

REQUEST FOR PROPOSAL

Interstate Underpass Gateway Lighting



Solicitation No: 2026-09-1500

Proposal Opening Date: October 13, 2026

Proposal Opening Time: 2:00 pm CST

NOTE TO PROPOSERS:

- 1) Submit the separate set of Proposal Forms with all required information as your Proposal.**
- 2) Retain the complete set of Specifications and Contract Documents for your file.**

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REQUEST FOR PROPOSAL

for

Interstate Underpass Gateway Lighting

PART I. ADMINISTRATIVE AND GENERAL INFORMATION

1.1 Background / Purpose / Goals and Objectives

The purpose of this RFP is to assign a project to install an underpass gate lighting mock-up serving both aesthetic and safety purposes for review and evaluation by the necessary approving entities [DOTD, City of Baton Rouge, Designer, Downtown Development District (DDD)] prior to moving forward with future construction / installation.

1.2 Definitions

Shall - The term "shall" denotes mandatory requirements.

Must - The terms "must" denotes mandatory requirements.

May - The term "may" denotes an advisory or permissible action.

Should - The term "should" denote desirable.

Contractor - Any person having a contract with a governmental body.

Agency - Any department, commission, council, board, office, bureau, committee, institution, agency, government, corporation, or another establishment of the City-Parish authorized to participate in any contract resulting from this solicitation.

State - The State of Louisiana.

Department – Mayor's Office of Homeland Security and Emergency Preparedness (MOHSEP).

Director - Director of Purchasing.

City-Parish - City of Baton Rouge-Parish of East Baton Rouge.

Discussions - For the purposes of this RFP presentation, a formal, structured means of conducting written or oral communications/presentations with responsible proposers who submit proposals in response to this RFP.

1.3 Schedule of Events

Item	Anticipated Schedule
RFP advertised in the newspaper and posted to LaPAC and Central Bidding and Bids & Contracts. RFP emailed or mailed to prospective proposers.	August 31, 2026
Mandatory Preproposal Meeting / Site Visit Corner of Louisiana Avenue and S. 10th Street, Baton Rouge, LA 70802. The nearest street address is 982 Louisiana Ave.	September 21, 2026, 1:30 pm CST
Deadline to receive written inquiries	September 28 2026, 4:00 pm CST
Deadline to answer written inquiries	October 5, 2026 5:00 pm CST
Proposal Opening Date (<i>deadline for submitting proposals</i>)	October 13, 2026, 2:00 pm CST
Oral Presentations (If Needed)	NA
Anticipated Notice to Proceed	December 1 2026
Contract/Plan Year Effective Date	December 1, 2026

NOTE: The City-Parish reserves the right to deviate from these dates.

1.4 Proposal Submittal

This RFP is available in PDF format or in printed form by submitting a written request to the RFP Contact. (See Section 1.7.1 for this RFP contact)

All proposals shall be received by Purchasing **no later than the date and time shown in the Schedule of Events.**

Important - - Clearly mark outside of the envelope, box, or package with the following information and format:

Proposal Name: Interstate Underpass Gateway Lighting
Solicitation No: 2026-09-1500
Proposal Opening Date & Time: October 13 2026, 2pm CST

Proposers are hereby advised that the U. S. Postal Service does not make deliveries to our physical location.

Proposals may be delivered by hand or courier service to our physical location at:

City of Baton Rouge-Parish of East Baton Rouge
Purchasing Division
222 Saint Louis Street, Room 826
Baton Rouge, LA 70802

Or mailed to:

City of Baton Rouge-Parish of East Baton Rouge
Purchasing Division
222 Saint Louis Street, Room 826
Baton Rouge, LA 70802

Proposer is solely responsible for ensuring that its courier service provider makes inside deliveries to our physical location. Purchasing is not responsible for any delays caused by the proposer's chosen means of proposal delivery.

Proposer is solely responsible for the timely delivery of its proposal. Failure to meet the proposal's opening date and time shall result in rejection of the proposal.

PROPOSALS SHALL BE OPENED PUBLICLY AND ONLY PROPOSERS SUBMITTING PROPOSALS SHALL BE IDENTIFIED ALOUD. PRICES, IF PROVIDED, SHALL NOT BE READ.

1.5 Proposal Response Format

Proposals submitted for consideration should follow the format and order of presentation described below:

- A. **Cover Letter:** Containing summary of Proposer's ability to perform the services described in the RFP and confirms that Proposer is willing to perform those services and enter into a contract with the City-Parish. By signing the letter and/or the proposal, the proposer certifies compliance with the authority required in accordance with Louisiana law. The person signing the proposal must be:

- A current corporate officer, partnership member, or other individual specifically authorized to submit a proposal as reflected in the appropriate records on file with the secretary of state; or
- An individual authorized to bind the company as reflected by a corporate resolution, certificate or affidavit; or
- Other documents indicating authority which are acceptable to the public entity.

Proposers should exhibit their understanding and approach to the project and address how each element will be accomplished.

The cover letter should also:

- Identify the submitting Proposer;
- Identify the name, title, address, telephone number, fax number, and email address of each person authorized by the Proposer to contractually obligate the Proposer;
- Identify the name, address, telephone number, fax number, and email address of the contact person for technical and contractual clarifications throughout the evaluation period.
- A declarative statement as to whether the Submitter or any member of the Submitter's Team has an open dispute with the City or Parish or is involved in any litigation associated with work in progress or completed in to the private and public sector during the past five (5) years.

- B. **Table of Contents**: Organized in the order cited in the format contained herein.
- C. **Proposer Qualifications and Experience**: History and background of Proposer with related services to government entities, inside the state and outside, financial strength and stability, existing customer satisfaction, demonstrated volume of merchants, etc. (See Section 3.1).
- D. **Financial Proposal**: Proposer's fees and other costs, if any, shall be submitted. This financial proposal shall include any and all costs the Contractor wishes to have considered in the contractual arrangement with the City-Parish. S(see Section 3.2)
- E. **Project Schedule**: Detailed schedule of implementation plan for preliminary work and full project implementation. This schedule is to include implementation actions, timelines, responsible parties, etc. (See Section 3.3).
- F. **Prior Projects** Submitter shall provide a list of the three (3) projects the firm has under completed (See Section 3.4).
- G. **RFP Compliance**: Illustrating and describing compliance with the RFP requirements.
- H. **Veteran and Hudson Initiative Programs Participation**
The State of Louisiana Veteran and Hudson Initiatives are designed to provide additional opportunities for Louisiana-based small entrepreneurships (sometimes referred to as LaVet's and SE's respectively) to participate in contracting and procurement with the State. A certified Veteran-Owned and Service-Connected Disabled Veteran-Owned small entrepreneurship (LaVet) and a Louisiana Initiative for Small Entrepreneurships (Hudson Initiative) small entrepreneurship are businesses that have been certified by the Louisiana Department of Economic Development.

All eligible vendors are encouraged to become certified. Qualification requirements and online certification are available at: Department of Economic Development. All eligible vendors are encouraged to become certified. Qualification requirements and online certification are available at: <https://smallbiz.louisianaeconomicdevelopment.com>.

If a Proposer is not a certified small entrepreneurship as described herein, but plans to use certified small entrepreneurship(s), Proposer shall include in their proposal the names of their certified Veteran Initiative or Hudson Initiative small entrepreneurship subcontractor(s), a description of the work each will perform, and the dollar value of each subcontract.

During the term of the contract and at expiration, the Contractor will also be required to report Veteran-Owned and Service-Connected Disabled Veteran-Owned and Hudson Initiative small entrepreneurship subcontractor or distributor participation and the dollar amount of each.

In RFP's requiring the compliance of a good faith subcontracting plan, the City-Parish may require Proposers to submit information on their business relationships and arrangements with certified LaVet or Hudson Initiative subcontractors at the time of proposal review. Agreements between a Proposer and a certified LaVet or Hudson Initiative subcontractor in which the certified LaVet or Hudson Initiative subcontractor promises not to provide subcontracting quotations to other Proposers shall be prohibited.

If performing its evaluation of proposals, the City-Parish reserves the right to require a non-certified Proposer to provide documentation and information supporting a good faith subcontracting plan. Such proof may include contracts between Proposer and certified Veteran Initiative and/or Hudson Initiative subcontractor(s).

If a contract is awarded to a Proposer who proposed a good faith subcontracting plan, City-Parish may audit Contractor to determine whether Contractor has complied in good faith with its subcontracting plan. The Contractor must be able to provide supporting documentation (i.e., phone logs, fax transmittals, letter, emails) to demonstrate its good faith subcontracting plan was followed. If it is determined at any time by the City-Parish that the Contractor did not in fact perform in good faith its subcontracting plan, the contract award or the existing contract may be terminated. The statutes (La. R.S. 39:2171 et. seq.) concerning the Veteran Initiative may be viewed at: <http://www.legis.la.gov/Legis/Law.aspx?d=671504> that the Contractor did not in fact perform in good faith its subcontracting plan, the contract award or the existing contract may be terminated.

The statutes (La. R.S. 39:2171 et. seq.) concerning the Veteran Initiative may be viewed at: <http://www.legis.la.gov/Legis/Law.aspx?d=671504>.

The statutes (La. R.S. 39:2001 et. seq.) concerning the Hudson Initiative may be viewed at: <http://www.legis.la.gov/Legis/Law.aspx?d=96265>.

The rules for the Veteran Initiative (LAC 19:VII. Chapters 11 and 15) and for the Hudson Initiative (LAC 19:VIII Chapters 11 and 13) may be viewed at: <http://www.doa.la.gov/pages/osp/se/secv.aspx>

A current list of certified Veteran-Owned and Service-Connected Disabled Veteran-Owned and Hudson Initiative small entrepreneurship may be obtained from the Louisiana Economic Development Certification System at: <https://smallbiz.louisianaeconomicdevelopment.com>

Additionally, a list of Hudson and Veteran Initiative small entrepreneurship, which have been certified by the Louisiana Department of Economic Development and who have opted to register in the State of Louisiana LaGov Supplier Portal:

https://lagoverpvendor.doa.louisiana.gov/iri/portal/anonymous?guest_user=self_reg

This may be accessed from the State of Louisiana Procurement and Contract (LaPAC) Network: <https://wwwcfprd.doa.louisiana.gov/OSP/LaPAC/vendor/VndPubMain.cfm>

When using this site, determine the search criteria (i.e. alphabetized list of all certified vendors, by commodities, etc.) and select Smalle, VSE, or DVSE.

1.5.1 Number of Response Copies

Each Proposer shall submit one (1) signed Original response (clearly marked "ORIGINAL") response. Three (3) additional copies of the proposal should be provided (clearly marked "COPY"), as well as one (1) redacted copy (clearly marked "REDACTED"), if applicable (See Section 1.6. A USB flash drive must also be provided.

1.5.2 Legibility/Clarity

Responses to the requirements of this RFP in the formats requested is desirable with all questions answered in as much detail as practicable. The Proposer's response shall demonstrate an understanding of the requirements. Proposals prepared simply and economically, providing a straightforward, concise description of the Proposer's ability to meet the requirements of the RFP is also desired. Each Proposer is solely responsible for the accuracy and completeness of its proposal.

1.6 Confidential Information, Trade Secrets, and Proprietary Information

The designation of certain information as trade secrets and/or privileged or confidential proprietary information shall only apply to the technical portion of your proposal. Your cost proposal will not be considered confidential under any circumstance. Any proposal copyrighted or marked as confidential or proprietary in its entirety may be rejected without further consideration or recourse.

For the purposes of this procurement, the provisions of the Louisiana Public Records Act (La. R.S.44.1 et. seq.) will be in effect. Pursuant to this Act, all proceedings, records, contracts, and other public documents relating to this procurement shall be open to public inspection. Proposers are reminded that while trade secrets and other proprietary information they submit in conjunction with this procurement may not be subject to public disclosure, protections must be claimed by the proposer at the time of submission of its Technical Proposal. Proposers should refer to the Louisiana Public Records Act for further clarification.

The Proposer must clearly designate the part of the proposal that contains a trade secret and/or privileged or confidential proprietary information as "confidential" in order to claim protection, if any, from disclosure. The Proposer shall mark the cover sheet of the proposal with the following legend, specifying the specific section(s) of his proposal sought to be restricted in accordance with the conditions of the legend:

"The data contained in pages of the proposal have been submitted in confidence and contain trade secrets and/or privileged or confidential information and such data shall only be disclosed for evaluation purposes, provided that if a contract is awarded to this Proposer as a result of or in connection with the submission of this proposal, City of Baton Rouge-Parish of East Baton Rouge shall have the right to use or disclose the data therein to the extent provided in the contract. This restriction does not limit City of Baton Rouge-Parish of East Baton Rouge's right to use or disclose data obtained from any source, including the proposer, without restrictions."

Further, to protect such data, each page containing such data shall be specifically identified and marked "CONFIDENTIAL".

Proposers must be prepared to defend the reasons that the material should be held confidential. If a competing proposer or other person seeks review or copies of another proposer's confidential data, the state will notify the owner of the asserted data of the request. If the owner of the asserted data does not want the information disclosed, it must agree to indemnify City of Baton Rouge-Parish of East Baton Rouge and hold City of Baton Rouge-Parish of East Baton Rouge harmless against all actions or court proceedings that may ensue (including attorney's fees), which seek to order City of Baton Rouge-Parish of East Baton Rouge to disclose the information. If the owner of the asserted data refuses to indemnify and hold City of Baton Rouge-Parish of East Baton Rouge harmless, City of Baton Rouge-Parish of East Baton Rouge may disclose the information.

City of Baton Rouge-Parish of East Baton Rouge reserves the right to make any proposal, including proprietary information contained therein, available to the Purchasing Division personnel, or other City-Parish agencies or organizations for the sole purpose of assisting City of Baton Rouge-Parish of East Baton Rouge in its evaluation of the proposal. City of Baton Rouge-Parish of East Baton Rouge shall require said individuals to protect the confidentiality of any specifically identified proprietary information or privileged business information obtained as a result of their participation in these evaluations.

If your proposal contains confidential information, you should also submit a redacted copy along with your proposal. If you do not submit the redacted copy, you will be required to submit this copy within 48 hours of notification from Purchasing. When submitting your redacted copy, you should clearly mark the cover as such - "REDACTED COPY" - to avoid having this copy reviewed by an evaluation committee member. The redacted copy should also state which sections or information has been removed."

1.7 Proposal Clarifications Prior to Submittal

1.7.1 Proposer Inquiry Periods

An initial inquiry period is hereby firmly set for all interested proposers to perform a detailed review of the solicitation and to submit any written questions relative thereto. Without exception, all questions MUST be in writing and received by the close of business on the Inquiry Deadline date set forth in the Calendar of Events (See Section 1.3). Initial inquiries shall not be accepted thereafter.

However, additional questions or requests for clarification may arise from City of Baton Rouge-Parish of East Baton Rouge's addendum responses to the initial inquiries. Therefore, a final 3-day inquiry period shall be granted. Questions resulting from the answers provided in the addendum shall be submitted by the close of business three business days from the date the addendum is issued (or, posted to the LaPAC website at <https://wwwcfprd.doa.louisiana.gov/osp/lapac/pubmain.cfm>). If necessary, another addendum will be issued to address the final questions received. Thereafter, all proposal documents, including but not limited to the specifications, terms, conditions, plans, etc., will stand as written and/or amended by any addendum issued as a result of the final inquiry period.

Any person who wishes to protest the provisions contained in this RFP shall submit questions or concerns in writing to Director of Purchasing during the proposal period. Otherwise, silence will be construed as acceptance by all proposers that the RFP is clear and that competitive proposals may be submitted as specified herein. Protests regarding the RFP documents will not be considered after proposals are opened.

*Note: City of Baton Rouge-Parish of East Baton Rouge has elected to use LaPAC, the state's online electronic bid posting and notification system that is resident on State Purchasing's website <https://wwwcfprd.doa.louisiana.gov/osp/lapac/pubMain.cfm> and is available for vendor self-enrollment. In that LaPAC provides an immediate email notification to subscribing bidders that a solicitation and any subsequent addenda have been let and posted, notice and receipt thereof is considered formally given as of their respective dates of posting dates. The City of Baton Rouge-Parish of East Baton Rouge also posts to Central Bidding (<http://www.centralauctionhouse.com>) however, bid submissions cannot be made through Central Bidding for RFPs.

No negotiations, decisions, or actions shall be executed by any proposer as a result of any oral discussions with any City of Baton Rouge-Parish of East Baton Rouge employee or City of Baton Rouge-Parish of East Baton Rouge consultant.

Inquiries shall be submitted in writing by an authorized representative of the proposer, clearly cross-referenced to the relevant solicitation section. Only those inquiries received by the established deadline shall be considered by the City of Baton Rouge-Parish of East Baton Rouge. Answers to questions that change or substantially clarify the solicitations shall be issued by addendum and provided to all perspective proposers.

Inquiries concerning this solicitation may be delivered by mail, express courier, email, hand to:

City of Baton Rouge-Parish of East Baton Rouge
Purchasing Division
222 Saint Louis Street, Room 826
Baton Rouge, LA 70802

Email: RFP1500IntUndGatewayLight@brla.gov

225-389-3259

1.8 Errors and Omissions in Proposal

City of Baton Rouge-Parish of East Baton Rouge will not be liable for any error in the proposal. Proposer will not be allowed to alter proposal documents after the deadline for proposal submission, except under the following condition: City of Baton Rouge-Parish of East Baton Rouge reserves the right to make corrections or clarifications due to administrative informalities identified in proposals by City of Baton Rouge-Parish of East Baton Rouge or the Proposer. City of Baton Rouge-Parish of East Baton Rouge, at its option, has the right to require clarification or additional information from the Proposer.

1.9 Reserved

1.10 Reserved

1.11 Changes, Addenda, Withdrawals

The City-Parish reserves the right to change the schedule of events or issue Addenda to the RFP at any time. City of Baton Rouge-Parish of East Baton Rouge also reserves the right to cancel or reissue the RFP.

If the proposer needs to submit changes or addenda after submission of a proposal, but before the proposal submission deadline, such shall be submitted in writing prior to the proposal opening, signed by an authorized representative of the proposer, cross-referenced clearly to the relevant proposal section, and submitted in a sealed envelope marked as stated in Section 1.4, such shall meet all requirements for the proposal.

1.12 Withdrawal of Proposal

A proposer may withdraw a proposal that has been submitted at any time up to the proposal closing date and time. To accomplish this, a written request signed by the authorized representative of the proposer must be submitted to Purchasing.

1.13 Material in the RFP

Proposals shall be based only on the material contained in this RFP. The RFP includes official responses to questions, addenda, and other material, which may be provided by City of Baton Rouge-Parish of East Baton Rouge pursuant to the RFP.

1.14 Waiver of Administrative Informalities

City of Baton Rouge-Parish of East Baton Rouge reserves the right, at its sole discretion, to waive administrative informalities contained in any proposal.

1.15 Proposal Rejection

Issuance of this RFP in no way constitutes a commitment by City of Baton Rouge-Parish of East Baton Rouge to award a contract. City of Baton Rouge-Parish of East Baton Rouge reserves the right to accept or reject any or all proposals submitted or to cancel this RFP if it is in the best interest of City of Baton Rouge-Parish of East Baton Rouge to do so.

If a proposer fails to submit any non-mandatory information requested, the City-Parish may request submission of such information from the proposer or assign a lower score to a proposer.

1.16 Ownership of Proposal

All materials (paper content only) submitted timely in response to this request become the property of City of Baton Rouge-Parish of East Baton Rouge. Selection or rejection of a response does not affect this right. All proposals submitted timely will be retained by City of Baton Rouge-Parish of East Baton Rouge and not returned to proposers. Any copyrighted materials in the response are not transferred to City of Baton Rouge-Parish of East Baton Rouge.

1.17 Cost of Offer Preparation

City of Baton Rouge-Parish of East Baton Rouge is not liable for any costs incurred by prospective Proposers or Contractors prior to issuance of or entering into a Contract. Costs associated with developing the proposal, preparing for oral presentations, if any, and any other expenses incurred by the Proposer in responding to the RFP are entirely the responsibility of the Proposer, and shall not be reimbursed in any manner by City of Baton Rouge-Parish of East Baton Rouge.

1.18 Nonnegotiable Contract Terms

Non-negotiable contract terms include but are not limited to taxes, assignment of contract, audit of records, EEOC and ADA compliance, record retention, content of contract/order of precedence, contract changes, governing law, claims or controversies, and termination based on contingency of appropriation of funds (if applicable).

1.19 Taxes

Any taxes, other than state and local sales and use taxes, from which City of Baton Rouge-Parish of East Baton Rouge is exempt, shall be assumed to be included within the Proposer's cost.

1.20 Proposal Validity

All proposals shall be considered valid for acceptance until such time an award is made, unless the Proposer provides for a different time period within its proposal response. However, City of Baton Rouge-Parish of East Baton Rouge reserves the right to reject a proposal if the Proposer's response is unacceptable and the Proposer is unwilling to extend the validity of its proposal.

1.21 Prime Contractor Responsibilities

The selected Proposer shall be required to assume responsibility for all items and services offered in his proposal whether or not he produces or provides them. City of Baton Rouge-Parish of East Baton Rouge shall consider the selected Proposer to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the contract.

1.21.1 Corporation Requirements

Upon the award of the contract, if the contractor is a corporation and not incorporated under the laws of the State of Louisiana, the contractor shall have obtained a certificate of authority pursuant to R.S. 12:301-302 from the Secretary of State of Louisiana prior to the execution of the contract.

Upon the award of the contract, if the contractor is a for-profit corporation whose stock is not publicly traded, the contractor shall ensure that a disclosure of ownership form has been properly filed with the Secretary of State of Louisiana.

If services are to be performed in East Baton Rouge, evidence of a current occupational license and/or permit issued by the City-Parish shall be supplied by the successful vendor, if applicable.

1.22 Use of Subcontractors

Each Contractor shall serve as the single prime contractor for all work performed pursuant to its contract. That prime contractor shall be responsible for all deliverables referenced in this RFP. This general requirement notwithstanding, Proposers may enter into subcontractor arrangements. Proposers may submit a proposal in response to this RFP, which identifies subcontract(s) with others, provided that the prime contractor acknowledges total responsibility for the entire contract.

The City-Parish is an equal opportunity employer and encourages the participation of Disadvantaged Business Enterprises (DBE) in all of its projects. Proposers/Prospective Contractors are encouraged to make positive efforts to utilize minority subcontractors for a portion of this project. Proposers are requested to include in their proposal a description of plans for minority participation under this Contract as suppliers or subcontractors.

Information required of the prime contractor under the terms of the RFP, is also required for each subcontractor and the subcontractors must agree to be bound by the terms of the contract. The prime contractor shall assume total responsibility for compliance.

1.23 Written or Oral Discussions/Presentations

Written or oral discussions may be conducted with Proposers who submit proposals determined to be reasonably susceptible of being selected for award. City of Baton Rouge-Parish of East Baton Rouge reserves the right to enter into an Agreement without further discussion of the proposal submitted based solely on the proposals submitted.

Any commitments or representations made by a proposer during these discussions, if conducted, may become formally recorded in the final contract.

Written or oral discussions/presentations for clarification may be conducted to enhance the City- Parish's understanding of any or all of the proposals submitted. Neither negotiations nor changes to vendor proposals will be allowed during these discussions. Proposals may be accepted without such discussions.

1.24 Acceptance of Proposal Content

The mandatory RFP requirements shall become contractual obligations if a contract ensues. Failure of the successful Proposers to accept these obligations shall result in the rejection of the proposal.

1.25 Evaluation and Selection (see Part III. Evaluation)

1.26 Contract Negotiations

If for any reason the Proposer whose proposal is most responsive to the City-Parish's needs, price and other evaluation factors set forth in the RFP considered, does not agree to a contract, that proposal shall be rejected and the City-Parish may negotiate with the next most responsive Proposer. Negotiation may include revision of non-mandatory terms, conditions, and requirements. Negotiation shall also allow price reductions. The final contract form shall be reviewed by the Purchasing Division and approved by the Parish Attorney and Metropolitan Council.

1.27 Contract Award and Execution

The City-Parish reserves the right to enter into an Agreement without further discussion of the proposal beyond submission

The RFP, any addendums, and the proposal of the selected Contractor will become part of any contract initiated by the City-Parish.

In no event is a proposer to submit its own standard contract terms and conditions as a response to this RFP. The proposer needs to address the specific language in the sample contract (Attachment D) and submit with their proposal any exceptions or exact contract deviations that their firm wishes to negotiate. The terms for both of these documents may be negotiated as part of the negotiation process with the exception of contract provisions that are non-negotiable.

If the contract negotiation period exceeds 30 days or if the selected Proposer fails to sign the contract within seven calendar days of delivery of it, the City-Parish may elect to cancel the award and award the contract to the next-highest-ranked Proposer.

Award shall be made to the Proposer whose proposal, conforming to the RFP, will be the most advantageous to the City-Parish, price and other factors considered based on the evaluation committee's review and recommendation. The City-Parish intends to award to a single Proposer.

1.28 Notice of Intent to Award

Upon review and approval of the evaluation committee's recommendation for award by Purchasing and approval of the contract award by the Metropolitan Council, a Notice of Intent to Award letter to the apparent successful Proposer will be issued. A contract shall be completed and signed by all parties concerned on or before the date indicated in the Schedule of Events. If this date is not met, through no fault of the City-Parish, the City-Parish may elect to cancel the Notice of Intent to Award letter and make the award to the next most advantageous Proposer.

Purchasing shall notify all unsuccessful Proposers as to the outcome of the evaluation process. The evaluation factors, points, evaluation committee member names, and the completed evaluation summary and recommendation report shall be made available to all interested parties after the Intent to Award letter has been issued.

1.29 Reserved

1.30 Debriefings

Debriefings may be scheduled by the participating Proposers after the Intent to Award letter has been issued by contacting Purchasing 72 hours in advance. Contact may be made by phone at 225-389- 3259 or email to purchasinginfo@brgov.com to schedule the debriefing. Debriefings will be for the sole purpose of reviewing with the requesting vendor their own proposal scoring results.

If the requesting vendor wishes to view other file documents, a Public Records request in accordance with R.S 44.1 et. seq. must be submitted.

1.31 Insurance Requirements

Contractor shall furnish the City-Parish with certificates of insurance affecting coverage(s) required by the RFP (see Attachment C). The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates are to be received and approved by the City-Parish before work commences. The City-Parish reserves the right to require complete certified copies of all required policies, at any time.

1.32 Subcontractor Insurance

The Contractor shall include all subcontractors as insureds under its policies or shall insure that all subcontractors satisfy the same insurance requirements stated herein for the contractor.

1.33 Contract Provisions

If a contract results from this RFP, the contract shall include, but not be limited to, the following terms and provisions. Submission of a proposal without noting any objections or exceptions to these provisions shall be deemed as an acceptance of these terms by the proposer.

1.33.1 Indemnification

Contractor agrees to indemnify, defend, and hold harmless the City-Parish from any and all losses, damages, expenses or other liabilities, including but not limited to connected with any claim for personal injury, death, property damage or other liability that may be asserted against the City- Parish by any party which arises or allegedly agents in performing its obligations under this Agreement.

Contractor, its agents, employees and insurer (s) hereby release City-Parish its agents and assigns from any and all liability or responsibility including anyone claiming through or under them by way or subrogation or otherwise for any loss or damage which Contractor, its agents or insurers may sustain incidental to or in any way related to Contractor's operations under this Agreement.

1.33.2 Payment for Services

The City-Parish shall pay Contractor in accordance with the provisions of the compensation section of the Contract Payments will be made by the City-Parish within approximately thirty (30) days after receipt of a properly executed invoice, and approval by the department. Invoices shall include the contract or purchase order number, using department and product/service provided. Invoices submitted without the referenced documentation will not be approved for payment until the required information is provided.

When billing the City-Parish for Project and Grant Management with Administrative Services, the successful Proposer will be required to provide the portion of the total fee related to the costs of the M&A of all federal and state grants. This data is necessary for purposes of properly charging grant programs for their portion of the audit costs and allocation of our indirect cost plan.

1.33.3 Termination of this Contract for Cause

The terms of this contract shall be binding upon the parties hereto until the work has been completed and accepted by the City-Parish and all payments required to be made to the Contractor have been made; but this contract may be terminated under any or all of the following conditions:

- By mutual agreement and consent of the parties hereto.
- By City-Parish as a consequence of the failure of the Contractor to comply with the terms, progress or
- Quality of work in a satisfactory manner, proper allowance being made for circumstances beyond the control of the Contractor.
- By either party upon failure of the other party to fulfill its obligations as set forth in the contract.

- By satisfactory completion of all services and obligations described herein.
- By the City-Parish by giving thirty (30) days prior written notice to the Contractor in writing and paying for all previously completed work.
- By City-Parish due to withdrawal of Federal funding for the project.

If termination is made by the City-Parish under condition 5 after work has started, the Contractor will be paid for all detailed costs incurred and for all services rendered on the basis of its certified and itemized direct payroll cost plus the applicable percentage rates to cover payroll additives and overhead.

The City-Parish may terminate the Contract for cause based upon the failure of the Contractor to comply with the terms and conditions of the Contract; provided that the City-Parish shall give the Contractor written notice specifying the Contractor's failure. If within thirty (30) days after receipt of such notice, the Contractor shall not have either corrected such failure or, in the case of failure which cannot be corrected in thirty (30) days begun in good faith to correct said failure and thereafter proceeded diligently to complete such correction, then the City-Parish may, at its option, place the Contractor in default and the Contract shall terminate on the date specified in such notice. Failure to perform within the time agreed upon in the contract may constitute default and may cause cancellation of the contract.

Contractor may exercise any rights available to it under Louisiana law to terminate for cause upon the failure of the City-Parish to comply with the terms and conditions of this contract provided that the Contractor shall give the City-Parish written notice specifying the City Parish agency's failure and a reasonable opportunity for City-Parish to cure the defect.

1.33.4 Termination of this Contract for Convenience

The City-Parish may terminate this Contract at any time by giving thirty (30) days written notice to the Contractor of such termination or negotiating with the Contractor an effective date.

The Contractor shall be entitled to payment for deliverables in progress, to the extent work has been performed satisfactorily.

1.33.5 Termination for Lack of Appropriated Funds

Should the RFP result in a multi-year contract, a non-appropriation clause shall be made a part of the contract terms as required by state statutes, allowing the City-Parish to terminate the contract for lack of appropriated funds on the date of the beginning of the first fiscal year for which funds are not appropriated.

The continuation of this contract shall be contingent upon the appropriation of funds by the legislature to fulfill the requirements of the contract by the legislature.

If the legislature fails to appropriate sufficient monies to provide for the continuation of the contract, or if such appropriation is reduced by the veto of the Governor or by any means provided in the appropriations act of Title 39 of the Louisiana Revised Statutes of 1950 to prevent the total appropriation for the year from exceeding revenues for that year, or for any other lawful purpose, and the effect of such reduction is to provide insufficient monies for the continuation of the contract, the contract shall terminate on the date of the beginning of the first fiscal year for which funds have not been appropriated.

1.33.6 Assignment

Assignment of contract, or any payment under the contract, requires the advanced written approval of the City-Parish.

1.33.7 No Guarantee of Quantities

The quantities, if any, referenced in the RFP are estimates. In the event a greater or lesser quantity is needed, the City-Parish reserves the right to increase or decrease the amount at the unit price stated in the proposal.

Neither City-Parish nor Department obligates itself to contract for or accept more than their actual requirements during the period of this agreement, as determined by actual needs and availability of appropriated funds.

1.33.8 Audit of Records

It is hereby agreed that the East Baton Rouge Parish Mayor-President and Departments of City-Parish government, Parish Attorney and designees, the Louisiana Division of Administration, GOHSEP, the Legislative Auditor of the State of Louisiana, DHS, FEMA, Office of Inspector General (State and DHS), DHS/FEMA monitors, and auditors contracted by any of them shall have the option of auditing all records and accounts of Contractor and/or its subcontractors that relate to this Contract at any time during normal business hours, as often as deemed necessary, to audit, examine, and make excerpts or transcripts of all relevant data upon providing Contractor or sub-contractor, as appropriate, with reasonable advance notice. Contractor shall maintain all records and accounts for a period of a minimum of five (5) years from the date of FEMA closeout.

1.33.9 Civil Rights Compliance

The Contractor agrees to abide by the requirements of the following as applicable: Title VI and Title VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Act of 1975, the Contractor agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

Contractor agrees not to discriminate in its employment practices, and will render services under this Agreement and any contract entered into as a result of this Agreement, without regard to race, color, religion, sex, sexual orientation, national origin, veteran status, political affiliation, or disabilities. Any act of discrimination committed by Contractor, or failure to comply with these statutory obligations when applicable shall be grounds for termination of this Agreement and any contract entered into as a result of this agreement.

1.33.10 Record Retention

The Contractor shall maintain all records in relation to this contract for a period of at least five (5) years.

1.33.11 Record Ownership

All records, reports, documents, or other material related to any contract resulting from this RFP and/or obtained or prepared by Contractor in connection with the performance of the services contracted for herein shall become the property of the City-Parish, and shall, upon request, be returned by Contractor to the City-Parish, at Contractor's expense, at termination or expiration of this contract.

1.33.12 Content of Contract/Order of Precedence

In the event of an inconsistency between the contract, the RFP and/or the Contractor's Proposal, the inconsistency shall be resolved by giving precedence first to the final contract, then to the RFP and subsequent addenda (if any) and finally, the Contractor's Proposal.

1.33.13 Contract Changes

No additional changes, enhancements, or modifications to any contract resulting from this RFP shall be made without the prior approval of Purchasing, Parish Attorney and Metro Council where applicable.

Changes to the contract include any change in: compensation; beginning/ending date of the contract; scope of work; and/or Contractor change through the Assignment of Contract process. Any such changes, once approved, will result in the issuance of an amendment to the contract.

1.33.14 End of Contract Transition

Upon termination, regardless of the reason for or type of termination, the Contractor agrees to transfer to the party designated by the State, at no cost, all data, records, computer files, other files, and materials of any sort that were maintained for the State. The Contractor shall cooperate with the State and any new contractor during the transition of the contract to a new contractor. Upon request by the State, the Contractor shall provide all State information maintained by the Contractor in a time frame approved by the State Risk Claims Manager. Information provided via tape or other electronic transfer shall be in a format approved by the State Risk Claims Manager and shall include but not be limited to file layouts and legends. The Contractor shall provide such explanation of the information provided as to facilitate a smooth transition.

1.33.15 Substitution of Personnel

If, during the term of the contract, the Contractor or subcontractor cannot provide the personnel as proposed and requests a substitution, that substitution shall meet or exceed the requirements stated herein. A detailed resume of qualifications and justification is to be submitted to City-Parish for approval prior to any personnel substitution. It shall be acknowledged by the Contractor that every reasonable attempt shall be made to assign the personnel listed in the Contractor's proposal.

1.34 Governing Law

All activities associated with this RFP process shall be interpreted under applicable Louisiana Law. All proposals and contracts submitted are subject to provisions of the laws of the State of Louisiana including but not limited to Code of Ordinances, purchasing regulations; standard terms and conditions; special terms and conditions; and specifications listed in this RFP.

In accordance with the provisions of Louisiana R.S. 38:2212.9 in awarding contracts after August 15, 2010, any public entity is authorized to reject the lowest bid from, or not award the contract to, a business in which any individual with an ownership interest of five percent or more has been convicted of, or has entered a plea of guilty or nolo contendere to any state felony crime or equivalent federal felony crime committed in the solicitation or execution of a contract or bid awarded under the laws governing public contracts under the provisions of Chapter 10 of this Title, professional, personal, consulting, and social services procurement under the provisions of Chapter 16 of Title 39 of the Louisiana Revised Statutes of 1950, or the Louisiana Procurement Code under the provisions of Chapter 17 of Title 39 of the Louisiana Revised Statutes of 1950.

Venue of any action brought with regard to this Contract shall be in Nineteenth Judicial District Court, Parish of East Baton Rouge, State of Louisiana.

1.35 Claims or Controversies

Any proposer who believes they were adversely affected by the City Parish's procurement process or award, may file a protest. It must be submitted in writing to the Director of Purchasing and specifically state the particular facts which form the basis of the protest and the relief requested. The written protest must be received within seven (7) days from the date the basis of the protest was or should have been known.

The City-Parish will take action on protests within fifteen (15) days of the receipt thereof. The City- Parish may suspend, postpone or defer the proposal process and/or award in whole or in part upon receipt of a protest.

A protest shall be limited to issues arising from the procurement provisions of the contract and state or local law. Protests with regard to basic project design will not be considered.

Protests will be reviewed by a committee appointed by the Parish Attorney. The decision of the committee regarding the protest will be given to the proposer in writing within ten (10) days after all pertinent information has been considered. The decision of the Review Committee shall be a condition precedent to any other proceedings in connection with a protest and shall be considered the administrative remedy available to the protesting bidder.

1.36 Proposer's Certification of OMB A-133 Compliance

Certification of no suspension or debarment. By signing and submitting any proposal for \$100,000 or more, the proposer certifies that their company, any subcontractors, or principals are not suspended or debarred by the General Services Administration (GSA) in accordance with the requirements in OMB Circular A-133.

A list of parties who have been suspended or debarred can be viewed via the internet at <http://www.sam.gov>

PART II. SCOPE OF WORK/SERVICES

2.1 Scope of Work/Services

The Scope of Services is outlined in Attachment A.

2.2 Period of Agreement

The contract will begin upon a Notice to Proceed from the City-Parish to the vendor.

2.3 Price Schedule

Prices proposed by the proposers should be submitted on the Proposal Form furnished herein as Attachment B. Prices submitted shall be firm and inclusive of all charges

2.4 Location

The proposed services are required at multiple locations throughout the City of Baton Rouge / Parish of East Baton Rouge.

PART III. EVALUATION

The Selection of the successful proposer(s) will be determined based on their responses to the specifications outlined in this RFP after an evaluation in the following areas (Sections 3.1 through 3.4):

The proposal will be evaluated in light of the material and the substantiating evidence presented to the City-Parish, not on the basis of what may be inferred.

Written recommendation for award shall be made to Purchasing for the Proposer whose proposal, conforming to the RFP, will be the most advantageous to the City-Parish.

3.1 RELEVANT WORK HISTORY/QUALIFICATIONS (40 POINTS)

Information provided in the Statement of Qualifications **should** demonstrate the firm's experience and ability as lead firm to complete quality projects within a reasonable timeframe and budget. Statement of Qualifications **should** provide, at a minimum, the following information:

- Company size, location, available resources
- Availability: State the firm's soonest availability to start projects after acceptance into the contractor pool.
- Management and supervisory team members and relevant background information including areas of expertise, training, licenses, years of service in their respective fields, and relevant project experience

3.2 PRICING/COSTS (30 POINTS)

Project price shown is based on the Schedule of Items included in Contractor's Construction Proposal for the project showing approximate quantities and unit prices therefore. The final contract price will be determined by the actual quantities in place at the unit prices set forth in said schedule and any other modifications or changes as mutually agreed upon in writing.

3.3 CONSTRUCTION TIMELINE/WORK PLAN (20 POINTS)

The entire contract shall be completed in all details and ready for final acceptance within **60 calendar days** after date stipulated in the Notice to Proceed. Time is of the essence of the contract and the Notice to Proceed will be issued promptly. Contract time extensions will only be allowed in accordance with provisions in the Contract Documents. Vendor to provide a timeline for project progress assessment.

3.4 PROJECT RELEVANT REFERENCES (10 POINTS)

Work examples for the relevant project types; provide at least three (3) examples.

Each example **should** include:

- Project total costs
- Start and completion dates
- Scope of Services
- Explanation of any change orders or cost overruns
- If the project required bonding or not
- Your company's role as prime or subcontractor

3.5 SCORING

Evaluation Category	Possible Points
Relevant Work History/Qualifications	40
Pricing/Cost	30
Construction Timeline/Work Plan	20
Project Relevant References	10
TOTAL	100

ATTACHMENT B PROPOSAL FORM

Sealed proposals will be received until 2:00 PM, CST, September 24, 2026 by the Purchasing Division, 222 Saint Louis Street, Room 826, Baton Rouge, LA 70802. Immediately after 2:00 PM of the same day and date, proposals will be publicly opened.

PROPOSAL OF

ADDRESS

DATE

City of Baton Rouge-Parish of East Baton Rouge
Purchasing Division
222 St. Louis Street Baton Rouge, LA 70802

The undersigned hereby agrees to furnish all materials, tools, equipment, insurance and labor to perform all services required for the following project:

Interstate Underpass Gateway Lighting

Contract Documents:

1. Notice to Proposers
2. The Specifications (Administrative and General Information, Scope of Work/Services, Evaluation, Performance Standards, Attachments and Appendix.)
3. Proposal Forms with Attachments
4. Agreement
5. The following enumerated addenda: receipt of which is hereby acknowledged.

The undersigned declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion of any kind with any other person, firm, association or corporation; that the undersigned has carefully examined the site of the proposed work, and proposes, and agrees, if this proposal is accepted, to do all the work and furnish all the services specified in accordance with the requirements of the Contract Documents and to accept as full compensation therefore the total amount of the prices herein proposed, subject to any mutually agreed upon amendments.

The undersigned agrees that the proposal is firm until time of award.

The undersigned agrees to execute the Agreement and Affidavit and furnish to the City- Parish all insurance certificates and performance bond (if applicable) required for the project within fifteen (15) calendar days after receiving notice of award from the City-Parish.

The undersigned further agrees that the work will begin on the date specified in the Notice to Proceed.

The price for performance of all services in accordance with the Contract Documents is based on the unit (or other costs) proposed and accepted after contract negotiations.

NOTE: This financial proposal shall include any and all costs the Contractor wishes to have considered in the contractual arrangement with the City-Parish. If quoted as a lump sum, individual rates and itemized costs included in lump sum are to be included with proposal submittal.

All supplemental information requested is enclosed or presented in a separate sealed box or envelope.

(SIGNATURE)

(Typed Name and Title)

**THE ATTACHED PROPOSER'S ORGANIZATION SHEET
MUST BE COMPLETED TO INDICATE WHETHER
PROPOSER IS AN INDIVIDUAL, PARTNERSHIP, ETC.**

ATTACHMENT B-1 PRICE SCHEDULE

ITEM	QUANTITY	MANUFACTURER	CATALOG #	PRICE	TOTAL
ITEM 1	4	INSIGHT	AP/VO/RGB35/1060/48"/120V/DMXFX/FINISH	\$_____	\$_____
ITEM 2	4	INSIGHT	SA28104-1 HM MTG HINGE MOUNTING	\$_____	\$_____
ITEM 3	2	INSIGHT	EL12430-5-S LC-5' LEADER CABLES	\$_____	\$_____
ITEM 4	2	INSIGHT	EL12288-25-X JC 25' JUMPER CABLES	\$_____	\$_____
ITEM 5	2	INSIGHT	EL12291-X DMX TERMINATOR	\$_____	\$_____
ITEM 6	1	INSIGHT	LIGHTDIAL DMX CONTROLLER	\$_____	\$_____
ITEM 7	1	INSIGHT	DMXCAT: REMOTE ADDRESSING TOOL	\$_____	\$_____
ITEM 8	1	INSIGHT	CDS-RDM: DMX RDM DISTRIBUTION KIT (IP67): (4 OUTPUTS)	\$_____	\$_____
ITEM 9	1	INSIGHT	REMOTE COMMISSIONING	\$_____	\$_____
ITEM 10	2	INSIGHT	SAMPLE CONTROLLERS	\$_____	\$_____
ITEM 11	1	LITHONIA	VCPG LED V4 P1 40K 70CRI T5R MVOLT SRM DNAXD	\$_____	\$_____
ITEM 12	1		PROJECT ESTIMATED LABOR COST	\$_____	\$_____

List all pricing details here or in a schedule format. The City-Parish reserves to award the project based on the option that is in the best interest of the City.

Prices submitted shall be firm and inclusive of all charges the contractor wishes the City-Parish to consider for proposed services.

ATTACHMENT C

Insurance Requirements

CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

Contractor and any subcontractor shall carry and maintain at least the minimum insurance as specified below until completion and acceptance of the work. Contractor shall not commence work under this contract until certificates of insurance have been approved by the City-Parish Purchasing Division. Insurance companies listed on certificates must have industry rating of A, Class VI or higher, according to Best's Key Rating Guide. Contractor is responsible for assuring that its subcontractors meet these insurance requirements.

A. General Liability Insurance

General Liability insurance, endorsed to provide coverage for explosion, collapse and underground damage hazards to property of others; Contractual Liability, Products and Completed Operations (for a minimum of two years after acceptance of the Work), **Additional Insured and Waiver of Subrogation in favor of Contractor and Owner.**

	Limits
General Aggregate	\$2,000,000
Products/Completed Operations	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Per Occurrence	\$1,000,000
Damage to Premises Rented to You	\$100,000
Medical Payments	\$5,000

B. Automobile Liability Insurance

Automobile Liability insurance which shall include coverage for all owned, non-owned and hired and shall be endorsed to include a **Waiver of Subrogation and Additional Insured in favor of Contractor and Owner.**

Bodily Injury and Property Damage \$1,000,000 Combined Single Limit Each Occurrence (Minimum)

C. Worker Compensation and Employers Liability Insurance

Subcontractor agrees to comply with Workers Compensation laws of the state where the Work is performed, and to maintain a Workers Compensation and Employers Liability policy. **The policy shall include a Waiver of Subrogation endorsement in favor of the Contractor and Owner. Full statutory liability for State of Louisiana with Employer's Liability Coverage.**

Workers' Compensation Statutory	\$1,000,000 Each Accident (Minimum)
Employer's Liability	\$1,000,000 Disease Each Employee

D. Excess Umbrella Liability Coverage

Excess/Umbrella Liability insurance shall be follow form the primary coverages and shall be endorsed to include a **Waiver of Subrogation and Additional Insured in favor of Contractor and Owner.**

Bodily Injury and Property Damage \$1,000,000 Combined Single Limit Each Occurrence (Minimum)

E. The City of Baton Rouge and Parish of East Baton Rouge must be named as additional insured on all general liability policies described above.

F. Waiver of subrogation in favor of City of Baton Rouge and Parish of East Baton Rouge, is required from Workers Compensation Insurer.

G. Certificates must provide for thirty (30) days written notice to Certificate Holder prior to cancellation or change.

H. The Certificate Holder should be shown as:

City of Baton Rouge and Parish of East Baton Rouge
Attn: Purchasing Division
222 St. Louis Street
8th Floor Room 826
Baton Rouge, LA 70802

NOTE TO PROPOSERS:

- 1) Submit evidence of these Insurance Requirements with all required information set forth in the solicitation documents as your proposal.
- 2) Retain the complete set of Specifications and Contract Documents and a copy of the Insurance Forms for your files.

ATTACHMENT D

Sample Contract for Interstate Underpass Gateway Lighting

This Contract, made and entered into at Baton Rouge, Louisiana, effective this _____ day of _____, 20____ by and between the City-Parish, herein referred to as the City-Parish and _____ herein referred to as "Consultant (*Service Provider /Contractor, whichever is applicable, may be substituted*)".

Consultant shall provide consulting services as described herein for ...

Consultant agrees to proceed, upon written notice of the Director of _____ (*designate department contact if not department head or director*), with all professional services necessary for the performance, in proper sequence and in the time specified, of the items of work as hereinafter set forth. Services will be subject to review and administration by the office requesting the service unless designated otherwise by the City-Parish. All the services required hereunder will be performed by consultant or under his supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state and local law to perform such services.

SCOPE OF SERVICES: The services to be rendered by the Consultant for this project shall be as follows:

Scope of Services in Attachment A

CONTRACT MODIFICATIONS: No amendment or variation of the terms of this contract shall be valid unless made in writing, signed by the parties and approved as required by law. No oral understanding or agreement not incorporated in the contract is binding on any of the parties.

Changes to the contract include any change in a) compensation; b) beginning/ending date of the contract; c) scope of work; and/or d) contractor change through the assignment of contract process. Any such changes, once approved, will result in the issuance of an amendment to the contract.

GENERAL REQUIREMENTS: With the exception of the services specifically listed to be furnished by the City-Parish Consultant shall, for the agreed fees, obtain all data and furnish all services and materials required to provide the contracted services. All items required to accomplish these results, whether or not specifically mentioned in this contract, including attendance by the Consultant or their representatives at conferences and public hearings, are to be furnished at the expense of Consultant.

SERVICES TO BE PERFORMED BY THE CITY-PARISH: The City-Parish will furnish the Consultant without charge all information which it has in its files which may be useful to the Consultant in carrying out this work, as well as assistance in securing data from others to the extent available. The City-Parish shall provide _____ (*define the City-Parish's responsibilities here*) when/where necessary, to perform the work.

COMPENSATION AND PAYMENT: The City-Parish shall pay and Consultant agrees to accept compensation for the Consulting services to be performed under this contract, at the rates indicated on the Cost Proposal Form attached and made a part of the contract.

Monthly invoices for work completed to date may be submitted by Consultant, and subject to the approval of the Department Head or his/her designee, will be paid within 30 days after approval.

CONTRACT TIME: The services to be performed under this contract shall be commenced promptly by the Consultant and shall be completed as defined in the notice to proceed issued for each event.

FAILURE TO COMPLETE WORK ON TIME

Should the Contractor fail to complete the work within the contract time, as extended, liquidated damages in the amount of **\$270.00 per day**, will be assessed Contractor in accordance with the Contract Documents.

COMMENCEMENT OF WORK: No work shall be performed by Consultant and the City-Parish shall not be bound until such time as a Contract is fully executed between the City-Parish and the Contractor and all required approvals are obtained at which time Task/Work Orders will be used to order specific quantities and types of services.

OWNERSHIP OF DOCUMENTS: All data collected by Consultant and all documents, notes, drawings, tracings and files collected or prepared in connection with this work, except Consultant's personal and administrative files, shall become the property of the City-Parish, and the City-Parish shall not be restricted in any way whatsoever in its use of such materials.

DELAYS AND EXTENSIONS: Consultant will be given an extension of time for delays beyond their control such as weather or those caused by tardy approvals of work in progress, but no additional compensation shall be allowed for such delays.

TERMINATION OR SUSPENSION: The City-Parish may terminate this contract for cause based upon the failure of the contractor to comply with the terms and/or conditions of the Agreement, or failure to fulfill its performance obligations pursuant to this Agreement, provided that the City-Parish shall give the contractor written notice specifying the Consultant's failure. If within _____ days after receipt of such notice, the Consultant shall not have either corrected such failure or, in the case of failure which cannot be corrected in ____ days, begun in good faith to correct such failure and thereafter proceeded diligently to complete such correction, then the City-Parish may, at its option, place the Consultant in default and the Agreement shall terminate on the date specified in such notice.

The Contractor may exercise any rights available to it under Louisiana Law to terminate for cause upon the failure of the City-Parish to comply with the terms and conditions of this contract; provided that the contractor shall give the City-Parish written notice specifying the City-Parish's failure and a reasonable opportunity for the City-Parish to cure the defect.

The City-Parish may terminate this Agreement at any time by giving _____ days written notice to the Consultant of such termination or negotiating with the Consultant an effective date.

The Contractor shall be entitled to payment for deliverables in progress, to the extent work has been performed satisfactorily.

Should the City-Parish find it necessary to suspend the work for lack of funding or other circumstances beyond its control, this may be done by _____ days notice given by the City-Parish in writing to that effect. The work may be reinstated and resumed in full force and effect upon receipt from the City-Parish of _____ days notice in writing to that effect.

This agreement shall ipso-facto terminate three years after the date of the suspension of the work as provided

above if the work has not been reinstated and resumed by notice from the City-Parish during the three-year period, and neither party shall have any further obligation to the other party.

DISPUTES: Any dispute concerning a question of fact in connection with the work not disposed of by agreement between the parties shall be referred to the Director of Purchasing or his duly authorized representative for determination, whose decision in the matter shall be final and conclusive on the parties to this contract. This disputes clause does not foreclose the rights of the parties with respect to questions of law in connection with decisions provided for in the foregoing sentence.

INDEPENDENT CONTRACTOR OBLIGATION: Consultant shall be an independent contractor under this contract and shall assume all of the rights, obligations and liabilities applicable to him as an independent contractor hereunder. Consultant shall perform all details of the services in a manner consistent with that level of care and skill ordinarily exercised by other professional Consultants under similar circumstances at the time the services are performed, with the City-Parish interested only in the results of the work.

COMPLIANCE WITH APPLICABLE LAWS: Consultant shall procure all permits and licenses applicable to the services to be performed and shall comply with any and all Local, State and Federal laws including those regarding age, citizenship, hours, wages and conditions of employment affecting the service covered by this agreement. Consultant shall pay the contributions measured by wages of his employees required by the Federal Unemployment Tax Act, Federal Insurance Contributions Act, and any other payroll tax as required by law.

INDEMNITY: Service Provider agrees to indemnify, defend, and hold harmless the City-Parish from any and all losses, damages, expenses or other liabilities, including but not limited to connected with any claim for personal injury, death, property damage or other liability that may be asserted against the City-Parish by any party which arises or allegedly agents in performing its obligations under this Agreement.

Service Provider, its agents, employees and insurer (s) hereby release the City-Parish its agents and assigns from any and all liability or responsibility including anyone claiming through or under them by way or subrogation or otherwise for any loss or damage which Service Provider, its agents or insurers may sustain incidental to or in any way related to Service Provider's operations under this Agreement.

PERSONAL INTEREST: Consultant covenants that he presently has no interest and shall not acquire any interest, direct or indirect, in the above described Study or any other interest which would conflict in any manner or degree with the performance of his services hereunder. The Consultant further covenants that in the performance of his contract no person having any such interest shall be employed.

AFFIDAVIT AND CORPORATE RESOLUTION: Consultant shall attest by Affidavit, a sworn statement that this contract was not secured through employment or payment of a solicitor. If Consultant is a corporation, a corporate resolution is furnished as evidence of authority to execute the contract.

CIVIL RIGHTS COMPLIANCE: The Contractor agrees to abide the requirements of the following as applicable: Title VI and Title VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended the Vietnam Era of 1975, the Contractor agrees to abide by the requirements of the Americans with Disabilities Act of 1990. Consultant agrees not to discriminate in its employment practices, and will render services under this Agreement and any contract entered into as a result of this Agreement, without regard to race, color, religion, sex, sexual orientation, national origin, veteran status, political affiliation, or disabilities. Any act of discrimination committed by Consultant, or failure to comply with these statutory obligations when applicable shall be grounds for termination of this Agreement and any contract entered into as a result of this agreement.

ADDITIONAL REQUIREMENTS OF FEDERAL GRANT FUNDED PROJECTS: If the project is funded in whole or in part by Federal Grants, Consultant shall comply with the Federal Requirements. Consultant shall also include these Federal Requirements in any sub-contracts.

TAXES: Any taxes, other than state and local sales and use taxes, from which the City-Parish is exempt, shall be assumed to be included within the Consultant's cost.

RIGHT TO AUDIT: The City-Parish or others so designated by the City-Parish, or other lawful entity shall have the option to audit all accounts directly pertaining to the resulting contract for a period of five (5) years after project acceptance or as required by applicable Local, State and Federal law. Records shall be made available during normal working hours for this purpose.

ASSIGNMENT: Assignment of contract, or any payment under the contract, requires the advanced written approval of the City-Parish.

CONFIDENTIALITY: The following provision will apply unless the City-Parish agency statement of work specifically indicates that all information exchanged will be non-confidential:

All financial, statistical, personal, technical and other data and information relating to the City-Parish's operations which are designated confidential by the State and made available to the Contractor in order to carry out this contract, shall be protected by the Contractor from unauthorized use and disclosure through the observance of the same or more effective procedural requirements as are applicable to the City-Parish. The identification of all such confidential data and information as well as the City-Parish's procedural requirements for protection of such data and information from unauthorized use and disclosure shall be provided by the City- Parish in writing to the Consultant. If the methods and procedures employed by the Consultant for the protection of the Consultant's data and information are deemed by the City-Parish to be adequate for the protection of the City Parish's confidential information, such methods and procedures may be used, with the written consent of the City-Parish, to carry out the intent of this paragraph. The Consultant shall not be required under the provisions of the paragraph to keep confidential any data or information, which is or becomes publicly available, is already rightfully in the Consultant's possession, is independently developed by the Consultant outside the scope of the contract, or is rightfully obtained from third parties.

RECORD RETENTION: The Consultant shall maintain all records in relation to this contract for a period of at least five (5) years from close of file.

ORDER OF PRECEDENCE:

The Request for Proposals (RFP), dated _____, and the Consultant's Proposal dated _____,

are attached hereto and, incorporated into this Contract as though fully set forth herein. In the event of an inconsistency between this Contract, the RFP and/or the Consultant's Proposal, unless otherwise provided herein, the inconsistency shall be resolved by giving precedence first to this Contract, then to the RFP and subsequent addenda (if any) and finally, the Consultant's Proposal.

GOVERNING LAW: This Contract shall be governed by and interpreted in accordance with the laws of the State of Louisiana. Venue of any action brought with regard to this Contract shall be in the Nineteenth Judicial District Court, parish of East Baton Rouge, State of Louisiana.

COMPLETE CONTRACT

This is the complete Contract between the parties with respect to the subject matter and all prior discussions and negotiations are merged into this contract. This contract is entered into with neither party relying on any statement or representation made by the other party not embodied in this contract and there are no other agreements or understanding changing or modifying the terms. This Contract shall become effective upon final approval by both parties.

IN WITNESS WHEREOF, the City-Parish and Consultant have executed this contract effective as of the date first written above.

WITNESSES:

**CITY OF BATON ROUGE/PARISH OF
EAST BATON ROUGE**

By _____

Title _____

Date: _____

CONSULTANT

By _____

Title _____
Typed / Printed Name

Title _____
Typed / Printed Title

Date: _____

ATTACHMENT E
STANDARD FEDERAL AWARD
CONTRACTOR TERMS AND CONDITIONS
CONTRACTOR TERMS AND CONDITIONS
COMPLIANCE WITH THE CODE OF FEDERAL REGULATIONS
(2 C.F.R. § Pt. 200, App. II)

NOTE: THE FOLLOW TERMS APPLY SPECIFICALLY TO CONTRACTS AND PURCHASES MADE WITH OR IN CONJUNCTION WITH CORONAVIRUS STATE AND LOCAL RECOVERY FUNDS (SLFRF, OR FISCAL RECOVERY FUNDS):

1. **Termination for Cause or Convenience; Suspension.** CITY-PARISH may exercise any rights available under Louisiana law to terminate for cause upon the failure of the CONTRACTOR to comply with the terms and conditions of this AGREEMENT, provided that the CITY-PARISH shall give contractor written notice specifying contractor's failure and thirty (30) days to cure the defect.
 - a. CITY-PARISH may terminate the AGREEMENT at its convenience at any time for any or no reason by giving thirty (30) days written notice to CONTRACTOR.
 - b. Upon termination for cause or convenience, the CONTRACTOR shall be entitled to payment for deliverables in progress through the date of termination, to the extent work has been performed in accordance with the terms and/or conditions of this AGREEMENT or otherwise to the satisfaction of CITY-PARISH, as well as reasonable termination and demobilization costs.
 - c. Should the CITY-PARISH find it necessary to suspend the work for lack of funding or other circumstances beyond its control, this may be done by thirty (30) days written notice given by CITY-PARISH to that effect. If the AGREEMENT is suspended for more than thirty (30) consecutive calendar days, the CONTRACTOR shall be compensated for services performed prior to the notice of suspension. In addition, when work under the AGREEMENT resumes, the CONTRACTOR's compensation shall be equitably adjusted to provide for expenses incurred in the interruption and resumption of the CONTRACTOR's services.
2. **Remedies.** If any work performed by the CONTRACTOR fails to meet the requirements of the AGREEMENT, the CITY-PARISH may in its sole discretion:
 - a) elect to have the CONTRACTOR re-perform or cause to be re-performed at the CONTRACTOR's sole expense, any of the work which failed to meet the requirements of the AGREEMENT;
 - b) hire another subconsultant to perform the work and deduct any additional costs incurred by CITY-PARISH as a result of substituting the Proposer from any amounts due to the CONTRACTOR; or
 - c) pursue and obtain any and all other available legal or equitable remedies.
3. **Equal Employment Opportunity.** During the performance of this contract, the CONTRACTOR agrees as follows:
 - a. The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The CONTRACTOR will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

- b. The CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- c. The CONTRACTOR will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the CONTRACTOR's legal duty to furnish information.
- d. The CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the CONTRACTOR's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- e. The CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- f. The CONTRACTOR will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- g. In the event of the CONTRACTOR's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- h. The CONTRACTOR will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The CONTRACTOR will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, The CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

4. **Bacon Act.** When required by federal program legislation or local program policies all prime construction contracts in excess of \$2,000.00 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144 and 3146-3148).
 - a. The CONTRACTOR agrees to comply with the requirements of the Secretary of Labor in accordance with the Davis-Bacon Act (40 U.S.C. 3141-3148) as amended, with the provisions of Contract Work Hours and Safety Standards Act, the Copeland "Anti-Kickback" Act (40 U.S.C. 276a-276a-5, 40 USC 327 and 40 USC 276c) and all other applicable Federal, state and local laws and regulations pertaining to labor standards in so far as those acts apply to the performance of this contract. In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The CONTRACTOR shall maintain documentation which demonstrates compliance with requirements of this part. Such documentation shall be made available to the City-Parish for review upon request.
5. **Compliance with the Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708).** All contracts awarded by the non-Federal entity in excess of \$100,000.00 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Any contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (b)(1) through (4) below along with a clause requiring subcontractors to include these clauses in any lower tier subcontracts.

- a. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
 - b. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the CONTRACTOR and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages.
 - c. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
 - d. Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the CONTRACTOR or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
 - e. Subcontracts. The CONTRACTOR or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions, which are hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
6. **Rights to Inventions Made Under a Contract or Agreement.** If the Federal award meets the definition of "funding agreement" under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.
7. **Clean Water Act/ Federal Water Pollution Control Act.** Contracts and subgrants of amounts in excess of **\$150,000.00** must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of Environmental Protection Agency (EPA).
- a. The CONTRACTOR hereby agrees to adhere to the provisions, which require compliance with all applicable standards, orders, or requirements issued under Section 508 of the Clean Water Act which prohibits the use under non-exempt Federal contracts, grants or loans of facilities included on the EPA List of Violating Facilities.

- b. The CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 7401 et seq.
 - c. If this contract is funded by federal dollars, The CONTRACTOR agrees to report each violation to the State and understands and agrees that the State will, in turn, report each violation as required to assure notification to the CITY-PARISH, and the appropriate Environmental Protection Agency Regional Office.
 - d. If this contract is funded by federal dollars, the CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal assistance.
8. **Debarment & Suspension.** A contract award must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with OMB guidelines at 2 C.F.R. 180. SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.
- a. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the CONTRACTOR is required to verify that none of the CONTRACTOR's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
 - b. The CONTRACTOR must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
 - c. This certification is a material representation of fact relied upon by CITY-PARISH. If it is later determined that the CONTRACTOR did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to CITY-PARISH, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
 - d. The CONTRACTOR agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The CONTRACTOR further agrees to include a provision requiring such compliance in its lower tier covered transactions.
 - e. The CONTRACTOR shall submit a Federal Debarment Certification to assure compliance with the aforementioned regulation.
9. **Byrd Anti-Lobbying Act.** Contractors that apply or bid for an award exceeding \$100,000.00 must file the required certification under the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352).
- a. The CONTRACTOR will be expected to comply with Federal statutes required in the Anti-Lobbying Act. Contractors who apply or bid for an award shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any Agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

10. **Procurement of Recovered Materials (2 C.F.R. 200.322).** A non-Federal entity that is a state agency or agency of a political subdivision of a state and its CONTRACTOR must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the items exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.
11. **Surveillance Services or Equipment.** A non-Federal entity and subrecipients who procure telecommunications and video surveillance services or equipment by obligating or expending loan or grant funds must comply with the provisions of 2 C.F.R. §200.216. Specifically, (a) recipients and subrecipients are prohibited from using grant funds to: (1) Procure or obtain; (2) Extend or renew a contract to procure or obtain; or (3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in *Public Law 115-232*, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). (i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities). (ii) Telecommunications or video surveillance services provided by such entities or using such equipment. (iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country. (b) In implementing the prohibition under *Public Law 115-232*, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained. (c) See *Public Law 115-232*, section 889 for additional information. (d) See also § 200.471.

12. **Domestic Preferences for Procurement.** As appropriate and to the extent consistent with law, the parties should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

- a. For purposes of this section: (1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. (2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

IN WITNESS WHEREOF, the **Contractor/Vendor/Sub-Recipient** understands and agrees to the above Federal award provisions.

CONTRACTOR

BY: _____
(Authorized Signature, printed name)

Date: _____

ATTACHMENT F
COMPLIANCE WITH THE CODE OF FEDERAL REGULATIONS
(2 C.F.R. § Pt. 200, App. II)

Definitions:

contractor - means an entity that receives a contract.

non-Federal entity- means a State, local government, Indian tribe, Institution of Higher Education (IHE), or nonprofit organization that carries out a Federal award as a recipient or subrecipient.

federally assisted construction contract – any agreement or modification thereof between any applicant and a person for construction work which is paid for in whole or in part with funds obtained from the Government

funding agreement – agreement entered into between any Federal agency and any for the performance of experimental, developmental, or research work funded in whole or in part by the Federal government.

The Service Provider receiving funding under a Federal award, shall comply with all applicable contract provisions as prescribed in Appendix II to Part 200 and those associated with US Treasury State and Local Fiscal Recovery Fund terms and conditions.

FEDERAL TERMS AND CONDITIONS APPLICABLE FOR ALL CONTRACTS UTILIZING AMERICAN RESCUE PLAN ACT, STATE AND LOCAL FISCAL RECOVERY FUNDS.

1. **Use of Funds.** The Service Provider understands and agrees that the funds disbursed under this award may only be used in compliance with section 602(c) of the Social Security Act (the Act) and Treasury's regulations implementing that section and guidance.

The Service Provider will determine prior to engaging in any project using this assistance that it has the institutional, managerial, and financial capability to ensure proper planning, management, and completion of such project.

2. **Period of Performance.** The period of performance for this award begins with vendor acceptance of Notice to Proceed.
3. **Reporting.** The Service Provider agrees to comply with any reporting obligations established by Treasury as they relate to this award.
4. **Maintenance of and Access to Records.** The Service Provider shall maintain records and financial documents sufficient to evidence compliance with section 602(c), Treasury's regulations implementing that section, and guidance issued by Treasury regarding the foregoing. The Treasury Office of Inspector General and the Government Accountability Office, or their authorized representatives, shall have the right of access to records (electronic and otherwise) of the Service Provider in order to conduct audits or other investigations.

Records shall be maintained by the Service Provider for a period of five (5) years after all funds have been expended or returned to Treasury, whichever is later.

5. **Pre-award Costs.** Pre-award costs, as defined in 2 C.F.R. § 200.458, may not be paid with funding from this award.
6. **Administrative Costs.** The Service Provider may use funds provided under this award to cover both direct and indirect costs.
7. **Cost Sharing.** Cost sharing or matching funds are not required to be provided by the Service Provider.
8. **Conflicts of Interest.** The Service Provider understands and agrees it must maintain a conflict of interest policy consistent with 2 C.F.R. § 200.318(c) and that such conflict of interest policy is applicable to each activity funded under this award. The Service Provider and their subconsultants must disclose in writing to Treasury or the pass-through entity, as appropriate, any potential conflict of interest affecting the awarded funds in accordance with 2 C.F.R. § 200.112.
9. **Compliance with Applicable Law and Regulations.**
 - a) The Service Provider agrees to comply with the requirements of section 602 of the Act, regulations adopted by Treasury pursuant to section 602(f) of the Act, and guidance issued by Treasury regarding the foregoing. The Service Provider also agrees to comply with all other applicable federal statutes, regulations, and executive orders, and the Service Provider shall provide for such compliance by other parties in any agreements it enters into with other parties relating to this award.
 - b) Federal regulations applicable to this award include, without limitation, the following:
 - i. Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. Part 200, other than such provisions as Treasury may determine are inapplicable to this Award and subject to such exceptions as may be otherwise provided by Treasury. Subpart F – Audit Requirements of the Uniform Guidance, implementing the Single Audit Act, shall apply to this award.
 - ii. Universal Identifier and System for Award Management (SAM), 2 C.F.R. Part 25, pursuant to which the award term set forth in Appendix A to 2 C.F.R. Part 25 is hereby incorporated by reference.
 - iii. Reporting Subaward and Executive Compensation Information, 2 C.F.R. Part 170, pursuant to which the award term set forth in Appendix A to 2 C.F.R. Part 170 is hereby incorporated by reference.
 - iv. OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement), 2 C.F.R. Part 180, including the requirement to include a term or condition in all lower tier covered transactions (contracts and subcontracts described in 2 C.F.R. Part 180, subpart B) that the award is subject to 2 C.F.R. Part 180 and Treasury's implementing regulation at 31 C.F.R. Part 19.
 - v. THE CONTRACTOR Integrity and Performance Matters, pursuant to which the award term set forth in 2 C.F.R. Part 200, Appendix XII to Part 200 is hereby incorporated by reference.
 - vi. Governmentwide Requirements for Drug-Free Workplace, 31 C.F.R. Part 20.
 - vii. New Restrictions on Lobbying, 31 C.F.R. Part 21.

- viii. Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (42 U.S.C. §§ 4601-4655) and implementing regulations.
- ix. Generally applicable federal environmental laws and regulations.
- c) Statutes and regulations prohibiting discrimination applicable to this award include, without limitation, the following:
 - i. Title VI of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d et seq.) and Treasury's implementing regulations at 31 C.F.R. Part 22, which prohibit discrimination on the basis of race, color, or national origin under programs or activities receiving federal financial assistance;
 - ii. The Fair Housing Act, Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§ 3601 et seq.), which prohibits discrimination in housing on the basis of race, color, religion, national origin, sex, familial status, or disability;
 - iii. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of disability under any program or activity receiving federal financial assistance;
 - iv. The Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101 et seq.), and Treasury's implementing regulations at 31 C.F.R. Part 23, which prohibit discrimination on the basis of age in programs or activities receiving federal financial assistance; and
 - v. Title II of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. §§ 12101 et seq.), which prohibits discrimination on the basis of disability under programs, activities, and services provided or made available by state and local governments or instrumentalities or agencies thereto.
- 10. **Remedial Actions.** In the event of the Service Provider's noncompliance with section 602 of the Act, other applicable laws, Treasury's implementing regulations, guidance, or any reporting or other program requirements, Treasury may impose additional conditions on the receipt of a subsequent tranche of future award funds, if any, or take other available remedies as set forth in 2 C.F.R. § 200.339. In the case of a violation of section 602(c) of the Act regarding the use of funds, previous payments shall be subject to recoupment as provided in section 602(e) of the Act and any additional payments may be subject to withholding as provided in sections 602(b)(6)(A)(ii)(III) of the Act, as applicable.
- 11. **Hatch Act.** The Service Provider agrees to comply, as applicable, with requirements of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328), which limit certain political activities of State or local government employees whose principal employment is in connection with an activity financed in whole or in part by this federal assistance.
- 12. **False Statements.** The Service Provider understands that making false statements or claims in connection with this award is a violation of federal law and may result in criminal, civil, or administrative sanctions, including fines, imprisonment, civil damages and penalties, debarment from participating in federal awards or contracts, and/or any other remedy available by law.
- 13. **Publications.** Any publications produced with funds from this award must display the following language: "This project [is being] [was] supported, in whole or in part, by federal award number [enter project FAIN] awarded to the City-Parish of East Baton Rouge by the U.S. Department of the Treasury."
- 14. **Debts Owed the Federal Government.**
 - a. Any funds paid to the Service Provider (1) in excess of the amount to which the Service Provider is finally determined to be authorized to retain under the terms of this award; (2) that are determined by the Treasury Office of Inspector General to have been misused; or (3) that are determined by Treasury to be subject to a repayment obligation pursuant to sections 602(e) and 603(b)(2)(D) of the Act and have not been repaid by the Service Provider shall constitute a debt to the federal government.

- b. Any debts determined to be owed the federal government must be paid promptly by the Service Provider. A debt is delinquent if it has not been paid by the date specified in Treasury's initial written demand for payment, unless other satisfactory arrangements have been made or if the Service Provider knowingly or improperly retains funds that are a debt as defined in paragraph 14(a). Treasury will take any actions available to it to collect such a debt.

15. **Disclaimer.**

- a. The United States expressly disclaims any and all responsibility or liability to the Service Provider or third persons for the actions of the Service Provider or third persons resulting in death, bodily injury, property damages, or any other losses resulting in any way from the performance of this award or any other losses resulting in any way from the performance of this award or any contract, or subcontract under this award.
- b. The acceptance of this award by the Service Provider does not in any way establish an agency relationship between the United States and the Service Provider.

16. **Protections for Whistleblowers.**

- a. In accordance with 41 U.S.C. § 4712, the Service Provider may not discharge, demote, or otherwise discriminate against an employee in reprisal for disclosing to any of the list of persons or entities provided below, information that the employee reasonably believes is evidence of gross mismanagement of a federal contract or grant, a gross waste of federal funds, an abuse of authority relating to a federal contract or grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a federal contract (including the competition for or negotiation of a contract) or grant.
- b. The list of persons and entities referenced in the paragraph above includes the following:
 - (i) A member of Congress or a representative of a committee of Congress;
 - (ii) An Inspector General;
 - (iii) The Government Accountability Office;
 - (iv) A Treasury employee responsible for contract or grant oversight or management;
 - (v) An authorized official of the Department of Justice or other law enforcement agency;
 - (vi) A court or grand jury; or
 - (vii) A management official or other employee of the Service Provider, or subcontractor who has the responsibility to investigate, discover, or address misconduct.
- c. The Service Provider shall inform its employees in writing of the rights and remedies provided under this section, in the predominant native language of the workforce.

17. **Increasing Seat Belt Use in the United States.** Pursuant to Executive Order 13513, 74 FR 51225 (Oct. 6, 2009), the Service Provider should encourage its employees, and their subconsultants, and contractors to adopt and enforce policies that ban text messaging while driving, and the Service Provider should establish workplace safety policies to decrease accidents caused by distracted drivers.

18. **Reducing Text Messaging While Driving.** Pursuant to Executive Order 13513, 74 FR 51225 (Oct. 6, 2009), the Service Provider should encourage its employees, and their subconsultants, and contractors to adopt and enforce policies that ban text messaging while driving, and the Service Provider should establish workplace safety policies to decrease accidents caused by distracted drivers.

19. **Equal Employment Opportunity.** During the performance of this contract, the Service Provider agrees as follows:
- a. The Service Provider will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Service Provider will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Service Provider agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 - b. The Service Provider will, in all solicitations or advertisements for employees placed by or on behalf of the Service Provider, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
 - c. The Service Provider will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Service Provider's legal duty to furnish information.
 - d. The Service Provider will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Service Provider's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
 - e. The Service Provider's will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
 - f. The Service Provider's will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
 - g. In the event of the Service Provider's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Service Provider may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

- h. The Service Provider will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each sub or vendor. The Service Provider will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Provided, however, that in the event a Service Provider becomes involved in, or is threatened with, litigation with a sub or vendor as a result of such direction by the administering agency, The Service Provider may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of Service Providers, contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon Service Provider's, contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

20. **Davis Bacon Act.** When required by federal program legislation or local program policies all prime construction contracts in excess of \$2,000.00 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144 and 3146-3148). The Service Provider agrees to comply with the requirements of the Secretary of Labor in accordance with the Davis-Bacon Act (40 U.S.C. 3141-3148) as amended, with the provisions of Contract Work Hours and Safety Standards Act, the Copeland "Anti-Kickback" Act (40 U.S.C. 276a-276a-5, 40 USC 327 and 40 USC 276c) and all other applicable Federal, state and local laws and regulations pertaining to labor standards in so far as those acts apply to the performance of this contract. In accordance with the statute, Contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation.

The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States").

The Act provides that each contractor must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The Service Provider shall maintain documentation which demonstrates compliance with the requirements of this part. Such documentation shall be made available to the City-Parish for review upon request.

21. **Compliance with the Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708).** All contracts awarded by the non-Federal entity in excess of \$100,000.00 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Any Service Provider or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (b)(1) through (4) below along with a clause requiring subcontractors to include these clauses in any lower tier subcontracts.
- a. Overtime requirements. No Service Provider or subcontractor for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
 - b. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the Service Provider and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such Service Providers and subcontractors shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
 - c. Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Service Provider or subcontractor under any such contract or any other Federal contract with the same prime , or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime , such sums as may be determined to be necessary to satisfy any liabilities of such or sub for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

- d. Subcontracts. The Service Provider or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subs to include these clauses in any lower tier subcontracts. The prime contractor (Service Provider) shall be responsible for compliance by any sub or lower tier sub with the clauses set forth in paragraphs (b)(1) through (4) of this section. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions, which are hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

- 22. **Clean Water Act/ Federal Water Pollution Control Act.** Contracts and subgrants of amounts in excess of **\$150,000.00** must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of Environmental Protection Agency (EPA).

The Service Provider hereby agrees to adhere to the provisions, which require compliance with all applicable standards, orders, or requirements issued under Section 508 of the Clean Water Act which prohibits the use under non-exempt Federal contracts, grants or loans of facilities included on the EPA List of Violating Facilities.

- a. The Service Provider agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 7401 et seq.
 - b. If this contract is funded by federal dollars, the Service Provider agrees to report each violation to the State and understands and agrees that the State will, in turn, report each violation as required to assure notification to the Department of Treasury, and the appropriate Environmental Protection Agency Regional Office.
 - c. If this contract is funded by federal dollars, The Service Provider agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by Treasury.
- 23. **Debarment & Suspension.** A contract award must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with OMB guidelines at 2 C.F.R. 180. SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the Service Provider is required to verify that none of The Service Provider's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

The Service Provider must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

This certification is a material representation of fact relied upon by City of Baton Rouge / Parish of East Baton Rouge. If it is later determined that the Service Provider did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to City of Baton Rouge / Parish of East Baton Rouge, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

The bidder or the Service Provider agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or Service Provider further agrees to include a provision requiring such compliance in its lower tier covered transactions.

The Service Provider shall submit a Federal Debarment Certification to assure compliance with the aforementioned regulation.

24. **Byrd Anti-Lobbying Act.** Service Provider's that apply or bid for an award exceeding \$100,000.00 must file the required certification under the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352).

The Service Provider's will be expected to comply with Federal statutes required in the Anti-Lobbying Act. Service Provider's who apply or bid for an award shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any Agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

25. **Procurement of Recovered Materials (2 C.F.R. 200.322).** A non-Federal entity that is a state agency or agency of a political subdivision of a state and its Service Provider's must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the items exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

26. **Surveillance Services or Equipment.** A non-Federal entity and subrecipients who procure telecommunications and video surveillance services or equipment by obligating or expending loan or grant funds must comply with the provisions of 2 C.F.R. §200.216.

Specifically, (a) recipients and subrecipients are prohibited from using grant funds to: (1) Procure or obtain; (2) Extend or renew a contract to procure or obtain; or (3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in *Public Law 115-232*, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). (i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities). (ii) Telecommunications or video surveillance services provided by such entities or using such equipment. (iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

(b) In implementing the prohibition under *Public Law 115-232*, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained. (c) See *Public Law 115-232*, section 889 for additional information. (d) See also § 200.471.

27. **Domestic Preferences for Procurement.** As appropriate and to the extent consistent with law, the parties should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

For purposes of this section: (1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. (2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

28. **Termination for Cause or Convenience; Suspension.** CITY-PARISH may exercise any rights available under Louisiana law to terminate for cause upon the failure of the sub to comply with the terms and conditions of this contract, provided that CITY-PARISH shall give the Service Provider written notice specifying the Service Provider's failure and thirty (30) days to cure the defect.

CITY-PARISH may terminate the AGREEMENT at its convenience at any time for any or no reason by giving seven (7) days written notice to the Service Provider.

Upon termination for cause or convenience, The Service Provider shall be entitled to payment for deliverables in progress through the date of termination, to the extent work has been performed in accordance with the terms and/or conditions of this AGREEMENT or otherwise to the satisfaction of CITY-PARISH, as well as reasonable termination and demobilization costs.

Should CITY-PARISH find it necessary to suspend the work for lack of funding or other circumstances beyond its control, this may be done by thirty (30) days written notice given by CITY-PARISH to that effect. If the AGREEMENT is suspended for more than thirty (30) consecutive calendar days, the Service Provider shall be compensated for services performed prior to the notice of suspension. In addition, when work under the AGREEMENT resumes, the Service Provider's compensation shall be equitably adjusted to provide for expenses incurred in the interruption and resumption of the Service Provider's services.

29. **Remedies.** If any work performed by the Service Provider fails to meet the requirements of the AGREEMENT, CITY-PARISH may in its sole discretion:

- (i) elect to have the Service Providers re-perform or cause to be re-performed at the Service Provider's sole expense, any of the work which failed to meet the requirements of the AGREEMENT;
- (ii) hire another subconsultant to perform the work and deduct any additional costs incurred by CITY-PARISH as a result of substituting the Service Provider from any amounts due to the Service Provider; or
- (iii) pursue and obtain any and all other available legal or equitable remedies.

30. **Energy Policy and Conservation Act:** The Service Provider hereby recognizes the mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (P.L. 94-163).
31. **Copeland Anti-Kickback Act:**
- a. Contractor. The contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.
 - b. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as Treasury may by appropriate instructions require, and also a clause requiring the subs to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any sub or lower tier sub with all of these contract clauses.
 - c. Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.
32. **No Obligation by Federal Government.** The federal government is not a party to this AGREEMENT and is not subject to any obligations or liabilities to the non-federal entity, , or any other party pertaining to any matter resulting from the AGREEMENT.
33. **Program Fraud and False or Fraudulent Statements or Related Acts.** The Service Provider acknowledges that 21 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Service Provider's actions pertaining to this AGREEMENT.
34. **Force Majeure:** Any delay or failure of the Service Provider in performing its required obligations hereunder shall be excused if and to the extent such delay or failure is caused by a Force Majeure Event. A "Force Majeure Event" means an event due to any cause or causes beyond the reasonable control of the Service Provider and shall include, but not be limited to, acts of God, strike, labor dispute fire, storm, flood, windstorm, unusually severe weather, sabotage, embargo, terrorism, energy shortage, accidents or delay in transportation, accidents in the handling and rigging of heavy equipment, explosion, riot, war, medical pandemic or emergency, court injunction or order, delays by acts or orders of any governmental body or changes in laws or government regulations or the interpretations or application thereof or the acts or omissions of the Client or its other s, vendors or suppliers. In the event of a Force Majeure Event, the Service Provider shall receive an equitable adjustment extending the Service Provider's time for performance for such Services sufficient to overcome the effects of any delay, and an increase(s) to the Service Provider's compensation sufficient to account for any increased cost in performance or loss or damage suffered by the Service Provider.

IN WITNESS WHEREOF, the **Service Provider** understands and agrees to the above Federal award provisions.

BY: _____
(Authorized Signature, printed name)

DATE: _____

ATTACHMENT G FAIR CHANCE ORDINANCE

Requires Fair Chance hiring standards for person, corporations, and entities in a contract, cooperative endeavor agreement, or grant with the City of Baton Rouge, Parish of East Baton Rouge by limiting the consideration of criminal history of an applicant, and to provide otherwise with respect hereto.

Section 1

A contractor shall not request from the applicant their criminal history before the contractor extends a conditional offer of employment.

Section 2

All contracts shall include a certification that the contractor has complied with the provisions of the fair chance ordinance.

Section 3

The applicant will acknowledge in writing that a background check will be performed before a final offer of employment.

Section 4

Section 1 does not apply if consideration of an applicant's criminal history is required by law.

Section 5

The Purchasing department is the enforcing agency and shall establish a procedure for complaint.

Section 6

The Fair Chance ordinance shall not apply to the following City Parish departments: Human Resources, Police, Constable, Fire Department, Emergency Medical Services, Juvenile Services, and Metro Airport.

Section 7

The ordinance shall be effective May 5, 2023 following adoption and shall apply to contracts executed on or after the effective date EXCLUDING renewals to contracts awarded in response to an Request for Proposal (RFP), a Request for Qualifications (RFP) or awarded by the Engineers or Architectural Selection Boards. The ordinance shall not apply to any agreements executed before the effective date of this ordinance.

The signature below certifies that the signer has carefully examined the above and is in full compliance with the terms listed.

Date

Authorized Signature

Authorized Name (Printed)

ATTACHMENT H

H2B WORKFORCE REQUIREMENTS

H2B Workforce Requirements: If Contractor uses H-2B workers, Contractor will provide services subject to the terms and conditions set forth below. In accordance with applicable laws,

- Contractor will provide each worker with a document explaining the terms and conditions of employment and the worker's rights, and a copy of any applicable H-2B work order by the time periods required by applicable law. A copy of Contractor's H-2B work order shall be provided to Company upon request.
- Contractor will display "Employee Rights Under the H-2B Program" poster, and all other notices and posters required by applicable federal, state and local law. Such notices must be provided to employees in English and in a language that each worker can understand.
- Contractor will pay employees at least once every two weeks, or as otherwise required by federal law or the disclosed payday in any applicable H-2B work order.
- Contractor will pay each employee not less than the highest minimum wage rate applicable to its employees, including minimum rates for H-2B laborers (as indicated in Contractor's Application for Temporary Employment Certification, which amount equals or exceeds the highest of the prevailing wage, the promised wage, and the federal, state and local minimum wage), and, if and when applicable, the highest overtime rate required by applicable law for all overtime hours worked by employees. Notwithstanding the foregoing, Contractor shall pay its employees in accordance with applicable H-2B regulations.
- In accordance with H-2B regulations, Contractor shall provide to its H-2B employees, and employees performing the same work, at least 35 hours of work per workweek, and a total number of work hours equal to at least 75% of the guaranteed hours as listed in the job order in each 12-week period (or each 6-week period), or must pay such employees the amount they would have earned had they worked for the guaranteed number of workdays.
- Contractor must pay its employees for their visa expenses and transportation and subsistence costs for travel to and from the worksite in accordance with H-2B regulations and Contractor's H-2B work order.
- Contractor must not seek or receive payments or other compensation from prospective workers, as prohibited by H-2B regulations.
- Contractor agrees to provide housing to its employees to the extent required by applicable H-2B regulations, the Federal Fair Labor Standards Act, and applicable federal, state, and local law.
- Contractor agrees to pay an arrival and return/subsistence and transportation fees for each worker at the beginning and end of each the job order period.
- Contractor must notify the U.S. Department of Labor if any H-2B or employee performing similar work separates from the job for any reason before the end of Contractor's work order. The notification must be made in writing and no later than two (2) days after the separation is discovered by Contractor. Contractor must also notify the U.S. Department of Homeland Security of any such separation of an H-2B worker.
- Contractor must not offer terms, wages, and working conditions to U.S. workers that are less favorable than what Contractor offers or provides to H-2B workers. Further, Contractor must not impose restrictions or obligations on U.S. workers that are not imposed on H-2B workers. Contractor must not lay off any similarly employed U.S. worker in the occupation and area of intended employment from 120 days before the start of Contractor's job order.
- Contractor using H-2B workforce must include a copy of their most recently submitted LOI, Letter of Intent. The U.S. Department of Labor requires this letter in the visa approval process. This letter must be signed and dated on company letterhead, with a description of work applicable to the scope, and indicate County/Parish and State where work will be performed: East Baton Rouge Parish, Louisiana.

ATTACHMENT I

2 CFR Requirement Small Minority and Women's Businesses

Subrecipients must include small, minority and women's owned business in their solicitations for procurement. Email the businesses below for every procurement transaction with federal funds and maintain a copy of the email in the project files.

[Asian Chamber of Commerce Louisiana](#)

[Hispanic Chamber of Commerce Louisiana](#)

[Southern Region Minority Supplier Development Council](#)

[Strategic Action Council](#)

[Vietnamese Initiatives in Economic Training](#)

[Urban League of Louisiana](#)

[Women's Business and Enterprise Council](#)

[Louisiana Chamber of Commerce Foundation](#)

[National Association of Women Business Owners](#)

Subrecipients must ensure that the clause below to take affirmative steps to include small, minority, and women's owned business is in their contracts with their prime contractors.

Contracting With Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms.

- a) Any party to this Contract, when expending any Federal funds received under this Agreement, must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. These steps are required for the hiring of any subcontractors under this Contract.
- b) Affirmative steps must include:
 - 1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
 - 2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
 - 3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
 - 4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and
 - 5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

ATTACHMENT J PROPOSER'S ORGANIZATION

PROPOSER IS:

AN INDIVIDUAL

Individual's Name: _____

Doing business as: _____

Address: _____

Telephone No.: _____ Fax No.: _____ Email: _____

A PARTNERSHIP

Firm Name: _____

Address: _____

Name of person authorized to sign: _____

Title: _____

Telephone No.: _____ Fax No.: _____ Email: _____

A LIMITED LIABILITY COMPANY

Company Name: _____

Address: _____

Name of person authorized to sign: _____

Title: _____

Telephone No.: _____ Fax No.: _____ Email: _____

A CORPORATION:

IF PROPOSAL IS BY A CORPORATION, THE CORPORATE RESOLUTION MUST BE SUBMITTED WITH PROPOSAL

Corporation Name: _____

Address: _____

State of Incorporation: _____

Name of person authorized to sign: _____

Title: _____

Telephone No.: _____ Fax No.: _____ Email: _____

IF PROPOSAL IS BY A JOINT VENTURE, ALL PARTIES TO THE PROPOSAL MUST COMPLETE THIS FORM

ATTACHMENT K CORPORATE RESOLUTION

A meeting of the Board of Directors of _____ a corporation organized under the laws of the State of _____ and domiciled in _____ was held this _____ day of _____, 20____ and was attended by a quorum of the members of the Board of Directors

The following resolution was offered, duly seconded and after discussion was unanimously adopted by said quorum:

BE IT RESOLVED, that _____ is hereby authorized to submit proposals and execute agreements on behalf of this corporation with the City of Baton Rouge, for the Parish of East Baton Rouge.

BE IT FURTHER RESOLVED, that said authorization and appointment shall remain in full force and effect, unless revoked by resolution of this Board of Directors and that said revocation will not take effect until the Purchasing Director of the City-Parish, shall have been furnished a copy of said resolution, duly certified.

I, _____ hereby certify that I am the Secretary of,

a corporation created under the laws of the State of _____ domiciled in _____; that the foregoing is a true and exact copy of a resolution adopted by a quorum of the Board of Directors of said corporation at a meeting legally called and held on the _____ day of _____, 20____, as said resolution appears of record in the Official Minutes of the Board of Directors in my possession.

This _____ day of _____, 20____

SECRETARY

ATTACHMENT L

AFFIDAVIT

City of Baton Rouge
Parish of East Baton Rouge

BEFORE ME, the undersigned authority, personally came and appeared _____ who, being duly sworn did depose and say: That he is a duly authorized representative of _____ receiving value for services rendered in connection with:

City Parish Third Party Claims Administrator

a public project of the City of Baton Rouge, Parish of East Baton Rouge, Louisiana: that he has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by him whose services in connection with the construction, alteration, or demolition of the public building or project or in securing the public contract were in the regular course of their duties for him; and that no part of the contract price received by him was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by him whose services in connection with the construction of the public building or project were in the regular course of their duties for him.

This affidavit is executed in compliance with the provisions of LA R.S. 38:2224.

Affiant's Signature

SWORN TO AND SUBSCRIBED before me, on this _____ day of _____, 20____,
Baton Rouge, Louisiana.

NOTARY PUBLIC

ATTACHMENT A

SCOPE OF SERVICES



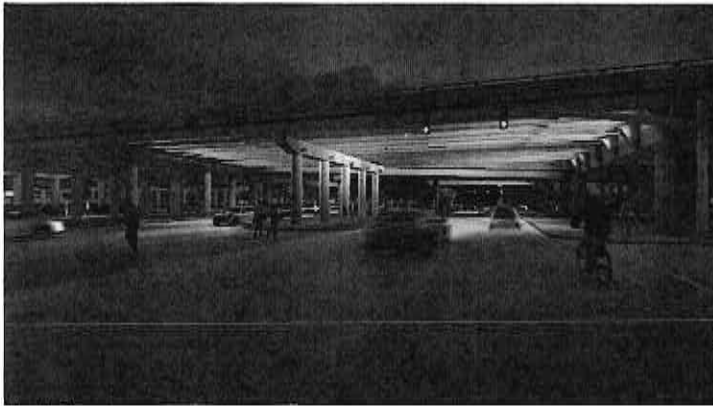
INTERSTATE OVERPASS LIGHTING
CONCEPT DESIGN PACKAGE



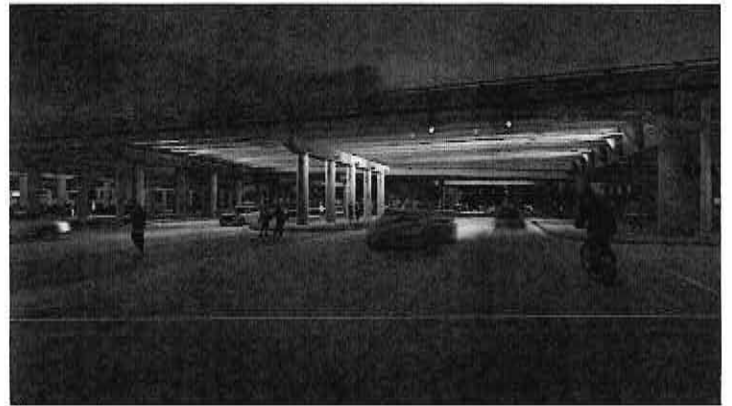
**DOWNTOWN
DEVELOPMENT
DISTRICT**

W.H.C. Architecture

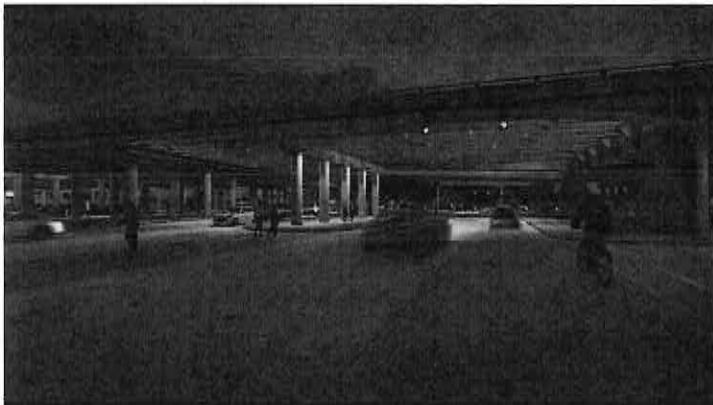
M&E Consulting



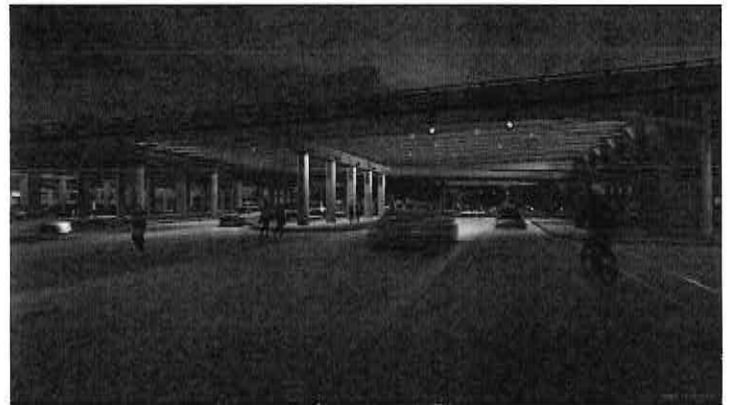
Mardi Gras theme



Christmas theme



LSU related events theme



Southern University related events theme

INTERSTATE OVERPASS LIGHTING
DOWNTOWN DEVELOPMENT DISTRICT WHLC ARCHITECTURAL M&E CONSULTING

NORTH BOULEVARD LIGHTING THEME EXAMPLES



INTERSTATE OVERPASS LIGHTING

DOWNTOWN DEVELOPMENT DISTRICT

WHEGIA ARCHITECTURE

M&E CONSULTING

LOUISIANA AVENUE CONNECTION

15

Three (3) copies of the drawings must accompany this permit application.

When applicable, the following supplement is also required and shall become a part of this permit: Railroad Supplement

ENTERED IN COMPUTER FILE

Permit Number 61038802
CONTROL 450 SECTION 92

INITIAL AND DATE

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

PROJECT PERMIT

(Required by State Law) Rev 03/23

A copy of this permit shall be available at the site where and when work is performed.

Whereas Fred Raiford (East Baton Rouge Parish)

(Print or type name of applicant)

hereinafter termed applicant, requests a pennit for the use and occupancy of the right-of-way of State Highway No. 1-110

in East Baton Rouge Parish, located as follows:

from: Louisiana Avenue/S. 10th Street Lat: 30.445068 Long: -91.179554
to: Louisiana Avenue/S. 10th Street Lat: 30.445068 Long: -91.179554
(in Decimal Degrees, e.g. Lat:-30.459, Long: -91.178)

for the installation, operation, and maintenance of the following described project (use additional sheets as necessary):

To install an underpass interstate gateway lighting mock-up, serving both aesthetic and safety purposes, for review and evaluation by the necessary approving entities (DOTD, City of Baton Rouge, Designer, DDD) prior to moving forward with future construction/installation.

Estimated number of times this facility will be accessed each year after construction has been completed, including meter readings: 7

By signing this permit, applicant/permittee hereby acknowledges receiving a copy of the permit, the general conditions and standards, and the Standards for Installation of Facilities on State Highways, and agrees to comply with all provisions contained therein and all applicable laws, rules and regulations.

DOTD USE ONLY:

Permit is subject to Attachment A and the following conditions (use additional sheets as necessary):

Please contact the Area Engineer, Mr. Desmond Sam 225.231.4116, at least five (5) days in advance to coordinate and schedule the mock-up demonstration.

RECOMMENDED FOR APPROVAL

(City or District Preview required)

Cedric LaCour 7/14/2025

☒ District Permit Specialist / Date

Desmond Sam 7/17/2025

☒ District Area Engineer / Date

☐ District Water Resources Engineer / Date

☐ District Administrator (or Designee) / Date

Print Name Cedric LaCour

Applicant must notify District Permit Specialist

at phone number: 225.231.4164

prior to beginning work and after work is completed.

Final inspection and approval by: _____

Issue Date: 4/9/2026

Installation to be completed by: 10/9/2026

(Date)

Permit must be signed by the owner or lessee of the property.
Contractor may NOT acquire permit

Fred Raiford 7-2-25
(Agency Representative Signature) (Date)

(Name of Person Signing Permit) (Printed or Typed)

Director of Transportation & Drainage

(Title)

222 Saint Louis Street, 8th Floor

(Street or P.O. Box)

Baton Rouge

LA 70802

(City or Town)

(State) (Zip Code)

225.389.3159

(Telephone Number)

FRAIFORD@hda.gov

(E-mail Address)

DOTD APPROVAL:

Joshua Stutes 4/9/2026 | 11:23 AM CDT

Headquarters Right-of-Way Permit Engineer / Date or

District Administrator (or Designee) / Date

Print Name Joshua Stutes

HEADQUARTERS (original)

pc: DISTRICT
25-263

pc: PERMITTEE
Page 1 of 3

The following general conditions and standards shall apply:

FIRST: That, the rights and privileges granted herein shall be nonexclusive and shall not be construed to be any broader than those expressly set out in Acts of the Legislature of the State of Louisiana, regardless of the language used in this permit and that any facilities placed on the highway right-of-way shall be placed in accordance with existing laws and the standards of the Department.

SECOND: That, all facilities thereto, after having been erected, shall at all times be subject to inspection and the right is reserved to require such changes, additions, repairs, relocations and removal as may at any time be considered necessary to permit the relocation, reconstruction, widening and maintaining of the highway and to provide proper and safe protection to life and property on or adjacent to the highway, or in the interest of safety to traffic on the highway and that the cost of making such changes, additions, repairs and relocations shall be borne by the applicant, and that all of the cost of the work to be accomplished under this permit shall be borne by the permittee who agrees to hold the Department harmless therefor.

THIRD: That, the proposed facilities or their operation or their maintenance shall not unreasonably interfere with the facilities or the operation or maintenance of the facilities of other persons, firms or corporations previously issued permits of use and occupancy, and the proposed facilities shall not be dangerous to persons or property using or occupying the highway or using facilities constructed under previously granted permits of use and occupancy; and that the Department's records of prior permits are available, it being the duty of the applicant to determine the existence and location of all facilities within the highway right-of-way.

FOURTH: That, installations within the highway right-of-way shall be in accordance with applicable provisions contained in the following: AASHTO Guide for Accommodating Utilities within Highway Right of Way, Code of Federal Regulations 23 (CFR 23), National Electrical Safety Code C2, and the 1996 Federal Telecommunications Act. Those facilities not included in the above mentioned documents shall be in accordance with accepted practice. Where standards of the Department exceed those of the above cited codes, the standards of the Department shall apply. The Department reserves the right to modify its policies as may be required if conditions warrant.

FIFTH: That, data relative to the proposed location, relocation and design of fixtures or appurtenances as may be required by the Department shall be furnished to the Department by the applicant free of cost, and that the permit applicant shall make any and all changes or additions necessary to make the proposed facilities thereto satisfactory to the Department.

SIXTH: That, cutting and trimming of trees, shrubs, etc., shall be in accordance with the Department's EDSM IV.2.1.6 and Vegetation Manual, as revised.

SEVENTH: The applicant shall indemnify and save harmless the Department, its officers, agents, employees, contractors and assigns against any and all costs, expenses, claims, losses, liabilities, demands, suits, causes of action, damages, and judgments of any sums of money to any party accruing against the Department, its officers, agents, employees, contractors and assigns, growing out of, resulting from, or by reason of the presence or operation of the proposed facilities or any act or omission of the applicant, its officers, employees, agents, contractors and assigns while engaged in, about, or in connection with the discharge or performance of the terms of this permit or the operation, maintenance and use of the proposed facilities, whether by the applicant or third parties. Such indemnification shall include, without limitation, attorney's fees, court costs, fines, penalties, legal, consulting, accounting, engineering, and other expenses. The applicant shall provide and bear the expenses of all personal, professional, or other applicable insurance related to its ownership and operation of the proposed facilities and its duties arising under the permit.

EIGHTH: That, the applicant is the owner of the facility for which a permit requested, and is responsible for maintenance of such: and any permit granted by the Department is granted only insofar as the Department had the power and right to grant the same.

NINTH: That, any permit granted by the Department is subject to revocation at any time.

TENTH: That, signing for warning and protection of traffic in instances where workmen, equipment or materials are in close proximity to the roadway surfacing, shall be in accordance with requirements contained in the Department's Manual on Uniform Traffic Control Devices. No vehicles, equipment and/or materials shall operate from, or be parked, stored or stock piled on any highway, median, or in an area extending from the outer edge of the shoulder of the highway on one side to the outer edge of the shoulder of the highway on the opposite side or in the median of any divided highway.

ELEVENTH: That, all provisions and standards contained herein relative to the installation of utilities shall apply to future operation, service and maintenance of utilities.

TWELFTH: That, drainage in highway side and cross ditches must be maintained at all times. The entire highway right-of-way affected by work under a permit must be restored to as good a condition as existed prior to beginning work to the complete satisfaction of the Departments R/W Permit Engineer.

THIRTEENTH: Any non-metallic or non-conductive underground facility must be installed with a non-corrosive metallic wire or tape placed directly over and on the center of the facility for its entire length within highway right-of-way. Wire or tape must be connected to all facilities.

FOURTEENTH: Prior to performing any excavations, the applicant is required to call Louisiana One Call. If installing any underground facilities such as cable or conduits, the applicant must be a member of Louisiana One Call. In addition, the applicant must contact DOTD at DOTD-FiberLocates@la.gov at least 24 hours prior to performing any excavation on DOTD Right-of-way (either for installation or maintenance).

STANDARDS FOR INSTALLATION OF FACILITIES ON STATE HIGHWAYS**GENERAL**

- (1) All materials and workmanship shall conform to the requirements of the applicable industry code and to Department specifications.
- (2) All safety precautions for the protection of the traveling public must be observed. Undue delay to traffic will not be tolerated.
- (3) All excavations within the limits of the right-of-way shall be backfilled and tamped in six inch layers to the density of the adjacent undisturbed soil. Where sod is removed or destroyed, it shall be replaced within one week. Where existing spoil material is, at the discretion of the Department, unsuitable for backfill, select material shall be furnished in lieu thereof and the existing material disposed of by approved methods.
- (4) Any clearing and grubbing which may be required by the applicant shall be represented by a plan covering any such actions as well as erosion control measures which may be required to vegetate the area under such clearing and grubbing. The applicant is authorized to retain all cleared timber. The applicant shall follow-up with an erosion control, seeding plan approved by DOTD.
- (5) Access to the lines shall be first from the land side, second from the interchange (longitudinally) and third from the highway (to be approved in each instance).
- (6) Repairs under the roadway will not be allowed if such repairs necessitate open cutting the highway. If a problem occurs with a line crossing, the utility company must install a new crossing. The utility company must bear 100% of the cost.
- (7) The DOTD District Permit Office shall be contacted and notified and shall give approval whenever the cable must be accessed, including routine maintenance. For routine maintenance, three (3) days notice shall be given. In emergency situations, as much notice as possible must be given.
- (8) Repeater boxes shall be placed as far outside of the right-of-way as possible, unless where otherwise approved by the Department, and in an area that will allow easy access for maintenance.
- (9) Parallel installations shall be located on a uniform alignment to the right-of-way line and within six (6) inches of the approved alignment.

ATTACHMENT A

The applicant/permittee hereby acknowledges and agrees that the following, additional special conditions and standards shall apply:

FIRST: That, the applicant/permittee shall not conduct any activities within twenty (20) feet from the edge of travel lane without written authorization obtained by the LA DOTD.

SECOND: That, the applicant/permittee expressly shall not have the authority to close a lane, unless granted by the LA DOTD.

THIRD: That, for regularly scheduled maintenance, the applicant/permittee shall notify the LA DOTD in writing of any access to the right-of-way, at least fourteen (14) days in advance when such access is for regularly scheduled maintenance. Applicant/permittee acknowledges that the failure to comply with these notification requirements may result in permit revocation.

FOURTH: That, for emergency maintenance, the applicant/permittee shall notify the LA DOTD in writing of any access to the right-of-way as soon as is practically known, but in any event, at least concurrently with the emergency event. Applicant/permittee acknowledges that the failure to comply with these notification requirements may result in permit revocation.

FIFTH: That, the applicant/permittee's access to right-of-way shall be in compliance with all existing laws and regulations and shall not adversely impact traffic.

SIXTH: That, the applicant/permittee shall be responsible for all of LA DOTD's assets that are damaged or affected in any manner, and shall be required to restore the right-of-way and/or affected facility to the condition that it was previously in prior to access.

Three (3) copies of the drawings must accompany the permit application.

PERMIT NUMBER _____
CONTROL 450 SECTION 92

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
PERMIT SUPPLEMENT

Rev 07/18

CERTIFICATION FOR PERMIT LIGHTING ON STATE HIGHWAYS

APPLICANT / OWNER: Fred Raiford

All design work shall comply with the "LADOTD Guide to Constructing, Operating, and Maintaining Highway Lighting Systems" which can be found at the following link:

http://wwwsp.dotd.la.gov/inside_LaDOTD/Divisions/Engineering/Misc%20Documents/Highway_Lighting_Systems_Guide.pdf

The following items shall be marked with either a "✓" (compliance) or "N/A" (not applicable). Items marked "N/A" shall list justification (*solar power system, photometric report not required due to ...*, etc.). The permit request will be rejected if any item is not marked.

✓ **Construction Plan Sheets:** Submit a complete set of plan sheets suitable for construction. Plan sheets can be produced in either full-size (22"x34") or half-size (11"x17") format. Plans shall include layout sheets of the roadway which shall show the locations of proposed electrical service points, poles, luminaires, conduits, junction boxes, conductor highway crossings (aerial or below ground), etc. Layout sheets shall include a north arrow, a scale, and a legend to identify equipment. Layout sheets shall have a scale of 1"=100' if submitted on full-size sheets, or 1"=200' if submitted on half-size sheets.

Plan sheets with electrical design elements (new service points, new wiring, etc.) shall be developed, stamped, and signed by an Electrical Engineer licensed in the State of Louisiana. Plan sheets with structural design elements (light pole foundations, guard rails, etc.) shall be developed, stamped, and signed by a Civil/Structural Engineer licensed in the State of Louisiana.

N/A:

N/A **Photometric Report for Roadway Lighting:** For all projects that include roadway lighting, submit a complete photometric report using the illuminance method. The report shall be developed and signed by a qualified Illumination Designer/Engineer, and shall include the following:

1. Average luminance, average to minimum ratio, and veiling luminance ratio (Lv Ratio) calculations.
2. Luminaire ".ies" data filename.
3. Luminaire description, mounting height, and offset from travel lanes.
4. Highway information such as type, classification (arterial, collector, local, etc.), number of lanes, median width, shoulder width, etc.
5. Illumination Designer/Engineer's analysis shall indicate the Standard used (LADOTD, IES, AASHTO, or local ordinance). Variances from the stated Standard shall be indicated and justified. When using a local ordinance as the Standard, state the name of the ordinance and give target values.

N/A: Project only includes lighting of a walkway.

✓ **Other Lighting:** For projects with sidewalk lighting, submit a photometric report for the sidewalk. For all other lighting (decorative, signage, etc.), no photometric report is required. However, by signing below, the applicant/owner's representative attests that the lighting will be installed in such a way that it will have no detrimental effects to the nearby roadway, and that if any detrimental effects are found, they will be remedied at the permit holder's expense.

N/A:

✓ **Design Calculations:** Submit design calculations for all electrical and structural work. Design calculations shall be produced, stamped, and signed by an Engineer licensed in the State of Louisiana.

N/A:

✓ **Manufacturer's Certified Drawings and Information Sheets:**

1. Submit manufacturer's Information Sheets for each type of luminaire to be used on the project. Information Sheets shall be marked to indicate pertinent information such as wattage, type (high pressure sodium, metal halide, LED, etc.), voltage, photocell, type distribution, network module, etc. Do not use highlighters to mark sheets. *All luminaires shall comply with ANSI C136.31 vibration test levels.*
2. Submit manufacturer's Certified Drawings/Information Sheets for all other new equipment to be used on the project. These include, but are not limited to light poles, luminaire arms, impact attenuation (breakaway) devices, lighting controllers, disconnects, ground rods, ground connectors, conduit, conductors, circuit breakers, fuses, splices, termination devices, contactors, junction boxes, and service equipment.

N/A:

Print Name: FRED RAIFORD
Applicant/Owner's Representative (Required)

Signature: [Signature]

Date: 3-5-26

Print Name: Andrew Crain, P.E.

Signature: [Signature]

Date: 02.11.2026

Illumination Designer/Engineer of Record (Required if providing roadway/sidewalk lighting. Mark N/A if none provided.)

Print Name: Andrew Crain, P.E.

Signature: [Signature]

Date: 02.11.2026

Electrical Engineer of Record (Required if providing electrical design work. Mark N/A if none provided (solar powered without utility service).)

Print Name: _____

Signature: _____

Date: _____

Civil Engineer of Record (Required if providing structural design work. Mark N/A if none provided.)

Headquarters (original)

pc: District

pc: Permittee

District Traffic Operations

3773 Harding Blvd.
Baton Rouge, LA 70807
(225) 389-2185

Route	I-110
Control Section	450-92
Parish	East Baton Rouge
Log #	17-25-131
Permittee	Fred Raiford
Development	Underpass Gateway Lighting
Consultant	WHLC Architecture

Permit Approval Form

This office recommends the following action:

Important: Driveway should be poured flush with the roadway surface (no curb thru driveway).

☐ **Resubmit** – The following changes should be incorporated into the next submittal:

☐ **Construct channelizing island**
☐ Mountable curb

☐ Barrier curb (see island attachment)

☐ **Approve**

(note warning below for damage to existing signal equipment)

☒ **Approve Permit as Noted:**

(note warning below for damage to existing signal equipment)

This permit is approved based on the attached layout.

☐ **Adjacent Existing Traffic Signals** – Contractor should pay close attention to the following items adjacent to his driveway or other construction. Permittee is responsible for repairing all existing signal installations damaged by his operations.

☐ Signal interconnect line

☐ Detector loops & junction boxes

Traffic Control During Construction

☐ Yes ☒ No
☐ Yes ☒ No

Traffic Control Plan required? (Typically required for left or right turn lanes)

Lane closure allowed?

Allowable Lane Closure Hours

a)	Weekdays	
b)	Weekends	
c)	Nights	

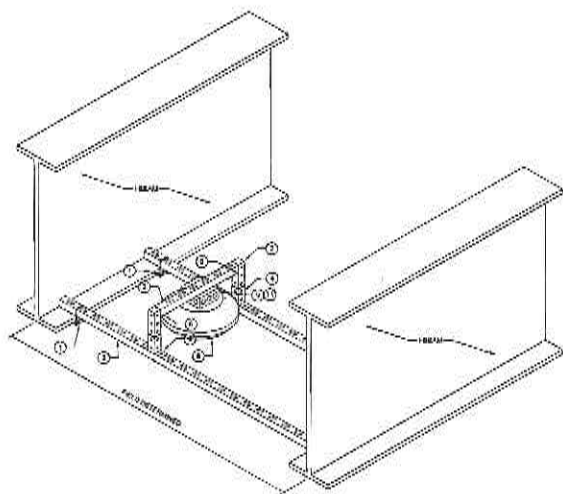
Final Inspection

☐ Yes ☒ No (by District Traffic Operations Engineer)

☐ Yes ☒ No (by Electricians)

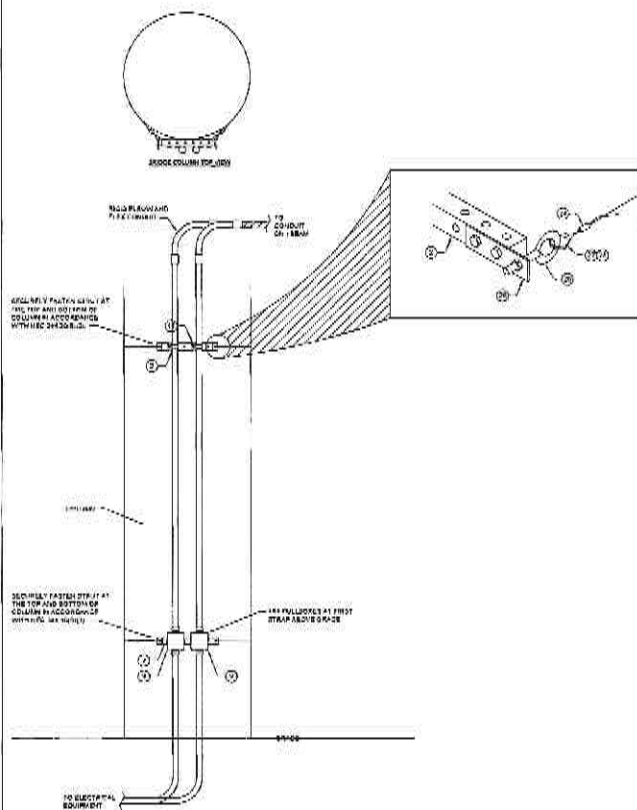

Charles V. Jesclard IV, PE
Traffic Operations Engineer

Date 7/16/25



1 SURFACE MOUNT ROADWAY LIGHT DETAIL

NO SCALE



2 BRIDGE COLUMN FRONT DETAIL

NO SCALE

701 WEST KANDOR DRIVE SUITE F7
LAFAYETTE, LOUISIANA 70506
337-283-7474



BATON ROUGE DDD LOUISIANA
AVENUE CONNECTION
BATON ROUGE, LOUISIANA

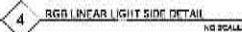
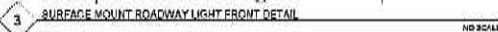
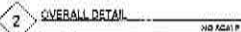
ELECTRICAL DETAILS

DATE ISSUED 02/11/2026
BY: JSD

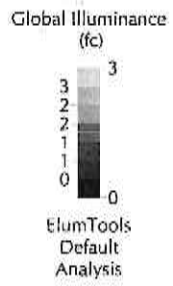
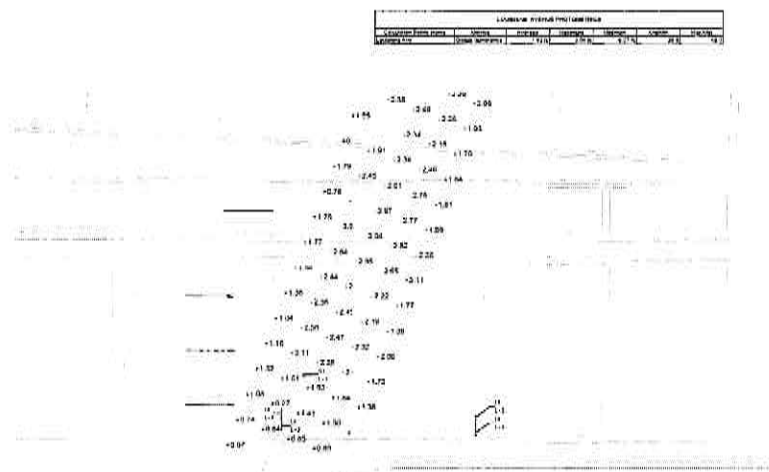
DESIGNED BY KR
CHECKED BY AC

PROJECT NO. 21054.10

SHEET NO. E-204



E-205



LOUISIANA AVENUE PHOTOMETRIC PLAN
1/10" = 1'-0"

1354 BENTON DRIVE SUITE F7
LAKEVIEW, LOUISIANA 70656
(504) 344-4474
www.illumination.com

BATON ROUGE DDD LOUISIANA
AVENUE CONNECTION
BATON ROUGE, LOUISIANA

PHOTOMETRIC PLANS

DATE ISSUED
02/11/2026

DRAWN BY
KR

CHECKED BY
AC

PROJECT NO.
21054.10

SHEET NO.
E-206

PROJECT NAME: Baton Rouge DDD Louisiana Avenue
ARCHITECT: WHLC Architecture
PROJECT NO: 21054.00

TABLE OF CONTENTS

Electrical Sections:

DIVISION 26 - ELECTRICAL

26 05 00	Common Work Results for Electrical
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 05 26	Grounding and Bonding for Electrical Systems
26 05 29	Hangers and Supports for Electrical Systems
26 05 33	Raceways and Boxes for Electrical Systems
26 05 53	Identification for Electrical Systems
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	Enclosed Switches and Circuit Breakers
26 56 00	Exterior Lighting
26 57 00	Lighting Controls

Section 26 05 00 – Common Work Results for Electrical

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Supporting devices for electrical components.
 - 2. Electricity-metering components.
 - 3. Concrete equipment bases.
 - 4. Touchup painting.

1.2 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. FMC: Flexible metal conduit.
- C. IMC: Intermediate metal conduit.
- D. LFMC: Liquidtight flexible metal conduit.
- E. RNC: Rigid nonmetallic conduit.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

1.4 COORDINATION

- A. Coordinate chases, slots, inserts, sleeves, and openings with general construction work and arrange in building structure during progress of construction to facilitate the electrical installations that follow.
 - 1. Set inserts and sleeves in poured-in-place concrete, masonry work, and other structural components as they are constructed.
- B. Sequence, coordinate, and integrate installing electrical materials and equipment for efficient flow of the Work. Coordinate installing large equipment requiring positioning before closing in the building.
- C. Coordinate electrical service connections with buildings and grounds.
- D. Where electrical identification devices are applied to field-finished surfaces, coordinate installation of identification devices with completion of finished surface.



- E. Where electrical identification markings and devices will be concealed by acoustical ceilings and similar finishes, coordinate installation of these items before ceiling installation.
- F. Coordinate connecting to all equipment with equipment provider. This includes mechanical, plumbing, owner provided and contractor provided equipment. Contractor to refer to equipment installation documents prior to any rough-in.
- G. Contractor to coordinate with door hardware provider, architect and owner prior to installation of any devices associated with doors to verify door operational requirement, placement of proximity readers, motion sensors, door switches, fire alarm control, magnetic locks, hold open devices, etc..
- H. Contractor to coordinate with architectural millwork shop drawings prior to rough-in for locations of under counter lighting to be installed in and around millwork. No receptacles shall be installed in an enclosed cabinet unless noted on the drawings. Outlets for refrigerators, microwaves, etc. shall be installed in the space identified on the millwork shop drawings.
- I. Contractor shall not penetrate any stair wall assemble with conduit, boxes, cabling and the like, except for items that serve the stairwell.
- J. The contractor shall label the main service disconnecting means with the maximum available fault current shall be listed on the device to meet the requirements of NFPA 70:110.24. The labeling shall be engraved plastic. The maximum available fault current shall be obtained from the electrical utility for the secondary side of the utility transformer.

PART 2 - PRODUCTS

2.1 SUPPORTING DEVICES

- A. Material: Cold-formed steel, with corrosion-resistant coating acceptable to authorities having jurisdiction.
- B. Metal Items for Use Outdoors or in Damp Locations: Hot-dip galvanized steel.
- C. Slotted-Steel Channel Supports: Flange edges turned toward web, and 9/16-inch- (14-mm-) diameter slotted holes at a maximum of 2 inches (50 mm) o.c., in webs.
- D. Raceway and Cable Supports: Manufactured clevis hangers, riser clamps, straps, threaded C-clamps with retainers, ceiling trapeze hangers, wall brackets, and spring-steel clamps or click-type hangers.
- E. Cable Supports for Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug for nonarmored electrical cables in riser conduits. Plugs have number and size of conductor gripping holes as required to suit individual risers. Body constructed of malleable-iron casting with hot-dip galvanized finish.
- F. Expansion Anchors: Carbon-steel wedge or sleeve type.
- G. Toggle Bolts: All-steel springhead type.
- H. Powder-Driven Threaded Studs: Heat-treated steel.

2.2 EQUIPMENT FOR ELECTRICITY METERING BY CONTRACTOR

- A. Meter: Contractor shall provide metering per the local utility. Contractor shall provide all necessary enclosures, meter cans, etc. per the local utility requirements including any fees associated with the service.

2.3 CONCRETE BASES

- A. Concrete: 3000-psi (20.7-MPa), 28-day compressive strength as specified

2.4 TOUCH-UP PAINT

- A. For Equipment: Equipment manufacturer's paint selected to match installed equipment finish.
- B. Galvanized Surfaces: Zinc-rich paint recommended by item manufacturer.

PART 3 - EXECUTION

3.1 ELECTRICAL EQUIPMENT INSTALLATION

- A. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide the maximum possible headroom.
- B. Materials and Components: Install level, plumb, and parallel and perpendicular to other building systems and components, unless otherwise indicated.
- C. Equipment: Install to facilitate service, maintenance, and repair or replacement of components. Connect for ease of disconnecting, with minimum interference with other installations.
- D. Right of Way: Give to raceways and piping systems installed at a required slope.

3.2 ELECTRICAL SUPPORTING DEVICE APPLICATION

- A. Damp Locations and Outdoors: Hot-dip galvanized materials or nonmetallic, U-channel system components.
- B. Dry Locations: Steel materials.
- C. Support Clamps for PVC Raceways: Click-type clamp system.
- D. Selection of Supports: Comply with manufacturer's written instructions.
- E. Strength of Supports: Adequate to carry present and future loads, times a safety factor of at least four; minimum of 200-lb (90-kg) design load.

3.3 SUPPORT INSTALLATION

- A. Install support devices to securely and permanently fasten and support electrical components.

- B. Install individual and multiple raceway hangers and riser clamps to support raceways. Provide U-bolts, clamps, attachments, and other hardware necessary for hanger assemblies and for securing hanger rods and conduits.
- C. Support parallel runs of horizontal raceways together on trapeze- or bracket-type hangers.
- D. Size supports for multiple raceway installations so capacity can be increased by a 25 percent minimum in the future.
- E. Support individual horizontal raceways with separate, malleable-iron pipe hangers or clamps.
- F. Install 1/4-inch- (6-mm-) diameter or larger threaded steel hanger rods, unless otherwise indicated.
- G. Spring-steel fasteners specifically designed for supporting single conduits or tubing may be used instead of malleable-iron hangers for 1-1/2-inch (38-mm) and smaller raceways serving lighting and receptacle branch circuits above suspended ceilings and for fastening raceways to slotted channel and angle supports.
- H. Arrange supports in vertical runs so the weight of raceways and enclosed conductors is carried entirely by raceway supports, with no weight load on raceway terminals.
- I. Simultaneously install vertical conductor supports with conductors.
- J. Separately support cast boxes that are threaded to raceways and used for fixture support. Support sheet-metal boxes directly from the building structure or by bar hangers. If bar hangers are used, attach bar to raceways on opposite sides of the box and support the raceway with an approved fastener not more than 24 inches (610 mm) from the box.
- K. Install metal channel racks for mounting cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices unless components are mounted directly to structural elements of adequate strength.
- L. Install sleeves for cable and raceway penetrations of concrete slabs and walls unless core-drilled holes are used. Install sleeves for cable and raceway penetrations of masonry and fire-rated gypsum walls and of all other fire-rated floor and wall assemblies. Install sleeves during erection of concrete and masonry walls.
- M. Securely fasten electrical items and their supports to the building structure, unless otherwise indicated. Perform fastening according to the following unless other fastening methods are indicated:
 - 1. Wood: Fasten with wood screws.
 - 2. Masonry: Toggle bolts on hollow masonry units and expansion bolts on solid masonry units.
 - 3. New Concrete: Concrete inserts with machine screws and bolts.
 - 4. Existing Concrete: Expansion bolts.
 - 5. Instead of expansion bolts, threaded studs driven by a powder charge and provided with lock washers may be used in existing concrete.
 - 6. Steel: Welded threaded studs or spring-tension clamps on steel.
 - a. Field Welding: Comply with AWS D1.1.
 - 7. Welding to steel structure may be used only for threaded studs, not for conduits, pipe straps, or other items.
 - 8. Light Steel: Sheet-metal screws.
 - 9. Fasteners: Select so the load applied to each fastener does not exceed 25 percent of its proof-test load.

3.4 FIRESTOPPING AND FIRE RATED WALLS/CEILINGS/FLOORS

- A. Apply firestopping to cable and raceway penetrations of fire-rated floor and wall assemblies to achieve fire-resistance rating of the assembly. Firestopping materials and installation requirements are specified.
- B. Repair and refinish disturbed finish materials and other surfaces to match adjacent undisturbed surfaces. Install new fireproofing where existing firestopping has been disturbed. Repair and refinish materials and other surfaces by skilled mechanics of trades involved.

3.5 CONCRETE BASES

- A. Provide a concrete base for all floor mounted equipment. Construct concrete bases of dimensions indicated, but not less than 4 inches (100 mm) larger, in both directions, than supported unit. Follow supported equipment manufacturer's anchorage recommendations and setting templates for anchor-bolt and tie locations, unless otherwise indicated. Use 3000-psi (20.7-MPa), 28-day compressive-strength concrete and reinforcement as specified in Section "Cast-in-Place Concrete."

3.6 CUTTING AND PATCHING

- A. Cut, channel, chase, and drill floors, walls, partitions, ceilings, and other surfaces required to permit electrical installations. Perform cutting by skilled mechanics of trades involved.
- B. Repair and refinish disturbed finish materials and other surfaces to match adjacent undisturbed surfaces. Install new fireproofing where existing firestopping has been disturbed. Repair and refinish materials and other surfaces by skilled mechanics of trades involved.

3.7 REFINISHING AND TOUCH-UP PAINTING

- A. Refinish and touch up paint.
 - 1. Clean damaged and disturbed areas and apply primer, intermediate, and finish coats to suit the degree of damage at each location.
 - 2. Follow paint manufacturer's written instructions for surface preparation and for timing and application of successive coats.
 - 3. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 - 4. Repair damage to PVC or paint finishes with matching touchup coating recommended by manufacturer.

3.8 CLEANING AND PROTECTION

- A. On completion of installation, including outlets, fittings, and devices, inspect exposed finish. Remove burrs, dirt, paint spots, and construction debris.
- B. Protect equipment and installations and maintain conditions to ensure that coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.

END OF SECTION 26 05 00

Section 26 05 19 – Low-Voltage Electrical Power Conductors and Cables

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes building wires and cables and associated connectors, splices, and terminations for wiring systems rated 600 V and less.
- B. Related Sections include the following:
 - 1. Section "Medium-Voltage Cables" for single-conductor and multiconductor cables, cable splices, and terminations for electrical distribution systems with 2001 to 35,000 V.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70- Latest edition or edition enforced by state and local code authority.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Refer to Part 3 "Conductor and Insulation Applications" Article for insulation type, cable construction, and ratings.
- B. Conductor Material: Copper; stranded conductor or solid conductor for No. 10 AWG and smaller, stranded for No. 8 AWG and larger.
- C. Conductor Insulation Types: Type THHN-THWN.

2.2 CONNECTORS AND SPLICES

- A. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

PART 3 - EXECUTION

3.1 CONDUCTOR AND INSULATION APPLICATIONS

- A. Service Entrance: Type THHN-THWN, single conductors in raceway.
- B. Exposed Feeders: Type THHN-THWN, single conductors in raceway.
- C. Feeders Concealed in Ceilings, Walls, and Partitions: Type THHN-THWN, single conductors in raceway.
- D. Feeders Concealed in Concrete, below Slabs-on-Grade, and in Crawlspace: Type THHN-THWN, single conductors in raceway.
- E. Exposed Branch Circuits, including in Crawlspace: Type THHN-THWN, single conductors in raceway.
- F. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-THWN, single conductors in raceway.
- G. Branch Circuits Concealed in Concrete and below Slabs-on-Grade: Type THHN-THWN, single conductors in raceway.
- H. Fire Alarm Cabling: Plenum rated in plenum areas, exposed above accessible ceilings and in conduit when concealed in finished walls, inaccessible ceilings. Secured per NFPA 70-760.
- I. Low Voltage Cabling: Plenum rated in plenum areas, exposed above accessible ceilings and in conduit when concealed in finished walls, inaccessible ceilings. Secured per NFPA 70-760.
- J. Single Phase Circuits: Provide a dedicated neutral. Sharing of neutrals is not allowed.

3.2 INSTALLATION

- A. Conceal cables in conduit in finished walls, inaccessible ceilings, and floors.
- B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- D. Support cables according to Section "Basic Electrical Materials and Methods."
- E. Identify and color-code conductors and cables according to Section "Electrical Identification."
- F. Use #10 AWG conductors for 20 ampere 120 circuits when the circuit conductors are longer than 75 feet. Use #10 AWG conductors for 20 ampere 277 circuits when the circuit conductors are longer than 200 feet.

3.3 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values.

- 1. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches (150 mm) of slack.

END OF SECTION 26 05 19

Section 26 05 26 – Grounding and Bonding for Electrical Systems

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes methods and materials for grounding systems and equipment.
 - 1. Underground grounding.
 - 2. Common ground bonding with lightning protection system.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

PART 2 - PRODUCTS

2.1 CONDUCTORS

- A. Insulated Conductors: Copper or tinned-copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
 - 1. Solid Conductors: ASTM B 3.
 - 2. Stranded Conductors: ASTM B 8.
 - 3. Tinned Conductors: ASTM B 33.
 - 4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch (6 mm) in diameter.
 - 5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
 - 6. Bonding Jumper: Copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.
 - 7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.
- C. Bare Grounding Conductor and Conductor Protector for Wood Poles:
 - 1. No. 4 AWG minimum, soft-drawn copper.
 - 2. Conductor Protector: Half-round PVC or wood molding. If wood, use pressure-treated fir or cypress or cedar.

- D. Grounding Bus: Rectangular bars of annealed copper, 1/4 by 2 inches by 24" minimum in cross section, unless otherwise indicated; with insulators.

2.2 CONNECTORS

- A. Listed and labeled by a nationally recognized testing laboratory acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, bolted pressure-type, with at least two bolts.
 - 1. Pipe Connectors: Clamp type, sized for pipe.
- C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

2.3 GROUNDING ELECTRODES

- A. Ground Rods: Copper-clad steel, sectional type; 3/4 inch by 10 feet (19 mm by 3 m) in diameter.

2.4 GROUND ACCESS WELLS

- A. Molded high density polyethylene well with 9" diameter twist-lock cover and locking bolt. Two knock-outs (mouse holes) for routing conductor to inside. Harger #GAW910 or equal.

PART 3 - EXECUTION

3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger, unless otherwise indicated.
- B. Underground Grounding Conductors: Install bare tinned-copper conductor, No. 2/0 AWG minimum.
 - 1. Bury at least 24 inches below grade.
 - 2. Duct-Bank Grounding Conductor: Bury 12 inches above duct bank when indicated as part of duct-bank installation.
- C. Isolated Grounding Conductors: Green-colored insulation with continuous yellow stripe. On feeders with isolated ground, identify grounding conductor where visible to normal inspection, with alternating bands of green and yellow tape, with at least three bands of green and two bands of yellow.
- D. Grounding Bus: Install in electrical and telephone equipment rooms, in rooms housing service equipment, and elsewhere as indicated.
 - 1. Install bus on insulated spacers 1 inch, minimum, from wall 6 inches above finished floor, unless otherwise indicated.
 - 2. Where indicated on both sides of doorways, route bus up to top of door frame, across top of doorway, down to specified height above floor, and connect to horizontal bus.

E. Conductor Terminations and Connections:

1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
2. Underground Connections: Welded connectors, except at test wells and as otherwise indicated.
3. Connections to Ground Rods at Test Wells: Bolted connectors.
4. Connections to Structural Steel: Welded connectors.

3.2 GROUNDING UNDERGROUND DISTRIBUTION SYSTEM COMPONENTS

- A. Comply with IEEE C2 grounding requirements.
- B. Grounding Manholes and Handholes: Install a driven ground rod through manhole or handhole floor, close to wall, and set rod depth so 4 inches (100 mm) will extend above finished floor. If necessary, install ground rod before manhole is placed and provide No. 1/0 AWG bare, tinned-copper conductor from ground rod into manhole through a waterproof sleeve in manhole wall. Protect ground rods passing through concrete floor with a double wrapping of pressure-sensitive insulating tape or heat-shrunk insulating sleeve from 2 inches (50 mm) above to 6 inches (150 mm) below concrete. Seal floor opening with waterproof, nonshrink grout.
- C. Grounding Connections to Manhole Components: Bond exposed-metal parts such as inserts, cable racks, pulling irons, ladders, and cable shields within each manhole or handhole, to ground rod or grounding conductor. Make connections with No. 4 AWG minimum, stranded, hard-drawn copper bonding conductor. Train conductors level or plumb around corners and fasten to manhole walls. Connect to cable armor and cable shields as recommended by manufacturer of splicing and termination kits
- D. Pad-Mounted Transformers and Switches: The following is a minimum if the utility company does not have requirements, otherwise meet the utility company requirements. Install two ground rods and ground ring around the pad. Ground pad-mounted equipment and noncurrent-carrying metal items associated with substations by connecting them to underground cable and grounding electrodes. Install tinned-copper conductor not less than No. 2 AWG for ground ring and for taps to equipment grounding terminals. Bury ground ring not less than 6 inches (150 mm) from the foundation.

3.3 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.
- B. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:
1. Feeders and branch circuits.
 2. Lighting circuits.
 3. Receptacle circuits.
 4. Single-phase motor and appliance branch circuits.
 5. Three-phase motor and appliance branch circuits.
 6. Flexible raceway runs.
 7. Armored and metal-clad cable runs.
 8. Busway Supply Circuits: Install insulated equipment grounding conductor from grounding bus in the switchgear, switchboard, or distribution panel to equipment grounding bar terminal on busway.
 9. Computer and Rack-Mounted Electronic Equipment Circuits: Install insulated equipment grounding conductor in branch-circuit runs from equipment-area power panels and power-distribution units.
 10. X-ray Equipment Circuits: Install insulated equipment grounding conductor in circuits supplying x-ray equipment.

- C. **Air-Duct Equipment Circuits:** Install insulated equipment grounding conductor to duct-mounted electrical devices operating at 120 V and more, including air cleaners, heaters, dampers, humidifiers, and other duct electrical equipment. Bond conductor to each unit and to air duct and connected metallic piping.
- D. **Water Heater, Heat-Tracing, and Antifrost Heating Cables:** Install a separate insulated equipment grounding conductor to each electric water heater and heat-tracing cable. Bond conductor to heater units, piping, connected equipment, and components.
- E. **Isolated Grounding Receptacle Circuits:** Install an insulated equipment grounding conductor connected to the receptacle grounding terminal. Isolate conductor from raceway and from panelboard grounding terminals. Terminate at equipment grounding conductor terminal of the applicable derived system or service, unless otherwise indicated.
- F. **Isolated Equipment Enclosure Circuits:** For designated equipment supplied by a branch circuit or feeder, isolate equipment enclosure from supply circuit raceway with a nonmetallic raceway fitting listed for the purpose. Install fitting where raceway enters enclosure, and install a separate insulated equipment grounding conductor. Isolate conductor from raceway and from panelboard grounding terminals. Terminate at equipment grounding conductor terminal of the applicable derived system or service, unless otherwise indicated.
- G. **Signal and Communication Equipment:** For telephone, alarm, voice and data, and other communication equipment, provide No. 4 AWG minimum insulated grounding conductor in raceway from grounding electrode system to each service location, terminal cabinet, wiring closet, and central equipment location.
 - 1. **Service and Central Equipment Locations and Wiring Closets:** Terminate grounding conductor on a 1/4-by-2-by-12-inch grounding bus.
 - 2. **Terminal Cabinets:** Terminate grounding conductor on cabinet grounding terminal.
- H. **Metal Poles Supporting Outdoor Lighting Fixtures:** Install grounding electrode and a separate insulated equipment grounding conductor in addition to grounding conductor installed with branch-circuit conductors.

3.4 INSTALLATION

- A. **Grounding Conductors:** Route along shortest and straightest paths possible, unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. **Common Ground Bonding with Lightning Protection System:** Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system. Bond electrical power system ground directly to lightning protection system grounding conductor at closest point to electrical service grounding electrode. Use bonding conductor sized same as system grounding electrode conductor, and install in conduit.
- C. **Ground Rods:** Drive rods until tops are 2 inches (50 mm) below finished floor or final grade, unless otherwise indicated.
 - 1. Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating, if any.
 - 2. For grounding electrode system, install at least three rods spaced at least one-rod length from each other and located at least the same distance from other grounding electrodes, and connect to the service grounding electrode conductor.
 - 3. Install ground access well with cover for each ground rod (mounted flush with finished grade).

- D. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance, except where routed through short lengths of conduit.
1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
 2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install so vibration is not transmitted to rigidly mounted equipment.
 3. Use exothermic-welded connectors for outdoor locations, but if a disconnect-type connection is required, use a bolted clamp.
- E. Grounding and Bonding for Piping:
1. Metal Water Service Pipe: Install insulated copper grounding conductors, in conduit, from building's main service equipment, or grounding bus, to main metal water service entrances to building. Connect grounding conductors to main metal water service pipes, using a bolted clamp connector or by bolting a lug-type connector to a pipe flange, using one of the lug bolts of the flange. Where a dielectric main water fitting is installed, connect grounding conductor on street side of fitting. Bond metal grounding conductor conduit or sleeve to conductor at each end.
 2. Water Meter Piping: Use braided-type bonding jumpers to electrically bypass water meters. Connect to pipe with a bolted connector.
 3. Bond each aboveground portion of gas piping system downstream from equipment shutoff valve.
- F. Bonding Interior Metal Ducts: Bond metal air ducts to equipment grounding conductors of associated fans, blowers, electric heaters, and air cleaners. Install tinned bonding jumper to bond across flexible duct connections to achieve continuity.
- G. Grounding for Steel Building Structure: Install a driven ground rod at base of each corner column and at intermediate exterior columns at distances not more than 60 feet apart.
- H. Ground Ring: Install a grounding conductor, electrically connected to each building structure ground rod and to each indicated item, extending around the perimeter of building as indicated on detail or drawings.
1. Install tinned-copper conductor not less than No. 2/0 AWG for ground ring and for taps to building steel.
 2. Bury ground ring not less than 24 inches from building foundation.
- I. Ufer Ground (Concrete-Encased Grounding Electrode): Fabricate according to NFPA 70, using a minimum of 20 feet of bare copper conductor not smaller than No. 4 AWG.
1. If concrete foundation is less than 20 feet long, coil excess conductor within base of foundation.
 2. Bond grounding conductor to reinforcing steel in at least four locations and to anchor bolts. Extend grounding conductor below grade and connect to building grounding grid or to grounding electrode external to concrete.

3.5 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections and prepare test reports:
1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
 2. Test completed grounding system at each location where a maximum ground-resistance level is specified, at service disconnect enclosure grounding terminal, and at individual ground rods. Make tests at ground rods before any conductors are connected.

- a. Measure ground resistance not less than two full days after last trace of precipitation and without soil being moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance.
 - b. Perform tests by fall-of-potential method according to IEEE 81.
 3. Prepare dimensioned drawings locating each test well, ground rod and ground rod assembly, and other grounding electrodes. Identify each by letter in alphabetical order, and key to the record of tests and observations. Include the number of rods driven and their depth at each location, and include observations of weather and other phenomena that may affect test results. Describe measures taken to improve test results.
- B. Report measured ground resistances that exceed the following values:
1. Power and Lighting Equipment or System with Capacity 500 kVA and less: 10 ohms.
 2. Power and Lighting Equipment or System with Capacity 500 to 1000 kVA: 5 ohms.
 3. Power and Lighting Equipment or System with Capacity More Than 1000 kVA: 3 ohms.
 4. Manhole Grounds: 10 ohms.
- C. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify Architect promptly and include recommendations to reduce ground resistance.

END OF SECTION 26 05 26

Section 26 05 29 – Hangers and Supports for Electrical Systems

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Hangers and supports for electrical equipment and systems.
 - 2. Construction requirements for concrete bases.
- B. Related Sections include the following:
 - 1. Division 26 Section "Vibration and Seismic Controls for Electrical Systems" for products and installation requirements necessary for compliance with seismic criteria.

1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. IMC: Intermediate metal conduit.
- C. RMC: Rigid metal conduit.

1.4 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design supports for multiple raceways, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
- C. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
- D. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.

1.5 SUBMITTALS

- A. Product Data: For the following:
 - 1. Steel slotted support systems.
 - 2. Nonmetallic slotted support systems.

B. Shop Drawings: Show fabrication and installation details and include calculations for the following:

1. Trapeze hangers. Include Product Data for components.
2. Steel slotted channel systems. Include Product Data for components.
3. Equipment supports.

C. Welding certificates.

1.6 QUALITY ASSURANCE

A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

B. Comply with NFPA 70.

1.7 COORDINATION

A. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified in Division 03.

B. Coordinate installation of roof curbs, equipment supports, and roof penetrations. These items are specified in Division 07 Section "Roof Accessories."

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allied Tube & Conduit.
 - b. Cooper B-Line, Inc.; a division of Cooper Industries.
 - c. ERICO International Corporation.
 - d. GS Metals Corp.
 - e. Thomas & Betts Corporation.
 - f. Unistrut; Tyco International, Ltd.
 - g. Wesanco, Inc.
2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
3. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
4. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
5. Channel Dimensions: Selected for applicable load criteria.

B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.

C. Conduit and Cable Support Devices: Steel and malleable-iron hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.

- E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces shall be listed in LADOTD's Approved Materials List (AML) and include the following:
 - 1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened Portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Hilti Inc.
 - 2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 3) MKT Fastening, LLC.
 - 4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.
 - 2. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel, for use in hardened Portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Cooper B-Line, Inc.; a division of Cooper Industries.
 - 2) Empire Tool and Manufacturing Co., Inc.
 - 3) Hilti Inc.
 - 4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 5) MKT Fastening, LLC.
 - 3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MfMA-4 or MSS SP-58.
 - 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
 - 5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
 - 6. Toggle Bolts: All-steel springhead type.
 - 7. Hanger Rods: Threaded steel.

2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.
- B. Materials: Comply with requirements in Division 05 Section "Metal Fabrications" for steel shapes and plates.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.

- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as required by scheduled in NECA 1, where its Table 1 lists maximum spacings less than stated in NFPA 70. Minimum rod size shall be 1/4 inch in diameter.
- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted or other support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
 - 1. Secure raceways and cables to these supports with two-bolt conduit clamps / single-bolt conduit clamps using spring friction action for retention in support channel.
- D. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch and smaller raceways serving branch circuits and communication systems above suspended ceilings and for fastening raceways to trapeze supports.

3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT IMC RMC EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.
- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
 - 1. To Wood: Fasten with lag screws or through bolts.
 - 2. To New Concrete: Bolt to concrete inserts.
 - 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
 - 4. To Existing Concrete: Expansion anchor fasteners.
 - 5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches thick.
 - 6. To Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69 or Spring-tension clamps.
 - 7. To Light Steel: Sheet metal screws.
 - 8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate.
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Comply with installation requirements in Division 05 Section "Metal Fabrications" for site-fabricated metal supports.
- B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.

- C. Field Welding: Comply with AWS D1.1/D1.1M.

3.4 CONCRETE BASES

- A. Construct concrete bases of dimensions indicated but not less than 4 inches larger in both directions than supported unit, and so anchors will be a minimum of 10 bolt diameters from edge of the base.
- B. Use 3000-psi, 28-day compressive-strength concrete. Concrete materials, reinforcement, and placement requirements are specified in Division 03 Section "Cast-in-Place Concrete."
- C. Anchor equipment to concrete base.
 - 1. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 2. Install anchor bolts to elevations required for proper attachment to supported equipment.
 - 3. Install anchor bolts according to anchor-bolt manufacturer's written instructions.

3.5 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
 - 1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils.
- B. Touchup: Comply with requirements in Division 09 painting Sections for cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint on miscellaneous metal.
- C. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION 26 05 29

Section 26 05 33 – Raceways and Boxes for Electrical Systems

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.
- B. Related Sections include the following:
 - 1. Refer to architectural for firestopping materials and installation at penetrations through walls, ceilings, and other fire-rated elements.
 - 2. "Basic Electrical Materials and Methods" for supports, anchors, and identification products.
 - 3. "Wiring Devices" for devices installed in boxes and for floor-box service fittings.

1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. ENT: Electrical nonmetallic tubing.
- C. FMC: Flexible metal conduit.
- D. IMC: Intermediate metal conduit.
- E. LFMC: Liquidtight flexible metal conduit.
- F. LFNC: Liquidtight flexible nonmetallic conduit.
- G. RMC: Rigid metallic conduit.
- H. RNC: Rigid nonmetallic conduit.

1.4 SUBMITTALS

- A. Product Data: For surface raceways, floor boxes, and cabinets.

1.5 QUALITY ASSURANCE

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

- B. Comply with NFPA 70-Latest edition or edition enforced by state and local code authority.

1.6 COORDINATION

- A. Coordinate layout and installation of raceways, boxes, enclosures, cabinets, and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

PART 2 - PRODUCTS

2.1 METAL WIREWAYS

- A. Material and Construction: Sheet metal sized and shaped as indicated, NEMA 1 or 3R.
- B. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- C. Select features, unless otherwise indicated, as required to complete wiring system and to comply with NFPA 70.
- D. Wireway Covers: Hinged type.
- E. Finish: Manufacturer's standard enamel finish.

2.2 NONMETALLIC WIREWAYS

- A. Description: Fiberglass polyester, extruded and fabricated to size and shape indicated, with no holes or knockouts. Cover is gasketed with oil-resistant gasket material and fastened with captive screws treated for corrosion resistance. Connections are flanged, with stainless-steel screws and oil-resistant gaskets.
- B. Description: PVC plastic, extruded and fabricated to size and shape indicated, with snap-on cover and mechanically coupled connections with plastic fasteners.
- C. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- D. Select features, unless otherwise indicated, as required to complete wiring system and to comply with NFPA 70.

2.3 SURFACE RACEWAYS

- A. Surface Metal Raceways: Galvanized steel with snap-on covers. Finish with manufacturer's standard prime coating and two coats of paint. Color by Architect.
- B. Types, sizes, and channels as indicated and required for each application, with fittings that match and mate with raceways.

2.4 BOXES, ENCLOSURES, AND CABINETS

- A. Floor Boxes: Cast metal, fully adjustable, rectangular with four separate wiring compartments for power outlets, voice and data outlets, and/or AV devices as indicated on the drawing. Wiremold RFB4 Series,

T&B 665 Series or approved equal. Covers shall be UL Listed to U.S. and Canadian safety standards for tile, carpet, wood, bare concrete and terrazzo floors. Covers shall be selected by the architect and shall be of Nickel, Brass, Black, Gray or Bronze.

- B. Poke Thru Floor Boxes: Two hour rated poke thru floor unit with capabilities of two duplex power receptacles, data and AV devices. Provide power, data and phone outlets indicated on drawing. Wiremold Evolution Series 6AT or prior approved equal. Covers shall be selected by the architect and shall be of Nickel, Brass, Black, Gray or Bronze. Poke thru floor boxes are to be utilized on upper floors unless noted otherwise. There must be accessibility in the space below the poke thru box.
- C. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- D. Cast-Metal Pull and Junction Boxes: NEMA FB 1, cast aluminum with gasketed cover.
- E. Hinged-Cover Enclosures: NEMA 250, Type 1, with continuous hinge cover and flush latch.
 - 1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
 - 2. Nonmetallic Enclosures: Plastic, finished inside with radio-frequency-resistant paint.
- F. Cabinets: NEMA 250, Type 1, galvanized steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel. Hinged door in front cover with flush latch and concealed hinge. Key latch to match panelboards. Include metal barriers to separate wiring of different systems and voltage and include accessory feet where required for freestanding equipment.
- G. Exterior Outlet Lock Box: Cast aluminum with self closing door withlock. All units shall be keyed alike. 16 gauge steel housing. Unit for Interior and Exterior installation. Cole: TL-310 or equivalent.
- H. In grade enclosures, boxes and covers are required to conform to all test provisions of the most current ANSI/SCTE 77 "Specification For Underground Enclosure Integrity" for Tier 22 applications. When multiple "Tiers" are specified the boxes must physically accommodate and structurally support compatible covers while possessing the highest Tier rating. All covers are required to have the Tier level rating embossed on the surface. In no assembly can the cover design load exceed the design load of the box. All components in an assembly (box & cover) are manufactured using matched surface tooling. Independent third party verification or test reports stamped by a registered Professional Engineer certifying that all test provisions of this specification have been met are required with each submittal. Cover to be labeled per use of box, ie "Electrical, Communications, etc". Communications pull boxes shall be a minimum of 24" w x 36" l x 36" d.

2.5 FACTORY FINISHES

- A. Finish: For raceway, enclosure, or cabinet components, provide manufacturer's standard prime-coat finish ready for field painting.

2.6 METAL CONDUIT AND TUBING

- A. Rigid Steel Conduit: ANSI C80.1.
- B. Aluminum Rigid Conduit: ANSI C80.5.
- C. IMC: ANSI C80.6.
- D. Plastic-Coated Steel Conduit and Fittings: NEMA RN 1.
- E. Plastic Coated IMC and Fittings: NEMA RN 1.
- F. EMT and Fittings: ANSI C 80.3.
- G. EMT and Fittings: ANSI C80.3.
- H. FMC: Aluminum
- I. LFMC: Flexible steel conduit with PVC jacket.

- J. Fittings: NEMA FB 1; compatible with conduit and tubing materials.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

A. Outdoors:

1. Exposed: RMC.
2. Concealed: RMC.
3. Underground, Single Run: RNC.
4. Underground, Grouped: RNC.
5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
6. Boxes and Enclosures: NEMA 250, Type 4.

B. Indoors:

1. Exposed: EMT in non finished areas. Surface metal raceway in existing finished inaccessible areas unless noted otherwise.
2. Concealed: EMT.
3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC; except use LFMC in damp or wet locations.
4. Damp or Wet Locations above Ground: Rigid steel conduit.
5. Boxes and Enclosures: NEMA 250, Type 1, except as follows:
 - a. Damp or Wet Locations: NEMA 250, Type 4, stainless steel.

- C. Minimum Raceway Size: 3/4-inch trade size (DN 21) below grade and 1/2 inch trade size above grade.

- D. Raceway Fittings: Compatible with raceways and suitable for use and location.

- E. Contractor to provide metal raceway in Patient Care Areas per 517.13. Raceway shall be installed as a redundant ground. Raceway shall be a considered a ground.

3.2 INSTALLATION

- A. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.

- B. Complete raceway installation before starting conductor installation.

- C. Support raceways as specified in "Basic Electrical Materials and Methods."

- D. Install temporary closures to prevent foreign matter from entering raceways.

- E. Protect stub-ups from damage where conduits rise through floor slabs. Arrange so curved portions of bends are not visible above the finished slab.

- F. Make bends and offsets so ID is not reduced. Keep legs of bends in the same plane and keep straight legs of offsets parallel, unless otherwise indicated.

- G. Conceal conduit and EMT within finished walls, ceilings, and floors, unless otherwise indicated.

1. Install concealed raceways with a minimum of bends in the shortest practical distance, considering type of building construction and obstructions, unless otherwise indicated.
- H. Raceways Embedded in Slabs: Install in middle 1/3 of slab thickness where practical and leave at least 2 inches (50 mm) of concrete cover. Conduits larger than 1" shall not be installed in the slab.
 1. Secure raceways to reinforcing rods to prevent sagging or shifting during concrete placement.
 2. Space raceways laterally to prevent voids in concrete.
 3. Run conduit larger than 1-inch trade size (DN 27) parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support.
- I. Install exposed raceways parallel or at right angles to nearby surfaces or structural members and follow surface contours as much as possible.
 1. Run parallel or banked raceways together on common supports.
 2. Make parallel bends in parallel or banked runs. Use factory elbows only where elbows can be installed parallel; otherwise, provide field bends for parallel raceways.
- J. Join raceways with fittings designed and approved for that purpose and make joints tight.
 1. Use insulating bushings to protect conductors.
- K. Tighten set screws of threadless fittings with suitable tools.
- L. Terminations:
 1. Where raceways are terminated with locknuts and bushings, align raceways to enter squarely and install locknuts with dished part against box. Use two locknuts, one inside and one outside box.
 2. Where raceways are terminated with threaded hubs, screw raceways or fittings tightly into hub so end bears against wire protection shoulder. Where chase nipples are used, align raceways so coupling is square to box; tighten chase nipple so no threads are exposed.
- M. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire.
- N. Stub-up Connections: Extend conduits through concrete floor for connection to freestanding equipment. Install with an adjustable top or coupling threaded inside for plugs set flush with finished floor. Extend conductors to equipment with rigid steel conduit; FMC may be used 6 inches (150 mm) above the floor. Install screwdriver-operated, threaded plugs flush with floor for future equipment connections.
- O. Flexible Connections: Use maximum of 72 inches (1830 mm) of flexible conduit for recessed and semirecessed lighting fixtures; for equipment subject to vibration, noise transmission, or movement; and for all motors. Use LFMC in damp or wet locations. Install separate ground conductor across flexible connections.
- P. Surface Raceways: Install a separate, green, ground conductor in raceways from junction box supplying raceways to receptacle or fixture ground terminals.
- Q. Set floor boxes level and flush with finished floor surface.
- R. Install hinged-cover enclosures and cabinets plumb. Support at each corner.

3.3 PROTECTION

- A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.
 - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 - 2. Repair damage to PVC or paint finishes with matching touchup coating recommended by manufacturer.

3.4 CLEANING

- A. After completing installation of exposed, factory-finished raceways and boxes, inspect exposed finishes and repair damaged finishes.

END OF SECTION 26 05 33

Section 26 05 53 – Identification for Electrical Systems

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Identification for conductors and communication and control cable.
 - 2. Warning labels and signs.
 - 3. Instruction signs.
 - 4. Equipment identification labels.
 - 5. Miscellaneous identification products.

1.3 SUBMITTALS

- A. Product Data: For each electrical identification product indicated.
- B. Identification Schedule: An index of nomenclature of electrical equipment and system components used in identification signs and labels.
- C. Samples: For each type of label and sign to illustrate size, colors, lettering style, mounting provisions, and graphic features of identification products.

1.4 QUALITY ASSURANCE

- A. Comply with ANSI A13.1 and ANSI C2.
- B. Comply with NFPA 70.

1.5 COORDINATION

- A. Coordinate identification names, abbreviations, colors, and other features with requirements in the Contract Documents, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual, and with those required by codes and standards. Use consistent designations throughout Project.
- B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- C. Coordinate installation of identifying devices with location of access panels and doors.
- D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 CONDUCTOR AND COMMUNICATION- AND CONTROL-CABLE IDENTIFICATION MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils thick by 1 to 2 inches wide.
- B. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.

2.2 WARNING LABELS AND SIGNS

- A. Comply with NFPA 70 and 29 CFR 1910.145.
- B. Self-Adhesive Warning Labels: Factory printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment, unless otherwise indicated.
- C. Baked-Enamel Warning Signs: Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application. 1/4-inch grommets in corners for mounting. Nominal size, 7 by 10 inches.
- D. Warning label and sign shall include, but are not limited to, the following legends:
 - 1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."
 - 2. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES."

2.3 INSTRUCTION SIGNS

- A. Engraved, laminated acrylic or melamine plastic, minimum 1/16 inch thick for signs up to 20 sq. in. and 1/8 inch thick for larger sizes.
 - 1. Engraved legend with black letters on white face.
 - 2. Punched or drilled for mechanical fasteners.
 - 3. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.

2.4 EQUIPMENT IDENTIFICATION LABELS

- A. Engraved, Laminated Acrylic or Melamine Label: Punched or drilled for screw mounting. White letters on a dark-gray background. Minimum letter height shall be 3/8 inch.

2.5 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Cable Ties: Fungus-inert, self-extinguishing, 1-piece, self-locking, Type 6/6 nylon cable ties.
 - 1. Minimum Width: 3/16 inch.
 - 2. Tensile Strength: 50 lb, minimum.
 - 3. Temperature Range: Minus 40 to plus 185 deg F.
 - 4. Color: Black, except where used for color-coding.

- B. Paint: Paint materials and application requirements are specified in Division 09 painting Sections.
1. Exterior Concrete Unit Masonry:
 - a. Semigloss Acrylic-Enamel Finish: Two finish coat(s) over a block filler.
 - 1) Block Filler: Concrete unit masonry block filler.
 - 2) Finish Coats: Exterior semigloss acrylic enamel.
 2. Exterior Ferrous Metal:
 - a. Semigloss Alkyd-Enamel Finish: Two finish coat(s) over a primer.
 - 1) Primer: Exterior ferrous-metal primer.
 - 2) Finish Coats: Exterior semigloss alkyd enamel.
 3. Exterior Zinc-Coated Metal (except Raceways):
 - 1) Primer: Exterior zinc-coated metal primer.
 - 2) Finish Coats: Exterior semigloss alkyd enamel.
 4. Interior Ferrous Metal:
 - a. Semigloss Acrylic-Enamel Finish: Two finish coat(s) over a primer.
 - 1) Primer: Interior ferrous-metal primer.
 - 2) Finish Coats: Interior semigloss acrylic enamel.
 5. Interior Zinc-Coated Metal (except Raceways):
 - a. Semigloss Acrylic-Enamel Finish: Two finish coat(s) over a primer.
 - 1) Primer: Interior zinc-coated metal primer.
 - 2) Finish Coats: Interior semigloss acrylic enamel.
- C. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Branch-Circuit Conductor Identification: Where there are conductors for more than three branch circuits in same junction or pull box, use color-coding conductor tape. Identify each ungrounded conductor according to source and circuit number.
- B. Conductors to Be Extended in the Future: Attach write-on tags to conductors and list source and circuit number.
- C. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, signal, sound, intercommunications, voice, and data connections.
1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
 2. Use system of marker tape designations that is uniform and consistent with system used by manufacturer for factory-installed connections.
 3. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and Operation and Maintenance Manual.
- D. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Comply with 29 CFR 1910.145 and apply self-adhesive warning labels. Identify system voltage with black letters on an orange background. Apply to exterior of door, cover, or other access.

1. Equipment with Multiple Power or Control Sources: Apply to door or cover of equipment including, but not limited to, the following:
 - a. Power transfer switches.
 - b. Controls with external control power connections.
 2. Equipment Requiring Workspace Clearance According to NFPA 70: Unless otherwise indicated, apply to door or cover of equipment but not on flush panelboards and similar equipment in finished spaces.
- E. Instruction Signs:
1. Operating Instructions: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.
 2. Emergency Operating Instructions: Install instruction signs with white legend on a red background with minimum 3/8-inch- high letters for emergency instructions at equipment used for power transfer.
- F. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.
1. Labeling Instructions:
 - a. Indoor Equipment: Engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch- high letters on 1-1/2-inch- high label; where 2 lines of text are required, use labels 2 inches high.
 - b. Outdoor Equipment: Engraved, laminated acrylic or melamine label.
 - c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
 2. Equipment to Be Labeled:
 - a. Panelboards, electrical cabinets, and enclosures.
 - b. Access doors and panels for concealed electrical items.
 - c. Electrical switchgear and switchboards.
 - d. Transformers.
 - e. Emergency system boxes and enclosures.
 - f. Receptacles with panel and circuit numbers.
 - g. Disconnect switches.
 - h. Enclosed circuit breakers.
 - i. Power transfer equipment.
 - j. Contactors.

3.2 INSTALLATION

- A. Verify identity of each item before installing identification products.
- B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- C. Apply identification devices to surfaces that require finish after completing finish work.
- D. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.

- E. Attach nonadhesive signs and plastic labels with screws and auxiliary hardware appropriate to the location and substrate.
- F. Color-Coding for Phase and Voltage Level Identification, 600 V and Less: Use the colors listed below for ungrounded service feeder branch-circuit service, feeder, and branch-circuit conductors.
 - 1. Color shall be factory applied factory applied or, for sizes larger than No. 10 AWG if authorities having jurisdiction permit, field applied.
 - 2. Colors for 208/120-V Circuits:
 - a. Phase A: Black.
 - b. Phase B: Red.
 - c. Phase C: Blue.
 - 3. Colors for 480/277-V Circuits:
 - a. Phase A: Brown.
 - b. Phase B: Orange.
 - c. Phase C: Yellow.
 - 4. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.

END OF SECTION 26 05 53

Section 26 24 16 - Panelboards

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Distribution panelboards.
 - 2. Lighting and appliance branch-circuit panelboards.
 - 3. Load centers.

1.3 DEFINITIONS

- A. ATS: Acceptance testing specification.
- B. GFCI: Ground-fault circuit interrupter.
- C. GFEP: Ground-fault equipment protection.
- D. HID: High-intensity discharge.
- E. MCCB: Molded-case circuit breaker.
- F. VPR: Voltage protection rating.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of panelboard.
 - 1. Include materials, switching and overcurrent protective devices, accessories, and components indicated.
 - 2. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each panelboard and related equipment.
 - 1. Include dimensioned plans, elevations, sections, and details.
 - 2. Show tabulations of installed devices with nameplates, conductor termination sizes, equipment features, and ratings.
 - 3. Detail enclosure types including mounting and anchorage, environmental protection, knockouts, corner treatments, covers and doors, gaskets, hinges, and locks.
 - 4. Detail bus configuration, current, and voltage ratings.

5. Short-circuit current rating of panelboards and overcurrent protective devices.
6. Include evidence of NRTL listing for series rating of installed devices.
7. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
8. Include wiring diagrams for power, signal, and control wiring.
9. Key interlock scheme drawing and sequence of operations.
10. Include time-current coordination curves for each type and rating of overcurrent protective device included in panelboards. Submit on translucent log-log graph paper; include selectable ranges for each type of overcurrent protective device. Include an Internet link for electronic access to downloadable PDF of the coordination curves.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For testing agency.
- B. Panelboard Schedules: For installation in panelboards. Submit final versions after load balancing.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For panelboards and components to include in emergency, operation, and maintenance manuals. In addition to items specified in Section 01 78 23 "Operation and Maintenance Data," include the following:
 1. Manufacturer's written instructions for testing and adjusting overcurrent protective devices.
 2. Time-current curves, including selectable ranges for each type of overcurrent protective device that allows adjustments.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Keys: Two spares for each type of panelboard cabinet lock.
 2. Fuses for Fused Switches: Equal to 10 percent of quantity installed for each size and type, but no fewer than three of each size and type.
 3. Fuses for Fused Power-Circuit Devices: Equal to 10 percent of quantity installed for each size and type, but no fewer than three of each size and type.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: ISO 9001 or 9002 certified.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Remove loose packing and flammable materials from inside panelboards; install temporary electric heating (250 W per panelboard) to prevent condensation.
- B. Handle and prepare panelboards for installation according to NECA 407.

1.10 FIELD CONDITIONS

A. Environmental Limitations:

1. Do not deliver or install panelboards until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above panelboards is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.
2. Rate equipment for continuous operation under the following conditions unless otherwise indicated:
 - a. Ambient Temperature: Not exceeding 23 deg F to plus 104 deg F.
 - b. Altitude: Not exceeding 6600 feet.

B. Service Conditions: NEMA PB 1, usual service conditions, as follows:

1. Ambient temperatures within limits specified.
2. Altitude not exceeding 6600 feet.

C. Interruption of Existing Electric Service: Do not interrupt electric service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary electric service according to requirements indicated:

1. Notify Architect no fewer than two days in advance of proposed interruption of electric service.
2. Do not proceed with interruption of electric service without Architect's written permission.
3. Comply with NFPA 70E.

1.11 WARRANTY

A. Manufacturer's Warranty: Manufacturer agrees to repair or replace panelboards that fail in materials or workmanship within specified warranty period.

1. Panelboard Warranty Period: 18 months from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PANELBOARDS AND LOAD CENTERS COMMON REQUIREMENTS

- A. Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Section 26 05 48.16 "Seismic Controls for Electrical Systems."
- B. Product Selection for Restricted Space: Drawings indicate maximum dimensions for panelboards including clearances between panelboards and adjacent surfaces and other items. Comply with indicated maximum dimensions.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- D. Comply with NEMA PB 1.
- E. Comply with NFPA 70.

- F. Enclosures: Flush and Surface-mounted, dead-front cabinets.
 - 1. Rated for environmental conditions at installed location.
 - a. Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - b. Outdoor Locations: NEMA 250, Type 3R.
 - c. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
 - d. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 - e. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA 250, Type 5.
 - 2. Height: 84 inches maximum.
 - 3. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box. Trims shall cover all live parts and shall have no exposed hardware.
 - 4. Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover. Trims shall cover all live parts and shall have no exposed hardware.
 - 5. Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.
 - 6. Finishes:
 - a. Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
 - b. Back Boxes: Galvanized steel.
- G. Incoming Mains:
 - 1. Location: Convertible between top and bottom.
 - 2. Main Breaker: Main lug interiors up to 400 amperes shall be field convertible to main breaker.
- H. Phase, Neutral, and Ground Buses:
 - 1. Material: Hard-drawn copper, 98 percent conductivity.
 - a. Plating shall run entire length of bus.
 - b. Bus shall be fully rated the entire length.
 - 2. Interiors shall be factory assembled into a unit. Replacing switching and protective devices shall not disturb adjacent units or require removing the main bus connectors.
 - 3. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
 - 4. Isolated Ground Bus: Adequate for branch-circuit isolated ground conductors; insulated from box.
 - 5. Full-Sized Neutral: Equipped with full-capacity bonding strap for service entrance applications. Mount electrically isolated from enclosure. Do not mount neutral bus in gutter.
 - 6. Split Bus: Vertical buses divided into individual vertical sections.
- I. Conductor Connectors: Suitable for use with conductor material and sizes.
 - 1. Material: Hard-drawn copper, 98 percent conductivity.
 - 2. Terminations shall allow use of 75 deg C rated conductors without derating.
 - 3. Size: Lugs suitable for indicated conductor sizes, with additional gutter space, if required, for larger conductors.

4. Main and Neutral Lugs: Mechanical type, with a lug on the neutral bar for each pole in the panelboard.
 5. Ground Lugs and Bus-Configured Terminators: Mechanical type, with a lug on the bar for each pole in the panelboard.
 6. Feed-Through Lugs: Mechanical type, suitable for use with conductor material. Locate at opposite end of bus from incoming lugs or main device.
 7. Subfeed (Double) Lugs: Mechanical type suitable for use with conductor material. Locate at same end of bus as incoming lugs or main device.
 8. Gutter-Tap Lugs: Mechanical type suitable for use with conductor material and with matching insulating covers. Locate at same end of bus as incoming lugs or main device.
- J. NRTL Label: Panelboards or load centers shall be labeled by an NRTL acceptable to authority having jurisdiction for use as service equipment with one or more main service disconnecting and overcurrent protective devices. Panelboards or load centers shall have meter enclosures, wiring, connections, and other provisions for utility metering. Coordinate with utility company for exact requirements.
- K. Future Devices: Panelboards or load centers shall have mounting brackets, bus connections, filler plates, and necessary appurtenances required for future installation of devices.
1. Percentage of Future Space Capacity: 20 percent.
- L. Panelboard Short-Circuit Current Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals. Assembly listed by an NRTL for 100 percent interrupting capacity.
1. Panelboards and overcurrent protective devices rated 240 V or less shall have short-circuit ratings as shown on Drawings, but not less than 10,000 A rms symmetrical.
 2. Panelboards and overcurrent protective devices rated above 240 V and less than 600 V shall have short-circuit ratings as shown on Drawings, but not less than 14,000 A rms symmetrical.

2.2 POWER PANELBOARDS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Eaton.
 2. General Electric Company; GE Energy Management - Electrical Distribution.
 3. Siemens Industry, Inc., Energy Management Division.
 4. Square D; by Schneider Electric.
- B. Panelboards: NEMA PB 1, distribution type.
- C. Doors: Secured with vault-type latch with tumbler lock; keyed alike.
1. For doors more than 36 inches high, provide two latches, keyed alike.
- D. Mains: As per schedule
- E. Branch Overcurrent Protective Devices for Circuit-Breaker Frame Sizes 125 A and Smaller: Bolt-on circuit breakers.
- F. Branch Overcurrent Protective Devices for Circuit-Breaker Frame Sizes Larger Than 125 A: Bolt-on electronic circuit breakers.

2.3 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Eaton.
 - 2. General Electric Company; GE Energy Management - Electrical Distribution.
 - 3. Siemens Industry, Inc., Energy Management Division.
 - 4. Square D; by Schneider Electric.
- B. Panelboards: NEMA PB 1, lighting and appliance branch-circuit type.
- C. Mains: As indicated on the schedules.
- D. Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.
- E. Doors: Door-in-door construction with concealed hinges; secured with multipoint latch with tumbler lock; keyed alike. Outer door shall permit full access to the panel interior. Inner door shall permit access to breaker operating handles and labeling, but current carrying terminals and bus shall remain concealed.
- F. Column-Type Panelboards: Single row of overcurrent devices with narrow gutter extension and overhead junction box equipped with ground and neutral terminal buses.
 - 1. Doors: Concealed hinges secured with multipoint latch with tumbler lock; keyed alike.

2.4 DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Eaton.
 - 2. General Electric Company; GE Energy Management - Electrical Distribution.
 - 3. Siemens Industry, Inc., Energy Management Division.
 - 4. Square D; by Schneider Electric.
- B. MCCB: Comply with UL 489, with interrupting capacity to meet available fault currents.
 - 1. Thermal-Magnetic Circuit Breakers:
 - a. Inverse time-current element for low-level overloads.
 - b. Instantaneous magnetic trip element for short circuits.
 - c. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
 - 2. Adjustable Instantaneous-Trip Circuit Breakers: Magnetic trip element with front-mounted, field-adjustable trip setting.
 - 3. Electronic Trip Circuit Breakers:
 - a. RMS sensing.
 - b. Field-replaceable rating plug or electronic trip.
 - c. Digital display of settings, trip targets, and indicated metering displays.
 - d. Multi-button keypad to access programmable functions and monitored data.
 - e. Ten-event, trip-history log. Each trip event shall be recorded with type, phase, and magnitude of fault that caused the trip.
 - f. Integral test jack for connection to portable test set or laptop computer.
 - g. Field-Adjustable Settings:

- 1) Instantaneous trip.
 - 2) Long- and short-time pickup levels.
 - 3) Long and short time adjustments.
 - 4) Ground-fault pickup level, time delay, and I squared T response.
4. Current-Limiting Circuit Breakers: Frame sizes 400 A and smaller; let-through ratings less than NEMA FU 1, RK-5.
 5. GFCI Circuit Breakers: Single- and double-pole configurations with Class A ground-fault protection (6-mA trip).
 6. GFCI Circuit Breakers: Class B ground-fault protection (30-mA trip).
 7. Arc-Fault Circuit Interrupter Circuit Breakers: Comply with UL 1699; 120/240-V, single-pole configuration.
 8. Subfeed Circuit Breakers: Vertically mounted.
 9. MCCB Features and Accessories:
 - a. Standard frame sizes, trip ratings, and number of poles.
 - b. Breaker handle indicates tripped status.
 - c. UL listed for reverse connection without restrictive line or load ratings.
 - d. Lugs: Mechanical style, suitable for number, size, trip ratings, and conductor materials.
 - e. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HID for feeding fluorescent and HID lighting circuits.
 - f. Ground-Fault Protection: Integrally mounted relay and trip unit with adjustable pickup and time-delay settings, push-to-test feature, and ground-fault indicator.
 - g. Communication Capability: Circuit-breaker-mounted communication module with functions and features compatible with power monitoring and control system specified in Section 26 09 13 "Electrical Power Monitoring and Control."
 - h. Shunt Trip: 120-V trip coil energized from separate circuit, set to trip at 55 percent of rated voltage.
 - i. Auxiliary Contacts: Two, SPDT switches with "a" and "b" contacts; "a" contacts mimic circuit-breaker contacts and "b" contacts operate in reverse of circuit-breaker contacts.
 - j. Alarm Switch: Single-pole, normally open contact that actuates only when circuit breaker trips.
 - k. Key Interlock Kit: Externally mounted to prohibit circuit-breaker operation; key shall be removable only when circuit breaker is in off position.
 - l. Zone-Selective Interlocking: Integral with electronic trip unit; for interlocking ground-fault protection function with other upstream or downstream devices.
 - m. Handle Padlocking Device: Fixed attachment, for locking circuit-breaker handle in on or off position.
- C. Fused Switch: NEMA KS 1, Type HD; clips to accommodate specified fuses; lockable handle.
1. Fuses and Spare-Fuse Cabinet: Comply with requirements specified in Section 26 28 13 "Fuses."
 2. Fused Switch Features and Accessories:
 - a. Standard ampere ratings and number of poles.
 - b. Mechanical cover interlock with a manual interlock override, to prevent the opening of the cover when the switch is in the on position. The interlock shall prevent the switch from being turned on with the cover open. The operating handle shall have lock-off means with provisions for three padlocks.

2.5 IDENTIFICATION

- A. Panelboard Label: Manufacturer's name and trademark, voltage, amperage, number of phases, and number of poles shall be located on the interior of the panelboard door.

- B. Breaker Labels: Faceplate shall list current rating, UL and IEC certification standards, and AIC rating.
- C. Circuit Directory: Directory card inside panelboard door, mounted in metal frame with transparent protective cover. Typed written.
 - 1. Circuit directory shall identify specific purpose with detail sufficient to distinguish it from all other circuits.
- D. Circuit Directory: Computer-generated circuit directory mounted inside panelboard door with transparent plastic protective cover.
 - 1. Circuit directory shall identify specific purpose with detail sufficient to distinguish it from all other circuits.

2.6 ACCESSORY COMPONENTS AND FEATURES

- A. Accessory Set: Include tools and miscellaneous items required for overcurrent protective device test, inspection, maintenance, and operation.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify actual conditions with field measurements prior to ordering panelboards to verify that equipment fits in allocated space in, and comply with, minimum required clearances specified in NFPA 70.
- B. Receive, inspect, handle, and store panelboards according to NECA 407.
- C. Examine panelboards before installation. Reject panelboards that are damaged, rusted, or have been subjected to water saturation.
- D. Examine elements and surfaces to receive panelboards for compliance with installation tolerances and other conditions affecting performance of the Work.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Coordinate layout and installation of panelboards and components with other construction that penetrates walls or is supported by them, including electrical and other types of equipment, raceways, piping, encumbrances to workspace clearance requirements, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.
- B. Comply with NECA 1.
- C. Install panelboards and accessories according to NECA 407.
- D. Equipment Mounting:
 - 1. Install panelboards on cast-in-place concrete equipment base(s). Comply with requirements for equipment bases and foundations specified in Section 03 30 00 "Cast-in-Place Concrete."

2. Attach panelboard to the vertical finished or structural surface behind the panelboard.
 3. Comply with requirements for seismic control devices specified in Section 26 05 48.16 "Seismic Controls for Electrical Systems."
- E. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from panelboards.
 - F. Comply with mounting and anchoring requirements specified in Section 26 05 48.16 "Seismic Controls for Electrical Systems."
 - G. Mount panelboard cabinet plumb and rigid without distortion of box.
 - H. Mount recessed panelboards with fronts uniformly flush with wall finish and mating with back box.
 - I. Install overcurrent protective devices and controllers not already factory installed.
 1. Set field-adjustable, circuit-breaker trip ranges.
 2. Tighten bolted connections and circuit breaker connections using calibrated torque wrench or torque screwdriver per manufacturer's written instructions.
 - J. Make grounding connections and bond neutral for services and separately derived systems to ground. Make connections to grounding electrodes, separate grounds for isolated ground bars, and connections to separate ground bars.
 - K. Install filler plates in unused spaces.
 - L. Stub four 1-inch empty conduits from panelboard into accessible ceiling space or space designated to be ceiling space in the future. Stub four 1-inch empty conduits into raised floor space or below slab not on grade.
 - M. Arrange conductors in gutters into groups and bundle and wrap with wire ties after completing load balancing.
 - N. Mount spare fuse cabinet in accessible location.

3.3 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; install warning signs complying with requirements in Section 26 05 53 "Identification for Electrical Systems."
- B. Create a directory to indicate installed circuit loads after balancing panelboard loads; incorporate Owner's final room designations. Obtain approval before installing. Handwritten directories are not acceptable. Install directory inside panelboard door.
- C. Panelboard Nameplates: Label each panelboard with a nameplate complying with requirements for identification specified in Section 26 05 53 "Identification for Electrical Systems."
- D. Device Nameplates: Label each branch circuit device in power panelboards with a nameplate complying with requirements for identification specified in Section 26 05 53 "Identification for Electrical Systems."
- E. Install warning signs complying with requirements in Section 26 05 53 "Identification for Electrical Systems" identifying source of remote circuit.

3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- B. Perform tests and inspections.
 - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- C. Acceptance Testing Preparation:
 - 1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.
 - 2. Test continuity of each circuit.
- D. Tests and Inspections:
 - 1. Perform each visual and mechanical inspection and electrical test for low-voltage air circuit breakers stated in NETA ATS, Paragraph 7.6 Circuit Breakers. Certify compliance with test parameters.
 - 2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
 - 3. Perform the following infrared scan tests and inspections and prepare reports:
 - a. Initial Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each panelboard. Remove front panels so joints and connections are accessible to portable scanner.
 - b. Follow-up Infrared Scanning: Perform an additional follow-up infrared scan of each panelboard 11 months after date of Substantial Completion.
 - c. Instruments and Equipment:
 - 1) Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
- E. Panelboards will be considered defective if they do not pass tests and inspections.
- F. Prepare test and inspection reports, including a certified report that identifies panelboards included and that describes scanning results, with comparisons of the two scans. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.5 ADJUSTING

- A. Adjust moving parts and operable components to function smoothly, and lubricate as recommended by manufacturer.
- B. Set field-adjustable circuit-breaker trip ranges as specified in Section 26 05 73.16 "Coordination Studies."
- C. Load Balancing: After Substantial Completion, but not more than 60 days after Final Acceptance, measure load balancing and make circuit changes. Prior to making circuit changes to achieve load balancing, inform Architect of effect on phase color coding.
 - 1. Measure loads during period of normal facility operations.

2. Perform circuit changes to achieve load balancing outside normal facility operation schedule or at times directed by the Architect. Avoid disrupting services such as fax machines and on-line data processing, computing, transmitting, and receiving equipment.
3. After changing circuits to achieve load balancing, recheck loads during normal facility operations. Record load readings before and after changing circuits to achieve load balancing.
4. Tolerance: Maximum difference between phase loads, within a panelboard, shall not exceed 20 percent.

3.6 PROTECTION

- A. Temporary Heating: Prior to energizing panelboards, apply temporary heat to maintain temperature according to manufacturer's written instructions.

END OF SECTION 26 24 16

Section 26 27 26 – Wiring Devices

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Single and duplex receptacles, ground-fault circuit interrupters and isolated-ground receptacles.
 - 2. Single- and double-pole snap switches.
 - 3. Device wall plates.
 - 4. Pin and sleeve connectors and receptacles.
 - 5. Floor service outlets, poke-through assemblies, service poles, and multioutlet assemblies.

1.3 DEFINITIONS

- A. EMI: Electromagnetic interference.
- B. GFCI: Ground-fault circuit interrupter.
- C. PVC: Polyvinyl chloride.
- D. RFI: Radio-frequency interference.
- E. TVSS: Transient voltage surge suppressor.
- F. UTP: Unshielded twisted pair.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
 - 1. Receptacles, switches, plates, floor outlets, poke through assemblies, service poles and multioutlet assemblies.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of wiring device through one source from a single manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

- C. Comply with NFPA 70 latest edition or edition enforced by state or local code authority.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Outlets - Duplex:
 - a. Hubbell Incorporated- HBL 5362.
 - b. Leviton Mfg. Company Inc.-5362.
 - c. Pass & Seymour-CRB5362.
 - d. Pass & Seymour -PT5362A (Plug Tail Device).
2. Switches-Single Pole:
 - a. Hubbell Incorporated - HBL 1221.
 - b. Pass & Seymour - PS20AC1.
 - c. Leviton Mfg. Company, Inc.- 1221-1
3. Switches-Three Pole:
 - a. Hubbell Incorporated - HBL1223
 - b. Leviton Mfg. Company, Inc.-1223-2.
 - c. Pass & Seymour-PS20AC3.
4. Dimmer Switches Line Voltage:
 - a. Lutron Nova T
 - b. Pass & Seymour CD2000

* Dimmer must be compatible with Ballast or LED Driver.
5. Dimmer Switches 0-10V:
 - a. Synergy ISD
 - b. Cooper SF10P

* Dimmer must be compatible with Ballast or LED Driver.
6. GFI Receptacles: Weather Resistant:
 - a. Hubbell Incorporated - GFWRST20
 - b. Leviton Mfg. Company Inc.-GFWR2
 - c. Pass & Seymour- 2097TRWR
7. GFI Receptacles: Weather Resistant and Tamper Resistant:
 - a. Hubbell Incorporated - GFTWRST20
 - b. Leviton Mfg. Company Inc.-GFWT2
 - c. Pass & Seymour- 2097TRWR
8. Receptacles: Tamper Resistant:
 - a. Hubbell Incorporated - BR20TR.
 - b. Leviton Mfg. Company Inc.-TBR20
 - c. Pass & Seymour- TR5362.
9. USB Charger Duplex Receptacles:
 - a. Hubbell Incorporated – USB20AC
 - b. Leviton – T5833

2.2 RECEPTACLES

- A. Straight-Blade-Type Receptacles: Comply with UL 498, 20 amp.
- B. Straight-Blade and Locking Receptacles: Heavy-Duty grade 20 amp.
- C. GFCI Receptacles: Straight blade, feed-through type, Heavy-Duty grade, with integral NEMA WD 6, Configuration 5-20R duplex receptacle; complying with UL 498 and UL 943. Design units for installation in a 2-3/4-inch- (70-mm-) deep outlet box without an adapter.

2.3 CORD AND PLUG SETS

- A. Description: Match voltage and current ratings and number of conductors to requirements of equipment being connected.
 - 1. Cord: Rubber-insulated, stranded-copper conductors, with Type SOW-A jacket; with green-insulated grounding conductor and equipment-rating ampacity plus a minimum of 30 percent.
 - 2. Plug: Nylon body and integral cable-clamping jaws. Match cord and receptacle type for connection.

2.4 SWITCHES

- A. Single- and Double-Pole Switches: Comply with UL 20, 20 amp.
- B. Snap Switches: Heavy-Duty grade, quiet type 20 amp, 120/277 volt.
- C. Line Voltage Dimmer: 120V, 2000 watt, slide to-off. Dimmer must be compatible with ballast or driver.
- D. 0-10V Dimmer: 120/277VAC, capable of three way, max wattage 1200 w 120VAC, 150000 277 VAC, Dimmer must be compatible with ballast or driver. 100% to 1% continuous.

2.5 WALL PLATES

- A. Single and combination types to match corresponding wiring devices.
 - 1. Plate-Securing Screws: Metal with head color to match plate finish.
 - 2. Material for Finished Spaces: **As selected by Architect.**
 - 3. Material for Unfinished Spaces: Galvanized steel.
 - 4. Material for Wet Locations: Heavy duty die-cast metal, gasketed with powdercoat finish and lockable tab. Listed and labeled "extra duty", "in-use", for use in "wet locations".

2.6 POKE-THROUGH ASSEMBLIES

- A. Description: Factory-fabricated and -wired assembly of below-floor junction box with multi-channelled, through-floor raceway/firestop unit and detachable matching floor service outlet assembly.
 - 1. Service Outlet Assembly: Recessed type with three (3) compartments that allow for up to three (3) duplex receptacles and/or 12 communication ports and/or 10 AV devices.
 - 2. Size: Selected to fit nominal 6-inch (100-mm) cored holes in floor and matched to floor thickness.
 - 3. Fire Rating: Unit is listed and labeled for fire rating of floor-ceiling assembly.

4. Wiring Raceways and Compartments: For a minimum of four No. 12 AWG conductors; and a minimum of four, 4-pair, Category 6 voice and data communication cables.

2.7 FINISHES

A. Color:

1. Wiring Devices Connected to Normal Power System: As selected by Architect, unless otherwise indicated or required by NFPA 70.2.
2. Wiring Devices Connected to Emergency Power System: Red.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install devices and assemblies level, plumb, and square with building lines.
- B. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical, and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.
- C. Remove wall plates and protect devices and assemblies during painting.
- D. Adjust locations of floor service outlets and service poles to suit arrangement of partitions and furnishings.
- E. Install weather resistant receptacles in damp and wet locations per N.E.C. requirements.
- F. Install tamper resistant receptacles in homes, apartments, hotel rooms and daycares per N.E.C. requirements.

3.2 CONNECTIONS

- A. Ground equipment according to Division 16 Section "Grounding and Bonding."
- B. Connect wiring according to Division 16 Section "Conductors and Cables."
- C. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values.

3.3 FIELD QUALITY CONTROL

- A. Perform the following field tests and inspections and prepare test reports:
 1. After installing wiring devices and after electrical circuitry has been energized, test for proper polarity, ground continuity, and compliance with requirements.
 2. Test GFCI operation with both local and remote fault simulations according to manufacturer's written instructions.
- B. Remove malfunctioning units, replace with new units, and retest as specified above.

END OF SECTION 26 27 26

Section 26 28 13 – Fuses

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Cartridge fuses rated 600 V and less for use in switches.

1.3 SUBMITTALS

- A. Product Data: Include the following for each fuse type indicated:
 - 1. Dimensions and manufacturer's technical data on features, performance, electrical characteristics, and ratings.
 - 2. Fuse size for elevator feeders and elevator disconnect switches.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain fuses from a single manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with NFPA 70.

1.5 PROJECT CONDITIONS

- A. Where ambient temperature to which fuses are directly exposed is less than 40 deg F (5 deg C) or more than 100 deg F (38 deg C), apply manufacturer's ambient temperature adjustment factors to fuse ratings.

1.6 COORDINATION

- A. Coordinate fuse ratings with utilization equipment nameplate limitations of maximum fuse size.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Ferraz Shawmut, Inc.
2. Little Fuse.

2.2 CARTRIDGE FUSES

- A. Characteristics: NEMA FU 1, nonrenewable cartridge fuse; class and current rating indicated; voltage rating consistent with circuit voltage.
- B. End Caps: End caps shall be capable of being tested if fuse is blown.
- C. Indicating Feature: Fuse shall have an indicating feature which clearly indicates when fuse is blown.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine utilization equipment nameplates and installation instructions. Install fuses of sizes and with characteristics appropriate for each piece of equipment.
- B. Evaluate ambient temperatures to determine if fuse rating adjustment factors must be applied to fuse ratings.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FUSE APPLICATIONS

- A. Motor Branch Circuits: Class RK1, time delay.

3.3 INSTALLATION

- A. Install fuses in fusible devices. Arrange fuses so rating information is readable without removing fuse.

3.4 IDENTIFICATION

- A. Install labels indicating fuse replacement information on inside door of each fused switch.

END OF SECTION 26 28 13

Section 26 28 16 – Enclosed Switches and Circuit Breakers

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes individually mounted enclosed switches and circuit breakers used for the following:
 - 1. Feeder and branch-circuit protection.
 - 2. Motor and equipment disconnecting means.

1.3 DEFINITIONS

- A. GFCI: Ground-fault circuit interrupter.
- B. RMS: Root mean square.
- C. SPDT: Single pole, double throw.

1.4 SUBMITTALS

- A. Product Data: For each type of switch, circuit breaker, accessory, and component indicated. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each switch and circuit breaker.
 - 1. Dimensioned plans, elevations, sections, and details, including required clearances and service space around equipment. Show tabulations of installed devices, equipment features, and ratings. Include the following:
 - a. Enclosure types and details for types other than NEMA 250, Type 1.
 - b. Current and voltage ratings.
 - c. Short-circuit current rating.
 - d. UL listing for series rating of installed devices.
 - e. Features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
 - 2. Wiring Diagrams: Power, signal, and control wiring. Differentiate between manufacturer-installed and field-installed wiring.
 - 3. Qualification Data: Submit data for testing agencies indicating that they comply with qualifications specified in "Quality Assurance" Article.

1.5 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70- Latest edition or edition enforced by state and local code authority.
- C. Product Selection for Restricted Space: Drawings indicate maximum dimensions for enclosed switches and circuit breakers, including clearances between enclosures, and adjacent surfaces and other items. Comply with indicated maximum dimensions.

1.6 COORDINATION

- A. Coordinate layout and installation of switches, circuit breakers, and components with other construction, including conduit, piping, equipment, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Fusible Switches:
 - a. Eaton Corp.; Cutler-Hammer Products, K-Series.
 - b. General Electric Co.; Electrical Distribution & Control Division, TH.
 - c. Siemens Energy & Automation, Inc., VBIL.
 - d. Square D Co, 3110.

2.2 ENCLOSED SWITCHES

- A. Enclosed, Nonfusible Switch: NEMA KS 1, Type HD, with lockable handle.
- B. Enclosed, Fusible Switch, 800 A and Smaller: NEMA KS 1, Type HD, with clips to accommodate specified fuses, lockable handle with two padlocks, and interlocked with cover in closed position.

2.3 ENCLOSURES

- A. NEMA AB 1 and NEMA KS 1 to meet environmental conditions of installed location.
 - 1. Outdoor Locations: NEMA 250, Type 3R.
 - 2. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.

2.4 FACTORY FINISHES

- A. Manufacturer's standard prime-coat finish ready for field painting.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine elements and surfaces to receive enclosed switches and circuit breakers for compliance with installation tolerances and other conditions affecting performance.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs as specified in "Basic Electrical Materials and Methods."
- B. Enclosure Nameplates: Label each enclosure with engraved metal or laminated-plastic nameplate mounted with corrosion-resistant screws.
- C. If the disconnect or enclosed circuit breaker is used as a Main Service Disconnect then the maximum available fault current shall be listed on the device to meet the requirements of NFPA 70:110.24. The labeling shall be engraved plastic. The maximum available fault current shall be obtained from the electrical utility for the secondary side of the utility transformer.

3.3 CONNECTIONS

- A. Install equipment grounding connections for switches and circuit breakers with ground continuity to main electrical ground bus.
- B. Install power wiring. Install wiring between switches and circuit breakers, and control and indication devices.
- C. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values.
- D. Maintain all necessary clearances per NFPA-70.

3.4 FIELD QUALITY CONTROL

- A. Prepare for acceptance tests as follows:
 - 1. Test insulation resistance for each enclosed switch, circuit breaker, component, and control circuit.
 - 2. Test continuity of each line- and load-side circuit.

3.5 ADJUSTING

- A. Set field-adjustable switches and circuit-breaker trip ranges.

3.6 CLEANING

- A. On completion of installation, inspect interior and exterior of enclosures. Remove paint splatters and other spots. Vacuum dirt and debris; do not use compressed air to assist in cleaning. Repair exposed surfaces to match original finish.

END OF SECTION 26 28 16

Section 26 56 00 – Exterior Lighting

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes exterior lighting units with luminaires, lamps, ballasts, poles/support structures, and accessories.

1.3 DEFINITIONS

- A. Lighting Unit: A luminaire or an assembly of luminaires complete with a common support, including pole, post, or other structure, and mounting and support accessories.
- B. Luminaire: A complete lighting unit consisting of lamp(s) and ballast(s), when applicable, together with parts designed to distribute light, to position and protect lamps, and to connect lamps to power supply.

1.4 SUBMITTALS

- A. Product Data: For each type of lighting unit indicated, arranged in order of lighting unit designation. Include data on features, accessories, finishes, and the following:
 - 1. Materials and dimensions of luminaires and poles.
 - 2. Certified results of independent laboratory tests for fixtures and lamps for electrical ratings and photometric data.
 - 3. Certified results of laboratory tests for fixtures and lamps for photometric performance.
 - 4. High-intensity-discharge luminaire ballasts.
 - 5. LED and Driver information.
- B. Shop Drawings: Anchor-bolt templates keyed to specific poles and certified by manufacturer.
- C. Maintenance Data: For lighting units to include in maintenance manuals specified in specifications.

1.5 QUALITY ASSURANCE

- A. Luminaires and Accessories: Listed and labeled as defined in NFPA 70, Article 100, for their indicated use, location, and installation conditions by a testing agency acceptable to authorities having jurisdiction
- B. Comply with NFPA 70- Latest edition or edition enforced by state and local code authority.

1.6 DELIVERY, STORAGE, AND HANDLING OF POLES

- A. Store poles on decay-resistant treated skids at least 12 inches (300 mm) above grade and vegetation. Support poles to prevent distortion and arrange to provide free air circulation.
- B. Retain factory-applied pole wrappings on metal poles until just before pole installation. For poles with nonmetallic finishes, handle with web fabric straps.

1.7 WARRANTY

- A. General Warranty: The contractor shall warranty all work for one year after acceptance of the project for HID and fluorescent and (5) year after acceptance of the project for LED.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products indicated in the Fixture schedule on the drawings. Products indicated in the fixture schedule shall meet the requirements of this specification. Manufacture shall submit for prior approval where required at least (10) days prior to bid.

2.2 HID / FLUORESCENT LUMINAIRES

- A. Metal Parts: Free from burrs, sharp corners, and edges.
- B. Housings: Rigidly formed, weather- and light-tight enclosures that will not warp, sag, or deform in use. Provide filter/breather for enclosed luminaires.
- C. Doors, Frames, and Other Internal Access: Smooth operating, free from light leakage under operating conditions, and arranged to permit relamping without use of tools. Arrange doors, frames, lenses, diffusers, and other pieces to prevent accidental falling during relamping and when secured in operating position. Provide for door removal for cleaning or replacing lens. Arrange to disconnect ballast when door opens.
- D. High-Intensity-Discharge Ballasts: Comply with ANSI C82.4. Constant wattage autotransformer or regulating high-power-factor type, unless otherwise indicated.
 - 1. Ballast Fuses: One in each ungrounded supply conductor. Voltage and current ratings as recommended by ballast manufacturer.
 - 2. Single-Lamp Ballasts: Minimum starting temperature of minus 40 deg C.
 - 3. Open-circuit operation will not reduce average life.
 - 4. High-Pressure Sodium Ballasts: Equip with a solid-state igniter/starter having an average life in pulsing mode of 10,000 hours at an igniter/starter case temperature of 90 deg C.
 - 5. Noise: Uniformly quiet operation, with a noise rating of B or better.

2.3 LUMINAIRE SUPPORT COMPONENTS

- A. Wind-Load Strength of Total Support Assembly: Adequate to carry support assembly plus luminaires at indicated heights above grade without failure, permanent deflection, or whipping in steady winds of 110

mph (160 km/h) with a gust factor of 1.3. Support assembly includes pole or other support structures, brackets, arms, appurtenances, base, and anchorage and foundation.

- B. Finish: Match finish of pole/support structure for arm, bracket, and Tenon mount materials.
- C. Mountings, Fasteners, and Appurtenances: Corrosion-resistant items compatible with support components.
 - 1. Materials: Will not cause galvanic action at contact points.
 - 2. Mountings: Correctly position luminaire to provide indicated light distribution.
 - 3. Anchor Bolts, Nuts, and Washers: Hot-dip galvanized after fabrication unless stainless-steel items are indicated.
 - 4. Anchor-Bolt Template: Plywood or steel.
- D. Pole/Support Structure Bases: Anchor type with hold-down or anchor bolts, leveling nuts, and bolt covers.
- E. Pole-Top Tenons: Fabricated to support luminaire or luminaires and brackets indicated, and securely fastened to pole top.
- F. Concrete for Pole Foundations: Comply with "Cast-in-Place Concrete."
 - 1. Design Strength: 3000-psig (20.7-MPa), 28-day compressive strength.

2.4 LED LUMINAIRES

- A. General: Except as otherwise indicated, provide LED luminaires, of types and sizes indicated on fixture schedules. The luminaires need to meet the requirements below.
- B. Material and specifications for each luminaire are as follows:
 - 1. Each luminaire shall consist of an assembly that utilizes LEDs as the light source. In addition, a complete luminaire shall consist of a housing, LED array, and electronic driver (power supply).
 - 2. Each luminaire shall be rated for a minimum operational life of 50,000 hours at an average operating time of 11.5 hours per night. This life rating must be conducted 40°C ambient temperature.
 - 3. The rated operating temperature range shall be -30°C to +40°C.
 - 4. Each luminaire is capable of operating above 100°F [37°C], but not expected to comply with photometric requirements at elevated temperatures.
 - 5. Photometry must be compliant with IESNA LM-79 and shall be conducted at 25°C ambient temperature.
 - 6. The individual LEDs shall be constructed such that a catastrophic loss or the failure of one LED will not result in the loss of the entire luminaire.
 - 7. Luminaire shall be constructed such that LED modules may be replaced or repaired without replacement of whole luminaire.
 - 8. Each luminaire shall be listed with Underwriters Laboratory, Inc. under UL1598 for luminaires, or an equivalent standard from a nationally recognized testing laboratory.

C. Technical Requirements

1. Electrical

- a. Power Consumption: Maximum power consumption allowed for the luminaire shall be determined by application. The luminaire shall not consume power in the off state.
- b. Operation Voltage: The luminaire shall operate from a 60 HZ ± 3 HZ AC line over a voltage ranging from 108 VAC to 305 VAC. The fluctuations of line voltage shall have no visible effect on the luminous output.
- c. Power Factor: The luminaire shall have a power factor of 0.90 or greater.
- d. THD: Total harmonic distortion (current and voltage) induced into an AC power line by a luminaire shall not exceed 20 percent.
- e. Surge Suppression: The luminaire on-board circuitry shall include fused surge protection devices (SPD) to withstand high repetition noise transients as a result of utility line switching, nearby lightning strikes, and other interference. The SPD shall protect the luminaire from damage and failure for common mode transient peak voltages up to 10 kV (minimum) and transient peak currents up to 5 kA (minimum). SPD shall conform to UL 1449 depending of the components used in the design. SPD performance shall be tested per the procedures in ANSI/IEEE C62.41-1992 (or current edition) for category C (standard). The SPD shall fail in such a way as the Luminaire will no longer operate. The SPD shall be field replaceable.
- f. Each Luminaire shall have integral UL Listed Class II power supplies. Class I power supplies will not be acceptable.
- g. Operational Performance: The LED circuitry shall prevent visible flicker to the unaided eye over the voltage range specified above.
- h. RF Interference: LED Drivers must meet Class A emission limits referred in Federal Communications Commission (FCC) Title 47, Subpart B, Section 15 regulations concerning the emission of electronic noise.
- i. Drivers shall have a Class A sound rating.

2. Photometric Requirements

- a. Optical Assemblies: LEDs shall be provided with discreet over optical elements to provide IESNA Type II, III, IV or V distributions. Additional distributions for spill light control shall be utilized when light trespass must be mitigated. Mitigation must take place without external shielding elements. Optical assemblies shall have a minimum efficiency of 85% regardless of distribution type. For Type II and Type III distributions street side efficiencies shall be a minimum of 80%. All LEDs and optical assemblies shall be mounted parallel to the ground. All LEDs shall provide the same optical pattern such that catastrophic failures of individual LEDs will not constitute a loss in the distribution pattern.
- b. Illuminance: The illuminance shall not decrease by more than 30% over the expected operating life. The measurements shall be calibrated to standard photopic calibrations.
- c. Light Color/Quality: Where RGB/RGBW is not specified, the luminaire shall have a maximum correlated color temperature (CCT) of 4,000K. The color rendition index (CRI) shall be 70 or greater. Binning of LEDs shall conform to ANSI/ G. NEMA SSL 3-2010.
- d. Backlight-Uplight-Glare: The luminaire shall not allow more than 10 percent of the rated lumens to project above the horizontal plane. The luminaire shall have 100 percent of the rated

lumens projected below 90 degrees from vertical. Backlight and Glare ratings as per fixture schedule and calculated per IESNA TM-15.

3. Thermal Management

- a. The thermal management (of the heat generated by the LEDs) shall be of sufficient capacity to assure proper operation of the luminaire over the expected useful life.
- b. The LED manufacturer's maximum thermal pad temperature for the expected life shall not be exceeded.
- c. Thermal management shall be passive by design. The use of fans or other mechanical devices shall not be allowed.
- d. The luminaire shall have a minimum heat sink surface such that LED manufacturer's maximum junction temperature is not exceeded at maximum rated ambient temperature.
- e. The heat sink material shall be aluminum.

4. Physical and Mechanical Requirements

- a. The luminaire shall be a single, self-contained device, not requiring on-site assembly for installation. The power supply for the luminaire shall be integral to the unit.
- b. The assembly and manufacturing process for the LED luminaire shall be designed to assure all internal components are adequately supported to withstand mechanical shock and vibration from high winds and other sources.
- c. Luminaires shall be capable of withstanding cyclical loading in (G = Acceleration of Gravity): a minimum peak acceleration level of 3.0 G peak-to-peak sinusoidal loading with the internal driver installed, for a minimum of 100,000 cycles without failure of any luminaire parts. Testing to be performed in three planes: a horizontal plane parallel to the direction of mounting, a horizontal plane perpendicular to the direction of mounting and the vertical plane.
- d. The housing shall be designed to prevent the buildup of water on the top of the housing. Exposed heat sink fins shall be oriented so that water can freely run off the luminaire, and carry dust and other accumulated debris away from the unit.
- e. The optical assembly of the luminaire shall be protected against dust and moisture intrusion per the requirements of IP-66 (minimum) to protect all optical components
- f. The electronics/power supply enclosure shall meet the requirements for NEMA/UL wet location.
- g. Each mounted luminaire may be furnished with or without a photoelectric unit receptacle as per fixture schedule.
- h. Door shall be hinged and secured to the housing in a manner to prevent its accidental opening.
- i. The circuit board and power supply shall be contained inside the luminaire. Electrolytic capacitors used in the power supplies shall be rated for -40°F to 220°F (-40°C to $+105^{\circ}\text{C}$), long life (> 5000 hours), and operated at no more than 70% of their rated voltage, and 70% of rated current.

5. Materials

- a. Housings shall be fabricated from materials that are designed to withstand a 3000-hour salt spray test as specified in ASTM Designation: B117.
- b. Each refractor or lens shall be made from UV inhibited high impact plastic such as acrylic and be resistant to scratching.
- c. Polymeric materials (if used) of enclosures containing either the power supply or electronic components of the luminaire shall be made of UL94VO flame retardant materials. The len(s) of the luminaire are excluded from this requirement.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Concrete Foundations: Construct according to Section "Cast-in-Place Concrete."
 1. Comply with details for reinforcement and for anchor bolts, nuts, and washers. Verify anchor-bolt templates by comparing with actual pole bases furnished.
 2. Finish for Parts Exposed to View: Trowel and rub smooth. Comply with Section "Cast-in-Place Concrete" for exposed finish.
- B. Install poles as follows:
 1. Use web fabric slings (not chain or cable) to raise and set poles.
 2. Mount pole to foundation with leveling nuts, and tighten top nuts to torque level recommended by pole manufacturer.
 3. Secure poles level, plumb, and square.
 4. Grout void between pole base and foundation. Use nonshrinking or expanding concrete grout firmly packed in entire void space.
 5. Use a short piece of 1/2-inch- (13-mm-) diameter pipe to make a drain hole through grout. Arrange to drain condensation from interior of pole.
- C. Lamp luminaires with indicated lamps according to manufacturer's written instructions. Replace malfunctioning lamps.

3.2 CONNECTIONS

- A. Ground equipment.
 1. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values.
- B. Ground metal poles/support structures according to Section "Grounding."

3.3 FIELD QUALITY CONTROL

- A. Inspect each installed unit for damage. Replace damaged units.
- B. Advance Notice: Give dates and times for field tests.
- C. Provide instruments to make and record test results.

- D. Malfunctioning Fixtures and Components: Replace or repair, then retest. Repeat procedure until units operate properly.

3.4 CLEANING AND ADJUSTING

- A. Clean units after installation. Use methods and materials recommended by manufacturer.
- B. Contractor to aim any adjustable luminaires per architect, engineer or owner's requirements. Contractor to provide aiming at night and provide all necessary equipment needed to aim luminaires.

END OF SECTION 26 56 00

Section 26 57 00 – Lighting Control System

PART 1 - GENERAL

1.1 INTRODUCTION

- A. The intent of this specification is to provide for furnishing, installing, testing and placing in operation, the necessary equipment for switching and dimming control of lighting. The work covered in this section is subject to all of the requirements in the general conditions of the specifications. Contractor shall coordinate all of the work in this section with all the trades covered in the other sections of the specification to provide a complete and operative lighting control system.

1.2 DESCRIPTION OF WORK

- A. Extent of lighting control system work is indicated by drawings and by the requirements of this section. It is defined to include intelligent lighting control panels, switch inputs, wiring and ancillary programming equipment. Type of lighting control equipment and wiring specified in this section includes the following:
 - 1. Programmable Lighting Control Relay/Dimmer Panels stand-alone and network
 - 2. Remote over-ride switch panels
 - 3. Remote preset dimming control panels
 - 4. Central Lighting Control Operation and Programming computer
 - 5. Occupancy Sensors
 - 6. Wall box dimmers
- B. Requirements are indicated elsewhere in these specifications for work including, but not limited to, raceways and electrical boxes and fittings required for installation of control equipment and wiring, which are not work of this section.

1.3 QUALITY ASSURANCE

- A. Independent Testing Laboratory - The control panels shall be tested and listed under the UL 916 Energy Management Equipment standards by a nationally recognized testing laboratory.
- B. System Checkout and training - A factory trained technician or other factory authorized personnel shall visit site prior to installation to consult with installing contractor. Second site visit to functionally test the system and verify performance after contractor installation. Factory authorized personnel shall conduct a training session (8 hours max) to train the building operations personnel on the set-up, programming, operation and maintenance of the lighting control system. Training sessions shall be limited to two sessions and eight hours total.
- C. Factory Programming – The system shall be turned over to the owner fully programmed and ready for immediate operation. It shall be the responsibility of the contractor to coordinate with the owner and supply the necessary “as-installed” information and desired schedules to the manufacturer in a timely manner.
- D. Manufacturer experience - To insure a uniform installation and single responsibility, all the equipment described herein shall be supplied by a single manufacturer. Manufacturer shall have a minimum of 10 years experience in lighting control systems of the type detailed herein.

E. Manufacturers and systems:

Lithonia Lighting; Synergy Lighting Control System
Lutron Electronics Co, Inc.; Grafik I 6000.

F. Alternate products shall be submitted for prior approval (10) days prior to bid.

1.4 CODES AND STANDARDS

- A. Network - ANSI 875.1, ARCNET®
- B. Protocol - ASHRAE 135 - 1995, BACnet®
- C. IEEE Std 2000.1-1998
- D. UL 916 Energy Management Equipment
- E. California Energy Commission
- F. United State Institute of Theatre Technology - USITT DMX512

1.5 SUBMITTALS

Prior to fabrication manufacture shall submit the following materials for approval.

- A. Manufacturer's published catalog data sheets for all equipment and components of the lighting control system.
- B. Shop Drawings - Submit drawings of lighting control system and accessories including, but not necessarily limited to, the central programming system, intelligent relay panels, network wiring, switch inputs, analog inputs and modem location. As a minimum, the shop drawings shall include the following:
 - 1. One-line riser diagram with wire type details
 - 2. Control system network wiring details
 - 3. Lighting control panel load schedules
 - 4. Input and output wiring details
 - 5. Programming worksheets for system configurations
 - 6. Occupancy sensor layout or schedule and wiring details
 - 7. Wall box dimming device schedule
 - 8. Sweep-Switch device schedule

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. The lighting control system shall integrate all aspects of lighting control and be capable of dimming, switching, lighting automation and lighting energy management functions in a single scalable assembly.

- B. The system shall consist of intelligent lighting control panels with programmable inputs and integral astronomic time-clock. Lighting control panels shall provide up to 48 - 20 amp relay outputs, 30 dimmer outputs, or a combination of both dimmers and relays.
- C. The system shall be capable of networked operation making possible the sharing of schedules and overrides between lighting control system enclosures. All inputs shall be transferable over the network to create any switching pattern required.
- D. Lighting control system shall permit lighting to be overridden ON for after-hours use and cleaning. Overrides shall be hard-wired inputs or optional voice-guided touch-tone telephone control. Any control pattern shall be available from any override in the system. Overrides may be programmed to time out after up to two hours during after-hours use.
- E. Programming shall be accomplished through a local keypad and display or off-line through a personal computer with optional configuration software.
- F. The system shall accept dry contact inputs from the building energy management system. One input per floor plus an additional input for the 1st and 9th floors.

2.2 HARDWARE

The lighting control system shall consist of lighting control enclosures, power modules, programmable system controllers, and other ancillary accessories as herein specified.

- A. Enclosure
 - 1. Lighting control system enclosure shall be NEMA 1, wall mounted code gage steel cabinet. Enclosure and contents shall be designed to operate in interior spaces with temperatures of 32°-104° F (0°-40° C), humidity 0-90% non condensing. Enclosure shall be available with optional recessed mounting hardware, see drawings for mounting requirements.
 - 2. Enclosure Dimensions:
 - a.) Small - 21"(533mm) H X 20"(508mm) W X 6"(152mm) two power modules maximum.
 - b.) Medium - 34.5"(876mm) H X 20"(508mm) W X 6"(152mm) four power modules maximum.
 - c.) Large - 48"(1,219mm) H X 20"(508mm) W X 6"(152mm) six power modules maximum.
 - 3. Multi-tapped Transformer - The enclosure shall be supplied with multi-tapped transformer and shall not require specification of voltage for each control location. Provide a dedicated power feed of 120/230/277VAC, 50/60 Hz, 225 VA. for each enclosure.
 - 4. Modular Design - The power modules and system controller shall be modular and designed for ease of field service or upgrade. Lighting control system enclosure shall be available from factory stock to facilitate rough-in requirements.
- B. Relay Power Modules
 - 1. Mechanical - All power module components shall be mounted to heavy steel back plane. Module shall install into enclosure with keyed tab and slot hardware, secured in place with heavy duty screws.
 - 2. Input/output features - Power module shall provide low voltage switch input, pilot light output, analog input, and line voltage output control of lighting loads. Power modules shall be operable without the system controller installed for direct operation of lighting loads or with the system controller for programmable input to output mapping. Each module shall provide the following:
 - a.) Eight 20 amp output relays
 - b.) Eight override switch inputs
 - c.) Pilot light output per relay
 - d.) Two analog inputs each configurable for 0 – 10v or 4 – 20 mA operation
 - e.) 24VDC accessory power terminals

3. Relay Status Indicators - The system shall provide ON/OFF status indication of all relay outputs via LED indicators.
4. Relays - Control relays shall be SPST, normally open with enclosed silver cadmium-oxide isolated contacts. Relays shall be rated to at least 16 amps at 277 VAC electronic or HID ballast, 15 amps 120VAC tungsten. The relays shall be magnetically held by DC current. A limited 10-year warranty shall be provided on the individual relays.
5. Arc-less Load Switching - The system shall limit the effect of inrush current on relay contacts by restricting the change-state timing of the output relays to occur within +/- 10% of the zero cross point of the output wave form.
6. Switch Inputs - Each power module shall provide for eight (8) dry contact inputs for override purposes. Momentary or maintained contacts shall be supported as latching 3-wire momentary, 2-wire momentary alternate action or 2-wire maintained contact. Inputs shall be dry contact with 24 VDC, 12 mA, internally sourced. Inputs shall be linkable to any number of relays for override control.
7. Analog Inputs - Two inputs per module shall be capable of monitoring external analog sensing devices such as a photocell. It shall be possible, through the system logic, to control the output relays in response to analog input values. Provide 100 steps of analog control resolution.
8. Service Override Switch - Each relay module shall have an On/Auto/Off service override switch that shall control all relay outputs on the module. Whenever active, the On or Off override condition shall be visually and audibly annunciated via the UIP on the system controller.

C. Dimming Power Modules

1. Mechanical - All power module components shall be mounted to heavy steel back plane. Module shall install into enclosure with keyed tab and slot hardware, secured in place with heavy duty screws.
2. Input/output features - Dimmer module shall provide low voltage switch input, analog input, and line voltage output control of lighting loads. Dimmer modules shall be operable without the system controller installed for direct operation of lighting loads or with the system controller for programmable input to output mapping. Each module shall provide the following:
 - a.) Six 20 amp relays with output terminal blocks
 - b.) Six universal dimmers with output terminal blocks
 - c.) Two switch inputs, configurable for raise/lower or on/off operation
 - d.) Three analog inputs, configurable for 0 – 10v or 4 – 20 mA operation
 - e.) Two 24VDC accessory power terminals
3. Dimmed Status Indicators - The system shall provide a dimmed status indication of all outputs via LED indicators.
4. Relays - Air gap control relays shall be SPST, normally open with enclosed silver cadmium-oxide isolated contacts. Relays shall be rated to at least 16 amps at 277 VAC electronic or HID ballast, 15 amps 120VAC tungsten. The relays shall be magnetically held by DC current.
5. Sources - Dimmers shall be "universal" type rated for use with incandescent, low voltage, neon, cold cathode, and fluorescent. Digital firing circuits shall ensure that all dimmers set to the same intensity will track together. No adjustments shall be required to ensure this operation.
6. Rise Time - Dimmers shall use toroidal filters to reduce RFI and lamp filament noise. Filter design shall limit current rise time of output wave form to a minimum of 350 microseconds, measured between 10 and 90 percent of total rise with dimmer control set at one half.
7. Response to control -- Dimmer response curve shall be selectable via the UIP on the system controller and shall provide a means to optimize the dimmer response to control for the lamp type being controlled.
8. High/low trim -- It shall be possible to set high end and low end trim points for each dimmer individually via the UIP on the system controller.
9. Switch Inputs - Each dimmer module shall provide two (2) dry contact inputs for override purposes. Momentary or maintained contacts shall be supported as latching 3-wire momentary, 2-wire momentary alternate action or 2-wire maintained contact. Inputs shall be dry contact with 24 VDC, 12 mA, internally sourced. Inputs shall be linkable to any number of relays or dimmers for override control.

10. Analog Inputs - Three inputs per dimmer module shall be capable of monitoring external analog devices such as a photocell or potentiometer. It shall be possible, through the system logic, to control the output relays in response to analog input values. Provide 100 steps of analog control resolution.
 11. Diagnostic features - It shall be possible to directly set dimmer intensity, read current dimmer intensity value and read input control signal values via the UIP on the system controller.
 12. Service Override Switch - Each dimming module shall have an On/Auto/Off service override switch that shall control all outputs on the module. Whenever active, the On or Off override condition shall be visually and audibly annunciated via the UIP on the system controller.
- D. System Controller
1. Mechanical - The system controller shall be supplied as a modular chassis consisting of the user interface panel, system control electronics, and provision for installation of up to four industry standard half length ISA accessory boards. The system controller shall plug-into the enclosure as an assembly for ease of installation, service, or upgrade. Do not install system controllers into the enclosures until after the rough-in phase of installation is complete.
 2. User Interface Panel (UIP) - The user interface shall provide a simple means to set-up, program, and monitor the lighting control system. Provide as a minimum the following features:
 - a.) Multi-lingual operation in English, Spanish or French
 - b.) Four line, eighty character LCD display with back light
 - c.) Four multi-function menu selection keys graphically associated with the LCD display
 - d.) A twelve key, numeric keypad with Enter and Back functions
 - e.) A four key menu navigation and selection keypad with Up, Down, plus (+) and minus (-) function keys
 - f.) LED status indicators for Network, DMX512 input and Local input/output buss.
 3. Capacity - The system controller shall have the capacity to operate up to 12 power modules in two enclosures, permitting up to 96 points of control from each system controller.
 4. RS232 Port - Provide a front mounted DB9 serial connector for connection of a personal computer or other external serial device. Provide a second DB9 serial connector within the enclosure for connection of internal serial devices.
- E. Telephone Interface - The system controller shall have telephone interface with the building dedicated direct touch-tone telephone lines and shall provide for override, remote programming, on-line monitoring and control functions, as well as a variety of remote factory support functions. Hardware shall support transmission speeds of up to 33K baud. Each system controller that is configured for telephone interface shall provide the following features as a minimum:
1. Off-line programming - It shall be possible to program the system via personal computer located at a remote site.
 2. On-line monitoring - It shall be possible to monitor the status of the system in real time via personal computer located at a remote site. Provide for viewing the current status of the loads, input status, event log, and relay run time/start counters as a minimum.
 3. Telephone override - It shall be possible to override the status of output loads on or off using any touch-tone telephone set. The system shall answer incoming calls with a human voice prompt and guide the user through operation. The system shall support the use of up to 9999 unique control zone codes.
 4. Factory support - Provide dial-in factory support capability such that factory personnel can assist the owner with the diagnosis and resolution or programming and operation problems. It shall be possible for the factory to read the software version currently installed at the site and download an updated version to the site if required without interruption of the user program.
- F. Program Back-up - The user program shall be stored in non volatile memory. The system shall utilize a memory back-up device that is system integrated, maintenance free and not require batteries for retention of memory.
- G. Network - System controllers shall be capable of panel-to-panel communications over a high-speed 156Kbps, hard-wired data network. Network wire shall be twisted and shielded pair, installed in a

daisy chain configuration, and rated for RS-485 data communication. Network wire shall be supplied by lighting control system manufacturer or equal that meets manufacturer's requirements. Network protocol shall be ARCNET® (ANSI 878.1) token passing. Systems utilizing proprietary networking schemes shall not be acceptable.

2.3 FIRMWARE FEATURES

- A. Open Protocol Networking - To insure interoperability with other building systems, the lighting control panels shall communicate over the network using the BACnet® (ASHRAE 135- 1995) communication standard. Systems requiring a gateway device for BACnet communications shall provide one gateway for each lighting control panel location shown on the plans.
- B. Groups - It shall be possible to associate output relays into logical control groups. Any "group" shall be assign-able to schedule events, switch inputs, analog inputs or telephone overrides as a single entity. It shall not be necessary to program functions or schedules individually for each output relay.
- C. Outputs - Outputs shall be individually settable through the system controller to respond as normally open, normally closed, momentary on, momentary off, or for Sentry™ switch operation. Outputs shall respond as programmed when the service override switch is activated.
- D. Astronomic Clock - The system clock shall of the astronomical type and be capable of calculating the correct time for sunrise and sunset. It shall be possible to set control functions to occur at or up to 99 minutes before or after sunrise or sunset.
- E. Daylight Savings Time - The system shall automatically adjust for daylight savings time. It shall be possible to disable this function.
- F. Schedules - The system shall support the creation of up to 99 unique lighting control schedules. The quantity of time schedule events contained in the schedules shall be limited only by the available system memory and shall be dynamically allocated to the schedules such as to not limit the capacity of any single schedule.
- G. Schedule Assignment - Unique schedules may be assigned to each day of the week to create a rotating Monday through Sunday weekly operating scenario. A unique holiday schedule shall automatically supersede assigned weekday schedules based on a list of holiday dates. Alternately, schedules may be assigned to specific calendar dates. A schedule assigned to a calendar date shall have priority over a schedule assigned to a Monday through Sunday upon which the calendar date occurs such that only one schedule runs on any given day.
- H. Overrides - It shall be possible to override schedule operation and force outputs to an On or Off state. Overrides shall be initiated from a variety of system sources including switch inputs, analog inputs, telephone interface, modem, or network. Three types of override shall be available:
 - 1. Standard - Under normal conditions, a group can be overridden On or Off by any available input source programmed to control the group. The group will remain in the overridden condition until changed by a schedule event or by another override source.
 - 2. Priority On - The priority On override shall force the group On and not allow further control until the priority On override is released by the source. A priority On override shall cancel automatically after 24 hours and the group shall revert to schedule operation if applicable. In the event of overlap, priority On shall take precedence over priority Off.
 - 3. Priority Off - The priority Off override shall force the group Off and not allow further control until the priority Off override is released by the source. A priority Off override shall cancel automatically after 24 hours and the group shall revert to schedule operation if applicable.

- I. Transmit - Each system controller input and output shall include provision to annunciate it's actuation over the network making the event available for use by all controllers on the network. This function shall be set via the UIP on the system controller and not require the use of a personal computer for inter-panel operation over the network.
- J. Flash to Find - It shall be possible to set any output relay, group or dimmer to continuously flash on and off to facilitate easy location of undocumented loads. The flash to find function shall automatically cancel after two minutes.
- K. Status - Each system controller shall be capable of displaying the current real time status of all inputs and outputs associated with the controller.
 - 1. Input Status – The current state of each input shall be displayed as On or Off for switch inputs or as a value for analog inputs.
 - 2. Output Status – The current state of each output shall be displayed as On or Off for relay outputs or as a percentage value for dimmed outputs.
 - 3. Network Status – The network status display shall indicate that the system controller is actively communicating on the local input/output buss and the network by displaying network message traffic expressed as a percentage of capacity. This display shall also indicate the currently available system RAM and flash disk memory.
- L. Logging - The system controller shall automatically retain a record of system control events and run times and shall make this information available to the user via the UIP on the system controller.
 - 1. Event Log - The system shall automatically log in memory and write to the printer, if attached, key actions performed by the system controller. . Each log entry shall be time and date stamped. It shall be possible to view or print the event log via the UIP. A minimum of 2000 system events shall be saved before the system begins to overwrite the oldest data. Logged actions shall include but not be limited to:
 - a.) Power up
 - b.) Power down
 - c.) Input change of state
 - d.) Output change of state
 - e.) Manual override
 - f.) New script
 - g.) Alarms
 - 2. Relay Run Time - A cumulative "on" time record shall be accumulated for each output. It shall be possible to view and reset the run-time for each output via the UIP.
 - 3. Relay Starts - A counter shall track the quantity of starts for each output. It shall be possible to view or reset the number of starts for each output from the UIP.
- M. Script File - All system parameters and user programming shall be stored within the system controller in the form of an editable text file. It shall be possible to upload and download the file between the system controller and a personal computer using any suitable terminal emulation program. The script file shall be user editable using a text editor or word processing software.
- N. Script Logic - The system controller logic shall support the creation of customized logical control scenarios. Scenarios shall be created off line using the optional Windows® based configuration software package. As a minimum, the system shall understand and process "basic" IF, THEN, ELSE, AND, = (equal), < (less than), and > (greater than) logical statements. Commands and operations to be tested and/or acted upon shall include as a minimum: DAY, DATE, TIME, INPUT, OUTPUT, INC COUNTER # (increment counter #), DEC COUNTER (decrement counter #), and RESET COUNTER.
- O. Room Configuration – The system controller shall have standard room configuration programming to handle up to 67 partitions joining 32 rooms in a pattern 8 wide and 4 high.

2.4 CONFIGURATION SOFTWARE

- A. The system shall support the use of optional off-line personal computer based software for user programming and monitoring of system status and operation. The configuration software shall be a 32 bit application and shall run on any personal computer using the Windows95/98/NT/2000 operating system.
- B. It shall be possible to upload, edit, and download user program and log data through a direct connection to the lighting control system network or remotely through the use a telephone modem.
- C. The configuration software shall have the ability to "learn" the hardware components that are present in the system and automatically configure a Script file using default values which may then be edited by the user.
- D. The system shall support the simultaneous use of multiple personal computers.

2.5 CONTROL STATIONS Control stations shall provide presets and control channels as indicated.

Faceplates shall attach to mounting frame without visible screws and, when in place, shall provide a clean architectural appearance. Full-length piano hinge shall allow faceplate to fold down flat against wall when open. Standard faceplate finish shall be brushed stainless steel. Optionally, brushed aluminum, polished stainless steel, polished brass or painted white, black or ivory shall be supplied as indicated or directed by the architect.

- A. Preset, master raise/lower and off buttons shall be accessible with faceplate in place. All other controls and displays shall be concealed below faceplate. Alternate faceplate versions shall provide a tinted translucent window to permit viewing of LED channel intensity displays with faceplate in place. Faceplate versions shall be provided as indicated.
- B. Buttons shall provide a positive tactile feel. Preset buttons shall incorporate an integral LED indicator. Each channel shall have an LED bargraph with minimum 50-step resolution to indicate intensity.
- C. Master raise/lower function shall adjust intensity of all control channels simultaneously. Alternate operating mode for station shall disable master function and provide two additional preset buttons.
- D. Selectable fade times for each preset shall be provided. Available fade times shall be INSTANT, 5, 10, 15, 30, 45 seconds or 1, 5, 10, 30, 60 minutes.
- E. It shall be possible to set any channel to operate as a non-dim switch. When operating as a non-dim, channel buttons and LED display shall provide instantaneous on/off operation in place of raise/lower.
- F. Control station shall directly accept momentary dry contact closures from external systems to allow remote activation of preset, master and channel raise/lower and off functions.

2.6 REMOTE STATION - Remote stations shall be single gang devices with up to 9 Pushbuttons with LED status indicators. Remote station shall wire to the same network as master stations. Station network shall handle up to 60 devices on one daisy-chained wire. Stations shall be single-gang device. Standard faceplate finish shall be brushed stainless steel. Optionally, brushed aluminum, polished stainless steel, polished brass or painted white, black or ivory shall be supplied as indicated or directed by the architect.

2.7 ROOM PARTITION - Spaces separated by movable partitions shall be joined electronically for in the lighting control system. Each partition shall have an infrared device to detect if the partition is open or closed. In addition to partition sensor there shall be a manual room configuration over-ride switch available to operations staff.

2.8 SWEEP SWITCH - Install sweep-switches where indicated on plans. Sweep-switch is a special manually operated toggle wall switch that resets itself automatically to the Off position in response to a programmed

power interruption signal provided by the lighting control panel. Install appropriately rated sweep-switches according lighting controls system manufactures instructions.

- 2.9 OCCUPANCY SENSORS – Ceiling mount occupancy sensors shall employ both infrared and ultrasonic motion sensing technologies to provide effective coverage for automatic On/Off lighting control. Detection of both infrared and ultrasonic motion shall trigger light On and absence of both infrared and ultrasonic motion for the time-out period shall turn Off lights. Self-adjusting circuitry shall automatically adapt sensitivity and time-out for installation and usage pattern. Coverage pattern shall be up to 2000 ft. Sensor heads shall be low voltage /class 2 devices. Power Packs shall be provided as needed per manufacturers layout. Power Packs shall be U.L. Listed devices rated for 20 amp lighting loads at 120 VAC and 277 VAC. Location and sensor pattern choice shall be verified in writing on a clean floor plan by lighting control system manufacturer during submittal process.
- 2.10 WALL BOX DIMMERS -- Wall box strap-mounted dimmers shall be designed to fit in a standard single gang or multi-gang box. Device shall have a smooth, full-range linear slider and push-button On/Off switch. Standard white or ivory finish device to be supplied with single or multi-gang Decora style wall plate with a screwless appearance. Wall devices shall be available for Incandescent, Low Voltage, Electronic Low Voltage, Fluorescent two-wire (Mark X) up to 1200 VA at 277 volts. Wall box device shall be supplied by Lighting Control System manufacturer.

PART 3 - EXECUTION

3.1 EQUIPMENT INSTALLATION AND DOCUMENTATION

- A. Installation - The control system shall be installed and connected as shown on the plans and as directed by the manufacturer. The contractor shall complete all electrical connections to all control circuits, network terminations, RS-232 connections, sensors and override wiring.
- B. Telephone Lines - The contractor shall arrange for all required telephone lines and touch-tone telephone override wiring as shown on the plans. All phone connections shall be terminated into RJ-11 modular telephone. If multiple lines are required, they shall be installed on a rotating line such that when one line is busy the call will automatically switch to the next line.
- C. Documentation - The contractor shall provide accurate "as built" drawings to the owner indicating the correct and latest program in each controller. The "as-built drawings" shall clearly indicate the lighting control panel identification, the load controlled by each relay, and the device connected to each input.
- D. Operation and Service Manuals -- Provide operation and service manuals for all system components as indicated in the General Provisions.

3.2 PRODUCT SUPPORT AND SERVICE

- A. Pre-installation site visit -- Factory shall include one pre-installation site visit for factory employed technical service staff. Pre-installation visit is to instruct installing electrician. Also to verify programming details.
- B. System Start-up - Provide a factory authorized technician to verify the installation, test the system, and train the owner on proper operation and maintenance of the system. Before requesting start-up services, the installing contractor shall verify that:

1. The control system has been fully installed in accordance with manufacturer's installation instructions.
2. Phone lines have been checked for dial tone.
3. Low voltage wiring for overrides and sensors is completed.
4. Accurate "as-built" load schedules have been prepared for each lighting control panel.
5. Proper notification of the impending start-up has been provided to the owner's representative.

C. Factory Support

Factory telephone support shall be available at no cost to the owner during the warranty period. Factory assistance shall consist of assistance in solving programming or other application issues pertaining to the control equipment. The factory shall provide a toll-free number for technical support.

3.3 WARRANTY

- A. Manufacturer shall provide a one (1) year limited warranty on the lighting control system and software. A ten (10) year limited warranty shall be provided on the lighting control relays and dimming ballast.

END OF SECTION 26 57 00



LTG AND ELEC ASSOC OF NRLNS
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SUITE 200
METAIRIE, LA 70002
Phone: 504-887-1235 EXT:
Fax: 504-887-0358
Contact: Chargois, Laura

I-10 DOWNTOWN

21-33573-3

5/1/2025

Submission Type

☐ Prior Approval

☐ Resubmittal for Approval

☐ Approval

☐ Corrections

☒ Your Use

☐ Other

Submitted To:

LEA

LIGHTING & ELECTRICAL
ASSOCIATES

Project 21-33573-3 Date 5/1/2025
I-10 DOWNTOWN

Submitted By
LTG AND ELEC ASSOC OF NRLNS

Type	Manufacturer/Brand	Catalog Number	Notes
	INSIGHT LIGHTING	<u>AP/VO/RGB35/1060/48"/120V/DMX FX/FINISH</u>	Qty. (2) 8' linear runs ADVISE FINISH
	INSIGHT LIGHTING	SA28104-1 HM MTG HINGE MOUNTING	** SPECIFY MOUNTING ** MAY INCREASE PRICING ** ADVISE MOUNTING FINISH
	INSIGHT LIGHTING	EL12430-5-S LC-5' LEADER CABLES	ADVISE FINISH
	INSIGHT LIGHTING	EL12288-25-X JC 25' JUMPER CABLES	ADVISE FINISH
	INSIGHT LIGHTING	EL12291-X DMX TERMINATOR	ADVISE FINISH
	INSIGHT LIGHTING	<u>LIGHTDIAL DMX CONTROLLER</u>	
	INSIGHT LIGHTING	<u>DMXCAT: REMOTE ADDRESSING TOOL</u>	
	INSIGHT LIGHTING	<u>CDS-RDM: DMX RDM DISTRIBUTION KIT (IP67): (4 OUTPUTS)</u>	
	ABL-Lithonia Lighting	<u>VCPG LED V4 P1 40K 70CRI T5R MVOLT SRM DNAXD</u>	
	Acuity Brands Lighting	<u>ACUITY WARRANTY</u>	
	INSIGHT LIGHTING	<u>INSIGHT WARRANTY</u>	

Insight lighting

ARGO PRO
PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT:

TYPE:

FIXTURE CATALOG #: AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISE -

PROFILE

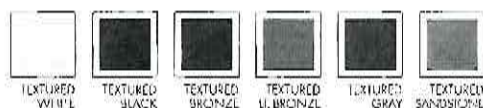
OUTPUT	LO (5 W/FT), MO (10 W/FT), HO (15 W/FT), VO (20 W/FT)
OPTICAL DISTRIBUTIONS	10°, 20°, 30°, 40°, 60°, 80°, 90° - SEE PAGE 2 FOR DETAILS
LED CONFIGURATIONS	PATENTED QUAD PERFECT™ TECHNOLOGY POWERED BY NITRO COLOR TECHNOLOGY RGBA, RGB22K-40K, RGRYB30K-40K TUNABLE WHITE (2200K-6500K)
PERFORMANCE	UP TO: 4,276 LUMENS, 47,764 PEAK CANDELA
VOLTAGE	120VAC, 277VAC 380VDC - REMOTE DRIVER, POWERED BY MARATHON TECHNOLOGY
CONTROL	DMX/RDM
FIXTURE LENGTHS	12", 24", 36", 48", 60" (NOMINAL LENGTHS)
HOUSING	PRECISION EXTRUDED ALUMINUM
LENS	HIGH DENSITY TEMPERED GLASS
FINISH	HIGH DURABILITY POWDER COATING
OPERATING TEMP.	-20° C to 50° C
WARRANTY	5-YEAR LIMITED
LUMEN MAINTENANCE	75,000 HOURS
CERTIFICATION	ETL AND CETL FOR IP67, IK07, 3G, COMPLIES WITH BUY AMERICAN ACT



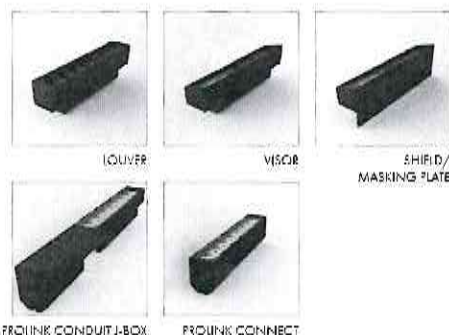
nitro color
MARATHON
QUAD PERFECT™



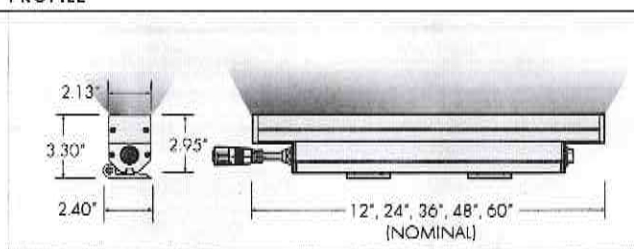
STANDARD FINISHES



OPTIONS



PROFILE



insight lighting

PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

ARGO PRO

PROJECT: TYPE: FIXTURE CATALOG # AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISE -

FIXTURE SPECIFICATION

AP	VO	RGB35	1060	48	120	DMXFX	ADVISE	Separate options with dashes
1	2	3	4	5	6	7	8	9

1 FIXTURE
ARGO PRO AP

2 WATTAGE
LOW OUTPUT 10
MEDIUM OUTPUT 10
HIGH OUTPUT 10
MAXIMUM OUTPUT VO
30 W/FT

3 CCT
RED, GREEN, BLUE, AMBER RGBAM
RED, GREEN, BLUE, 22K RGB22
RED, GREEN, BLUE, 27K RGB27
RED, GREEN, BLUE, 30K RGB30
RED, GREEN, BLUE, 35K RGB35
RED, GREEN, BLUE, 40K RGB40
RED, GREEN, ROYAL BLUE, 30K RGY30
RED, GREEN, ROYAL BLUE, 40K RGY40
TUNABLE WHITE 2765K
Kelvin tunable 2700K-6500K
Contact factory for additional CCT combinations

4 OPTICAL DISTRIBUTION
10° X 10° 1010
10° X 30° 1030
10° X 60° 1060
10° X 90° 1090
20° X 20° 2020
20° X 30° 2030
20° X 60° 2060
20° X 90° 2090
30° X 30° 3030
30° X 60° 3060
30° X 90° 3090
40° X 40° 4040
40° X 60° 4060
40° X 90° 4090
60° X 60° 6060
80° X 80° 8080
90° X 90° 9090
ASYM GRAZE UPLIGHT, LEFT POWER FEED¹ ASUL
ASYM GRAZE UPLIGHT, RIGHT POWER FEED¹ ASUR
ASYM GRAZE DOWNLIGHT, LEFT POWER FEED¹ ASDL
ASYM GRAZE DOWNLIGHT, RIGHT POWER FEED¹ ASDR
¹ Asym Graze. See page 5 for details.

5 FIXTURE LENGTH
12' 12
24' 24
36' 36
48' 48
60' 60
6 VOLTAGE
INTEGRAL
120VAC 120
277VAC 277
Contact factory for additional voltages

MARATHON REMOTE
380VDC MAR
380VDC requires a remote power supply(s).
Must be ordered separately. See page 4 for details.

☒ **CONTROL OPTIONS**
DMX SYSTEM RESOLUTION DMXSY
DMX FIXTURE RESOLUTION DMXFX
DMX BY FT RESOLUTION DMXFT
Default factory setting is DMX System Resolution. Fixtures are not pre-addressed/inhaled at the factory. A DMXCAT tool is required for on-site fixture resolution/addressing. See page 4 for details.
A CDS/SDM Distribution Kit is required. Must be ordered separately. See page 4 for details.
DMX controls are required. Order separately.

8 FIXTURE FINISH ADVISE
TEXTURED WHITE TWH
TEXTURED BLACK TBL
TEXTURED BRONZE TBR
TEXTURED LIGHT BRONZE TLB
TEXTURED GRAY TGR
TEXTURED NATURAL TNA
TEXTURED SANDSTONE TSA
ANODIZED ALUMINUM ANA
Includes corrosion resistant finish.
CUSTOM COLOR CUS
Contact factory for custom color. Additional charges will apply.

9 OPTIONS
WHITE CABLE WCA
While fixtures are provided with white cables and connectors. All other fixture finishes are provided with black cabling unless WCA option is specified.
CORROSION RESISTANT FINISH CRF
CRI compliant with ASTM B117. CRI is recommended for coastal or extreme exterior environments.
BUILD AMERICA BUY AMERICA ACT BBA
Complies with BAA
Contact factory for current offering.

 LEA LIGHTING & ELECTRICAL ASSOCIATES	Project 21-33573-3 Date 5/1/2025 I-10 DOWNTOWN	Catalog Number: AP/VO/RGB35/1060/48"/120V/DMXFF/FINISH	Type
	Submitted By LTG AND ELEC ASSOC OF NRLNS	Note: Qty. (2) 8' linear runs ADVISE FINISH	

insight lighting

ARGO PRO

PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT:	TYPE:	FIXTURE CATALOG #:	AP - VO - RGB35 - 1060 - 48 - 120 - DMXFF - ADVISE -
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ORDERING LOGIC: MOUNTING OPTIONS (ORDER SEPARATELY)

SA - 28104-1-HM - ADVISE

1 MOUNTING OPTION SEE PAGES

SPECIFY MOUNTING

PART NUMBERS

	12" FIXTURE	24" - 60" FIXTURE
FIXED MOUNT	SA28107-1	SA28107-0
HINGE MOUNT	SA28104-1	SA28104
WALL MOUNT	SA28105-1	SA28105
GROUND MOUNT	SA28106-1	SA28106
EXTENDED ARM, WALL		
6" ARM	SA28107-1-6	SA28107-6
12" ARM	SA28107-1-12	SA28107-12
18" ARM	SA28107-1-18	SA28107-18
EXTENDED ARM, GROUND		
6" ARM	SA28108-1-6	SA28108-6
12" ARM	SA28108-1-12	SA28108-12
18" ARM	SA28108-1-18	SA28108-18
24" ARM	SA28108-1-24	SA28108-24
PENDANT, CEILING		
6" PENDANT	SA28108-1-6	SA28108-6
12" PENDANT	SA28108-1-12	SA28108-12
18" PENDANT	SA28108-1-18	SA28108-18
24" PENDANT	SA28108-1-24	SA28108-24
Contact factory for additional pendant lengths		
STAKE MOUNT	SA28110-1	SA28110

2 MOUNTING FINISH ADVISE

TEXTURED WHITE	TWH
TEXTURED BLACK	TBL
TEXTURED BRONZE	TBR
TEXTURED LIGHT BRONZE	TLB
TEXTURED GRAY	TGR
TEXTURED NATURAL	TNA
TEXTURED SANDSTONE	TSA
ANODIZED ALUMINUM	ANA
Includes corrosion resistant finish.	
CUSTOM COLOR	CUS
Contact factory for custom color. Additional charges will apply.	

ORDERING LOGIC: ACCESSORIES AND OPTIONS (ORDER SEPARATELY)

SHIELDING ACCESSORY

PROLINK TECHNOLOGY - SEE PAGE 13

SA -

SA -

1 SHIELDING ACCESSORIES

PART NUMBER

	12" FIXTURE	24" FIXTURE	36" FIXTURE	48" FIXTURE	60" FIXTURE
LOUVER	SA28111-1	SA28111-2	SA28111-3	SA28111-4	SA28111-5
VISOR	SA28112-1	SA28112-2	SA28112-3	SA28112-4	SA28112-5
SHIELD/MASKING PLATE	SA28113-1	SA28113-2	SA28113-3	SA28113-4	SA28113-5

PROLINK CONDUIT J-BOX

PART NUMBER

PROLINK CONDUIT J BOX SA28177

PROLINK CONNECT ACCESSORIES (NOT AVAILABLE WITH 12" FIXTURES)

PART NUMBER

PROLINK CONNECT START SA28178

Not available with Extended Arm Wall. See SA28179 below.

PROLINK CONNECT START FOR EXTENDED ARM WALL

SA28179

Intended for Extended Arm, Wall only (SA28107-1-X / SA28107-X)

PROLINK CONNECT MID FOR PLUG AND PLAY SYSTEM

SA28180

ProLink Mid is intended for straight runs only.

PROLINK CONNECT END

SA28181

ProLink Connect End for end of continuous run.

2 ACCESSORY FINISH

TEXTURED WHITE	TWH
TEXTURED BLACK	TBL
TEXTURED BRONZE	TBR
TEXTURED LIGHT BRONZE	TLB
TEXTURED GRAY	TGR
TEXTURED NATURAL	TNA
TEXTURED SANDSTONE	TSA
ANODIZED ALUMINUM	ANA
Includes corrosion resistant finish.	
CUSTOM COLOR	CUS
Contact factory for custom color. Additional charges will apply.	



Project 21-33573-3 Date 5/1/2025
I-10 DOWNTOWN

Submitted By
LTG AND ELEC ASSOC OF NRLNS

Catalog Number:
AP/VO/RGB35/1060/48"/120V/DMXFX/FINISH

Note: Qty. (2) 8' linear runs ADVISE FINISH

Type

insight lighting

ARGO PRO
PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT: TYPE: FIXTURE CATALOG #: AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISE -

ORDERING LOGIC: CABLES - SEE PAGE 14

EL - 12430-5-ADVISE

EL - 12288-25-ADVISE

EL - 12291-ADVISE

LEADER CABLES	PART NUMBER		
	ADVISE	BLACK	WHITE
5.0 FT LEADER CABLE		EL12430-5-B	EL12430-5-W
10.0 FT LEADER CABLE		EL12430-10-B	EL12430-10-W

A leader cable is required for standard 2-wire installations.

DMX TERMINATOR	PART NUMBER		
	ADVISE	BLACK	WHITE
DMX TERMINATOR		EL12291-B	EL12291-W

One required per DMX run.

JUMPER CABLES	PART NUMBER		
	ADVISE	BLACK	WHITE
1.0 FT JUMPER CABLE		EL12288-1-B	EL12288-1-W
2.0 FT JUMPER CABLE		EL12288-2-B	EL12288-2-W
5.0 FT JUMPER CABLE		EL12288-5-B	EL12288-5-W
10.0 FT JUMPER CABLE		EL12288-10-B	EL12288-10-W
25.0 FT JUMPER CABLE		EL12288-25-B	EL12288-25-W

A jumper cable is required for Plug & Play Starter with Surge Protection (see below for details).

ORDERING LOGIC: PROSURGE PLUG & PLAY STARTER WITH SURGE PROTECTION (OPTIONAL)

PROSURGE POWER & DATA BOX	PART NUMBER
PROSURGE POWER & DATA BOX - FOR MARATHON DMX	SA28173
PROSURGE POWER & DATA BOX - FOR 120-277V DMX	SA28176

Transfers Data and Power with 10 kVA surge protection for Insight's Plug and Play cable system. One required per continuous run.
A jumper cable is required.
Not available with ProLink Conduit Box.

ORDERING LOGIC: MARATHON REMOTE POWER SUPPLY (REQUIRED WITH MARATHON REMOTE)

MARATHON - REQUIRED FOR 380VDC	PART NUMBER
MARATHON REMOTE POWER SUPPLY, 380VDC, 2300W, 277V INPUT, IP67	EL12419

ORDERING LOGIC: DMX TOOLS - REQUIRED

SA27411

SA27636

DMX/RDM DISTRIBUTION KIT	PART NUMBER
CD5-RDM - DMX/RDM DISTRIBUTION KIT - IP67	SA27411

Consists of 4 output.
Each output is limited to (1) nm per output - up to 96 fixtures max.

REMOTE DMX/RDM MONITORING TOOL	PART NUMBER
DMX/RDM ADDRESSING & MONITORING TOOL	SA27636

Uses Bluetooth LE technology for communication with the smartphone and the DMXtool app (up to a 50' range). Allow for on-site fixture relocation and addressing.

LEA LIGHTING & ELECTRICAL ASSOCIATES	Project 21-33573-3 Date 5/1/2025 I-10 DOWNTOWN Submitted By LTG AND ELEC ASSOC OF NRLNS	Catalog Number: AP/VO/RGB35/1060/48"/120V/DMXFX/FINISH Note: Qty. (2) 8' linear runs ADVISE FINISH	Type
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insight lighting

ARGO PRO

PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT.	TYPE.	FIXTURE CATALOG #.	AP	VO	RGB35	1060	48	120	DMXFX	ADVISE
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MAXIMUM RUN LENGTH IN FEET AND MAXIMUM FIXTURES PER RUN

MAXIMUM POSSIBLE RUN LENGTHS IN FEET (FIXTURES & JUMPER AS STATED)
ALL DISTANCES ARE CALCULATED AS CONTINUOUS RUNS

MAXIMUM RUN LENGTH IN FEET						
	120VAC		277VAC		380VDC @ 277V	
	FIXTURE LENGTH	JUMPER LENGTH	FIXTURE LENGTH	JUMPER LENGTH	FIXTURE LENGTH	JUMPER LENGTH
DMX						
LO OUTPUT 5W/FT	268'	0'	619'	0'	460'	540'
MO OUTPUT 10W/FT	136'	0'	360'	0'	230'	270'
HO OUTPUT 15W/FT	104'	0'	240'	0'	153'	847'
VO OUTPUT 20W/FT	78'	0'	180'	0'	115'	885'
ALL CALCULATIONS ARE BASED ON 16AWG CABLE						

insight lighting

ARGO PRO

PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT: TYPE: FIXTURE CATALOG #: AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISE -

PERFORMANCE

BASED ON 48" FIXTURE

OPTIC	CCT'S	LOW OUTPUT				MEDIUM OUTPUT				HIGH OUTPUT				MAX OUTPUT			
		LUMENS	WATTS	LM/W	PEAK CANDELA CBCP	LUMENS	WATTS	LM/W	PEAK CANDELA CBCP	LUMENS	WATTS	LM/W	PEAK CANDELA CBCP	LUMENS	WATTS	LM/W	PEAK CANDELA CBCP
	10° X 10° RGB40	868	20	43.4	9738	1736	40	43.4	19476	2604	60	43.4	29214	3472	80	43.4	38952
	RED	241	16	15.4	2831	482	31	15.4	5662	723	47	15.4	8493	964	62	15.4	11324
	GREEN	1019	18	55.7	11167	2038	37	55.7	22334	3057	55	55.7	33501	4076	73	55.7	44668
	BLUE	350	19	18.0	3687	700	39	18.0	7374	1050	58	18.0	11061	1400	78	18.0	14748
	WHITE	1028	20	51.7	11941	2056	40	51.7	23882	3084	60	51.7	35823	4112	80	51.7	47764
	10° X 30° RGB40	781	20	39.1	3828	1562	40	39.1	7656	2343	60	39.1	11484	3124	80	39.1	15312
	RED	229	16	14.7	1153	458	31	14.7	2306	687	47	14.7	3459	916	62	14.7	4612
	GREEN	915	18	50.0	4380	1830	37	50.0	8760	2745	55	50.0	13140	3660	73	50.0	17520
	BLUE	319	19	16.4	1484	638	39	16.4	2968	957	58	16.4	4452	1276	78	16.4	5936
	WHITE	925	20	46.5	4706	1850	40	46.5	9412	2775	60	46.5	14118	3700	80	46.5	18824
	10° X 60° RGB40	765	20	38.3	2176	1530	40	38.3	4352	2295	60	38.3	6528	3060	80	38.3	8704
	RED	204	16	13.1	600	408	31	13.1	1200	612	47	13.1	1800	816	62	13.1	2400
	GREEN	898	18	49.1	2513	1796	37	49.1	5026	2694	55	49.1	7539	3592	73	49.1	10052
	BLUE	311	19	16.0	834	622	39	16.0	1668	933	58	16.0	2302	1244	78	16.0	3336
	WHITE	926	20	46.5	2692	1852	40	46.5	5384	2778	60	46.5	8076	3704	80	46.5	10768
	10° X 90° RGBW	750	20	37.5	1238	1500	40	37.5	2476	2250	60	37.5	3714	3000	80	37.5	4952
	RED	203	16	13.0	346	406	31	13.0	692	609	47	13.0	1038	812	62	13.0	1384
	GREEN	880	18	48.1	1434	406	31	13.0	692	2640	55	48.1	4302	3520	73	48.1	5736
	BLUE	304	19	15.7	482	608	39	15.7	964	912	58	15.7	1446	1216	78	15.7	1928
	WHITE	892	20	44.8	1507	1784	40	44.8	3014	2676	60	44.8	4521	3568	80	44.8	6028
	20° X 20° RGB40	818	20	40.9	5150	1636	40	40.9	10300	2454	60	40.9	15450	3272	80	40.9	20600
	RED	229	16	14.7	1376	458	31	14.7	2752	687	47	14.7	4128	916	62	14.7	5504
	GREEN	931	18	52.0	5846	1902	37	52.0	11692	2853	55	52.0	17538	3804	73	52.0	23384
	BLUE	333	19	17.2	2161	666	39	17.2	4282	999	58	17.2	6423	1332	78	17.2	8564
	WHITE	977	20	49.1	6300	1954	40	49.1	12600	2931	60	49.1	18900	3908	80	49.1	25200
	20° X 30° RGB40	741	20	37.1	2461	1482	40	37.1	4922	2223	60	37.1	7383	2964	80	37.1	9844
	RED	203	16	13.0	664	406	31	13.0	1328	609	47	13.0	1992	812	62	13.0	2656
	GREEN	864	18	47.2	2850	1728	37	47.2	5700	2592	55	47.2	8550	3456	73	47.2	11400
	BLUE	303	19	15.6	1002	606	39	15.6	2004	909	58	15.6	3006	1212	78	15.6	4008
	WHITE	894	20	44.9	3013	1788	40	44.9	6026	2682	60	44.9	9039	3576	80	44.9	12052
	20° X 60° RGB40	727	20	36.4	1530	1454	40	36.4	3060	2181	60	36.4	4590	2908	80	36.4	6120
	RED	199	16	12.8	413	398	31	12.8	826	597	47	12.8	1239	796	62	12.8	1652
	GREEN	864	18	47.2	1768	1728	37	47.2	3536	2592	55	47.2	5304	3456	73	47.2	7072
	BLUE	295	19	15.2	618	590	39	15.2	1236	885	58	15.2	1854	1180	78	15.2	2472
	WHITE	867	20	43.6	1844	1734	40	43.6	3688	2601	60	43.6	5532	3468	80	43.6	7376
	20° X 90° RGB40	707	20	35.4	955	1414	40	35.4	1910	2121	60	35.4	2865	2828	80	35.4	3820
	RED	195	16	12.5	264	390	31	12.5	528	585	47	12.5	792	780	62	12.5	1056
	GREEN	820	18	44.8	1101	1640	37	44.8	2202	2460	55	44.8	3303	3280	73	44.8	4404
	BLUE	284	19	14.6	386	568	39	14.6	772	852	58	14.6	1158	1136	78	14.6	1544
	WHITE	841	20	42.3	1161	1682	40	42.3	2322	2523	60	42.3	3483	3364	80	42.3	4644
	40° X 40° RGB40	907	20	45.4	1667	1814	40	45.4	3334	2721	60	45.4	5001	3628	80	45.4	6668
	RED	292	16	18.7	551	584	31	18.7	1102	876	47	18.7	1653	1168	62	18.7	2204
	GREEN	1052	18	57.5	1966	2104	37	57.5	3932	3156	55	57.5	5898	4208	73	57.5	7864
	BLUE	364	19	18.8	667	728	39	18.8	1334	1092	58	18.8	2001	1456	78	18.8	2668
	WHITE	1069	20	53.7	1918	2138	40	53.7	3836	3207	60	53.7	5754	4276	80	53.7	7672
	40° X 60° RGB40	785	20	39.3	790	1570	40	39.3	1580	2355	60	39.3	2370	3140	80	39.3	3160
	RED	246	16	15.8	251	492	31	15.8	502	738	47	15.8	753	984	62	15.8	1004
	GREEN	922	18	50.4	934	492	31	15.8	502	2766	55	50.4	2802	3688	73	50.4	3736
	BLUE	319	19	16.4	319	638	39	16.4	638	957	58	16.4	957	1276	78	16.4	1276
	WHITE	937	20	47.1	936	1874	40	47.1	1872	2811	60	47.1	2808	3748	80	47.1	3744
	40° X 90° RGB40	937	20	47.1	936	1504	40	37.6	1130	2256	60	37.6	1695	3008	80	37.6	2260
	RED	937	20	47.1	936	470	31	15.1	358	705	47	15.1	537	940	62	15.1	716
	GREEN	879	18	48.0	664	1758	37	48.0	1328	2637	55	48.0	1992	3516	73	48.0	2656
	BLUE	303	19	15.6	227	606	39	15.6	454	909	58	15.6	681	1212	78	15.6	908
	WHITE	892	20	44.8	667	1784	40	44.8	1334	2676	60	44.8	2001	3568	80	44.8	2668
	60° X 60° RGB40	826	20	41.3	950	1652	40	41.3	1900	2478	60	41.3	2850	3304	80	41.3	3800
	RED	259	16	16.6	303	518	31	16.6	606	777	47	16.6	909	1036	62	16.6	1212
	GREEN	972	18	53.1	1151	1944	37	53.1	2302	2916	55	53.1	3453	1356	78	17.5	1628
	BLUE	339	19	17.5	407	678	39	17.5	814	1017	58	17.5	1221	1356	78	17.5	1628
	WHITE	997	20	50.1	1105	1994	40	50.1	2210	2991	60	50.1	3315	3988	80	50.1	4420

insight lighting

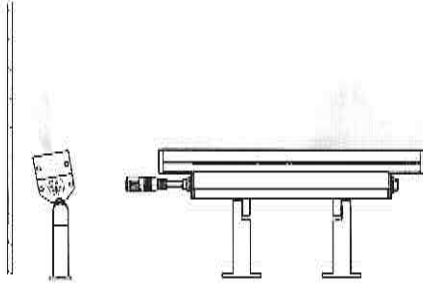
ARGO PRO

PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

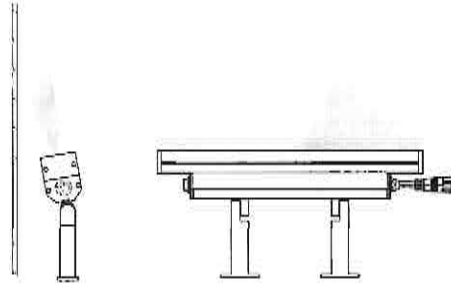
PROJECT: TYPE: FIXTURE CATALOG #: AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISL -

ASYMMETRIC DISTRIBUTIONS/LIGHT DIRECTION /FEED LOCATIONS

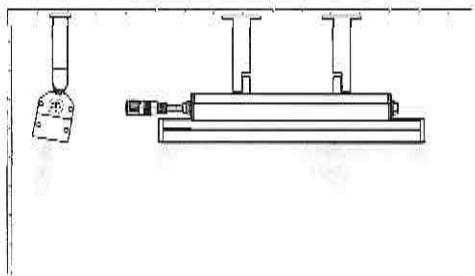
ASYMMETRIC GRAZE UPLIGHT | LEFT POWER FEED



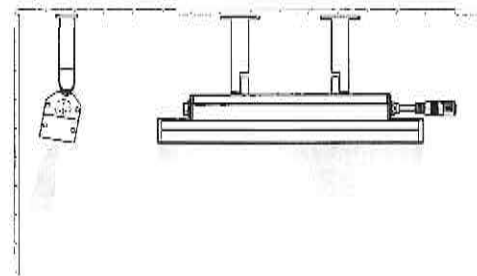
ASYMMETRIC GRAZE UPLIGHT | RIGHT POWER FEED



ASYMMETRIC GRAZE DOWNLIGHT | LEFT POWER FEED



ASYMMETRIC GRAZE DOWNLIGHT | RIGHT POWER FEED



Insight Lighting

ARGO PRO

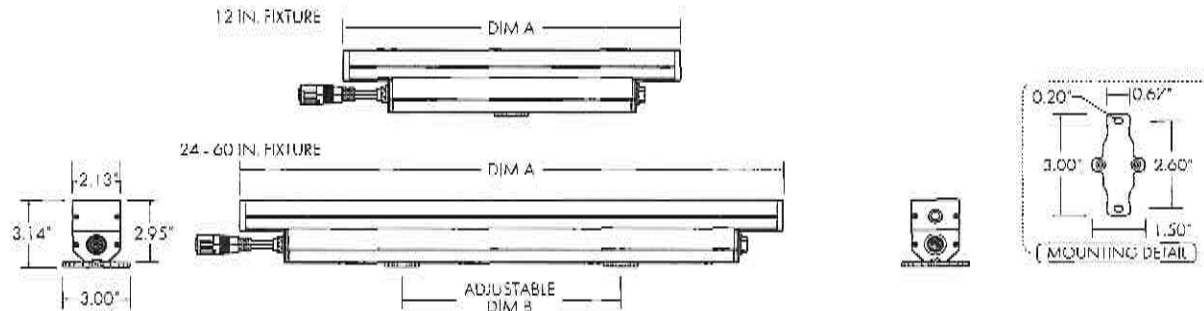
PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT: TYPE: FIXTURE CATALOG # AP VO RGB35 1060 48 120 DMXFX ADVISE

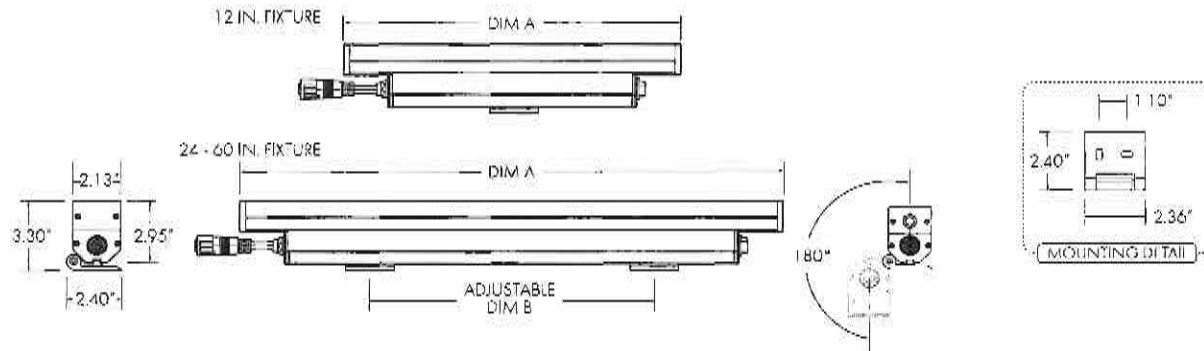
DIMENSIONS

DIMENSION	12.00"	24.00"	36.00"	48.00"	60.00"
DIM A	12.56"	24.37"	36.18"	48.00"	59.81"
DIM B	NA	4.00" MIN 6.00" MAX	12.00" MIN 18.00" MAX	18.00" MIN 30.00" MAX	24.00" MIN 36.00" MAX

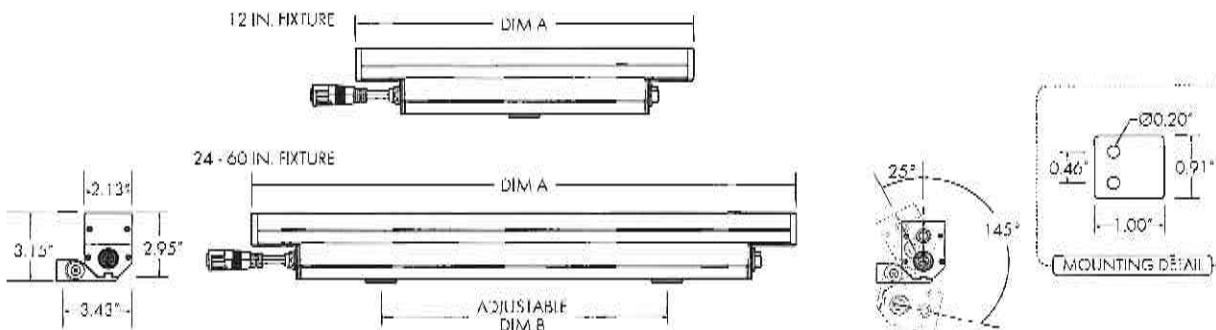
FIXED MOUNT (SA28170-1 / SA28170)



HINGE MOUNT (SA28104-1 / SA28104)



WALL MOUNT (SA28105-1 / SA28105)



Insight lighting

ARGO PRO

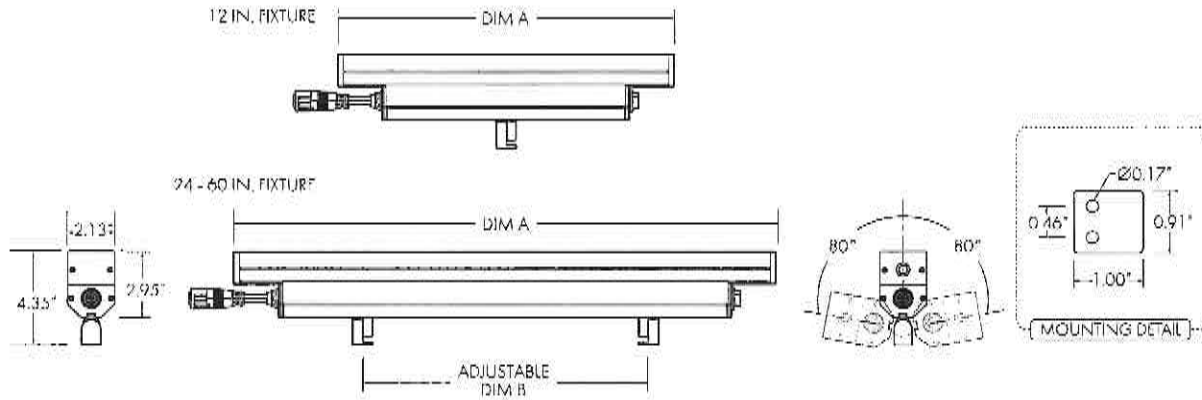
PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT: TYPE: FIXTURE CATALOG #: AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISE -

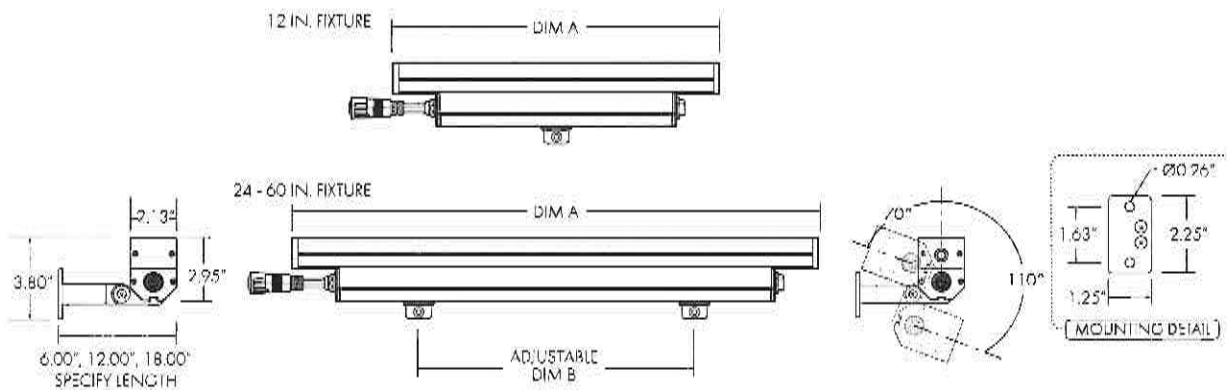
DIMENSIONS

DIMENSION	12.00"	24.00"	36.00"	48.00"	60.00"
DIM A	12.56"	24.37"	36.18"	48.00"	59.81"
DIM B	NA	4.00" MIN 6.00" MAX	12.00" MIN 18.00" MAX	18.00" MIN 30.00" MAX	24.00" MIN 36.00" MAX

GROUND MOUNT (SA28106-1/ SA28106)



EXTENDED ARM, WALL MOUNT (SA28107-1-X/ SA28107-X)



insight lighting

ARGO PRO

PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT

TYPE

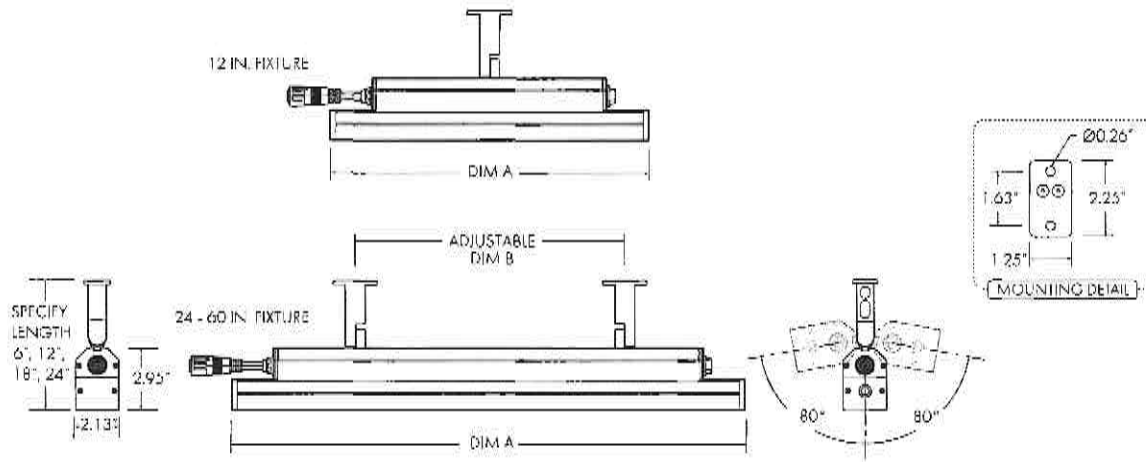
FIXTURE CATALOG #

AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISE

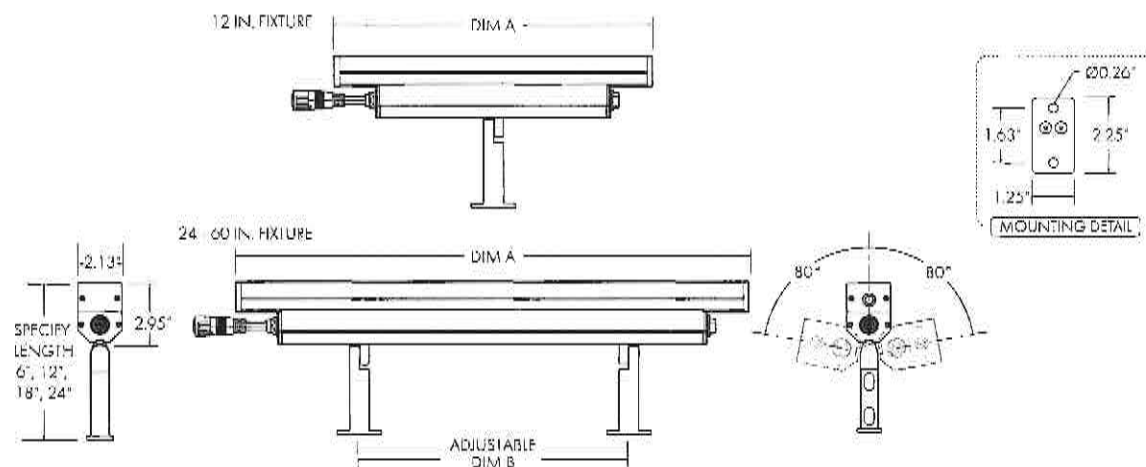
DIMENSIONS

DIMENSION	12.00"	24.00"	36.00"	48.00"	60.00"
DIM A	12.56"	24.37"	36.18"	48.00"	59.81"
DIM B	NA	4.00" MIN 6.00" MAX	12.00" MIN 18.00" MAX	18.00" MIN 30.00" MAX	24.00" MIN 36.00" MAX

PENDANT MOUNT (SA28108-1-X/ SA28108-X)



EXTENDED ARM, GROUND MOUNT (SA28108-1-X/ SA28108-X)



insight lighting

ARGO PRO

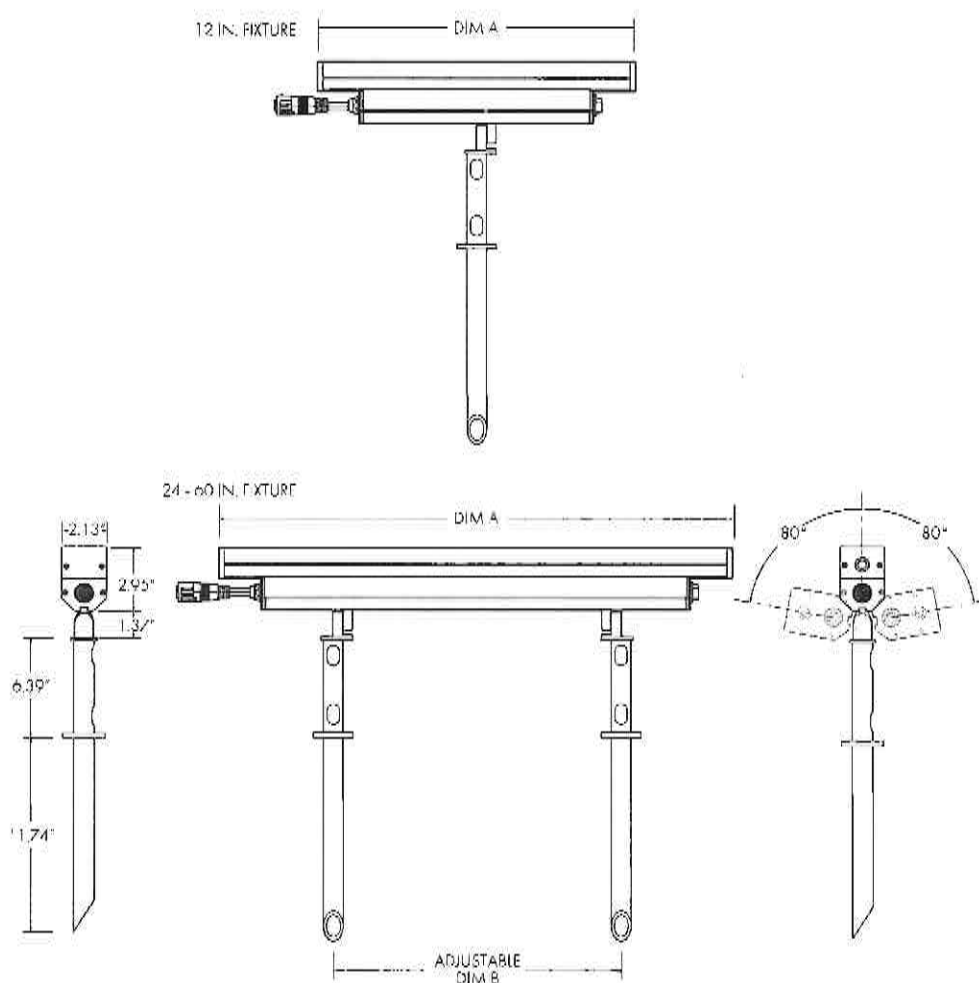
PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT: TYPE: FIXTURE CATALOG #: AP-VO-1060-48-120V-DMXFX-AUVISL-

DIMENSIONS

DIMENSION	12.00"	24.00"	36.00"	48.00"	60.00"
DIM A	12.56"	24.37"	36.18"	48.00"	59.81"
DIM B	NA	4.00" MIN 6.00" MAX	12.00" MIN 18.00" MAX	18.00" MIN 30.00" MAX	24.00" MIN 36.00" MAX

STAKE MOUNT (SA28110-1/SA28110)



 L E A LIGHTING & ELECTRICAL ASSOCIATES	Project 21-33573-3 Date 5/1/2025 I-10 DOWNTOWN Submitted By LTG AND ELEC ASSOC OF NRLNS	Catalog Number: AP/VO/RGB35/1060/48"/120V/DMXFX/FINISH Note: Qty. (2) 8' linear runs ADVISE FINISH	Type
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insight lighting

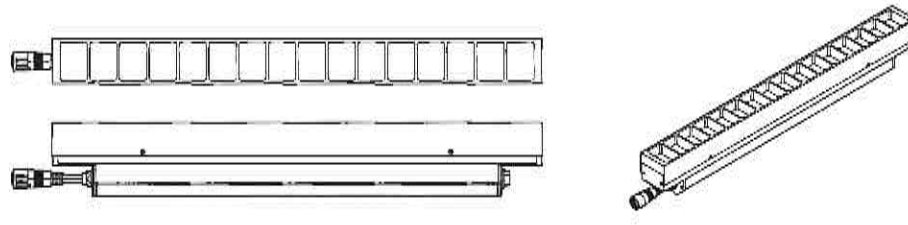
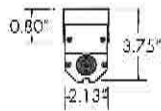
ARGO PRO

PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

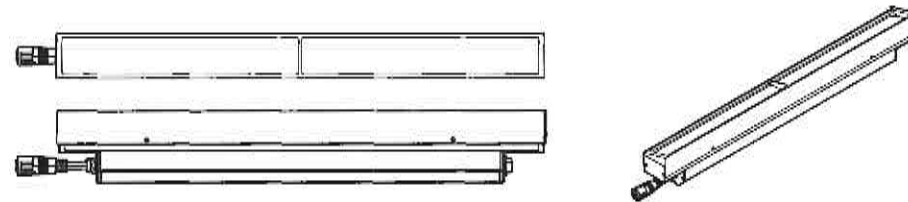
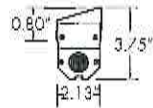
PROJECT: TYPE: FIXTURE CATALOG #: AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISL

SHIELDING ACCESSORIES

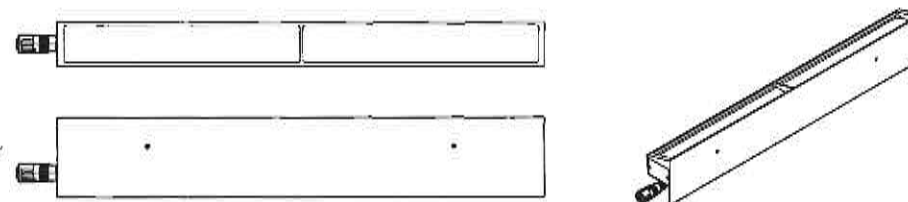
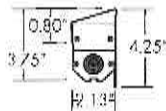
LOUVER (SA28111-X)



VISOR (SA28112-X)



SHIELD (SA28113-X)



insight lighting

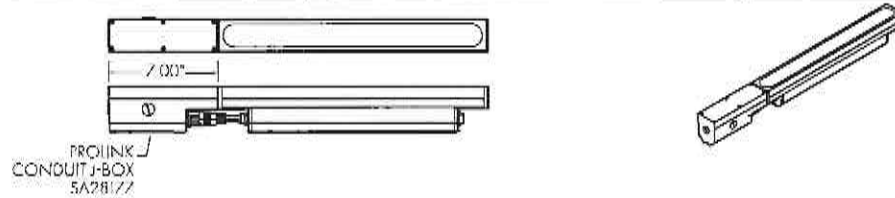
ARGO PRO

PERFORMANCE LINEAR | COLOR CHANGING + TUNABLE WHITE

PROJECT: TYPE: FIXTURE CATALOG # AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISE -

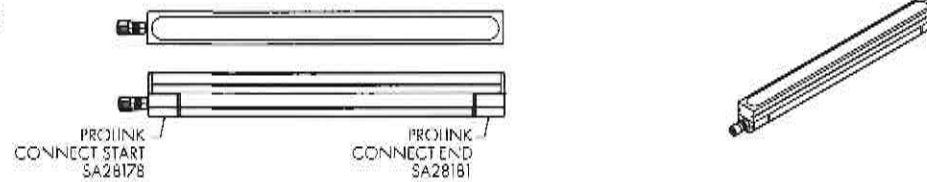
PROLINK TECHNOLOGY

PROLINK CONDUIT J-BOX

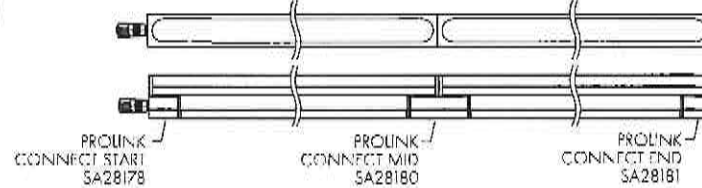


PROLINK CONNECT - WIRE COVER

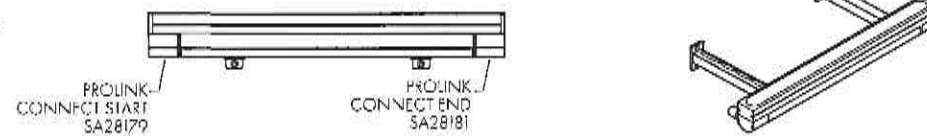
SINGLE FIXTURE



CONTINUOUS RUN

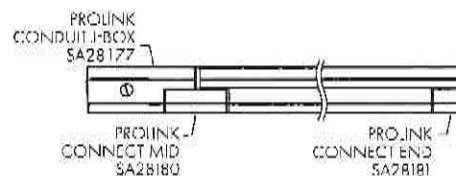


EXTENDED ARM WALL MOUNT



EXAMPLE OF PROLINK CONDUIT BOX AND CONNECT

SINGLE FIXTURE



CONTINUOUS RUN



insight lighting

ARGO PRO

PERFORMANCE LINEAR | COLOR CHANGING & TUNABLE WHITE

PROJECT:

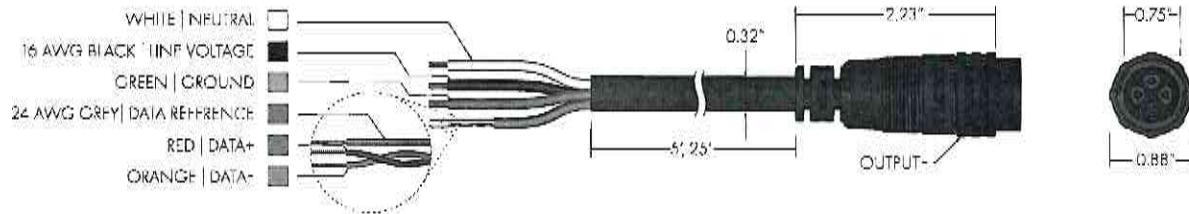
TYPE:

FIXTURE CATALOG #: AP - VO - RGB35 - 1060 - 48 - 120 - DMXFX - ADVISE -

CABLES

LEADER (EL12430-X-X)

BLACK | 3x16AWG | 3x24AWG | 105°C | 600V | IP67



LEADER CABLES - REQUIRED

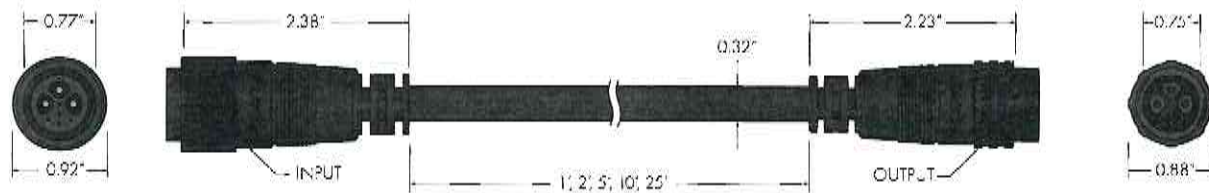
5.0 FT LEADER CABLE, BLACK	EL12430-5-B
10.0 FT LEADER CABLE, BLACK	EL12430-10-B

LEADER CABLES - REQUIRED

5.0 FT LEADER CABLE, WHITE	EL12430-5-W
10.0 FT LEADER CABLE, WHITE	EL12430-10-W

JUMPER (EL12288-X-X)

BLACK | 3x16AWG | 3x24AWG | 105°C | 600V | IP67



EXTERIOR JUMPER CABLES FOR PLUG AND PLAY SYSTEMS - OPTIONAL

1.0 FT JUMPER CABLE, BLACK	EL12288-1-B
2.0 FT JUMPER CABLE, BLACK	EL12288-2-B
5.0 FT JUMPER CABLE, BLACK	EL12288-5-B
10.0 FT JUMPER CABLE, BLACK	EL12288-10-B
25.0 FT JUMPER CABLE, BLACK	EL12288-25-B

EXTERIOR JUMPER CABLES FOR PLUG AND PLAY SYSTEMS - OPTIONAL

1.0 FT JUMPER CABLE, WHITE	EL12288-1-W
2.0 FT JUMPER CABLE, WHITE	EL12288-2-W
5.0 FT JUMPER CABLE, WHITE	EL12288-5-W
10.0 FT JUMPER CABLE, WHITE	EL12288-10-W
25.0 FT JUMPER CABLE, WHITE	EL12288-25-W

DMX TERMINATOR (EL12291-X)

BLACK | 105°C | 600V



DMX TERMINATOR - ONE REQUIRED PER DMX RUN

DMX TERMINATOR, BLACK	EL12291-B
DMX TERMINATOR, WHITE	EL12291-W

AC CAP (EL11900-X)

BLACK | 105°C | 600V | IP67



AC CONNECTOR CAP - REQUIRED FOR NO DIMMING/0-10V DIMMING

CONNECTOR CAP, BLACK	EL11900-B
CONNECTOR CAP, WHITE	EL11900-W

insight lighting

LIGHT DIAL

DMX CONTROL KEYPAD

PROJECT: TYPE: CATALOG #: LIGHTDIAL

PROFILE

The feature rich lighting controller has been designed to provide a control solution for the most demanding of projects, while still maintaining an easy to use panel of touch sensitive buttons.

The controller integrates a graphical color screen allowing scene photos to be displayed.

Easily view the selected zone, scene name and design without the need to navigate through complex menus. Change the speed, color and dimmer using the circular palette.

The lighting levels, color and effects can be programmed from a PC, Mac, Android, iPad or iPhone using the included software.

INPUT POWER	6-7V DC 0.6A
OUTPUT PROTOCOL	DMX512 (X2)
PROGRAMABILITY	PC, MAC, TABLET, SMARTPHONE
DIMENSIONS	4.17 in x 5.75 in x 0.43 in (106mm x 146mm x 10mm)
WEIGHT	9 oz (250g)
COLORS	WHITE (CONTACT FACTORY FOR BLACK)
CONNECTIONS	USB, ETHERNET
COMMUNICATION	RS232, CLOCK, 8 DRY
OPERATING TEMP	14° F TO 113° F (-10° C TO 45° C)
CERTIFICATION	EC, EMC, ROHS, ETL



KEY FEATURES

- Sleek glass design which sits 11mm from the wall
- Graphical color display to show selected environment
- Color/dimmer/speed palette
- Color temperature mixing
- Touch sensitive buttons. No mechanical parts
- Touch sensitive wheel allows for accurate color selection
- Multi-zone microSD memory
- Multi-room control with 500 scenes, 10 zones
- 1024 DMX channels. Control 340 RCB fixtures
- USB & Ethernet connectivity for programming and control
- RS232, Dry Contact Ports and an Infra Red Input port
- Clock and calendar with Sunrise/Sunset triggering
- Network communication. Control lighting remotely
- Catalog of designs including black and white glass
- OEM customization of the color palette and logo
- Windows/Mac software to set dynamic colors/effects
- iPhone/iPad/Android remote and programming apps
- Programmability PC, Mac, Tablet, Smartphone
- Contact ports, 5v Output
- Relay
- Memory microSD card
- Mounting Single or double gang
- Wall socket

	Project 21-33573-3 Date 5/1/2025 I-10 DOWNTOWN Submitted By LTG AND ELEC ASSOC OF NRLNS	Catalog Number: LIGHTDIAL DMX CONTROLLER Note:	Type
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insight lighting

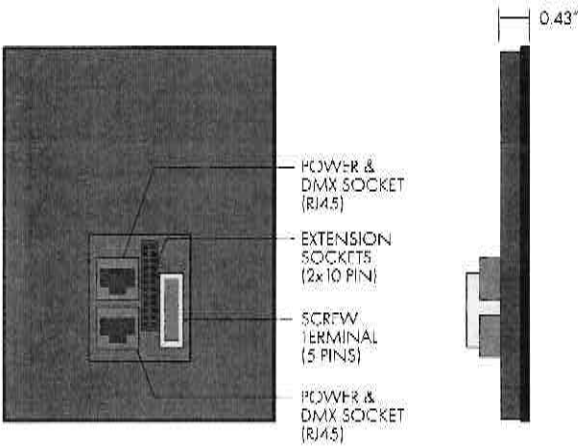
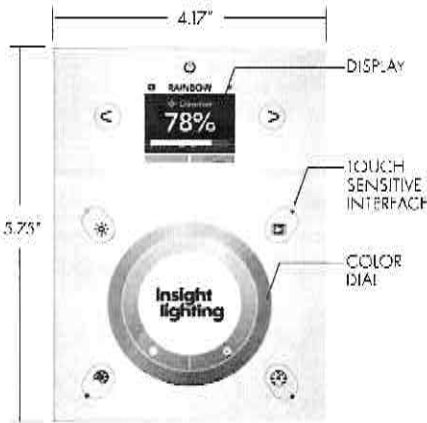
LIGHT DIAL
DMX CONTROL KEY-PAD

PROJECT:	TYPE:	CATALOG #:	LIGHTDIAL -
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SPECIFICATION

LD	
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SYSTEM
LIGHTDIAL CONTROLLER LD



insight lighting

LIGHT DIAL
DMX CONTROL KEYPAD

PROJECT:

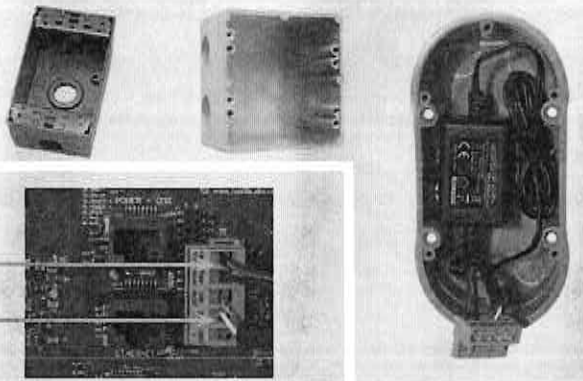
TYPE:

CATALOG #:

EASY INSTALLATION

1. Mount an electrical box inside the wall

The controller can be installed in any standard electrical backbox. If you use a double size box, you can insert the power supply inside.



2. Connect the wires

POWER: Connect a 5.5V or 6V DC 0.6A ACDC supply. Be sure to not invert the + and the ground.

DMX: Connect the DMX cable to the lighting receivers (Leds, Dimmers, Fixtures..) (for XLR: 1=ground 2=dmx- 3=dmx+)

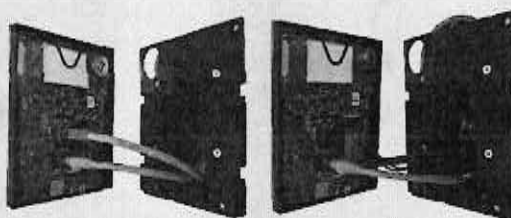
3. Mount the interface on the wall

First, mount the back side of the interface on the wall with 2 or more screws

Secondly, plug the connectors :

- DMX and power (connector block or RJ45)
- Ethernet cable

The front panel is mounted by pressing it against the back plate and then sliding down. 2 screws should then be attached underneath to hold the controller in place.



POWER+DMX WITH THE CONNECTOR BLOCK



POWER+DMX WITH THE RJ45 CABLE



****CHECK PIN CONFIGURATIONS. APPLYING POWER TO THE DMX INPUT WILL DAMAGE THE CONTROLLER****
****MAKE SURE THE CONTROLLER IS MOUNTED WITHOUT TOO MUCH FORCE BEHIND AS THIS CAN PUSH APART THE GLASS****

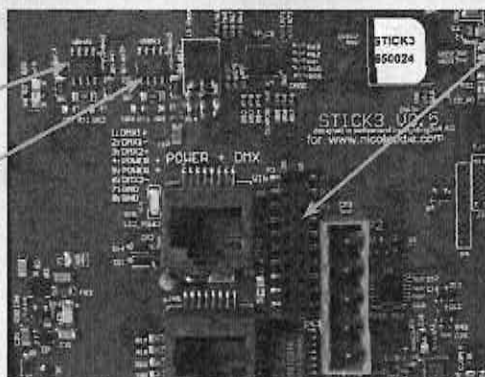
2x10 pins EXTENSION socket

DMX CHIP replacement

DMX universe #1

DMX universe #2

Ref: SP485ECN-L
MAX485 CSA



EXTENSION socket

VIN	20	19	PORT1
GND	18	17	PORT2
IR_RX	16	15	PORT3
3,3V	14	13	PORT4
Relay	12	11	PORT5
DMX2+	10	9	PORT6
DMX2-	8	7	PORT7
DMX1+	6	5	PORT8
DMX1-	4	3	RS232 RX
GND_DMX	2	1	RS232 TX

Compatible header connectors:

WURTH ELEKTRONIK ref: 61301021121
MOLEX ref: 10-89-7202
TE Connectivity ref: 1-87227-0
FCI ref: 77313-101-20LF
HARWIN ref: M20-9981046
SAMTEC ref: TSW-110-xx-T-D
FARNELL ref: 1841232
RS ref: 763-6754 673-7534 251-8165
MOUSER ref: 538-10-89-7202
DIGIKEY ref: WM26820-ND

insight lighting

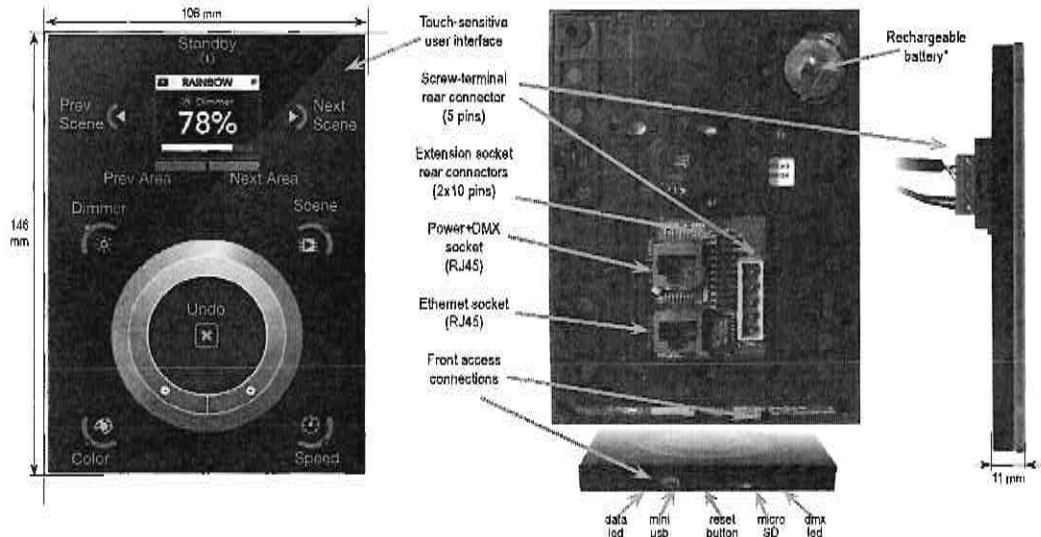
LIGHT DIAL
DMX CONTROL KEYPAD

PROJECT

TYPE

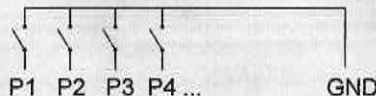
CATALOG #:

Connections & Triggering



Dry Contact Port Triggering

It is possible to start scenes using the input ports (contact closure). To activate a port, a brief contact of at least 1/25 second must be established between the ports (1...8) and the ground (GND). Note: the scene will not be switched off when the switch is released.



RS232 Triggering

Make a cable using the 3 pins : TX, RX and G (GND)

Set the RS232 parameters to : 9600bds 8 bits, no Parity, 2 Stop bits

- To play a scene, send 3 bytes : 1 x y 255
- To stop a scene, send 3 bytes : 2 x y 255
- To pause a scene, send 3 bytes : 3 x y 255
- To release a pause, send 3 bytes : 4 x y 255
- To reset a scene, send 3 bytes : 5 x y 255

When (y)=0, (x) can be set between 0 and 255

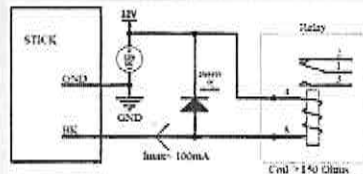
-to stop scene 145, send the command: 2 145 0 255

When (y)=1, (x) can be set between 0 and 243 to trigger scenes 256-499

-to play scene 300, send the command: 1 255 45 255

BLACKOUT Relay (energy saving)

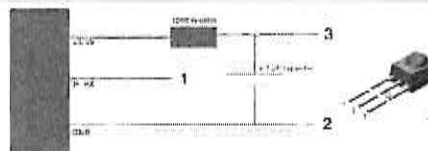
A relay can be connected between the RELAY and GND sockets of the 20 pin extension socket. This can be used to turn off other equipment such as lighting drivers. The signal is connected when the controller is in standby.



Example of relay :
FINDER Ref.
22.23.9.012.4000

Infra Red

The controller works with the official IR remote control, however there is no receiver. A 38khz infra red receiver can be connected, such as the TSOP34836 by Vishay Semiconductors. Farnell ref: 4913127. This can be attached to the 20 pin connector. It's a good idea to add a resistor and capacitor to suppress power supply disturbance.



Network Control

The controller can be connected to a local network, allowing it to be controlled from a smartphone or tablet over WIFI.

- Connect the controller to a router or switch with an RJ45 cable
- The controller is set by default to get an IP address from the router via DHCP. If the network is not working with DHCP, a manual IP address and subnet mask can be set using the Hardware Manager.
- If the network has a firewall enabled, allow ports 2430 and 2431

TCP Triggering

The controller can be connected to an existing automation system over a network and triggered via TCP package on port 2431 or UDP packets on 2430. Refer to the remote protocol document for more information.

insight lighting

LIGHT DIAL DMX CONTROL KEYPAD

PROJECT:

TYPE:

CATALOG #:

Setting up the Controller

iPhone/iPad/Android Control

The controller can be used with one of 3 different apps. Each available at Google Play and the App store.

DMX Lightpad 3

Designed to work seamlessly with the controller, DMX Lightpad 3 provides an easy way to control your lights over a local WiFi network. Use the wheel to change the dimmer, color or speed, and the arrows to select scenes and effects just like the wall panel. Swipe down to reveal quick access scene selection buttons.

Easy Remote

Create an entirely customized remote controller for your tablet or smartphone. Easy Remote is a powerful and intuitive app allowing you to easily add buttons, faders, color wheels and more. Connect to a WiFi network and the app will find all compatible devices.

Arcolis

The Arcolis application is a comprehensive tool allowing you to directly control and re-program the controller from your smartphone or tablet. This is a simple application which can be used by just about everyone in any situation. Mobile, easy to use and powerful, Arcolis is the ideal controller for dimming or switching traditional, LED and RGB color mixing DMX lighting fixtures. Program static and dynamic lighting scenes and effects.

<http://www.nicolaudie.com/smartphone-tablet-apps.htm>

Programming the Controller

The controller be programmed from a PC, Mac, Tablet or Smartphone using the software available on our website. Refer to the corresponding software manual for more information. The firmware can be updated using the Hardware Manager which is included with the programming software.

ESA Pro Software (Windows) - Timeline + Multi-Zone

<http://www.nicolaudie.com/en/esapro.htm>

ESA2 Software (Windows/Mac) - Single Zone

<http://www.nicolaudie.com/esa2.htm>

Hardware Manager (Windows/Mac) - Firmware, clock..

<http://www.dmxsoft.com/global/ftp/hardwaremanager.zip>

<http://www.dmxsoft.com/global/ftp/HardwareManager.dmg>

Color Temperature Mixing

In addition to mixing RGB using the color pallet, it's also possible to mix up to 3 custom colors. This is useful for mixing color temperature. To set this up, choose the correct profile for your lighting fixture when programming the controller. Profiles for common channel configurations can be found in the 'Generic' folder:

RGBW for Red, Green, Blue, White

RGBA for Red, Green, Blue, Amber

RGYB for Red, Green, Blue, Yellow

WWCW for Warm White, Cold White

Once your show has been written to the controller, tap the color mode button and use the circular palette to change the color. If your lighting fixture has more than 3 color channels, tap the color mode button a second time to mix the additional colors.

Settings Menu

To access the settings menu, hold the standby button for 3 seconds.

- Use the arrow buttons or palette to scroll through the menus
- Use the area buttons to navigate forwards and backwards
- The 'undo' button can also be used to navigate forwards

Mode (M): Manages the on/off button and the 4 modes (dimmer, speed, color, scene)

Arrows (A): Allows you to adjust which modes can be controlled by the arrows

Pallet (P): Allows you to adjust which modes can be controlled by the palette wheel

Scene (S): Scene management

First Start (F): Default settings when the unit is first powered up

Trigger (T): Manages the controllers external triggering properties

Ethernet (E): Enables the Ethernet socket on the controller

Date/Time (D): Manages the date and time stored inside the controller

Graphics (G): Screen management

DMX Output (X): Manage the timings of the DMX output messages and the page priorities (advanced function!)

Sensitive (S): Manage the touch sensitivity settings

Language (L): change the language of the text which appears on the screen

About: check the firmware release date and version number and assign a name for the controller



Service

Serviceable parts include:

- Memory card - used to store the scenes
- Battery - used to store the clock/calendar
- DMX Chips - used to drive the DMX (see p2.)

To replace the Li-Ion rechargeable battery on the DE3:

1. You need a rechargeable 3.6v LIR 2032 replacement battery
2. Remove the back panel by pulling down and sliding it out.
3. Using a paper clip push the battery from the bottom so it slides out of its cage.
4. Slide the replacement battery in from the top, making sure the positive side is facing up.
5. Replace the back panel by pushing it up into place.



Project 21-33573-3 Date 5/1/2025
I-10 DOWNTOWN

Submitted By
LTG AND ELEC ASSOC OF NRLNS

Catalog Number: LIGHTDIAL DMX CONTROLLER

Type

Note:

insight lighting

LIGHT DIAL
DMX CONTROL KEYPAD

PROJECT:

TYPE:

CATALOG #:

Internal Menu

MODE (M) : Manages the on/off button and the 4 modes (dimmer, speed, color, scene)

- M OFF enable** : enables/disables the use of the on/off button so that the controller is permanently on
- M Dimm. enable** : when enabled, scenes can be made brighter or darker
- M Color. enable** : when enabled, the color of a scene can be changed
- M Speed. enable** : when enabled, dynamic scenes can be made faster and slower
- M Scene. enable** : when enabled, the scene can be changed
- M Auto mode** : when enabled, the controller will revert to the default mode after it has been left for a specified period of time
- M Auto time** : the amount of time the controller will wait before reverting to the default mode
- M Default** : the default mode which the controller will revert to after a certain amount of time
- M Dimmer 100%** : when enabled, the dimmer mode will adjust between 0% and 100% without saturating to white between 100% and 200%
- M Lock Control** : Once this is enabled, you can hold the dimmer button for 5 seconds to enable/disable lock mode. It's automatically activated after 120 seconds. When lock is activated, you'll see a red border around the screen

Arrows (A) : Allows you to adjust which modes can be controlled by the arrows

- A Dimmer enable** : allows for the Dimmer mode to be controlled by the arrows
- A Color enable** : allows for the Color mode to be controlled by the arrows
- A Speed enable** : allows for the Speed mode to be controlled by the arrows
- A Scene enable** : allows for the Scene mode to be controlled by the arrows
- A Default** : the mode to jump to when the arrows are pressed, if the arrows are not enabled on the selected mode

Palet (P) : Allows you to adjust which modes can be controlled by the palette wheel

- P Dimmer enable** : allows for the Dimmer mode to be controlled by the palette wheel
- P Color enable** : allows for the Color mode to be controlled by the palette wheel
- P Speed enable** : allows for the Speed mode to be controlled by the palette wheel
- P Scene enable** : allows for the Scene mode to be controlled by the palette wheel
- P Default** : the mode to jump to when the palette is pressed, if the palette is not enabled on the selected mode

Scene (S) : Scene management

- S 0(off) enable** : displays an empty off scene before scene 0 in each area
- S Pause enable** : allows a scene to be paused if the scene mode button is held for 1 second
- S Stop enable** : allows a scene to be stopped if the scene mode button is held for 4 seconds
- S Fade config** : manages the fading between scenes
 - From Show : the fade time set inside the show file will be used
 - Force : the automatic fade time set in the menu will override all fadetimes in the show file
 - Force Max : the controller will look at the show file fade time and the menu fade time and use the greatest
 - Force Min : the controller will look at the show file fade time and the menu fade time and use the smallest
 - Never : the controller will never fade between scenes
- S Fade time** : the time of the automatic fade between scenes
- S Setting management** : determines how dimmer/speed/color overrides are saved
 - SaveAlways : the dimmer/speed/color overrides all scenes until the reset button has been pressed
 - NeverSave : the dimmer/speed/color is never saved
 - AutoReset : the dimmer/speed/color is saved on the current scene
- S Trigger** : sets the scene triggering mode, Time Delay and Scene Butt allow for scenes to be scrolled through without playing
 - Auto : the scene will be triggered as soon as it's selected
 - Time Delay : a short delay is added before a scene is triggered
 - Scene Butt. : the selected scene will not play until the scene button is pressed

First Start (F) : Default settings when the unit is first powered up

- F Scene Nr.** : specify a default scene number
- F Scene Scene Recover** : activates the previously playing scene
- F Display Time** : when enabled, the time will be displayed on the screen at startup
- F Scene Nr.** : enables the triggering of a scene at startup. If disabled, no scene will be triggered

Trigger (T) : Manages the controllers external triggering properties

- T Time enable** : enables the clock triggering
- T Ports enable** : enables the 8 dry contact ports
- T RS232 enable** : enables scene triggering by RS232
- T IR enable** : enables the infra red port (disabled by default to prevent interference)
- T UDP enable** : allows the controller to send and receive UDP messages required for network control
- T Blackout port** : enables the blackout relay output which is triggered when the standby button is touched

Ethernet (E) : Manages the controllers network settings

- Ethernet** : Enables the Ethernet socket on the controller
- Dynamic IP Addr** : enables dynamic IP addressing (DHCP) which allows the controller to obtain an IP address from a router
- Sync Blackout** : when this option is enabled, all other controllers on the network will go into standby when the standby button is pressed
- Enable NTP** : enables Network Time Protocol. The controller will synchronise the clock with the internet if a connection is available
- NTP Server** : the IP address of the server to synchronize the clock. The default is 005.135.141.108
- Device's IP Addr** : the controllers static IP address it will use if it does not receive an IP address via DHCP
- Mask** : the subnet mask of the controller if not set to DHCP. Generally this is 255.255.255.0
- Default Gateway** : the IP address of the router if not set to DHCP
- MAC Address** : a unique ID used to identify the controller on the network

	Project 21-33573-3 Date 5/1/2025 I-10 DOWNTOWN Submitted By LTG AND ELEC ASSOC OF NRLNS	Catalog Number: LIGHTDIAL DMX CONTROLLER Note:	Type
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insight lighting

LIGHT DIAL
DMX CONTROL KEYPAD

PROJECT:	TYPE:	CATALOG #:
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Date/Time (D) : Manages the date and time stored inside the controller

Date : the controllers date

Time : the controllers clock time

G Bright normal : the % brightness when the controller is not sleeping **G Bright sleep**: the % brightness when the controller is sleeping

G Bright LED : the % brightness of the mode and reset LEDs

Graphics (G) : Screen management

G Image enable : allows for images to be shown for each scene if they have been assigned in the programming software

G Image full : when enabled, the image will be displayed in full screen and the scene and area will not be visible

G Image time : the time it takes before the image is displayed in full screen

G Sleep enable : when enabled, the screen brightness will dim after a certain amount of time

G Sleep time : the amount of time to wait before sleeping

G Bright normal : the brightness of the screen's backlight

G Bright sleep : the brightness of the screen's backlight whilst the controller is sleeping

G Bright LED : the brightness of the scene, undo and standby LEDs

DMX Output (X) : Manage the timings of the DMX output messages and the page priorities (advanced function)

X MBB : Mark Before Break- the time to wait between sending each 512 channel DMX message (or 'packet')

X Break : Break- the time to wait just before sending a new packet, resetting the DMX line

X MAB : Mark After Break- the message which tells your receiver to begin reading data

X MBS : Mark Between Slots- the delay time between sending each DMX channels data within the DMX packet

Unlv-1/Unlv-2 : each timing can be set differently depending on the universe number

X Alpha Mode : If the same scene is triggered in the global area and a second area, the area with the highest letter will take priority

X LTP Mode : If the same scene is triggered in the global area and a second area, the latest scene triggered takes priority

Sensitive (S) : Manage the touch sensitivity settings

S USB Init : reset the touch sensitivity when the USB is connected and disconnected

S Auto Time : the time to wait before automatically resetting the touch sensitivity

S High Sense : when enabled, the sensitivity will be increased

S See Values : see each touch sensitive button number and palette value

Language (L) : change the language of the text which appears on the screen

About : check the firmware release data and version number and assign a name for the controller

Reset : Reset all settings to the factory default

Troubleshooting

The 4 Mode LEDs on the controller are flickering

The controller is in bootloader mode. This is a special 'startup mode' which is run before the main firmware loads.
-Check that there is nothing metallic touching the back of the controller
-Try re-writing the firmware with the latest hardware manager
-Try formatting or replacing the SD card

All LEDs on the controller are flickering except the standby LED

There is no SD card detected.
-Check the SD card is properly connected
-Try formatting the SD card in the computer
-Try re-writing the show file
-Try replacing the SD memory card

The controller is not detected by the computer

-Be sure that the latest software version is installed
-Connect by USB and open the Hardware Manager (found in the software directory). If it's detected here, try to update the firmware

All LEDs on the controller are flickering

There has been no showfile detected on the SD memory card.
-Try formatting the SD card in the computer
-Try re-writing the show file
-Try replacing the SD memory card

The lights are not responding

-Check the DMX +, - and GND are connected correctly
-Check that the driver or lighting fixture is in DMX mode
-Be sure that the DMX address has been set correctly
-Check there are no more than 32 devices in the chain
-Check that the DMX LED is flickering to the right of the SD card
-Connect with the computer and open Hardware Manager (found in the software directory). Open the DMX Input/Output tab and move the faders.
If your fixtures respond here, it is possibly a problem with the show file

LEA

LIGHTING & ELECTRICAL
ASSOCIATES

Project 21-33573-3 Date 5/1/2025
I-10 DOWNTOWN

Submitted By
LTG AND ELEC ASSOC OF NRLNS

Catalog Number: DMXCAT: REMOTE ADDRESSING TOOL

Type

Note:

insight lighting

DMXCAT
REMOTE ADDRESSING TOOL

PROJECT:

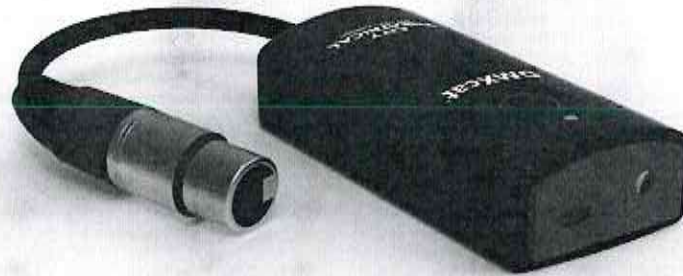
TYPE:

CATALOG #:

PROFILE

The DMXcat Tool is a powerful DMX/RDM measurement and test tool. It allows for RDM addressing and monitoring of Insight Lighting (and 3rd party) products that have RDM capability while also being able to test all elements of the DMX data signal to ensure proper system operation. Micro-USB cable supplied for recharging.

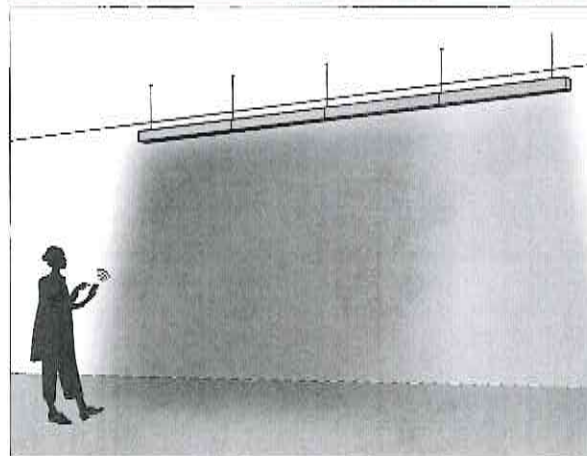
CATALOG NO.	DMXCAT
WIRELESS COMMUNICATION	BLUETOOTH LE
RANGE	50.0'
SYSTEM REQUIREMENTS	BLUETOOTH 4.0 OR GREATER ANDROID 6.0 OR GREATER IOS 11 OR GREATER
DMX CONNECTION	5 PIN XLR
CHARGING PORT	MICRO USB
BATTERY RUN TIME	20 HOURS
CHARGE TIME	8 HOURS
ENCLOSURE CONSTRUCTION	NEMA 1 ABS
DIMENSIONS	1.63" X 3.75" X 0.94"
WEIGHT	0.30 LBS
COMPLIANCE	CE, ROHS, FCC
WARRANTY	3 YEAR LIMITED



CONTROLLER DIMENSIONS



INSTALL EXAMPLE



 LEA LIGHTING & ELECTRICAL ASSOCIATES	Project 21-33573-3 Date 5/1/2025 I-10 DOWNTOWN Submitted By LTG AND ELEC ASSOC OF NRLNS	Catalog Number: CDS-RDM: DMX RDM DISTRIBUTION KIT (IP67): (4 OUTPUTS) Note:	Type
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insight lighting

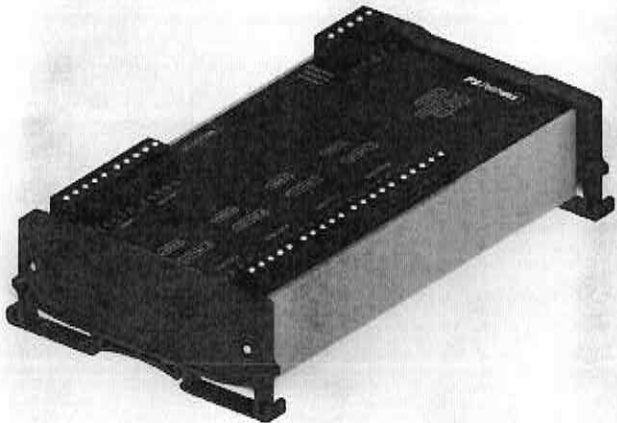
CDS - RDM

EXTERIOR DMX + RDM DISTRIBUTION KIT

PROJECT	TYPE	CATALOG #1 CDS - RDM
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SPECIFICATIONS

INPUT VOLTAGE	120-277VAC
MAXIMUM CURRENT	800mA (@7v)
WATTAGE	5.6W
OUTPUT TYPE	DMX/RDM
MAX OUTPUT CHANNELS	1 DMX UNIVERSE PER SPLITTER
SUPPORTED PROTOCOLS	DMX-512A / RDM E1.20
ENVIRONMENT	-20°C TO 60°C
ENCLOSURE DIMENSIONS	7.87" X 7.87" X 5.19"
ENCLOSURE MATERIAL	GRAY ABS
WARRANTY	3-YEAR LIMITED

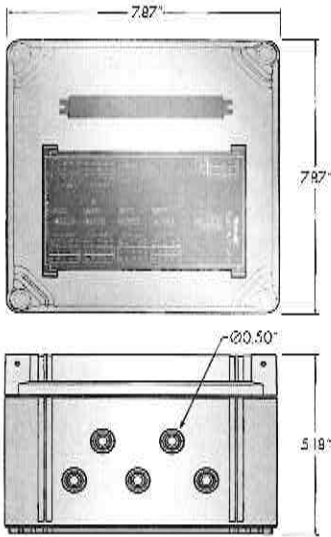


CDS-RDM DMX DISTRIBUTION KIT IP67	GRAY ABS -20°C TO 60°C IP67
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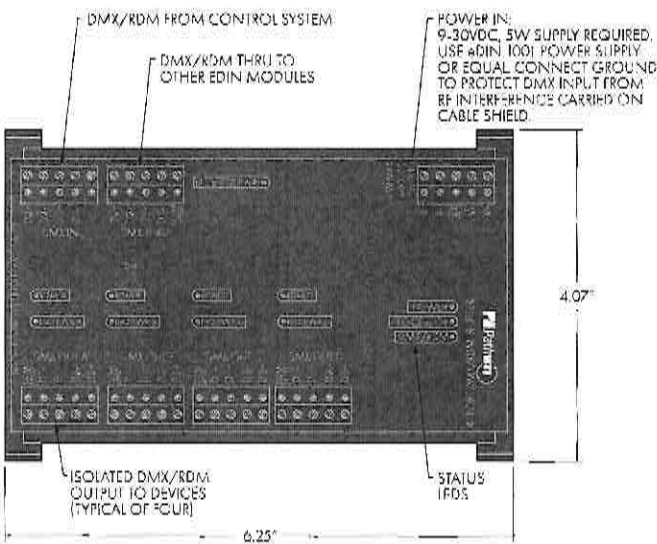
THE DMX/RDM DISTRIBUTION KIT CONSISTS OF FOUR OUTPUTS. EACH OUTPUT IS LIMITED TO (1) RUN PER OUTPUT, UP TO 96 FIXTURES MAX. FOUR TERMINATORS ARE INCLUDED FOR END OF LINE TERMINATION.

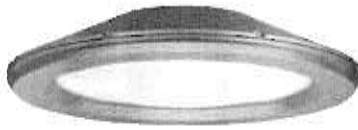
DIMENSIONS

CDS - RDM ENCLOSURE KIT:



CDS - RDM DISTRIBUTION BOARD LAYOUT:





VCPG LED Parking Garage

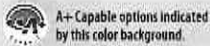
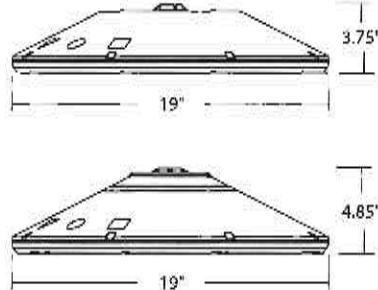


Specifications

Diameter: 19"

Height: 3.75"
(4.85" with Up-Light)

Weight
(max, with
no options): 18 lbs



Catalog
Number

Notes

Type

Other related products are on the pages 20-21 through 24-25

Introduction

The all new VCPG LED (Visually Comfortable Parking Garage) luminaire is designed to bring glare control, optical performance and energy savings into one package. The recessed lens design of VCPG LED minimizes high angle glare, while its precision molded acrylic lens eliminates LED pixilation and delivers the required minimums, verticals and uniformity. The dedicated up-light module option reduces the contrast between the luminaire and the ceiling creating a more visually comfortable environment.

The VCPG LED delivers up to 87% in energy savings when replacing 175W metal halide luminaires. With over 100,000 hour life expectancy (12+ years of 24/7 continuous operation), the VCPG LED luminaire provides significant maintenance savings over traditional luminaires.

Ordering Information

EXAMPLE: VCPG LED V4 P4 40K 70CRI T5M MVOLT SRM DNAXD

VCPG LED	V4	P1	40K	70CRI	T5R	MVOLT	SRM
Series	LED Light Engines	Package	Color temperature	Color Rendering Index	Distribution	Voltage	Mounting
VCPG LED	V4 4 Light Engines V8 8 Light Engines	P1 P2 P3 P4 P5 P6 P7 (with V8 only)	30K 1000 K 35K 3500 K 40K 4000 K 50K 5000 K	70CRI 80CRI	T5M Type V, medium T5R1 Type V, rectangular T5W Type V, wide T5L Type V, entry LANE2 Drive lane	MVOLT 347 480	Shipped included PM Pendant mount standard (24-inch length supply leads) SRM Surface mount (24-inch length supply leads) ARM Arm mount (use RSXWBA accessory to mount to a wall) Shipped separately YK Yoke/Union mount1

Options	Finish (required)	Packaging
Shipped Installed UPL1 Up-Light: 500 lumens1 UPL2 Up-Light: 700 lumens1 E7WC Emergency battery backup, AC Activate, Certified in CA Title 20 MAEDBS (7W, -20°C, min)1,2,3 E10WH Emergency battery backup, AC Activate, Certified in CA Title 20 MAEDBS (10W, 0°C, min)1,2,3 E18WC Emergency battery backup, AC Activate, Certified in CA Title 20 MAEDBS (18W, -20°C, min)1,2,3 HA High ambient (50°C, only P1-P4) SF Single fuse (120V, 277V, 347V) DF Double fuse (208V, 240V, 480V) SPD10KV 10KV Surge Pack LDS36 36In (3ft) lead length LDS72 72In (6ft) lead length LDS108 108In (9ft) lead length DMG External 0-10V leads (no controls)4 TP Tamper proof screws CCE Coastal Construction Shipped Separately WG Wire Guard BDS Bird Shroud4 HS House Side Shield BSW Bird Spikes	DNAXD DWHXD White DNAXD Natural aluminum ODBXD Dark bronze DBLXD Black	(blank) Job Pack/Units (ships as job pack of 18pcs per; balance in units) U Unit packs only
Standalone Sensors/Controls1 PIR Motion/ambient sensor for 8-15' mounting heights PIRH Motion/ambient sensor for 15-30' mounting heights PIR3FC3V Motion/ambient sensor for 8-15' mounting heights, pre-programmed to 3fc and 35% light output PIRH3FC3V Motion/ambient sensor for 15-30' mounting heights, pre-programmed to 3fc and 35% light output Networked Sensors/Controls1 NLTAIR2 PIR nLIGHT AIR Wireless enabled motion/ambient sensor for 8-15' mounting heights (provides NPS signal) NLTAIR2 PIRH nLIGHT AIR Wireless enabled motion/ambient sensor for 15-30' mounting heights (provides NPS signal) NLTAIREM2 PIR nLIGHT AIR Wireless enabled, UL924 Listed motion/ambient sensor for 8-15' mounting heights NLTAIREM2 PIRH nLIGHT AIR Wireless enabled, UL924 Listed motion/ambient sensor for 15-30' mounting heights		

 LEA LIGHTING & ELECTRICAL ASSOCIATES	Project 21-33573-3 Date 5/1/2025 I-10 DOWNTOWN Submitted By LTG AND ELEC ASSOC OF NRLNS	Catalog Number: VCPG LED V4 P1 40K 70CRI T5R MVOLT SRM DNAXD Note:	Type
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Ordering Information Cont.

Accessories

Ordered and shipped separately

VCPGBDS DWXHD U	Bird shroud for PM (specify finish)	VCPGWG U	Wire guard
VCPGBDS YK DWXHD U	Bird shroud for YK (specify finish)	SLVSQ	Quick mount pendant swivel kit, square
VCPGBDS DWXHD U	Bird shroud for PM with Up-Light (specify finish)	SLVRD	Quick mount pendant swivel kit, round
VCPGBDS YK DWXHD U	Bird shroud for YK with Up-Light (specify finish)	VCPG YK DWXHD U	Yoke mount kit (specify finish)
VCPGSRM U	Surface mount kit, with no Up-Light	RSXWBA DWXHD U	RSX WBA wall bracket (specify finish)
VCPGSRM U	Surface mount kit, with Up-Light	VCPGHS U	House side shield
VCPGSC120	Safety cable 120"		

NOTES

- Not available in P7 package or with V8 option.
- Only vertical height adjustment. No angle adjustment. Use PM and SLVSQ or SLVRD for mounting to angled ceiling or canopies.
- UPL1 not available with dim-to-off functionality.
- UPL2 available with dim-to-off upon request.
- Not available with 347V or 480V.
- ETWC, E10WH, and E16WC only rated up to 35°C ambient.
- E7WC and E16WC only available with P1-P4 packages. E10WH available with P1-P5 packages.
- DVG option not available with standalone or networked sensors/controls.
- BDS is only available with PM and YK mounting options.
- Needs an nLight AIR Normal Power Sensing (NPS) device in the group.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	Watts	Distribution Type	30K (3000K, 70 CRI)		35K (3500K, 70 CRI)		40K (4000K, 70 CRI)		50K (5000K, 70 CRI)	
			Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
P1	27W	TSE	3,581	135	3,670	138	3,815	144	3,876	146
		TSM	3,620	136	3,710	140	3,856	145	3,917	147
		TSW	3,592	135	3,681	139	3,827	144	3,888	146
		TSR	3,464	130	3,550	134	3,690	139	3,749	141
		LANE	3,507	132	3,594	135	3,736	141	3,796	143
P2	34W	TSE	4,577	135	4,691	138	4,876	144	4,954	146
		TSM	4,626	136	4,741	140	4,928	145	5,007	147
		TSW	4,591	135	4,705	139	4,891	144	4,968	146
		TSR	4,427	130	4,537	134	4,716	139	4,791	141
		LANE	4,482	132	4,594	135	4,775	141	4,851	143
P3	43W	TSE	5,808	134	5,952	137	6,187	143	6,286	145
		TSM	5,870	135	6,015	139	6,253	144	6,353	146
		TSW	5,825	134	5,970	138	6,205	143	6,304	145
		TSR	5,617	130	5,757	133	5,984	138	6,079	140
		LANE	5,688	131	5,829	134	6,059	140	6,155	142
P4	56W	TSE	7,391	131	7,575	135	7,874	140	7,999	142
		TSM	7,470	133	7,656	136	7,958	141	8,085	144
		TSW	7,414	132	7,597	135	7,898	140	8,023	143
		TSR	7,149	127	7,326	130	7,615	135	7,737	137
		LANE	7,238	129	7,418	132	7,711	137	7,824	139
P5	82W	TSE	10,189	124	10,442	127	10,854	132	11,027	134
		TSM	10,298	125	10,553	128	10,970	134	11,145	136
		TSW	10,220	124	10,473	128	10,887	133	11,060	135
		TSR	9,855	120	10,099	123	10,498	128	10,665	130
		LANE	9,978	121	10,226	124	10,629	129	10,799	131
P6	108W	TSE	12,878	120	13,197	123	13,719	127	13,937	129
		TSM	13,015	121	13,338	124	13,865	129	14,086	131
		TSW	12,917	120	13,237	123	13,760	128	13,979	130
		TSR	12,455	116	12,764	119	13,268	123	13,480	125
		LANE	12,611	117	12,924	120	13,435	125	13,649	127
P7	122W	TSE	15,503	125	15,887	128	16,515	133	16,778	135
		TSM	15,668	126	16,057	129	16,691	135	16,957	137
		TSW	15,549	125	15,935	129	16,564	134	16,828	136

Up-light Lumen Output

Up-light Option	Watts	Lumens
UPL1	6.5W	519
UPL2	8.5W	715

Lumen Multiplier for 80CRI

CCT	Multiplier
30K	0.926
35K	0.945
40K	0.967
50K	0.985

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Lumen Multiplier
0°C 32°F	1.03
10°C 50°F	1.02
20°C 68°F	1.01
25°C 77°F	1
30°C 86°F	0.99
40°C 104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11). To calculate LM, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.97	0.94	0.89

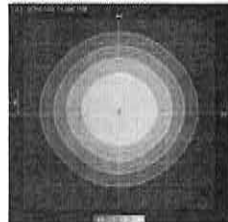
Electrical Load

Power Package	System Watts	Current (A)					
		120V	208V	240V	277V	347V	480V
P1	27W	0.22	0.13	0.12	0.10	0.08	0.06
P2	34W	0.28	0.16	0.14	0.13	0.10	0.08
P3	43W	0.37	0.21	0.18	0.16	0.13	0.09
P4	56W	0.48	0.28	0.24	0.21	0.16	0.12
P5	87W	0.68	0.40	0.35	0.30	0.24	0.18
P6	108W	0.91	0.52	0.45	0.39	0.32	0.23
P7	124W	1.03	0.59	0.51	0.44	0.37	0.27

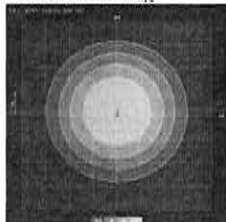
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting VCPG LED homepage.
Tested in accordance with IESNA LM-79 and LM-80 standards

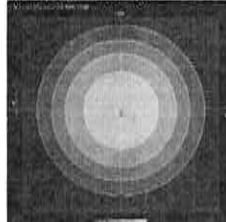
VCPG LED P4 T5M 40K



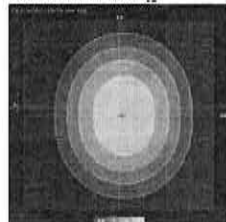
VCPG LED P4 T5C 40K



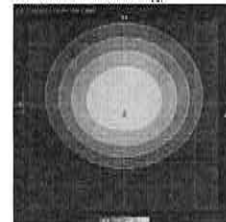
VCPG LED P4 T5W 40K



VCPG LED P4 T5R 40K



VCPG LED P4 LANE 40K



Control/Sensor Options

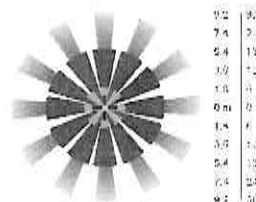
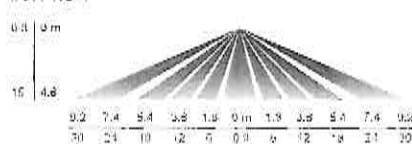
Motion/Ambient Sensor (PIR, PIRH)

Motion/Ambient sensor (Sensor Switch MSOD, nLight AIR RMSOD) is integrated into the luminaire. The sensor provides both Motion and Daylight based dimming of the luminaire. For motion detection, the sensor utilizes 100% Digital Passive Infrared (PIR) technology that is tuned for walking size motion while preventing false tripping from the environment. The integrated photocell enables additional energy savings during daytime periods when there is sufficient daylight. Optimize sensor coverage by either selecting PIR or PIRH option. PIR option comes with a sensor lens that is optimized to provide maximum coverage for mounting heights between 8-15ft, while PIRH is optimized for 15-40ft mounting height.

Networked Control (NLTAIR2)

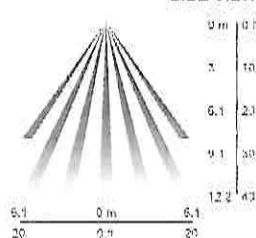
nLight® AIR is a wireless lighting controls platform that allows for seamless integration of both indoor and outdoor luminaires. Five-tier security architecture, 900 MHz wireless communication and app (CLAIRITY™+) based configurability combined together make nLight® AIR a secure, reliable and easy to use platform.

PIR HIGH VIEW

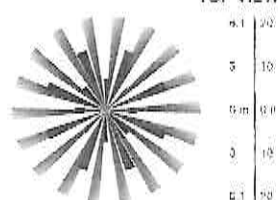


PIRH

SIDE VIEW



TOP VIEW



Motion/Ambient Sensor Default Settings

Option	Dim Level	High Level (when triggered)	Photocell Operation	Motion Time Delay	Ramp-down Time	Ramp-up Time
PIR or PIRH	Motion - 2V (32% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 5ft	5 min	5 min	Motion - 3 sec Photocell - 45 sec
PIR3FC3V or PIRH3FC3V	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 3ft	5 min	5 min	Motion - 3 sec Photocell - 45 sec

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**STATEMENT OF LIMITED WARRANTY
FOR ACUITY BRANDS LIGHTING, INC
LED/OLED COMMERCIAL PRODUCTS
09.01.2022**

Subject to the exclusions set forth below, Acuity Brands Lighting, Inc. ("Acuity") warrants its commercial LED/OLED fixtures, including the LED arrays and the drivers and integral control devices ("Product(s)") to be free from defect in material and workmanship for a period of five (5) years from the date of shipment from Acuity's facilities (the "General Warranty"). For Products with embedded ultraviolet (UV) based devices that are not separable from the fixture(s), this Limited Warranty shall apply to both the UV based devices and the Products, but the Warranty Period shall be reduced to two (2) years from the date of shipment from Acuity's facilities. Acuity further warrants that, for one (1) year, the functionality of the firmware embedded in the Product(s) ("Product Firmware") will conform in all material respects to the Product documentation available at the start of the warranty period. The LED arrays in the Product(s) will be considered defective in material or workmanship only if a total of 10% or more of the individual light emitting diodes in the Product(s) fail to illuminate.

For installed Rough Service Product(s), Acuity warrants that, for the lifetime of the Product(s), the polycarbonate lens and/or polycarbonate housing will withstand breakage resulting from occasional physical abuse and rough handling (the "Rough Service Warranty"), notwithstanding the vandalism exclusion set forth below.

This Limited Warranty only covers Product function and does not cover existing building systems and/or network performance of any Product(s) or re-programming or field adjustments of any Product(s) done by anyone that has not been authorized or certified in writing by Acuity. Acuity does not warrant the security of any Product(s). Product(s) that are identified by Acuity as requiring on-site commissioning will only be covered by this Limited Warranty if commissioned by Acuity authorized personnel. Warranty coverage shall not apply to any equipment or integration services of another manufacturer used in conjunction with Acuity Product(s) or where Acuity-authorized cables are not used. This Limited Warranty only applies to the Product(s) when sold for commercial purposes and does not apply to residential product(s) provided by Acuity, all of which are governed by separate limited warranty terms.

Except as otherwise set forth herein, ballasts, lamps, emergency batteries/invertors, vandal resistant product, poles, replaceable consumables (such as batteries), computer hardware, mobile computing devices, third party gear, commissioning systems, and components specified by others are excluded from this Limited Warranty. Ultraviolet (UV) based devices that are separable from the Product (s) are warranted separately; and the terms of such warranties are located at <https://www.acuitybrands.com/support/warranty/terms-and-conditions>. Manufacturers of third-party ballasts, lamps, emergency batteries/invertors and poles incorporated into the Product(s) are solely responsible for any costs or expenses related to any claims, repairs, or replacements associated with any such component(s). Applicable manufacturers shall be solely responsible for the costs related to any claims associated with any such third-party devices. Assistance with warranty claims for any such component(s), and/or copies of each applicable manufacturer's warranty, if available, may be obtained from an authorized Acuity post-sales or customer service representative. Distech Controls® and eldoLED® products are warranted separately and are not covered by this Limited Warranty.

Additionally, software (other than firmware), mobile apps, commissioning services, installation services, remote programming, and other professional services are excluded from this Limited Warranty. Services provided by Acuity are warranted separately; and the terms of such warranties are located at <https://www.acuitybrands.com/support/warranty/terms-and-conditions>. Applicable third-party service providers are solely responsible for the costs related to any claims associated with any such third-party services. Access to software and mobile apps associated with the Product(s) may be subject to the terms of an End-User License Agreement or Terms and Conditions of Use ("EULA") and, if applicable, warranty terms applicable for such software and mobile apps are set forth in the applicable EULA.

This Limited Warranty applies only when the Product(s) are installed in applications in which ambient temperatures are within the range of specified operating temperatures. Acuity will not be responsible under this Limited Warranty for any failure of the Product(s) that results from external causes such as: acts of nature, including but not limited to harmonic oscillation/winds, ice, or other related storm activity; physical damage; exposure to adverse or hazardous chemical or other substances; use of reactive cleaning agents and/or harsh chemicals to clean the Product(s); external site conditions, including but not limited to: accumulation of debris (natural or otherwise), heavy tree cover, cellular, satellite or radio interference; environmental conditions, including but not limited to: exposure to harsh, corrosive, non-condensing humidity conditions, marine or humidity conditions; vandalism; terroristic acts; fire; power failure, overheating, improper power supply, power surges or dips, and/or excessive switching; induced vibration; harmonic oscillation, or resonance associated with movement of air currents around Product(s); animal or insect activity; fault or negligence of purchaser, any end-user of the Product(s) and/or any third party not engaged by Acuity; improper or unauthorized access, use, installation, handling, storage, alteration, removal of components, testing, troubleshooting, maintenance or service; removal or interference with the tamper proof label indicating unauthorized opening of the unit; any housing, arm or gasket pierced for any reason; failure to abide by any product classifications or certifications; failure to comply with any applicable standards, codes, recommendations, product specification sheets, or instructions of Acuity; failure of the end-user to provide full and complete requested data; use of the Product(s) with products,

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**STATEMENT OF LIMITED WARRANTY
FOR ACUITY BRANDS LIGHTING, INC
LED/OLED COMMERCIAL PRODUCTS
09.01.2021**

processes or materials supplied by any end-user or third party; or any other occurrences beyond Acuity's reasonable control. Acuity also will not be responsible under this Limited Warranty for any substantial deterioration in the Product finish that is caused by failure to clean, inspect, or maintain the finish of the Product(s). If the Product(s) are used on existing foundations, roofs, buildings, anchorages or structures, the end-user is solely responsible for the structural integrity of such existing foundations, roofs, buildings, anchorages or structures and all consequences arising from their use. Adequate records of operating history, maintenance, and/or testing (as applicable) must be kept by the end-user and provided to Acuity upon request to substantiate that the Product(s) have failed to comply with the terms of this Limited Warranty. Neither polycarbonate nor acrylic material used in the Products is warranted against yellowing or cracking, as yellowing and/or cracking may naturally occur over time due to normal aging. The Product(s) are not warranted against: cosmetic problems or defects that result from normal wear and tear under ordinary use and that do not affect the performance or use of the Product(s); nor are the Products warranted against costs that may be incurred in connection with changes or modifications to the Product(s) required to accommodate site conditions and/or faulty building construction or design; or failures of Acuity Product(s) resulting from installation or use of aftermarket third party supplied products, components, materials, software, services, telecommunications equipment, networks or the Internet. Acuity does not warrant that the Product(s) meet the applicable project requirements for performance, legality, safety, security, suitability, or effectiveness for use in a particular application. In no event will Acuity be responsible for any loss resulting from any application in which the Product(s) are used including any fines or penalties resulting from illegal use. Modifications/upgrades to Product Firmware that may be required to address changes in laws or regulations are outside the scope of this Limited Warranty. Product Firmware modifications/upgrades that result in changes to functionality to the Product are also outside the scope of this Limited Warranty.

The determination of whether any Product(s) fail to comply with the terms of this Limited Warranty shall be made by Acuity in its sole discretion, with consideration given to the overall performance of the Product(s) as compared to the expected performance per the applicable spec sheet. If the Product(s) are within the Warranty Period, Acuity has received payment in full for the Product(s), and Acuity determines to its satisfaction that the Product(s) fail to comply with the terms of this Limited Warranty, Acuity, at its option, will (a) with respect to defects in material and workmanship service, repair or replace the Product(s) with the same or a functionally equivalent Product(s) or component part(s), which may differ in appearance from the original or (b) with respect to non-conformances of the Product Firmware, will make available for installation a patch to be installed by the end-user within a commercially reasonable time frame to remedy the non-conformance. If the patch is not installed within a commercially reasonable time frame, the Limited Warranty will no longer apply with respect to such non-conformances. Acuity reserves the right to utilize new, reconditioned, refurbished, repaired, or remanufactured Product(s) or parts in the warranty repair or replacement process. For purposes of clarity, this Limited Warranty does not include any removal, commissioning, programming, or reinstallation costs or expenses, including without limitation any labor costs, equipment or other expenses required to remove and/or reinstall original or replacement Product(s) and/or parts. This Limited Warranty extends only to the Product(s) as delivered to, and is for the sole and exclusive benefit of, the original end-user of the Product(s) at the original location. This Warranty may not be transferred or assigned by the original end-user.

The repair or replacement of any Product(s) or component part within the Product(s) is the sole and exclusive remedy for failure of the Product(s) to comply with the terms of this Limited Warranty and does not extend the Warranty Period. Warranty claims regarding the Product(s) must be submitted in writing within thirty (30) days of discovery of the defect or failure to an authorized Acuity post-sales or customer service representative. Product(s) or component part(s) may be required to be returned for inspection and verification of non-conformance by Acuity, but no Product(s) or component part(s) will be accepted for inspection, verification or return unless accompanied by a "return authorization number" which can be obtained only from an authorized Acuity post-sales or customer service representative. Acuity is not responsible for any costs, expenses, or damages that may occur in connection with shipment of Product(s) to Acuity, but Acuity shall bear all cost and expense incurred in connection with shipment of replacement Product(s) to the end-user so long as Acuity has sole control over all aspects of shipment, including but not limited to Acuity shipping directly to the end-user. In no event will Acuity accept any other charges related to shipment by any other party. Replacement Product(s) and/or parts provided under the terms of this Limited Warranty are warranted for the remainder of the Warranty Period as if such Product(s) and/or parts were the original components.

THE FOREGOING WARRANTY TERMS ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, AND ACUITY EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, RELATING DIRECTLY OR INDIRECTLY TO THE PRODUCT(S), WHETHER ORAL, WRITTEN, OR ARISING BY COURSE OF DEALING OR USAGE OF TRADE, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO AGENT, DISTRIBUTOR OR OTHER SUPPLIER OF ACUITY PRODUCTS HAS THE AUTHORITY TO MODIFY OR AMEND THIS WARRANTY WITHOUT EXPRESS WRITTEN AUTHORIZATION FROM ACUITY.

The total liability of Acuity on any and all claims of any kind, whether in contract, warranty, tort (including negligence), strict liability or otherwise, arising out of or in connection with, or resulting from, Acuity's performance or breach of this Limited

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**STATEMENT OF LIMITED WARRANTY
FOR ACUITY BRANDS LIGHTING, INC
LED/OLED COMMERCIAL PRODUCTS
09.01.2021**

Warranty, or from Acuity's sale, delivery, resale, repair, or replacement of any Product(s) or the furnishing of any services, shall in no event exceed the purchase price allocable to the Product(s) that give rise to the claim, and any and all such liability shall terminate upon the expiration of the Warranty Period specified above. Acuity shall not be liable for damages caused by any delays involving warranty services.

IN NO EVENT SHALL ACUITY BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES, ARISING OUT OF THE SALE OR PERFORMANCE OF ANY PRODUCTS OR SERVICES, OR ANY BREACH OF WARRANTY OR OBLIGATIONS UNDER WARRANTY EVEN IF INFORMED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER AS THE RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR ANY OTHER THEORY, INCLUDING WITHOUT LIMITATION LABOR OR EQUIPMENT REQUIRED TO REMOVE AND/OR REINSTALL ORIGINAL OR REPLACEMENT PARTS, LOSS OF TIME, PROFITS OR REVENUES,

LACK OR LOSS OF PRODUCTIVITY, INTEREST CHARGES OR COST OF CAPITAL, COST OF SUBSTITUTE EQUIPMENT, SYSTEMS, SERVICES OR DOWNTIME COSTS, LOSS OR CORRUPTION OF DATA, DAMAGE TO OR LOSS OF USE OF PROPERTY OR EQUIPMENT OR ANY INCONVENIENCE ARISING OUT OF ANY BREACH OF THE FOREGOING WARRANTY OR OBLIGATIONS UNDER SUCH WARRANTY.

Acuity reserves the right to modify or discontinue this Limited Warranty without notice, provided that any such modification or discontinuance will only be effective with respect to any Product(s) purchased after such modification or discontinuance. If there is any conflict or inconsistency between the English language version of this Limited Warranty and any version translated into any other language, the English language version shall prevail. Trademarks referenced are trademarks of Acuity Brands Lighting, Inc. and if marked with the ® symbol are registered in the U.S. and may be registered in other countries.

This Limited Warranty shall be construed and enforced in the accordance with the laws of the State of Georgia and the applicable laws of the United States.

NOTE: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

NOTE: Acuity Brands is not a lighting specifier, and product recommendations for any lighting design project are for informational purposes only, without any warranty as to accuracy, completeness, legality for use in a particular application, or otherwise.

NOTE: The Product(s) must be returned within ten (10) days after receiving the return authorization number and the shipping box must be clearly marked with the return authorization number. Failure to follow this procedure will delay any potential warranty resolution. Product(s) returned without a valid return authorization number will either be refused or returned to sender at sender's expense. NO PRODUCT RETURNS WILL BE ACCEPTED BY ACUITY IF NOT ACCOMPANIED BY A VALID RETURN AUTHORIZATION NUMBER.

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insight lighting

Warranty & Obligations Insight Lighting Solid State LED Products

(See Separate Warranties for Smart Pipe/Smart Column Product Families on page 2)

Limited Warranty

Insight Lighting warrants that products sold will, upon shipment, be free of defects in workmanship and materials under recommended use and service, provided the products are installed in suitable applications and installed per manufacturer's instructions. Insight Lighting Digital products are shipped in a sealed condition to protect the integrity of the product. Any tampering and/or penetration of these sealed fixtures will void all warranties. The use of non-Insight Lighting provided systems components, including but not limited to power supplies, connectors, cabling and accessories will void this warranty. The warranty is void if products are altered or repair is attempted or made by anyone other than Insight Lighting or its explicitly authorized service center. This warranty shall not apply to any defect or failure to perform resulting from misapplication, improper installation, improper operation, abuse or contamination, whether internal or external and only applies when the Product has been properly wired and installed and operated within the electrical values, operating ranges and environmental conditions provided in the specifications or installation instructions for such Product.

Further, this warranty is void if the product is stored or operated in non-condensed humidity of greater than 85%, or greater or less than the fixture's rated ambient temperature rating (see product spec sheet), or in non-recommended environments. Insight Lighting's obligation under this warranty shall be limited to the repair or exchange of any Insight Lighting manufactured part which proves to be defective under recommended use and service and as to which Insight Lighting has received written notice within five (5) years from the date of invoice, and which by our examination shall disclose to our satisfaction to be thus defective (See Third Party Warranties below). Should any product fail to conform to this warranty, Insight Lighting's obligation, upon prompt written notification from the Purchaser, is limited to repair or replacement, at Insight Lighting's option, without charge.

If Insight Lighting chooses to replace the Product and is not able to do so because it has been discontinued or is not available, Insight Lighting may replace it with a comparable Product. This repair or replacement shall constitute a fulfillment of all liabilities of Insight Lighting. For purposes of clarity "repair or replacement" does not include labor or expense reimbursement of any kind at any time. Insight Lighting will assume round trip transportation costs for a defective product under warranty in an amount not to exceed normal (no express) shipping charges within the continental United States. Insight Lighting warrants repaired or replacement items only for the unexpired portion of the original warranty period.

Insight Lighting's liability under this guarantee shall be limited to repair or replacement only, and the purchaser agrees that no other remedy (including but not limited to, incidental or consequential damages for lost profits, liquidated damages, lost sales, injury to person or property, business interruption, or any other loss) shall be available to Purchaser. Invoices not paid within Net 30 terms will void this warranty. Insight Lighting is not responsible in any way for damage to a product arising from causes of nature or other causes or events not within the direct control of Insight Lighting.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH WE EXPRESSLY DISCLAIM. INSIGHT LIGHTING WILL NOT IN ANY CIRCUMSTANCES BE LIABLE FOR ANY LOSS OR DAMAGE, SPECIAL, DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION: DAMAGES FOR LOSS OF PROFITS, LOSS OF REVENUES, OR LOSS OF USE OR BUSINESS INTERRUPTION), EVEN IF INSIGHT LIGHTING HAS BEEN ADVISED OF THE POSSIBILITY OR CERTAINTY OF THOSE DAMAGES OR INSIGHT LIGHTING COULD HAVE REASONABLY FORESEEN THOSE DAMAGES. NO EXTENSION OF THIS WARRANTY WILL BE BINDING UPON INSIGHT LIGHTING UNLESS SET FORTH IN WRITING AND SIGNED BY INSIGHT LIGHTING'S AUTHORIZED REPRESENTATIVE. OUR TOTAL AGGREGATE LIABILITY HEREUNDER, WHETHER BASED UPON CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), INDEMNITY, OR OTHERWISE, WILL NOT EXCEED THE PRICE PAID BY THE PURCHASER FOR THE WARRANTED PRODUCT. THESE EXCLUSIONS OF TYPES OF DAMAGES WILL BE DEEMED INDEPENDENT OF, AND WILL SURVIVE, ANY FAILURE OF THE ESSENTIAL PURPOSE OF ANY LIMITED REMEDY UNDER THE TERMS OF AN ORDER.

Third Party Warranties

With respect to products sold to the Purchaser by Insight Lighting but not manufactured by Insight Lighting, Insight Lighting MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, but will make available to the Purchaser, to the extent permitted by law and relevant contracts, the warranties of the manufacturer of the relevant product upon the Purchaser's timely written request. Third party warranties include but are not limited to power supplies, dimming and color controls and all associated non Insight Lighting manufactured accessories.

Governing Law

These Terms and Conditions and terms of any sales or agreement between Insight Lighting and the Purchaser shall be governed by and construed in accordance with the laws of the state of New Mexico and the Purchaser agrees to submit to the personal jurisdiction of federal and state courts located in the State of New Mexico. The Purchaser and Insight Lighting agree that application of the United Nations Convention on Contracts for the International Sale of Goods to the agreement between them (including these terms and conditions) is explicitly excluded. The Purchaser and Insight Lighting agree that application of the United Nations Convention on Contracts for the International Sale of Goods to the agreement between them (including these terms and conditions) is explicitly excluded.

See the Medley Ingrade Certificate of Installation on page 3. The Certificate of Installation must be completed, signed and returned by the installing contractor to Insight Lighting immediately upon completion of the installation of Insight Medley Ingrade Products.

Rev: 4/17/2019

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Warranty & Obligations Insight Lighting Smart Pipe and Smart Column Products

Limited Warranty

Insight Lighting warrants that products sold will, upon shipment, be free of defects in workmanship and materials under normal use and service provided the products are installed in suitable applications and installed per manufacturer's instructions. The warranty is void if products are altered or repair is attempted or made by anyone other than Insight Lighting or its explicitly authorized service center. This warranty is void if LED illuminators are stored or operated in non-condensed humidity of greater than 85%, or in ambient temperatures of -30C or lower or +40C or higher, or in inappropriate environments. This warranty does not apply to products that have been altered, repaired or installed contrary to Insight Lighting installation instructions. Insight Lighting's obligation under this warranty shall be limited to the repair or exchange of any Insight Lighting manufactured parts which prove to be defective under recommended use and service and as to which Insight Lighting has received written notice within two (2) years from the date of invoice, and which our examination shall disclose to our satisfaction to be thus defective. (See Third Party Warranties below). Should any product fail to conform to this warranty, Insight Lighting's obligation, upon prompt written notification from the Purchaser, is limited to repair or replacement, at its option, without charge. This repair or replacement shall constitute a fulfillment of all liabilities of Insight Lighting. For purposes of clarity, "repair or replacement" does not include labor or expense reimbursement of any kind or any time. Insight Lighting will assume round trip transportation costs for a defective product under warranty in an amount not to exceed normal (no express) shipping charges within the continental United States. Insight Lighting warrants repaired or replacement items only for the unexpired portion of the original warranty period. Insight Lighting's liability under this warranty shall be limited to repair or replacement only, and the purchaser agrees that no other remedy (including but not limited to, incidental or consequential damages for lost profits, liquidated damages, lost sales, injury to person or property, business interruption, or any other loss) shall be available to Purchaser. Invoices not paid within invoice terms will void this warranty.

This warranty does not cover (i) the photometric performance of the LiteGuide system, (ii) light output reductions due to dirt accumulation or lamp deterioration, (iii) defects in product(s) caused by accident, misuse, neglect, mishandling, alteration, or the physical environment, or (iv) damage arising from causes of nature or other causes or events not within the direct control of Insight Lighting. This warranty is available only if Purchaser has installed, used, and maintained the products according to Insight's instructions. All statements, technical information, and recommendations contained in this warranty and in Insight's product literature are based on tests Insight believes to be reliable. Insight does not warrant the accuracy or completeness of this information. Insight reserves the right to change, at any time and without prior notice, the technical specifications of its Smart Pipe and Smart Column product families.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH WE EXPRESSLY DISCLAIM. INSIGHT LIGHTING WILL NOT IN ANY CIRCUMSTANCES BE LIABLE FOR ANY LOSS OR DAMAGE, SPECIAL, DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION: DAMAGES FOR LOSS OF PROFITS, LOSS OF REVENUES, OR LOSS OF USE OR BUSINESS INTERRUPTION), EVEN IF INSIGHT LIGHTING HAS BEEN ADVISED OF THE POSSIBILITY OR CERTAINTY OF THOSE DAMAGES OR INSIGHT LIGHTING COULD HAVE REASONABLY FORESEEN THOSE DAMAGES. NO EXTENSION OF THIS WARRANTY WILL BE BINDING UPON INSIGHT LIGHTING UNLESS SET FORTH IN WRITING AND SIGNED BY INSIGHT LIGHTING'S AUTHORIZED REPRESENTATIVE. OUR TOTAL AGGREGATE LIABILITY HEREUNDER, WHETHER BASED UPON CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), INDEMNITY, OR OTHERWISE, WILL NOT EXCEED THE PRICE PAID BY THE PURCHASER FOR THE WARRANTED PRODUCT. THESE EXCLUSIONS OF TYPES OF DAMAGES WILL BE DEEMED INDEPENDENT OF, AND WILL SURVIVE, ANY FAILURE OF THE ESSENTIAL PURPOSE OF ANY LIMITED REMEDY UNDER THE TERMS OF AN ORDER.

Third Party Warranties

With respect to products sold to the Purchaser by Insight Lighting but not manufactured by Insight Lighting, Insight Lighting MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, but will make available to the Purchaser, to the extent permitted by law and relevant contracts, the warranties of the manufacturer of the relevant product upon the Purchaser's timely written request. Third party warranties include but are not limited to ballasts, lamps, power supplies, dimming and color controls and all associated non Insight Lighting manufactured accessories. It is not the responsibility of Insight to validate fixture and dimming system compatibility.

Governing Law

These Terms and Conditions and terms of any sale or agreement between Insight Lighting and the Purchaser shall be governed by and construed in accordance with the laws of the state of New Mexico and the Purchaser hereby agrees to submit to the personal jurisdiction of federal and state courts located in the State of New Mexico. The Purchaser and Insight Lighting agree that application of the United Nations Convention on Contracts for the International Sale of Goods to the agreement between them (including these terms and conditions) is explicitly excluded.

Rev: 04.13.2021

 LEA LIGHTING & ELECTRICAL ASSOCIATES	Project 21-33573-3 Date 5/1/2025 I-10 DOWNTOWN Submitted By LTG AND ELEC ASSOC OF NRLNS	Catalog Number: INSIGHT WARRANTY Note:	Type
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INSIGHT MEDLEY INGRADE CERTIFICATE OF INSTALLATION

THIS CERTIFICATE OF INSTALLATION MUST BE COMPLETED, SIGNED AND RETURNED BY THE INSTALLING CONTRACTOR TO INSIGHT LIGHTING 30 DAYS AFTER COMPLETION OF THE INSTALLATION OF INSIGHT MEDLEY INGRADE PRODUCTS.

FAILURE TO RETURN THIS CERTIFICATE OF INSTALLATION, DULY COMPLETED AND SIGNED, SHALL VOID THE STANDARD 5-YEAR LIMITED WARRANTY WITH REGARD TO THE MEDLEY INGRADE PRODUCTS SHIPPED PURSUANT TO THE PROJECT NAME AND DISTRIBUTOR PURCHASE ORDER INDICATED BELOW.

This certificate of installation certifies that the Medley Ingrade products manufactured by INSIGHT LIGHTING and shipped pursuant to the following project name/distributor PO were installed by the undersigned installing contractor as per the products' installation instructions provided in shipment with the products. Insight lighting is not responsible for the seal of the power supply enclosure. Signing this document states that you adhered to the potting installation instructions set forth by the potting compound. Any failure or issues to the power supply back box due to water will not be warranted by insight lighting.

PROJECT NAME: _____

DISTRIBUTOR PO#: _____

In accordance with the INSIGHT LIGHTING Terms and Conditions, a duly completed and signed certificate of installation must be returned to INSIGHT LIGHTING in order for the Medley Ingrade products shipped pursuant to the above-mentioned project name and distributor purchase order to be covered by the INSIGHT LIGHTING standard 5-year limited warranty set forth in the INSIGHT LIGHTING Terms and Conditions available at:

www.insightlighting.com/terms-and-conditions/

Certificates of installation may be returned as follows:

- PDF emailed to: warranty@insightlighting.com

Signed this day of, _____ day of _____, _____

Signature: _____

Name and title of: _____

Full legal name and address of company installing Medley Ingrade Products

