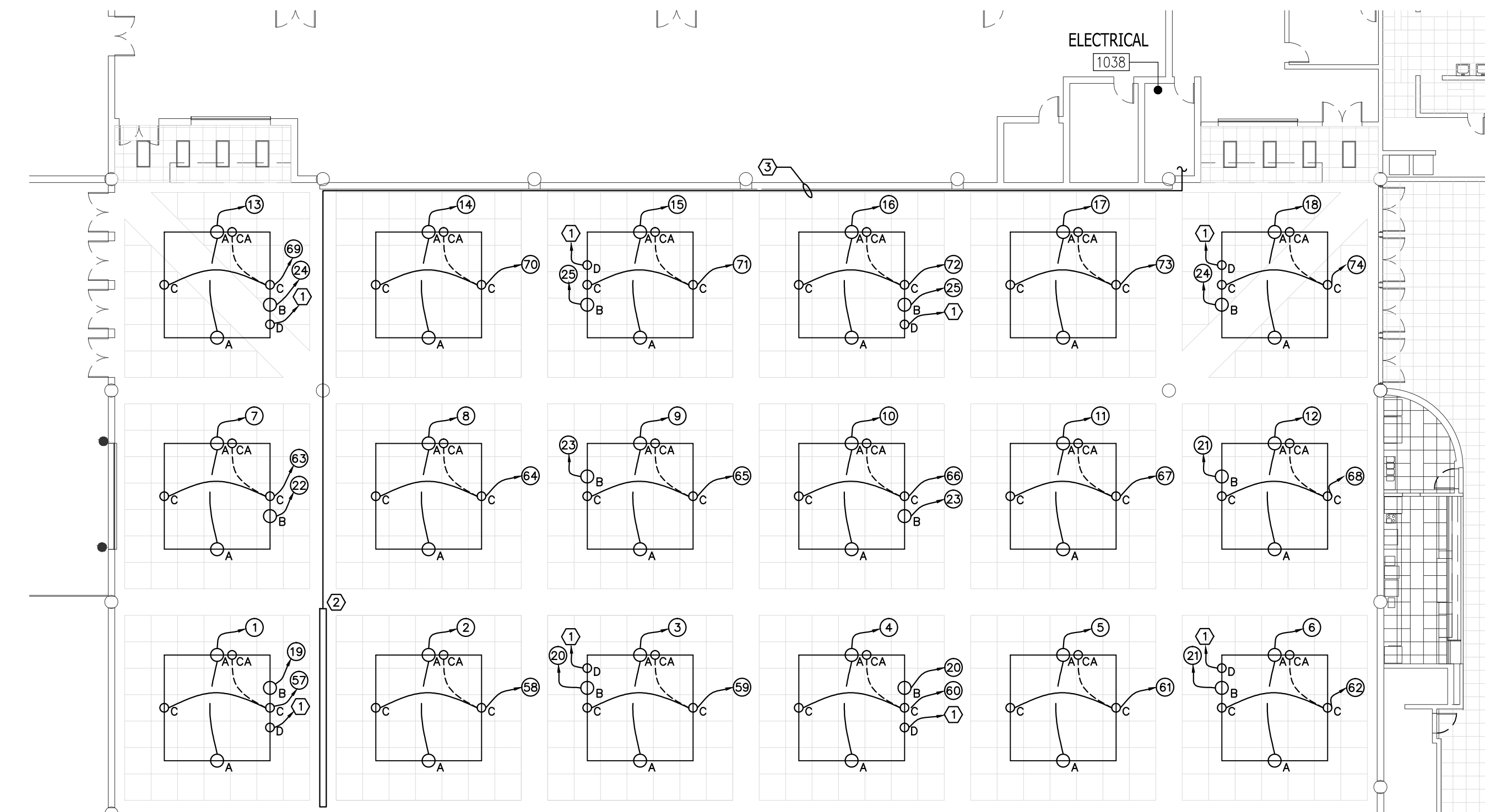


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RENOVATE ARENA LIGHTING FOR:
MANATEE COUNTY CONVENTION CENTER
PALMETTO, FLORIDA
1 HABEN BOULEVARD

JOB NO 1019-H
DATE Apr. 8, 2011
DRAWN P.J.F.
CHECKED P.J.F.
REVISIONS
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E-4.2



1 ELECTRICAL PROPOSED NORTH ARENA CEILING PLAN
1/16" = 1'-0"

CONTROL PANEL TERMINATION INFORMATION PROVIDED ON THIS SHEET FOR REFERENCE ONLY. LIGHTING CIRCUIT TERMINATIONS AT LIGHTING CONTROLS CABINETS TO BE PERFORMED WITH ARENA LOBBY PORTION.

NORTH ARENA LIGHTING CIRCUITS			
277V		120V	
HID LIGHTS	ALCOVE LIGHTS	BLEACHER AISLES	DIMMABLE LIGHTS
1 R-118	26 R-402	49 R-700	57 D-55
2 R-119	27 R-403	50 R-701	58 D-56
3 R-120	BASKETBALL LIGHTS		59 D-57
4 R-121	28 R-502	LANDSCAPE LIGHTING	
5 R-122	29 R-503	51 R-920	60 D-58
6 R-123	EXTERIOR SECURITY LIGHTS		61 D-59
7 R-124	30 R-900	52 R-921	62 D-60
8 R-125	31 R-901	53 R-922	63 D-61
9 R-126	32 R-902	54 PC	64 D-62
10 R-127	33 R-903	55 FUTURE LANDSCAPE LIGHTING	65 D-63
11 R-128	COMMON AREA LIGHTS		66 D-64
12 R-129	34 R-908	56 SPARE	67 D-65
13 R-130	35 R-908		68 D-66
14 R-131	36 R-909		69 D-67
15 R-132	37 R-910		70 D-68
16 R-133	38 R-911		71 D-69
17 R-134	EXTERIOR - PARKING LOT		72 D-70
18 R-135	39 R-912		73 D-71
WORK LIGHTS			74 D-72
19 R-307	40 R-915		75 SPACE, SEE ADD ALTERNATE #1
20 R-308	41 R-916		76 SPACE, SEE ADD ALTERNATE #1
21 R-309	42 R-917		77 SPACE, SEE ADD ALTERNATE #1
22 R-310	43 R-918		78 SPACE, SEE ADD ALTERNATE #1
23 R-311	44 R-919		79 SPACE, SEE ADD ALTERNATE #1
24 R-312	45 FUTURE LANDSCAPE LIGHTING		80 SPACE, SEE ADD ALTERNATE #1
25 R-313	46 FUTURE LANDSCAPE LIGHTING		
	47 FUTURE LANDSCAPE LIGHTING		
	48 SPARE		

Ⓧ D-XXX DENOTES EXISTING RELAY CIRCUIT
Ⓧ R-XXX DENOTES EXISTING DIMMER CIRCUIT

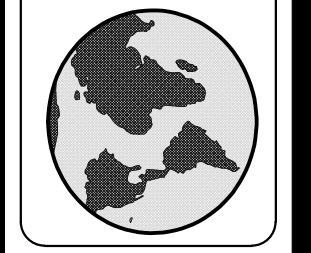
LEGEND	
ETR	EXISTING TO REMAIN
REM	REMOVE EXISTING DEVICE
REP	REPLACE EXISTING DEVICE WITH NEW DEVICE. MAINTAIN EXISTING CIRCUIT.
REL	RELOCATE EXISTING DEVICE
NEW	NEW DEVICE IN EXISTING LOCATION

KEYED NOTES	
1	CONNECT NEW FIXTURE TO EXISTING LIFE SAFETY CIRCUIT.

ADD ALTERNATE KEYED NOTES	
2	DISTRIBUTION EQUIPMENT CONNECTOR STRIP. APPROXIMATE LOCATION. SEE ADD ALTERNATE #1, SHEET E4.0.
3	PROVIDE AND INSTALL (6) 20A/120VAC CIRCUITS TO CONNECTOR STRIPS FROM "DIN-1015". SEE ADD ALTERNATE #1 SHEET E1.0.

2 ELECTRICAL PROPOSED LIGHTING CONTROLS SCHEDULES
NO SCALE

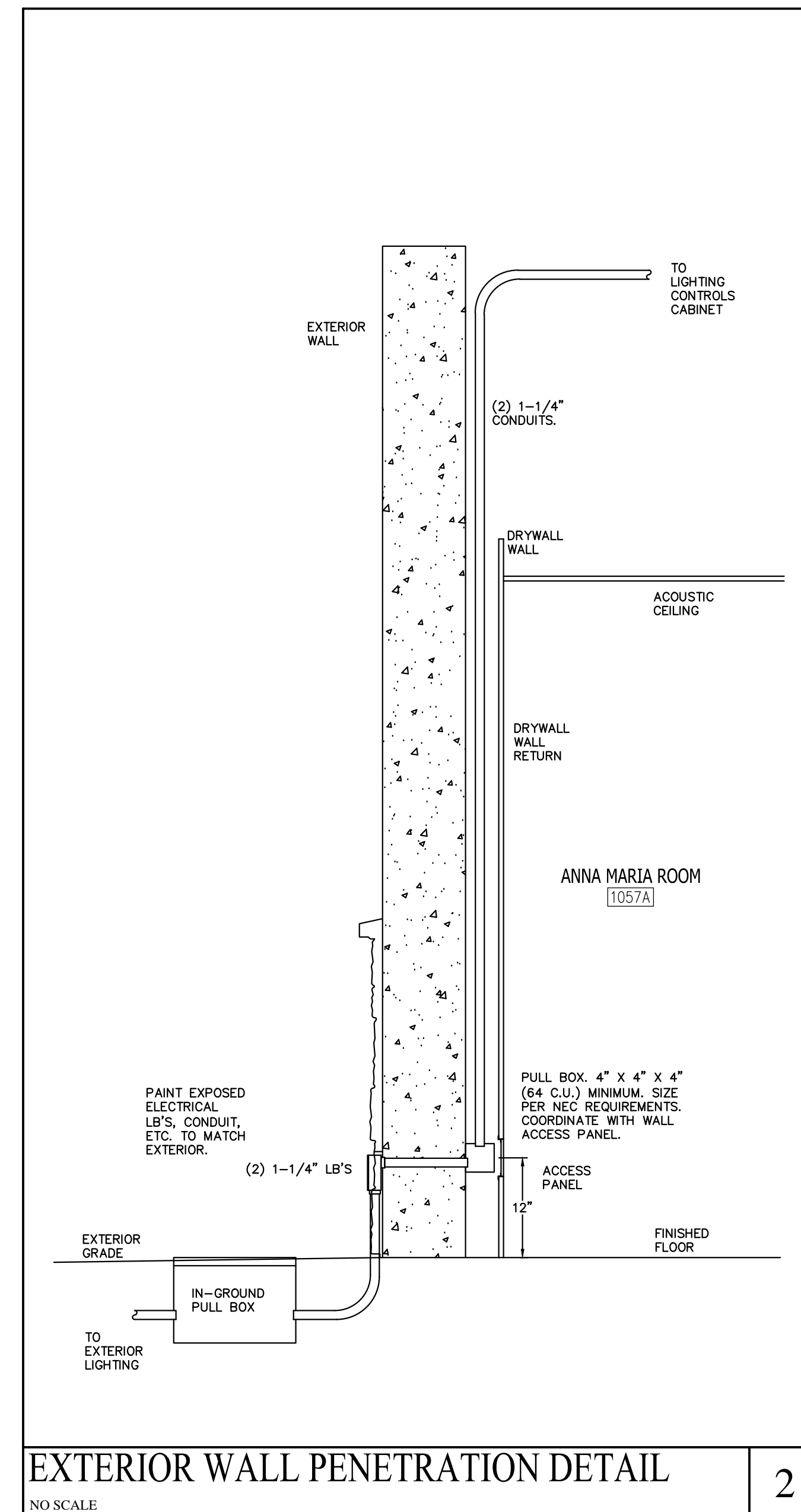
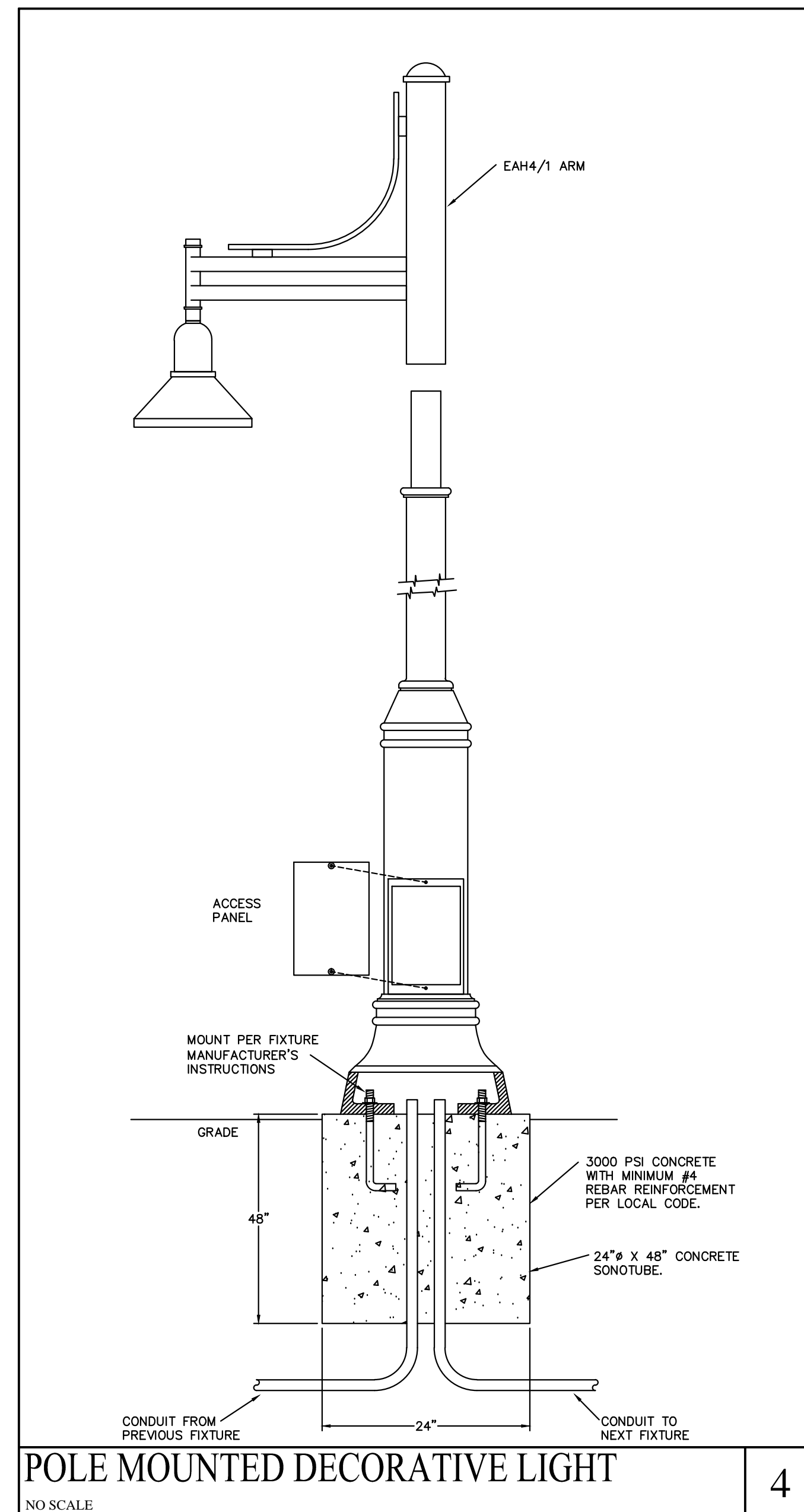
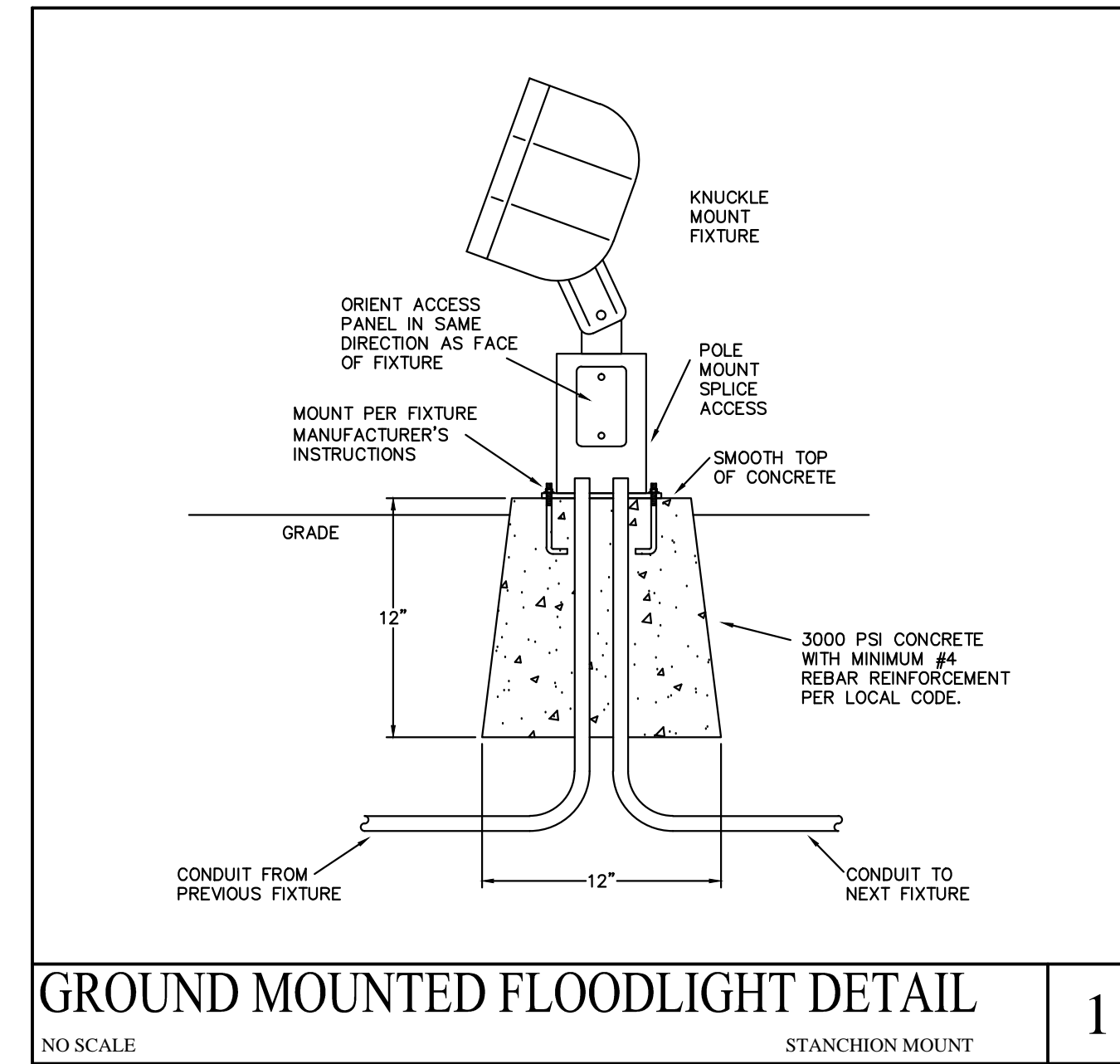
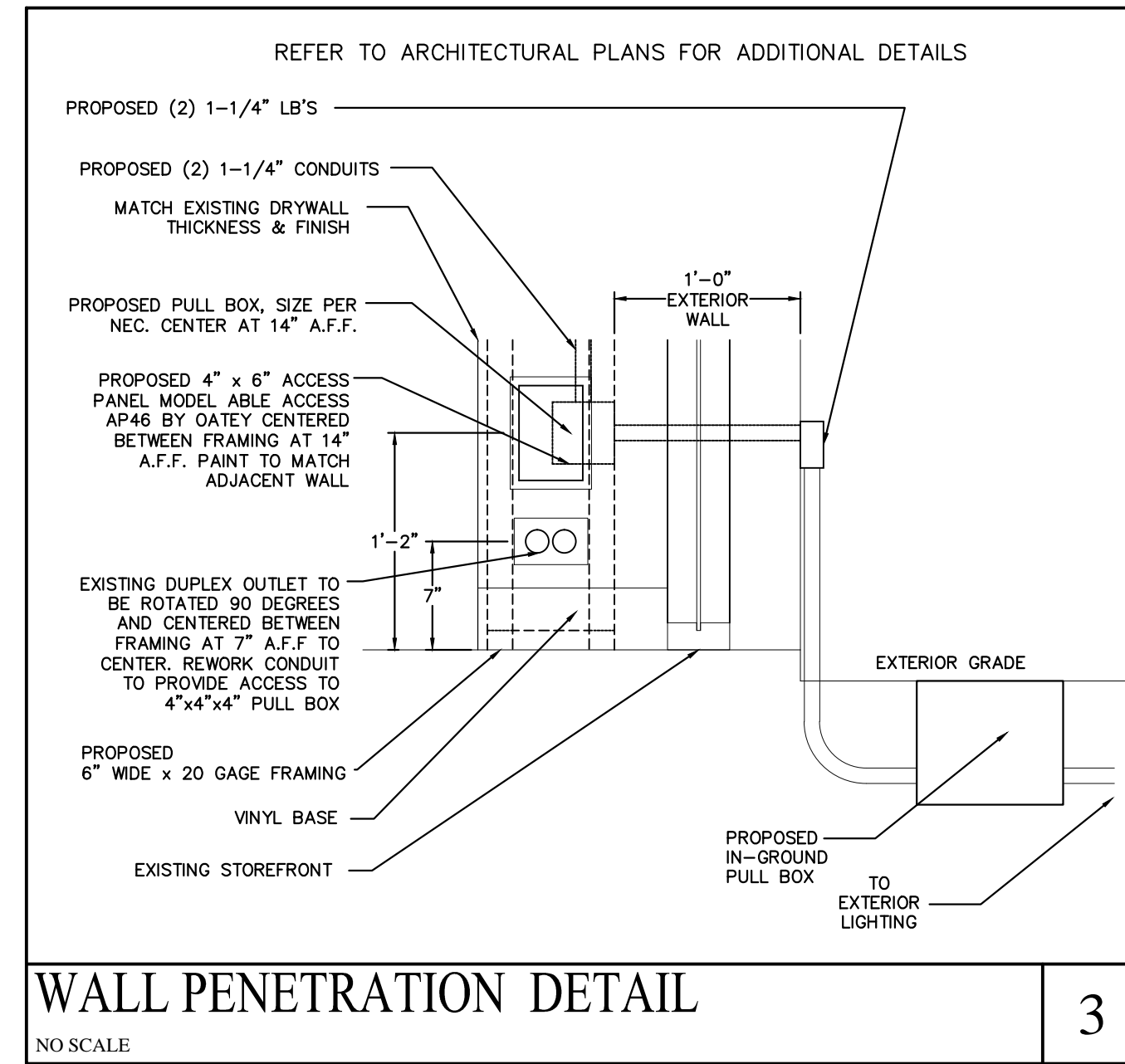
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RENOVATE ARENA LIGHTING FOR:
MANATEE COUNTY CONVENTION CENTER
PALMETTO, FLORIDA
1. HABEN BOULEVARD

JOB NO 1019-H
DATE Apr. 8, 2011
DRAWN P.J.F.
CHECKED P.J.F.
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July 7, 2011



LIGHT FIXTURE SCHEDULE						
TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		MOUNTING	REMARKS
			QTY	VOLTS		
N	LITHONIA	WSR-2/42TRT-MDU-277	2	42W TRT	277V	PERGOLA TRUSS
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING					
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING					
P	LITHONIA	WSR-2/42TRT-MD-277	2	42W TRT	277V	PERGOLA TRUSS
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING					
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING					
Q	HYDREL	7100-100M-120/277-WFL-KM-PSSA	1	70W MH	120/277V	KNUCKLE
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING					
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING					
R	EUROTIQUE	EM175T-70M MED-GCF-SR55-SF	1	70W MH	120V	X
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING					
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING					
S	ANP LIGHTING	BL6011-70W MH-LOUV	1	70W MH	120V	SIDEWALK/CONCRETE BASE
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING					
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING					
T	LUMUX	UD410-PL32-277	2	32W	277V	PERGOLA POST
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING					
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING					
U	GOHAM	LAF-2/42TRT-11RW-173-MVOLT	2	42W TRT	120/277V	CEILING MOUNT
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING					
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING					
V	LITHONIA	PGR-150M-277	1	150W MH	277V	SURFACE MOUNT
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING					
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING					
W	LITHONIA	WSR-150M-FT-277	1	150W MH	277V	WALL MOUNT
	OWNER APPROVED EQUAL FROM TAMPA BAY LIGHTING					
	OWNER APPROVED EQUAL FROM WEST. FL. LIGHTING					

NOTE: ELECTRICAL CONTRACTOR SHALL COORDINATE ALL LIGHTING FIXTURE COLORS/FINISHES WITH ARCHITECT/OWNER.

ELECTRICAL SYMBOL LEGEND	
WIRING DEVICES	
NOTE: THE FOLLOWING ABBREVIATIONS APPLY TO WIRING DEVICES WHERE INDICATED:	
"WP"	INDICATES WEATHERPROOF WHILE-IN-USE ENCLOSURE. ENCLOSURE SHALL HAVE LOCKABLE COVER.
"EWC"	INDICATES DEVICE MOUNTED BEHIND ELECTRIC WATER COOLER ENCLOSURE. COORDINATE DEVICE LOCATION WITH PLUMBING CONTRACTOR AND APPROVED SHOP DRAWINGS PRIOR TO ROUGH-IN.
"H"	INDICATES HORIZONTALLY MOUNTED WIRING DEVICE.
"R"	INDICATES DEVICE SHALL BE A RED COLOR. DEVICE IS CONNECTED TO A CIRCUIT FED FROM THE GENERATOR (IF APPLICABLE).
"FDB"	INDICATES RECEPTACLE MOUNTED IN FLOOR DUCT. INSTALL ACCESSORIES FOR MOUNTING OF RECEPTACLE IN FLOOR DUCT SYSTEM.
□ GFI	20 AMP GFCI TYPE DUPLEX RECEPTACLE, RECESS MOUNT 18" AFF TO CENTER OF BACKBOX.

GENERAL NOTES	
GENERAL NOTES APPLY TO ALL ELECTRICAL SHEETS	
1.	DRAWINGS ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO THE ARCHITECT/ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.
2.	EXISTING TO REMAIN ELECTRICAL CIRCUITRY DOWNSTREAM AND UPSTREAM OF DEMOLISHED DEVICES SHALL BE MAINTAINED. PROVIDE ALL ELECTRICAL COMPONENTS (BOXES, CONDUIT, WIRING, ETC.) AS REQUIRED.
3.	ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO CUT, CAPTURE AND EXTEND OR REROUTE EXISTING CONDUITS AND CONDUCTORS AS REQUIRED TO ACCOMMODATE NEW DUCTWORK TO BE INSTALLED. COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.
4.	DO NOT SCALE FROM THESE DRAWINGS.
5.	ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
6.	ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
7.	USE 10 AWG CU CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU WHERE WIRE SIZE IS INCREASED IN SIZE FOR VOLTAGE DROP, E.G SHALL BE INCREASED PROPORTIONATELY, PER NEC 250.122 (B).
8.	WHERE NON-FUSED DISCONNECT IS NOT PROVIDED "WITHIN SIGHT" OF MOTOR (OR HEATER UNIT), FEEDER (AND/OR BRANCH CIRCUIT) OVER-CURRENT DEVICE SERVING SUCH MOTOR (OR HEATER) SHALL HAVE APPROVED "LOCKED-OFF" PROVISION.

ELECTRICAL SHEET INDEX	
SHEET	DESCRIPTION
E-5.0	ELECTRICAL SCHEDULES AND NOTES
E-5.1	ELECTRICAL EXISTING EXTERIOR LIGHTING
E-5.2	ELECTRICAL PROPOSED EXTERIOR LIGHTING

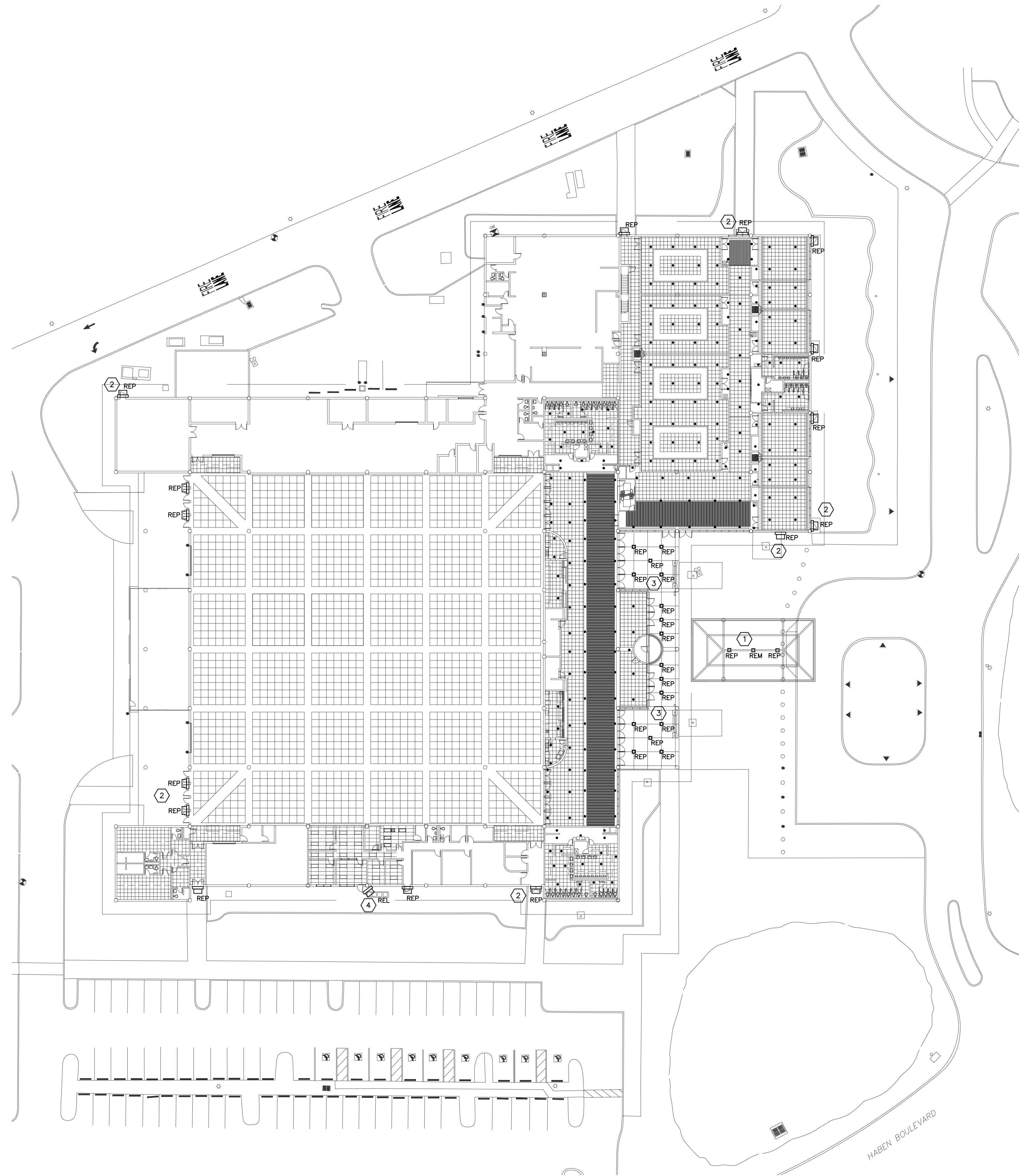
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 1 HABEN BOULEVARD
 PALMETTO, FLORIDA

PROPOSED EXTERIOR RENOVATIONS FOR:
MANATEE COUNTY CONVENTION CENTER

JOB NO 1019-A
 DATE Apr. 8, 2011
 DRAWN P/JF
 CHECKED P/JF
 REVISIONS
 ISSUED FOR BID
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 July 7, 2011

E-5.0



- DEMOLITION KEYED NOTES**
- 1 REMOVE EXISTING CONDUIT UNDER CANOPY. INSTALL NEW CONDUIT AND BOXES ABOVE BOTTOM OF BEAM.
 - 2 DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING WALL MOUNT LIGHTS. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE. TYPICAL.
 - 3 DISCONNECT EXISTING ELECTRICAL SERVICE AND REMOVE EXISTING FIXTURES IN HARD CEILING AREA. PATCH AND REPAIR FINISH AS NEEDED TO PREPARE FOR NEW FIXTURES. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE. TYPICAL.
 - 4 REMOVE EXISTING SPOT LIGHT FIXTURE. PATCH AND REPAIR EXISTING FINISH. CAP AND MAINTAIN EXISTING CIRCUITING AND MAKE SAFE FOR RE-USE.

- LEGEND**
- ETR EXISTING TO REMAIN
 - REM REMOVE EXISTING DEVICE
 - REP REPLACE EXISTING DEVICE WITH NEW DEVICE. MAINTAIN EXISTING CIRCUIT.
 - REL REMOVE EXISTING DEVICE. INSTALL NEW FIXTURE IN NEW LOCATION.
 - NEW NEW DEVICE IN EXISTING LOCATION

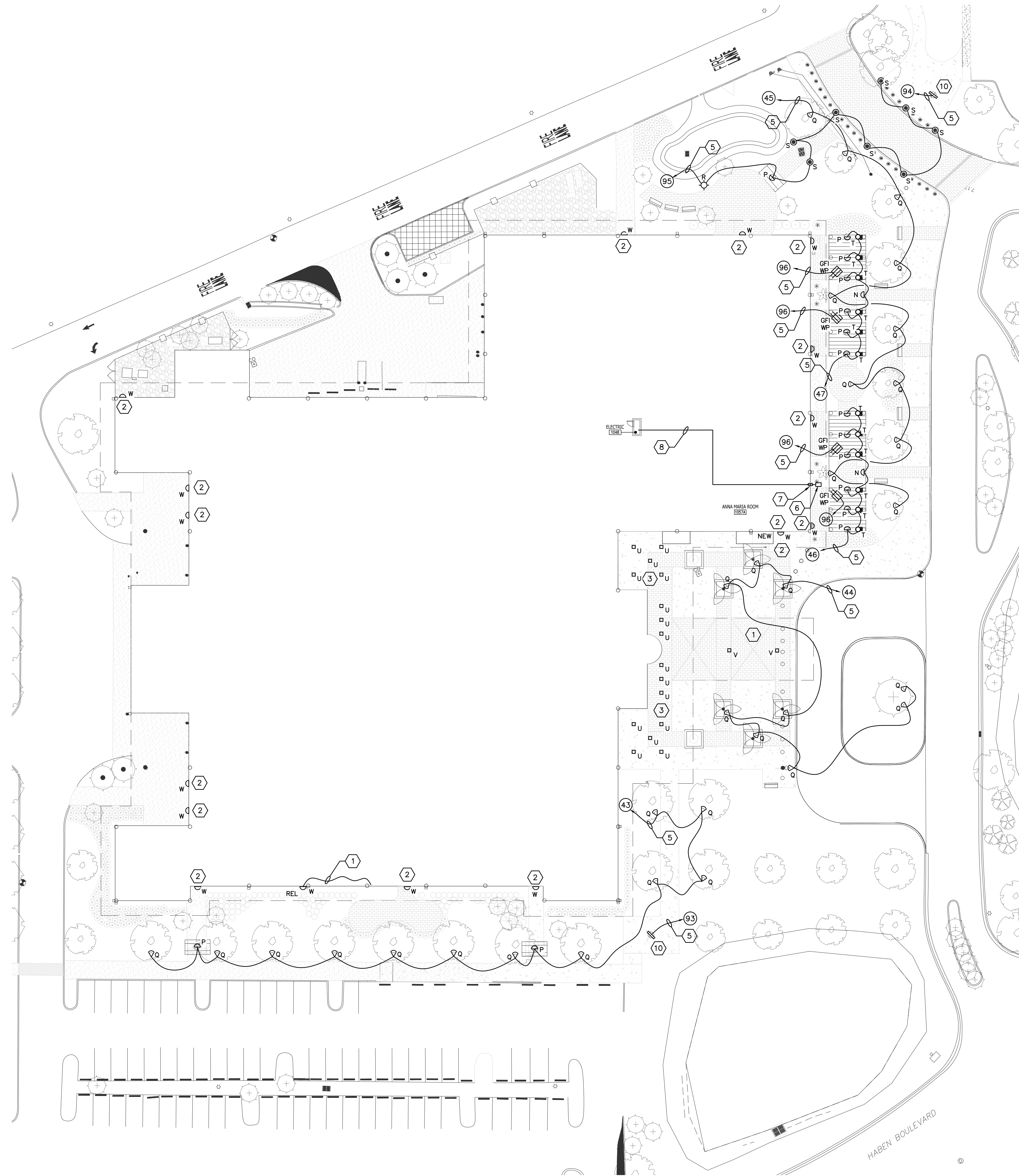
1 ELECTRICAL EXISTING EXTERIOR LIGHTING
 1/32" = 1'-0"

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PROPOSED EXTERIOR RENOVATIONS FOR:
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 PALMETTO, FLORIDA
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 July 7, 2011



- KEYED NOTES**
- 1 INSTALL NEW FIXTURES IN CANOPY. INSTALL NEW CONDUIT AND JUNCTION BOXES ABOVE BOTTOM OF BEAM. PROVIDE WATER-TIGHT SURFACE MOUNT OUTLET BOX TO MAINTAIN WET LOCATION LISTING FOR NEW FIXTURE.
 - 2 INSTALL NEW FIXTURES. EXTEND EXISTING CIRCUITING TO NEW FIXTURES. TYPICAL.
 - 3 INSTALL NEW FIXTURES IN HARD CEILING. EXTEND EXISTING CIRCUITING TO NEW FIXTURES. TYPICAL.
 - 4 EXTEND EXISTING CIRCUIT TO NEW FIXTURE LOCATION.
 - 5 EXTEND NEW CIRCUIT TO LIGHTING CONTROLS CABINET IN ROOM 1048 VIA IN-GROUND JUNCTION BOX. SEE KEYED NOTES #6, 7, 8, AND 9.
 - 6 IN-GROUND JUNCTION BOX FOR EXTERIOR LIGHTING CIRCUITS.
 - 7 EXTERIOR LIGHTING WALL PENETRATION. SEE DETAIL #2, SHEET E-5.0. COORDINATE WITH ARCHITECTURAL ELEVATIONS.
 - 8 (2) 1-1/4" CONDUITS TO LIGHTING CONTROLS CABINET IN ROOM 1048.
 - 9 EXTERIOR GFCI RECEPTACLE WITH WEATHER-PROOF WHILE IN USE COVER. FLUSH MOUNT IN PERGOLA COLUMN.
 - 10 LIGHTED KIOSK BY OTHERS. REFER TO HARDSCAPE DRAWINGS. MAKE FINAL ELECTRICAL CONNECTIONS.

- LEGEND**
- | | |
|------|---|
| ETR | EXISTING TO REMAIN |
| REM | REMOVE EXISTING DEVICE |
| REP | REPLACE EXISTING DEVICE WITH NEW DEVICE. MAINTAIN EXISTING CIRCUIT. |
| REL | REMOVE EXISTING DEVICE. INSTALL NEW FIXTURE IN NEW LOCATION. |
| NEW | NEW DEVICE IN EXISTING LOCATION |
| (72) | CONFERENCE CENTER LIGHTING CONTROL CIRCUIT NUMBER. |

1 ELECTRICAL PROPOSED EXTERIOR LIGHTING
 1/32" = 1'-0"

PREPARED BY:
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PROPOSED EXTERIOR RENOVATIONS FOR:
MANATEE COUNTY
CONVENTION CENTER
 PALMETTO, FLORIDA
 1 HABEN BOULEVARD

JOB NO 1019-A
 DATE Apr. 8, 2011
 DRAWN P/JF
 CHECKED P/JF
 REVISIONS
 ISSUED FOR BID
 April 19, 2011
 ELECTRICAL BID SET
 July 7, 2011

