CONTRACT FOR CONSTRUCTION
(Cooperative Purchasing – Buyboard – Contract Number 728-24)

PROJECT: **Inner Loop Annex IT-Risk New Offices** ("Project")

GENERAL CONTRACTOR: **Falkenberg Construction Co., Inc.** ("GC")
Kady Williams, Project Manager
250 Cheatham St., Suite 2
San Marcos, TX 78666

ARCHITECT & ENGINEER: **Williamson County Architect** ("A/E")
Trenton H. Jacobs, AIA
3101 SE Inner Loop
Georgetown, TX 78626

COUNTY'S DESIGNATED REPRESENTATIVE: **Williamson County Facilities Management**
Attn: Director of Facilities
3101 SE Inner Loop
Georgetown, Texas 78626

THIS CONTRACT FOR CONSTRUCTION ("Contract") is made and entered into effective as of the latest date of the signatories indicated at the conclusion of this document (the "Effective Date"), by and between **Williamson County**, a body corporate and politic under the laws of the State of Texas ("County") and GC.

ARTICLE 1
SCOPE OF WORK

County desires to retain a GC for the **Inner Loop Annex IT-Risk New Offices** (hereinafter called the "Project"). GC has overall responsibility for and shall provide complete construction services and furnish all materials, equipment, tools and labor as necessary or reasonably inferable to complete the Project, or any phase of the Project, in accordance with County's requirements and the terms of this Contract (hereinafter collectively referred to as the "Work").

ARTICLE 2
GENERAL PROVISIONS

2.1 Contract Documents.

2.1.1
The Contract Documents consist of this Contract and all exhibits and attachments listed, contained, or referenced therein, the Williamson County Uniform General Conditions ("UGCs"), Supplementary or other Conditions, if any, the Drawings, Specifications, Addenda issued prior to the Effective Date of this Contract, The Bid/ Proposal Documents as defined by the Invitation for Bidders/ Request for Proposals, and all Change Orders and any other Modifications issued after the Effective Date of this Contract, all of which form this Contract and are as fully a part of this Contract as if attached to this Contract.

2.1.2
This Contract represents the entire and integrated agreement between the Parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. If anything in the other Contract Documents, other than a Modification, is inconsistent with this Contract, this Contract shall govern. To the extent of any direct conflict or inconsistency between any of the Contract Documents, GC shall immediately notify County and seek clarification from A/E and County.

2.1.3
The term "GC" shall be interchangeable with the terms "Proposer," "Bidder," Respondent," "Contractor," and "General Contractor" or other similar terms as appropriate in the Contract Documents.

2.2 Relationship of the Parties.
GC accepts the relationship of trust and confidence established by this Contract and shall cooperate with A/E and County and exercise GC's skill and judgment in furthering the interests of County; to furnish efficient construction administration, management services and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with County's interests.

2.3 General Conditions.

2.3.1
The term "Contractor" as used herein or in the UGCs shall mean GC.

2.3.2
The term "Owner" as used herein or in the UGCs shall mean County.

2.3.3
The term "Architect" as used herein or in the UGCs shall mean A/E.

ARTICLE 3
CONTRACT TIME

3.1
County shall provide a Notice to Proceed in which a date for commencement of the work shall be stated. GC shall achieve Substantial Completion of the Work within **One Hundred Twenty (120) calendar days** after such Commencement Date. As such completion date may be extended by approved Change Orders. Unless otherwise specified in writing, GC shall achieve Final Completion within **thirty (30) calendar days** of Substantial Completion. The time set forth for completion of the work is an essential element of the Contract.

3.2 Liquidated Damages.
GC acknowledges and recognizes that County is entitled to full and beneficial occupancy and use of the completed Work following expiration of the Contract Time and that County has entered into, or will enter into, binding agreements upon GC's achieving Substantial Completion of the Work within the Contract Time. GC further acknowledges and agrees that if GC fails to complete substantially or cause the Substantial Completion of any Phase of the Work within the Contract Time, County will sustain extensive damages and serious loss as a result of such failure. In the cases of missed scheduled events, which incur exact losses of revenue and exact expenses for fees and other cancellation costs, GC shall be responsible for the exact amount of damages sustained by County. In other cases, the exact amount of such damages will be extremely difficult to ascertain. Therefore, County and GC agree as set forth below:

3.2.1
Subject to the other terms and conditions herein, if Substantial Completion is not achieved by the date specified above or by such date to which the Contract Time may be extended, the Contract Sum shall be reduced by **Five Hundred Dollars ($ 500) per calendar day** as liquidated damages and not as a penalty, until the date of Substantial Completion. Force majeure shall apply relative to both rain/snow delays (acts of nature) and/or supply delays over which GC has no control, and such force majeure delays shall not be subject to such reduction of the Contract Sum.

3.2.2
County may deduct liquidated damages described herein from any unpaid amounts then or thereafter due GC under this Contract. Any liquidated damages not so deducted from any unpaid amounts due GC shall be payable by GC to County at the demand of County, together with the interest from the date of the demand at a rate equal to the prime interest rate as published by the Wall Street Journal on the **first (1st) business day** after such amounts are demanded.

3.2.3
Notwithstanding anything to the contrary in this Contract, if County is unable to recover any portion of liquidated damages in accordance with the terms and conditions herein because it is found to be unenforceable or invalid as a penalty or otherwise, then, County shall be entitled to recover from GC all of County's actual damages in connection with the failure by GC to achieve Substantial Completion of the Work within the Contract Time, including, without limitation, direct, indirect, or consequential damages.

ARTICLE 4
THE CONTRACT SUM

4.1 Contract Sum.
County shall pay GC for completion of the Work in accordance with the Contract Documents the amount of **One Hundred Eighty-Four Thousand Nine Hundred Ninety-Nine and 55/100 Dollars ($ 184,999.55)**.

4.2 Contract Payments.
Method and terms of payment of the Contract Sum shall be in accordance with the Contract Documents.

4.3 Owner's Contingency.
County and GC acknowledge the Work has become necessary due to **narrow focus of repairs** that have not allowed for all plans and specifications to be fully developed. Therefore, County and GC anticipate the need for future Change Orders to be issued after the Work commences. To provide funding for such Change Orders, a not to exceed amount of **Eighteen Thousand Four Hundred Ninety-Nine Dollars ($18,499.)** shall serve as the Owner's Contingency from which such changes in the Work are to be paid in accordance with the General Conditions.

4.3.1
Owner's Contingency is controlled solely by County.

4.3.2
Expenditures from the Owner's Contingency must be made by Change Order issued by County in accordance with the General Conditions.

4.3.3
Unless otherwise provided in the Contract Documents, County will not pay a mark-up for profit and overhead on any change paid out of the Owner's Contingency. GC shall not be entitled to any compensation from any unused amounts of the Owner's Contingency.

4.3.4
For purposes of **Local Government Code Section 262.031** (calculation for maximum change order cap), the Contract Sum set out in **Section 6.1** above, plus the Owner's Contingency (set out in **Section 4.3** above), shall serve as the original Contract price.

4.4 Allowable Overhead and Profit Markup on Changes in the Work.
In case of an increase in the Contract Sum due to a change in the Work and in accordance with **UGC 7**, the amounts GC may add to the pricing of a change for overhead and profit are as follows:

4.4.1
For Work performed directly by GC with its Own Employees: GC may add up to **fifteen percent (15%)** for Work performed directly by GC for any specific change.

4.4.2
For Managing Subcontracted Work: GC may add up to **ten percent (10%)** for managing subcontracted Work for any specific change.

Only one percentage, referenced above, shall be used for the purpose of calculating the markup for a specific change amount. For changes involving both additions and deletions, the allowed markup will be allowed only on the net addition. The allowed markup shall cover all overhead expenses and profit of any kind relating to the specific change.

ARTICLE 5
GC REPRESENTATIONS

5.1
In order to induce County to enter into this Contract, GC makes the following representations:

5.1.1
GC has examined and carefully studied the Contract Documents and the other related data identified in the Bid/ Proposal Documents.

5.1.2
GC has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

5.1.3
GC is familiar with and is satisfied as to all federal, state, and local laws and regulations that may affect cost, progress, and performance of the Work.

5.1.4
GC has considered the information known to GC; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by GC, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) GC's safety precautions and programs.

5.1.5
Based on the information and observations referred to in **Paragraph 5.1.4** above, GC does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Sum, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

5.1.6
GC is aware of the general nature of work to be performed by County and others at the Site that relates to the Work as indicated in the Contract Documents.

5.1.7
GC has given A/E written notice of all conflicts, errors, ambiguities, or discrepancies that GC has discovered in the Contract Documents, and the written resolution thereof by A/E is acceptable to GC.

5.1.8
The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5.2 Insurance and Bonds.
For all phases of the Project, GC and County shall purchase and maintain insurance, and bonds as set forth below, in the Contract Documents, or as required by law.

5.3
Upon execution of this Contract, GC shall provide performance and payment bonds on forms acceptable to County. The penal sum of the payment and performance bonds shall be equal to the Contract Sum.

5.4
Prior to final payment, GC shall provide County with a Warranty Bond in the sum of **ten percent (10%)** of the Contract Sum for **twelve (12) months** from Substantial Completion of the Work. The form of bond shall be approved by County.

5.5
GC shall not commence Work under this Contract until it has obtained all required insurance and until evidence of the required insurance has been reviewed and approved by County. County's review of the insurance shall not relieve nor decrease the liability of GC. Prior to commencing any Work under this Contract, GC shall provide evidence of the following insurance coverages:

5.5.1
Prior to commencing any construction work, GC shall provide evidence of Builder's Risk coverage as set forth in the Request for Qualifications/ Request for Proposal, attached as an Exhibit, in the UGCs, or as otherwise specified or required by the County, which coverage shall remain in full force and effect throughout the term of the Project and shall be increased as necessary for each separate bid package, phase, change order, or Stage of construction prior to the commencement of construction for that package, phase, or Stage; and

5.5.2
GC shall include required insurance information in trade packages and indicate on bid/proposal forms the insurance that bidders/proposers are to include in their base bids/proposals.

5.6
GC shall not cause or allow any of its required insurance to be canceled, nor permit any insurance to lapse during the term of this Contract or as required in this Contract. If GC fails to obtain, maintain, or renew any insurance required by this Contract, County may obtain insurance coverage directly and recover the cost of that insurance from GC.

5.7
County reserves the right to review the insurance requirements set forth in **this Article** during the effective period of this Contract and to make reasonable adjustments to the insurance coverages and their limits when deemed necessary and prudent by County based upon changes in statutory law, court decisions, or the claims history of the industry as well as GC.

5.8
County shall be entitled, upon request, and without expense, to receive complete copies of the policies with all endorsements and may make any reasonable requests for deletion, or revision or modification of particular policy terms, conditions, limitations, or exclusions, except where policy provisions are established by law or regulation binding upon the Parties or the underwriter of any of such polices. Damages caused by GC failing to purchase and maintain the insurance required by this Contract shall be paid by GC.

5.9
The cost of premiums for any additional insurance coverage desired by GC in excess of that required by this Contract or the Contract Documents shall be borne solely by GC out of its fees and not included as a Direct Construction Cost.

ARTICLE 6
COUNTY'S RESPONSIBILITIES

6.1 Information and Services Required of County.

6.1.1
County will secure the services of surveyors, soils engineers, existing facility surveys, testing and balancing, environmental surveys. or other special consultants to develop such additional information as may be necessary for the Project. County shall arrange and pay for materials, structural, mechanical, chemical, and other laboratory tests as required by the Contract Documents.

6.1.2
During the Construction Phase, County shall furnish information or services required of County by the Contract Documents with reasonable promptness. County shall also furnish any other information or services under County's control and relevant to GC's performance of the Work with reasonable promptness after receiving GC's written request for such information or services.

6.2 Legal Requirements.
County shall furnish all legal, insurance and accounting services, including auditing services, that may be reasonably necessary at any time for the Project to meet County's needs and interests.

6.3 County’s Designated Representative.
County shall identify a representative authorized to act on behalf of County with respect to the Project. County's representative shall render decisions promptly and furnish information expeditiously, so as to avoid unreasonable delay in the services or Work of GC. The term "Owner" means County or County's Designated Representative.

6.4 Architect/ Engineer.
County may retain an A/E to provide services, duties and responsibilities as described in the Professional Services Agreement between A/E and County.

ARTICLE 7
PROJECT TEAM

County's Designated Representative for purposes of this Contract is as follows:

Williamson County Facilities Management
Attn: Director of Facilities
3101 SE Inner Loop
Georgetown, Texas 78626

County shall have the right, from time to time, to change the County's Designated Representative by giving GC written notice thereof. With respect to any action, decision, or determination which is to be taken or made by County under this Contract, the County's Designated Representative may take such action or make such decision or determination or shall notify GC in writing of an individual responsible for, and capable of, taking such action, decision, or determination, and shall forward any communications and documentation to such individual for response or action. Actions, decisions or determinations by County's Designated Representative on behalf of County shall be done in his or her reasonable business judgment unless express standards or parameters therefor are included in this Contract, in which case, actions taken by County's Designated Representative shall be in accordance with such express standards or parameters. Any consent, approval, decision, or determination hereunder by County's Designated Representative shall be binding on County; *provided, however,* County's Designated Representative shall not have any right to modify, amend, or terminate this Contract or executed Contract Amendment. County's Designated Representative shall not have any authority to execute a Contract Amendment unless otherwise granted such authority by the Williamson County Commissioners Court.

GC's Designated Representative for purposes of this Contract is as follows:

Falkenberg Construction Co., Inc.
Kady Williams, Project Manager
250 Cheatham St., Suite 2
San Marcos, TX 78666

GC shall have the right, from time to time, to change GC's Designated Representative by giving County written notice thereof. With respect to any action, decision, or determination which is to be taken or made by GC under this Contract, GC's Designated Representative may take such action or make such decision or determination, or shall notify County in writing of an individual responsible for and capable of taking such action, decision, or determination and shall forward any communications and documentation to such individual for response or action. Actions, decisions, or determinations by GC's Designated Representative on behalf of GC shall be done in his or her reasonable business judgment unless express standards or parameters therefor are included in this Contract, in which case, actions taken by GC's Designated Representative shall be in accordance with such express standards or parameters. Any consent, approval, decision, or determination hereunder by GC's Designated Representative shall be binding on GC. GC's Designated Representative shall have the right to modify, amend, and execute Contract

Amendments on behalf of GC.

GC's designated project execution team is as follows:

Project Manager: **Kady Williams**
Project Superintendent: **Kady Williams**

The Project Manager and Superintendent shall be assigned full-time to delivery of the Project upon commencement of the Construction phase. County shall have the right to terminate the Amended Contract, with no penalty to County, if the individuals named above are removed from their assignments or are assigned to simultaneous non-related projects without prior written acceptance by County.

ARTICLE 8
NOTICE

Any notice required to be given under the provisions of this Contract shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States Post Office, addressed to County or GC at the following addresses. If mailed, any notice or communication shall be deemed to be received **three (3) days** after the date of deposit in the United States Mail. Unless otherwise provided in this Contract, all notices shall be delivered to the following addresses:

County: Williamson County Judge
710 Main Street, Suite 101
Georgetown, Texas 78626

With copy to: Williamson County Facilities Management
Attn: Director of Facilities
3101 SE Inner Loop
Georgetown, Texas 78626

and to: Office of General Counsel
Williamson County Commissioners Court
401 W. 6th Street
Georgetown, Texas 78626

GC: Falkenberg Construction Co., Inc.
250 Cheatham St., Suite 2
San Marcos, TX 78666

Attention: Kady Williams
Project Manager

Either party may designate a different address by giving the other party **ten (10) days** written notice.

ARTICLE 9
DISPUTE RESOLUTION, SUSPENSION OR TERMINATION

9.1 Dispute Resolution.
Any Claim or Dispute between County and GC shall be resolved in accordance with the provisions set forth in **UGC 15**.

9.2 Suspension.
The Work may be suspended by County as provided in **UGC 14.3**. In such case, the Contract Time shall be increased as provided in **UGC 14.3.2**.

9.3 Termination.
Subject to the provisions of **this Section**, this Contract may be terminated as provided in the UGCs.

9.3.1
If County terminates this Contract, the amount payable to GC pursuant to **UGCs 14.2 and 14.4**.

9.3.2
If GC terminates this Contract, the amount payable to GC under **UGC 14.1.3**.

ARTICLE 10
MISCELLANEOUS PROVISIONS

10.1 Meaning of Terms.
Terms in this Contract shall have the same meaning as those in the UGCs.

10.2 No Waiver of Immunity.
Nothing herein shall be construed as a waiver of sovereign immunity by Williamson County.

10.3 Governing Law.
This Contract and all of the rights and obligations of the parties and all of the terms and conditions shall be construed, interpreted and applied in accordance with and governed by and enforced under the laws of the State of Texas without reference to its conflicts of law provisions. Williamson County shall be the sole place of venue for any legal action arising from or related to this Contract or the Project in which County is a party.

10.4 Assignment.
County and GC, respectively, bind themselves, their agents, successors, assigns and legal representatives to this Contract. GC shall not assign this Contract without the written consent of County. If GC attempts to make an assignment without County's consent, GC shall nevertheless remain legally responsible for all obligations under this Contract.

10.5 Other Provisions.

10.5.1
GC represents and warrants the following to County (in addition to any other

representations and warranties contained in the Contract Documents), as an inducement to County to execute this Contract, which representations and warranties shall survive the execution and delivery of this Contract, any termination of this Contract, and the final completion of the Work:

.1 that it and its Subcontractors are financially solvent, able to pay all debts as they mature, and possessed of sufficient working capital to complete the Work and perform all obligations hereunder;

.2 that it is able to furnish the tools, materials, supplies, equipment, and labor required to complete the Work and perform its obligations hereunder;

.3 that it is authorized to do business in the State of Texas and properly licensed by all necessary governmental and public and quasi-public authorities having jurisdiction over it and over the Work and the project;

.4 that its execution of this Contract and its performance thereof is within its duly authorized powers;

.5 that its duly authorized representative has visited the site of the Project, familiarized himself with the local and special conditions under which the Work is to be performed, and correlated its observations with the requirements of the Contract Documents; and

.6 that it possesses a high level of experience and expertise in the business administration, construction, construction management, and superintendence of projects of the size, complexity, and nature of this particular Project, and it will perform the Work with the care, skill, and diligence of such a contractor.

ARTICLE 11
SCOPE OF CONTRACT AND CONTRACT DOCUMENTS

11.1
This Contract represents the entire and integrated agreement between County and GC and supersedes all prior negotiations, representations, or agreements, either written or oral. This Contract may be amended only by written instrument signed by both County and GC.

11.2
The following documents comprise the Contract Documents:

1. This Contract between County and GC;
2. Drawings, Plans and Specifications;
3. Addenda issued prior to the Effective Date of this Contract;
4. Cooperative Contract # **Buy Board 728-24**; and
5. All Change Orders and any other Modifications issued after the Effective Date of this Contract.

11.3
In the event of a dispute or conflict relating to the terms and conditions of the Contract Documents, applicable documents will be referred to for the purpose of clarification, conflict resolution or for additional detail in the following order of precedence:

1. This Contract between County and GC;
2. Drawings, Plans and Specifications;
3. Addenda issued prior to the Effective Date of this Contract;
4. Cooperative Contract # **Buy Board #728-24**; and
5. All Change Orders and any other Modifications issued after the Effective Date of this Contract.

ARTICLE 12
SIGNATORY WARRANTY

The undersigned signatory for GC hereby represents and warrants that the signatory is an officer of the organization for which he/she has executed this Contract and that he/she has full and complete authority to enter into this Contract on behalf of the Company. The above-stated representations and warranties are made for the purpose of inducing County to enter into this Contract.

IN WITNESS WHEREOF, County has caused this Contract to be signed in its name by its duly authorized County Judge, or presiding officer of the Williamson County Commissioners Court in the absence of the County Judge, thereby binding the parties hereto, their successors, assigns, and representatives for the faithful and full performance of the terms and provisions hereof. NO OFFICIAL, EMPLOYEE, AGENT, OR REPRESENTATIVE OF THE COUNTY HAS ANY AUTHORITY, EITHER EXPRESS OR IMPLIED, TO AMEND, TERMINATE, OR MODIFY THIS CONTRACT, EXCEPT PURSUANT TO SUCH EXPRESS AUTHORITY AS MAY BE GRANTED BY THE WILLIAMSON COUNTY COMMISSIONERS COURT.

GC:
Falkenberg Construction Co., Inc.

By: _____
Signature

John E. Castro
Printed Name

President
Title

Date Signed: 4/30/2024

COUNTY:
Williamson County, Texas

By: _____
Signature

_____
Printed Name

_____
Title

Date Signed: _____

EXHIBIT A

DRAWINGS, PLANS AND SPECIFICATIONS

Attach documents below:

EXHIBIT A

DRAWINGS, PLANS AND SPECIFICATIONS

Scope of Work:

Division 08 (Openings) & Div 9 (Finishes)
Cover & protect existing finishes
Furnish labor, material, and equipment for the Inner Loop Annex - IT Dept Reno project for the sum as follows:

- Patch drywall, tape & float at AV box
- Repaint walls at Offices 226 & 2776 B
- Provide & install Workplace Solutions modular walls, frames, doors, accessories, and hardward
- Workplace Solutions invoice dated 4/22/24 approved by WILCO via email 4/23/24
- Patch prime & paint walls at electrical outlets where new modular wall systems will be installed at offices 300A, 300B & 300C
- Rough in a new opening to receive a 3-0 x 7-0 timely frame color to match existing at room 707
- Rework ceiling grid as needed to accommodate relocation of fixtures
- Patch base at new door opening
- Patch carpet a new door opening
- Install new wood door
- Stain wood door to match existing
- Repaint room 707 both sides of corridor wall
- Division 23 (HVAC)
- Relocate (2) existing supply diffusers for West side of office
- Furnish & install (1) new supply run with manual damper and diffuser from existing supply run for West side of office.
- Furnish & install (1) new main supply branch duct from main supply duct to serve middle space of room.
- Relocate (1) existing supply diffuser.
- Extend existing supply duct and add new supply diffuser with manual damper.
- Remove flex duct on existing diffuser & connect it to new extended ductwork.
- Furnish & install (2) return air transfer grilles.
- Division 26 (Electrical)
- Relocating “Existing” Receptacles/Data outlets that interfere with the new demountable walls
- Separate Existing” lighting controls to achieve individual light switch controls for offices 300A,300B,300C,300D,300E, & 300F using the “Existing” lighting circuitry using dimmer switches
- Separate “Existing” lighting controls to achieve individual light switch controls to accommodate the newly installed Demountable wall using the “Existing” lighting circuitry & install dimmer switch
- Install (1) New duplex WHT 20A 120v circuitry to provide power for “New” Desk location & (1) raceway/pathway for (1) low data jack extending from the “Existing” circuitry
- Provide Raceways from Existing lighting systems to “New” demountable wall switch locations

INNER LOOP ANNEX REMODELS

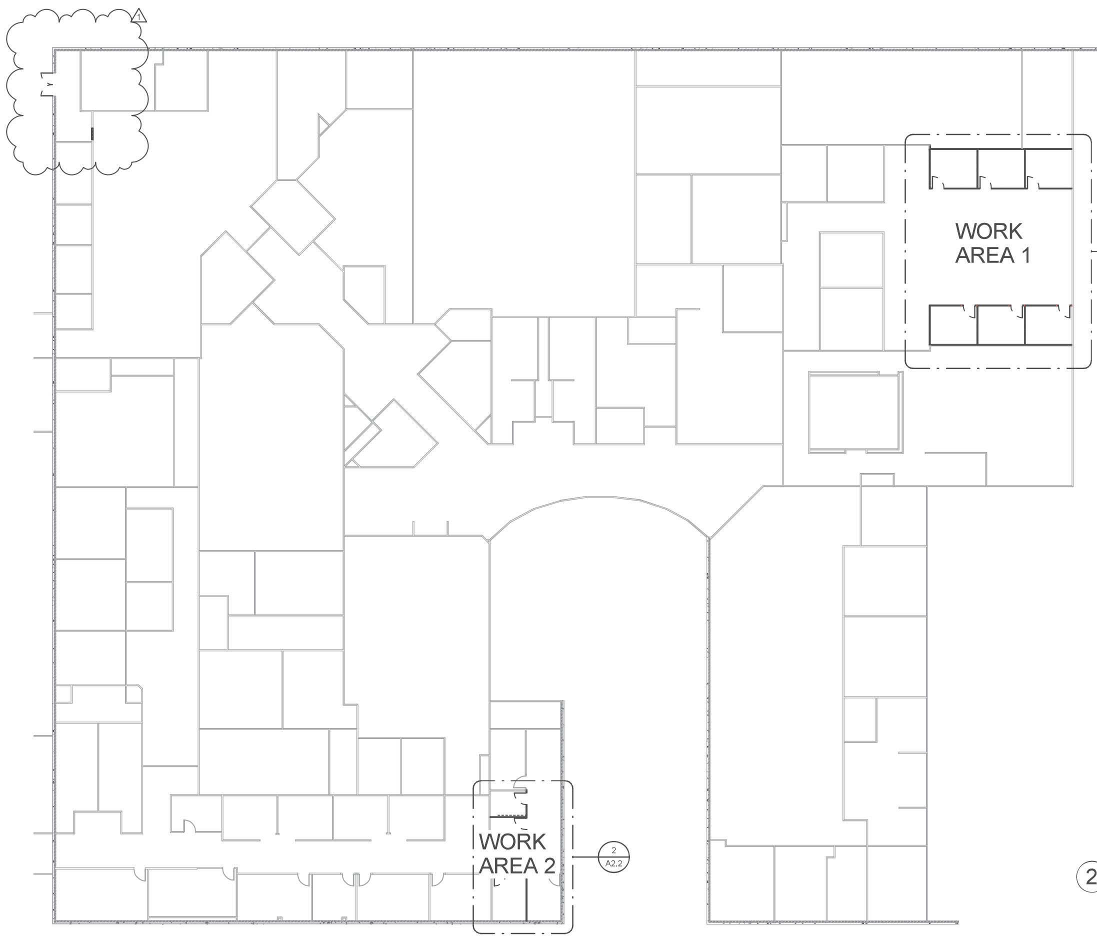
301 SE Inner Loop, Georgetown, TX 78626

CONSTRUCTION PHASING

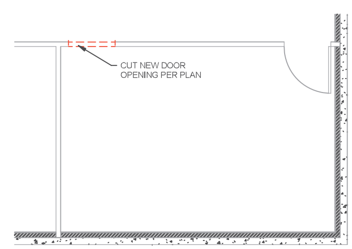
- DEMOLISH
- EXISTING (TO REMAIN)
- NEW (METAL FRAMING)
- NEW (WOOD FRAMING)
- FUTURE (PLANNED)

FLOOR PLAN NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CONTINUOUS SECURITY AT AFFECTED OPENINGS FOR THE DURATION OF THE CONSTRUCTION CONTRACT. COORDINATE SECURITY STATUS CHANGES W/ COUNTY REPRESENTATIVE PRIOR TO IMPLEMENTING CHANGES.
2. INFORMATION CONCERNING EXISTING CONDITIONS IS SUITABLE FOR PREPARATION OF THE DRAWINGS & GIVEN FOR THE CONTRACTOR'S CONVENIENCE.
3. ARCHITECT DOES NOT GUARANTEE ACCURACY OF SUCH INFORMATION. IT IS CONTRACTOR'S RESPONSIBILITY TO INFORM HIMSELF & NECESSARY OFFICIALS AS TO THE CONDITIONS AFFECTING THE WORK.
4. DIMENSIONS GIVEN ARE TO FACE OF FRAMING, UNLESS INDICATED OTHERWISE.
5. WHERE CONSTRUCTION FEATURES EXIST, VERIFY DIMENSIONS WITH FIELD CONDITIONS
6. FOR GYPSUM BOARD EXTERIOR CORNERS, PROVIDE:
   - STANDARD PROFILE CORNER BEADS FOR CORNERS NOT RECEIVING MILLWORK WRAP
   - 3/8" RADIUS BULLNOSE CORNER BEADS WHERE NOTED AS "RND."
7. FOR DOORS & WINDOWS VERIFY:
   - 6-IN. OFFSET FROM ADJACENT WALL FOR TRIM CLEARANCE
   - QUANTITIES, SIZES & FEATURES BEFORE ORDERING
   - ROUGH-OPENING SIZES BEFORE FRAMING.
8. COORDINATE ALL TRADES TO ENSURE COMPLETE & WORKING INSTALLATIONS.
9. NOTIFY ARCHITECT OF ANY DISCREPANCIES.



1 OVERALL BUILDING PLAN
1/16" = 1'-0"



2 DEMOLITION PLAN AREA 2
1/4" = 1'-0"

WILLIAMSON COUNTY 1848

ISSUED: 2/13/2024
DRAWN BY: WBB
REVISIONS:
1 3/21/2024 WBB

ORIENTATION & DEMO PLANS

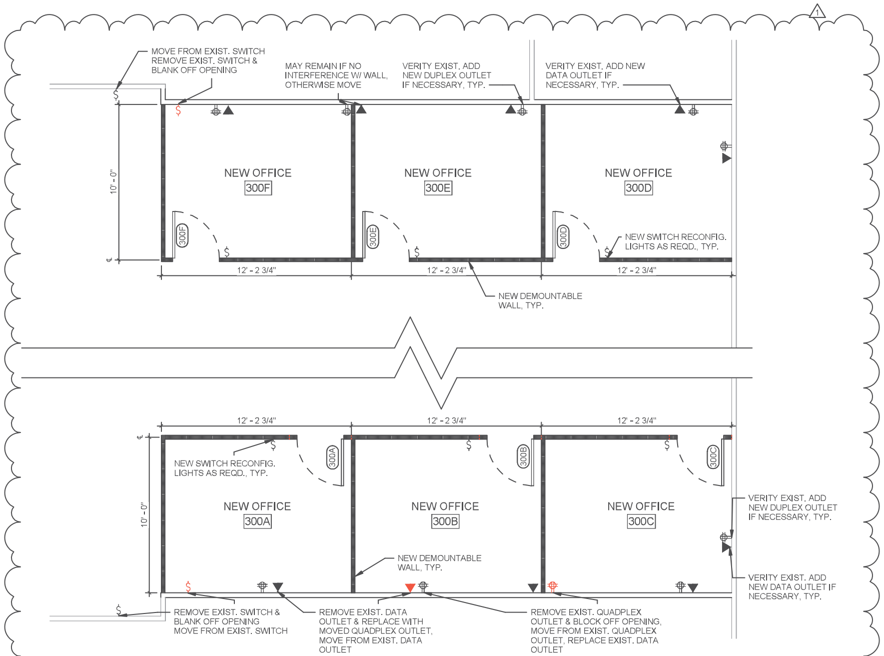
A2.1

THIS DRAWING CREATED FOR PRODUCTION ON 22"x34" FULL-SIZE SHEET (11"x17" HALF-SIZE SHEET)

GENERATED ON: 3/21/2024 2:31:03 PM G:\My Drive\Architecture Practicum\LA Rise Remodel_PLANS_xxxx.xx.xx.rvt

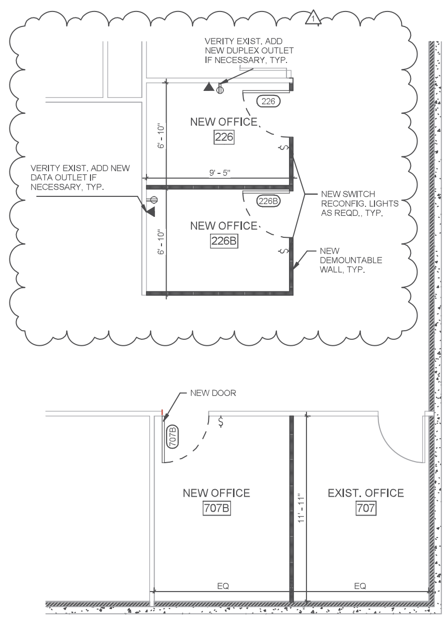
DOOR SCHEDULE

DOOR NUMBER	SIZE			DOOR		FRAME		HARDWARE SET	FIRE RATING	REMARKS
	H	W	T	TYPE	MAT'L.	TYPE	MAT'L.			
226	7' - 0"	3' - 0"	0' - 1 3/4"	F1	MTL					DEMOUNTABLE DOOR SYSTEM
226B	7' - 0"	3' - 0"	0' - 1 3/4"	F1	MTL					DEMOUNTABLE DOOR SYSTEM
300A	7' - 0"	3' - 0"	0' - 1 3/4"	F1	MTL					DEMOUNTABLE DOOR SYSTEM
300B	7' - 0"	3' - 0"	0' - 1 3/4"	F1	MTL					DEMOUNTABLE DOOR SYSTEM
300C	7' - 0"	3' - 0"	0' - 1 3/4"	F1	MTL					DEMOUNTABLE DOOR SYSTEM
300D	7' - 0"	3' - 0"	0' - 1 3/4"	F1	MTL					DEMOUNTABLE DOOR SYSTEM
300E	7' - 0"	3' - 0"	0' - 1 3/4"	F1	MTL					DEMOUNTABLE DOOR SYSTEM
300F	7' - 0"	3' - 0"	0' - 1 3/4"	F1	MTL					DEMOUNTABLE DOOR SYSTEM
707B	7' - 0"	3' - 0"	0' - 1 3/4"	F1	MTL					NEW DOOR



1 NEW IT OFFICES ENLARGED PLAN AREA 1

1/4" = 1'-0"



2 NEW RISK OFFICES ENLARGED PLAN AREA 2

1/4" = 1'-0"

CONSTRUCTION PHASING

- DEMOLISH
- EXISTING (TO REMAIN)
- NEW (METAL FRAMING)
- NEW (WOOD FRAMING)
- FUTURE (PLANNED)

FLOOR PLAN NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CONTINUOUS SECURITY AT AFFECTED OPENINGS FOR THE DURATION OF THE CONSTRUCTION CONTRACT. COORDINATE SECURITY STATUS CHANGES W/ COUNTY REPRESENTATIVE PRIOR TO IMPLEMENTING CHANGES.
2. INFORMATION CONCERNING EXISTING CONDITIONS IS SUITABLE FOR PREPARATION OF THE DRAWINGS & GIVEN FOR THE CONTRACTOR'S CONVENIENCE.
3. ARCHITECT DOES NOT GUARANTEE ACCURACY OF SUCH INFORMATION. IT IS CONTRACTOR'S RESPONSIBILITY TO INFORM HIMSELF & NECESSARY OFFICIALS AS TO THE CONDITIONS AFFECTING THE WORK.
4. DIMENSIONS GIVEN ARE TO FACE OF FRAMING, UNLESS INDICATED OTHERWISE.
5. WHERE CONSTRUCTION FEATURES EXIST, VERIFY DIMENSIONS WITH FIELD CONDITIONS
6. FOR GYPSUM BOARD EXTERIOR CORNERS, PROVIDE:
   - STANDARD PROFILE CORNER BEADS FOR CORNERS NOT RECEIVING MILLWORK WRAP
   - 3/8" RADIUS BULLNOSE CORNER BEADS WHERE NOTED AS "RND."
7. FOR DOORS & WINDOWS VERIFY:
   - 6-IN. OFFSET FROM ADJACENT WALL FOR TRIM CLEARANCE
   - QUANTITIES, SIZES & FEATURES BEFORE ORDERING
   - ROUGH-OPENING SIZES BEFORE FRAMING.
8. COORDINATE ALL TRADES TO ENSURE COMPLETE & WORKING INSTALLATIONS.
9. NOTIFY ARCHITECT OF ANY DISCREPANCIES.

WILLIAMSON COUNTY 1848

INNER LOOP ANNEX REMODELS

301 SE Inner Loop, Georgetown, TX 78626

ISSUED: 2/13/2024
DRAWN BY: WBB
REVISIONS:
1 3/21/2024 WBB

ENLARGED PLANS

A2.2

THIS DRAWING CREATED FOR PRODUCTION ON 22"x34" FULL-SIZE SHEET (11"x17" HALF-SIZE SHEET)

GENERATED ON: 3/21/2024 2:30:52 PM G:\My Drive\Architecture Practicum\ILA Risk Remodel_PLANS_xxxx.xx.xx.rvt

SUBMITTED FOR APPROVAL: 4.09.2024

WILLIAMSON COUNTY

INNER LOOP ANNEX - IT DEPT
301 SE INNER LOOP
GEORGETOWN TX 78626

TEKNION DEALER:

Workplace Solutions, Inc.
1137 W 6th St
Austin TX 78703

Contact: Raquel S. Daniel
Phone: 214.908.3235

ARCHITECT:

MarmonMok
San Antonio, TX

Contact: Jennifer Gilbert
Phone: 210.270.2227

OWNER:

WILLIAMSON COUNTY
INNER LOOP ANNEX - IT DEPT
301 SE INNER LOOP
GEORGETOWN TX 78626

Contact: Daryl Mutz, Project Manager
Phone: 512.645.4753

teknion architectural interiors

NOTE: ALL DIMENSIONS ARE HOLD TO DIMS; UNLESS NOTED OTHERWISE.

General Notes:

1. For warranty purposes, all Teknion wall product must be installed by a trained installation company.

2. The client, GC or architect must inform Workplace Solutions prior to manufacturing of any addendum changes that would affect areas of construction involving Teknion product.

3. Changes following sign-off may affect manufacturing, delivery dates and product installation cost/ completion.

4. Product has been specified based on field verified/hold-to dimensions. Any deviation from dimensions (stated on the approval drawings) may result in additional product and labor costs as well as a delay in the completion of installation.

5. Sound insulation/ batting has not been included in specification unless otherwise noted.

6. Do not scale drawings.

7. General contractor must ensure that as-built dimensions match those indicated on this drawing in areas where the Teknion wall product meets building architecture.

8. Altos wall runs that are installed under a suspended ceiling system and exceed 16' without perpendicular wall runs, must have bracing installed for stability.

9. Under ideal conditions, the Teknion wall product has the following adjustment capability:

ALTOS:
Top -0.25" to + 1.75"
Bottom -0.25 to +1.75"

OPTOS LP:
Top -0.25" to + 0.50"
Bottom -0.25" to +1.375"

FOCUS:
Top +/- 0.25"
Bottom -0.125" to + 0.375"

TEK VUE:
Top +/- 0.75"
Bottom -0.25" to +0.5"

Actual leveling available may be reduced from maximum by site conditions and/or the specific application.

10. Neither Teknion nor Workplace Solutions is responsible for the connection of the Teknion wall product to the underside of slab.

11. The architect/designer will be responsible to ensure that all Teknion product meets local code and compliance requirements.

12. All glass fascia will have a clear finish unless otherwise noted.

13. This reproduced drawing is the property of Teknion Furniture Systems or their authorized dealer - Workplace Solutions and is subject to return upon demand. It must not be traced, copied or reproduced in any manner, nor submitted to any outside parties for examination without our consent.

WALL LEGEND	
WIDTH / TYPE/HEIGHT	altos wall
WIDTH CL-CL / WIDTH OF GLASS WIDTH OF GLASS	optos/ low profile wall
Width of Glass Width of Glass / Width of Glass (000)LF	focus wall
WIDTH OF GLASS POSITION / WIDTH OF GLASS WIDTH OF GLASS	tek vue wall
Detail Number / Page Number	

Altos Door Clearances

Door Type	Door Size	Clearance	Clearance installed @ corners
Hinged, Solid [FDH]	40" W	35"	33"
	42" W	37"	35"
Hinged, Glass [FDJ]	40" W	35"	33"
	42" W	37"	35"
Double Hinged Door [FDD]	72" W	67" W	n/a
	80" W	75" W	
	84" W	79" W	
Double Hinged Glass Door [FDE]	72" W	67" W	n/a
	80" W	75" W	
Pivot Door [FDP]	40" W	35" W	n/a
	42" W	37" W	
Glass and Solid Barn Door [FDC, FDS]	40" W	32"	n/a
	42" W	34"	
	43" W	40"	
Double Barn Door [FDL]	72" W [2 x 36"]	56"	n/a
	80" W [2 x 40"]	64"	

ALTOS - Conversion Table

Part Code:	Width:	Actual Width:	Decimal:
0	0		0
1	1/8"		0.125
2	2/8"	1/4"	0.25
3	3/8"		0.375
4	4/8"	1/2"	0.5
5	5/8"		0.625
6	6/8"	3/4"	0.75
7	7/8"		0.875

Optos Low Profile Door Clearances

Door Type	Door Size	Clearance	Clearance installed @ corners
Hinged, Solid [FZDH]	40" W	35"	33"
	42" W	37"	35"
Hinged, Glass [FZDJ]	40" W	35"	33"
	42" W	37"	35"
Double Hinged Door [FZDE]	72" W	67" W	n/a
	80" W	75" W	
Single Glass Barn Door [FZDB]	40" W	32"	n/a
	42" W	34"	
Double Barn Door [FZDL]	72" W [2 x 36"]	56"	n/a
	80" W [2 x 40"]	64"	
Glass Pivot Door [FZDP]	40" W	35"	n/a
	42" W	37"	

Focus Door Clearances

Door Type	Door Size	Clearance	Clearance installed @ corners
Hinged, Solid [FWSDS]	42" W	37"	35"
Hinged, Glass [FWHDS]	42" W	36"	35"
Single Glass Barn Door [FWBDS]	42" W	36"	n/a
Single Glass Double Pivot Door [FWPDD]	84" W [2x42"]	74" W	n/a
Glass Pivot Door [FWPDS]	42" W	37"	n/a
Double Glass Pivot Door [FWDDS]	42" W	36"	n/a

TekVUE Door Clearances

Door Type	Door Size	Clearance	Clearance installed @ corners
Pivot, Solid	42" W	37"	35"
Pivot, Frameless Glass	42" W	37"	35"
Pivot Framed Glass	42" W	37"	35"
Single Glass Barn Door	42" W	35"	n/a

TekVue/Focus - DIM Conversion Table

A	0	0	I	1/2"	0.5000
B	1/16"	0.0625	J	9/16"	0.5625
C	1/8"	0.1250	K	5/8"	0.6250
D	3/16"	0.1875	L	11/16"	0.6875
E	1/4"	0.2500	M	3/4"	0.7500
F	5/16"	0.3125	N	13/16"	0.8125
G	3/8"	0.3750	O	7/8"	0.8750
H	7/16"	0.4375	P	15/16"	0.9375

FINISH SCHEDULE:

Paint: #68 Anthracite

Laminate:
8F Campus Oak

Laminate:
LY Granite

Fabric: Rationale
Color: R385 Mind's Eye

Fabric: Rationale
Color: R381 Drift

CLIENT APPROVAL

SECTION A

All changes and deviations from the approved drawing package will be regarded as a change order and processed accordingly.

1. Sign-off by authorized signing officer acknowledges review and agreement with the general notes, elevations, ceiling heights and specification layout as detailed in this drawing.

2. Please note that all 4 sections of this document (A, B, C, D) must be acknowledged and completed before an order can be placed.

3. Approval for design intent only is not acceptable for order placement.

4. Any and all costs resulting from noncompliance with items 1, 2 and 3 are not the responsibility of

Created for base building dwg. ______________ rev. ______

SECTION B

☐ Revise and resubmit for new base bldg. dwg. ______________ rev. ______
or
☐ Approved. Proceed with order.
or
☐ Approved with deviation to design as noted. Proceed with order.
or
☐ Revised as noted, update and resubmit.

(1 Selection Req'd)

☐ The specification is based on a site check (site check info on file).

☐ The site was not ready for the site check at the time of specification.

SECTION C

☐ I agree that the authorizing agent or client will hold the GC responsible for "hold-to" dimensions including ceiling heights and clear openings.

☐ I understand that any deviation or redesign may impact the project schedule and that additional costs incurred to meet the reduced timeline will be chargeable.

(2 Selections Req'd)

SECTION C

This project will not proceed and lead times will not commence without agreement on the above from the authorized signing officer. To confirm agreement with the above please sign and select the appropriate check boxes above.

____
Print Name of Authorized Signing Officer

____
Signature of Authorized Signing Officer

____
Date

(Completion Req'd)

wps workplacesolutions
1137 W 6th Street
Austin, Texas 78703
P 737 443 7350

DRAWINGS ISSUED:

1	4.01.2024	rd	Submitted to approval.

COVER SHEET
ALTOS (170) LF
TOTAL DEMOUNTABLE: (170) LF

Date: 4/9/2024

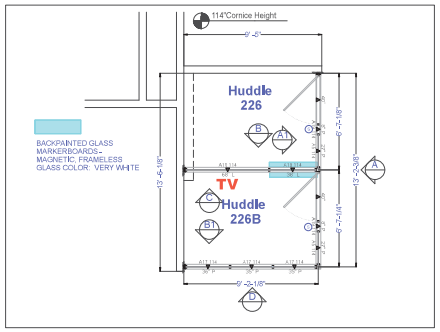
Scale: NTS

WILLIAMSON COUNTY
INNER LOOP ANNEX - IT DEPT
301 SE INNER LOOP
GEORGETOWN TX 78626

COVER SHEET

T1.00

1/3



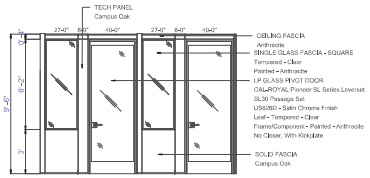
FABRIC: R381 RATIONALE - DRIFT

FABRIC: R385 RATIONALE - MIND'S EYE

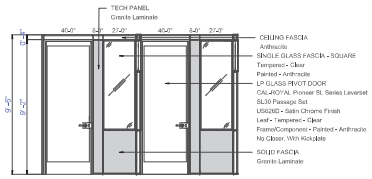
BACKPAINTED GLASS MARKERBOARDS - MAGNETIC, FRAMELESS GLASS COLOR: VERY WHITE

01 Office 226 & 226B - Enlarged Plan & Elevations

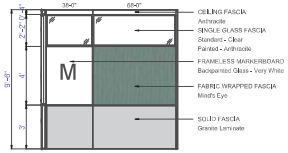
SCALE: 1/4" = 1'-0"



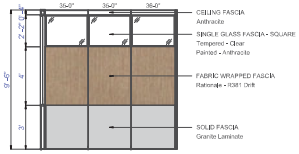
Elevation A



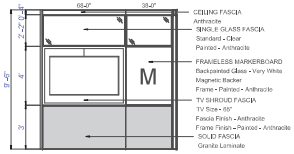
Elevation A1 - Interior View



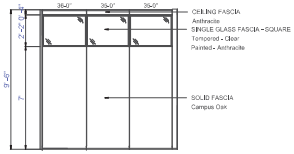
Elevation B



Elevation B1



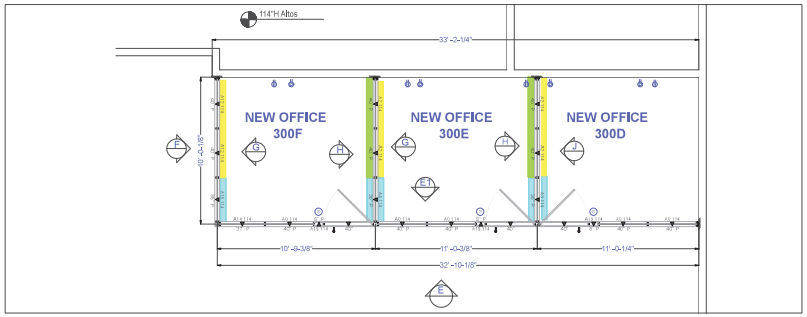
Elevation C

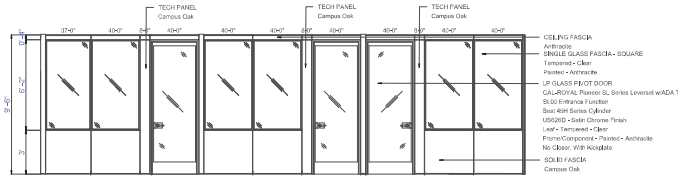


Elevation D

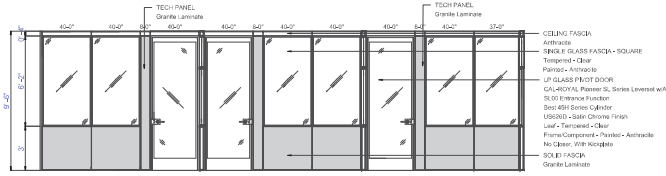
02 Office 300D, 300E & 300F - Enlarged Plan & Elevations

SCALE: 1/4" = 1'-0"

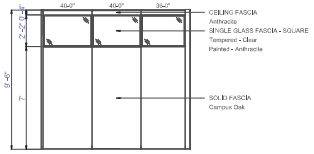




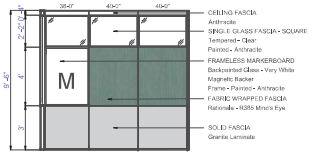
Elevation E



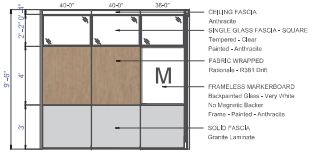
Elevation E1 - Interior View



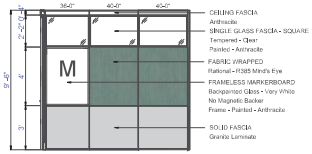
Elevation F



Elevation G



Elevation H



Elevation J

workplacesolutions
1505 Hi Line Drive
Suite 100
Dallas, Texas 75207
P 214 741 9667

teknion
architectural
interiors

ENLARGED PLANS & ELEVATIONS
ALTOS (170) LF | OPTOS (000) LF | TEKVUE (000)LF
TOTAL DEMOUNTABLE: (170) LF

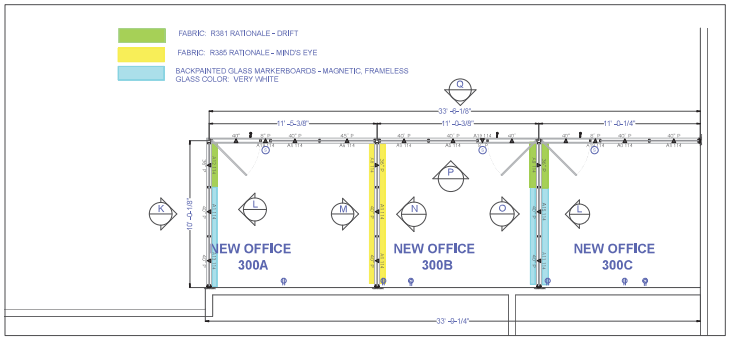
Date: 4/9/2024

Scale: NTS

WILLIAMSON COUNTY
INNER LOOP ANNEX - IT DEPT
301 SE INNER LOOP
GEORGETOWN TX 78626

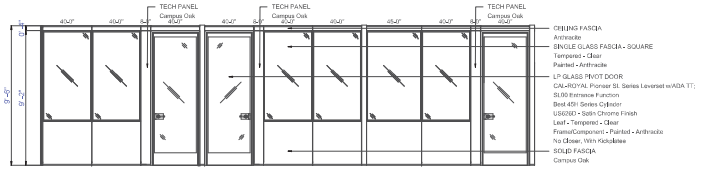
SHEET NO.

T1.02

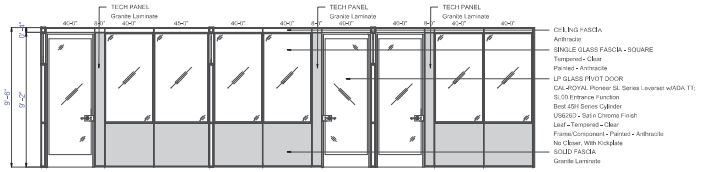


03 Office 300A, 300B & 300C - Enlarged Plan & Elevations

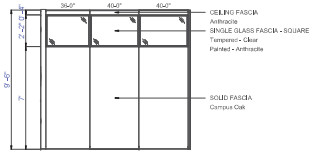
SCALE: 1/4" = 1'-0"



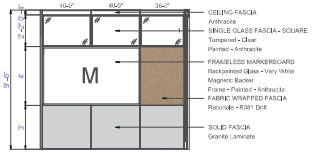
Elevation Q



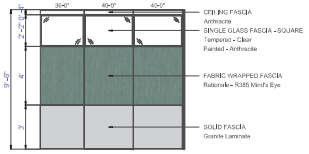
Elevation P - Interior View



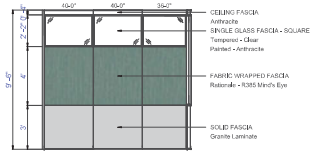
Elevation K



Elevation L

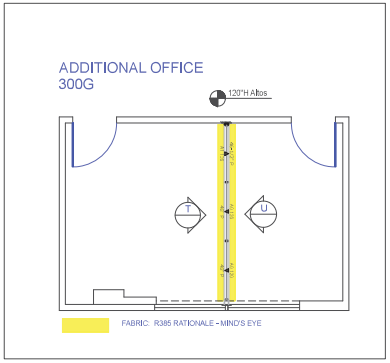


Elevation M



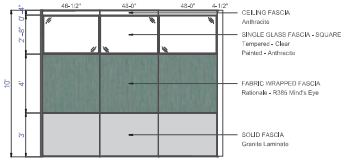
Elevation N

Elevation O

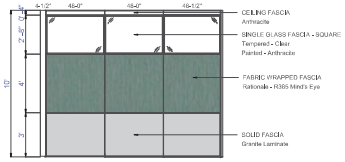


04 Office 300G - Enlarged Plan & Elevations

SCALE: 1/4" = 1'-0"



Elevation T



Elevation U

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Suite 100
Dallas, Texas 75207
P 214 741 9667

teknion
architectural
interiors

ENLARGED PLANS & ELEVATIONS
ALTOS (170) LF | OPTOS (000) LF | TEKVUE (000)LF
TOTAL DEMOUNTABLE: (170) LF

Date: 4/9/2024

Scale: NTS

WILLIAMSON COUNTY
INNER LOOP ANNEX - IT DEPT
301 SE INNER LOOP
GEORGETOWN TX 78626

SHEET NO.

T1.02

3/3

Standard – LT101

Williamson County Lighting Standard

Originated by: Approved by: Revision No. 1	Date Originated: 9/25/2023 Date Approved: Revision Date:

1.0 Purpose

Standardize scope of work for installation of new and replacement light fixtures.

2.0 Scope

All retro-fit and new of light fixtures installation and replacements in occupied or unoccupied Williamson County buildings.

3.0 Standard Installation Requirements:

3.1 One whip per fixture.

3.2 Only saddle type connectors shall be used for MC cable connectors.

3.3 MC Cable wiring insulation color shall match the corelating branch circuit color respectfully feeding the power to the light fixture.

3.4 Fixture whips will be supported by hangers above the acoustic ceiling within two feet of the fixture and within six feet afterwards.

3.5 Push pin wire connectors shall only be used within the light fixture junction box wiring harness and supplied by light fixture manufacturer.

3.6 All junction boxes knock outs shall be sealed and covered and junction box covers will be labeled with panelboard name, branch circuit, and voltage.

3.7 If more than three penetrations are made in one junction box, a minimum 4 and 11 square junction shall be used.

3.8 If more than six penetrations are made in one junction box, a minimum 12” X 12” by 4” junction box shall be used.

3.9 Two ceiling grid hanger wires shall be installed per light, for support. Exception: One ceiling light grid wire per exit light/emergency light.

3.10 Emergency lighting shall be stand alone light fixtures (per listed standard).

3.11 No dimming capability will be added other than what is manually operated by moving dip switches on the fixtures themselves.

3.12 Exterior fixtures, attached to the building, shall be sealed on the top and sides of the fixture from water intrusion between the building and the fixture.

3.13 Exterior fixtures shall not be fed by MC cable. ½” flexible metal conduit, ½” EMT minimum.

3.14 Installations shall meet or exceed the most recently adopted NEC and IBC code books corelating to the city the installation is in.

Standard – LT101

Lighting Retrofit

Originated by: Approved by: Revision No. 1	Date Originated: 9/25/2023 Date Approved: Revision Date:

1.0 Scope

All retro-fit and new light fixture installations in existing Williamson County Buildings shall comply with the following:

2.0 Standard Installation Requirements:

2.1 One whip per fixture.

2.2 Only saddle type connectors shall be used for MC cable connectors.

2.3 MC Cable wiring insulation color shall match the corelating branch circuit color respectfully feeding the power to the light fixture.

2.4 Fixture whips will be supported by hangers above the acoustic ceiling within two feet of the fixture and within six feet afterwards.

2.5 Push pin wire connectors shall only be used within the light fixture junction box wiring harness and supplied by light fixture manufacturer.

2.6 All junction boxes knock outs shall be sealed and covered and junction box covers will be labeled with panelboard name, branch circuit, and voltage.

2.7 If more than three penetrations are made in one junction box, a minimum 4 and 11 square junction shall be used.

2.8 If more than six penetrations are made in one junction box, a minimum 12” X 12” by 4” junction box shall be used.

2.9 Two ceiling grid hanger wires shall be installed per light, for support. Exception: One ceiling light grid wire per exit light/emergency light.

2.10 Emergency lighting shall be stand alone light fixtures (per listed standard).

2.11 No dimming capability will be added other than what is manually operated by moving dip switches on the fixtures themselves.

2.12 Exterior fixtures, attached to the building, shall be sealed on the top and sides of the fixture from water intrusion between the building and the fixture.

2.13 Exterior light fixtures shall be installed with ½” flexible metal conduit, or ½” EMT minimum. (No MC Cable).

2.14 Installations shall meet or exceed the most recently adopted NEC and IBC code books corelating to the city the installation is in.

2.15 Wilco standard light fixture list to follow:

Catalog Number
Notes
Type

Contractor Select™

CPX™

LED Panel

CPX™ from Lithonia lighting is the perfect choice for a quality LED panel at an affordable price. The smooth, even lens projects a crisp and clean aesthetic. CPX is the perfect choice for budget-conscious school, commercial office, or small retail footprint projects.

FEATURES:

- Industry standard wattages
- Long-life LEDs maintain greater than 70% of their lumen output at 50,000 hours
- 0-10V dimming driver, dims to 10%

WEIGHT:

2x2
Unit: 6.39lbs
Unit Carton: 7.72lbs
Master Carton: 30.42lbs

2x4
Unit: 11.02lbs
Unit Carton: 13.89lbs
Master Carton: 27.78lbs

Catalog Number	UPC	Description	Lumens	Input Watts	CCT	CRI	Voltage	Pallet qty.
CPX 2X2 3200LM 35K M4	191848338537	2x2 LED Panel	3555	31.5	3500K	80	120-277V	40
CPX 2X2 3200LM 40K M4	191848338650	2x2 LED Panel	3659	31.5	4000K	80	120-277V	40
CPX 2X2 3200LM 50K M4	193048313642	2x2 LED Panel	3737	31.5	5000K	80	120-277V	40
CPX 2X4 4000LM 35K M2	191848338490	2x4 LED Panel	4543	38.9	3500K	80	120-277V	20
CPX 2x4 4000LM 40K M2	191848338506	2x4 LED Panel	4692	38.9	4000K	80	120-277V	20
CPX 2X4 4000LM 50K M2	193048313680	2x4 LED Panel	4766	38.9	5000K	80	120-277V	20
CPX 1X4 ALO7 SWW7 M4	194994568063	1X4 Switchable Panel	See Switchable Table	See Switchable Table	3500K/4000K/5000K	>80	120-277V	40
CPX 2X2 ALO7 SWW7 M4	193048542806	2X2 Switchable Panel	See Switchable Table	See Switchable Table	3500K/4000K/5000K	>80	120-277V	40
CPX 2X4 ALO8 SWW7 M2	193048542844	2X4 Switchable Panel	See Switchable Table	See Switchable Table	3500K/4000K/5000K	>80	120-277V	20

NOTES

1. ILBLP CP10 HE SD A remote mounted only. See ILBLP CP10 HE SD B spec sheet and ELA-PSMK-PSMKSD-PSDMT-PSRME remote mounting enclosure spec sheet here.

CONTRACTOR SELECT™

LITHONIA LIGHTING

Accessories: *Order as separate catalog number.*

ILBLP CP10 HE SD A	IOTA 10 Watt Constant Power, High Efficiency LED Emergency Driver for CA Title 20 [1]
DGA14	Drywall grid adapter for 1X4 recessed fixture.
DGA22	Drywall grid adapter for 2x2 recessed fixture.
DGA24	Drywall grid adapter for 2x4 recessed fixture.
1X4SMKSH	Multi-Use Surface Mount Kit 1X4, Shallow Depth
2X2SMKSH	Multi-Use Surface Mount Kit 2x2, Shallow Depth
2X4SMKSH	Multi-Use Surface Mount Kit 2x4, Shallow Depth
1X4SMKSHP PAF	Multi-Use Surface Mount Kit 1X4 Post-Paint
2X2SMKSHP PAF	Multi-Use Surface Mount Kit 2X2 Post-Paint
2X4SMKSHP PAF	Multi-Use Surface Mount Kit 2X4 Post-Paint
PAC 2DNF 36	Panel Air Craft Kit, 2 cables with Y splitter, No Power Feed, 36 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.
PAC 2DF 36	Panel Air Craft Kit, 2 cables with Y splitter, with Power Feed, 36 inches. Recommended for 1X4 or 2X2 Panel Fixtures only. [1]
PAC 4DNF 36	Panel Air Craft Kit, 4 cables, No Power Feed, 36 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures.
PAC 4DF 36	Panel Air Craft Kit, 4 cables, with Power Feed, 36 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures. [1]
PAC 2DNF 72	Panel Air Craft Kit, 2 cables with Y splitter, No Power Feed 72 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.
PAC 2DF 72	Panel Air Craft Kit, 2 cables with Y splitter, with Power Feed, 72 inches. Recommended for 1X4 or 2X2 Panel Fixtures only. [1]
PAC 4DNF 72	Panel Air Craft Kit, 4 cables, No Power Feed, 72 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures.
PAC 4DF 72	Panel Air Craft Kit, 4 cables, with Power Feed, 72 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures. [1]
RK8BDP 2P U	Disconnect Plug (BDP), 2 Pole, Package of 1
RK8BDP 3P U	Disconnect Plug (BDP), 3 Pole, Package of 1
RK8BDP 2P J10	Disconnect Plug (BDP), 2 Pole, Package of 10
RK8BDP 2P J40	Disconnect Plug (BDP), 2 Pole, Package of 40

Switchable Table

Size(ft)	Nomenclature	Lumen Package	CCT	Lumen	Wattage	Efficacy
1x4	CPX 1X4 AL07 SWW7 M4	Low Lumen	3500K	2430	19.7	123.4
			4000K	2594	19.7	131.7
			5000K	2483	19.5	127.3
		Med Lumen	3500K	3289	28.4	115.8
			4000K	3583	27.2	131.7
			5000K	3369	28.2	119.5
		High Lumen	3500K	3914	35.7	109.6
			4000K	4280	33.7	127
			5000K	4009	35.5	112.9
2x2	CPX 2X2 AL07 SWW7 M4	Low Lumen	3500K	2399	19.1	125.6
			4000K	2570	18.5	138.9
			5000K	2456	19.1	128.6
		Med Lumen	3500K	3356	28.7	116.9
			4000K	3649	27.5	132.7
			5000K	3427	28.5	120.2
		High Lumen	3500K	4131	37.5	110.2
			4000K	4564	35.8	127.5
			5000K	4212	37.3	112.9
2x4	CPX 2X4 AL08 SWW7 M2	Low Lumen	3500K	3813	28.94	131.8
			4000K	4033	28.1	143.5
			5000K	3938	28.86	136.5
		Med Lumen	3500K	4677	36.8	127.1
			4000K	5009	35.55	140.9
			5000K	4834	36.65	131.9
		High Lumen	3500K	6048	50.56	119.6
			4000K	6563	48.53	135.2
			5000K	6241	50.24	124.2

NOTES

1. For MVOLT only, not available with 347V.

Specifications

INTENDED USE:

CPX is a low-glare panel featuring an external driver. This cost-effective, reliable panel is visually comfortable and can be recessed mounted. Suitable for many applications such as schools, offices, retail, convenience stores and other commercial spaces. **Certain airborne contaminants can diminish integrity of acrylic. Click here for Acrylic Environmental Compatibility table for suitable uses.** Adjustable Lumen (ALO7, ALO8) and Switchable White (SWW7) configurations available. **U.S. Patent No. 10,681,784.**

CONSTRUCTION:

The extruded aluminum frame with satin white lens provides excellent shielding and uniform luminance. The low-profile design of CPX provides increased installation flexibility especially in restricted plenum spaces. The backplate includes integral T-bar clips for installation into T-grid ceilings.

ELECTRICAL:

Long-life LEDs, coupled with a high-efficiency driver, provide superior illumination for extended service life. Greater than 70% LED lumen maintenance at 50,000 hours (L70>50,000). 0-10V dimming driver, dims to 10% and contains non-isolated dimming leads.

LISTINGS:

CSA certified to meet US and Canadian standards. Damp location listed. IC rated. IP5X Rated. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. Rated for NSF/ANSI Standard 2 - Light Fixture for Splash Zone and Non Food Zone. NOM Certified.

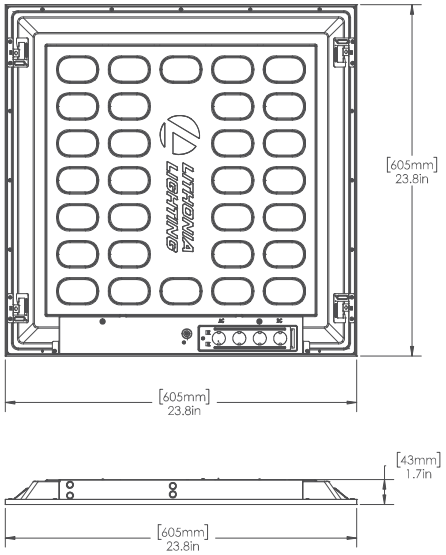
WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

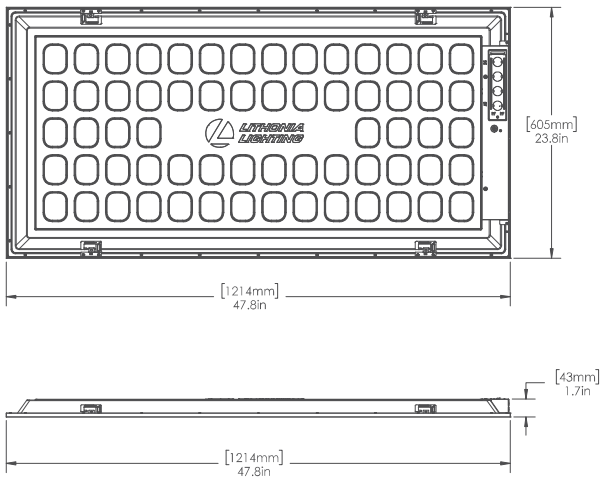
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

2'x2'



2'x4'



All dimensions are inches (millimeters) unless otherwise indicated.

Catalog Number	
Notes	
Type	

Contractor Select™

ECRG

Lithonia Lighting Basics™ Emergency Light/Exit Combo

The Lithonia Lighting® ECRG, is a combination of exit and emergency lighting. The ECRG is ideal for safely illuminating the path of egress above-the-door in small spaces at lower mounting heights while providing 90 minutes of emergency power. Available in red and green letters.

FEATURES:

- Internal toggle switch for red or green exit
- Test switch and status indicator
- UL indoor damp location 50°F to 104°F (10°C to 40°C) listed standard
- ECRG RD: multi-voltage 120-277V, 50/60Hz
- ECRG SQ: dual-voltage 120/277, 60Hz

† Exit Signs Certified in the CA Title 20 Appliance Efficiency Database.

Catalog Number	UPC	Description	Supply Voltage	Input Wattage		Input Amps		Pallet Qty	Carton Qty
				120	277	120	277		
ECRG RD M6	00194994900412	Red/Green LED Exit/Unit Combo, Round Lamp Heads	120–277V	2W	2W	.03	.02	360	6
ECRG HO RD M6	00194994900429	Red/Green LED Exit/Unit Combo with remote capacity, Round Lamp Heads	120–277V	2.8W	2.8W	.05	.03	360	6
ECRG SQ M6	00194994900467	Red/Green LED Exit/Unit Combo, Square Lamp Heads	120/277V	3.5W	3.5W	.03	.02	360	6
ECRG HO SQ M6	00194994900504	Red/Green LED Exit/Unit Combo with remote capacity, Square Lamp Heads	120/277	4W	4W	.03	.02	360	6

Battery Capacity and Loading (HO only)

Battery	Total Capacity	Maximum# Remote Lamp Heads*
3.6V	2W (ECRG RD)	2 - ERE W SGL RD M24
		1 - ERE W T RD M24
		2 - ERE GY SGL WP RD M12
		1 - ERE GY T WP RD M12
	3W (ECRG SQ)	3 - ERE GY SGL WP SQ M12
		1 - ERE GY T WP SQ M12

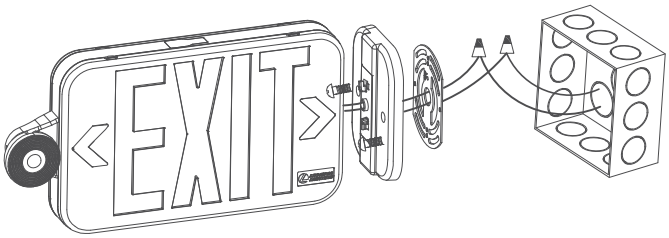
* Remotes are in addition to the lamp heads on the product.

Accessories: *Order as separate catalog number.*

ERE W SGL RD	Single, LED indoor remote head, round, ivory white, .75W, 3.6V input. See spec sheet ERE.[1]
ERE W T RD	Twin, LED indoor remote head, round, ivory white, 1.5W, 3.6V input. See spec sheet ERE.[1]
ERE GY SGL WP RD	Single, LED weather-proof head, round, gray,0.75W, 3.6V input. See spec sheet ERE.[1]
ERE GY T WP RD	Twin, LED weather-proof head, round, gray, 1.5W, 3.6V input. See spec sheet ERE.[1]
ERE GY SGL WP SQ	Single, LED weather-proof remote head, square, gray, 1W, 3.6V-12V voltage sensing. See spec sheet ERE.[1]
ERE GY T WP SQ	Twin, weather-proof, remote head, square, gray, 2W, 3.6V-12V voltage sensing. See spec sheet ERE.[1]
ELA WG3	Wireguard (back mount), 30 5/8"W x 13 3/4"H x 6"D. See spec sheet ELA-WG.

1 Only available with HO option.

ECRG side/end mount example



Dimensions

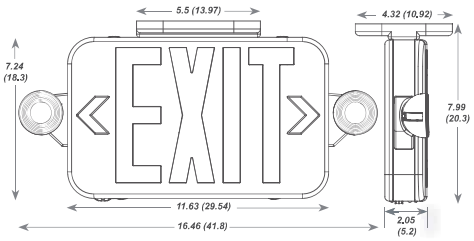
ECRG RD

Length:
16.46 (41.8)

Depth:
2.05 (5.2)

Height:
7.24 (18.3)

Weight:
RD - 1.9 (0.86kgs)
HO RD - 1.95 (0.88kgs)



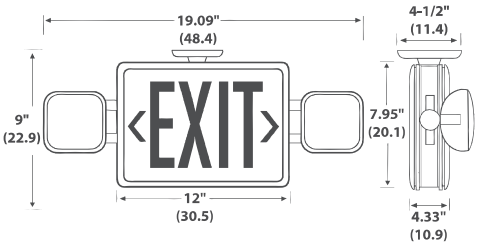
ECRG SQ

Length:
19.09 (48.4)

Depth:
4.33 (10.9)

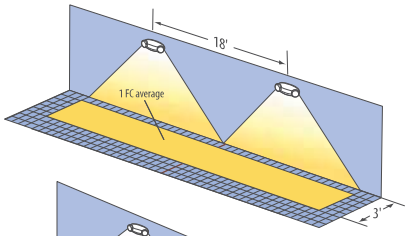
Height:
7.95 (20.1)

Weight:
SQ - 3.09 lbs. (1.40kgs)
HO SQ - 3.25 lbs (1.47kgs)

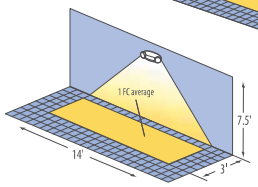


All dimensions are inches (centimeters) unless otherwise indicated.

ECRG RD

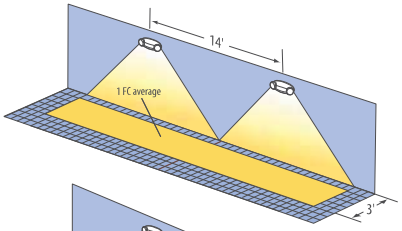


Example of multiple ECRG RD luminaires illuminating a 3' path of egress.

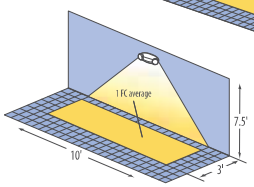


Example of single ECRG RD illuminating a 3' path of egress.

ECRG SQ



Example of multiple ECRG SQ luminaires illuminating a 3' path of egress.



Example of single ECRG SQ illuminating a 3' path of egress.

Spacing guidelines

Maximum Spacing Guidelines[1]							
Series	Mounting Height	Illumination Level	Single Luminaire		Multiple Luminaires		Application Notes
			3' Path of Egress	6' Path of Egress	3' Path of Egress	6' Path of Egress	
ECRG RD	7.5'	1FC Avg	14'	10'	18'	14'	"100' Corridor 8' wide, and 9' high with 80/50/20 reflectances"
ECRG SQ	7.5'	1FC Avg	10'	6'	14'	11'	

Notes:
1. Also meets the additional illumination requirements of NFPA 101: 1FC minimum and max/min ratio of 40:1.

Specifications

INTENDED USE:
Provides a minimum of 90 minutes illumination for the rated wattage upon loss of AC power to meet code required emergency lighting. Ideal for applications requiring low profile, emergency unit for lower mounting heights. The ECRG has an internal switch that ships standard as a red emergency light/exit combo and can be switched in the field to green. It is also packaged standard with an extra faceplate along with red and green inserts.

CONSTRUCTION:
The housing is a standard white thermoplastic with a compact and low-profile design with all-inclusive lamp, reflector and lens assembly. It is 5VA flame rated and impact-resistant.

OPTICS:
The typical life of the LED is 10 years.

ECRG is 0.75W white LED per lamp head

ECRG SQ is 1W LED per lamp head.

CRI: RD 80CRI
SQ 75CRI

CCT: RD 6200K
SQ 6200K

Lumen: RD 85 lumens
SQ 113 lumens

ELECTRICAL:
ECRG RD: multi-voltage 120-277V, 50/60Hz.

ECRG SQ: dual-voltage 120/277, 60Hz.

Bi-color LED status indicator for battery condition. (Green-normal, Red-check battery).

ECRG HO RD has 2W of remote capacity and ECRG HO SQ has 3W of remote capacity.

BATTERY: 3.6V maintenance-free, rechargeable, Nickel metal hydride.

INSTALLATION:
ECRG RD: Top, end and back mount.

ECRG SQ: Top, end and back mount.

Mounting pattern on canopy (top and side mount) and back plate (back mount) fits most standard size junction boxes.

LISTINGS:
UL Listed. Meets all applicable requirements for UL 924, NFPA 101 (current Life Safety Code), NFPA 70 (NEC), FCC Title 47, Part 15, Subpart B and OSHA.

Indoor damp location 50°F to 104°F (10°C to 40°C) listed.

WARRANTY:
2-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Catalog Number	
Notes	
Type	

Contractor Select™

EXRG

Lithonia Lighting Basics™ LED Exit

The Lithonia Lighting Basics™ EXRG Exit Sign is suitable for emergency signage applications such as stairways and hallways. This fully assembled single-face exit with extra faceplate is available in red and green letters. It's low profile makes it ideal for safely illuminated the path of egress in small spaces and can be wall or ceiling mounted. The emergency power provides 90 minutes of illumination in the event of a power loss.

FEATURES:

- Internal toggle switch for red or green letter color selection
- Test switch and status indicator for low maintenance (EL emergency models only)
- UL indoor damp location 50° to 104°F (10°C to 40°C) listed standard
- For use with Dual voltage 120/277VAC
- Internal switch for color selection

† Exit Signs Certified in the CA Title 20 Appliance Efficiency Database.

Catalog Number	UPC	Description	Supply Voltage	Input Wattage		Input Amps		Pallet Qty	Carton Qty
				120	277	120	277		
EXRG M6	00194994900658	Red/Green Exit, AC Only	120/277	1W	1W	0.09	0.09	360	6
EXRG EL M6	00194994900696	Red/Green Exit with Ni-MH backup battery	120/277	1W	1W	0.09	0.09	360	6

Accessories[1]: *Order as separate catalog number.*	
ELA WG1	Wireguard (back mount only, 13 3/4"H x 15 1/4"W x 6"D)

NOTES

1. See spec sheet ELA-WG for more information.

Specifications

INTENDED USE:
LED lighted exit signs for marking the means of egress in accordance with Life Safety Code NFPA 101. The EXRG has an internal switch that ships standard as a red exit and can be switched in the field to green. It is also packaged standard with an extra faceplate along with red and green inserts.

CONSTRUCTION:
Injection-molded, flame-retardant, high-impact, thermoplastic housing with snap-fit design components for easy installation. Universal J-box pattern. Universal chevrons are easily removed for directional indication.

Fully assembled single face with extra faceplate for easy field-conversion to double face.

Letters 6" high with 3/4" stroke, with 100 ft viewing distance rating, based on UL924 standards.

OPTICS:
The typical life of the LED lamp is 10 years.

ELECTRICAL:
Dual-voltage input 120V or 277V AC. Non-emergency (AC only without battery) or Emergency exit with battery. The emergency model includes the test switch, status indicator and rechargeable battery.

Battery: (EL models) maintenance-free Nickel metal hydride battery provides 90 minutes of emergency power.

INSTALLATION:
Top, back or end mounting capability (canopy included).

LISTINGS:
UL Listed. Meets UL 924, NFPA 101 (current Life Safety Code) , NFPA 70-NEC, FCC Title 47, Part 15, Subpart B and OSHA illumination standards. Indoor damp location 50° to 104°F (10°C to 40°C) listed standard.

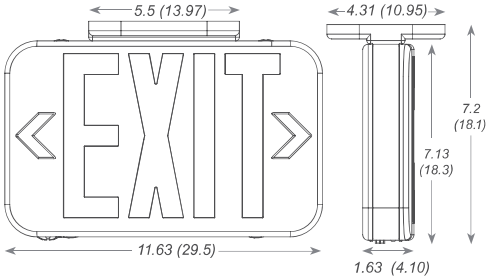
WARRANTY:
2-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

All life safety equipment, including emergency lighting for path of egress must be maintained, serviced, and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

Length: 11.63 (29.5)
Depth: 1.63 (4.1)
Height: 7.2 (18.3)
Weight: EL: 1.6 LB
AC: 1.59 LB



All dimensions are inches (centimeters) unless otherwise indicated.

Catalog Number	
Notes	
Type	

Contractor Select™

ELM2L

Quantum® Contemporary Commercial LED Emergency Light

The Lithonia Lighting® Quantum® ELM2L Emergency Light is suitable for emergency lighting for applications such as stairways and hallways. Its high performance LED lamp heads makes the ELM2L ideal for safely illuminating the path of egress for applications requiring attractive LED unit equipment with quick installation and unparalleled performance for lower mounting heights. It can be wall or ceiling mounted and will provide 90 minutes of emergency power in the case of power loss.

FEATURES:

- Test switch and status indicator
- UL indoor damp location 50°F to 104°F (10°C to 40°C) listed standard

† Small Battery Chargers Certified in the CA Title 20 Appliance Efficiency Database.

Catalog Number	UPC	Description	Supply Voltage	Input Wattage		Input Amps		Pallet Qty	Carton Qty
				120	277	120	277		
ELM2L M12	191848091920	Quantum® LED Adjustable Optics 220 Lumens, 2.4W, Emergency Light, White housing, Nickel-cadmium battery	120/277V, 60hz	1.09	1.09	0.018	0.018	432	12
ELM2L UVOLT LTP M12	191848078112	Quantum® LED Adjustable Optics 220 Lumens, 2.4W, Emergency Light, White housing, Lithium Iron Phosphate Battery, Remote capacity	120-347V, 50/60Hz	1.35	1.35	0.022	0.022	432	12

Battery Capacity and Loading (ELM2L UVOLT LTP M12 Only)

Battery	Total Capacity	Maximum# Remote Lamp Heads*
9.6V	4.8W	2- ELMRE LP220L SGL M12
		1- ELMRE LP220L T M12
		1 - ELMRE LP220L FXO
		2 - ERE GY SGL WP SQ M12
		1 - ELA QWP L0309
		1 - ERE GY T WP SQ M12

* Remotes are in addition to the lamp heads on the product.

Accessories: *Order as separate catalog number.*	
ELA WG1	Wireguard 15-1/4" W x 13-3/4" H x 6" D (back mount only). See spec sheet ELA-WG.
WPVS SML W	Wet protective vandal shield (must be used for wet location applications)

CONTRACTOR SELECT™

LITHONIA LIGHTING®

Specifications

INTENDED USE:
Provides a minimum of 90 minutes illumination for the rated wattage upon loss of AC power to meet and exceed code required emergency lighting. Ideal for applications requiring attractive LED unit equipment with quick installation and unparalleled performance for lower mounting heights.

CONSTRUCTION:
The housing is a standard white thermoplastic with a compact and low-profile contemporary design. It is 5VA flame rated, impact-resistant, scratch-resistant and corrosion proof. The UV-stable resin resists discoloration from natural and man-made light sources. The back-plate contains a universal j-box mounting pattern to facilitate ease of installation on a wide variety of j-boxes and the front housing allows tool-less access for ease of maintenance.

OPTICS:
The typical life of the LED is 10 years. Two 1.2W LED Lamps.

ELECTRICAL:
Orderable in multiple voltages. Emergency unit provided with test switch, status indicator and rechargeable battery. Sealed, maintenance-free nickel-cadmium or Lithium Iron Phosphate battery provides at least 90 minutes of emergency power.

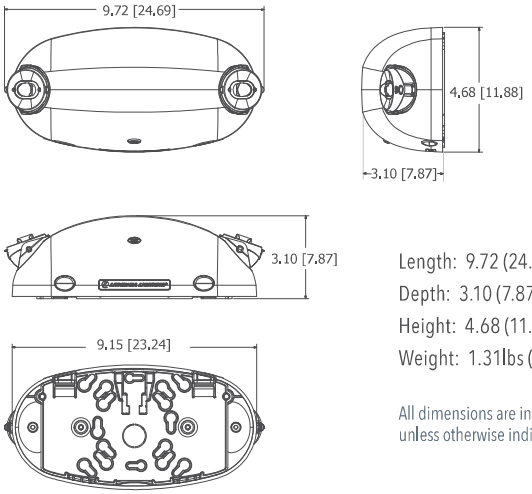
INSTALLATION:
Wall and ceiling mount. Tool-less removal of front cover from back-plate for ease of installation and maintenance.

LISTINGS:
UL damp location listed standard and wet location listed when used with the WPVS accessory, all at 50-104°F (10-40°C). Meets or exceeds all applicable requirements for UL 924, NFPA 101 (current Life Safety Code), NFPA 70 (NEC), NOM (Norma Oficial Mexicana), California Energy Commission Title 20 section 1605.3 (W)(4), FCC Title 47, Part 15, Subpart B and OSHA. List and labeled to comply with Canadian Standards C22.2 No. 141-10.

WARRANTY:
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions



Length: 9.72 (24.69)
Depth: 3.10 (7.87)
Height: 4.68 (11.88)
Weight: 1.31lbs (0.59kg)

All dimensions are inches (centimeters) unless otherwise indicated.

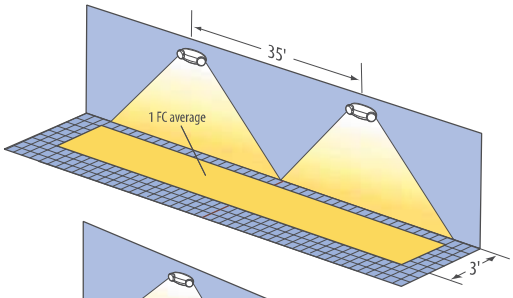
Spacing guidelines

Maximum Spacing Guidelines — ELM2L

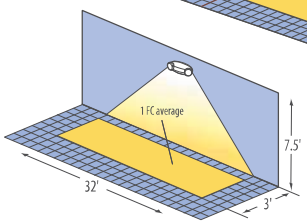
Mounting Height	Illumination Level	Single Luminaire Coverage		Multiple Luminaire Spacing		Application Notes
		3' Path of Egress	6' Path of Egress	3' Path of Egress	6' Path of Egress	
7.5'	1FC Avg [1]	32'	24'	35'	28'	100' Corridor, 8' wide, and 12' high with 80/50/20 reflectances
10'	1FC Avg [1]	20'	14'	27'	23'	

Notes:
1. Also meets the additional illumination requirements of NFPA 101: 1FC minimum and max/min ratio of 40:1.

*Note: To see complete photometric report or download the .ies file for this product, visit Lithonia Lighting ELM2L home page.



Example of multiple ELM2L luminaires illuminating a 3' path of egress.



Example of single ELM2L illuminating a 3' path of egress.

* Application image examples are using LP220L lamp.

Performance Downlight
Field-Adjustable

RAB

6"

FIELD ADJUSTABLE

9W/12W | 14W/18W | 7W/10W/18W

8"

FIELD ADJUSTABLE

9.5"

FIELD ADJUSTABLE

CLASSIFIED UL | AIRTIGHT HOUSING | ENERGY STAR | FC

UL LISTED | WET RATED | IC RATED | 2016 TITLE 24 PART 6

Project:	Type:
Prepared by:	Date:

Features

- High Performance LEDs for commercial applications
- Replacement for traditional Compact Fluorescent recessed downlights
- Compatible with new construction or retrofit installations
- UL wet and Energy Star rated
- Meets air-tight requirements
- Lumen and CCT Selectable
- Matte white smooth trim finish
- Available in 3 CCTs: 3000K, 3500K, 4000K
- 0-10V dimmable
- Spring loaded retention clips
- 5-Year, No-Compromise Warranty

Technical Specifications

CCT and Lumen Selectable:
Choose lumen output and color temperature before installation with integrated switch

UL Listed & UL Classified
Suitable for wet locations

Energy Star V2.2:
This product is Energy Star® Version 2.2 Certified.

California Title 24:
Can be used to conform with the requirements of California Title 24 Part 6

Dimming Driver:
Driver includes dimming control wiring for 0-10V dimming systems. Requires seperate 0-10V DC dimming circuit. Dims as low as 10%

Input Voltage:
120V through 277V

Operating Frequency:
50/60Hz

Lifespan:
50,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:
Long-life, high-efficacy surface-mount LEDs

R9 Value:
High color performance with R9 greater than or equal to 50

Flicker:
Silent and flicker free operations of less than 30%

IC Rated:
Suitable for direct contact with insulation

Air Tight:
Housing certified Air Tight as per ASTM E283

Trim:
Smooth Trim

Housing:
Constructed from durable steel sheet metal

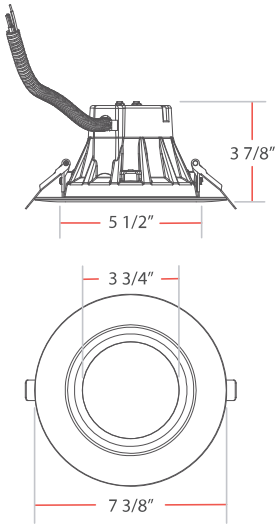
Maximum Ambient Temperature:
Suitable for use in 40˚C (104˚F)

Finish:
Matte White

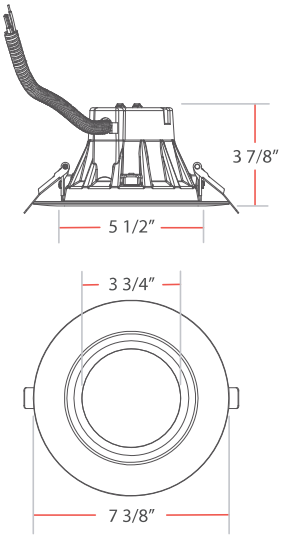
Dimensions

6"

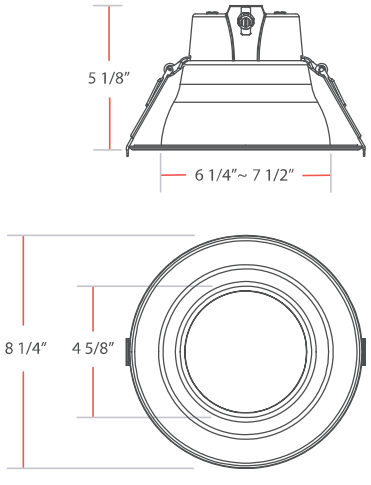
9/12W



14/18W

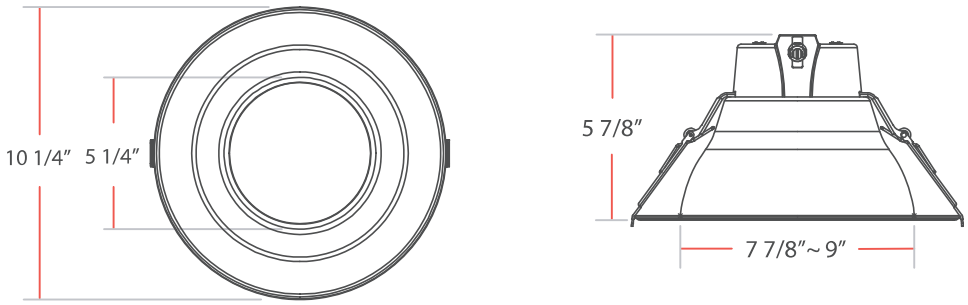


7/10/18W



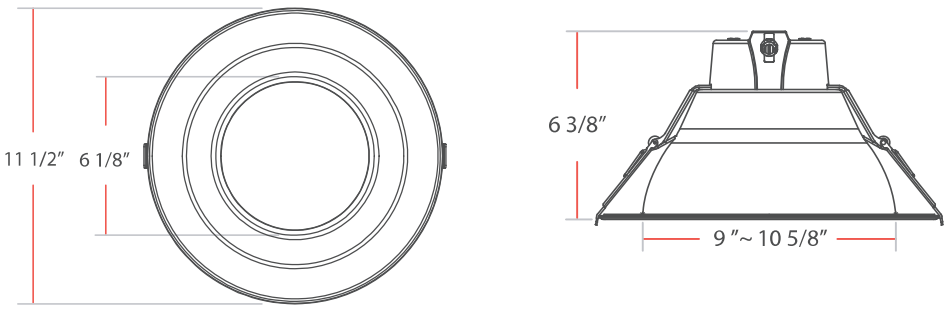
8"

10/15/22W



9.5"

10/15/22W

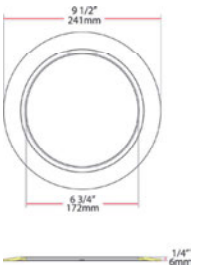
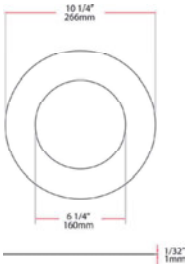
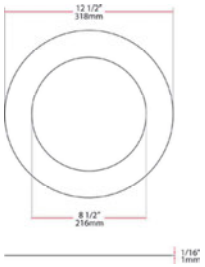
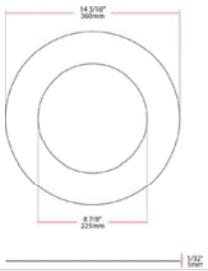


Performance

RAB

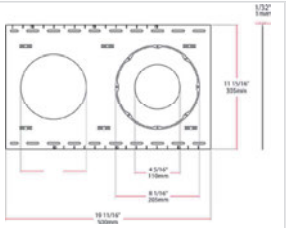
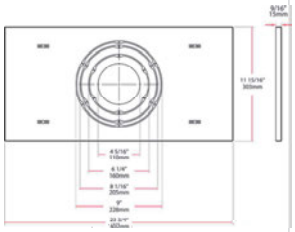
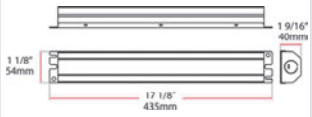
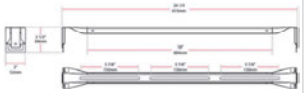
2 Lumen Output	Size	Wattage	Lumens	Efficacy (lm/W)	Color Accuracy (CRI)
C6R9/129FAUNVW 3000K 3500K 4000K	6"	9/12	700 lm 900 lm	78	90
C6R14/189FAUNVW 3000K 3500K 4000K	6"	14/18	1200 lm 1500 lm	86	90
3 Lumen Output	**Size**	**Wattage**	**Lumens**	**Efficacy (lm/W)**	**Color Accuracy (CRI)**
C6R7/10/189FAUNVW 3000K 3500K 4000K	6"	7/10/18	700 lm 1000 lm 1500 lm	100	90
C8R10/15/229FAUNVW 3000K 3500K 4000K	8"	10/15/22	1000 lm 1500 lm 2000 lm	100	90
C9.5R20/25/329FAUNVW 3000K 3500K 4000K	9.5"	20/25/32	2000 lm 2500 lm 3000 lm	100	90

Accessories

Images	SKU Number	Description	Construction	Dimensions	Case Qty
Goof Rings - Plastic					
	**DL6-8GOOF/R/P**	6" Goof Ring for 6" Downlight - 2 Lumen Output Models	Robust Polycarbonate construction. Matte White Finish		
Goof Rings - Metal					
	**DL8-10GOOF/R/M**	10" Goof Ring for 8" Downlight - 3 Lumen Output Model	High-quality steel construction White powder coat finish		
	DL10-12GOOF/R/M	12" Goof Ring for 9.5" Downlight - 3 Lumen Output Model	High-quality steel construction White powder coat finish		
	**DL12-14GOOF/R/M**	12" Goof Ring for 9.5" Downlight - 3 Lumen Output Model	High-quality steel construction White powder coat finish		

Accessories

RAB

Mounting Plates					
	**DLPLATE/SJ**	New Construction Plate for Stud/ Joist mounting for use with 4", 6" smooth and baffle models	Sturdy galvanized steel construction		10
	**DLPLATE/T**	New Construction or Remodel Plate for T-Grid ceilings for use with 4", 6" smooth and baffle models	Sturdy galvanized steel construction		10
Emergency Driver					
	**DRI-25-EMGR-DC**	Emergency Driver	Sturdy galvanized steel construction		4
	**BRACKET_TG_DRI**	T-Grid bracket for Emergency Driver	Sturdy galvanized steel construction		12

Ordering Matrix

RAB

Product	Size	Shape	Wattage	CRI/Color Temp	Voltage	Finish
C		R		9FA	UNV	W
	6 6" **8** 8" **9.5** 9.5"	**R** Round	**700lm-1500lm** 7/10/18 **700lm-900lm** 9/12 **1000lm-2000lm** 10/15/22 **1200lm-1500lm** 14/18 **2000lm-3000lm** 20/25/32	9FA **90 CRI, Field Adjustable**	**120-277V** UNV	**W** White

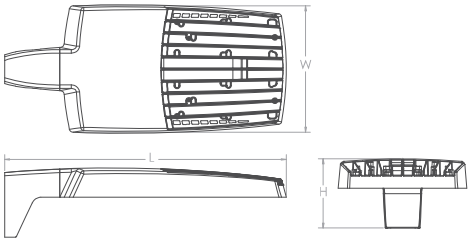
RSX2 LED
Area Luminaire

Catalog Number	RSX2 LED P6 40K SPA FAO DDBXD
Notes	
Type	

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA (ft²@0°):	0.69 ft² (0.06 m²)
Length:	29.3" (74.4 cm) (SPA mount)
Width:	13.4" (34.0 cm)
Height:	3.0" (7.6 cm) Main Body 7.2" (18.3 cm) Arm
Weight: (SPA mount)	30.0 lbs (13.6 kg)



Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX2 delivers 11,000 to 31,000 lumens allowing it to replace 250W to 1000W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

Ordering Information

EXAMPLE: RSX2 LED P6 40K R3 MVOLT SPA DDBXD

RSX2 LED	P6	40K	R5	MVOLT	SPA
Series	**Performance Package**	**Color Temperature**	**Distribution**	**Voltage**	**Mounting**
RSX2 LED	P1	30K 3000K	R2 Type 2 Wide	MVOLT (120V-277V) [2]	SPA Square pole mounting (3.0" min. SQ pole for 1 at 90°, 3.5" min. SQ pole for 2, 3, 4 at 90°)
	P2	40K 4000K	R3 Type 3 Wide	HVOLT (347V-480V) [3]	RPA Round pole mounting (3.2" min. dia. RND pole for 2, 3, 4 at 90°, 3.0" min. dia. RND pole for 1 at 90°, 2 at 180°, 3 at 120°)
	P3	50K 5000K	R3S Type 3 Short	XVOLT (277V-480V) [4]	MA Mast arm adaptor (fits 2-3/8" OD horizontal tenon)
	P4		R4 Type 4 Wide	**(use specific voltage for options as noted)**	IS Adjustable slipfitter (fits 2-3/8" OD tenon) [6]
	P5		R4S Type 4 Short	120 [3] 277 [5]	WBA Wall bracket [1]
	P6		R5 Type 5 Wide [1]	208 [3] 347 [5]	WBASC Wall bracket with surface conduit box
			R5S Type 5 Short [1]	240 [3] 480 [5]	AASP Adjustable tilt arm square pole mounting [6]
			AFR Automotive Front Row		AARP Adjustable tilt arm round pole mounting [6]
			AFRR90 Automotive Front Row Right Rotated		AAWB Adjustable tilt arm with wall bracket [6]
			AFRL90 Automotive Front Row Left Rotated		AAWSC Adjustable tilt arm wall bracket and surface conduit box [6]

FAO

Options

Shipped Installed

HS	House-side shield [7]
PE	Photocontrol, button style [8,9]
PEX	Photocontrol external threaded, adjustable [9,10]
PER7	Seven-wire twist-lock receptacle only (no controls) [9,11,12,13]
CE34	Conduit entry 3/4" NPT (Qty 2)
SF	Single fuse (120, 277, 347) [5]
DF	Double fuse (208, 240, 480) [5]
SPD20KV	20KV Surge pack (10KV standard)
FAO	Field adjustable output [9,13]
DMG	0-10V dimming extend out back of housing for external control (control ordered separate) [9,13]
DS	Dual switching [9,14]

Shipped Installed

***Standalone and Networked Sensors/Controls (factory default settings, see table page 9)**

NLTAIR2	nLight AIR generation 2 [13,15,16]
PIRHN	Networked, Bi-Level motion/ambient sensor (for use with NLTAIR2) [13,14,17]

*Note: PIRHN with nLight Air can be used as a standalone dimming sensor with out-of-box settings or as a wireless networked solution. See factory default settings table. Sensor coverage pattern is affected when luminaire is tilted.

Shipped Separately (requires some field assembly)

EGS	External glare shield [6]
EGFV	External glare full visor (360° around light aperture) [7]
BS	Bird spikes [18]

DDBXD

Finish

DDBXD	Dark Bronze
DBLXD	Black
DNAXD	Natural Aluminum
DWHXD	White
DDBTXD	Textured Dark Bronze
DBLBXD	Textured Black
DNATXD	Textured Natural Aluminum
DWHGXD	Textured White

Ordering Information

Accessories

Ordered and shipped separately.

RSX2HS	RSX2 House side shield (includes 2 shields)
RSX2EGS (FINISH) U	External glare shield (specify finish)
RSX2HSAFRR (FINISH) U	RSX2 House side shields for AFR rotated optics (includes 2 shields)
RSX2EGFV (FINISH) U	External glare full visor (specify finish)
RSXRPA (FINISH) U	RSX Universal round pole adaptor plate (specify finish)
RSXWBA (FINISH) U	RSX WBA wall bracket (specify finish) [1]
RSXSCB (FINISH) U	RSX Surface conduit box (specify finish, for use with WBA, WBA not included)
DLL127F 1.5 JU	Photocell -SSL twist-lock (120-277V) [19]
DLL347F 1.5 CUL JU	Photocell -SSL twist-lock (347V) [19]
DLL480F 1.5 CUL JU	Photocell -SSL twist-lock (480V) [19]
DSHORT SBK U	Shorting cap [19]

NOTES

1. Any Type 5 distribution, is not available with WBA.
2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3. HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
4. XVOLT driver not available with P1. XVOLT driver operates on any line voltage from 277V-480V (50/60 Hz). XVOLT not available with fusing (SF or DF) and not available with PE or PEX.
5. Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6. Maximum tilt is 90° above horizontal.
7. It may be ordered as an accessory.
8. Requires MVOLT or 347V.
9. Not available in combination with other light sensing control options (following options cannot be combined: PE, PEX, PER7, FAO, DMG, DS, PIRHN).
10. Requires 120V, 208V, 240V, or 277V.
11. Twistlock photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included. Dimming leads capped for future use.
12. For units with option PER7, the mounting must be restricted to +/- 45° from horizontal aim per ANSI C136.10-2010.
13. Two or more of the following options cannot be combined including DMG, DS, PER7, FAO and PIRHN.
14. DS only available on performance package P5 and P6.
15. Must be ordered with PIRHN.
16. Requires MVOLT or HVOLT.
17. Must be ordered with NLTAIR2. For additional information on PIRHN visit here.
18. Must be ordered with fixture for factory pre-drilling.
19. Requires luminaire to be specified with PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

External Shields

House Side Shield

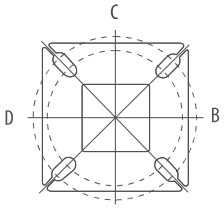
External Glare Shield

External 360 Full Visor

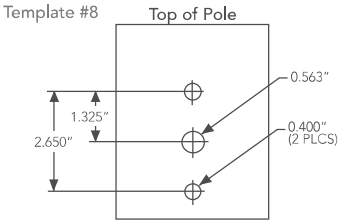
Pole/Mounting Informatiion

Accessories including bullhorns, cross arms and other adpaters are available under the accessories tab at Lithonia's Outdoor Poles and Arms product page. Click here to visit Accessories.

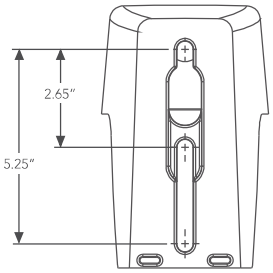
HANDHOLE ORIENTATION



RSX POLE DRILLING



RSX STANDARD ARM & ADJUSTABLE ARM



Round Tenon Mount - Pole Top Slipfitters

Tenon O.D.	RSX Mounting	Single	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2 - 3/8"	RPA, AARP	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5 490
2 - 7/8"	RPA, AARP	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	RPA, AARP	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Drill/Side Location by Configuration Type

Drilling Template	Mounting Option	Single	2 @ 180	2 @ 90	3 @ 120	3 @ 90	4 @ 90
	Head Location	Side B	Side B & D	Side B & C	Round Pole Only	Side B, C & D	Side A, B, C & D
#8	**Drill Nomenclature**	DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS

RSX2 - Luminaire EPA

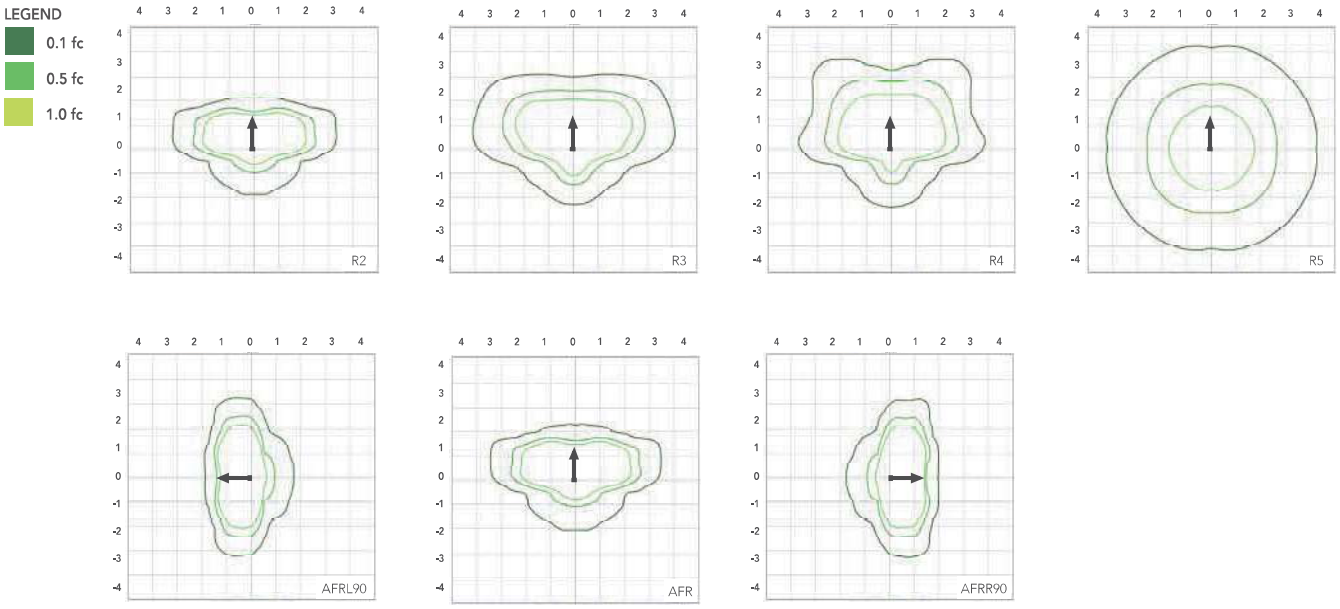
*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration		Single	2 @ 90	2 @ 180	3 @ 90	3 @ 120	4 @ 90	2 Side by Side	3 Side by Side	4 Side by Side
Mounting Type	**Tilt**									
SPA - Square Pole Adaptor	0°	0.69	1.22	1.27	1.8	1.61	2.39	1.37	2.06	2.74
RPA - Round Pole Adaptor		0.74	1.27	1.37	1.9	1.71	2.49	1.42	2.16	2.84
MA - Mast Arm Adaptor		0.61	1.14	1.11	1.64	1.45	2.23	1.29	1.9	2.58
IS - Integral Slipfitter AASP/AARP - Adjustable Arm Square/Round Pole	0°	0.69	1.22	1.27	1.8	1.61	2.39	1.37	2.06	2.74
	10°	0.53	1.06	1.05	1.58	1.37	2.08	1.06	1.59	2.12
	20°	0.52	1.02	1.03	1.52	1.33	2.02	1.03	1.55	2.07
	30°	0.64	1.11	1.18	1.63	1.45	2.21	1.27	1.91	2.54
	40°	0.81	1.21	1.35	1.74	1.65	2.39	1.62	2.43	3.23
	45°	0.91	1.25	1.5	1.81	1.75	2.48	1.82	2.73	3.64
	50°	1.34	1.83	2.17	2.61	2.56	3.62	2.68	4.02	5.36
	60°	2.2	2.97	3.57	4.24	4.17	5.89	4.41	6.61	8.82
	70°	2.86	4.13	4.7	5.89	5.71	8.21	5.71	8.57	11.42
	80°	3.4	5.13	5.67	7.34	7.09	10.21	6.79	10.19	13.59
	90°	3.85	5.96	6.55	8.58	8.31	11.88	7.70	11.56	15.41

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's RSX Area homepage.

Isofootcandle plots for the RSX2 LED P6 40K. Distances are in units of mounting height (30').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

Ambient	Ambient	Lumen Multiplier
0°C	32°F	1.05
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97
45°C	113°F	0.96
50°C	122°F	0.95

Electrical Load

		Current (A)					
Performance Package	System Watts (W)	120V	208V	240V	277V	347V	480V
P1	71W	0.59	0.34	0.30	0.26	0.20	0.15
P2	111W	0.93	0.53	0.46	0.40	0.32	0.23
P3	147W	1.23	0.70	0.61	0.53	0.42	0.31
P4	187W	1.55	0.90	0.78	0.68	0.53	0.38
P5	210W	1.75	1.01	0.87	0.76	0.60	0.44
P6	244W	2.03	1.17	1.01	0.88	0.70	0.51

Projected LED Lumen Maintenance

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.97	>0.95	>0.92

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

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.

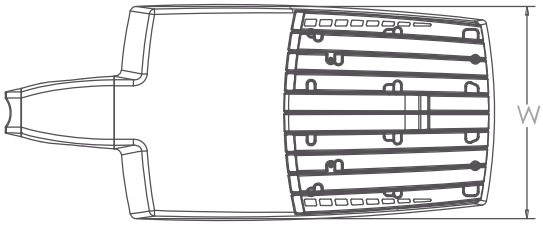
Performance Package	System Watts	Distribution. Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	71W	R2	10,040	2	0	1	139	11,031	2	0	1	153	11,031	2	0	1	153
		R3	10,005	2	0	2	141	10,992	2	0	2	155	10,992	2	0	2	155
		R3S	10,271	2	0	2	143	11,285	2	0	2	157	11,285	2	0	2	157
		R4	10,136	2	0	2	143	11,136	2	0	2	157	11,136	2	0	2	157
		R4S	9,779	2	0	2	138	10,744	2	0	2	151	10,744	2	0	2	151
		R5	10,271	4	0	2	145	11,285	4	0	2	159	11,285	4	0	2	159
		R5S	10,544	3	0	1	149	11,585	3	0	2	163	11,585	3	0	2	163
		AFR	10,026	2	0	1	141	11,016	2	0	1	155	11,016	2	0	1	155
		AFRR90	10,122	3	0	2	140	11,121	3	0	2	154	11,121	3	0	2	154
		AFRL90	10,164	3	0	2	141	11,167	3	0	2	155	11,167	3	0	2	155
P2	111W	R2	15,712	2	0	2	138	17,263	2	0	2	151	17,263	2	0	2	151
		R3	15,657	2	0	3	141	17,202	3	0	3	155	17,202	3	0	3	155
		R3S	16,075	2	0	2	141	17,661	2	0	2	155	17,661	2	0	2	155
		R4	15,862	2	0	3	143	17,427	2	0	3	157	17,427	2	0	3	157
		R4S	15,304	2	0	2	138	16,815	2	0	2	151	16,815	2	0	2	151
		R5	16,075	4	0	2	145	17,661	5	0	3	159	17,661	5	0	3	159
		R5S	16,502	4	0	2	149	18,130	4	0	2	163	18,130	4	0	2	163
		AFR	15,691	2	0	2	141	17,240	2	0	2	155	17,240	2	0	2	155
		AFRR90	15,841	3	0	3	139	17,404	4	0	3	153	17,404	4	0	3	153
		AFRL90	15,907	3	0	3	139	17,477	4	0	3	153	17,477	4	0	3	153
P3	147W	R2	19,855	3	0	2	132	21,814	3	0	2	145	21,814	3	0	2	145
		R3	19,785	3	0	3	135	21,737	3	0	4	148	21,737	3	0	4	148
		R3S	20,312	3	0	3	135	22,317	3	0	3	149	22,317	3	0	3	149
		R4	20,044	3	0	3	136	22,022	3	0	4	150	22,022	3	0	4	150
		R4S	19,339	3	0	3	132	21,247	3	0	3	145	21,247	3	0	3	145
		R5	20,313	5	0	3	138	22,317	5	0	3	152	22,317	5	0	3	152
		R5S	20,852	4	0	2	142	22,910	4	0	2	156	22,910	4	0	2	156
		AFR	19,828	3	0	2	135	21,785	3	0	2	148	21,785	3	0	2	148
		AFRR90	20,017	4	0	3	133	21,992	4	0	3	147	21,992	4	0	3	147
		AFRL90	20,101	4	0	3	134	22,084	4	0	3	147	22,084	4	0	3	147
P4	187W	R2	22,836	3	0	2	120	25,090	3	0	2	132	25,090	3	0	2	132
		R3	22,756	3	0	4	122	25,002	3	0	4	134	25,002	3	0	4	134
		R3S	23,363	3	0	3	123	25,668	3	0	3	135	25,668	3	0	3	135
		R4	23,054	3	0	4	123	25,329	3	0	4	135	25,329	3	0	4	135
		R4S	22,243	3	0	3	119	25,059	3	0	3	134	25,059	3	0	3	134
		R5	23,363	5	0	3	125	25,669	5	0	4	137	25,669	5	0	4	137
		R5S	23,983	4	0	2	128	26,350	4	0	2	141	26,350	4	0	2	141
		AFR	22,806	3	0	2	122	25,056	3	0	2	134	25,056	3	0	2	134
		AFRR90	23,023	4	0	3	121	25,295	4	0	3	133	25,295	4	0	3	133
		AFRL90	23,120	4	0	3	122	25,401	4	0	3	134	25,401	4	0	3	134
P5	210W	R2	26,141	3	0	2	122	28,721	3	0	2	135	28,721	3	0	2	135
		R3	26,049	3	0	4	124	28,620	3	0	4	136	28,620	3	0	4	136
		R3S	26,744	3	0	3	125	29,383	3	0	4	138	29,383	3	0	4	138
		R4	26,390	3	0	4	126	28,994	3	0	4	138	28,994	3	0	4	138
		R4S	25,462	3	0	3	121	27,974	3	0	3	133	27,974	3	0	3	133
		R5	26,744	5	0	4	127	29,383	5	0	4	140	29,383	5	0	4	140
		R5S	27,454	4	0	2	131	30,163	4	0	2	144	30,163	4	0	2	144
		AFR	26,106	3	0	2	124	28,682	3	0	2	137	28,682	3	0	2	137
		AFRR90	26,354	4	0	3	123	28,955	5	0	3	136	28,955	5	0	3	136
		AFRL90	26,465	4	0	3	124	29,077	5	0	3	136	29,077	5	0	3	136
P6	244W	R2	27,646	3	0	2	112	30,374	3	0	2	123	30,374	3	0	2	123
		R3	27,549	3	0	4	113	30,267	3	0	4	124	30,267	3	0	4	124
		R3S	28,283	3	0	3	115	31,075	3	0	4	126	31,075	3	0	4	126
		R4	27,909	3	0	4	114	30,663	3	0	4	126	30,663	3	0	4	126
		R4S	26,928	3	0	3	110	29,585	3	0	3	121	29,585	3	0	3	121
		R5	28,284	5	0	4	116	31,075	5	0	4	127	31,075	5	0	4	127
		R5S	29,035	4	0	2	119	31,900	5	0	3	131	31,900	5	0	3	131
		AFR	27,608	3	0	2	112	30,332	3	0	2	123	30,332	3	0	2	123
		AFRR90	27,872	4	0	3	113	30,622	5	0	3	124	30,622	5	0	3	124
		AFRL90	27,989	4	0	3	113	30,751	5	0	3	125	30,751	5	0	3	125

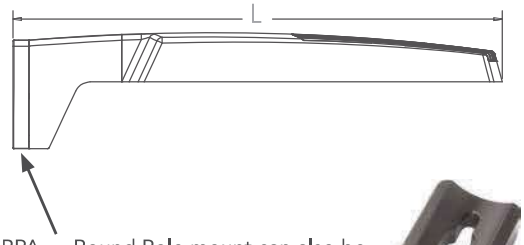
Dimensions & Weights

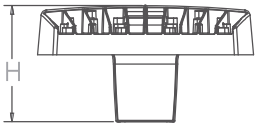
Luminaire Weight by Mounting Type

Mounting Configuration	Total Luminaire Weight
SPA	30 lbs
RPA	32 lbs
MA	30 lbs
WBA	33 lbs
WBASC	36 lbs
IS	33 lbs
AASP	33 lbs
AARP	35 lbs
AAWB	36 lbs
AAWSC	39 lbs

RSX2 with Round Pole Adapter (RPA)



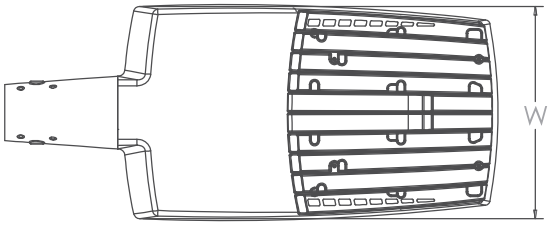


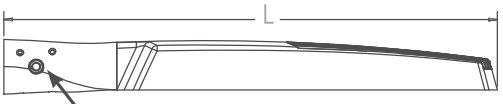


Length: 30.3" (77.0 cm)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
7.2" (18.3 cm) Arm

Note: RPA — Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.

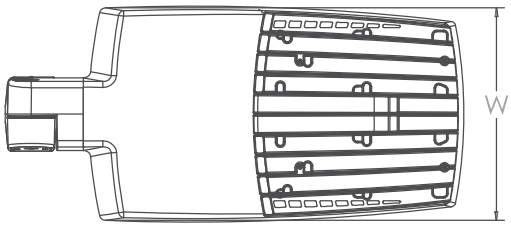
RSX2 with Mast Arm Adapter (MA)

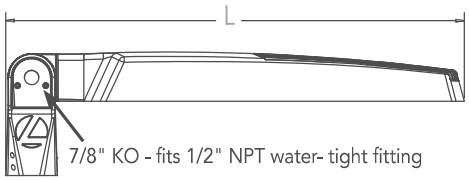


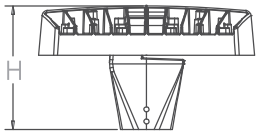


Length: 30.6" (77.7 cm)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
3.5" (8.9 cm) Arm

RSX2 with Adjustable Slipfitter (IS)



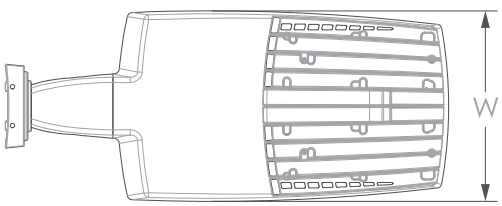


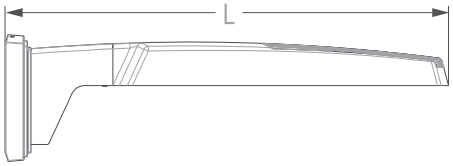


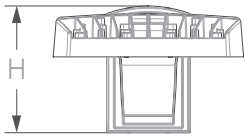
Length: 28.3" (71.9 cm)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
7.6" (19.3 cm) Arm

Dimensions

RSX2 with Wall Bracket (WBA)

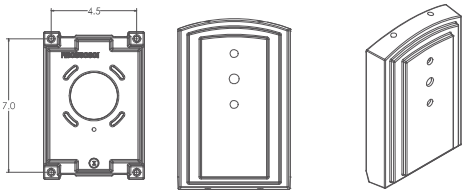




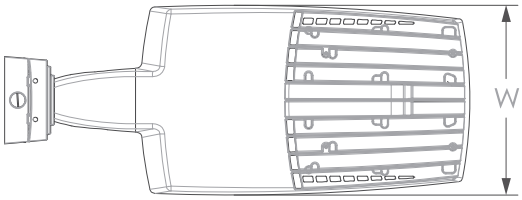


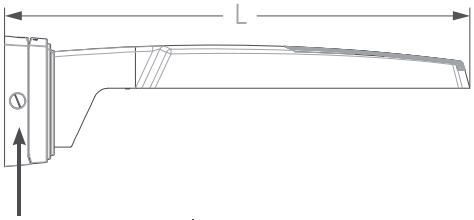
Length: 31.2" (79.2 cm)
Width: 13.4" (41.7 cm)
Height: 3.0" (7.6 cm) Main Body
8.9" (22.6 cm) Arm

Wall Bracket (WBA) Mounting Detail

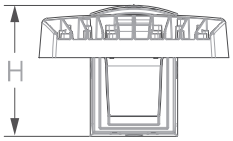


RSX2 with Wall Bracket with Surface Conduit Box (WBASC)



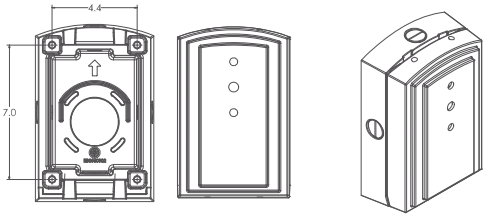


3/4" NPT taps with plugs - Qty (4) provided



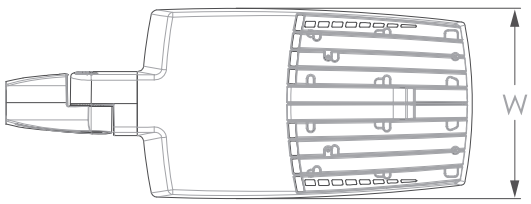
Length: 32.8" (83.3 cm)
Width: 13.4" (41.7 cm)
Height: 3.0" (7.6 cm) Main Body
9.2" (23.4 cm) Arm

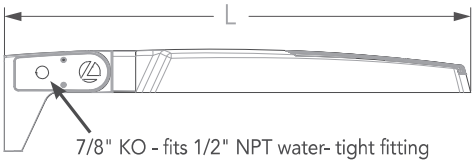
Surface Conduit Box (SCB) Mounting Detail

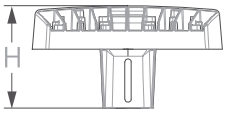


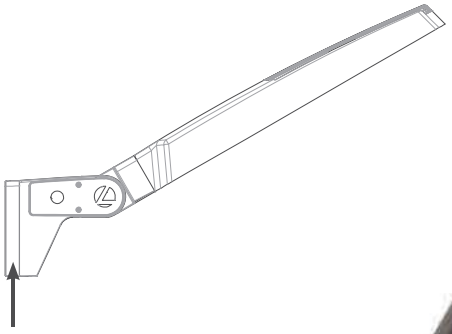
Dimensions

RSX2 with Adjustable Tilt Arm - Square or Round Pole (AASP or AARP)







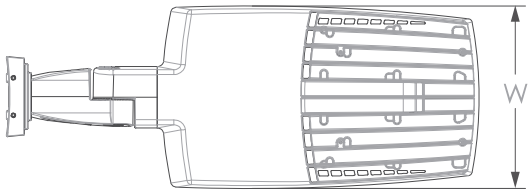


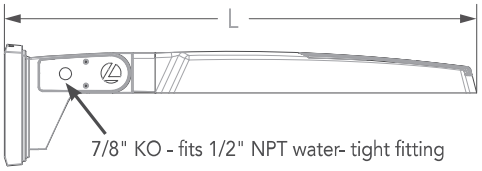
Length: 32.8" (83.3 cm) **AASP**
33.8" (85.9 cm) **AARP**
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
7.2" (18.2 cm) Arm

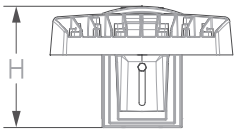
NOTE:
RPA - Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.

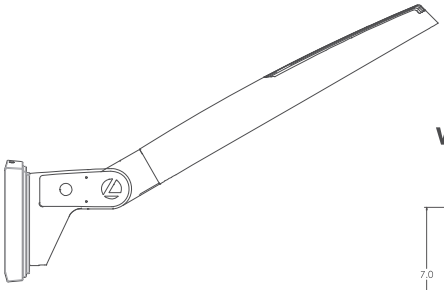
Notes
AASP: Requires 3.0" min. square pole for 1 at 90°. Requires 3.5" min. square pole for mounting 2, 3, 4 at 90°.
AARP: Requires 3.2" min. dia. round pole for 2, 3, 4 at 90°. Requires 3.0" min. dia. round pole for mounting 1 at 90°, 2 at 180°, 3 at 120°.

RSX2 with Adjustable Tilt Arm with Wall Bracket (AAWB)



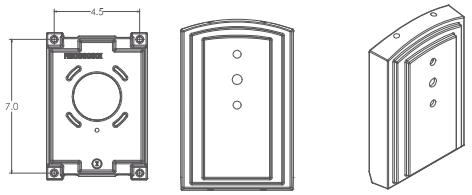






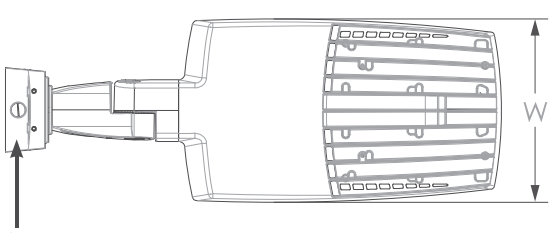
Length: 34.7" (88.0 cm)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
8.9" (22.6 cm) Arm

Wall Bracket (WBA) Mounting Detail

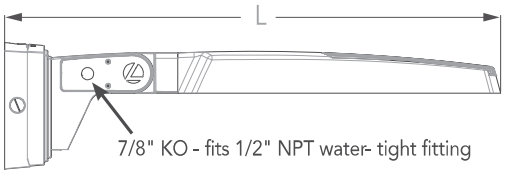


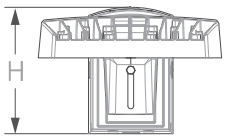
Dimensions

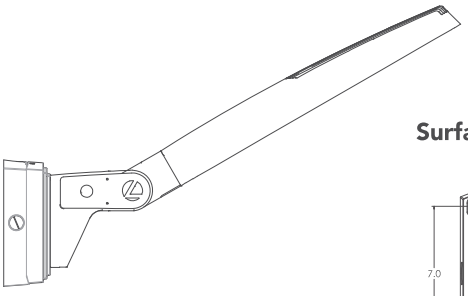
RSX2 with Adjustable Tilt Arm with Wall Bracket and Surface Conduit Box (AAWSC)



3/4" NPT taps with plugs - Qty (4) provided

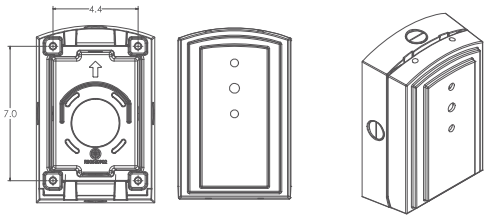




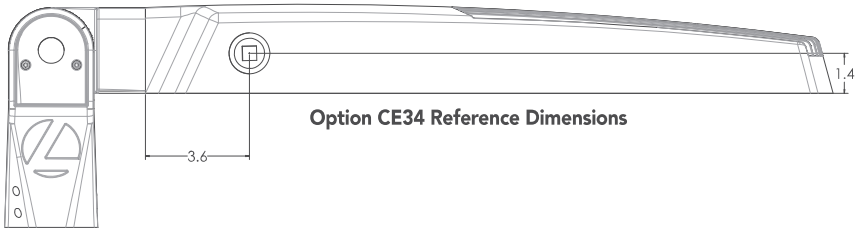


Length: 36.2" (91.9 cm)
Width: 13.4" (40.0 cm)
Height: 3.0" (7.6 cm) Main Body
9.2" (23.4 cm) Arm

Surface Conduit Box (SCB) Mounting Detail

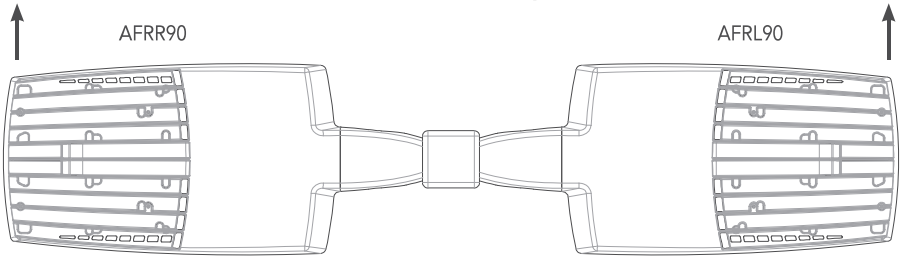


Additional Reference Drawings



Option CE34 Reference Dimensions

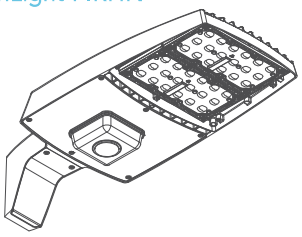
Automotive Front Row - Rotated Optics (AFRL90/R90)

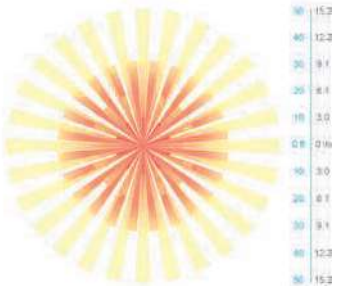


(Example: 2@180 - arrows indicate direction of light exiting the luminaire)

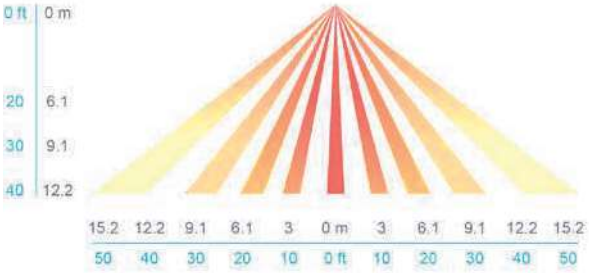
NLTAIR2 PIRHN nLight Sensor Coverage Pattern

nLight PIRHN





Top



Side

Motion Sensor Default Settings - Option PIRHN						
Option	Dimmed State (unoccupied)	High Level (when occupied)	Photocell Operation	Dwell Time (occupancy time delay)	Ramp-up Time (from unoccupied to occupied)	Ramp-down Time (from occupied to unoccupied)
NLTAIR2 PIRHN	Approx. 30% Output	100% Output	Enabled @ 1.5FC	7.5 minutes	3 seconds	5 minutes

*Note: NLTAIR2 PIRHN default settings including photocell set-point, high/low dim rates, and occupancy sensor time delay are all configurable using the Clairity Pro App. Sensor coverage pattern shown with luminaire at 0°. Sensor coverage pattern is affected when luminaire is tilted.

FEATURES & SPECIFICATIONS

INTENDED USE
The RSX LED area family is designed to provide a long-lasting, energy-efficient solution for the one-for-one replacement of existing metal halide or high pressure sodium lighting. The RSX2 delivers 11,000 to 31,000 lumens and is ideal for replacing 250W to 1000W HID pole-mounted luminaires in parking lots and other area lighting applications.

CONSTRUCTION AND DESIGN
The RSX LED area luminaire features a rugged die-cast aluminum main body that uses heat-dissipating fins and flow-through venting to provide optimal thermal management that both enhances LED performance and extends component life. Integral "no drill" mounting arm allows the luminaire to be mounted on existing pole drillings, greatly reducing installation labor. The light engines and housing are sealed against moisture and environmental contaminants to IP66. The low-profile design results in a low EPA, allowing pole optimization. Vibration rated per ANSI C136.31: 3G Mountings: Include SPA, RPA, MA, IS, AASP, AARP rated for 3G vibration. 1.5G Mountings: Include WBA, WBASC, AAWB and AAWSC rated for 1.5G vibration.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures superior adhesion as well as a minimum finish thickness of 3 mils. The result is a high-quality finish that is warrantied not to crack or peel.

OPTICS
Precision acrylic refractive lenses are engineered for superior application efficiency, distributing the light to where it is needed most. Available in short and wide pattern distributions including Type 2, Type 3, Type 3S, Type 4, Type 4S, Type 5, Type 5S, AFR (Automotive Front Row) and AFR rotated AFRR90 and ARFL90.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs mounted on metal-core circuit boards and aluminum heat sinks to maximize heat dissipation. Light engines are IP66 rated. LED lumen maintenance is >L92/100,000 hours. CCT's of 3000K, 4000K and 5000K (minimum 70 CRI) are available. Class 1 electronic drivers ensure system power factor >90% and THD <20%. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The RSX LED area luminaire has a wide assortment of control options. Dusk to dawn controls include MVOLT and 347V button-type photocells and NEMA twist-lock photocell receptacles.

nLIGHT AIR CONTROLS
The RSX LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing with photocontrol functionality and is suitable for mounting heights up to 40 feet. No commissioning is required when using factory default settings that provide basic stand-alone motion occupancy dimming that is switched on and off with a built-in photocell. See chart above for motion sensor default out-of-box settings. For more advanced wireless functionality, such as group dimming, nLight AIR can be commissioned using a smartphone and the easy-to-use CLAIRITY app. nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION
Integral "no-drill" mounting arm allows for fast, easy mounting using existing pole drillings. Select the "SPA" option for square poles and the "RPA" option to mount to round poles. Note, the RPA mount can also be used for mounting to square poles by omitting the RPA adapter plate. Select the "MA" option to attach the luminaire to a 2 3/8" horizontal mast arm or the "IS" option for an adjustable slipfitter that mounts on a 2 3/8" OD tenon. The adjustable slipfitter has an integral junction box and offers easy installation. Can be tilted up to 90° above horizontal. Additional mountings are available including a wall bracket, adjustable tilt arm for direct-to-pole and wall and a surface conduit box for wall mount applications.

LISTINGS
CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Catalog Number	
Notes	
Type	

Contractor Select™

COMPACT PRO™

LED Round High Bay

The Compact Pro High Bay (CPRB) is a budget-oriented high bay designed specifically with the contractor in mind. Its compact design makes it easier and quicker to install. Compact Pro is built with quality to last and performance to meet the needs of the job, making it the best choice for affordable and reliable light-duty industrial applications like warehouses, gymnasiums, and multiple purpose rooms.

FEATURES:

- Compact design saves time and money during installation.
- Patent pending innovative control lens.
- Robust 6kV surge protection per ANSI standards for Industrial environments.
- Operates up to 55°C ambient.
- Standard with permanently attached die-cast aluminum hook with safety latch. Patent pending. Also includes 7' safety chain.
- 0-10V dimming driver standard for 10% to 100% dimming capabilities.

Catalog number	UPC	Description	Lumens	Input watts	Color temperature	Color rendering	Voltage	Distribution	Pallet Qty.
CPRB 18LM MVOLT 40K 80CRI DWH	00196182615429	LED Round High Bay	18,000	132	4000K	80	120-277	Medium	132
CPRB 24LM MVOLT 40K 80CRI DWH	00196182615498	LED Round High Bay	24,000	175	4000K	80	120-277	Medium	66
CPRB AL013 UVOLT SWW9 80CRI DWH	00196182615023	LED Round High Bay	12000/15000/18000	83/106/132	4000/5000K	80	120-347	Medium	132
CPRB AL013 UVOLT SWW9 80CRI DBL	00196182615054	LED Round High Bay	12000/15000/18000	83/106/132	4000/5000K	80	120-347	Medium	132
CPRB AL014 UVOLT SWW9 80CRI DWH	00196182615061	LED Round High Bay	21000/24000/27000	148/175/195	4000/5000K	80	120-347	Medium	66
CPRB AL014 UVOLT SWW9 80CRI DBL	00196182615078	LED Round High Bay	21000/24000/27000	148/175/195	4000/5000K	80	120-347	Medium	66

Accessories: *Order as separate catalog number.*

Mounting:

CPRBSMB	Surface mount bracket (galvanized)
JEBLMTG ADAPTER M12	3/4" reducer
LPM	Loop, male, damp location
JCBLSC120	10' safety cable
JCBLSC240	20' safety cable

CS CONTRACTOR SELECT™

LITHONIA LIGHTING®

Specifications

INTENDED USE:

Ideal one-for-one replacement of conventional lighting systems such as HID and fluorescent. For use in light Industrial applications such as, warehousing, gymnasiums, multi-purpose rooms, and other large indoor spaces. **Certain airborne contaminants can diminish integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.**
Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.

CONSTRUCTION:

Cast driver housing gives superior thermal performance. Patent pending polycarbonate lens diffuses light source and reduces glare while protecting LEDs and providing medium distribution. Available in two sizes with optional switchable lumens (12000/15000/18000 or 21000/24000/27000) and color temperatures (4000K/5000K). Static lumen and color temperature versions also available. Field installable sensors available.

FINISH:

Black and white finishes available on switchable units and static available in white only.

ELECTRICAL:

70% lumen maintenance at > 54,000 hours. Thermally protected driver standard with 0-10V dimming allowing for 10% to 100% dimming capability. Fixture comes standard with 6' power cord and 6' low voltage dimming cord. Luminaire surge protection level: designed to withstand up to 6kV/3kA per ANSI C82.77-5-2015 Multi-volt driver, 120-277V standard for static versions. UVOLT driver, 120-347V standard with switchable versions.

INSTALLATION:

Compact Pro™ package includes patent pending permanently attached hook with safety latch safety hook and 7' galvanized safety cable. 3/4" reducer available for stem or hook mounting. Optional surface mount bracket also available.

LISTINGS:

CSA listed. Damp location listed. IP54 rated. Designed for use in ambient temperatures ranging from -40°C to 55°C when suspended 18" off ceiling; with the exception of ALO14 which has a -37° C starting temperature.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

Lumens package	Length	Width	Depth	Weight
	Dimensions shown in inches (centimeters)			Shown in pounds (kg)
18LM	12.98	12.98	3.16	5
24LM	15.14	15.14	3.35	6.1
ALO13	12.98	12.98	3.16	5
ALO14	15.14	15.14	3.35	6.1

Field installable sensors*	Utilizes sensor
CPRBSNSR MSD7 0V DWH KIT	MSD 7 WH 0V
CPRBSNSR MSD7 5V DWH KIT	MSD 7 WH 5V
CPRBSNSR MSD7 ADC 0V DWH KIT	MSD 7 ADC WH 0V
CPRBSNSR MSD7 ADC 5V DWH KIT	MSD 7 ADC WH 5V
CPRBSNSR MSD ADC 0V DWH KIT	MSD ADC WH 0V
CPRBSNSR MSD ADC 5V DWH KIT	MSD ADC WH 5V
CPRBSNSR MSD7 0V DBL KIT	MSD 7 WH 0V
CPRBSNSR MSD7 5V DBL KIT	MSD 7 WH 5V
CPRBSNSR MSD7 ADC 0V DBL KIT	MSD 7 ADC WH 0V
CPRBSNSR MSD7 ADC 5V DBL KIT	MSD 7 ADC WH 5V
CPRBSNSR MSD ADC 0V DBL KIT	MSD ADC WH 0V
CPRBSNSR MSD ADC 5V DBL KIT	MSD ADC WH 5V
CPRBSNSR RMSOD7 DWH KIT	RMSOD 7 ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD7 DBL KIT	RMSOD 7 BW ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD45 DWH KIT	RMSOD 45 ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD45 DBL KIT	RMSOD 45 BW ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD45A DWH KIT	RMSOD 45A ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD45A DBL KIT	RMSOD 45A BW ZT EXTDB 90D 50FC G2 J100

* All sensor kits include sensor mounting plate in white (DWH) or black(DBL) to match your fixture.

ACCESSORIES

LPM

3/4" mounting adapter

CPRBSMB

CONTRACTOR SELECT™

LITHONIA LIGHTING

Catalog Number	
Notes	
Type	

Contractor Select™

COMPACT PRO™

LED High Bay

The Compact Pro High Bay (CPHB) is a budget-oriented high bay designed specifically with the contractor in mind. Its compact design makes it easier and quicker to install. Compact Pro is built with quality to last and performance to meet the needs of the job, making it the best choice for affordable and reliable light-duty industrial applications like warehouses.

FEATURES:

- Compact design saves time and money during installation
- Innovative Glare Control lens meets new DLC 5.1 standards
- Robust 6kV surge protection standard per ANSI standards for Industrial environments
- Operates up to 55°C ambient
- Includes mounting hardware (V-hook & 36" hanger chain)

NOM DLC LISTED PREMIUM DAMP LOCATION™ SA® C US DIMMABLE LED

Catalog Number	UPC	Description	Lumens	Input Watts	Color Temperature	Color Rendering	Voltage	Distribution	Pallet Qty.
CPHB 12LM MVOLT 40K	00194994608325	14" LED High Bay	12,261	88	4000 K	80 CRI	120-277V	Medium	204
CPHB 12LM MVOLT 50K	00194994429548	14" LED High Bay	12,342	88	5000 K	80 CRI	120-277V	Medium	204
CPHB 15LM MVOLT 40K	00194994429562	14" LED High Bay	14,857	104	4000 K	80 CRI	120-277V	Medium	204
CPHB 15LM MVOLT 50K	00194994429593	14" LED High Bay	14,955	104	5000 K	80 CRI	120-277V	Medium	204
CPHB 18LM MVOLT 40K	00194994608295	14" LED High Bay	18,364	134	4000 K	80 CRI	120-277V	Medium	204
CPHB 18LM MVOLT 50K	00194994429630	14" LED High Bay	18,485	134	5000 K	80 CRI	120-277V	Medium	204
CPHB 24LM MVOLT 40K	00194994429685	22" LED High Bay	24,890	174	4000 K	80 CRI	120-277V	Medium	102
CPHB 24LM MVOLT 50K	00194994429753	22" LED High Bay	25,054	174	5000 K	80 CRI	120-277V	Medium	102
CPHB 30LM MVOLT 40K	00194994429746	22" LED High Bay	30,298	214	4000 K	80 CRI	120-277V	Medium	102
CPHB 30LM MVOLT 50K	00194994429784	22" LED High Bay	30,498	214	5000 K	80 CRI	120-277V	Medium	102
CPHB ALO13 MVOLT SWW9 80CRI DWH	00196183428561	14" LED High Bay	12000/15000/18000	89/115/140	4000K/5000K	80CRI	120-277V	Medium	204
CPHB ALO16 MVOLT SWW9 80CRI DWH	00196183428578	22" LED High Bay	24000/27000/30000	177/205/222	4000K/5000K	80CRI	120-277V	Medium	102

More configurations are available. Click here or visit www.acuitybrands.com and search for CPHB.

Accessories: *Order as separate catalog number.*

Mounting:

IBAC120 M100	Aircraft cable 10' with hook (one pair)
IBAC240 M75	Aircraft cable 20' with hook (one pair)
IBHMP	Hook monopoint
CPHBPMPSM	Pendant Monopoint splice box with 3/4" hub (for 12LM - 18LM) ‡
CPHBPMPMD	Pendant Monopoint splice box with 3/4" hub (for 24LM - 30LM) ‡
ZACVH	Aircraft 10' V hanger (one pair)
THUN J2	Surface mount bracket ‡

Wire guards:

WGCPHBSM	Wire guard for CPHB (12LM - 18LM)
WGCPHBMD	Wire guard for CPHB (24LM - 30LM)

‡ Option Value Ordering Restrictions

Option value	Restriction
CPHBPMPSM/MD	Pendant monopoint splice boxes will require wiring from access plate to splice box KO if power is being dropped through pendant conduit. Fixture does not have a KO in center to pull power out of driver channel through splice box
THUN J2	Order quantity required in multiples of 2. 12LM - 18LM requires one per fixture, 24LM - 30LM require two per fixture.

CS CONTRACTOR SELECT™

LITHONIA LIGHTING

Specifications

INTENDED USE:

Ideal one-for-one replacement of conventional lighting systems such as HID and fluorescent. For use in light Industrial applications such as warehousing and other large indoor spaces with mounting heights ranging from 10' – permitted. **Certain airborne contaminants can diminish integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses. Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.**

CONSTRUCTION:

Extruded aluminum channels enable superior thermal performance.

Glare Control Lens diffuses light source and reduces glare while protecting LEDs.

Lens meets DLC 5.1 standards for UGR (Unified Glare Rating)

Available in two sizes with optional switchable lumens (12000/15000/18000 or 24000/27000/30000) and color temperatures (4000K/5000K).

ELECTRICAL:

70% lumen maintenance at > 100,000 hours.

Thermally protected driver standard with 0-10V dimming.

Luminaire surge protection level: designed to withstand up to 6kV/3kA per ANSI C82.77-5-2015.

Multi-volt driver, 120-277V standard.

INSTALLATION:

Fixture package includes V-hanger hardware kit with 2- V-hanger brackets and 2- 36" chain lengths.

Fixture is suitable for mounting by chain, cable, surface-mount bracket, or hook monopoint. Surface mounting available using optional THUN surface mount bracket (order separately). Designed for use in ambient temperatures ranging from -40°C to 55°C when suspended 18" off ceiling. Max operating temperature of 45°C when surface mounted.

LISTINGS:

CSA listed. Damp location listed.

DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

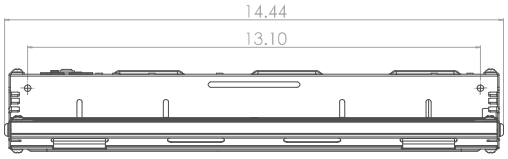
WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

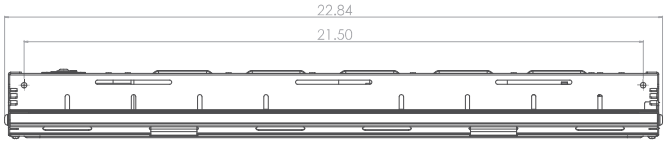
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

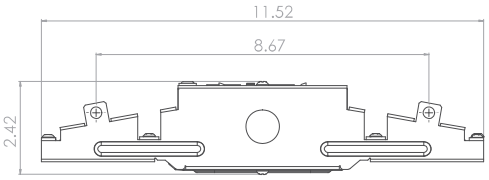
All dimensions are inches (centimeters) unless otherwise indicated.



Side View: CPHB 12LM, 15LM, 18LM, ALO13



Side View: CPHB 24LM, 30LM, ALO16



End View: CPHB 12LM, 15LM, 18LM, 24LM, 30LM, ALO13, ALO16

Lumen package	Length	Width	Depth	Weight
	Dimensions shown in inches (centimeters)			Shown in pounds (kg)
12000LM	14.4 (36.6)	11.5 (29.2)	2.3 (5.8)	5 (2.2)
15000LM	14.4 (36.6)	11.5 (29.2)	2.3 (5.8)	5 (2.2)
18000LM	14.4 (36.6)	11.5 (29.2)	2.3 (5.8)	6.5 (2.9)
24000LM	22.8 (57.9)	11.5 (29.2)	2.3 (5.8)	8 (3.6)
30000LM	22.8 (57.9)	11.5 (29.2)	2.3 (5.8)	8 (3.6)
ALO13	14.4 (36.6)	11.5 (29.2)	2.3 (5.8)	6.6 (3.0)
ALO16	22.8 (57.9)	11.5 (29.2)	2.3 (5.8)	8.1 (3.7)

Nomenclature	Lumen Package	CCT	Lumens	Wattage	Efficacy
CPHB ALO13 MVOLT SWW9 80CRI DWH	12000LM	4000K	12272	89	138
		5000K	12465	89	140
	15000LM	4000K	15117	112	135
		5000K	15248	112	136
	18000LM	4000K	18265	138	132
		5000K	18395	138	133
CPHB ALO16 MVOLT SWW9 80CRI DWH	24000LM	4000K	24193	176	138
		5000K	24415	177	138
	27000LM	4000K	27345	202	135
		5000K	27679	204	136
	30000LM	4000K	29578	221	134
		5000K	29755	222	134

Classic Series
Medium Wall Light

PROJECT INFORMATION	
JOB NAME	
FIXTURE TYPE	Medium Wall Light
CATALOG NUMBER	
APPROVED BY	

SPECIFICATIONS

Construction:
Rugged traditional aluminum die cast housing provides proven environmental protection for LED modules. Traditional fixture designs provide a familiar look and standard installation requirements. Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility.

Glare Free:
Positioning of the LED modules within the housing result in light directed to desired locations and eliminates offensive light.

Lens:
Borosilicate glass lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.

Positioning of the LEDs (along with Patent Pending thermal management system) results in the light being directed to desired locations eliminating glare and offensive light.

Thermal Management:
Atlas' Patent Pending exclusive Thermal Management System™ features a unique internal design that allows for lower operating temperatures which results in a brighter, whiter light, more stable color and longer LED and driver life.

Listings:
Luminaire is certified to UL/cUL Standards for Wet Locations

DesignLights Consortium qualified luminaire, eligible for rebates from DLC member utilities. [2]*See chart on other next page for qualifying products.*

AC Input: 120/208/240/277V 347/480V

Lifespan: 200,000+ hrs.[1]

Driver:
Constant current, Class 2, 120-277 VAC, 50-60 Hz
High Efficiency – min. 88%z
0-10 V Dimming

LEDs:
3000K, 4000K, 4500K, 5000K CCT Fixed |
4000K, 4500K, 5000K CCT Selectable
Epoxy Guard™ protective conformal coated boards
Atlas LEDs provide higher lumen output, greater energy efficiency and more reliable fixture performance.

Testing:
Atlas LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 & LM-80.

Warranty: Five-year limited warranty

Installation:
Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

Emergency Back-up: For factory installed Emergency Back-Up add suffix EB to part number.

480 Volt: For 480V add suffix 4 to part number.

MANUFACTURED & TESTED IN USA

DLC LISTED [2]

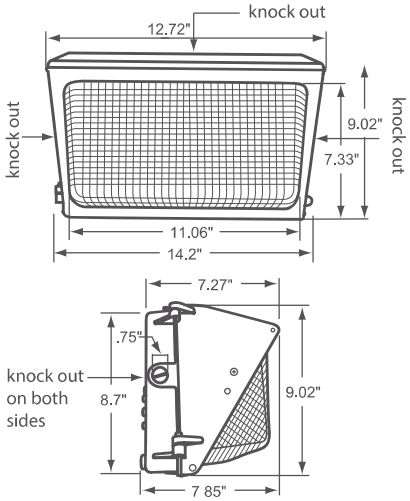
c UL us LISTED

5 YEAR WARRANTY

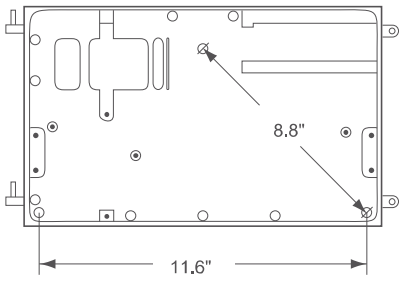
BUY AMERICAN COMPLIANT*

DIMENSIONS

Weight: 9.25 lbs.



MOUNTING DETAIL



[1]*LED Lifespan Based Upon LM-70 Test Results*

Rebates and Incentives are available in many areas.
Contact an Atlas Representative for more information.

Atlas Lighting Products, Inc.
PO Box 2348 | Burlington, NC 27216
800-849-8485 | fax: 1-855-847-2794 | www.atlasled.com

*The majority of Atlas Lighting Products are assembled in USA facilities by an American Workforce utilizing both Domestic and Foreign components. Meets Buy American requirements within the ARRA.

Classic Series
Medium Wall Light

ORDERING INFORMATION

WLM	S	3-9L					
PRODUCT SERIES	SELECTABLE	LUMEN PACKAGE	COLOR TEMP.	CONTROLS	VOLTAGE	FIXTURE COLOR	OPTIONS
WLM = Medium Wall Light	blank = Fixed	43LED = 43 Watts 64LED = 64 Watts 80LED = 80 Watts	Blank = 4500K 3K = 3000K 4K = 4000K 5K = 5000K	Blank = Dimming (0-10V) PC = 120V Photocontrol PM = 120-277V Photocontrol	Blank = 120-277 4 = 347/480* *LP only	Blank = Bronze WT = White* BK = Black* *optional with adder	EB = Emergency Back-up SP = Surge Protection
	S = Selectable	3-9L = 2,500, 5,500, 7,500, 9,000 Lumens Selectable	blank = Selectable (4000K, 4500K, 5000K)	blank = 120-277V Photocontrol Installed LP = Less Photocontrol			

PERFORMANCE DATA

FIXED

UNIT	CRI	3000K CCT		4000K CCT		4500K CCT		5000K CCT		WATTS	BUG RATING	REPLACES UP TO
		DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)			
43LED	80	3,908	96	5,276	122	5,726	122	5,308	122	44	B1-U3-G3	175W MH
64LED	80	5,699	92	5,699	92	6,793	113	6,793	113	62	B1-U4-G3	400W MH
80LED	80	8,615	109	8,615	109	8,615	109	8,875	113	79	B2-U4-G4	400W MH

SELECTABLE

UNIT	CRI	Selectable 4000K CCT		Selectable 4500K CCT		Selectable 5000K CCT		WATTS	BUG RATING	REPLACES UP TO
		DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)			
3L - 9L	80	2,601	120	2,704	125	2,602	121	22	B2-U4-G4	400W MH
	80	5,513	126	5,732	131	5,516	126	44		
	80	7,892	123	8,205	127	7,896	123	64		
	80	9,128	120	9,490	130	9,133	120	76		

DLC PRODUCT INFORMATION

UNIT	3000K CCT		4000K CCT		4500K CCT		5000K CCT	
	DLC PRODUCT ID	CLASSIFICATION	DLC PRODUCT ID	CLASSIFICATION	DLC PRODUCT ID	CLASSIFICATION	DLC PRODUCT ID	CLASSIFICATION
WLM43LED	n/a	n/a	PT0VHUH7	Standard	PDG4N6GHG	Standard	P2LGOBS9	Standard
WLM64LED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
WLM80LED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

UNIT	DLC PRODUCT ID	CLASSIFICATION
WLMS3-9L	PPJRDDGX	Standard

Atlas Lighting Products, Inc.
PO Box 2348 | Burlington, NC 27216
800-849-8485 | fax: 1-855-847-2794 | www.atlasled.com

The majority of Atlas Lighting Products are assembled in USA facilities by an American Workforce utilizing both Domestic and Foreign components. Meets Buy American requirements within the ARRA.

Classic Series
Large Wall Light

PROJECT INFORMATION

JOB NAME	
FIXTURE TYPE	Classic Large Wall Light
CATALOG NUMBER	
APPROVED BY	

SPECIFICATIONS

Construction:
Rugged traditional aluminum die cast housing provides proven environmental protection for LED modules. Traditional fixture designs provide a familiar look and standard installation requirements. Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility.

Glare Free:
Positioning of the LED modules within the housing result in light directed to desired locations and eliminates offensive light.

Lens:
Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.

Positioning of the LEDs (along with Patent Pending thermal management system) results in the light being directed to desired locations eliminating glare and offensive light.

Listings:
Luminaire is certified to UL/cUL Standards for Wet Locations

DesignLights Consortium qualified luminaire, eligible for rebates from DLC member utilities. [2]*See chart on other next page for qualifying products.*

AC Input: 120/208/240/277V 347/480V

Lifespan: 200,000+ hrs.[1]

Driver:
Constant current, Class 2, 120-277 VAC, 50-60 Hz
High Efficiency – min. 86%

Selectable Lumens and CCT:
Atlas selectable wall lights are quick and easy to select and set up. Selectable lumens range in 4,000 (30W), 7,500 (57W) / 11,000 (86W), 13,000 (102W).

Selectable CCTs: 4000K, 4500K, and 5000K.

LEDs:
Available in 3000K, 4000K, 4500K and 5000K CCT Fixed | 4000K, 4500K, 5000K CCT Selectable
Atlas LEDs provide higher lumen output, greater energy efficiency and more reliable fixture performance.

Reduced Glare:
Positioning of the LED modules within the housing result in light directed to desired locations and reduces offensive light.

Testing:
Atlas LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 & LM-80.

Warranty: Five-year limited warranty

Installation:
Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

Emergency Back-up: For factory installed Emergency Back-Up add suffix EB to part number.

[1]*LED Life Span Based Upon LM-70 Test Results*
[2]*Emergency Back-Up requires larger back housing. Contact Atlas for more details.*

MANUFACTURED & TESTED IN USA

DLC LISTED [2]

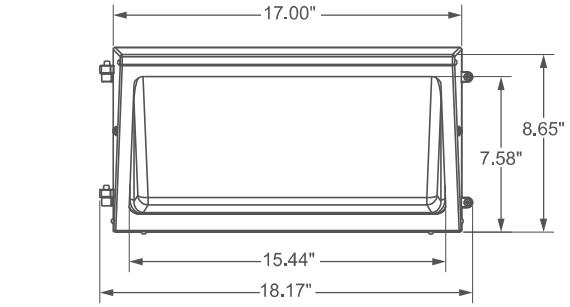
c UL us LISTED

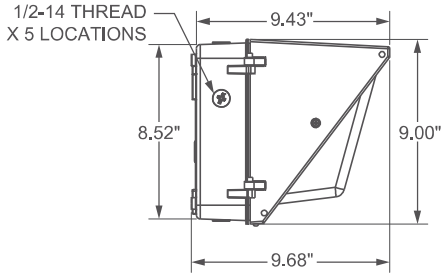
5 YEAR WARRANTY

BUY AMERICAN COMPLIANT*

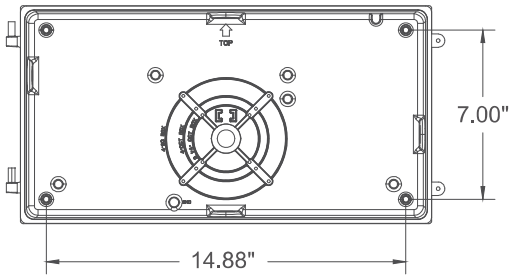
DIMENSIONS

Weight: 9.25 lbs.





MOUNTING DETAIL



Rebates and Incentives are available in many areas.
Contact an Atlas Representative for more information.

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Classic Series
Large Wall Light

ORDERING INFORMATION

WLD	S	4-13L					
PRODUCT SERIES	SELECTABLE	LUMEN PACKAGE	COLOR TEMP.	CONTROLS	VOLTAGE	FIXTURE COLOR	OPTIONS
WLD = Large Wall Light	blank = Fixed	64LED = 64 Watts 86LED = 86 Watts 120LED = 120 Watts	Blank = 4500K 3K = 3000K 4K = 4000K 5K = 5000K	Blank = Dimming (0-10V) PC = 120V Photocontrol PM = 120-277V Photocontrol	Blank = 120-277 4 = 347/480* *LP only	Blank = Bronze WT = White* BK = Black* *optional with adder	EB = Emergency Back-up SP = Surge Protection
	S = Selectable	4-13L = 4,000, 7,500, 11,000 13,000 Lumens Selectable	blank = Selectable (4000K, 4500K, 5000K)	blank = 120-277V Photocontrol Installed LP = Less Photocontrol	Blank = 120-277 4 = 347/480* *LP only		

PERFORMANCE DATA

FIXED

Unit	CRI	3000K CCT		4000K CCT		4500K CCT		5000K CCT		Watts	Replaces up to
		Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)		
64LED	80	7,168	117	7,168	117	7,168	117	7,662	126	62	400W MH
86LED	80	9,120	109	9,120	109	9,120	109	9,120	109	84	400W MH
120LED	80	12,510	106	13,170	114	13,170	114	13,170	114	118	400W MH

SELECTABLE

Lumen Package	CRI	Selectable 4000K CCT		Selectable 4500K CCT		Selectable 5000K CCT		Watts	Replaces up to
		Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)		
4L - 13L	70	3,897	134	4,073	139	3,889	133	29	1000W MH
	70	7,688	135	8,034	141	7,672	134	57	
	70	11,136	130	11,638	136	11,113	130	86	
	70	12,891	126	13,472	138	12,864	126	102	

DLC PRODUCT INFORMATION

Unit	3000K CCT		4000K CCT		4500K CCT		5000K CCT	
	DLC Product ID	Classification	DLC Product ID	Classification	DLC Product ID	Classification	DLC Product ID	Classification
FIXED								
WLD64LED	PLDHU776	Standard	PTKZCYS3	Standard	PATPE48EN	Standard	POLJ214Q	Standard
WLD86LED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
WLD120LED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

SELECTABLE

Unit	DLC Product ID	Classification
WLDS4-13L	PH9T7MLJ	Standard

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Catalog Number	
Notes	
Type	

Contractor Select™

ESXF LED

Floodlights Adjustable+Switchable+Photocell

ESXF1 P0 knuckle mount

ESXF1 knuckle mount

ESXF2 knuckle mount

ESXF3 slipfitter mount

ESXF4 slipfitter mount

The Lithonia Lighting® ESXF LED floodlight is a general-purpose flood that offers a wide selection of options and flexibility. Easy access to adjustable lumen output, color switching, and a selectable photocell turns the ESXF into the fixture you need on the spot. With its wide flood (7x7) distribution and DLC performance, the ESXF is a cost-effective solution, great for illuminating yards, driveways, signage, patios, warehouses, and security applications.

FEATURES:

- Four sizes deliver 1,500 up to 20,000 lumens
- Three power levels of adjustable lumen output. Switchable CCT(30K/40K/50K) offers warm, cool and daylight in a single fixture
- Standard photocell can be turned on or off
- IP66 rated, Die-cast aluminum housing
- Two popular mounting options included
- up to 171 LPW

Adjustable Lumen Output ALO

Switchable CCT SWW2

Dusk-to-Dawn Operation PE

DLC LISTED · IP66 · LED · SP C US · WET LOCATION™ · 5 YEAR warranty

Catalog Number	Adjustable Lumen Output ALO			Switchable CCT SWW2	Dusk-to-Dawn Operation PE	Input Voltage	Included Mounting Options	CRI
ESXF1 P0 SWW2 THK DDB	2500L			Switchable 3000K, 4000K, 5000K	Included Standard, Selectable On/Off	120-277V	Knuckle Only, mounting plate	80CRI
ESXF1 ALO SWW2 KY DDB	1500L	3000L	5000L			120-277V	Knuckle & Yoke, mounting plate	
ESXF2 ALO SWW2 KY DDB	3500L	5500L	7500L			120-277V	Knuckle & Yoke, mounting plate	
ESXF3 ALO SWW2 YS DDB	8500L	10500L	14000L			120-277V	Yoke & SlipFitter	
ESXF3 ALO SWW2 UVOLT YS DDB						120-347V	Yoke & SlipFitter	
ESXF4 ALO SWW2 YS DDB	16000L	18000L	20000L			120-277V	Yoke & SlipFitter	
ESXF4 ALO SWW2 UVOLT YS DDB						120-347V	Yoke & SlipFitter	

More configurations are available. Click here or visit www.acuitybrands.com and search for ESXF LED.

ESXF Stock Configuations

Catalog Number	UPC	Ci Code	Number of fixtures per pallet	Traditional Replacement
ESXF1 P0 SWW2 THK DDB	00196182393051	*276AL6	400	150W Quartz or 75W HID
ESXF1 ALO SWW2 KY DDB	00196182393204	*276ALH	400	500W Quartz or 150W HID
ESXF2 ALO SWW2 KY DDB	00196182393242	*276ALU	360	500W Quartz or 175W HID
ESXF3 ALO SWW2 YS DDB	00196182393266	*276ALW	144	250W HID
ESXF3 ALO SWW2 UVOLT YS DDB	00196182393273	*276AM0	144	250W HID
ESXF4 ALO SWW2 YS DDB	00196182393280	*276AM2	144	400W HID
ESXF4 ALO SWW2 UVOLT YS DDB	00196182393297	*276AM4	144	400W HID

Accessories: *Order as separate catalog number.*

ESXF P0 and ESXF1 yoke mount accessory
*276ARA ESXF1YK DDB
Click here to visit Accessories.

CONTRACTOR SELECT™

LITHONIA LIGHTING

Included mounting options by size

ESXF1 P0 knuckle mount (pre-installed)

ESXF1 knuckle mount (pre-installed)

ESXF2 knuckle mount (pre-installed)

ESXF3 slipfitter mount

ESXF4 slipfitter knuckle

ESXF1 yoke mount

ESXF2 yoke mount

ESXF3 yoke mount

ESXF4 yoke mount

Electrical Performance Tables

	Lumen Output	Input Wattage	CCT/80CRI	Delivered Lumens	Lumens Per Watt @ 4000K, 80CRI
ESXF1 P0	2500L	17W	3000K	2,372	151
			4000K	2,522	
			5000K	2,503	
ESXF1	1500L	9W	3000K	1,467	171
			4000K	1,560	
			5000K	1,549	
	3000L	19W	3000K	2,915	162
			4000K	3,099	
			5000K	3,076	
	5000L	34W	3000K	4,748	147
			4000K	5,047	
			5000K	5,010	

	Lumen Output	Input Wattage	CCT/80CRI	Delivered Lumens	Lumens Per Watt @ 4000K, 80CRI
ESXF3	8500L	53W	3000K	8,139	163
			4000K	8,653	
			5000K	8,589	
	10500L	69W	3000K	10,156	156
			4000K	10,797	
			5000K	10,718	
	14000L	100W	3000K	13,609	145
			4000K	14,469	
			5000K	14,362	

	Lumen Output	Input Wattage	CCT/80CRI	Delivered Lumens	Lumens Per Watt @ 4000K, 80CRI
ESXF2	3500L	22W	3000K	3,377	163
			4000K	3,591	
			5000K	3,564	
	5500L	37W	3000K	5,315	151
			4000K	5,651	
			5000K	5,609	
	7500L	56W	3000K	7,223	137
			4000K	7,680	
			5000K	7,623	

	Lumen Output	Input Wattage	CCT/80CRI	Delivered Lumens	Lumens Per Watt @ 4000K, 80CRI
ESXF4	16000L	111W	3000K	15,508	148
			4000K	16,487	
			5000K	16,366	
	18000L	124W	3000K	17,274	148
			4000K	18,365	
			5000K	18,230	
	20000L	150W	3000K	19,583	139
			4000K	20,819	
			5000K	20,666	

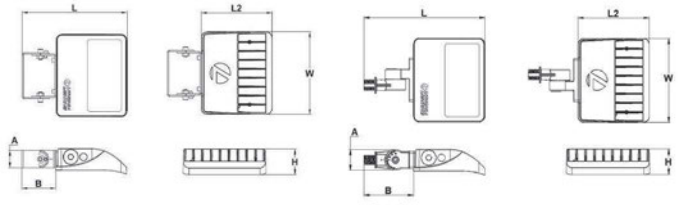
CS CONTRACTOR SELECT™

LITHONIA LIGHTING

Dimensions

All dimensions are inches (centimeters) unless otherwise indicated.

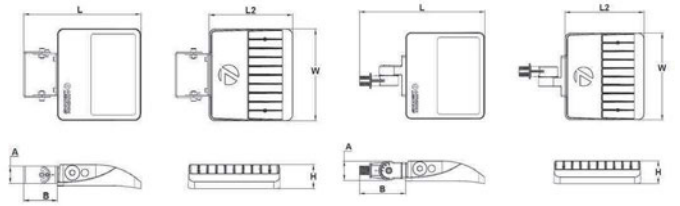
ESXF1



Front View | Side View | Front View | Side View

Luminaire	Length (L)	Width (W)	Height (H)	Yoke/Knuckle		L2	Weight
				A (Height)	B (Length)		
	Dimensions in inches" (centimeters)						Pounds (kg)
ESXF1 SWW2 ALO KY (Yoke)	7.65" (27.8cm)	6.04" (15.4cm)	1.86" (4.7cm)	1.26" (3.2cm)	2.48" (6.3cm)	5.17" (13.2cm)	2.31 lbs (1.048 kg)
ESXF1 SWW2 P0/ALO KY (Knuckle)	8.77" (22.3cm)	6.04" (15.4cm)	1.86" (4.7cm)	1.5" (3.8cm)	3.59" (9.1cm)	5.17" (13.2cm)	2.17 lbs (0.986 kg)

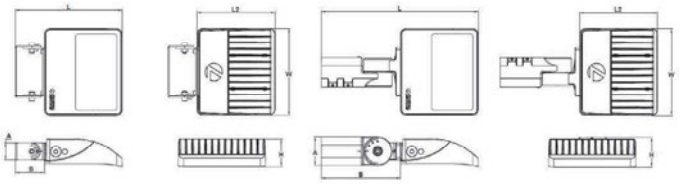
ESXF2



Front View | Side View | Front View | Side View

Luminaire	Length (L)	Width (W)	Height (H)	Yoke/Knuckle		L2	Weight
				A (Height)	B (Length)		
	Dimensions in inches" (centimeters)						Pounds (kg)
ESXF2 SWW2 ALO KY (Yoke)	8.64" (21.9cm)	6.75" (17.1cm)	1.8" (4.6cm)	1.26" (3.2cm)	2.48" (6.3cm)	6.16" (15.6cm)	2.92 lbs (1.324 kg)
ESXF2 SWW2 ALO KY (Knuckle)	9.75" (24.8cm)	6.75" (17.1cm)	1.8" (4.6cm)	1.5" (3.8cm)	3.59" (9.1cm)	6.16" (15.6cm)	2.79 lbs (1.264 kg)

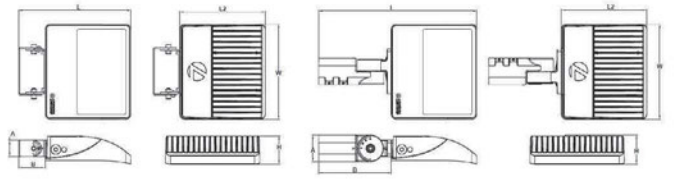
ESXF3



Front View | Side View | Front View | Side View

Luminaire	Length (L)	Width (W)	Height (H)	Yoke/Knuckle		L2	Weight
				A (Height)	B (Length)		
	Dimensions in inches" (centimeters)						Pounds (kg)
ESXF3 SWW2 ALO SY (Yoke)	10.54" (19.4cm)	8.95" (22.7cm)	2.84" (7.2cm)	1.77" (4.5cm)	2.99" (7.6cm)	7.97" (20.2cm)	6.21 lbs (2.818 kg)
ESXF3 SWW2 ALO SY (Slipfitter)	16.07" (40.8cm)	8.95" (22.7cm)	3.04" (7.7cm)	2.95" (7.5cm)	8.11" (7.5cm)	7.97" (20.2cm)	6.48 lbs (2.938 kg)

ESXF4



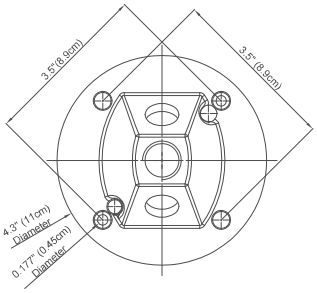
Front View | Side View | Front View | Side View

Luminaire	Length (L)	Width (W)	Height (H)	Yoke/Knuckle		L2	Weight
				A (Height)	B (Length)		
	Dimensions in inches" (centimeters)						Pounds (kg)
ESXF4 SWW2 ALO SY (Yoke)	12.54" (31.8cm)	10.54" (26.8cm)	3.12" (7.9cm)	1.77" (4.5cm)	2.99" (7.6cm)	9.55" (24.3cm)	8.17 lbs (3.706 kg)
ESXF4 SWW2 ALO SY (Slipfitter)	17.66" (44.8cm)	10.54" (26.8cm)	3.22" (8.2cm)	2.95" (7.5cm)	8.11" (20.6cm)	9.55" (24.3cm)	8.43 lbs (3.824 kg)

EPA Data

	Angle of Tilt	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
ESXF1	Project Area(ft^2)	0.078	0.114	0.15	0.183	0.21	0.231	0.246	0.25	0.25	0.25
	EPA(ft^2)	0.0936	0.1368	0.18	0.2196	0.252	0.2772	0.2952	0.3	0.3	0.3
ESXF2	Project Area(ft^2)	0.09	0.133	0.182	0.226	0.263	0.293	0.314	0.325	0.326	0.32
	EPA(ft^2)	0.108	0.1596	0.2184	0.2712	0.3156	0.3516	0.3768	0.39	0.3912	0.384
ESXF3	Project Area(ft^2)	0.23	0.285	0.383	0.471	0.548	0.608	0.65	0.673	0.674	0.66
	EPA(ft^2)	0.276	0.342	0.4596	0.5652	0.6576	0.7296	0.78	0.8076	0.8088	0.792
ESXF4	Project Area(ft^2)	0.23	0.365	0.494	0.609	0.707	0.785	0.84	0.869	0.87	0.81
	EPA(ft^2)	0.276	0.438	0.5928	0.7308	0.8484	0.942	1.008	1.0428	1.044	0.972

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.



Specifications

INTENDED USE:

The ESXF LED floodlight is designed to provide a cost effective, energy-efficient solution for the one-for-one replacement of existing traditional sources ranging from 150W quartz up to 400W metal halide. ESXF is well suited for general illumination of parking lots, signage, yards, walkways, landscaping, and other floodlighting applications. ESXF luminaires deliver a uniform, wide flood 7x7 light distribution.

CONSTRUCTION:

The ESXF LED floodlight features sealed die-cast aluminum body and is IP66 listed to withstand moisture and the elements for years to come.

ELECTRICAL:

ESXF features adjustable lumen output include, low, medium, and high. (ESXF P0 static only). Switchable CCT includes between 3000K(warm), 4000K(neutral) or 5000K(daylight) and a selectable dusk to dawn photocell that automatically turns the fixture on in the evening and off the next morning.

Standard 6kVsurge protection tested in accordance to ANSI/IEEE C62.41.2)Category C. ESXF LED luminaries use MVOLT (120-277V) as well as UVOLT (120-347V) on select models. Adjustable lumen output is achieved with 0-10V continuous dimming capable drivers, ensuring system power factor>90% and THD <20%.

INSTALLATION:

ESXF1 (P0) and ESXF2 ship with ½ NPS threaded knuckle mount factory installed and can be mounted to conduit bodies or to 4" electrical boxes using the provided round mounting plate. Yoke mounts can be easily changed in the field to mount to any solid surfaces (ESXF P0, knuckle mount only).

ESXF3 and ESXF4 include a yoke mounting for solid surface mounting and an integral slipfitter that mates with standard 2 3/8" tenons for pole-top mounting. All models ship standard with 18" SO cord.

LISTINGS:

CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. Rated for -40°C minimum ambient.

WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Factory settings
Lumen Output: High
CCT: 4000K
Photocell: On

Catalog Number
Notes
Type

Contractor Select™

CPX™

LED Panel

CPX™ from Lithonia lighting is the perfect choice for a quality LED panel at an affordable price. The smooth, even lens projects a crisp and clean aesthetic. CPX is the perfect choice for budget-conscious school, commercial office, or small retail footprint projects.

FEATURES:

- Industry standard wattages
- Long-life LEDs maintain greater than 70% of their lumen output at 50,000 hours
- 0-10V dimming driver, dims to 10%

WEIGHT:

2x2
Unit: 6.39lbs
Unit Carton: 7.72lbs
Master Carton: 30.42lbs

2x4
Unit: 11.02lbs
Unit Carton: 13.89lbs
Master Carton: 27.78lbs

Catalog Number	UPC	Description	Lumens	Input Watts	CCT	CRI	Voltage	Pallet qty.
CPX 2X2 3200LM 35K M4	191848338537	2x2 LED Panel	3555	31.5	3500K	80	120-277V	40
CPX 2X2 3200LM 40K M4	191848338650	2x2 LED Panel	3659	31.5	4000K	80	120-277V	40
CPX 2X2 3200LM 50K M4	193048313642	2x2 LED Panel	3737	31.5	5000K	80	120-277V	40
CPX 2X4 4000LM 35K M2	191848338490	2x4 LED Panel	4543	38.9	3500K	80	120-277V	20
CPX 2x4 4000LM 40K M2	191848338506	2x4 LED Panel	4692	38.9	4000K	80	120-277V	20
CPX 2X4 4000LM 50K M2	193048313680	2x4 LED Panel	4766	38.9	5000K	80	120-277V	20
CPX 1X4 ALO7 SWW7 M4	194994568063	1X4 Switchable Panel	See Switchable Table	See Switchable Table	3500K/4000K/5000K	>80	120-277V	40
CPX 2X2 ALO7 SWW7 M4	193048542806	2X2 Switchable Panel	See Switchable Table	See Switchable Table	3500K/4000K/5000K	>80	120-277V	40
CPX 2X4 ALO8 SWW7 M2	193048542844	2X4 Switchable Panel	See Switchable Table	See Switchable Table	3500K/4000K/5000K	>80	120-277V	20

NOTES

1. ILBLP CP10 HE SD A remote mounted only. See ILBLP CP10 HE SD B spec sheet and ELA-PSMK-PSMKSD-PSDMT-PSRME remote mounting enclosure spec sheet here.

CONTRACTOR SELECT™

LITHONIA LIGHTING

Accessories: *Order as separate catalog number.*

ILBLP CP10 HE SD A	IOTA 10 Watt Constant Power, High Efficiency LED Emergency Driver for CA Title 20 [1]
DGA14	Drywall grid adapter for 1X4 recessed fixture.
DGA22	Drywall grid adapter for 2x2 recessed fixture.
DGA24	Drywall grid adapter for 2x4 recessed fixture.
1X4SMKSH	Multi-Use Surface Mount Kit 1X4, Shallow Depth
2X2SMKSH	Multi-Use Surface Mount Kit 2x2, Shallow Depth
2X4SMKSH	Multi-Use Surface Mount Kit 2x4, Shallow Depth
1X4SMKSHP PAF	Multi-Use Surface Mount Kit 1X4 Post-Paint
2X2SMKSHP PAF	Multi-Use Surface Mount Kit 2X2 Post-Paint
2X4SMKSHP PAF	Multi-Use Surface Mount Kit 2X4 Post-Paint
PAC 2DNF 36	Panel Air Craft Kit, 2 cables with Y splitter, No Power Feed, 36 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.
PAC 2DF 36	Panel Air Craft Kit, 2 cables with Y splitter, with Power Feed, 36 inches. Recommended for 1X4 or 2X2 Panel Fixtures only. [1]
PAC 4DNF 36	Panel Air Craft Kit, 4 cables, No Power Feed, 36 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures.
PAC 4DF 36	Panel Air Craft Kit, 4 cables, with Power Feed, 36 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures. [1]
PAC 2DNF 72	Panel Air Craft Kit, 2 cables with Y splitter, No Power Feed 72 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.
PAC 2DF 72	Panel Air Craft Kit, 2 cables with Y splitter, with Power Feed, 72 inches. Recommended for 1X4 or 2X2 Panel Fixtures only. [1]
PAC 4DNF 72	Panel Air Craft Kit, 4 cables, No Power Feed, 72 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures.
PAC 4DF 72	Panel Air Craft Kit, 4 cables, with Power Feed, 72 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures. [1]
RK8BDP 2P U	Disconnect Plug (BDP), 2 Pole, Package of 1
RK8BDP 3P U	Disconnect Plug (BDP), 3 Pole, Package of 1
RK8BDP 2P J10	Disconnect Plug (BDP), 2 Pole, Package of 10
RK8BDP 2P J40	Disconnect Plug (BDP), 2 Pole, Package of 40

Switchable Table

Size(ft)	Nomenclature	Lumen Package	CCT	Lumen	Wattage	Efficacy
1x4	CPX 1X4 AL07 SWW7 M4	Low Lumen	3500K	2430	19.7	123.4
			4000K	2594	19.7	131.7
			5000K	2483	19.5	127.3
		Med Lumen	3500K	3289	28.4	115.8
			4000K	3583	27.2	131.7
			5000K	3369	28.2	119.5
		High Lumen	3500K	3914	35.7	109.6
			4000K	4280	33.7	127
			5000K	4009	35.5	112.9
2x2	CPX 2X2 AL07 SWW7 M4	Low Lumen	3500K	2399	19.1	125.6
			4000K	2570	18.5	138.9
			5000K	2456	19.1	128.6
		Med Lumen	3500K	3356	28.7	116.9
			4000K	3649	27.5	132.7
			5000K	3427	28.5	120.2
		High Lumen	3500K	4131	37.5	110.2
			4000K	4564	35.8	127.5
			5000K	4212	37.3	112.9
2x4	CPX 2X4 AL08 SWW7 M2	Low Lumen	3500K	3813	28.94	131.8
			4000K	4033	28.1	143.5
			5000K	3938	28.86	136.5
		Med Lumen	3500K	4677	36.8	127.1
			4000K	5009	35.55	140.9
			5000K	4834	36.65	131.9
		High Lumen	3500K	6048	50.56	119.6
			4000K	6563	48.53	135.2
			5000K	6241	50.24	124.2

NOTES

1. For MVOLT only, not available with 347V.

Specifications

INTENDED USE:

CPX is a low-glare panel featuring an external driver. This cost-effective, reliable panel is visually comfortable and can be recessed mounted. Suitable for many applications such as schools, offices, retail, convenience stores and other commercial spaces. **Certain airborne contaminants can diminish integrity of acrylic. Click here for Acrylic Environmental Compatibility table for suitable uses.** Adjustable Lumen (ALO7, ALO8) and Switchable White (SWW7) configurations available. **U.S. Patent No. 10,681,784.**

CONSTRUCTION:

The extruded aluminum frame with satin white lens provides excellent shielding and uniform luminance. The low-profile design of CPX provides increased installation flexibility especially in restricted plenum spaces. The backplate includes integral T-bar clips for installation into T-grid ceilings.

ELECTRICAL:

Long-life LEDs, coupled with a high-efficiency driver, provide superior illumination for extended service life. Greater than 70% LED lumen maintenance at 50,000 hours (L70>50,000). 0-10V dimming driver, dims to 10% and contains non-isolated dimming leads.

LISTINGS:

CSA certified to meet US and Canadian standards. Damp location listed. IC rated. IP5X Rated. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. Rated for NSF/ANSI Standard 2 - Light Fixture for Splash Zone and Non Food Zone. NOM Certified.

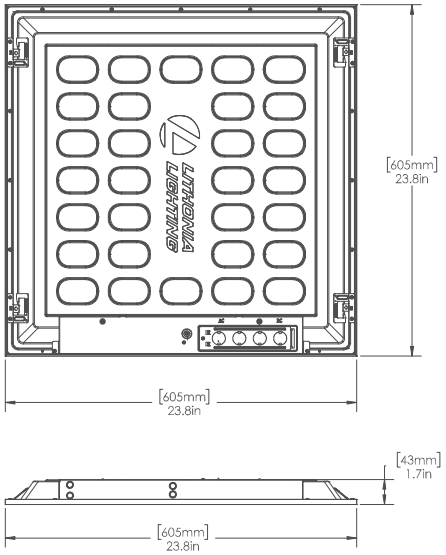
WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

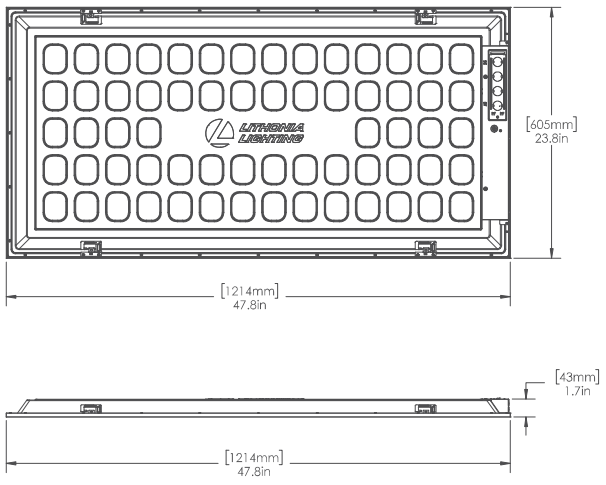
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

2'x2'



2'x4'



All dimensions are inches (millimeters) unless otherwise indicated.

Catalog Number	
Notes	
Type	

Contractor Select™

ECRG

Lithonia Lighting Basics™ Emergency Light/Exit Combo

The Lithonia Lighting® ECRG, is a combination of exit and emergency lighting. The ECRG is ideal for safely illuminating the path of egress above-the-door in small spaces at lower mounting heights while providing 90 minutes of emergency power. Available in red and green letters.

FEATURES:

- Internal toggle switch for red or green exit
- Test switch and status indicator
- UL indoor damp location 50°F to 104°F (10°C to 40°C) listed standard
- ECRG RD: multi-voltage 120-277V, 50/60Hz
- ECRG SQ: dual-voltage 120/277, 60Hz

† Exit Signs Certified in the CA Title 20 Appliance Efficiency Database.

Catalog Number	UPC	Description	Supply Voltage	Input Wattage		Input Amps		Pallet Qty	Carton Qty
				120	277	120	277		
ECRG RD M6	00194994900412	Red/Green LED Exit/Unit Combo, Round Lamp Heads	120–277V	2W	2W	.03	.02	360	6
ECRG HO RD M6	00194994900429	Red/Green LED Exit/Unit Combo with remote capacity, Round Lamp Heads	120–277V	2.8W	2.8W	.05	.03	360	6
ECRG SQ M6	00194994900467	Red/Green LED Exit/Unit Combo, Square Lamp Heads	120/277V	3.5W	3.5W	.03	.02	360	6
ECRG HO SQ M6	00194994900504	Red/Green LED Exit/Unit Combo with remote capacity, Square Lamp Heads	120/277	4W	4W	.03	.02	360	6

Battery Capacity and Loading (HO only)

Battery	Total Capacity	Maximum# Remote Lamp Heads*
3.6V	2W (ECRG RD)	2 - ERE W SGL RD M24
		1 - ERE W T RD M24
		2 - ERE GY SGL WP RD M12
		1 - ERE GY T WP RD M12
	3W (ECRG SQ)	3 - ERE GY SGL WP SQ M12
		1 - ERE GY T WP SQ M12

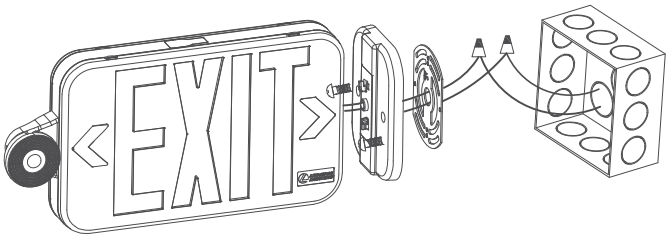
* Remotes are in addition to the lamp heads on the product.

Accessories: *Order as separate catalog number.*

ERE W SGL RD	Single, LED indoor remote head, round, ivory white, .75W, 3.6V input. See spec sheet ERE.[1]
ERE W T RD	Twin, LED indoor remote head, round, ivory white, 1.5W, 3.6V input. See spec sheet ERE.[1]
ERE GY SGL WP RD	Single, LED weather-proof head, round, gray,0.75W, 3.6V input. See spec sheet ERE.[1]
ERE GY T WP RD	Twin, LED weather-proof head, round, gray, 1.5W, 3.6V input. See spec sheet ERE.[1]
ERE GY SGL WP SQ	Single, LED weather-proof remote head, square, gray, 1W, 3.6V-12V voltage sensing. See spec sheet ERE.[1]
ERE GY T WP SQ	Twin, weather-proof, remote head, square, gray, 2W, 3.6V-12V voltage sensing. See spec sheet ERE.[1]
ELA WG3	Wireguard (back mount), 30 5/8"W x 13 3/4"H x 6"D. See spec sheet ELA-WG.

1 Only available with HO option.

ECRG side/end mount example



Dimensions

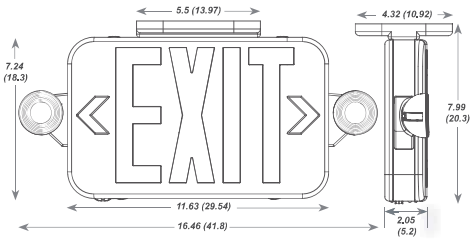
ECRG RD

Length:
16.46 (41.8)

Depth:
2.05 (5.2)

Height:
7.24 (18.3)

Weight:
RD - 1.9 (0.86kgs)
HO RD - 1.95 (0.88kgs)



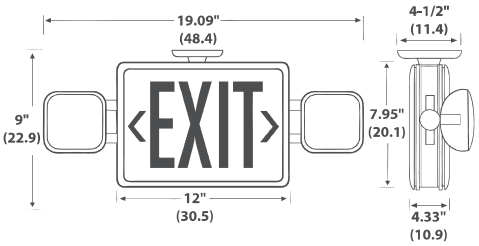
ECRG SQ

Length:
19.09 (48.4)

Depth:
4.33 (10.9)

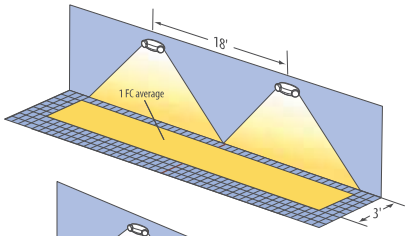
Height:
7.95 (20.1)

Weight:
SQ - 3.09 lbs. (1.40kgs)
HO SQ - 3.25 lbs (1.47kgs)

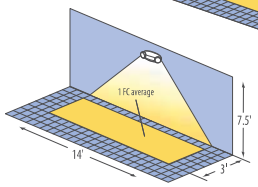


All dimensions are inches (centimeters) unless otherwise indicated.

ECRG RD

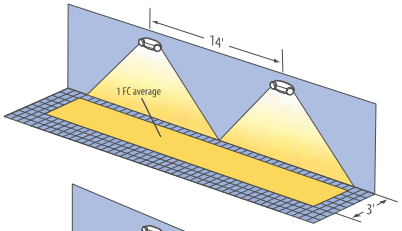


Example of multiple ECRG RD luminaires illuminating a 3' path of egress.

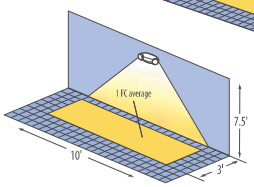


Example of single ECRG RD illuminating a 3' path of egress.

ECRG SQ



Example of multiple ECRG SQ luminaires illuminating a 3' path of egress.



Example of single ECRG SQ illuminating a 3' path of egress.

Spacing guidelines

Maximum Spacing Guidelines[1]							
Series	Mounting Height	Illumination Level	Single Luminaire		Multiple Luminaires		Application Notes
			3' Path of Egress	6' Path of Egress	3' Path of Egress	6' Path of Egress	
ECRG RD	7.5'	1FC Avg	14'	10'	18'	14'	"100' Corridor 8' wide, and 9' high with 80/50/20 reflectances"
ECRG SQ	7.5'	1FC Avg	10'	6'	14'	11'	

Notes:
1. Also meets the additional illumination requirements of NFPA 101: 1FC minimum and max/min ratio of 40:1.

Specifications

INTENDED USE:
Provides a minimum of 90 minutes illumination for the rated wattage upon loss of AC power to meet code required emergency lighting. Ideal for applications requiring low profile, emergency unit for lower mounting heights. The ECRG has an internal switch that ships standard as a red emergency light/exit combo and can be switched in the field to green. It is also packaged standard with an extra faceplate along with red and green inserts.

CONSTRUCTION:
The housing is a standard white thermoplastic with a compact and low-profile design with all-inclusive lamp, reflector and lens assembly. It is 5VA flame rated and impact-resistant.

OPTICS:
The typical life of the LED is 10 years.

ECRG is 0.75W white LED per lamp head

ECRG SQ is 1W LED per lamp head.

CRI: RD 80CRI
SQ 75CRI

CCT: RD 6200K
SQ 6200K

Lumen: RD 85 lumens
SQ 113 lumens

ELECTRICAL:
ECRG RD: multi-voltage 120-277V, 50/60Hz.

ECRG SQ: dual-voltage 120/277, 60Hz.

Bi-color LED status indicator for battery condition. (Green-normal, Red-check battery).

ECRG HO RD has 2W of remote capacity and ECRG HO SQ has 3W of remote capacity.

BATTERY: 3.6V maintenance-free, rechargeable, Nickel metal hydride.

INSTALLATION:
ECRG RD: Top, end and back mount.

ECRG SQ: Top, end and back mount.

Mounting pattern on canopy (top and side mount) and back plate (back mount) fits most standard size junction boxes.

LISTINGS:
UL Listed. Meets all applicable requirements for UL 924, NFPA 101 (current Life Safety Code), NFPA 70 (NEC), FCC Title 47, Part 15, Subpart B and OSHA.

Indoor damp location 50°F to 104°F (10°C to 40°C) listed.

WARRANTY:
2-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Catalog Number	
Notes	
Type	

Contractor Select™

EXRG

Lithonia Lighting Basics™ LED Exit

The Lithonia Lighting Basics™ EXRG Exit Sign is suitable for emergency signage applications such as stairways and hallways. This fully assembled single-face exit with extra faceplate is available in red and green letters. It's low profile makes it ideal for safely illuminated the path of egress in small spaces and can be wall or ceiling mounted. The emergency power provides 90 minutes of illumination in the event of a power loss.

FEATURES:

- Internal toggle switch for red or green letter color selection
- Test switch and status indicator for low maintenance (EL emergency models only)
- UL indoor damp location 50° to 104°F (10°C to 40°C) listed standard
- For use with Dual voltage 120/277VAC
- Internal switch for color selection

† Exit Signs Certified in the CA Title 20 Appliance Efficiency Database.

Catalog Number	UPC	Description	Supply Voltage	Input Wattage		Input Amps		Pallet Qty	Carton Qty
				120	277	120	277		
EXRG M6	00194994900658	Red/Green Exit, AC Only	120/277	1W	1W	0.09	0.09	360	6
EXRG EL M6	00194994900696	Red/Green Exit with Ni-MH backup battery	120/277	1W	1W	0.09	0.09	360	6

Accessories[1]: *Order as separate catalog number.*	
ELA WG1	Wireguard (back mount only, 13 3/4"H x 15 1/4"W x 6"D)

NOTES

1. See spec sheet ELA-WG for more information.

Specifications

INTENDED USE:
LED lighted exit signs for marking the means of egress in accordance with Life Safety Code NFPA 101. The EXRG has an internal switch that ships standard as a red exit and can be switched in the field to green. It is also packaged standard with an extra faceplate along with red and green inserts.

CONSTRUCTION:
Injection-molded, flame-retardant, high-impact, thermoplastic housing with snap-fit design components for easy installation. Universal J-box pattern. Universal chevrons are easily removed for directional indication.

Fully assembled single face with extra faceplate for easy field-conversion to double face.

Letters 6" high with 3/4" stroke, with 100 ft viewing distance rating, based on UL924 standards.

OPTICS:
The typical life of the LED lamp is 10 years.

ELECTRICAL:
Dual-voltage input 120V or 277V AC. Non-emergency (AC only without battery) or Emergency exit with battery. The emergency model includes the test switch, status indicator and rechargeable battery.

Battery: (EL models) maintenance-free Nickel metal hydride battery provides 90 minutes of emergency power.

INSTALLATION:
Top, back or end mounting capability (canopy included).

LISTINGS:
UL Listed. Meets UL 924, NFPA 101 (current Life Safety Code) , NFPA 70-NEC, FCC Title 47, Part 15, Subpart B and OSHA illumination standards. Indoor damp location 50° to 104°F (10°C to 40°C) listed standard.

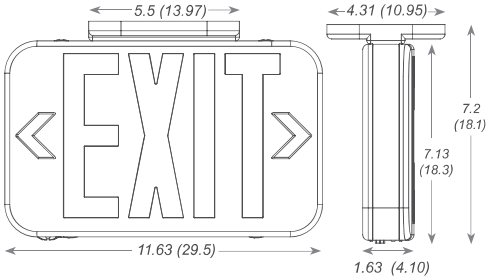
WARRANTY:
2-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

All life safety equipment, including emergency lighting for path of egress must be maintained, serviced, and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

Length: 11.63 (29.5)
Depth: 1.63 (4.1)
Height: 7.2 (18.3)
Weight: EL: 1.6 LB
AC: 1.59 LB



All dimensions are inches (centimeters) unless otherwise indicated.

Catalog Number	
Notes	
Type	

Contractor Select™

ELM2L

Quantum® Contemporary Commercial LED Emergency Light

The Lithonia Lighting® Quantum® ELM2L Emergency Light is suitable for emergency lighting for applications such as stairways and hallways. Its high performance LED lamp heads makes the ELM2L ideal for safely illuminating the path of egress for applications requiring attractive LED unit equipment with quick installation and unparalleled performance for lower mounting heights. It can be wall or ceiling mounted and will provide 90 minutes of emergency power in the case of power loss.

FEATURES:

- Test switch and status indicator
- UL indoor damp location 50°F to 104°F (10°C to 40°C) listed standard

† Small Battery Chargers Certified in the CA Title 20 Appliance Efficiency Database.

Catalog Number	UPC	Description	Supply Voltage	Input Wattage		Input Amps		Pallet Qty	Carton Qty
				120	277	120	277		
ELM2L M12	191848091920	Quantum® LED Adjustable Optics 220 Lumens, 2.4W, Emergency Light, White housing, Nickel-cadmium battery	120/277V, 60hz	1.09	1.09	0.018	0.018	432	12
ELM2L UVOLT LTP M12	191848078112	Quantum® LED Adjustable Optics 220 Lumens, 2.4W, Emergency Light, White housing, Lithium Iron Phosphate Battery, Remote capacity	120-347V, 50/60Hz	1.35	1.35	0.022	0.022	432	12

Battery Capacity and Loading (ELM2L UVOLT LTP M12 Only)

Battery	Total Capacity	Maximum# Remote Lamp Heads*
9.6V	4.8W	2- ELMRE LP220L SGL M12
		1- ELMRE LP220L T M12
		1 - ELMRE LP220L FXO
		2 - ERE GY SGL WP SQ M12
		1 - ELA QWP L0309
		1 - ERE GY T WP SQ M12

* Remotes are in addition to the lamp heads on the product.

Accessories: *Order as separate catalog number.*	
ELA WG1	Wireguard 15-1/4" W x 13-3/4" H x 6" D (back mount only). See spec sheet ELA-WG.
WPVS SML W	Wet protective vandal shield (must be used for wet location applications)

CONTRACTOR SELECT™

LITHONIA LIGHTING®

Specifications

INTENDED USE:
Provides a minimum of 90 minutes illumination for the rated wattage upon loss of AC power to meet and exceed code required emergency lighting. Ideal for applications requiring attractive LED unit equipment with quick installation and unparalleled performance for lower mounting heights.

CONSTRUCTION:
The housing is a standard white thermoplastic with a compact and low-profile contemporary design. It is 5VA flame rated, impact-resistant, scratch-resistant and corrosion proof. The UV-stable resin resists discoloration from natural and man-made light sources. The back-plate contains a universal j-box mounting pattern to facilitate ease of installation on a wide variety of j-boxes and the front housing allows tool-less access for ease of maintenance.

OPTICS:
The typical life of the LED is 10 years. Two 1.2W LED Lamps.

ELECTRICAL:
Orderable in multiple voltages. Emergency unit provided with test switch, status indicator and rechargeable battery. Sealed, maintenance-free nickel-cadmium or Lithium Iron Phosphate battery provides at least 90 minutes of emergency power.

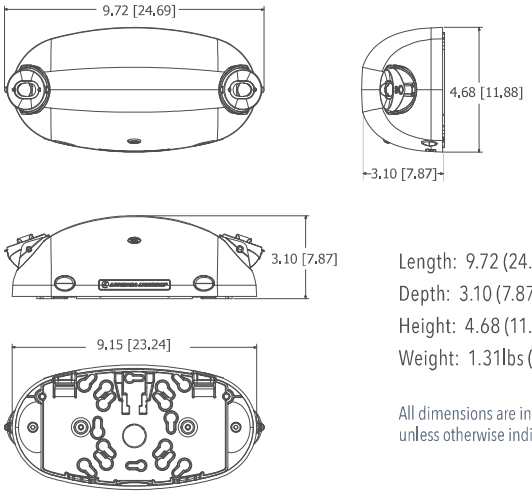
INSTALLATION:
Wall and ceiling mount. Tool-less removal of front cover from back-plate for ease of installation and maintenance.

LISTINGS:
UL damp location listed standard and wet location listed when used with the WPVS accessory, all at 50-104°F (10-40°C). Meets or exceeds all applicable requirements for UL 924, NFPA 101 (current Life Safety Code), NFPA 70 (NEC), NOM (Norma Oficial Mexicana), California Energy Commission Title 20 section 1605.3 (W)(4), FCC Title 47, Part 15, Subpart B and OSHA. List and labeled to comply with Canadian Standards C22.2 No. 141-10.

WARRANTY:
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions



Length: 9.72 (24.69)
Depth: 3.10 (7.87)
Height: 4.68 (11.88)
Weight: 1.31lbs (0.59kg)

All dimensions are inches (centimeters) unless otherwise indicated.

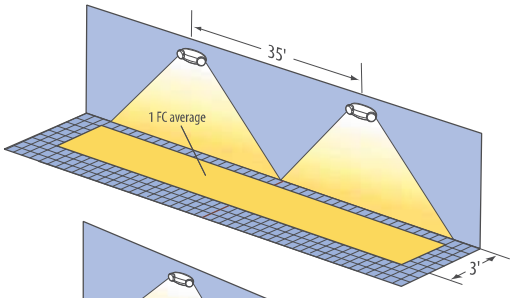
Spacing guidelines

Maximum Spacing Guidelines — ELM2L

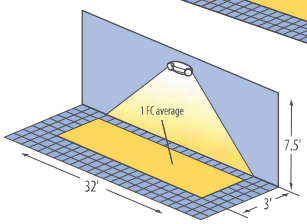
Mounting Height	Illumination Level	Single Luminaire Coverage		Multiple Luminaire Spacing		Application Notes
		3' Path of Egress	6' Path of Egress	3' Path of Egress	6' Path of Egress	
7.5'	1FC Avg [1]	32'	24'	35'	28'	100' Corridor, 8' wide, and 12' high with 80/50/20 reflectances
10'	1FC Avg [1]	20'	14'	27'	23'	

Notes:
1. Also meets the additional illumination requirements of NFPA 101: 1FC minimum and max/min ratio of 40:1.

*Note: To see complete photometric report or download the .ies file for this product, visit Lithonia Lighting ELM2L home page.



Example of multiple ELM2L luminaires illuminating a 3' path of egress.



Example of single ELM2L illuminating a 3' path of egress.

* Application image examples are using LP220L lamp.

Performance Downlight
Field-Adjustable

RAB

6"

FIELD ADJUSTABLE

9W/12W | 14W/18W | 7W/10W/18W

8"

FIELD ADJUSTABLE

9.5"

FIELD ADJUSTABLE

CLASSIFIED UL | AIRTIGHT HOUSING | ENERGY STAR | FC

UL LISTED | WET RATED | IC RATED | 2016 TITLE 24 PART 6

Project:	Type:
Prepared by:	Date:

Features

- High Performance LEDs for commercial applications
- Replacement for traditional Compact Fluorescent recessed downlights
- Compatible with new construction or retrofit installations
- UL wet and Energy Star rated
- Meets air-tight requirements
- Lumen and CCT Selectable
- Matte white smooth trim finish
- Available in 3 CCTs: 3000K, 3500K, 4000K
- 0-10V dimmable
- Spring loaded retention clips
- 5-Year, No-Compromise Warranty

Technical Specifications

CCT and Lumen Selectable:
Choose lumen output and color temperature before installation with integrated switch

UL Listed & UL Classified
Suitable for wet locations

Energy Star V2.2:
This product is Energy Star® Version 2.2 Certified.

California Title 24:
Can be used to conform with the requirements of California Title 24 Part 6

Dimming Driver:
Driver includes dimming control wiring for 0-10V dimming systems. Requires seperate 0-10V DC dimming circuit. Dims as low as 10%

Input Voltage:
120V through 277V

Operating Frequency:
50/60Hz

Lifespan:
50,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:
Long-life, high-efficacy surface-mount LEDs

R9 Value:
High color performance with R9 greater than or equal to 50

Flicker:
Silent and flicker free operations of less than 30%

IC Rated:
Suitable for direct contact with insulation

Air Tight:
Housing certified Air Tight as per ASTM E283

Trim:
Smooth Trim

Housing:
Constructed from durable steel sheet metal

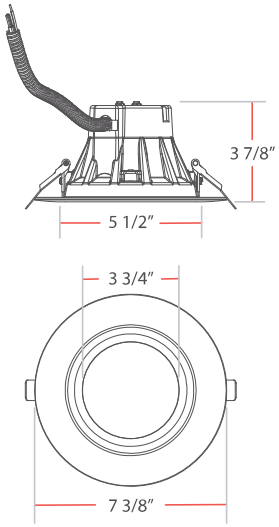
Maximum Ambient Temperature:
Suitable for use in 40˚C (104˚F)

Finish:
Matte White

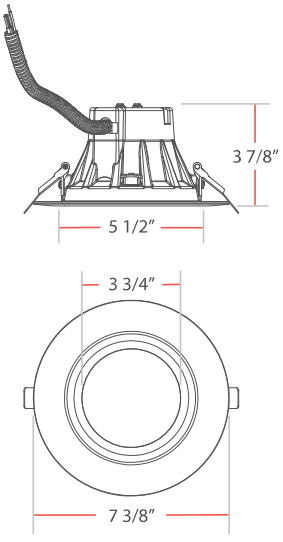
Dimensions

6"

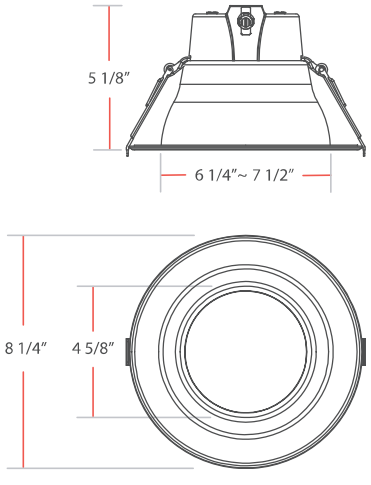
9/12W



14/18W

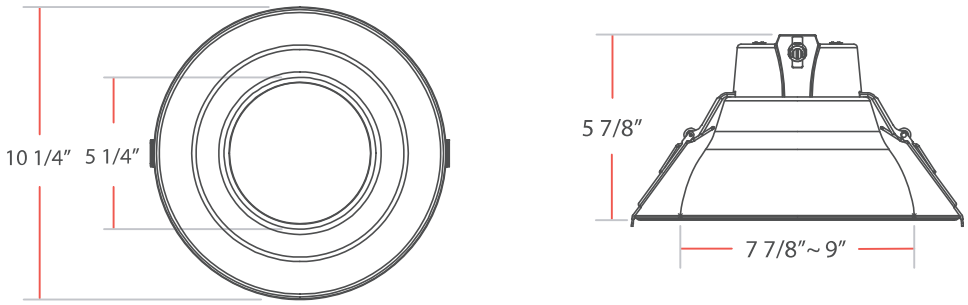


7/10/18W



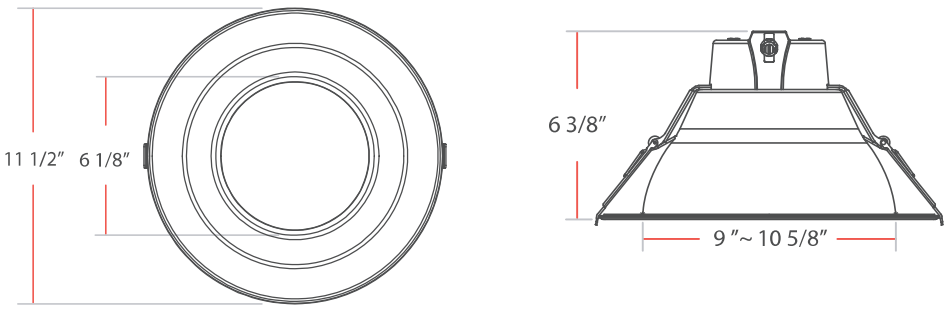
8"

10/15/22W



9.5"

10/15/22W

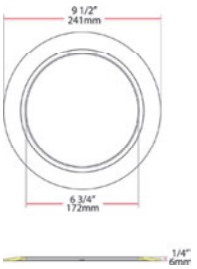
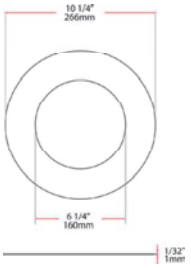
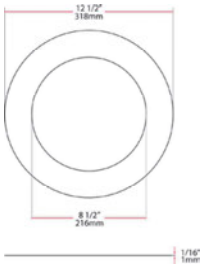
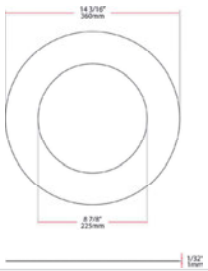


Performance

RAB

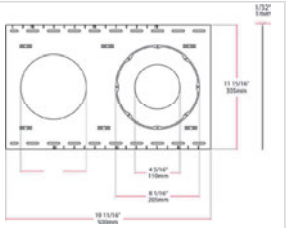
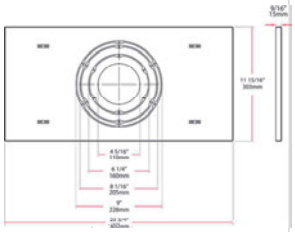
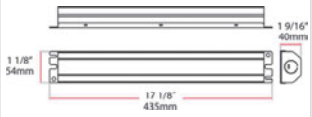
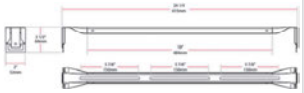
2 Lumen Output	Size	Wattage	Lumens	Efficacy (lm/W)	Color Accuracy (CRI)
C6R9/129FAUNVW 3000K 3500K 4000K	6"	9/12	700 lm 900 lm	78	90
C6R14/189FAUNVW 3000K 3500K 4000K	6"	14/18	1200 lm 1500 lm	86	90
3 Lumen Output	**Size**	**Wattage**	**Lumens**	**Efficacy (lm/W)**	**Color Accuracy (CRI)**
C6R7/10/189FAUNVW 3000K 3500K 4000K	6"	7/10/18	700 lm 1000 lm 1500 lm	100	90
C8R10/15/229FAUNVW 3000K 3500K 4000K	8"	10/15/22	1000 lm 1500 lm 2000 lm	100	90
C9.5R20/25/329FAUNVW 3000K 3500K 4000K	9.5"	20/25/32	2000 lm 2500 lm 3000 lm	100	90

Accessories

Images	SKU Number	Description	Construction	Dimensions	Case Qty
Goof Rings - Plastic					
	**DL6-8GOOF/R/P**	6" Goof Ring for 6" Downlight - 2 Lumen Output Models	Robust Polycarbonate construction. Matte White Finish		
Goof Rings - Metal					
	**DL8-10GOOF/R/M**	10" Goof Ring for 8" Downlight - 3 Lumen Output Model	High-quality steel construction White powder coat finish		
	DL10-12GOOF/R/M	12" Goof Ring for 9.5" Downlight - 3 Lumen Output Model	High-quality steel construction White powder coat finish		
	**DL12-14GOOF/R/M**	12" Goof Ring for 9.5" Downlight - 3 Lumen Output Model	High-quality steel construction White powder coat finish		

Accessories

RAB

Mounting Plates					
	**DLPLATE/SJ**	New Construction Plate for Stud/ Joist mounting for use with 4", 6" smooth and baffle models	Sturdy galvanized steel construction		10
	**DLPLATE/T**	New Construction or Remodel Plate for T-Grid ceilings for use with 4", 6" smooth and baffle models	Sturdy galvanized steel construction		10
Emergency Driver					
	**DRI-25-EMGR-DC**	Emergency Driver	Sturdy galvanized steel construction		4
	**BRACKET_TG_DRI**	T-Grid bracket for Emergency Driver	Sturdy galvanized steel construction		12

Ordering Matrix

RAB

Product	Size	Shape	Wattage	CRI/Color Temp	Voltage	Finish
C		R		9FA	UNV	W
	6 6" **8** 8" **9.5** 9.5"	**R** Round	**700lm-1500lm** 7/10/18 **700lm-900lm** 9/12 **1000lm-2000lm** 10/15/22 **1200lm-1500lm** 14/18 **2000lm-3000lm** 20/25/32	9FA **90 CRI, Field Adjustable**	**120-277V** UNV	**W** White

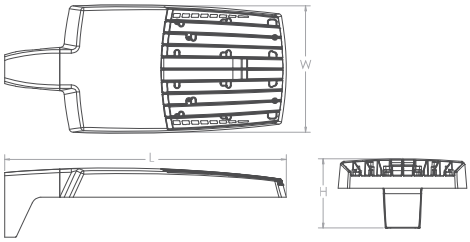
RSX2 LED
Area Luminaire

Catalog Number	RSX2 LED P6 40K SPA FAO DDBXD
Notes	
Type	

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA (ft²@0°):	0.69 ft² (0.06 m²)
Length:	29.3" (74.4 cm) (SPA mount)
Width:	13.4" (34.0 cm)
Height:	3.0" (7.6 cm) Main Body 7.2" (18.3 cm) Arm
Weight: (SPA mount)	30.0 lbs (13.6 kg)



Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX2 delivers 11,000 to 31,000 lumens allowing it to replace 250W to 1000W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

Ordering Information

EXAMPLE: RSX2 LED P6 40K R3 MVOLT SPA DDBXD

RSX2 LED	P6	40K	R5	MVOLT	SPA
Series	**Performance Package**	**Color Temperature**	**Distribution**	**Voltage**	**Mounting**
RSX2 LED	P1	30K 3000K	R2 Type 2 Wide	MVOLT (120V-277V) [2]	SPA Square pole mounting (3.0" min. SQ pole for 1 at 90°, 3.5" min. SQ pole for 2, 3, 4 at 90°)
	P2	40K 4000K	R3 Type 3 Wide	HVOLT (347V-480V) [3]	RPA Round pole mounting (3.2" min. dia. RND pole for 2, 3, 4 at 90°, 3.0" min. dia. RND pole for 1 at 90°, 2 at 180°, 3 at 120°)
	P3	50K 5000K	R3S Type 3 Short	XVOLT (277V-480V) [4]	MA Mast arm adaptor (fits 2-3/8" OD horizontal tenon)
	P4		R4 Type 4 Wide	**(use specific voltage for options as noted)**	IS Adjustable slipfitter (fits 2-3/8" OD tenon) [6]
	P5		R4S Type 4 Short	120 [3] 277 [5]	WBA Wall bracket [1]
	P6		R5 Type 5 Wide [1]	208 [3] 347 [5]	WBASC Wall bracket with surface conduit box
			R5S Type 5 Short [1]	240 [3] 480 [5]	AASP Adjustable tilt arm square pole mounting [6]
			AFR Automotive Front Row		AARP Adjustable tilt arm round pole mounting [6]
			AFRR90 Automotive Front Row Right Rotated		AAWB Adjustable tilt arm with wall bracket [6]
			AFRL90 Automotive Front Row Left Rotated		AAWSC Adjustable tilt arm wall bracket and surface conduit box [6]

FAO

Options

Shipped Installed

HS	House-side shield [7]
PE	Photocontrol, button style [8,9]
PEX	Photocontrol external threaded, adjustable [9,10]
PER7	Seven-wire twist-lock receptacle only (no controls) [9,11,12,13]
CE34	Conduit entry 3/4" NPT (Qty 2)
SF	Single fuse (120, 277, 347) [5]
DF	Double fuse (208, 240, 480) [5]
SPD20KV	20KV Surge pack (10KV standard)
FAO	Field adjustable output [9,13]
DMG	0-10V dimming extend out back of housing for external control (control ordered separate) [9,13]
DS	Dual switching [9,14]

Shipped Installed

***Standalone and Networked Sensors/Controls (factory default settings, see table page 9)**

NLTAIR2	nLight AIR generation 2 [13,15,16]
PIRHN	Networked, Bi-Level motion/ambient sensor (for use with NLTAIR2) [13,14,17]

*Note: PIRHN with nLight Air can be used as a standalone dimming sensor with out-of-box settings or as a wireless networked solution. See factory default settings table. Sensor coverage pattern is affected when luminaire is tilted.

Shipped Separately (requires some field assembly)

EGS	External glare shield [6]
EGFV	External glare full visor (360° around light aperture) [7]
BS	Bird spikes [18]

DDBXD

Finish

DDBXD	Dark Bronze
DBLXD	Black
DNAXD	Natural Aluminum
DWHXD	White
DDBTXD	Textured Dark Bronze
DBLBXD	Textured Black
DNATXD	Textured Natural Aluminum
DWHGXD	Textured White

Ordering Information

Accessories

Ordered and shipped separately.

RSX2HS	RSX2 House side shield (includes 2 shields)
RSX2EGS (FINISH) U	External glare shield (specify finish)
RSX2HSAFRR (FINISH) U	RSX2 House side shields for AFR rotated optics (includes 2 shields)
RSX2EGFV (FINISH) U	External glare full visor (specify finish)
RSXRPA (FINISH) U	RSX Universal round pole adaptor plate (specify finish)
RSXWBA (FINISH) U	RSX WBA wall bracket (specify finish) [1]
RSXSCB (FINISH) U	RSX Surface conduit box (specify finish, for use with WBA, WBA not included)
DLL127F 1.5 JU	Photocell -SSL twist-lock (120-277V) [19]
DLL347F 1.5 CUL JU	Photocell -SSL twist-lock (347V) [19]
DLL480F 1.5 CUL JU	Photocell -SSL twist-lock (480V) [19]
DSHORT SBK U	Shorting cap [19]

NOTES

1. Any Type 5 distribution, is not available with WBA.
2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3. HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
4. XVOLT driver not available with P1. XVOLT driver operates on any line voltage from 277V-480V (50/60 Hz). XVOLT not available with fusing (SF or DF) and not available with PE or PEX.
5. Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6. Maximum tilt is 90° above horizontal.
7. It may be ordered as an accessory.
8. Requires MVOLT or 347V.
9. Not available in combination with other light sensing control options (following options cannot be combined: PE, PEX, PER7, FAO, DMG, DS, PIRHN).
10. Requires 120V, 208V, 240V, or 277V.
11. Twistlock photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included. Dimming leads capped for future use.
12. For units with option PER7, the mounting must be restricted to +/- 45° from horizontal aim per ANSI C136.10-2010.
13. Two or more of the following options cannot be combined including DMG, DS, PER7, FAO and PIRHN.
14. DS only available on performance package P5 and P6.
15. Must be ordered with PIRHN.
16. Requires MVOLT or HVOLT.
17. Must be ordered with NLTAIR2. For additional information on PIRHN visit here.
18. Must be ordered with fixture for factory pre-drilling.
19. Requires luminaire to be specified with PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

External Shields

House Side Shield

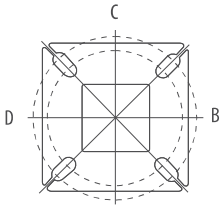
External Glare Shield

External 360 Full Visor

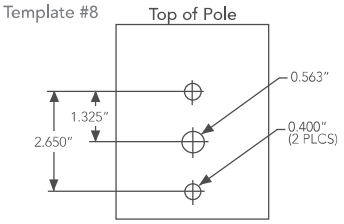
Pole/Mounting Informatiion

Accessories including bullhorns, cross arms and other adpaters are available under the accessories tab at Lithonia's Outdoor Poles and Arms product page. Click here to visit Accessories.

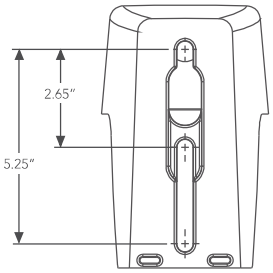
HANDHOLE ORIENTATION



RSX POLE DRILLING



RSX STANDARD ARM & ADJUSTABLE ARM



Round Tenon Mount - Pole Top Slipfitters

Tenon O.D.	RSX Mounting	Single	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2 - 3/8"	RPA, AARP	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5 490
2 - 7/8"	RPA, AARP	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	RPA, AARP	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Drill/Side Location by Configuration Type

Drilling Template	Mounting Option	Single	2 @ 180	2 @ 90	3 @ 120	3 @ 90	4 @ 90
	Head Location	Side B	Side B & D	Side B & C	Round Pole Only	Side B, C & D	Side A, B, C & D
#8	**Drill Nomenclature**	DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS

RSX2 - Luminaire EPA

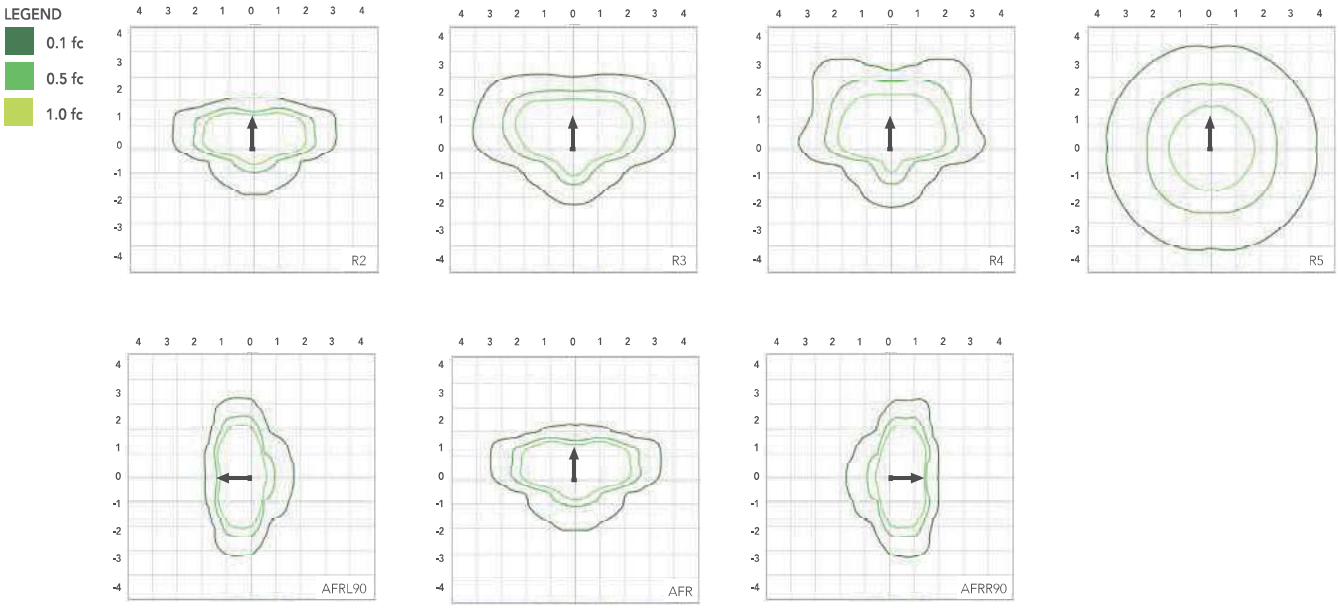
*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration		Single	2 @ 90	2 @ 180	3 @ 90	3 @ 120	4 @ 90	2 Side by Side	3 Side by Side	4 Side by Side
Mounting Type	**Tilt**									
SPA - Square Pole Adaptor	0°	0.69	1.22	1.27	1.8	1.61	2.39	1.37	2.06	2.74
RPA - Round Pole Adaptor		0.74	1.27	1.37	1.9	1.71	2.49	1.42	2.16	2.84
MA - Mast Arm Adaptor		0.61	1.14	1.11	1.64	1.45	2.23	1.29	1.9	2.58
IS - Integral Slipfitter AASP/AARP - Adjustable Arm Square/Round Pole	0°	0.69	1.22	1.27	1.8	1.61	2.39	1.37	2.06	2.74
	10°	0.53	1.06	1.05	1.58	1.37	2.08	1.06	1.59	2.12
	20°	0.52	1.02	1.03	1.52	1.33	2.02	1.03	1.55	2.07
	30°	0.64	1.11	1.18	1.63	1.45	2.21	1.27	1.91	2.54
	40°	0.81	1.21	1.35	1.74	1.65	2.39	1.62	2.43	3.23
	45°	0.91	1.25	1.5	1.81	1.75	2.48	1.82	2.73	3.64
	50°	1.34	1.83	2.17	2.61	2.56	3.62	2.68	4.02	5.36
	60°	2.2	2.97	3.57	4.24	4.17	5.89	4.41	6.61	8.82
	70°	2.86	4.13	4.7	5.89	5.71	8.21	5.71	8.57	11.42
	80°	3.4	5.13	5.67	7.34	7.09	10.21	6.79	10.19	13.59
	90°	3.85	5.96	6.55	8.58	8.31	11.88	7.70	11.56	15.41

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's RSX Area homepage.

Isofootcandle plots for the RSX2 LED P6 40K. Distances are in units of mounting height (30').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

Ambient	Ambient	Lumen Multiplier
0°C	32°F	1.05
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97
45°C	113°F	0.96
50°C	122°F	0.95

Electrical Load

		Current (A)					
Performance Package	System Watts (W)	120V	208V	240V	277V	347V	480V
P1	71W	0.59	0.34	0.30	0.26	0.20	0.15
P2	111W	0.93	0.53	0.46	0.40	0.32	0.23
P3	147W	1.23	0.70	0.61	0.53	0.42	0.31
P4	187W	1.55	0.90	0.78	0.68	0.53	0.38
P5	210W	1.75	1.01	0.87	0.76	0.60	0.44
P6	244W	2.03	1.17	1.01	0.88	0.70	0.51

Projected LED Lumen Maintenance

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.97	>0.95	>0.92

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

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.

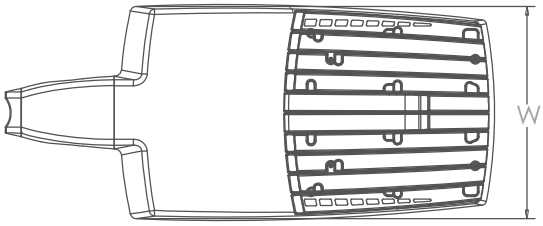
Performance Package	System Watts	Distribution. Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	71W	R2	10,040	2	0	1	139	11,031	2	0	1	153	11,031	2	0	1	153
		R3	10,005	2	0	2	141	10,992	2	0	2	155	10,992	2	0	2	155
		R3S	10,271	2	0	2	143	11,285	2	0	2	157	11,285	2	0	2	157
		R4	10,136	2	0	2	143	11,136	2	0	2	157	11,136	2	0	2	157
		R4S	9,779	2	0	2	138	10,744	2	0	2	151	10,744	2	0	2	151
		R5	10,271	4	0	2	145	11,285	4	0	2	159	11,285	4	0	2	159
		R5S	10,544	3	0	1	149	11,585	3	0	2	163	11,585	3	0	2	163
		AFR	10,026	2	0	1	141	11,016	2	0	1	155	11,016	2	0	1	155
		AFRR90	10,122	3	0	2	140	11,121	3	0	2	154	11,121	3	0	2	154
		AFRL90	10,164	3	0	2	141	11,167	3	0	2	155	11,167	3	0	2	155
P2	111W	R2	15,712	2	0	2	138	17,263	2	0	2	151	17,263	2	0	2	151
		R3	15,657	2	0	3	141	17,202	3	0	3	155	17,202	3	0	3	155
		R3S	16,075	2	0	2	141	17,661	2	0	2	155	17,661	2	0	2	155
		R4	15,862	2	0	3	143	17,427	2	0	3	157	17,427	2	0	3	157
		R4S	15,304	2	0	2	138	16,815	2	0	2	151	16,815	2	0	2	151
		R5	16,075	4	0	2	145	17,661	5	0	3	159	17,661	5	0	3	159
		R5S	16,502	4	0	2	149	18,130	4	0	2	163	18,130	4	0	2	163
		AFR	15,691	2	0	2	141	17,240	2	0	2	155	17,240	2	0	2	155
		AFRR90	15,841	3	0	3	139	17,404	4	0	3	153	17,404	4	0	3	153
		AFRL90	15,907	3	0	3	139	17,477	4	0	3	153	17,477	4	0	3	153
P3	147W	R2	19,855	3	0	2	132	21,814	3	0	2	145	21,814	3	0	2	145
		R3	19,785	3	0	3	135	21,737	3	0	4	148	21,737	3	0	4	148
		R3S	20,312	3	0	3	135	22,317	3	0	3	149	22,317	3	0	3	149
		R4	20,044	3	0	3	136	22,022	3	0	4	150	22,022	3	0	4	150
		R4S	19,339	3	0	3	132	21,247	3	0	3	145	21,247	3	0	3	145
		R5	20,313	5	0	3	138	22,317	5	0	3	152	22,317	5	0	3	152
		R5S	20,852	4	0	2	142	22,910	4	0	2	156	22,910	4	0	2	156
		AFR	19,828	3	0	2	135	21,785	3	0	2	148	21,785	3	0	2	148
		AFRR90	20,017	4	0	3	133	21,992	4	0	3	147	21,992	4	0	3	147
		AFRL90	20,101	4	0	3	134	22,084	4	0	3	147	22,084	4	0	3	147
P4	187W	R2	22,836	3	0	2	120	25,090	3	0	2	132	25,090	3	0	2	132
		R3	22,756	3	0	4	122	25,002	3	0	4	134	25,002	3	0	4	134
		R3S	23,363	3	0	3	123	25,668	3	0	3	135	25,668	3	0	3	135
		R4	23,054	3	0	4	123	25,329	3	0	4	135	25,329	3	0	4	135
		R4S	22,243	3	0	3	119	25,059	3	0	3	134	25,059	3	0	3	134
		R5	23,363	5	0	3	125	25,669	5	0	4	137	25,669	5	0	4	137
		R5S	23,983	4	0	2	128	26,350	4	0	2	141	26,350	4	0	2	141
		AFR	22,806	3	0	2	122	25,056	3	0	2	134	25,056	3	0	2	134
		AFRR90	23,023	4	0	3	121	25,295	4	0	3	133	25,295	4	0	3	133
		AFRL90	23,120	4	0	3	122	25,401	4	0	3	134	25,401	4	0	3	134
P5	210W	R2	26,141	3	0	2	122	28,721	3	0	2	135	28,721	3	0	2	135
		R3	26,049	3	0	4	124	28,620	3	0	4	136	28,620	3	0	4	136
		R3S	26,744	3	0	3	125	29,383	3	0	4	138	29,383	3	0	4	138
		R4	26,390	3	0	4	126	28,994	3	0	4	138	28,994	3	0	4	138
		R4S	25,462	3	0	3	121	27,974	3	0	3	133	27,974	3	0	3	133
		R5	26,744	5	0	4	127	29,383	5	0	4	140	29,383	5	0	4	140
		R5S	27,454	4	0	2	131	30,163	4	0	2	144	30,163	4	0	2	144
		AFR	26,106	3	0	2	124	28,682	3	0	2	137	28,682	3	0	2	137
		AFRR90	26,354	4	0	3	123	28,955	5	0	3	136	28,955	5	0	3	136
		AFRL90	26,465	4	0	3	124	29,077	5	0	3	136	29,077	5	0	3	136
P6	244W	R2	27,646	3	0	2	112	30,374	3	0	2	123	30,374	3	0	2	123
		R3	27,549	3	0	4	113	30,267	3	0	4	124	30,267	3	0	4	124
		R3S	28,283	3	0	3	115	31,075	3	0	4	126	31,075	3	0	4	126
		R4	27,909	3	0	4	114	30,663	3	0	4	126	30,663	3	0	4	126
		R4S	26,928	3	0	3	110	29,585	3	0	3	121	29,585	3	0	3	121
		R5	28,284	5	0	4	116	31,075	5	0	4	127	31,075	5	0	4	127
		R5S	29,035	4	0	2	119	31,900	5	0	3	131	31,900	5	0	3	131
		AFR	27,608	3	0	2	112	30,332	3	0	2	123	30,332	3	0	2	123
		AFRR90	27,872	4	0	3	113	30,622	5	0	3	124	30,622	5	0	3	124
		AFRL90	27,989	4	0	3	113	30,751	5	0	3	125	30,751	5	0	3	125

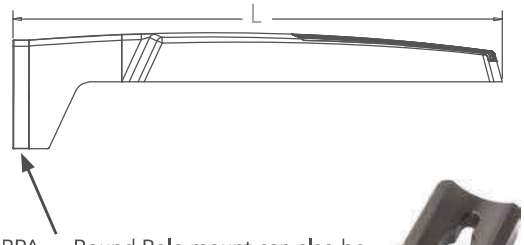
Dimensions & Weights

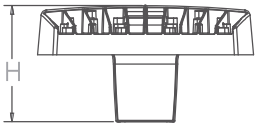
Luminaire Weight by Mounting Type

Mounting Configuration	Total Luminaire Weight
SPA	30 lbs
RPA	32 lbs
MA	30 lbs
WBA	33 lbs
WBASC	36 lbs
IS	33 lbs
AASP	33 lbs
AARP	35 lbs
AAWB	36 lbs
AAWSC	39 lbs

RSX2 with Round Pole Adapter (RPA)



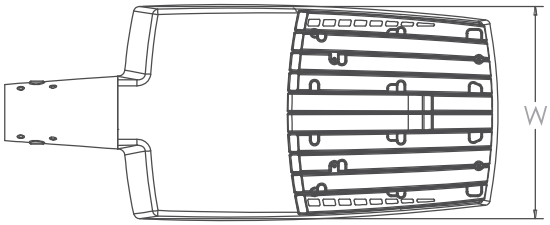


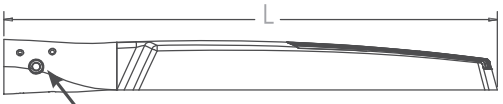


Length: 30.3" (77.0 cm)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
7.2" (18.3 cm) Arm

Note: RPA — Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.

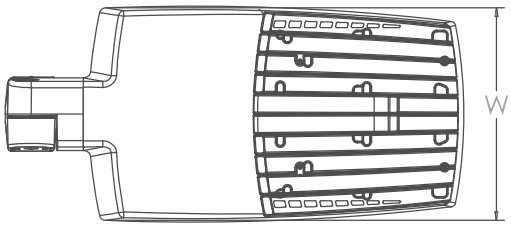
RSX2 with Mast Arm Adapter (MA)

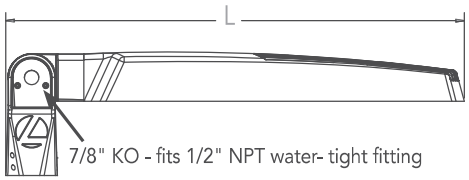


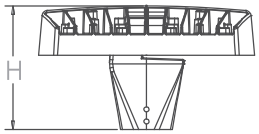


Length: 30.6" (77.7 cm)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
3.5" (8.9 cm) Arm

RSX2 with Adjustable Slipfitter (IS)



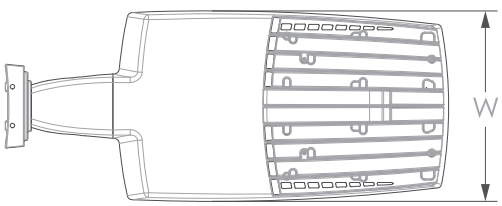


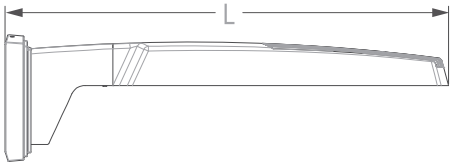


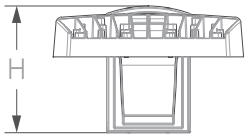
Length: 28.3" (71.9 cm)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
7.6" (19.3 cm) Arm

Dimensions

RSX2 with Wall Bracket (WBA)

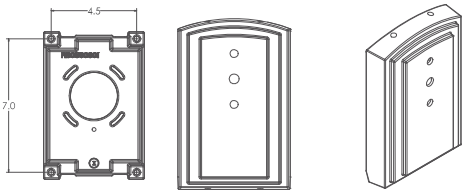




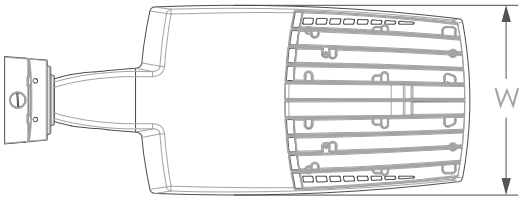


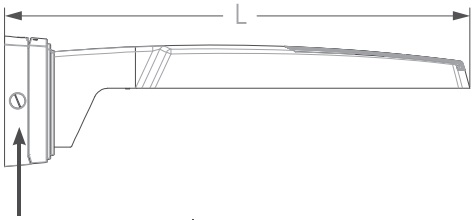
Length: 31.2" (79.2 cm)
Width: 13.4" (41.7 cm)
Height: 3.0" (7.6 cm) Main Body
8.9" (22.6 cm) Arm

Wall Bracket (WBA) Mounting Detail

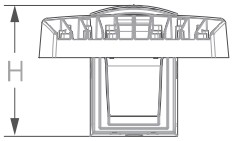


RSX2 with Wall Bracket with Surface Conduit Box (WBASC)



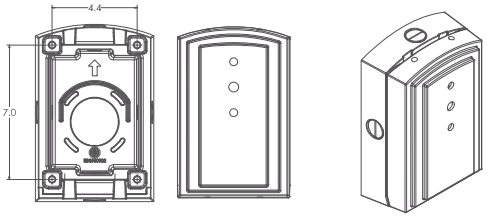


3/4" NPT taps with plugs - Qty (4) provided



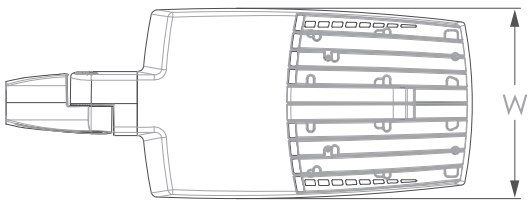
Length: 32.8" (83.3 cm)
Width: 13.4" (41.7 cm)
Height: 3.0" (7.6 cm) Main Body
9.2" (23.4 cm) Arm

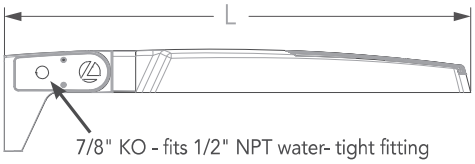
Surface Conduit Box (SCB) Mounting Detail

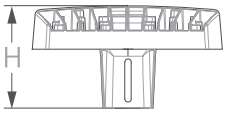


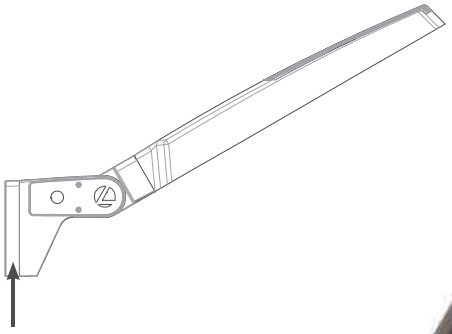
Dimensions

RSX2 with Adjustable Tilt Arm - Square or Round Pole (AASP or AARP)







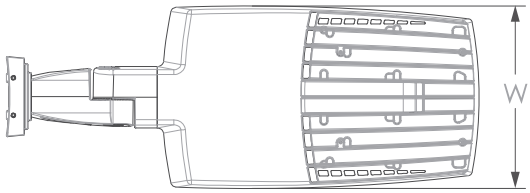


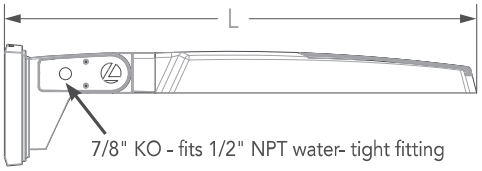
Length: 32.8" (83.3 cm) **AASP**
33.8" (85.9 cm) **AARP**
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
7.2" (18.2 cm) Arm

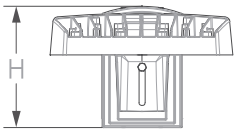
NOTE:
RPA - Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.

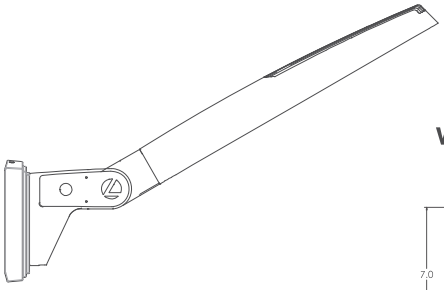
Notes
AASP: Requires 3.0" min. square pole for 1 at 90°. Requires 3.5" min. square pole for mounting 2, 3, 4 at 90°.
AARP: Requires 3.2" min. dia. round pole for 2, 3, 4 at 90°. Requires 3.0" min. dia. round pole for mounting 1 at 90°, 2 at 180°, 3 at 120°.

RSX2 with Adjustable Tilt Arm with Wall Bracket (AAWB)



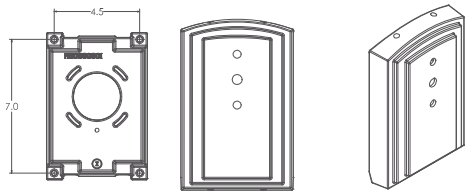






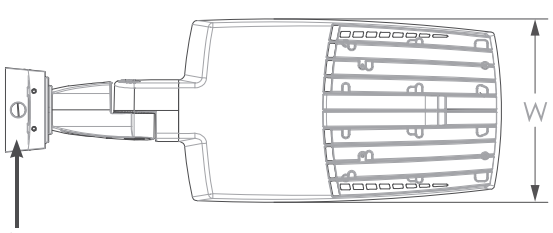
Length: 34.7" (88.0 cm)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
8.9" (22.6 cm) Arm

Wall Bracket (WBA) Mounting Detail

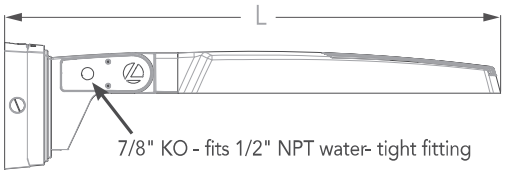


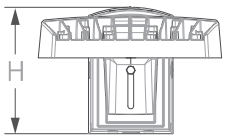
Dimensions

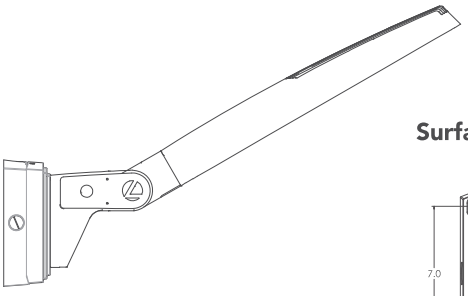
RSX2 with Adjustable Tilt Arm with Wall Bracket and Surface Conduit Box (AAWSC)



3/4" NPT taps with plugs - Qty (4) provided

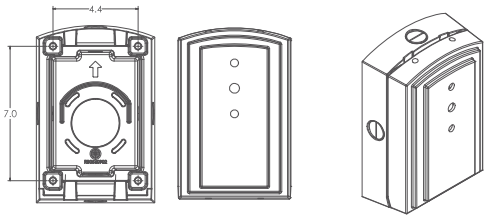




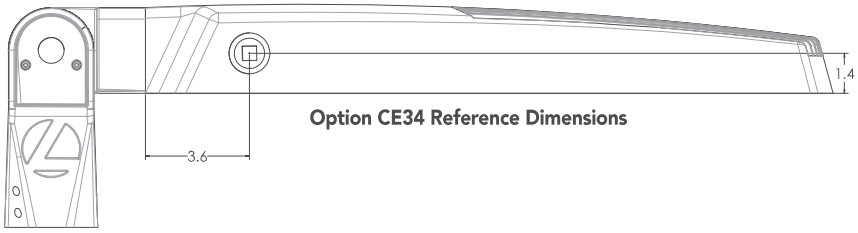


Length: 36.2" (91.9 cm)
Width: 13.4" (40.0 cm)
Height: 3.0" (7.6 cm) Main Body
9.2" (23.4 cm) Arm

Surface Conduit Box (SCB) Mounting Detail

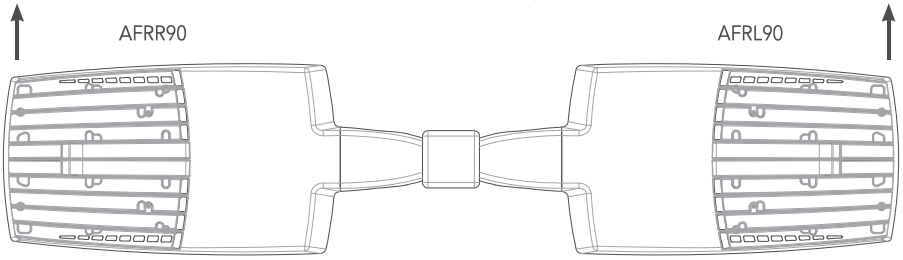


Additional Reference Drawings



Option CE34 Reference Dimensions

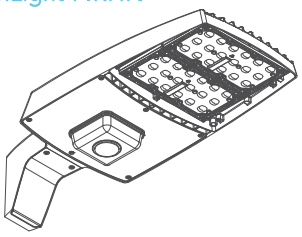
Automotive Front Row - Rotated Optics (AFRL90/R90)

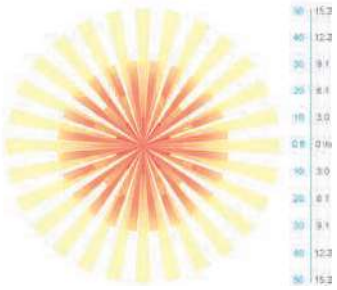


(Example: 2@180 - arrows indicate direction of light exiting the luminaire)

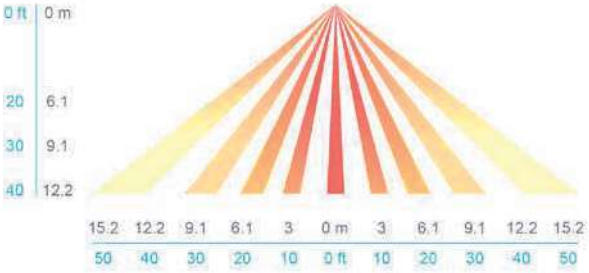
NLTAIR2 PIRHN nLight Sensor Coverage Pattern

nLight PIRHN





Top



Side

Motion Sensor Default Settings - Option PIRHN						
Option	Dimmed State (unoccupied)	High Level (when occupied)	Photocell Operation	Dwell Time (occupancy time delay)	Ramp-up Time (from unoccupied to occupied)	Ramp-down Time (from occupied to unoccupied)
NLTAIR2 PIRHN	Approx. 30% Output	100% Output	Enabled @ 1.5FC	7.5 minutes	3 seconds	5 minutes

*Note: NLTAIR2 PIRHN default settings including photocell set-point, high/low dim rates, and occupancy sensor time delay are all configurable using the Clairity Pro App. Sensor coverage pattern shown with luminaire at 0°. Sensor coverage pattern is affected when luminaire is tilted.

FEATURES & SPECIFICATIONS

INTENDED USE
The RSX LED area family is designed to provide a long-lasting, energy-efficient solution for the one-for-one replacement of existing metal halide or high pressure sodium lighting. The RSX2 delivers 11,000 to 31,000 lumens and is ideal for replacing 250W to 1000W HID pole-mounted luminaires in parking lots and other area lighting applications.

CONSTRUCTION AND DESIGN
The RSX LED area luminaire features a rugged die-cast aluminum main body that uses heat-dissipating fins and flow-through venting to provide optimal thermal management that both enhances LED performance and extends component life. Integral "no drill" mounting arm allows the luminaire to be mounted on existing pole drillings, greatly reducing installation labor. The light engines and housing are sealed against moisture and environmental contaminants to IP66. The low-profile design results in a low EPA, allowing pole optimization. Vibration rated per ANSI C136.31: 3G Mountings: Include SPA, RPA, MA, IS, AASP, AARP rated for 3G vibration. 1.5G Mountings: Include WBA, WBASC, AAWB and AAWSC rated for 1.5G vibration.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures superior adhesion as well as a minimum finish thickness of 3 mils. The result is a high-quality finish that is warrantied not to crack or peel.

OPTICS
Precision acrylic refractive lenses are engineered for superior application efficiency, distributing the light to where it is needed most. Available in short and wide pattern distributions including Type 2, Type 3, Type 3S, Type 4, Type 4S, Type 5, Type 5S, AFR (Automotive Front Row) and AFR rotated AFRR90 and ARFL90.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs mounted on metal-core circuit boards and aluminum heat sinks to maximize heat dissipation. Light engines are IP66 rated. LED lumen maintenance is >L92/100,000 hours. CCT's of 3000K, 4000K and 5000K (minimum 70 CRI) are available. Class 1 electronic drivers ensure system power factor >90% and THD <20%. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The RSX LED area luminaire has a wide assortment of control options. Dusk to dawn controls include MVOLT and 347V button-type photocells and NEMA twist-lock photocell receptacles.

nLIGHT AIR CONTROLS
The RSX LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing with photocontrol functionality and is suitable for mounting heights up to 40 feet. No commissioning is required when using factory default settings that provide basic stand-alone motion occupancy dimming that is switched on and off with a built-in photocell. See chart above for motion sensor default out-of-box settings. For more advanced wireless functionality, such as group dimming, nLight AIR can be commissioned using a smartphone and the easy-to-use CLAIRITY app. nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION
Integral "no-drill" mounting arm allows for fast, easy mounting using existing pole drillings. Select the "SPA" option for square poles and the "RPA" option to mount to round poles. Note, the RPA mount can also be used for mounting to square poles by omitting the RPA adapter plate. Select the "MA" option to attach the luminaire to a 2 3/8" horizontal mast arm or the "IS" option for an adjustable slipfitter that mounts on a 2 3/8" OD tenon. The adjustable slipfitter has an integral junction box and offers easy installation. Can be tilted up to 90° above horizontal. Additional mountings are available including a wall bracket, adjustable tilt arm for direct-to-pole and wall and a surface conduit box for wall mount applications.

LISTINGS
CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Catalog Number	
Notes	
Type	

Contractor Select™

COMPACT PRO™

LED Round High Bay

The Compact Pro High Bay (CPRB) is a budget-oriented high bay designed specifically with the contractor in mind. Its compact design makes it easier and quicker to install. Compact Pro is built with quality to last and performance to meet the needs of the job, making it the best choice for affordable and reliable light-duty industrial applications like warehouses, gymnasiums, and multiple purpose rooms.

FEATURES:

- Compact design saves time and money during installation.
- Patent pending innovative control lens.
- Robust 6kV surge protection per ANSI standards for Industrial environments.
- Operates up to 55°C ambient.
- Standard with permanently attached die-cast aluminum hook with safety latch. Patent pending. Also includes 7' safety chain.
- 0-10V dimming driver standard for 10% to 100% dimming capabilities.

Catalog number	UPC	Description	Lumens	Input watts	Color temperature	Color rendering	Voltage	Distribution	Pallet Qty.
CPRB 18LM MVOLT 40K 80CRI DWH	00196182615429	LED Round High Bay	18,000	132	4000K	80	120-277	Medium	132
CPRB 24LM MVOLT 40K 80CRI DWH	00196182615498	LED Round High Bay	24,000	175	4000K	80	120-277	Medium	66
CPRB AL013 UVOLT SWW9 80CRI DWH	00196182615023	LED Round High Bay	12000/15000/18000	83/106/132	4000/5000K	80	120-347	Medium	132
CPRB AL013 UVOLT SWW9 80CRI DBL	00196182615054	LED Round High Bay	12000/15000/18000	83/106/132	4000/5000K	80	120-347	Medium	132
CPRB AL014 UVOLT SWW9 80CRI DWH	00196182615061	LED Round High Bay	21000/24000/27000	148/175/195	4000/5000K	80	120-347	Medium	66
CPRB AL014 UVOLT SWW9 80CRI DBL	00196182615078	LED Round High Bay	21000/24000/27000	148/175/195	4000/5000K	80	120-347	Medium	66

Accessories: *Order as separate catalog number.*

Mounting:

CPRBSMB	Surface mount bracket (galvanized)
JEBLMTG ADAPTER M12	3/4" reducer
LPM	Loop, male, damp location
JCBLSC120	10' safety cable
JCBLSC240	20' safety cable

CS CONTRACTOR SELECT™

LITHONIA LIGHTING®

Specifications

INTENDED USE:

Ideal one-for-one replacement of conventional lighting systems such as HID and fluorescent. For use in light Industrial applications such as, warehousing, gymnasiums, multi-purpose rooms, and other large indoor spaces. **Certain airborne contaminants can diminish integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.**
Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.

CONSTRUCTION:

Cast driver housing gives superior thermal performance. Patent pending polycarbonate lens diffuses light source and reduces glare while protecting LEDs and providing medium distribution. Available in two sizes with optional switchable lumens (12000/15000/18000 or 21000/24000/27000) and color temperatures (4000K/5000K). Static lumen and color temperature versions also available. Field installable sensors available.

FINISH:

Black and white finishes available on switchable units and static available in white only.

ELECTRICAL:

70% lumen maintenance at > 54,000 hours. Thermally protected driver standard with 0-10V dimming allowing for 10% to 100% dimming capability. Fixture comes standard with 6' power cord and 6' low voltage dimming cord. Luminaire surge protection level: designed to withstand up to 6kV/3kA per ANSI C82.77-5-2015 Multi-volt driver, 120-277V standard for static versions. UVOLT driver, 120-347V standard with switchable versions.

INSTALLATION:

Compact Pro™ package includes patent pending permanently attached hook with safety latch safety hook and 7' galvanized safety cable. 3/4" reducer available for stem or hook mounting. Optional surface mount bracket also available.

LISTINGS:

CSA listed. Damp location listed. IP54 rated. Designed for use in ambient temperatures ranging from -40°C to 55°C when suspended 18" off ceiling; with the exception of ALO14 which has a -37° C starting temperature.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

Lumens package	Length	Width	Depth	Weight
	Dimensions shown in inches (centimeters)			Shown in pounds (kg)
18LM	12.98	12.98	3.16	5
24LM	15.14	15.14	3.35	6.1
ALO13	12.98	12.98	3.16	5
ALO14	15.14	15.14	3.35	6.1

Field installable sensors*	Utilizes sensor
CPRBSNSR MSD7 0V DWH KIT	MSD 7 WH 0V
CPRBSNSR MSD7 5V DWH KIT	MSD 7 WH 5V
CPRBSNSR MSD7 ADC 0V DWH KIT	MSD 7 ADC WH 0V
CPRBSNSR MSD7 ADC 5V DWH KIT	MSD 7 ADC WH 5V
CPRBSNSR MSD ADC 0V DWH KIT	MSD ADC WH 0V
CPRBSNSR MSD ADC 5V DWH KIT	MSD ADC WH 5V
CPRBSNSR MSD7 0V DBL KIT	MSD 7 WH 0V
CPRBSNSR MSD7 5V DBL KIT	MSD 7 WH 5V
CPRBSNSR MSD7 ADC 0V DBL KIT	MSD 7 ADC WH 0V
CPRBSNSR MSD7 ADC 5V DBL KIT	MSD 7 ADC WH 5V
CPRBSNSR MSD ADC 0V DBL KIT	MSD ADC WH 0V
CPRBSNSR MSD ADC 5V DBL KIT	MSD ADC WH 5V
CPRBSNSR RMSOD7 DWH KIT	RMSOD 7 ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD7 DBL KIT	RMSOD 7 BW ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD45 DWH KIT	RMSOD 45 ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD45 DBL KIT	RMSOD 45 BW ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD45A DWH KIT	RMSOD 45A ZT EXTDB 90D 50FC G2 J100
CPRBSNSR RMSOD45A DBL KIT	RMSOD 45A BW ZT EXTDB 90D 50FC G2 J100

* All sensor kits include sensor mounting plate in white (DWH) or black(DBL) to match your fixture.

ACCESSORIES

LPM

3/4" mounting adapter

CPRBSMB

CONTRACTOR SELECT™

LITHONIA LIGHTING

Catalog Number	
Notes	
Type	

Contractor Select™

COMPACT PRO™

LED High Bay

The Compact Pro High Bay (CPHB) is a budget-oriented high bay designed specifically with the contractor in mind. Its compact design makes it easier and quicker to install. Compact Pro is built with quality to last and performance to meet the needs of the job, making it the best choice for affordable and reliable light-duty industrial applications like warehouses.

FEATURES:

- Compact design saves time and money during installation
- Innovative Glare Control lens meets new DLC 5.1 standards
- Robust 6kV surge protection standard per ANSI standards for Industrial environments
- Operates up to 55°C ambient
- Includes mounting hardware (V-hook & 36" hanger chain)

NOM DLC LISTED PREMIUM DAMP LOCATION™ SA® C US DIMMABLE LED

Catalog Number	UPC	Description	Lumens	Input Watts	Color Temperature	Color Rendering	Voltage	Distribution	Pallet Qty.
CPHB 12LM MVOLT 40K	00194994608325	14" LED High Bay	12,261	88	4000 K	80 CRI	120-277V	Medium	204
CPHB 12LM MVOLT 50K	00194994429548	14" LED High Bay	12,342	88	5000 K	80 CRI	120-277V	Medium	204
CPHB 15LM MVOLT 40K	00194994429562	14" LED High Bay	14,857	104	4000 K	80 CRI	120-277V	Medium	204
CPHB 15LM MVOLT 50K	00194994429593	14" LED High Bay	14,955	104	5000 K	80 CRI	120-277V	Medium	204
CPHB 18LM MVOLT 40K	00194994608295	14" LED High Bay	18,364	134	4000 K	80 CRI	120-277V	Medium	204
CPHB 18LM MVOLT 50K	00194994429630	14" LED High Bay	18,485	134	5000 K	80 CRI	120-277V	Medium	204
CPHB 24LM MVOLT 40K	00194994429685	22" LED High Bay	24,890	174	4000 K	80 CRI	120-277V	Medium	102
CPHB 24LM MVOLT 50K	00194994429753	22" LED High Bay	25,054	174	5000 K	80 CRI	120-277V	Medium	102
CPHB 30LM MVOLT 40K	00194994429746	22" LED High Bay	30,298	214	4000 K	80 CRI	120-277V	Medium	102
CPHB 30LM MVOLT 50K	00194994429784	22" LED High Bay	30,498	214	5000 K	80 CRI	120-277V	Medium	102
CPHB ALO13 MVOLT SWW9 80CRI DWH	00196183428561	14" LED High Bay	12000/15000/18000	89/115/140	4000K/5000K	80CRI	120-277V	Medium	204
CPHB ALO16 MVOLT SWW9 80CRI DWH	00196183428578	22" LED High Bay	24000/27000/30000	177/205/222	4000K/5000K	80CRI	120-277V	Medium	102

More configurations are available. Click here or visit www.acuitybrands.com and search for CPHB.

Accessories: *Order as separate catalog number.*

Mounting:

IBAC120 M100	Aircraft cable 10' with hook (one pair)
IBAC240 M75	Aircraft cable 20' with hook (one pair)
IBHMP	Hook monopoint
CPHBPMPSM	Pendant Monopoint splice box with 3/4" hub (for 12LM - 18LM) ‡
CPHBPMPMD	Pendant Monopoint splice box with 3/4" hub (for 24LM - 30LM) ‡
ZACVH	Aircraft 10' V hanger (one pair)
THUN J2	Surface mount bracket ‡

Wire guards:

WGCPHBSM	Wire guard for CPHB (12LM - 18LM)
WGCPHBMD	Wire guard for CPHB (24LM - 30LM)

‡ Option Value Ordering Restrictions

Option value	Restriction
CPHBPMPSM/MD	Pendant monopoint splice boxes will require wiring from access plate to splice box KO if power is being dropped through pendant conduit. Fixture does not have a KO in center to pull power out of driver channel through splice box
THUN J2	Order quantity required in multiples of 2. 12LM - 18LM requires one per fixture, 24LM - 30LM require two per fixture.

CS CONTRACTOR SELECT™

LITHONIA LIGHTING

Specifications

INTENDED USE:

Ideal one-for-one replacement of conventional lighting systems such as HID and fluorescent. For use in light Industrial applications such as warehousing and other large indoor spaces with mounting heights ranging from 10' – permitted. **Certain airborne contaminants can diminish integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses. Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.**

CONSTRUCTION:

Extruded aluminum channels enable superior thermal performance.

Glare Control Lens diffuses light source and reduces glare while protecting LEDs.

Lens meets DLC 5.1 standards for UGR (Unified Glare Rating)

Available in two sizes with optional switchable lumens (12000/15000/18000 or 24000/27000/30000) and color temperatures (4000K/5000K).

ELECTRICAL:

70% lumen maintenance at > 100,000 hours.

Thermally protected driver standard with 0-10V dimming.

Luminaire surge protection level: designed to withstand up to 6kV/3kA per ANSI C82.77-5-2015.

Multi-volt driver, 120-277V standard.

INSTALLATION:

Fixture package includes V-hanger hardware kit with 2- V-hanger brackets and 2- 36" chain lengths.

Fixture is suitable for mounting by chain, cable, surface-mount bracket, or hook monopoint. Surface mounting available using optional THUN surface mount bracket (order separately). Designed for use in ambient temperatures ranging from -40°C to 55°C when suspended 18" off ceiling. Max operating temperature of 45°C when surface mounted.

LISTINGS:

CSA listed. Damp location listed.

DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

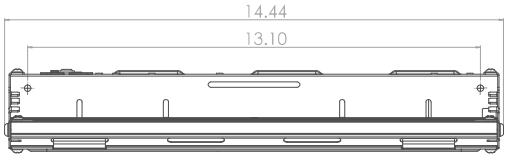
WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

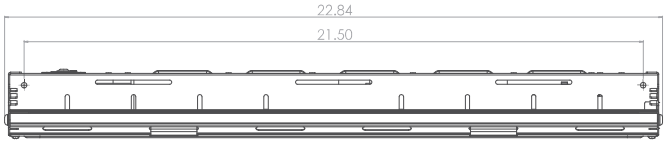
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

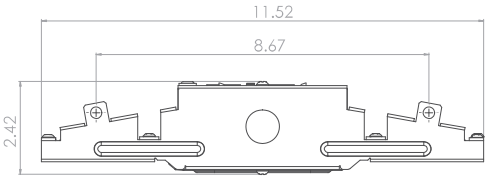
All dimensions are inches (centimeters) unless otherwise indicated.



Side View: CPHB 12LM, 15LM, 18LM, ALO13



Side View: CPHB 24LM, 30LM, ALO16



End View: CPHB 12LM, 15LM, 18LM, 24LM, 30LM, ALO13, ALO16

Lumen package	Length	Width	Depth	Weight
	Dimensions shown in inches (centimeters)			Shown in pounds (kg)
12000LM	14.4 (36.6)	11.5 (29.2)	2.3 (5.8)	5 (2.2)
15000LM	14.4 (36.6)	11.5 (29.2)	2.3 (5.8)	5 (2.2)
18000LM	14.4 (36.6)	11.5 (29.2)	2.3 (5.8)	6.5 (2.9)
24000LM	22.8 (57.9)	11.5 (29.2)	2.3 (5.8)	8 (3.6)
30000LM	22.8 (57.9)	11.5 (29.2)	2.3 (5.8)	8 (3.6)
ALO13	14.4 (36.6)	11.5 (29.2)	2.3 (5.8)	6.6 (3.0)
ALO16	22.8 (57.9)	11.5 (29.2)	2.3 (5.8)	8.1 (3.7)

Nomenclature	Lumen Package	CCT	Lumens	Wattage	Efficacy
CPHB ALO13 MVOLT SWW9 80CRI DWH	12000LM	4000K	12272	89	138
		5000K	12465	89	140
	15000LM	4000K	15117	112	135
		5000K	15248	112	136
	18000LM	4000K	18265	138	132
		5000K	18395	138	133
CPHB ALO16 MVOLT SWW9 80CRI DWH	24000LM	4000K	24193	176	138
		5000K	24415	177	138
	27000LM	4000K	27345	202	135
		5000K	27679	204	136
	30000LM	4000K	29578	221	134
		5000K	29755	222	134

Classic Series
Medium Wall Light

PROJECT INFORMATION	
JOB NAME	
FIXTURE TYPE	Medium Wall Light
CATALOG NUMBER	
APPROVED BY	

SPECIFICATIONS

Construction:
Rugged traditional aluminum die cast housing provides proven environmental protection for LED modules. Traditional fixture designs provide a familiar look and standard installation requirements. Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility.

Glare Free:
Positioning of the LED modules within the housing result in light directed to desired locations and eliminates offensive light.

Lens:
Borosilicate glass lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.

Positioning of the LEDs (along with Patent Pending thermal management system) results in the light being directed to desired locations eliminating glare and offensive light.

Thermal Management:
Atlas' Patent Pending exclusive Thermal Management System™ features a unique internal design that allows for lower operating temperatures which results in a brighter, whiter light, more stable color and longer LED and driver life.

Listings:
Luminaire is certified to UL/cUL Standards for Wet Locations

DesignLights Consortium qualified luminaire, eligible for rebates from DLC member utilities. [2]*See chart on other next page for qualifying products.*

AC Input: 120/208/240/277V 347/480V

Lifespan: 200,000+ hrs.[1]

Driver:
Constant current, Class 2, 120-277 VAC, 50-60 Hz
High Efficiency – min. 88%z
0-10 V Dimming

LEDs:
3000K, 4000K, 4500K, 5000K CCT Fixed |
4000K, 4500K, 5000K CCT Selectable
Epoxy Guard™ protective conformal coated boards
Atlas LEDs provide higher lumen output, greater energy efficiency and more reliable fixture performance.

Testing:
Atlas LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 & LM-80.

Warranty: Five-year limited warranty

Installation:
Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

Emergency Back-up: For factory installed Emergency Back-Up add suffix EB to part number.

480 Volt: For 480V add suffix 4 to part number.

MANUFACTURED & TESTED IN USA

DLC LISTED [2]

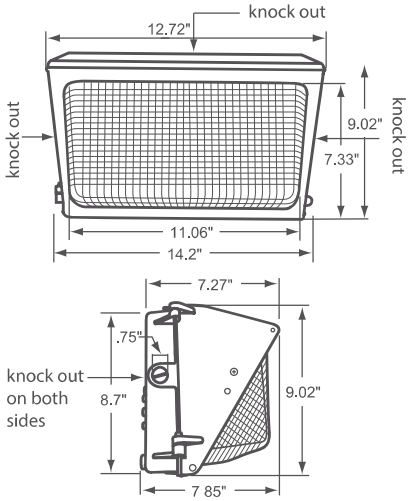
c UL us LISTED

5 YEAR WARRANTY

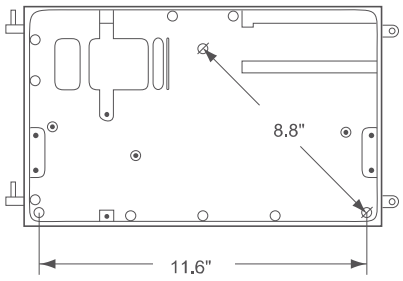
BUY AMERICAN COMPLIANT*

DIMENSIONS

Weight: 9.25 lbs.



MOUNTING DETAIL



[1]*LED Lifespan Based Upon LM-70 Test Results*

Rebates and Incentives are available in many areas.
Contact an Atlas Representative for more information.

Atlas Lighting Products, Inc.
PO Box 2348 | Burlington, NC 27216
800-849-8485 | fax: 1-855-847-2794 | www.atlasled.com

*The majority of Atlas Lighting Products are assembled in USA facilities by an American Workforce utilizing both Domestic and Foreign components. Meets Buy American requirements within the ARRA.

Classic Series
Medium Wall Light

ORDERING INFORMATION

WLM	S	3-9L					
PRODUCT SERIES	SELECTABLE	LUMEN PACKAGE	COLOR TEMP.	CONTROLS	VOLTAGE	FIXTURE COLOR	OPTIONS
WLM = Medium Wall Light	blank = Fixed	43LED = 43 Watts 64LED = 64 Watts 80LED = 80 Watts	Blank = 4500K 3K = 3000K 4K = 4000K 5K = 5000K	Blank = Dimming (0-10V) PC = 120V Photocontrol PM = 120-277V Photocontrol	Blank = 120-277 4 = 347/480* *LP only	Blank = Bronze WT = White* BK = Black* *optional with adder	EB = Emergency Back-up SP = Surge Protection
	S = Selectable	3-9L = 2,500, 5,500, 7,500, 9,000 Lumens Selectable	blank = Selectable (4000K, 4500K, 5000K)	blank = 120-277V Photocontrol Installed LP = Less Photocontrol			

PERFORMANCE DATA

FIXED

UNIT	CRI	3000K CCT		4000K CCT		4500K CCT		5000K CCT		WATTS	BUG RATING	REPLACES UP TO
		DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)			
43LED	80	3,908	96	5,276	122	5,726	122	5,308	122	44	B1-U3-G3	175W MH
64LED	80	5,699	92	5,699	92	6,793	113	6,793	113	62	B1-U4-G3	400W MH
80LED	80	8,615	109	8,615	109	8,615	109	8,875	113	79	B2-U4-G4	400W MH

SELECTABLE

UNIT	CRI	Selectable 4000K CCT		Selectable 4500K CCT		Selectable 5000K CCT		WATTS	BUG RATING	REPLACES UP TO
		DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)	DELIVERED LUMENS	EFFICACY (LPW)			
3L - 9L	80	2,601	120	2,704	125	2,602	121	22	B2-U4-G4	400W MH
	80	5,513	126	5,732	131	5,516	126	44		
	80	7,892	123	8,205	127	7,896	123	64		
	80	9,128	120	9,490	130	9,133	120	76		

DLC PRODUCT INFORMATION

UNIT	3000K CCT		4000K CCT		4500K CCT		5000K CCT	
	DLC PRODUCT ID	CLASSIFICATION	DLC PRODUCT ID	CLASSIFICATION	DLC PRODUCT ID	CLASSIFICATION	DLC PRODUCT ID	CLASSIFICATION
WLM43LED	n/a	n/a	PT0VHUH7	Standard	PDG4N6GHG	Standard	P2LGOBS9	Standard
WLM64LED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
WLM80LED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

UNIT	DLC PRODUCT ID	CLASSIFICATION
WLMS3-9L	PPJRDDGX	Standard

Atlas Lighting Products, Inc.
PO Box 2348 | Burlington, NC 27216
800-849-8485 | fax: 1-855-847-2794 | www.atlasled.com

The majority of Atlas Lighting Products are assembled in USA facilities by an American Workforce utilizing both Domestic and Foreign components. Meets Buy American requirements within the ARRA.

Classic Series
Large Wall Light

PROJECT INFORMATION

JOB NAME	
FIXTURE TYPE	Classic Large Wall Light
CATALOG NUMBER	
APPROVED BY	

SPECIFICATIONS

Construction:
Rugged traditional aluminum die cast housing provides proven environmental protection for LED modules. Traditional fixture designs provide a familiar look and standard installation requirements. Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility.

Glare Free:
Positioning of the LED modules within the housing result in light directed to desired locations and eliminates offensive light.

Lens:
Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.

Positioning of the LEDs (along with Patent Pending thermal management system) results in the light being directed to desired locations eliminating glare and offensive light.

Listings:
Luminaire is certified to UL/cUL Standards for Wet Locations

DesignLights Consortium qualified luminaire, eligible for rebates from DLC member utilities. [2]*See chart on other next page for qualifying products.*

AC Input: 120/208/240/277V 347/480V

Lifespan: 200,000+ hrs.[1]

Driver:
Constant current, Class 2, 120-277 VAC, 50-60 Hz
High Efficiency – min. 86%

Selectable Lumens and CCT:
Atlas selectable wall lights are quick and easy to select and set up. Selectable lumens range in 4,000 (30W), 7,500 (57W) / 11,000 (86W), 13,000 (102W).

Selectable CCTs: 4000K, 4500K, and 5000K.

LEDs:
Available in 3000K, 4000K, 4500K and 5000K CCT Fixed | 4000K, 4500K, 5000K CCT Selectable
Atlas LEDs provide higher lumen output, greater energy efficiency and more reliable fixture performance.

Reduced Glare:
Positioning of the LED modules within the housing result in light directed to desired locations and reduces offensive light.

Testing:
Atlas LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 & LM-80.

Warranty: Five-year limited warranty

Installation:
Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

Emergency Back-up: For factory installed Emergency Back-Up add suffix EB to part number.

[1]*LED Life Span Based Upon LM-70 Test Results*
[2]*Emergency Back-Up requires larger back housing. Contact Atlas for more details.*

MANUFACTURED & TESTED IN USA

DLC LISTED [2]

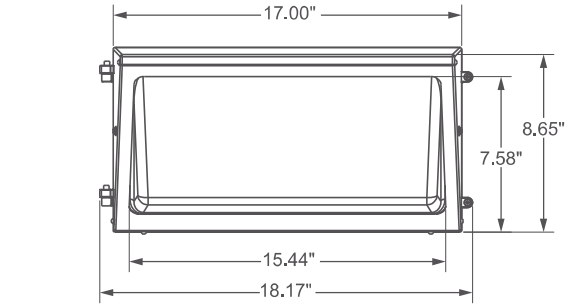
c UL us LISTED

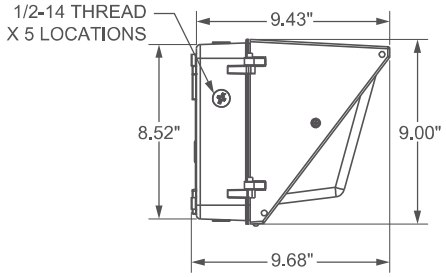
5 YEAR WARRANTY

BUY AMERICAN COMPLIANT*

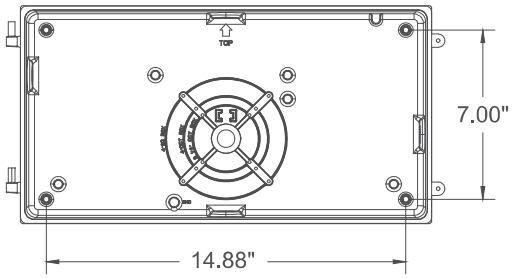
DIMENSIONS

Weight: 9.25 lbs.





MOUNTING DETAIL



Rebates and Incentives are available in many areas.
Contact an Atlas Representative for more information.

Atlas Lighting Products, Inc.
PO Box 2348 | Burlington, NC 27216
800-849-8485 | fax: 1-855-847-2794 | www.atlasled.com

*The majority of Atlas Lighting Products are assembled in USA facilities by an American Workforce utilizing both Domestic and Foreign components. Meets Buy American requirements within the ARRA.

Classic Series
Large Wall Light

ORDERING INFORMATION

WLD	S	4-13L					
PRODUCT SERIES	SELECTABLE	LUMEN PACKAGE	COLOR TEMP.	CONTROLS	VOLTAGE	FIXTURE COLOR	OPTIONS
WLD = Large Wall Light	blank = Fixed	64LED = 64 Watts 86LED = 86 Watts 120LED = 120 Watts	Blank = 4500K 3K = 3000K 4K = 4000K 5K = 5000K	Blank = Dimming (0-10V) PC = 120V Photocontrol PM = 120-277V Photocontrol	Blank = 120-277 4 = 347/480* *LP only	Blank = Bronze WT = White* BK = Black* *optional with adder	EB = Emergency Back-up SP = Surge Protection
	S = Selectable	4-13L = 4,000, 7,500, 11,000 13,000 Lumens Selectable	blank = Selectable (4000K, 4500K, 5000K)	blank = 120-277V Photocontrol Installed LP = Less Photocontrol	Blank = 120-277 4 = 347/480* *LP only		

PERFORMANCE DATA

FIXED

Unit	CRI	3000K CCT		4000K CCT		4500K CCT		5000K CCT		Watts	Replaces up to
		Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)		
64LED	80	7,168	117	7,168	117	7,168	117	7,662	126	62	400W MH
86LED	80	9,120	109	9,120	109	9,120	109	9,120	109	84	400W MH
120LED	80	12,510	106	13,170	114	13,170	114	13,170	114	118	400W MH

SELECTABLE

Lumen Package	CRI	Selectable 4000K CCT		Selectable 4500K CCT		Selectable 5000K CCT		Watts	Replaces up to
		Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)	Delivered Lumens	Efficacy (LPW)		
4L - 13L	70	3,897	134	4,073	139	3,889	133	29	1000W MH
	70	7,688	135	8,034	141	7,672	134	57	
	70	11,136	130	11,638	136	11,113	130	86	
	70	12,891	126	13,472	138	12,864	126	102	

DLC PRODUCT INFORMATION

Unit	3000K CCT		4000K CCT		4500K CCT		5000K CCT	
	DLC Product ID	Classification	DLC Product ID	Classification	DLC Product ID	Classification	DLC Product ID	Classification
FIXED								
WLD64LED	PLDHU776	Standard	PTKZCYS3	Standard	PATPE48EN	Standard	POLJ214Q	Standard
WLD86LED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
WLD120LED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

SELECTABLE

Unit	DLC Product ID	Classification
WLDS4-13L	PH9T7MLJ	Standard

Atlas Lighting Products, Inc.
PO Box 2348 | Burlington, NC 27216
800-849-8485 | fax: 1-855-847-2794 | www.atlasled.com

The majority of Atlas Lighting Products are assembled in USA facilities by an American Workforce utilizing both Domestic and Foreign components. Meets Buy American requirements within the ARRA.

Catalog Number	
Notes	
Type	

Contractor Select™

ESXF LED

Floodlights Adjustable+Switchable+Photocell

ESXF1 P0 knuckle mount

ESXF1 knuckle mount

ESXF2 knuckle mount

ESXF3 slipfitter mount

ESXF4 slipfitter mount

The Lithonia Lighting® ESXF LED floodlight is a general-purpose flood that offers a wide selection of options and flexibility. Easy access to adjustable lumen output, color switching, and a selectable photocell turns the ESXF into the fixture you need on the spot. With its wide flood (7x7) distribution and DLC performance, the ESXF is a cost-effective solution, great for illuminating yards, driveways, signage, patios, warehouses, and security applications.

FEATURES:

- Four sizes deliver 1,500 up to 20,000 lumens
- Three power levels of adjustable lumen output. Switchable CCT(30K/40K/50K) offers warm, cool and daylight in a single fixture
- Standard photocell can be turned on or off
- IP66 rated, Die-cast aluminum housing
- Two popular mounting options included
- up to 171 LPW

Adjustable Lumen Output ALO

Switchable CCT SWW2

Dusk-to-Dawn Operation PE

DLC LISTED · IP66 · LED · SP C US · WET LOCATION™ · 5 YEAR warranty

Catalog Number	Adjustable Lumen Output ALO			Switchable CCT SWW2	Dusk-to-Dawn Operation PE	Input Voltage	Included Mounting Options	CRI
ESXF1 P0 SWW2 THK DDB	2500L			Switchable 3000K, 4000K, 5000K	Included Standard, Selectable On/Off	120-277V	Knuckle Only, mounting plate	80CRI
ESXF1 ALO SWW2 KY DDB	1500L	3000L	5000L			120-277V	Knuckle & Yoke, mounting plate	
ESXF2 ALO SWW2 KY DDB	3500L	5500L	7500L			120-277V	Knuckle & Yoke, mounting plate	
ESXF3 ALO SWW2 YS DDB	8500L	10500L	14000L			120-277V	Yoke & SlipFitter	
ESXF3 ALO SWW2 UVOLT YS DDB						120-347V	Yoke & SlipFitter	
ESXF4 ALO SWW2 YS DDB	16000L	18000L	20000L			120-277V	Yoke & SlipFitter	
ESXF4 ALO SWW2 UVOLT YS DDB						120-347V	Yoke & SlipFitter	

More configurations are available. Click here or visit www.acuitybrands.com and search for ESXF LED.

ESXF Stock Configuations

Catalog Number	UPC	Ci Code	Number of fixtures per pallet	Traditional Replacement
ESXF1 P0 SWW2 THK DDB	00196182393051	*276AL6	400	150W Quartz or 75W HID
ESXF1 ALO SWW2 KY DDB	00196182393204	*276ALH	400	500W Quartz or 150W HID
ESXF2 ALO SWW2 KY DDB	00196182393242	*276ALU	360	500W Quartz or 175W HID
ESXF3 ALO SWW2 YS DDB	00196182393266	*276ALW	144	250W HID
ESXF3 ALO SWW2 UVOLT YS DDB	00196182393273	*276AM0	144	250W HID
ESXF4 ALO SWW2 YS DDB	00196182393280	*276AM2	144	400W HID
ESXF4 ALO SWW2 UVOLT YS DDB	00196182393297	*276AM4	144	400W HID

Accessories: *Order as separate catalog number.*

ESXF P0 and ESXF1 yoke mount accessory
*276ARA ESXF1YK DDB
Click here to visit Accessories.

CONTRACTOR SELECT™

LITHONIA LIGHTING

Included mounting options by size

ESXF1 P0 knuckle mount (pre-installed)

ESXF1 knuckle mount (pre-installed)

ESXF2 knuckle mount (pre-installed)

ESXF3 slipfitter mount

ESXF4 slipfitter knuckle

ESXF1 yoke mount

ESXF2 yoke mount

ESXF3 yoke mount

ESXF4 yoke mount

Electrical Performance Tables

	Lumen Output	Input Wattage	CCT/80CRI	Delivered Lumens	Lumens Per Watt @ 4000K, 80CRI
ESXF1 P0	2500L	17W	3000K	2,372	151
			4000K	2,522	
			5000K	2,503	
ESXF1	1500L	9W	3000K	1,467	171
			4000K	1,560	
			5000K	1,549	
	3000L	19W	3000K	2,915	162
			4000K	3,099	
			5000K	3,076	
	5000L	34W	3000K	4,748	147
			4000K	5,047	
			5000K	5,010	

	Lumen Output	Input Wattage	CCT/80CRI	Delivered Lumens	Lumens Per Watt @ 4000K, 80CRI
ESXF3	8500L	53W	3000K	8,139	163
			4000K	8,653	
			5000K	8,589	
	10500L	69W	3000K	10,156	156
			4000K	10,797	
			5000K	10,718	
	14000L	100W	3000K	13,609	145
			4000K	14,469	
			5000K	14,362	

	Lumen Output	Input Wattage	CCT/80CRI	Delivered Lumens	Lumens Per Watt @ 4000K, 80CRI
ESXF2	3500L	22W	3000K	3,377	163
			4000K	3,591	
			5000K	3,564	
	5500L	37W	3000K	5,315	151
			4000K	5,651	
			5000K	5,609	
	7500L	56W	3000K	7,223	137
			4000K	7,680	
			5000K	7,623	

	Lumen Output	Input Wattage	CCT/80CRI	Delivered Lumens	Lumens Per Watt @ 4000K, 80CRI
ESXF4	16000L	111W	3000K	15,508	148
			4000K	16,487	
			5000K	16,366	
	18000L	124W	3000K	17,274	148
			4000K	18,365	
			5000K	18,230	
	20000L	150W	3000K	19,583	139
			4000K	20,819	
			5000K	20,666	

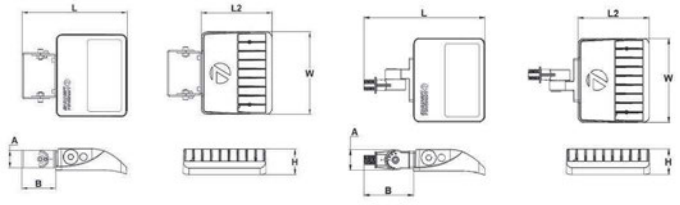
CS CONTRACTOR SELECT™

LITHONIA LIGHTING

Dimensions

All dimensions are inches (centimeters) unless otherwise indicated.

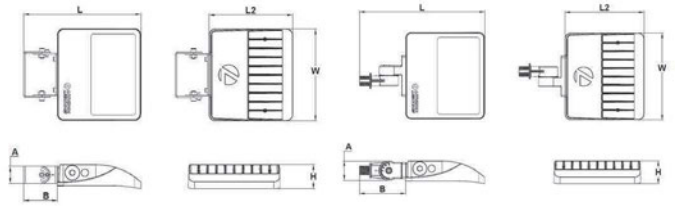
ESXF1



Front View | Side View | Front View | Side View

Luminaire	Length (L)	Width (W)	Height (H)	Yoke/Knuckle		L2	Weight
				A (Height)	B (Length)		
	Dimensions in inches" (centimeters)						Pounds (kg)
ESXF1 SWW2 ALO KY (Yoke)	7.65" (27.8cm)	6.04" (15.4cm)	1.86" (4.7cm)	1.26" (3.2cm)	2.48" (6.3cm)	5.17" (13.2cm)	2.31 lbs (1.048 kg)
ESXF1 SWW2 P0/ALO KY (Knuckle)	8.77" (22.3cm)	6.04" (15.4cm)	1.86" (4.7cm)	1.5" (3.8cm)	3.59" (9.1cm)	5.17" (13.2cm)	2.17 lbs (0.986 kg)

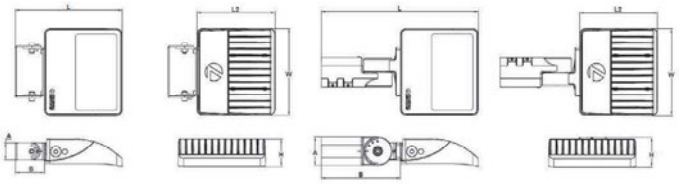
ESXF2



Front View | Side View | Front View | Side View

Luminaire	Length (L)	Width (W)	Height (H)	Yoke/Knuckle		L2	Weight
				A (Height)	B (Length)		
	Dimensions in inches" (centimeters)						Pounds (kg)
ESXF2 SWW2 ALO KY (Yoke)	8.64" (21.9cm)	6.75" (17.1cm)	1.8" (4.6cm)	1.26" (3.2cm)	2.48" (6.3cm)	6.16" (15.6cm)	2.92 lbs (1.324 kg)
ESXF2 SWW2 ALO KY (Knuckle)	9.75" (24.8cm)	6.75" (17.1cm)	1.8" (4.6cm)	1.5" (3.8cm)	3.59" (9.1cm)	6.16" (15.6cm)	2.79 lbs (1.264 kg)

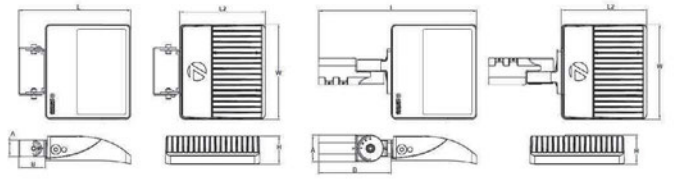
ESXF3



Front View | Side View | Front View | Side View

Luminaire	Length (L)	Width (W)	Height (H)	Yoke/Knuckle		L2	Weight
				A (Height)	B (Length)		
	Dimensions in inches" (centimeters)						Pounds (kg)
ESXF3 SWW2 ALO SY (Yoke)	10.54" (19.4cm)	8.95" (22.7cm)	2.84" (7.2cm)	1.77" (4.5cm)	2.99" (7.6cm)	7.97" (20.2cm)	6.21 lbs (2.818 kg)
ESXF3 SWW2 ALO SY (Slipfitter)	16.07" (40.8cm)	8.95" (22.7cm)	3.04" (7.7cm)	2.95" (7.5cm)	8.11" (7.5cm)	7.97" (20.2cm)	6.48 lbs (2.938 kg)

ESXF4



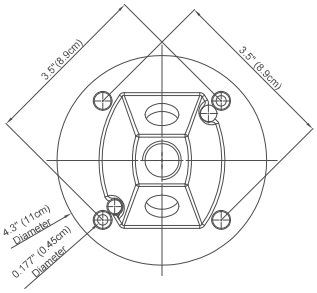
Front View | Side View | Front View | Side View

Luminaire	Length (L)	Width (W)	Height (H)	Yoke/Knuckle		L2	Weight
				A (Height)	B (Length)		
	Dimensions in inches" (centimeters)						Pounds (kg)
ESXF4 SWW2 ALO SY (Yoke)	12.54" (31.8cm)	10.54" (26.8cm)	3.12" (7.9cm)	1.77" (4.5cm)	2.99" (7.6cm)	9.55" (24.3cm)	8.17 lbs (3.706 kg)
ESXF4 SWW2 ALO SY (Slipfitter)	17.66" (44.8cm)	10.54" (26.8cm)	3.22" (8.2cm)	2.95" (7.5cm)	8.11" (20.6cm)	9.55" (24.3cm)	8.43 lbs (3.824 kg)

EPA Data

	Angle of Tilt	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
ESXF1	Project Area(ft^2)	0.078	0.114	0.15	0.183	0.21	0.231	0.246	0.25	0.25	0.25
	EPA(ft^2)	0.0936	0.1368	0.18	0.2196	0.252	0.2772	0.2952	0.3	0.3	0.3
ESXF2	Project Area(ft^2)	0.09	0.133	0.182	0.226	0.263	0.293	0.314	0.325	0.326	0.32
	EPA(ft^2)	0.108	0.1596	0.2184	0.2712	0.3156	0.3516	0.3768	0.39	0.3912	0.384
ESXF3	Project Area(ft^2)	0.23	0.285	0.383	0.471	0.548	0.608	0.65	0.673	0.674	0.66
	EPA(ft^2)	0.276	0.342	0.4596	0.5652	0.6576	0.7296	0.78	0.8076	0.8088	0.792
ESXF4	Project Area(ft^2)	0.23	0.365	0.494	0.609	0.707	0.785	0.84	0.869	0.87	0.81
	EPA(ft^2)	0.276	0.438	0.5928	0.7308	0.8484	0.942	1.008	1.0428	1.044	0.972

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.



Specifications

INTENDED USE:

The ESXF LED floodlight is designed to provide a cost effective, energy-efficient solution for the one-for-one replacement of existing traditional sources ranging from 150W quartz up to 400W metal halide. ESXF is well suited for general illumination of parking lots, signage, yards, walkways, landscaping, and other floodlighting applications. ESXF luminaires deliver a uniform, wide flood 7x7 light distribution.

CONSTRUCTION:

The ESXF LED floodlight features sealed die-cast aluminum body and is IP66 listed to withstand moisture and the elements for years to come.

ELECTRICAL:

ESXF features adjustable lumen output include, low, medium, and high. (ESXF P0 static only). Switchable CCT includes between 3000K(warm), 4000K(neutral) or 5000K(daylight) and a selectable dusk to dawn photocell that automatically turns the fixture on in the evening and off the next morning.

Standard 6kVsurge protection tested in accordance to ANSI/IEEE C62.41.2)Category C. ESXF LED luminaries use MVOLT (120-277V) as well as UVOLT (120-347V) on select models. Adjustable lumen output is achieved with 0-10V continuous dimming capable drivers, ensuring system power factor>90% and THD <20%.

INSTALLATION:

ESXF1 (P0) and ESXF2 ship with ½ NPS threaded knuckle mount factory installed and can be mounted to conduit bodies or to 4" electrical boxes using the provided round mounting plate. Yoke mounts can be easily changed in the field to mount to any solid surfaces (ESXF P0, knuckle mount only).

ESXF3 and ESXF4 include a yoke mounting for solid surface mounting and an integral slipfitter that mates with standard 2 3/8" tenons for pole-top mounting. All models ship standard with 18" SO cord.

LISTINGS:

CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. Rated for -40°C minimum ambient.

WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Factory settings
Lumen Output: High
CCT: 4000K
Photocell: On

Cabling Specification

Department of Technology Services

4/1/2020

Chris Ball
Infrastructure Engineer

Table of Contents

I. GENERAL

A. Purpose

1. The purpose of this document is to provide a standard defining the structured communications cabling systems to be installed within Williamson County facilities. It is geared toward leveraging our legacy cabling infrastructure while upgrading to more recent technologies in new installations. The goal is to accomplish this in the most economic and systematic fashion possible, and in a manner compliant with the latest codes, cabling standards and industry best practices.

2. Within this document, the facilities owner is Williamson County, and shall be referred to as such, or as “Wilco”, or as “Technology Services”. Bidding low-voltage installers shall be referred to as “Contractor”.

3. This specification defines quality standards and practices common to all Williamson County network cabling specifications.

4. In addition to this global cabling standard, individual projects will also have associated documentation such as Requests for Proposals (RFP), facility drawings, project schedules and requirements pertaining to that job. Such collateral will be referred to in this document as “Project-specific Documentation”, “Project Documentation”, or simply “Construction Documents”. Any conflict between this general specification and any project-specific documentation shall be brought to the attention of Williamson County by the Contractor and must be resolved in writing.

5. It is the responsibility of the installing contractor to evaluate these general recommendations and adapt them effectively to actual projects. Contractor is responsible for identifying and bringing to the attention of Williamson County any design directions that may be improved. All such changes shall be approved in writing from Technology Services.

6. Note that while many portions of this global specification are addressed to "The Contractor", these requirements apply equally to anyone doing the network cabling and infrastructure work within Williamson County, whether those persons are outside contractors or persons directly employed by Technology Services.

B. Scope of Work - Typical

1. Contractor shall be solely responsible for all parts, labor, testing, documentation and all other processes and physical apparatus necessary to turn over the completed cabling system and associated infrastructure fully warranted and operational for acceptance by Technology Services.

2. This specification includes structured cabling design considerations, product specifications and installation guidelines for low-voltage network systems and associated infrastructure including, but not limited to:

    a. Cabling Sub-system 1 – Horizontal Copper

    b. Cabling Sub-system 2 - Intrabuilding Fiber Backbone Cabling

c. Cabling Sub-system 3 – Interbuilding Fiber Backbone Cabling

d. Telecommunications Pathways

e. Communications Racks and Cable Managers

f. Communications Grounding Systems

g. Cabling Labeling and Administration

3. In addition to systems specifications, this document also addresses applicable codes and standards, contractor qualifications and requirements, system warranties and system testing and acceptance.

4. Products to be used in Williamson County network infrastructure projects are listed in “Appendix C” at the end of this document.

C. Applicable Regulatory References

1. Contractor is responsible for knowledge and application of current versions of all applicable standards and codes. In cases where listed standards and codes have been updated, Contractor shall adhere to the most recent revisions, including all relevant changes or addenda at the time of installation.

2. ANSI/TIA:

a. TIA-526-7 (OFSTP-7) (2008) Measurement of Optical Power Loss of Installed Single-Mode Fiber Cable Plant

b. TIA-526-14-B (2010) (OFSTP-14) Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant

c. ANSI/TIA/EIA-598-C (January 2005) Optical Fiber Cable Color Coding

d. ANSI/TIA-568-C.0 (September 2010) Generic Telecommunications Cabling for Customer Premises

e. TIA-568-C.0-1 (September 2010) Generic Telecommunications Cabling for Customer Premises-Addendum 1, Updated Reference for Balanced Twisted-Pair Cabling

f. ANSI/TIA-568-C.1 (February 2009) Commercial Building Telecommunications Cabling Standards

g. TIA-568-C.1-2 (November 2011) Commercial Building Telecommunications Cabling Standard, Addendum 2 General Updates

h. ANSI/TIA-568-C.2 (August 2009) Balance Twisted Pair Communications and Components Standards

i. TIA-568-C.2-2 (November 2014) Balanced Twisted-Pair Telecommunications Cabling and Components Standard, Addendum 2: Additional Considerations for Category 6A Patch Cord Testing

j. TSB-155-A: Guidelines for the Assessment and Mitigation of Installed Category 6 Cabling to Support 10GBASE-T

k. TSB-184: Guidelines for Supporting Power Delivery Over Balanced Twisted-Pair Cabling

l. ANSI/TIA-568-C.3 (June 2008) Optical Fiber Cabling Components Standard

m. ANSI/TIA-568-C.3-1 (December 2011) Optical Fiber Cabling Component Standard- Addendum 1, Addition of OM4 Cabled Optical Fiber and array connectors

n. TSB-4979 (August 2013) Practical Considerations for Implementation of Multimode Launch Conditions in the Field

o. TIA, TSB-140 Additional Guidelines for Field-Testing Length, Loss and Polarity of Optical Fiber Cabling Systems

p. ANSI/TIA-1183 (August 2012) Test Fixtures for Balun-Less Measurements of Balanced Components and Systems

q. ANSI/TIA-568-C.4 (July 2011) Broadband Coaxial Cabling Components Standard

r. ANSI/TIA-942-A (August 2012) Telecommunications Infrastructure Standard for Data Centers

s. ANSI/TIA-942-A-1 (March 2013) Telecommunications Infrastructure Standard for Data Centers, Addendum 1 - Cabling Guidelines for Data Center Fabrics

t. TIA-569-C (May 2012) Telecommunications Pathways and Spaces

u. TIA-569-C.1 (February 2013) Telecommunications Pathways and Spaces Addendum 1- Revised Temperature and Humidity Requirements for Telecommunications Spaces

v. TSB-190: Guidelines on Shared Pathways and Shared Sheaths

w. ANSI/TIA-606-B (June 2012) Administration Standard for Telecommunications Infrastructure

x. TIA-607-C (November 2015) Generic Telecommunications Grounding (Earthing) and Bonding for Customer Premises

y. TIA-607-B-1 (January 2013) Generic Telecommunications Grounding (Earthing) and Bonding for Customer Premises - External Grounding Addendum

z. TIA-607-B-2 (August 2013) Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises Addendum 2 – Structural Metal

aa. TIA-758-B (April 2012) Customer-Owned Outside Plant Telecommunication Infrastructure Standard

bb. ANSI/TIA-598-C-2005, Optical Fiber Cable Color-coding

cc. TIA-1152 (September 2009) Requirements for Field Test Instruments and Measurements for Balanced Twisted-Pair Cabling

dd. ANSI/TIA-862-A (April 2011) Building Automation Systems Cabling Standard

ee. TIA-1005-A (June 2012) Telecommunications Infrastructure Standard for Industrial Premises

ff. TSB-162-A (November 2013) Telecommunications Cabling Guidelines for Wireless Access Points

gg. ANSI/TIA-4966 (May 2014) Telecommunications Infrastructure Standard for Educational Facilities

3. ISO/IEC

a. ISO/IEC 11801 Edition 2.2: Information Technology – Generic Cabling For Customer Premises

b. ISO/IEC TR 11801-99-1 – Balanced cabling for 40Gbps channels – (2014-2015)

c. ISO/IEC 24764 Edition 1.0: Information Technology – Generic Cabling Systems For Data Centres

d. ISO/IEC 24764-1 - Data Centers - Amendment to add Intermediate Distributor (ID) for large or modular data centers

e. ISO/IEC 14763-2 Edition 1.0: Implementation and Operation of Customer Premises Cabling – Part 2: Planning and Installation

f. ISO/IEC 14763-3 Edition 2 – Testing of Optical Fiber Cabling – methods for inspection and testing of installed optical fiber

g. ISO/IEC TR 29125:2010 Information technology -- Telecommunications cabling requirements for remote powering of terminal equipment

4. National Electric Codes

a. National Electrical Safety Code (NESC) (IEEE C2-2012)

b. ANSI/NFPA 70-2011, National Electrical Code© (NEC©)

c. ANSI/IEEE C2-207, National Electrical Safety Code®

d. National Electrical Code (NEC) (NFPA 70)

5. OSHA Standards and Regulations – all applicable

6. Local Codes and Standards – all applicable

7. BICSI – Building Industry Consultative Services International

e. ANSI/BICSI 005-2013, Electronic Safety and Security (ESS) System Design and Implementation Best Practices

f. Information Transport Systems Installation Methods Manual (ITSIMM), 6th Edition

g. ANSI/BICSI 002-2011, Data Center Design and Implementation Best Practices

h. Network Systems and Commissioning (NSC) reference, 1st Edition

i. ANSI/NECA/BICSI 568-2006, Standard for Installing Commercial Building Telecommunications Cabling

j. NECA/BICSI 607-2011, Standard for Telecommunications Bonding and Grounding Planning and Installation Methods for Commercial Buildings

k. BICSI-003-2014 Building Information Modeling (BIM) Practices for Information Technology Systems

l. Telecommunications Distribution Methods Manual, 13th Edition

m. AV Design Reference Manual, 1st Edition

n. Network Design Reference Manual, 7th Edition

o. Outside Plant Design Reference Manual, 5th Edition

p. Wireless Design Reference Manual, 3rd Edition

q. Electronic Safety and Security Design Reference Manual, 3rd Edition

r. Commercial Installation On-the-Job Training Booklet

s. Telecommunications Project Management (TPM) reference, 1st Edition

8. Anywhere cabling standards conflict with one another or with electrical or safety codes, Contractor shall defer to the NEC and any applicable local codes or ordinances, or default to the most stringent requirements listed by either.

9. Knowledge and execution of applicable standards and codes is the sole responsibility of the Contractor.

10. Any violations of applicable standards or codes committed by the Contractor shall be remedied at the Contractor's expense.

D. Wilco Substitution Policy

1. This is a performance-based specification developed from the experience of Technology Services in providing exceptional solutions for all our facilities and departments. As such, substitution of specified systems is discouraged, but allowed if Contractor strictly follows Substitution Policy outlined below.

2. Contractors offering product substitutions or equivalents are responsible for proving equal or superior mechanical and transmission performance to those products listed herein.

3. The process for substituting products other than those specified is as follows:

    a. Any Contractor wishing to offer structured cabling or associated infrastructure products other than those specified shall submit a request for product substitution in writing no less than one week in advance of bid.

Written requests for substitution shall be accompanied by three samples of the substitution product along with associated drawings, specification sheets and engineering documents for evaluation by Technology Services.

Any copper or fiber cabling products that carry signal shall be accompanied by third party laboratory performance test reports from an ITS/ETL proving equivalency in transmission performance.

4. Equal product acceptance must be received from Wilco in writing to be valid.

5. Contractor shall assume all costs for removal and replacement of any substituted product installed without prior written approval. Such costs shall include but not be limited to labor, materials as well as any penalties, fees or costs incurred for late completion.

E. Contractor Qualifications

1. General

    a. Contractor must have at least 5 years documented experience installing and testing structured cabling systems of similar type and size. Contractor must also provide a list of key installation personnel, their hire dates, and a resume of their experience. Key installation personnel shall include at least one foreman and one journey level installer or technician. By submitting the names of these personnel, the contractor is committing them to the execution of the project outlined in this specification. No temporary labor shall be allowed, all contractor employees shall be full time, and proof showing full time employment must be on file.

    b. Contractor shall have offices and service personnel based with a fifty-mile radius of Williamson County and be capable of same-day response to service calls.

    c. At anytime Wilco can request background checks on personnel working on county property.

Contractor shall employ at least one BICSI Registered Communication Distribution Designer "RCDD". The RCDD shall provide approval on the design, installation, and documentation of this communications system along with making sure all Panduit Certification Plus System Warranty documentation and requirements are met and submitted to Panduit upon completion of the project. The RCDD must be local to the office where work is taking place.

The contractor shall not subcontract voice/data/video/fiber cabling, termination or testing without the written permission of Panduit and Williamson County. If any work is subcontracted it shall be to an approved Panduit PartnerONE Certified Installer (Silver/Gold/Platinum) in good standing.

Contractor shall have all necessary permits, licenses, and inspections required for the performance of data, voice, and fiber optic cable installations.

Contactor shall be a current Panduit PartnerONE Certified Installer (Silver/Gold/Platinum) or accepted substitute manufacturer (See Substitution Policy). A copy of the corporate manufacturer certification must be included with all quotes.

At least 30 percent of the technicians on the job must have a current Panduit Certified Copper Technicians certificate, or accepted substitute manufacturer, to install copper distribution systems.

At least 30 percent of the technicians installing any Fiber Distribution Systems must have a current Panduit Certified Fiber Technicians certificate, or accepted substitute manufacturer certificate, to install fiber distribution systems

The Telecommunications contractor must provide a project manager to serve as the single point of contact to manage the installation, speak for the contractor and provide the following functions:

- Initiate and coordinate tasks with the Williamson County Project Manager and others as specified by the project schedule.
- Provide day to day direction and-site supervision of Contractor personnel.
- Ensure conformance with all contract and warranty provisions.
- Participate in weekly site project meetings.
- This individual will remain project manager for the duration of the project. The contractor may change Project Manager only with the written approval of Williamson County.

Contractor Project manager must be manufacturer certified in the copper and fiber information transport systems to be installed.

2. References

    a. Communications Contractor shall provide with bid, a list of three reference accounts where similar Data, Voice, Fiber Optic Cable, and related equipment installation work was performed within the last year (twelve-month period).

3. Termination of Services

    a. Williamson County reserves the right to terminate the Communication Contractor's services if at any time the Technology Services Engineer or Facilities Project Manager determines the Communication Contractor is not fulfilling their responsibilities as defined within this document.

Contractor's appearance and work ethics shall be of a professional manner, dress shall be commensurate with work being performed.

Dress displaying lewd or controversial innuendos will strictly be prohibited.

Conduct on Williamson County property will be professional in nature.

Any person in the Contractor's employ working on a Williamson County project considered by Williamson County to be incompetent or disorderly, or for any other reason unsatisfactory or undesirable to the Department of Technology Services, such person shall be removed from work on the Wilco project.

Upon termination, the Communications Contractor shall be restricted from the premises and compensated for the percentage of work completed satisfactorily.

4. Other Contractor Responsibilities

    a. All Contractors working within a Wilco facility are fully responsible for understanding and adhering to all rules and requirements listed in Appendix A – "Wilco Contractor/Vendor Rules and Regulations".

    b. All Contractors working within a Wilco facility department is fully responsible for understanding and adhering to all rules and requirements listed in Appendix B – "POLICY & PROCEDURE CONCERNING ALL ELECTRICAL, TELECOMMUNICATIONS AND NETWORKING INSTALLATIONS AND/OR MODIFICATIONS".

    c. Confirmation of Pathway and Cable Manager Sizing:

        - Wherever cabling pathways or managers are installed, it is the Contractor's responsibility to confirm pathway or manager sizing to represent no more than 35% fill according to manufacturer's fill charts based on projected cable densities when racking systems and cabling pathways are fully populated.
        - Pathways overfilled upon installation will not be accepted and shall be remedied at Contractor expense.

    d. Contractor is responsible for the removal and disposal of all installation and construction debris created in the process of the job. All work areas will be cleaned at the conclusion of the workday and no tools or materials shall be left in a manner as to pose a safety hazard.

Contractor must remove all abandoned cable per Article 800 of the National Electrical Code and per TIA and BICSI standards, recycling these materials where possible. Removal of orphaned cable is mandatory. Contractors must consider this when placing bids.

Contractor shall abide by the regulations set by local Williamson County's Security Policy pertaining to access and conduct while on Wilco property.

Contractor shall all obey all posted speed limits and parking regulations at the Williamson County facilities where the work is being performed.

F. Warranty

1. General

    a. Contractor shall provide a Panduit Certification Plus Warranty on all copper and fiber permanent cabling links.

It is understood the Panduit Certification Plus Warranty is a system performance warranty guaranteeing for 25 years from acceptance that the installed system shall support all data link protocols for which that Category of copper cabling system or fiber OM/OS designation of fiber optic system is engineered to support according to current and future IEEE and TIA standards.

The Panduit Certification Plus Warranty may be invoked only if the cabling channel links are comprised of continuous manufacturer approved components, including patch cords, equipment cords and fiber jumpers.

Upon acceptance of Warranty, Panduit will mail a notification letter to the installer and a notification letter and warranty certificate to Williamson County.

2. Contractor Warranty Obligations

    a. Installation firm (Contractor) must be a current Panduit PartnerONE Certified Installer (Silver/Gold/Platinum) or approved equivalent manufacturer in good standing and shall include a copy of the company installation certification with the bid.

Contractor shall name a supervisor to serve on site as a liaison responsible to inspect and assure all terminations are compliant to factory methods taught in Panduit Technician Certification Training, or approved equal, and according to all Standards cited in the Regulatory References section of this document.

Contractor liaison (project supervisor) shall have a current, up-to-date Panduit Certified Technician (PCT) certificate in both copper and fiber. Copies of the copper and fiber certificates of the Panduit liaison shall be submitted with the bid. These requirements are the same for accepted equivalent manufacturers. See "Substitution Policy" for mandatory procedure when offering substitutions.

Fiber optic cabling system additions and upgrade to existing facilities shall match the fiber type (OM/OS designation) of the system to which it is being installed. Contractor shall under no circumstances mix different OM/OS classes of cable or termination devices (connectors) within the same system.

All intra-building new fiber optic installations shall utilize an appropriate cable construction as specified herein.

All UTP cable pulled and terminated shall be Category 6/6A cable and connectivity whether new or legacy systems.

All UTP terminations within the Williamson County (new) projects shall be terminated using the T568B pin-out (wire map). Legacy additions shall match the copper pin-out of the facility to which cabling is being added-to or upgraded.

Contractor shall install all racking and support structures according to cited Standards in such fashion as to maintain both cited industry standards as well as manufacturer recommendations for uniform support, protection, and

segregation of different cable types,

Contractor is responsible for maintenance of maximum pulling tensions, minimum bend radius, and approved termination methods as well as adhering to industry accepted practices of good workmanship.

Contractor is responsible for understanding and submitting to Panduit all documents required prior to project start to apply for the Panduit Certification Plus Warranty. These include but are not limited to the project information form and SCS warranty agreement. These requirements are the same for accepted equivalent manufacturers. See “Substitution Policy” for mandatory procedure when offering substitutions.

Contractor is responsible for understanding and submitting to Panduit all documents required at project end. These include, but are not limited to completed warranty forms, passing test reports and drawings of floor plans showing locations of links tested. These requirements are the same for accepted equivalent manufacturers. See “Substitution Policy” for mandatory procedure when offering substitutions.

Test results shall be delivered in the tester native format (not Excel) and represent the full test report, summaries shall not be accepted. Contact your Panduit representative for a current list of approved testers, test leads and latest operating systems.

The Communications Contractor will correct any problems and malfunctions that are warranty-related issues without additional charge to Williamson County for the entire warranty period.

The warranty period shall commence following the final acceptance of the project by Williamson County and written confirmation of Warranty from Panduit. These requirements are the same for accepted equivalent manufacturers. See “Substitution Policy” for mandatory procedure when offering substitutions.

<END OF SECTION>

II. Installation and Maintenance Guidelines

A. Maintenance of Patch Fields

1. Any persons, whether with a Contractor or Williamson County, adding or moving copper or fiber optic patch (equipment) cords shall do so in a neat, workmanlike fashion in keeping with the intended cable management concept and according to all industry best practices as outlined in cabling standards and applicable BICSI publications referenced in this document.

2. Persons performing such moves, adds or changes (MACs) shall further adhere to the following:

    a. Use existing cabling management pathways and take care to place cable like with like, maintaining original segregation strategies for separating fiber and copper cables as well as any separation necessary between different types of copper cables.

Cables shall be dressed neatly within patch management pathways with care taken to maintain minimum bend radius of not less than 4 times the cord outer diameter for copper and not less than a 1" bend radius for fiber jumpers as per ANSI/TIA 568-C.0.

All patch cords used shall be of same copper Category or fiber OM/OS designation as the media used in the permanent cabling links.

Patching in all cases shall be done using factory terminated cords manufactured for that purpose. Hand terminated patch cords will not be accepted.

All patch cords or jumpers must be completely contained within supplied cable management paths. Cables draped across the front cabinets or racks will not be accepted and shall be remedied at Contractor's expense.

Any persons installing or moving fiber optic patch cords for any reason will clean the connector with lint-free wipes and 99% or higher isopropyl alcohol before replacing the connector in a patch or equipment port.

Any technicians, whether with Williamson County or Contractors performing moves, adds or changes within patch field will label additions to the system according to the labeling conventions in place at that facility.

Any persons with Williamson County or installing Contractor performing moves, adds or changes within patch field will record the move according to record system in place at that facility.

B. Cable Pulling and Termination

1. General

    a. Contractor is responsible for installing systems according to all applicable codes and the standards cited in this document.

Contractor shall use grommets/bushings to protect the cable when passing through metal studs or any openings that can possibly cause damage to the cable. This includes grommets on ends of hard conduit where used.

Do not deform the jacket of the cable. The jacket shall be continuous, free from pinholes, splits, blisters, burn holes or other imperfections.

Install proper cable supports, spaced less than 5 feet apart, and within manufacturer's requirements for fill ratio and

load ratings.

Leave a pull string to the end of each conduit run. Replace pull string if it was used for a cable pull.

Note service loops may not touch the drop-ceiling assembly. Any portion of the communications cabling contacting ceiling structures must be remedied at the Contractor expense.

Label every cable within 12 in. of the ends with self-laminating wire wrap cable appropriate to that cable size. Use a unique number for each cable segment as required by the project documentation and the labeling section of this document.

Dress the cables neatly with hook and loop fire retardant cable ties. Plastic ties are NOT approved

Contractors installing cabling systems in Williamson County facilities shall install plenum rated cable in all instances. Non-plenum cable is not allowed and shall be removed at Contractor's expense.

2. Copper

    a. When making additions to legacy systems, Contractor shall match the cabling configuration (pinout) of the existing systems. Legacy systems at Williamson County are in most cases T568B.

Within all new installations within Williamson County facilities, contactor shall use copper pinout T568B.

All four pair Category 6/6A cable runs shall be kept to a maximum permanent link length of 83 meters when using a total 10 meters of 28 awg" small diameter" patch cords.

Use low to moderate force when pulling cable. Maximum tensile load may not exceed 25' lbs. maximum pulling force per 4 pair cable.

No pathway, including conduits shall have greater than a 35% fill per manufacturer fill charts. Contractor is responsible for bringing to the attention of Williamson County project manager any insufficiently sized conduit or cable pathways discovered on site or in project documentation.

Keep Category 6/6A cables as far away from potential sources of EMI (electrical cables, transformers, light fixtures, etc.) as required in cited TIA Standards.

All copper horizontal cabling shall have slack service loops no less than 12" at the work area (equipment outlet) and not less than 3 feet in the telecommunications room.

Service loops may be wall mounted or contained in pathways or racking systems if done in a neat, workmanlike fashion using concentric circles or s-turns.

All UTP patching shall be accomplished using modular patch panels as indicated elsewhere in this document.

All removed copper cable is to be disposed of in a Williamson County recycling bin designated for "copper" or removed from the property to be disposed of by Contractor if this is the instructions in the project documentation.

3. Fiber

    a. When making additions to legacy systems, Contractor shall match the fiber type and fiber connectors used within that system.

Within all new fiber installations within Williamson County, contactor shall utilize an approved fusion splice termination method. See product section and Appendix C for details.

When installing fiber cable, Contractor shall maintain a minimum bend radius, both under pulling load and static (installed), per requirements outlined within TIA standards, or manufacturer's recommendations, whichever is the most stringent.

Fiber terminations shall be done according to recommendations of TIA, manufacturer's requirements and accepted industry best practices.

All unjacketed fiber shall be contained within appropriate fiber enclosures. Exposed tight-buffered or loose-tube strands will not be tolerated and shall be remedied at Contractor's expense.

Contractor shall perform test setup and testing according to guidelines in the "Testing and Acceptance" section of this document.

<END OF SECTION>

III. Cabling Systems and Associated Infrastructure

A. Cabling Subsystem I – Horizontal Cabling System

1. Horizontal Cabling systems will NOT be utilized within the Rackspace. There will be 1U between the Patch Panel and the next to allow a 48P Switch to fit in-between and the utilization of 1ft Cables will be used.

2. Metal Conduit

    b. Contractor shall size conduit large enough to accommodate at least 50% growth. I.e. conduit for 4 cables shall be sized to accommodate 6 cables at less than 40% calculated fill based on cable OD.

3. Equipment Outlets (Faceplates)

    a. When adding horizontal cabling to existing facilities within Williamson County, Contractor shall match the existing cable plant regarding color of existing raceway and faceplates.

Flush mount faceplates in new projects shall be Panduit Mini-Com® faceplates (or approved equivalent) with label fields as called for in the project documentation.

- Faceplates with no labels shall include painted combination head screws.
- The faceplates shall mount to standard U.S. NEMA boxes and adapters with screw-to-screw dimensions of 3.28" (83.3mm).
- Faceplates shall be available with or without labels.
- Dedicated sloped versions shall be available for improved bend radius control and decreased requirements in wall depth.
- Each faceplate shall accept Mini-Com ® modules that can be individually inserted and removed as required.

    b. See Appendix C for faceplate part numbers.

4. Equipment Outlets – Surface Boxes

    a. Wireless access points on walls and ceilings utilize Category 6A horizontal runs (drops)

        - Terminated at location with TX6A™ Category 6A Field Term RJ45 Angled Plug

    b. IP Cameras on walls and ceilings utilize Category 6A horizontal runs (drops)

        - Terminated at location with Two-hole Boxes (Ceiling) or Junction Box with Mini-Com single gang vertical faceplate (Wall).

    c. Two-hole boxes shall further meet the following requirements:

        - Boxes shall be in electric ivory or international white as called for in project-specific documentation.
        - Able to accept all Mini-com ® Modules
        - Include mounting screws and adhesive tape

- Be compatible with Panduit® LD3, LD5, and LD10 Raceway.

5. Copper Jacks

   a. Modular jacks shall be Panduit Category 6/6A Mini-Com® TG-Series Jack Modules (or approved equivalent) and have the following characteristics.

      - The eight position modules shall be used in all work areas and shall meet the connector requirements of the TIA/EIA Category 6/6A standard.
      - The wiring scheme label shall be available with both T568A and T568B wiring schemes.
      - The modules shall terminate four pair 24 and 22 AWG 100-ohm solid unshielded twisted pair cable.
      - The modules shall be universal in design, including complying with the intermate ability standard IEC 60603-7 for backward compatibility.
      - Category 6/6A modules shall have UL and CSA approval. The modules shall have ETL verified Category 6/6A performance and ISO Class E performance (as defined in ISO/IEC 11801) in both the basic and channel links.
      - They shall be rated for 75°C maximum operating temperature heat capacity.
      - They shall be universal in design, accepting six or eight pair modular plugs without damage to the outer module contacts.
      - The modules shall be able to be re-terminated a minimum of 10 times and be available in 11 standard colors for color-coding purposes.
      - The module shall snap into all Mini-Com® outlets and patch panels.

Consult project documentation for jack color coding in use for that installation.

See Appendix C at the end of this document for part numbers.

6. Category 6/6A Unshielded Twisted Pair Cable

   a. Category 6/6A UTP cable shall be plenum jacket.

For cable colors on actual project, consult the project documentation.

See Appendix C at the end of this document for cable part numbers.

7. Distributor I (Horizontal Patch Panels) – standard density patch panels

   a. Williamson County copper patch panels in the horizontal patch fields shall be flat 1 RU or 2 RU Mini-Com® type with frames of either metal or molded polymer.

      - Patch panels shall be available in standard density 24 and 48-port configurations.
      - Patch panels include pre-numbered labels with writable surface

For instructions for which patch panel to use consult project-specific documentation.

For detailed part numbers see “Appendix C” at the end of this document.

8. Small Diameter Category 6/6A Copper Patch Cords

    a. Copper patching of Category 6/6A links in Williamson County facilities shall use Panduit 28 awg “small diameter” patch cords having the following characteristics:

        - Cable diameter not more than 0.150 in. (3.8mm) nominal.
        - FCC and ANSI compliance: Meets ANSI/TIA/EIA-1096-A; contacts plated with 50 micro inches of gold for superior performance.
        - IEC compliance: Meets IEC 60603-7 c (UL) US listed: UL 1863, CSA standard C22.2.
        - PoE compliance: Meets IEEE 802.3af and IEEE 802.3at for PoE applications in bundle sizes up to 48 cables.
        - Operating temperature: 14°F to 140°F (-10°C to 60°C).
        - Storage temperature: -40°F to 158°F (-40°C to 70°C).
        - Plug housing: UL94V-0 rated clear Polycarbonate.
        - Contacts: Gold plated phosphor bronze.
        - RoHS compliance: Compliant.
        - Flammability rating: CM/LSZH dual rated.

For in telecom patch fields, Wilco projects use color coded small diameter patch cords to indicate various circuits. These colors and circuits they represent are as follows:

Blue = Common Data Drops
Black = Utility (AC/Building Maint.)
Yellow = Security (Cameras/Door Access)
White = Wireless AP
Red = Public Safety

Consult project documentation for how color coding is to be used on that job.

See Appendix C for part numbers.

9. Surface Mount Raceway – Wall Mount

    a. Panduit LD-Series or T-Series Raceways.

10. Modular Furniture Raceway

    a. Office and administrative areas repurposing used modular furniture may require additional cable pathway space and shall utilize Pan-Way ® Office Furniture Raceway System, or approved equivalent.

    b. Such modular furniture raceway shall provide cable paths along the top of modular furniture partitions dropping services (equipment outlets) at work surface level.

c. Modular furniture raceway must meet the following requirements:

- UL listed in accordance with UL-5C requirements for Class 2 Communication Cable Management Systems.
- Maintains bend radius control throughout the entire office furniture raceway system as required by TIA/EIA-568-B and 569-B.
- Faceplates are compliant with the labeling requirements of the TIA/EIA-606-A standard.
- Robust design and tamper resistant closure increases product stability and prevents damage to cabling during and after installation.
- Product supplied with adhesive backing for fast and easy installation.
- Creates a virtually invisible solution for routing data cables on panels from all common manufacturers with a top cap width between 1.88" and 2.30".
- Designed for use with Mini-Com ® Connectivity, also accepts all common manufacturers' connectivity with use of a NEMA standard 70mm faceplate or module frame.

Consult Appendix C for part numbers.

11. Power and Communications Poles

a. Many Wilco offices use power/communications poles to deliver power and data cables from the ceiling into the work area space below.

b. See Appendix C for part numbers for 11' and 13' power/communications poles.

C. Cabling Subsystem II – Intrabuilding Fiber Backbone

a. Intrabuilding single mode Fiber Trunks are for Use within Buildings.

b. On additions to existing Williamson County fiber cable plant, Contractor shall match existing fiber and connector types.

c. In new Williamson County projects, backbone fiber running between telecom spaces within buildings (cabling subsystem II) shall be single mode Opti-Core® Fiber Optic Indoor Plenum Rated Interlocking Armored Cable and shall further have the following characteristics:

- Used in intrabuilding backbone, building backbone, and horizontal installations for riser (OFCR), plenum (OFCP), and harsh environments
- Interlocking aluminum armor eliminates the need for inner duct or conduit to provide a smaller crush resistant pathway for design flexibility and a lower installed cost
- Fiber strand count listed in drawings.
- Sheath markings provide positive identification, quality traceability, and length verification
- 900µm standards-based color-coded buffer coating protects fibers during handling and allows for easy identification and stripping
- Cable design and flexible buffer tubes allow for quick breakout and ease of routing

Contractor shall terminate tight-buffered cable constructions with Panduit Opti-cam LC fiber connectors.

See Appendix C for part numbers.

D. Cabling Sub-system III – Interbuilding Fiber Backbone

1. Single mode Fiber Trunks for Use Between Buildings

    a. On additions to existing Williamson County fiber cable plant. Contractor shall match existing fiber and connector types.

In new Williamson County projects, backbone fiber running between buildings (cabling subsystem III) shall be Panduit Opti-Core® Gel-Free Fiber Optic Indoor/Outdoor All-Dielectric Cable, or approved equivalent.

Loose tube outside plant cable shall be terminated in the entrance facility using approved Panduit fusion pigtails with appropriate Panduit fan-out kits, splice trays, and splice holders.

Fanout kits shall have the following properties:

- Used to build up 250µm fiber to 900µm loose buffered coating size for connector termination
- • Include 900µm hollow tubing and plastic housings
- • Include adhesive tape for mounting
- • Include TEFLON* powder for easy insertion of fibers

Refer to Appendix C for part numbers.

Interbuilding fiber trunks must have the following features:

- Allows installation using loose tube cable methods within buildings and outdoor environments for transitional aerial and duct applications, and in entrance facilities that require plenum (OFNP) rated cable
- Eliminates the need for building entrance transition point
- All-dielectric cable construction requires no grounding or bonding
- UV resistant cable sheathing meets the light absorption requirement defined by Telcordia GR-20, Issue 2 to withstand harsh outdoor environmental demands
- Dry water-blocking technology allows rapid cable preparation and termination for lower termination costs and time (no messy gel required)
- Available in 6 and 12-fiber counts in “central loose tube” design, and in 24, 36, 48, 72, 96 and 144-fiber counts in a “stranded loose tube” design
- Sheath markings provide positive identification, quality traceability, and length verification
- 250µm buffer coating protects fibers during handling and allows for ease of stripping

See Appendix C part numbers.

E. Fiber Connectivity

1. LC Fiber Connectors

    a. All LC terminations shall be done with Panduit fusion splice pigtails See Appendix C for part numbers on fiber connectors.

2. Fiber Enclosures

    a. Fiber cable terminations shall be contained in 2 RU or 4 RU Panduit FCE series rack mount fiber enclosures, or Wilco approved equal.

    b. Contractor shall select enclosure size as needed for the number of fibers projected to be in that telecommunication space when fully populated.

    c. Contractor shall fill any unused enclosure space with a blank fiber adapter panel (FAP).

    d. FCE enclosures shall further have the following properties:

        - Be able to hold QuickNet ™ Fiber Optic Cassettes, Opticom ® Fiber Adapter Panels, or splice modules.
        - Have a slide-out, tilt-down drawer to provide full front access to all fibers and cables.
        - Employ integral bend radius control and cable management appliances for fiber optic patch cords.
        - Have rear cable management for proper slacking/spooling of trunk cable breakouts and interconnect cables.
        - Have multiple trunk cable entry locations and include fiber optic cable routing kit (grommets, cable ties, spools, strain relief bracket, and ID/caution labels) for different installation configurations.

See Appendix C for part numbers.

3. Fiber Adapter Panels

    a. FCE fiber enclosures shall be populated with fiber adapter panels containing either 6 LC single mode duplex fiber adapters, or 12 LC single mode duplex fiber adapters depending on the density needs of the telecom room.

    b. Consult project documentation to determine whether 6 or 12 LC single mode duplex adapters are to be used on a given job.

Contractor is responsible to blank out any enclosure spaces where adapter panels are not used.

Adapter panels shall further have the following features:

- Loaded with TIA/EIA-604 FOCIS-10 compatible adapters.
- Exceed TIA/EIA-568-B.3 requirements.
- Adapter housing colors follow TIA/EIA-568-C.3 suggested color identification scheme.
- Snap quickly into the front of all Opticom ® components
- Accept FOCIS-10 compatible senior LC connectors at either end or FOCIS-10 junior LC connectors at the inside end for behind the wall applications.

- Both ends accept FOCIS-10 compatible senior LC connectors.
- Junior end also accepts FOCIS-10 compatible junior (fixed ferrule/springless) SC connectors.
- Choice of phosphor bronze or zirconia ceramic split sleeves to fit specific network requirements; zirconia ceramic split sleeves are recommended for OM4/OM4 multimode and OS1/OS2 single mode applications.
- Every adapter is laser marked with Q.C. number to assure 100% traceability.

Consult Appendix C for fiber adapter panels and blank adapter panels.

4. Fiber Patch Cords

   a. Fiber patch fields within Williamson County facilities shall utilize riser rated singlemode LC fiber jumpers (fiber patch cords) that have the following properties:

      - LC Duplex Fiber Optic Patch Cords, to allow users easy accessibility in tight areas when deploying very high-density LC patch fields.
      - Jumpers shall be available in OS1, OS2 and single-mode and be available in in riser (OFNR), plenum (OFNP), and low smoke zero halogen (LSZH) rated jacket materials.

See “Appendix C” at the end of this document for single mode LC jumper part numbers.

F. Cable Pathways

1. Overhead Metallic Pathway

   a. Cable delivery over racking systems in telecommunications rooms shall be done with Wyr-Grid® overhead cable tray routing system or College approved equal.

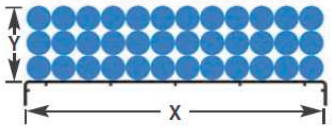
   b. Any pathway offered must have the following properties:

      - Wyr-Grid® Pathways are provided in four widths: 12" (305mm), 18" (457mm), 24" (610mm), and 30" (762mm).
      - Wyr-Grid® System incorporates non-integral Snap-On sidewalls which minimize specification requirements and are offered in three different heights: 2" (50mm), 4" (102mm), and 6" (152mm).
      - Wyr-Grid® Splice Connectors have an integral bonding screw that creates a mechanical-electrical bond between cable tray pathway sections.
      - Wyr-Grid® Waterfalls are offered in two different configurations that attach to all pathway sections: 12" (305mm), 18" (457mm), 24" (610mm), and 30" (762mm) to facilitate bend radius control and cable management.
      - Wyr-Grid® Support Brackets are offered in various widths to accommodate pathways: 12" (305mm), 18" (457mm), 24" (610mm), and 30" (762mm); have integral quick-clip retention; accommodate 1/2" or 12 mm threaded rods.

   c. All metallic cable trays must be grounded, and all sections bonded in accordance with listing requirements for the system and per TIA 607-B including most recent revisions, TSB and addenda.

d. Contractor is responsible sizing all pathways to represent no more than a 35% fill upon installation per manufacturer's fill chart below:

Wire Fill for Wyr-Grid® Overhead Cable Tray Routing System



X (in.)	Y (in.)	Internal Area (in^2)	Category 6A (SD) Diameter 6.1mm 0.240"	Category 6A Diameter 7.6mm 0.300"	Category 6 Diameter 6.1mm 0.240"	X (in.)	Y (in.)	Internal Area (in^2)	Category 6A (SD) Diameter 6.1mm 0.240"	Category 6A Diameter 7.6mm 0.300"	Category 6 Diameter 6.1mm 0.240"
12.2	2	24.3	269	172	269	24.2	2	48.3	534	342	534
	4	48.7	538	344	538		4	96.7	1069	684	1069
	6	73.0	807	516	807		6	145.0	1603	1026	1603
18.2	2	36.3	401	257	401	30.2	2	60.3	666	427	666
	4	72.7	804	514	804		4	120.7	1334	854	1334
	6	109.0	1205	771	1205		6	181.0	2000	1280	2000

"Y" equates to the height of the Wyr-Grid® Optional Sidewalls. The internal area defines the allowable fill capacity based on the Wyr-Grid® Pathway width and optional sidewall height. The Wyr-Grid® Pathway cable fill is based on NEC allowable fill of 50%.
The above cable diameters represent the nominal Panduit cable diameter per performance level.

All cable trays and grounding conductors should be clearly marked in accordance with manufacturer's instructions, applicable codes, standards and regulations.

Contractor shall take care to segregate and protect armored fiber from copper cabling in metallic pathway.

Bundled copper and fiber backbones shall be dressed to maintain segregation of cable types throughout the pathway. Innerduct or separate fiber duct is not necessary, due to armored construction on fiber backbone.

See Appendix C for part numbers.

2. J-Hooks

e. J-hook systems used by Williamson County shall be Panduit "J-Pro" series, or approved equivalent.

Contractor installing J-hook systems shall space them no more than 5 feet apart as per TIA 569-C standard.

J-Hook Sizing shall be no greater than 2" and a maximum bundle size of 24 cables. If J-hooks are deemed too small by above criteria, Contractor shall bring this to the attention of Williamson County for resolution in writing.

J-hook systems used by Williamson County shall have the following properties:

- Patented design provides complete horizontal and vertical 1" bend radius control that helps prevent degradation of cable performance.
- UL 2043 and CAN/ULC S102.2 listed and suitable for use in air handling spaces.
- Pre-riveted assemblies allow for attachment to walls, ceilings, beams, threaded rods, drop wires and underfloor supports to meet requirements of a variety of applications.
- Wide cable support base prevents pinch points that could cause damage to cables.
- Cable tie channel allows user to easily install 3/4" (19.1mm) Tak-Ty ® Cable Ties to retain cable bundle.

- Durable non-metallic J Hook materials provide the ability to manage and support a large number of cables.
- Material: Black Nylon 6.6 J Hook with metal attachments.

f. See Appendix C for part numbers.

G. 19” Racks and Rack-mount Cable Managers

1. General:

   a. Wilco will often use a “active rack/passive rack” strategy, putting all active electronics on one rack and all associated patching on an adjacent rack. Consult project documentation for details on job.

2. Two-post Communications Racks

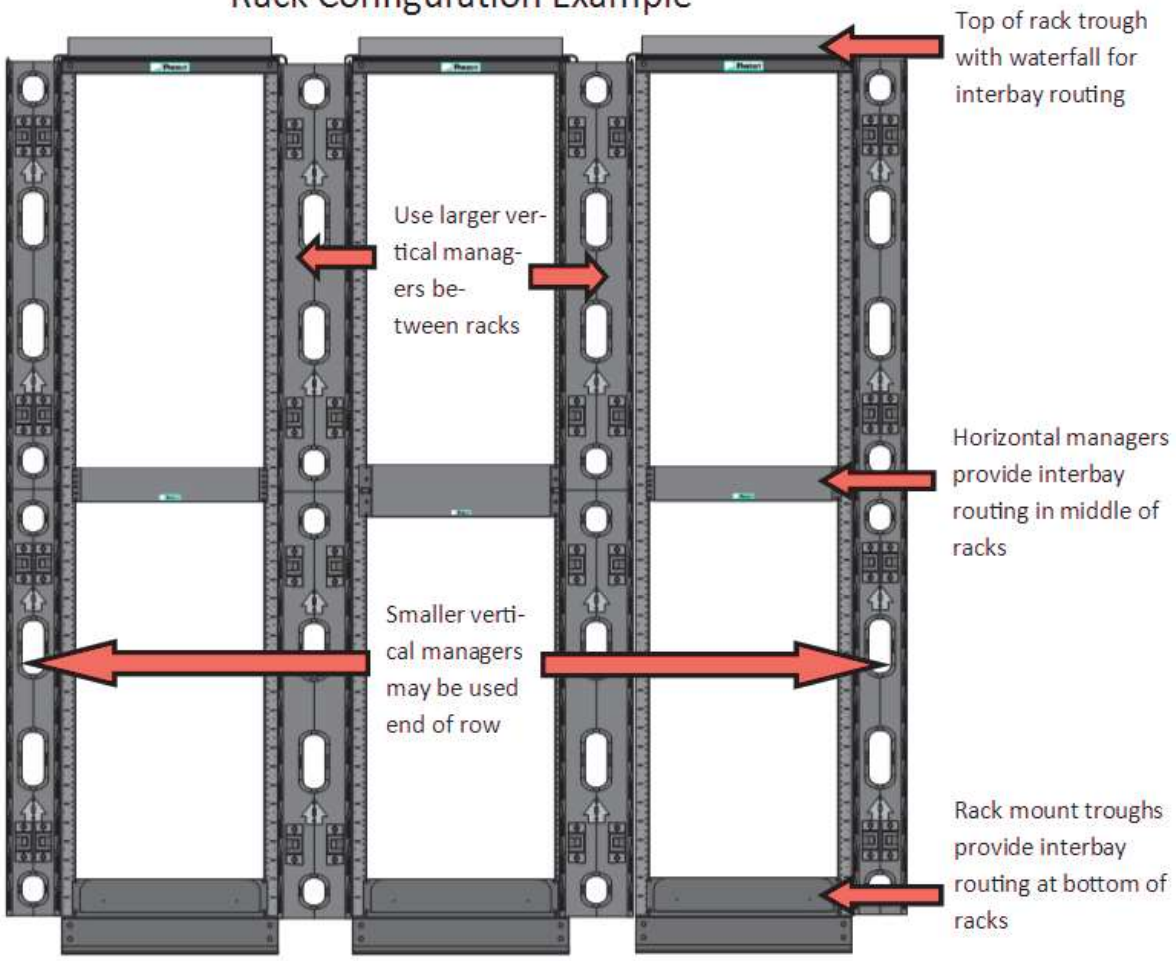
   a. 2-post racks will be Panduit black-powdered aluminum (or Wilco approved equivalent) and have the following properties:

      - 19" EIA rack, aluminum.
      - Dimensions : 84.0"H x 20.3"W x 3.0"D (2134mm x 514mm x 76mm).
      - Rack units numbering up from bottom to allow quick and easy location of rack mount items
      - UL listed for 1,000 lbs. load rating.
      - Double-sided #12-24 EIA universal mounting hole spacing with 24 #12-24 mounting screws included.
      - Accepts all Panduit cable management and patch panel products in addition to any industry standard 19" components.
      - Includes paint piercing washers for assembly to assure electrical continuity between components as pert TIA 607-B Bonding and Grounding Standard.

In telecommunications rooms with multi-bay rack rows configured such that patching will take place between racks, Contractor is responsible to include in design interbay routing pathways at the top, middle and bottom of each bay to provide efficient and neat routing between any two points within rack rows.

Interbay routing shall be provided in the form of top troughs, interbay mid-rack path and flanged shelf at the bottom. See rack configuration example below.

Rack Configuration Example



Size all cable managers to contain no more than 35% fill per manufacturer's fill tables upon installation

Contractor shall use 4RU trough CMLT19 at the base of each rack.

All racks shall be outfitted with a vertical grounding busbar along one rail, with all equipment bonded to ground according to TIA 607-B Bonding and Grounding Standard. See Bonding and Grounding section of this document for details.

See Appendix C for part numbers.

3. 4 Post Racks

    a. Racks in large equipment rooms and data centers may require 4 post racks. These racks shall have the following properties:

        - Independent adjustable front and rear mounting rails can be adjusted while the rack is secured to the floor
        - Printed rack space identification on all equipment rails allows for quick location of rack spaces, speeding
        - installation of rack mount items (shipped numbers up per TIA606 specifications; can be set to number down by flipping the rails)
        - Rack is UL listed for 2,500 lbs. load rating
        - Rear rail construction provides a clear ventilation path for side ventilated switches
        - Multiple mounting holes in top flanges for securing ladder rack
        - Weld nut construction eliminates the need for a second wrench increasing speed and ease of assembly
        - Multiple mounting locations for vertical power strips on any of the four posts or on the adjustable mounting rails
        - Paint piercing washers included

See Appendix C for 4 post racks part numbers.

4. Rack-mounted Cable Management – Vertical Managers

    a. Vertical cable managers shall be PatchRunner™2 Vertical Cable Management System in sizes 6” wide, 8” wide, or Wilco approved equivalent.

Contractor will use double sided (front and back) vertical managers on 2-post racks.

All vertical cable managers shall have dual hinged doors.

Contractor shall choose vertical cable manager width according to manufacturer’s fill tables to not represent more than a 35% fill at installation based on projected worst-case density when racks are fully populated.

Contractor shall bring to the attention of Wilco any case where the populated rack will exceed 35% upon installation for resolution from the Department of Information Technologies.

Vertical cable managers shall have the following features:

- Large finger openings accommodate up to 24 Category 6 cables

- Integral cable retainers on the end of each finger to help contain cables within each rack unit
- Bend radius fingers align with rack spaces to support cables as they transition to the vertical pathway
- Dual hinged covers can be opened 110° to the left or right to provide complete access to the cables inside the vertical pathway
- Snap-on cable retainers can be placed on to fingers to help retain cables in channel during installation and maintenance
- Vertical managers include hinged covers, cable retainers, mounting brackets and #12-24 screws

Part numbers are listed in Appendix C.

5. Rack-mounted Cable Management – Horizontal Managers

    a. No horizonal managers will be used, unless there is an absolute need for them.

H. Cable Accessories

1. Cable Ties

    a. Cable bundles on racks and in pathways shall be bundled with re-enterable hook and loop cable ties that come in continuous rolls. NYLON CABLE TIES ARE NOT PERMITTED UNDER ANY CIRCUMSTANCES.

    b. Contractor is responsible for using plenum hook and loop ties in air-return spaces.

See “Appendix C” for part numbers.

2. Physical Security Devices

    a. Some portions of Williamson County networks require additional physical security devices. These take three forms:

        - Devices that block-out copper and fiber ports in patch fields and faceplates that require a special tool for removal.
        - Devices that lock-in copper patch cords and require a special tool for removal of those patch cords.
        - Devices that temporarily or permanently block USB ports on laptops and computers.

Areas where such devices are required will be called out in the project documentation.

See Appendix C for part numbers.

I. Communications Grounding Network

1. General

    a. Contractor is responsible for bonding to ground all newly placed equipment and installed racks or cabinets per the TIA 607-B Standard.

2. Room Busbars

    a. All Telecommunications spaces and distributor rooms shall have installed an appropriately sized wall-mount busbar with BICSI hole spacing that bonds to the building bonding backbone.

    b. See Appendix C for appropriate room telecommunications grounding busbar.

3. Rack and Equipment Grounding

    a. Contractor is responsible for properly grounding all network equipment, racks and cabinets and bonding them to the wall mounted busbars as described in the TIA 607-C standard.

    b. All newly installed racks and cabinets shall have installed a vertical busbar mounted along one equipment rail to serve as a clean, low-resistance bonding place for any equipment not equipped with a designated grounding pad.

Smaller equipment without an integrated grounding pad shall be bonded to the vertical busbar using a thread-forming grounding screw that is anodized green and includes serrations under the head to cut through oxidation or paint on the equipment flange.

Larger equipment (chassis switches) with a designated grounding terminal shall be bonded to the vertical busbar with an EBC (equipment bonding conductor) kit built to that purpose.

Contractor shall take care to clean (wire brush, scotch brite pads) any metallic surface to be bonded down to bare metal and apply a film of anti-oxidation paste to the surfaces prior to effecting the bond.

All bonding lugs on racks and busbars shall be of two-hole irreversible compression type. Mechanical lugs and single-hole lugs will not be accepted and shall be removed and replaced at Contractor's expense.

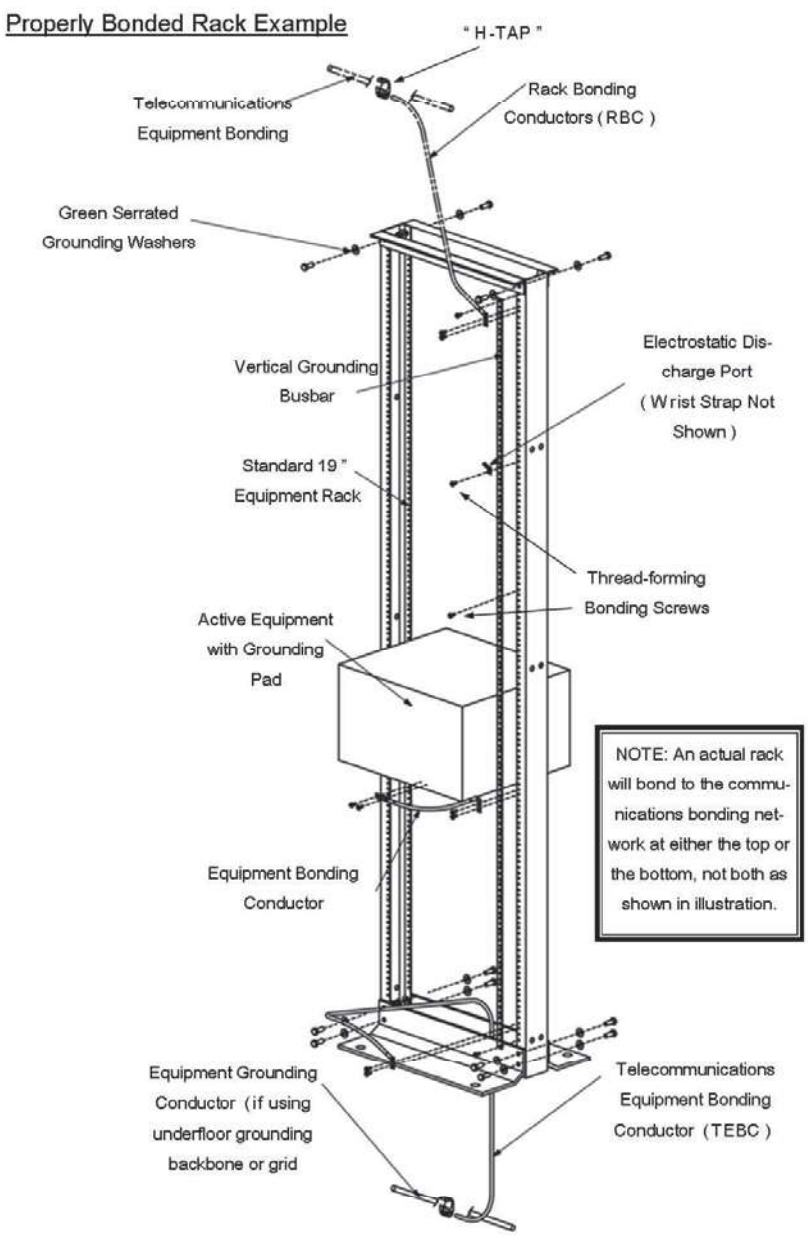
Every rack or cabinet shall have an individual bonding conductor into the grounding network, serially connecting (daisy-chaining) of racks is expressly forbidden and will not be accepted.

Rack Bonding Conductors (RBC) may tap into an overhead or underfloor aisle ground or may run to the wall-mounted grounding busbar in smaller Telecommunications rooms containing 5 racks or less.

A minimum of every other rack or cabinet shall be outfitted with a properly installed and bonded ESD (electro-static discharge) port along with a wrist strap and lead to be used by any technicians servicing network equipment. On four post racks and cabinets these ESC ports and straps shall be provided on front and back to be accessible and able to reach any active equipment needing servicing.

Armored cables shall be properly bonded to the earthing system on both ends with a kit built to that purpose.

For examples of rack grounding refer to the illustrations below:



<END OF SECTION>

IV. Network Labeling

A. General Requirements

1. When labeling any Williamson County network system, Contractor shall adhere to the following requirements:

    a. All cabling added to existing “legacy” installations shall follow the labeling convention in place at that location.

    b. All labeling of installed cabling in new projects shall satisfy all requirements of Williamson County.

    c. Contractor shall, wherever possible pre-print labels using Panduit Easy-Mark software and laser jet printer, or Wilco approved equivalent.

    d. The Panduit PanTher (LS8E) hand-held thermal transfer printer or Wilco approved equivalent shall be used on site to print labels that were unanticipated, or that become damaged in application. Preferred Printer: Epson MP300

    e. This labeling strategy shall, at a minimum, clearly identify all components of the system: racks, cables, panels and outlets, grounding, pathways and spaces like telecommunications rooms.

All labeling information shall be recorded on the as-built drawings and all test documents shall reflect the appropriate labeling scheme.

Labeling will Identify the Floor and Port Number. Ex: 1st floor = 1-201, 2nd floor = 2-201, If there is multiple IDFs on a floor they will be separated as A,B. Example: 1st floor A1-201, B1-201, 2nd Floor A2-201, B2-201.

All label printing will be machine generated by either hand-held labeling systems or computer-generated using programs and materials built specifically for communications labeling.

Handwritten labels will not be accepted and must be remedied at Contractors expense.

Cabling system labels shall utilize materials designed to outlast the cabling elements to which they attach. Office quality labels will not be accepted.

Cable labels shall be self-laminating, appropriately sized to the outside diameter of the cable and placed within view at the termination point on each end.

Outlet, patch panel and wiring block labels shall be installed on, or in, the space provided on the device.

Machine-generated labels shall be installed behind the clear lens or cover on any device that provides such an option.

All labels will be permanently affixed to installed cables, patch panels, racks, cabinets, and enclosures.

Conduit shall be marked indicating the identification of the cable within.

Labels shall be legible and placed in a position that insures ease or visibility.

Label type must be as listed in Appendix C - Materials section at the end of this document.

<END OF SECTION>

V. Testing and Acceptance

A. General

1. All cables and termination hardware shall be 100% tested for defects in installation and to verify cabling system performance under installed conditions.

2. All copper pairs or optical fibers of each installed cable shall be tested and verified prior to system acceptance.

3. Any defect in the cabling system performance or installation including but not limited to cable, connectors, feed through couplers, patch panels, and connector blocks shall be repaired or replaced in order to ensure 100% useable conductors or fibers in all cables installed.

4. All cables shall be tested in accordance with this document, the ANSI/TIA Standards, the PANDUIT® ™Certification Plus System Warranty guidelines and best industry practice.

5. If any of these are in conflict, the Contractor shall bring any discrepancies to the attention of the project team for clarification and resolution.

B. Copper Link Testing

1. All twisted-pair copper cable links shall be tested for compliance to the requirements in ANSI/TIA 1152 and ANSI/TIA 568-C.2 for the appropriate Category of cabling installed using a test unit meeting a minimum IEC IIIe level of accuracy.

2. All testers used must have been factory calibrated by the manufacturer within one year of use or according to factory calibration recommendations, whichever is the more stringent.

3. Contractor shall set references according to manufacturer's recommendation prior to each day's testing and reset references anytime tester is left unused for more than two hours.

4. For warranty purposes, Contractor shall perform the appropriate Permanent Link test. Channel Link testing is rendered void by the movement of patch cords and can be run but not used for final acceptance criteria.

C. Fiber Testing

1. All installed fiber shall be tested for link-loss in accordance with ANSI/TIA-C.0 and shall be within limits specified within ANSI/TIA-C.3, or as spelled out in the project documentation.

2. For horizontal cabling system using multimode optical fiber, attenuation shall be measured in **both directions** at 850 nanometer (nm) **and** 1300 nm using an LED light source and power meter.

3. Attenuation testing shall be performed with a stable launch condition using two-meter jumpers to attach the test equipment to the cable plant. The light source shall be left in place after calibration and the power meter moved to the far end to take measurements.

4. Backbone & WAN single-mode fiber cabling shall be power tested at the 1310 and 1550 wavelengths in both directions. OTDR traces shall be performed in both directions at 1310 and 1550 wavelengths. End face termination/connector captures shall be performed on each connector with a passing result.

5. Test set-up and performance shall be conducted in accordance with ANSI/568-C.0 standard, Method B.

6. Where links are combined to complete a circuit between devices, the Contractor shall test each link from end to end to ensure the performance of the system. Only basic link-loss testing with a power meter is required. The contractor can optionally install patch cords to complete the circuit and then test the entire channel. The test method shall be the same used for the test described above.

7. The values for calculating loss shall be those defined in the ANSI/TIA 568-C.3 Standard. If the link loss requirements defined within the standard conflict with those referenced in the project documentation, Contractor shall immediately bring this to the attention of Information Technologies for resolution.

D. System Documentation

1. Upon completion of the installation, the telecommunications contractor shall provide three (3) full documentation sets to Wilco for approval. Documentation shall include the items detailed in the sub-sections below.

2. Documentation shall be submitted within ten (10) working days of the completion of each testing phase. This is inclusive of all test results and draft as-built drawings. Draft drawings may include annotations done by hand. Machine generated (final) copies of all drawings shall be submitted within 30 working days of the completion of each testing phase.

3. Contractor shall submit with drawings a diagram of each telecommunications room with indicating which cabling drops will terminate in which rooms (classrooms). This is both to give an idea of contractor cable plant design, as well as to facilitate future troubleshooting.

4. At the request of the Information Technologies Engineer, the telecommunications contractor shall provide copies of the original test results in tester native format, not spreadsheet.

5. Information Technologies may request that a 10% random field re-test be conducted on the cable system, at no additional cost, to verify documented findings. Tests shall be a repeat of those defined above. If findings contradict the documentation submitted by the telecommunications contractor, additional testing can be requested to the extent determined necessary by Information Technologies, including a 100% re-test. This re-test shall be at no additional cost to the Williamson County.

E. Test Results

1. Documentation shall be provided in electronic format within three weeks after the completion of the project. The media shall be clearly marked on the outside front cover with the words “Project Test Documentation”, the project name, and the date of completion (month and year).

2. The results shall include a record of test frequencies, cable type, conductor pair and cable (or outlet) I.D., measurement direction, reference setup, and crew member name(s). Documentation shall also include test equipment name, manufacturer, model number, serial number, software version and last factory calibration date.

3. Unless the manufacturer specifies a more frequent calibration cycle, an annual calibration cycle is anticipated on all test equipment used for this installation.

4. The test document shall detail the test method used and the specific settings of the equipment during the test as well as the software version being used in the field test equipment.

5. Printouts generated for each cable by the wire (or fiber) test instrument shall be submitted as part of the documentation package. Alternately, the telecommunications contractor may furnish this information in electronic form.

6. The media shall contain the electronic equivalent of the test results as defined by the specification along with the software necessary to view and evaluate the test reports.

7. When repairs and re-tests are performed, the problem found and effective action taken shall be noted, and both the failed and passed test data shall be documented.

8. The As-Built drawings are to include cable routes and outlet locations. Their sequential number as defined elsewhere in this document shall identify outlet locations.

9. Numbering, icons, and drawing conventions used shall be consistent throughout all documentation provided. Williamson County will provide floor plans in paper and electronic (DWG, AutoCAD) formats on which as-built construction information can be added.

10. These documents will be modified accordingly by the Telecommunications Contractor to denote as-built information as defined above and returned to the Williamson County.

11. The Contractors shall annotate the base drawings and return a hard copy (same plot size as originals) and electronic (AutoCAD) form.

<END OF DOCUMENT>

Appendix A – Wilco Contractor/Vendor Rules and Regulations

Wilco Contractor/Vendor Rules and Regulations

Williamson County maintains specific rules and regulations that apply to all contractors and vendors who perform work or provide services. It is the responsibility of the contractor or vendor to ensure that all rules and regulations are always adhered to. Any employee of the contractor or vendor who does not adhere to the rules and regulations will be asked to leave the property and will not be permitted to return. Poor conduct will not be tolerated.

You or your company may not perform any work or services in the building or on the grounds until the following mandatory requirements are met:

1. A certificate of liability insurance for your company must be filed with the Facilities department. The certificate must be current and must meet building insurance requirements for coverage and indemnification.
2. All subcontractors must be approved by Technology Services or Facilities.
3. Each worker, whether employed by your company or by a subcontractor, must possess an understanding of building safety procedures.
4. All permits must be displayed, and a copy must be on file with Facilities.

The following general rules apply to all vendors, contractors and subcontractors:

1. **ALL Facilities are Smoke Free**. No smoking in any area of the buildings, roof or loading docks.
2. All workers are expected to behave professionally. Please remember the importance of your appearance and professionalism in and around our buildings.
3. All contractors must wear proper attire while on the premises. Shirts or hats with profanity are not permitted on the property. All contractor employees must have identification with their company's name on it.
4. All combustible and flammable materials or liquids must be stored properly, and the Facilities Department must be notified of the presence of such materials.
5. Please check in at the Construction site or Facilities department for building access and/or prior to starting any work, unless otherwise specified.

General Requirements:

1) All construction and construction related activities will conform to all State, Local, Federal & OSHA laws
2) Contractor shall ensure that the construction site and adjoining areas including hallways and access ways are always kept clean. Areas not under construction but affected by or used during construction are to be protected from damage. Floors and carpets are to be covered with protective materials.
3) Contractor shall be responsible for the repair of all damages caused by them or their subcontractors.
4) Construction signs and/or barriers visible to tenants and guests of the building must be approved by Facilities prior to installation.
5) Physical or verbal abuse or harassment of any individual is prohibited.
6) Workers will be allowed in area where construction is taking place. All work which requires entering other tenant areas or common areas will be coordinated with Facilities.
7) Work being done outside of the hours of 8:00 am – 5:00 pm must be coordinated with Facilities or Technology Services departments.

Cleaning

1) It is expected that all areas outside of the work area will be kept clean to include but not limited to:
   a) Common areas
   b) Elevator/Loading dock routes
   c) Exterior areas
2) Work areas must always be kept clean. Each contractor is responsible for removing any trash or debris associated with their work activities. It is the contractor's responsibility to vacuum and dust common areas if work activities create excessive dust and trash
3) It is expected that walk off mats will be used at all areas of entry and exit of the space. The mats should be changed frequently to keep a tidy appearance and upon request of Facilities or Technology Services.
4) It is expected that if construction deliveries coming from the loading docks cause excessive dirt and damage to the existing finish of the common area floors as deemed by Facilities, the contractor will be expected to reimburse the facility for stripping and waxing or cleaning of the carpet. If this policy is not adhered to, the building will take appropriate action and charge back the contractor all costs associated with the activity.
5) If damage does not clean or is unable to be repaired the contractor will be responsible for the replacement of the goods.
6) Utility sinks are to be cleaned if used. No construction waste, paint thinner or other obstructing or hazardous materials are to be poured done the drain or left to clog the sinks
7) Carpets and flooring within the work area as well as the common areas must always be maintained in a clean and undamaged condition. Contractor shall be responsible for any damage and should report any preexisting conditions prior to the commencement of work.
8) Fire Exit doors and/or evacuation pathways must be open at all time and free of debris or clutter
9) There will be a mandatory post work inspection completed. This will consist of a representative from Facilities, along with a representative from the company completing the work. This will be to inspect the work completed, as well as the cleanliness of the area at the finish of the project. The associated post inspection form must be completed and signed by both representatives. Any requests made from the facilities department during this time must be met prior to receiving payment for work. If contractor does not comply with post work inspection, they will be back charged for any costs associated to with the issues.

Construction

1) All Air Handling Returns must be sealed during construction. Contractors must notify Facilities prior to using any products that could generate dust or odors that may migrate into the buildings HVAC system or other tenant spaces. Off hour restrictions may be required.
2) All construction related trash must be properly disposed of in a construction dumpster by contractor. Facilities will approve location.
3) A representative of the Facilities department will attend all weekly job meetings.
4) The owner reserves the right of first refusal on all demo'd materials
5) All Wilco buildings are smoke free
6) Any unused materials such as conduit, wiring, building materials must be disposed of by the contractor
7) Prevailing wage rates must be posted at the worksite in accordance with M.G.L. ch.149 sec.27. It is the responsibility of the contractor to maintain all state and local postings
8) Hot Works- will be coordinated and permitted through the Facilities Department. Prior to any welding, soldering or metal cutting, contractors must present the Facilities Department with a fire plan and proof of fire watch and permit.

- All Fire alarm wiring must be installed in conduit clearly labeled every 10'

Roof Access

1) Roof access must be coordinated with the Facilities Department
2) There is no smoking on the roof

3) Clean up all debris including loose screws
4) Any damage to the roof will be the responsibility of the Contractor to repair

Shut Down coordination

1) All shut down's must be coordinated with the Facilities Department. If the building systems are shut down for any reason, the contractor must first coordinate through Facilities such activities allowing time to notify all appropriate parties. At any time, the contractor accidentally causes a building system to fail, the contractor will be responsible for all costs associated with that failure.
2) All shutdowns must be back online by the end of the day. Shutdowns are NOT permitted overnight.
3) Facilities or Technology Services must approve that services are back online to their satisfaction BEFORE the contractor leaves the property.

Noise coordination

1) All noise will be contained. Please keep all doors closed to help to contain sound as well as dust. No radio music will be allowed
2) County occupied space will be handled with the utmost respect.
3) Complaints of excess noise will be handled immediately. Management reserves the right to stop all work if the work causes complaints from other tenants. Any charges, fees and/or other costs associated with scheduled or non-scheduled work stoppage is the responsibility of the contractor doing the work.
4) All floor and wall penetrations must be fire stopped.

Core Drilling

1) Core Drilling or any other work causing noise disruption must be coordinated with the Facilities Department. Absolutely no work will be permitted that in any way disrupts daily activities during class times or normal working hours unless prior authorization from Facilities is granted

Elevator Use

1) The elevators will be used according to their proper designation and weight capacity. Freight Elevator will be used for all construction related materials and or utility carts
2) Priority use must be given to staff use. Please do not enter an elevator with construction equipment with staff.
3) Floor and wall protection must always be used

Loading dock

1) Use must be coordinated with Facilities.
2) Deliveries must be coordinated with Facilities.
3) Loading docks will be kept clean and free of construction materials. Storage is not allowed on or around the loading dock
4) Floor protection must be used when entering the common areas from the loading dock
5) No Smoking on or around the loading dock area

Security

1) A contact lists must be provided to the Facilities department of all Trades, to include emergency contact information
2) The list will be given to the Project Manager
3) Absolutely no smoking in project area or within any building on site.
4) No alcohol is allowed in any project areas.
5) Entry to other non-project related spaces or unauthorized areas are strictly prohibited.

Parking

1) Vehicles will be allowed access on site for unloading and loading purposes only identification. Any Vehicle parked in unauthorized areas will be towed at the owners' expense.
2) Overnight parking is not permitted
3) Parking of Trailers must have prior authorization from the Facilities department

Insurance:

The Contractor shall purchase and maintain in a company or companies licensed to do business in the state in which the contract services are to be performed, insurance as set forth below which will protect the Contractor, Owner, and the Agent, and their respective employees, agents, successors and assigns, from claims which may arise out of or resulting from Contractor's operations under the Agreement, whether such operations be performed by the Contractor, its subcontractors, or by anyone directly or indirectly employed by any of them for whose acts the they may be liable. The Contractor must bring the insurance certificate to the Facilities Department prior to any work commencing.

We require Certificate of Liability Insurance from each vendor we contract with. The following information should be included:

a. General Liability- minimum coverage $1,000,000.
b. Automobile Liability- minimum coverage $1,000,000.
c. Workers Comp& Employee Liability
d. Description of Operations must be filled out. Please include "It is hereby agreed that S.T.C.C. is additionally insured and will be held harmless for all damages you create"
e. Certificate Holder

Life Safety Procedures

1) In the event of a medical emergency, fire or life-threatening emergency, workers should call 911

2) Facilities must be notified of any injuries that occur on the property.

Life Safety Systems

1) If there is a possibility that the life safety equipment has been compromised, Facilities Department must be notified immediately.
   a) Facilities Department (512) 943-1666
2) No propping open fire doors.
3) Contractors must maintain the proper equipment to manage water from a broken sprinkler pipe

<END OF APPENDIX>

Appendix B – Wilco Cabling Policies and Procedures

Williamson County (Wilco)

POLICY & PROCEDURE CONCERNING ALL ELECTRICAL, TELECOMMUNICATIONS AND NETWORKING INSTALLATIONS AND/OR MODIFICATIONS

I. Policy

Permits are required for all Electrical, Telecommunication and Network wiring modifications within Wilco buildings PRIOR to commencing work. By requiring prior authorization and pre and post implementation inspections, Wilco will better maintain the integrity and safety of the telecommunications system, alarms, cameras, elevator, fire alarms and electrical wiring. The goal of instituting this policy is to maintain strict control over the wiring and facilities to significantly reduce the probability of system issues, prevent damage to the facilities and maintain compliance with building and fire codes.
It is therefore, the policy of Wilco that existing telecommunications wiring, including electrical, voice, data, and video, as well as telecommunications facilities located in various buildings may not be altered in any way except by written permission from the Facilities Project Manager or Technology Services Systems Engineer.

II. Procedure for Wiring (Telecommunications and Computer)

1. Existing telecommunications and/or computer wiring, and cables may not be altered by anyone except an IT contractor, vendor or Wilco Electrician and must include permission from the Facilities Project Manager or Technology Services Systems Engineer.

2. Wilco System Engineer or Facilities Project Manager shall review and approve the telecommunications and computer wiring and for new and existing buildings.

3. Electrical Inspector shall inspect all telecommunications wiring in new and renovated buildings and projects to ensure proper installation.

4. Any unauthorized wiring found in telecommunication, electrical spaces or within buildings & grounds will be removed immediately at the cost of the department.

5. Any unauthorized wiring which interfaces with telecommunications, wiring or health and safety will be reported to Facilities Department for review. Working with Technology Services, if the wiring is found to be either a safety hazard; or not in conformance with applicable codes; or detrimental to the functioning of the telecommunications system; it shall be removed by the vendor authorized representative, at the expense of the vendor/contractor's or department that installed or authorized it.

6. All telecommunication will be marked identifying their terminal ends and owner.

III. Telecommunications Manholes and Closets

1. Any manholes or closets containing telecommunications conduit or electrical wiring shall be under the exclusive control of the Facilities Department.

2. No equipment or storage may be placed in these areas without the Facilities department knowledge and consent. All confined spaces regulations will be complied with for manhole applications including those persons entering the manholes.

IV. Electrical Wiring

1. All electrical wiring will be installed and marked according to National, State and City codes. Only approved licensed and insured vendors/contractors will be approved for such work.

2. Abandoned or discontinued electrical wiring will be properly removed and circuitry identified of such discontinuance.

3. Wilco will review and approve plans for additional wiring before the vendors/contractors performs work.

4. Any unauthorized wiring will be removed at vendor/contractor/departments expense.

Summary of Policy and Procedure

A. Permits for all wiring will be required. NO EXCEPTIONS

B. Telecom or electrical wiring will be run in conduit, independently of all other conduit unless the conduit is specifically designated for that particular wiring. Wiring is never to be hung from or connected to HVAC piping or ducts or fire suppression equipment and piping.

C. All telecommunication and electrical closets are designated areas for Telecom and network equipment. Closets will be organized and free of clutter. Wiring closets are not to be used for storage and will be readily accessible at all times.

D. All telecom and electrical wiring will be marked with project name and location name and demarcation points. Ends will be clearly marked with destination location.

E. All work will be completed with the approval of the Facilities Project Manager or Technology Services Systems Engineer.

F. All holes drilled through walls, ceilings and floors etc. will be fire stopped and labeled. Temporary use or construction means, and methods still must be approved by Facilities and Technology Services

G. All contractors must sign in at the Construction office daily. Appropriate permits must be posted at the work area. Contractors must submit all hot works permits to Facilities at least 72 hours prior to work. Hot works permits are approved by the Facilities Department. Work

may not be done without approval. Contract must arrange with the Facilities Department to be able to take the fire alarm offline with prior to any work being performed

H. Hours for drilling or any other work that will create noise/vibrations during the academic year will only be allowed between 11 p.m. to 7 a.m. unless exceptions are made by the Facilities Project Manager. Any work creating noise done outside those hours will be shut down by the Facilities department.

I. Intervals of labeling of conduits and wiring will be left to the discretion of the Technology services Systems Engineer or designee and wiring code, however a minimum of every 8-10' is required. Labels should be clearly placed and the beginning and end of each run.

K. No employees of Wilco will run, pull, manipulate or extend power, terminated Ethernet or fiber (electrical and computer, phone etc.) except for the Wilco Electrician or Technology Services Systems Engineer for Telecom.

L. Any work on or to power, Ethernet or fiber in any of 's buildings or grounds must be done by a Facilities Approved Vendor**. Technology Services REQUIRES Notification by all vendors working on any of wiring or cabling, new or existing. Notification should include identifying the means and methods of routes.** It is expected that all wires and cables will be run according to State and Federal codes and laws without exception. Any work done that does not meet these requirements will be the responsibility of the contractor.

Requests should be submitted to the Facilities department at least 2 weeks prior to any work being done. In an emergency, the Facilities Project Manager or Technology Services Systems Engineer should be contacted before any work is done.

M. Technology Services (Infrastructure) will coordinate vendor work with the Facilities Department. All bid documents (RFP, RFI etc.) will include these Technology Services policy, procedure, requirements and expectations.

N. All Contractors must provide necessary insurance and certificates to include but limited to, Terms and Conditions, Certificate of Liability Insurance, W9, etc.

<END OF APPENDIX>

Appendix C – Materials List

Manufacturer	Part Number	Description
		COPPER DISTRIBUTION
Panduit	**PUP6004xx-UY**	Blue Category 6 UTP cable.
Panduit	**CPPKL6ATGxxWBL**	Mini-Com 24/48-port category 6-RJ45 patch panel in black, (1/2 RU).
Panduit	**CJ688TGxx**	Category 6, RJ45, 8-position, 8-wire universal module. Color PN: Blue-BU, Yellow-YL, White-WH, Black-BL, Red-RD
Panduit	**UTP28SP*xx**	Category 6 Performance, 28 AWG UTP patch cord with TX6™ Modular Plugs on each end. Get Length and color from Wilco ITS.
Panduit	**CFPL*IWY**	Mini-Com Classic series single gang vertical faceplate.
Panduit	**FPUD6X88MTG**	TX6A™ Category 6A UTP Field Term Angled RJ45 Plug.
Panduit	**HLS-15R0**	Tak-Ty ® Hook & Loop Cable Ties, 15' Continuous Rolls
		FIBER DISTRIBUTION SYSTEMS
Panduit	**FLCS2/9SOCU9BU**	OptiCam Fusion Splice-On Connectors. Fiber LC-UPC Splice-On Connector for 250/900um Fiber, 9um Singlemode
Panduit	**FLCS2/9SOCA9AG**	OptiCam Fusion Splice-On Connectors. Fiber LC-APC Splice-On Connector for 250/900um Fiber, 9um Singlemode
Panduit	**FSPP9**Y**	Fiber OS2 singlemode plenum rated indoor interlocking aluminum armored cable. For intrabuilding use between telecom rooms in the same building.
Panduit	**FSNP9**Y**	Fiber OS2 singlemode plenum rated indoor/outdoor stranded cable. For use for between building fiber backbone.
Panduit	**FCE2U**	Opticom® QuickNet™ Rack Mount Fiber Enclosures, holds up to eight QuickNet™ Cassettes, FAP adapter panels, or FOSM splice modules. Dimensions : 3.48"H x 17.60"W x 16.30"D (88.4mm x 447.0mm x 414.0mm).
Panduit	**FCE4U**	Opticom® QuickNet™ Rack Mount Fiber Enclosures, holds up to twelve QuickNet™ Cassettes, FAP adapter panels, or FOSM splice modules. Dimensions : 6.98"H x 17.60"W x 16.30"D (177.0mm x 447.0mm x 414.0mm)
Panduit	**FAP*WBUDLCZ**	LC FAP loaded with 6/12 LC duplex singlemode fiber optic adapters (Blue) with zirconia ceramic split sleeves.
Panduit	**NKFP91BN1NNM001**	LC to Pigtail – OS1/OS2 Singlemode Simplex Pigtails – 900µm Buffered Fiber LC to pigtail singlemode simplex pigtail, 900µm buffered fiber (one LC connector on one end and open on the other end) – 9/125µm.
Panduit	**FAPB**	Blank fiber adapter panel – reserves space for future use.
Panduit	**FOSMF**	Fiber optic splice module holds and protects up to 24 fusion splices. Self-stacking modules with integral cable management and fiber slacking/spooling features. Black plastic base and clear plastic hinged cover. For use with Panduit Opticom ® FCE*U, FRME*U, and FMT series enclosures. Dimensions : 0.30"H x 14.03"W x 5.28"D (7.6mm x 356.4mm x 134.1mm).
Panduit	**FOSMH2U**	Fiber optic splice module handler, 2 RU. Holds up to eight FOSM splice modules. For use with FCE2U fiber cassette enclosure. Dimensions: 2.91"H x 0.72"W x 2.61"D (74.0mm x 18.3mm x 66.4mm).
Panduit	**FOSMH4U**	Fiber optic splice module holder, 4 RU. Holds up to twelve FOSM splice modules. For use with FCE4U fiber cassette enclosure. Dimensions: 5.50"H x10.42"W x 5.41"D (139.7mm x 264.7mm x 137.4mm)
		RACKS, ZONE ENCLOSURES AND CABLE MANAGERS
Panduit	**PZAEWM3**	PanZone Active Wall Mount Enclosures
Panduit	**R2P**	19" EIA 2-post rack, aluminum. Dimensions: 84.0"H x 20.3"W x 3.0"D (2134mm x 514mm x 76mm).
Panduit	**PR2VWF**	Waterfall Trough for 2/4 Post Rack. FOR TOP-OF-RACK INTERBAY ROUTING.

Panduit	R4P	4 post EIA rack with #12-24 threaded rails. Dimensions : 84.0"H x 20.3"W x 23.0"D (2134mm x 515mm x 584mm). 45 RU.
Panduit	**PR2VD0***	6”/8” Patchrunner® 2 Vertical Cable Manager Dimensions: 83.88"H x 6"W x 20.0"D
Panduit	**CMLT19**	4 RU lower trough with 1.3" bend radius mounts to the bottom of a standard 19" EIA rack. Dimensions: 8.0"H x 19.0"W x 4.5"D (203mm x 483mm x 114mm). FOR BOTTOM-OF-RACK INTERBAY PATHWAY. LARGER OPTION THAN CMUT19 IF NEEDED.
		CABLE PATHWAYS
Panduit	**J-Pro J-Hook system**	Panduit J-Pro System. Plenum rated composite J-hooks with hardware available for various hardware applications. See www.panduit.com for variations.
Panduit	**CBXQ2WH-A**	Single gang one-piece outlet box with adhesive backing. Box accepts Pan-Way ® Screw-On Faceplates or any NEMA standard single gang faceplate. For use with Pan-Way ® LD profile raceway. 5.09"L x 3.34"W x 1.75"H (129.4mm x 85.0mm x 44.4mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.
Panduit	**WG12BL10**	Wyr-Grid 12" wide x 10' long pathway section used to carry cables horizontally throughout the system. Snap-on sidewalls attach for job specific height requirements. Uses splice connector WGSPL1218BL to connect straight sections and intersection splice WGINTSPLBL to connect pathways at an intersection. For fittings and accessories see www.panduit.com.
Panduit	**WGSW*BL**	2”/4”/6” Snap-on Sidewalls
Panduit	**CFPL*IWY**	2/4 Port Mini-Com Classic series single gang vertical faceplate.
Panduit	**WG18BL10**	Wyr-Grid 18" wide x 10' long pathway section used to carry cables horizontally throughout the system. Snap-on sidewalls attach for job specific height requirements. Uses splice connector WGSPL1218BL to connect straight sections and intersection splice WGINTSPLBL to connect pathways at an intersection. For fittings and accessories see www.panduit.com.
		BONDING AND GROUNDING
Panduit	**ACG24K**	#6 AWG (16mm2) jumper for armored cable diameter up to 0.84" (21.3mm); 24" (609.6mm) length; factory terminated on one end with LCC6 two-hole copper compression lug and the other end with grounding terminal; provided with two each #12-24 and M6 thread-forming screws and a black polypropylene terminal cover.
Panduit	**LCC series**	Panduit two-hole compressing lugs for code conductors in BICSI hole spacing.
Panduit	**HTCT series**	Panduit HTAPs. Must be selected according AWG size of run and tap conductors.
Panduit	**CLRCVR series**	Panduit clear covers for HTAPs. Must be selected according to HTAP being covered.
Panduit	**RGS134-1Y**	Grounding strip (vertical busbar) for newly installed racks or cabinets with screw rails. 78.65" (2m) length; .67" (17mm) width; .05" (1.27mm) thickness; provided with .16 oz. (5cc) of antioxidant, one grounding sticker and three each #12-24 x 1/2" and M6 x 12mm thread-forming screws.
Panduit	**RGCBNJ660P22**	Jumper kit for bonding individual racks or cabinets into grounding backbone. #6 AWG (16mm²) jumper; 60" (1.52m) length; 45° bent lug on grounding strip side; provided with .16 oz. (5cc) of antioxidant, two each #12-24 x 1/2", M6 x 12mm, #10-32 x 1/2" and M5 x 12mm thread forming screws and a copper compression HTAP* for connecting to a #6 to #2 awg sized bonding backbone.
Panduit	**GJ672UH**	Rack jumper (and cabinet) kits for smaller TR (5 bays or less) to bond individual rack or cabinet directly back to wall mounted busbar. One 72" length #6 AWG green wire with yellow horizontal stripe. Jumper is pre-terminated on one end

		with LCC6-14JAWH-L and the other end with LCC6-14JAW-L. This rack grounding jumper is 72" long. For other lengths replace the "72" in the part number. Available lengths are 72, 96, 120, 144, 168, 192, 216, 240, 264 and 288 inches.
Panduit	**RGESD2-1**	Two-hole ESD port with 5/8" hole spacing; provided with an ESD protection sticker, .16 oz. (5cc) of antioxidant, and two each #12-24 x 1/2" and M6 x 12mm thread-forming screws. LOCATE ONE WITHIN REACH OF ALL EQUIPMENT. WORKS WITH WRIST STRAP RGESDWS.
Panduit	**RGESDWS**	Adjustable fabric ESD wrist strap with 6' coil cord, banana plug, 1 megaohm resistor and 4mm snap. LOCATE ONE WITHIN REACH OF ALL EQUIPMENT. WORKS WITH ESD PORT RGESD2-1.
Panduit	**RGTBSG-C**	Green thread-forming bonding screws for use to mount equipment that does not have a built-in grounding pad (terminal).
Panduit	**RGEJ1024PHY**	24" long pre-terminated equipment grounding jumper #10 AWG (6mm²) jumper; bent lug on grounding strip side to straight lug on equipment; provided with .16 oz. (5cc) of antioxidant and two each #12-24 x 1/2", M6 x 12mm, #10-32 x 1/2" and M5 x 12mm thread-forming screws. FOR EQUIPMENT LIKE CHASSIS SWITCHES WITH BUILT-IN GROUNDING PAD (TERMINAL).
Panduit	**RGEJ1036PFY**	36" long pre-terminated equipment grounding jumper#10 AWG (6mm²) jumper; bent lug on grounding strip side to straight lug on equipment; provided with .16 oz. (5cc) of antioxidant and two each #12-24 x 1/2", M6 x 12mm, #10-32 x 1/2" and M5 x 12mm thread-forming screws. FOR EQUIPMENT LIKE CHASSIS SWITCHES WITH BUILT-IN GROUNDING PAD (TERMINAL).
Panduit	**GB2B0306TPI-1**	Wall mounted telecommunications busbar suitable for small telecom room. Pre-assembled with BICSI/TIA-607-B hole spacing. Bar is 1/4" x 2" x 12" in size.
Panduit	**GB2B0514TPI-1**	Wall mounted telecommunications busbar suitable for med telecom room. Pre-assembled with BICSI/TIA-607-B hole spacing. Bar is 1/4" x 2" x 24" in size.
Panduit	**GB4B0624TPI-1**	Wall mounted telecommunications busbar suitable for main grounding busbar in medium sized facility. Pre-assembled with BICSI/TIA-607-B hole spacing. Bar is 1/4" x 4" x 20" in size.
Panduit	**LTYK**	Wall mounted busbar label kit. Label kit includes printed tag and one flame retardant cable tie.
		NETWORK LABELING SOFTWARE – FOR INK JET/LASER PRINTER
Panduit	**PROG-EM2GO**	Easy-Mark Labeling Software for PC supplied on USB Flash Drive. For preprinting communications labels on laser/inkjet printer.
Panduit	**S100X150YAJ**	Self-laminating cable labels for Category 6 cable for use with Easy-Mark software and laser/ink jet printer.
Panduit	**C261X035Y1J**	Patch Panel labels for use with Easy-Mark software and laser/ink jet printer.
Panduit	**C195X040Y1J**	Faceplate labels for single gang stainless or sloped plastic - use with Easy-Mark software and laser/ink jet printer.
Panduit	**C288X040Y1J**	Faceplate labels for double gang stainless - use with Easy-Mark software and laser/ink jet printer.
Panduit	**S100X650YAJ**	Cable label for indoor/outdoor tight-buffered armored fiber optic cable. For use with Easy-Mark software and ink jet printer.
Panduit	**S100X160YAJ and NWSLC-3Y**	Label and turn-tell sleeve for labeling fiber jumpers. For use with Easy-Mark software and ink jet printer.
Panduit	**C200X100FJJ**	1" high, white, vinyl tape labels for labeling grounding busbars, racks, cabinets and pathways. For use with laser/ink jet printer.
		NETWORK LABELING – HANDHELD LABELER
Panduit	**LS8EQ-KIT-ACS**	Panduit PanTher hand-held label printing system in kit. Includes LS8EQ printer with QWERTY keypad, one cassette of S100X150VAC self-laminating labels, six AA alkaline batteries, LS8E-ACS, LS8-CASE, LS8-PCKIT, LS8-IB, LS8-WS, quick reference card and operator's manual. USE FOR LABELS THAT MUST BE PRINTED ON THE JOB SITE.

Panduit	**S100X150VAC**	Self-laminating cable labels for Category 6 cable for use with PanTher LS8E hand-held printer.
Panduit	**C261X035Y1C**	Handheld printer labels for modular faceplate patch panels.
Panduit	**C195X040Y1C**	Faceplate labels for single gang stainless - use with PanTher handheld labeler.
Panduit	**C288X040Y1C**	Faceplate labels for double gang stainless - use with PanTher handheld labeler.
Panduit	**S100X650VAC**	Cable label for indoor/outdoor tight-buffered armored fiber optic cable. For use with handheld labeler.
Panduit	**S100X160VAC and NWSLC-3Y**	Label and turn-tell sleeve for labeling fiber jumpers. For use with hand-held labeler.
Panduit	**T100X000VPC-BK**	1" high, continuous black on white, vinyl tape labels for labeling racks, cabinets and pathways with PanTher LS8E handheld labeler.
		PHYSICAL SECURITY LOCKING DEVICES
Panduit	**PSL-DCJB-C**	Package of 100 RJ45 jack blockout devices and one removal tool. Color red.
Panduit	**PSL-USBA-L**	Package of 50 USB Type 'A' blockout devices and one removal tool. Color red.
Panduit	**PSL-USBB**	Package of 50 USB Type 'B' blockout devices and one removal tool. Color red.
Panduit	**PSL-DCPLX-BL-C**	Package of 100 RJ45 plug lock-in devices compatible with flush mount jacks, and one installation/removal tool. Color black.
Panduit	**PSL-DCPLRX-BL-C**	Package of 100 RJ45 plug lock-in devices compatible with recessed jacks, and one installation/removal tool. Color black.
		CABLE TIES – HOOK AND LOOP
Panduit	**TTR-35RX0**	.75" wide, continuous roll Hook and Loop Cable Ties, black. 35 ft. roll. Carton qty 10 rolls.
Panduit	**HLSP1.5S-X12**	Plenum rated hook and loop cable ties for air return spaces. Maroon color, perforated at 6" length.
Panduit	**HLSP3S-X12**	Plenum rated hook and loop cable ties for air return spaces. Maroon color, perforated at 6" length.

<END OF DOCUMENT>

Trenton Jacobs

From: Trenton Jacobs
Sent: Monday, February 28, 2022 4:00 PM
To: Chris Ball; Jeffrey Hancock; Christi Stromberg; Rory M. Tierney; Nathan Pearl; Daniel Shea; Thomas Solis
Cc: Dale Butler
Subject: RE: WilCo CAT5-6 cable colors

Updates to Cable colors for POTS lines…

Badge Readers = RAINBOW
Public Safety = RED
POTS Lines = GRAY
Security (cameras and connect to Lenel Panel) = YELLOW
IT Data Drops, Light Controls, A/C = BLUE
IT Wireless AP = WHITE

Trenton H. Jacobs, AIA
County Architect

WILLIAMSON COUNTY 1848 FACILITIES

3101 SE Inner Loop
Georgetown, TX 78626

512-943-1193 Office
512-966-9472 Mobile

Surveys can be completed at: Customer Feedback
Should you need Facility Maintenance Services please submit a work order at: Service Request

---

From: Trenton Jacobs
Sent: Friday, November 12, 2021 12:19 PM
To: Chris Ball <cball@wilco.org>; Jeffrey Hancock <jeff.hancock@wilco.org>; Christi Stromberg <CStromberg@wilco.org>; Rory M. Tierney <rory.tierney@wilco.org>; Nathan Pearl <npearl@wilco.org>; Daniel Shea <dshea@wilco.org>; Thomas Solis <tsolis@wilco.org>
Cc: Dale Butler <dbutler@wilco.org>
Subject: RE: WilCo CAT5-6 cable colors

Based in Chris's feedback current standard colors for cabling…

Badge Readers = RAINBOW
Public Safety = RED
Security (cameras and connect to Lenel Panel) = YELLOW
IT Data Drops, Light Controls, A/C = BLUE
IT Wireless AP = WHITE

Trenton H. Jacobs, AIA
County Architect

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---

From: Chris Ball <cball@wilco.org>
Sent: Friday, November 12, 2021 12:07 PM
To: Trenton Jacobs <trenton.jacobs@wilco.org>; Jeffrey Hancock <jeff.hancock@wilco.org>; Christi Stromberg <CStromberg@wilco.org>; Rory M. Tierney <rory.tierney@wilco.org>; Nathan Pearl <npearl@wilco.org>; Daniel Shea <dshea@wilco.org>; Thomas Solis <tsolis@wilco.org>
Cc: Dale Butler <dbutler@wilco.org>
Subject: Re: WilCo CAT5-6 cable colors

I need to update them slightly.

Light and AC will remain blue. All the others will be what's noted.

Note Security is cameras and the network connection to the Lenel system.

Get Outlook for iOS

From: Trenton Jacobs <trenton.jacobs@wilco.org>
Sent: Friday, November 12, 2021 12:02 PM
To: Jeffrey Hancock; Christi Stromberg; Chris Ball; Rory M. Tierney; Nathan Pearl; Daniel Shea; Thomas Solis
Cc: Dale Butler
Subject: RE: WilCo CAT5-6 cable colors

An update from previous discussion for Wilco standard cable color system . Verifying the following are the current standard colors for cabling…

Badge Readers = RAINBOW
Public Safety = RED
Security = YELLOW
Light Controls = GREEN
IT Data Drops = BLUE
IT Wireless AP = WHITE
A/C = BLACK

Trenton H. Jacobs, AIA
County Architect

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8/8/2022

Trenton Jacobs
County Architect

MEMO

To: Project Managers and Consultant Design Teams
From: Trenton Jacobs, County Architect
Re: WILCO Standard Paint Color Selections

To minimize complications with an ever-changing list of interior paint colors throughout the County, the Facilities Department shall direct consultant design teams to utilize the following pre-approved paint colors list:

SW 7019	Gauntlet Gray
SW 7067	Cityscape
SW 7074	Software
SW 7018	Dovetail
SW 6234	Uncertain Gray
SW 7017	Dorian Gray
SW 7016	Mindful Gray
SW 6218	Tradewind
SW 6254	Lazy Gray
SW 7064	Passive
SW 7667	Zircon
SW 6078	Realist Beige
SW 7527	Nantucket Dune
SW 6107	Nomadic Desert
SW 7038	Tony Taupe
SW 9117	Urban Jungle
SW 6081	Down Home

SW 7069	Iron Ore (Painted Door Frames)

Deviations from this list (for unique facility needs) may be requested in writing by the consultant design team.

WILLIAMSON COUNTY
(512) 943-1193 Cell (512) 966-9472
Trenton.Jacobs@wilco.org www.wilco.org
3101 SE Inner Loop
Georgetown, TX 78626

ULTIMA®
ULTIMA® High NRC

Tegular
fine texture

TOTAL ACOUSTICS®
Sound Absorption (NRC) + Sound Blocking (CAC)

SUSTAIN®
High Performance Sustainable Ceiling Systems

Ultima® Beveled Tegular panels with Silhouette® 1/4" reveal 9/16" suspension system

CAD/Revit® drawings at:
armstrongceilings.com/cadrevit

DESIGNFlex®
A New World of Choice for Ceiling Systems

plus capabilities to do more

armstrongceilings.com/capabilities
See more photos at:
armstrongceilings.com/photogallery

Smooth-texture panels that are washable, impact- and scratch-resistant with a non-directional visual. Offer both Sustain® and Total Acoustics® panel performance for flexible spaces.

KEY SELECTION ATTRIBUTES

- DesignFlex® options include shapes and made-to-order sizes available to ship in 3 weeks
- Get total noise control and floor plan versatility with Total Acoustics® ceiling panels: NRC + CAC = Total Acoustics performance
- Ultima® panels are part of the Sustain® portfolio, and meet the most stringent industry sustainability compliance standards today

new
- High sound absorption options available up to 0.85 NRC
- CleanAssure™ family of products – includes disinfectable panels, suspension systems, and trim
- Mold- and mildew-resistant surface
- Smooth, clean, durable finish – Washable, Impact-resistant, Scratch-resistant, Soil-resistant
- Ceiling-2-Ceiling™ Post-consumer Recycled Content options: items 1911HRC, 1912HRC, 1914HRC, 1915HRC, 71% Pre-consumer; 15% Post-consumer
- USDA-Certified Biobased Product – 95%
- Available with AirGuard™ coating
- Item 1912 available with Create!™ printed images and patterns
- Non-directional visual reduces scrap and installation time
- Compatible with the TechZone® Ceiling Systems
- 30-Year Limited System Warranty against visible sag (excludes items 1905 and 1929), mold, and mildew
- 10-Year replacement panel available for items 1911, 1912, 1914, 1915

10-YEAR REPLACEMENT PANEL AVAILABILITY

- Available with factory-cut holes for USAI® trimless downlight fixture integration.

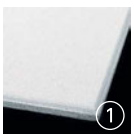
TYPICAL APPLICATIONS

- Offices – closed spaces for privacy and confidentiality; open spaces for focus, collaboration, and teaming
- Healthcare – assists in addressing HIPAA, HCAHPS, and FGI acoustical requirements
- Classrooms
- Corridors
- Lobbies/reception areas
- Department stores/retail

COLOR

White (WH)

DETAILS (Other Suspension Systems compatible. Refer to listing on next page.)



1. Ultima® Beveled Tegular
2. Ultima® with Suprafine® 9/16" suspension system
3. Ultima® with Silhouette® XL® 9/16" suspension system with 1/4" reveal

TechLine 877 276-7876
armstrongceilings.com/ultima

Armstrong® World Industries

ULTIMA®
ULTIMA® High NRC

Tegular
fine texture

CLOSED LOOP RECYCLED CONTENT CEILING-2-CEILING

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 95%

Declare.

SUSTAIN® High Performance Sustainable Ceiling Systems

GREENGUARD Gold Certified (details below)

LEED® WELL™ | LBC

UP TO 87% RECYCLED CONTENT

Calculate sustainability with Green Genie™ armstrongceilings.com/greengenie

energy management; construction waste mgmt; regional materials; design for flexibility; EPD; recyclable/ extended producer resp.; biobased materials; recycled content; sourcing of raw materials; material ingredient reporting; low emitting/ materials; lighting quality; acoustics

▲ LOCATION DEPENDENT

VISUAL SELECTION

PERFORMANCE SELECTION

Dots represent high level of performance. $$$$

armstrongceilings.com/suspdwgs	Susp. Dwg.		Item No.	Dimensions (Inches)		UL Classified Acoustics NRC	+ CAC	=	Total Acoustics[1]	Articulation Class	Fire Performance	Light Reflect	Bio-Block Anti-Mold/ Mildew	Humi-Guard+ Sag Resistant	Certified Low VOC Emissions	CleanAssure™ Disinfectable Panels Fog	DURABILITY Wash	Impact	Scratch	Soil	Recycle Program	30-Yr Warranty
ULTIMA® High NRC 15/16" Beveled Tegular	15	new	**2081**	24 × 24 × 1"	☐	0.85	35		BEST	170	Class A	0.85	•	•	•	•	•	•	•	•	•	•
		new	**2084**	24 × 48 × 1"	▭	0.85	35		BEST	170	Class A	0.85	•	•	•	•	•	•	•	•	•	•
HRC items not included in made-to-order panels.			**1941**	24 × 24 × 7/8"	☐	0.80	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
			1944	24 × 48 × 7/8"	▭	0.80	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
			1433	24 × 60 × 7/8"	▭	0.80	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
			1436	24 × 72 × 7/8"	▭	0.80	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
ULTIMA® High NRC 9/16" Beveled Tegular	29, 44, 48, 52, 56	new	**2082**	24 × 24 × 1"	☐	0.85	35		BEST	170	Class A	0.85	•	•	•	•	•	•	•	•	•	•
		new	**2085**	24 × 48 × 1"	▭	0.85	35		BEST	170	Class A	0.85	•	•	•	•	•	•	•	•	•	•
HRC items not included in made-to-order panels.			**1942**	24 × 24 × 7/8"	☐	0.80	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
			1942HRC	24 × 24 × 3/4"	☐	0.75	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
			1945	24 × 48 × 7/8"	▭	0.80	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
			1431	30 × 30 × 7/8"	☐	0.80	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
			1434	24 × 60 × 7/8"	▭	0.80	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
			1437	24 × 72 × 7/8"	▭	0.80	35		BEST	170	Class A	0.87	•	•	•	•	•	•	•	•	•	•
Made-to-Order Sizes			7/8" & 1" Thick – 15/16" & 9/16" Beveled Tegular																			
			Width (short side)	Length (long side)		N/A	N/A		N/A	N/A	Class A	0.87	•	•	•	•	•	•	•	•	•	•
			4" – 30"	12" – 72"																		

1 Ctn Min FASTSIZE 3 WEEKS order to ship

Visit the product page online and see "Configure an Item" to verify capabilities. Questions? email Techline@armstrongceilings.com

MORE ITEMS ▶

[1] Total Acoustics® ceiling panels have an ideal combination of sound absorption and sound blocking in one product.
GOOD (NRC 0.60-0.65; CAC 35+) **BETTER** (NRC 0.70-0.75; CAC 35+) **BEST** (NRC 0.80+; CAC 35+)

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Armstrong® World Industries

ULTIMA®
ULTIMA® High NRC

Tegular
fine texture

CLOSED LOOP RECYCLED CONTENT CEILING-2-CEILING

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 95%

SUSTAIN® High Performance Sustainable Ceiling Systems

Declare.

GREENGUARD Gold Certified

LEED® WELL™ LBC

UP TO 87% RECYCLED CONTENT

Calculate sustainability with Green Genie™ armstrongceilings.com/greengenie

energy management; construction waste mgmt; regional materials; design for flexibility; EPD; recyclable/ extended producer resp.; biobased materials; recycled content; sourcing of raw materials; material ingredient reporting; low emitting/ materials; lighting quality; acoustics

▲ LOCATION DEPENDENT

VISUAL SELECTION

PERFORMANCE SELECTION

Dots represent high level of performance. $$$$

armstrongceilings.com/suspdwgs	Susp. Dwg.	Item No.	Dimensions (Inches)	UL Classified Acoustics NRC	+ CAC	=	Total Acoustics[1]	Fire Performance	Light Reflect	Bio-Block Anti-Mold/ Mildew	Humi-Guard+ Sag Resistant	Certified Low VOC Emissions	CleanAssure™ Disinfectable Panels Fog	DURABILITY Wash	Impact	Scratch	Soil	Recycle Program	30-Yr Warranty
ULTIMA®	15	**1422**	6 × 48 × 3/4"	N/A	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
15/16" Beveled Tegular		**1917**	12 × 24 × 3/4"	N/A	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
HRC items not included in made-to-order panels.		**1993**	12 × 48 × 3/4"	0.65*	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1994	12 × 60 × 3/4"	0.65*	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1995	12 × 72 × 3/4"	0.65*	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1911	24 × 24 × 3/4"	0.75 •	35 •		BETTER	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1911HRC	24 × 24 × 3/4"																
		1951	24 × 24 × 3/4"	0.60	40 •		GOOD	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1894	24 × 24 × 3/4"	0.60	40 •		GOOD	Fire Guard™	0.88 •	•	•	•	•	•	•	•	•	•	•
		1914	24 × 48 × 3/4"	0.75 •	35 •		BETTER	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1914HRC	24 × 48 × 3/4"																
		1985	24 × 60 × 3/4"	0.75 •	35 •		BETTER	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1981	24 × 72 × 3/4"	0.75 •	35 •		BETTER	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
9/16" Beveled Tegular	29, 44, 48, 52, 56	**1423**	6 × 48 × 3/4"	N/A	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1427	6 × 60 × 3/4"	N/A	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
HRC items not included in made-to-order panels.		**1916**	12 × 24 × 3/4"	N/A	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1996	12 × 48 × 3/4"	0.65*	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1997	12 × 60 × 3/4"	0.65*	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1998	12 × 72 × 3/4"	0.65*	N/A		N/A	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1912	24 × 24 × 3/4"	0.75 •	35 •		BETTER	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1912HRC	24 × 24 × 3/4"																
		1952	24 × 24 × 3/4"	0.60	40 •		GOOD	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1895	24 × 24 × 3/4"	0.60	40 •		GOOD	Fire Guard	0.88 •	•	•	•	•	•	•	•	•	•	•
		1915	24 × 48 × 3/4"	0.75 •	35 •		BETTER	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1915HRC	24 × 48 × 3/4"																
		1986	24 × 60 × 3/4"	0.75 •	35 •		BETTER	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•
		1982	24 × 72 × 3/4"	0.75 •	35 •		BETTER	Class A	0.88 •	•	•	•	•	•	•	•	•	•	•

Red Numbers are Fire Guard items.

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* Item not UL tested

MINERAL FIBER – Standard

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energy management; construction waste mgmt; regional materials; design for flexibility; EPD; recyclable/ extended producer resp.; biobased materials; recycled content; sourcing of raw materials; material ingredient reporting; low emitting/ materials; lighting quality; acoustics

▲ LOCATION DEPENDENT

VISUAL SELECTION

PERFORMANCE SELECTION

Dots represent high level of performance. $$$$

armstrongceilings.com/suspdwgs	Susp. Dwg.	Item No.	Dimensions (Inches)	UL Classified Acoustics NRC + CAC =	Total Acoustics[1] NRC + CAC	Fire Performance	Light Reflect	Bio-Block Anti-Mold/ Mildew	Humi-Guard+ Sag Resistant	Certified Low VOC Emissions	CleanAssure™ Disinfectable Panels: Fog	DURABILITY: Wash	Impact	Scratch	Soil	Recycle Program	30-Yr Warranty
9/16" Beveled Tegular	29, 44, 48, 52, 56	**1905**	30 × 30 × 3/4"	0.75 + 35 =	BETTER	Class A	0.88	•	Std	•	•	•	•	•	•	•	1-Yr
		1905HRC	30 × 30 × 3/4"														
		1929	30 × 54 × 3/4"	0.75 + 35 =	BETTER	Class A	0.88	•	Std	•	•	•	•	•	•	•	1-Yr
		1929HRC	30 × 54 × 3/4"														
HRC items not included in made-to-order panels.																	
			3/4" Thick – 15/16" & 9/16" Beveled Tegular														
Made-to-Order Sizes 1 Ctn Min FASTSIZE 3 WEEKS order to ship		Width (short side)	Length (long side)	N/A + N/A =	N/A	Class A	0.88	•	•	•	•	•	•	•	•	•	•
Visit the product page online and see "Configure an Item" to verify capabilities. Questions? email Techline@armstrongceilings.com		4" – 30"	12" – 72"														
ULTIMA® with AirGuard™ Coating 15/16" Beveled Tegular	15	**1901**	24 × 24 × 3/4"	0.75 + 35 =	BETTER	Class A	0.88	•	•	•	•	•	•	•	•	•	•
		1904	24 × 48 × 3/4"	0.75 + 35 =	BETTER	Class A	0.88	•	•	•	•	•	•	•	•	•	•
9/16" Beveled Tegular	29, 44, 48, 52, 56	**1902**	24 × 24 × 3/4"	0.75 + 35 =	BETTER	Class A	0.88	•	•	•	•	•	•	•	•	•	•
		1906	24 × 48 × 3/4"	0.75 + 35 =	BETTER	Class A	0.88	•	•	•	•	•	•	•	•	•	•
AirGuard™ Coating actively removes formaldehyde from indoor air.																	

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GOOD (NRC 0.60-0.65; CAC 35+) **BETTER** (NRC 0.70-0.75; CAC 35+) **BEST** (NRC 0.80+; CAC 35+)

SUSPENSION SYSTEMS

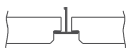
15/16"

Prelude®

9/16"

Silhouette® 1/4" Reveal

Silhouette 1/8" Reveal



Suprafine®

Interlude® XL® HRC

Blizzard White – Suspension System Finish
A color and texture coordinated suspension system to complement Ultima® ceiling panels for a monolithic look and feel.

PHYSICAL DATA

Material
Wet-formed mineral fiber with DuraBrite® acoustically transparent membrane

Surface Finish
DuraBrite with factory-applied latex paint

Fire Performance
Class A: ASTM E84 and CAN/ULC S102 surface burning characteristics. Flame Spread Index of 25 or less. Smoke Developed Index of 50 or less (UL labeled).

Fire Guard™: A fire-resistive ceiling when used in applicable UL assemblies

ASTM E1264 Classification
Type IV, Form 2, Pattern E; Fire Class A

Humidity/Sag Resistance
HumiGuard® Plus ceiling panels are recommended for areas subject to high humidity, up to, but not including, standing water and outdoor applications. (Excludes items 1905 and 1929).

Anti-Mold/Mildew
Ceiling panels with BioBlock® performance resist the growth of mold and mildew on the tile surface.

VOC Emissions
GREENGUARD Gold Certified
Third-party certified compliant with California Department of Public Health CDPH/EHLB/Standard Method Version 1.2, 2017. This standard is the guideline for low emissions in LEED®, WELL Building Standard™, Living Building Challenge® (LBC), CalGreen Title 24, ANSI/ASHRAE/USGBC/IES Standard 189; ANSI/GBI Green Building Assessment Protocol.

PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS UL.COM/GG UL 2818

GREENGUARD GOLD

Acoustical Performance
CAC testing conducted using Prelude® XL® suspension system for 15/16" edge detail and Silhouette® suspension system for 9/16" edge detail.

Primary (Embodied) Energy
See all LCA information on our EPDs.

High Recycled Content
Contains greater than 50% total recycled content. Total recycled content based on product composition of post-consumer and pre-consumer (post-industrial) recycled content per FTC guidelines. HRC items contain 15% or greater post-consumer recycled ceilings.

Insulation Value
R Factor – 2.2 (BTU units); R Factor – 0.39 (Watts units)
2081, 2081, 2084, 2085 – R Factor – 2.9 (BTU units); 0.445 (Watts units)

Cleaning and Disinfecting
Cleaning and CDC recommended disinfecting options available on armstrongceilings.com/cleaning

30-Year Performance Guarantee & Warranty
When installed with Armstrong® Suspension System. Details at armstrongceilings.com/warranty

Weight; Square Feet/Carton
1945 – 1.14 LBS/SF; 48 SF/CTN
1941, 1942 – 1.125 LBS/SF; 40 SF/CTN
1944, 1942HRC – 1.125 LBS/SF; 48 SF/CTN
1433, 1434 – 1.05 LBS/SF; 60 SF/CTN
1436, 1437 – 1.04 LBS/SF; 72 SF/CTN
2081, 2082 - 1.0 LBS/SF; 40 SF/CTN
2084, 2085 - 1.0 LBS/SF; 48 SF/CTN
1431 – 1.06 LBS/SF; 62.5 SF/CTN
1917, 1993 – 1.05 LBS/SF; 24 SF/CTN
1422, 1423 – 1.08 LBS/SF; 24 SF/CTN
1905, 1905HRC – 1.05 LBS/SF; 62.5 SF/CTN
1911, 1911HRC, 1912, 1912HRC, 1914, 1914HRC, 1915 – 1.05 LBS/SF; 48 SF/CTN
1916, 1996 – 1.05 LBS/SF; 24 SF/CTN
1427 – 1.07 LBS/SF; 24 SF/CTN
1929, 1929HRC – 1.02 LBS/SF; 68 SF/CTN
1895, 1952, 1951 – 1.31 LBS/SF; 48 SF/CTN
1901, 1902, 1904, 1906, 1894 – 1.08 LBS/SF; 48 SF/CTN
1997, 1994 – 1.05 LBS/SF; 30 SF/CTN
1998, 1995 – 1.05 LBS/SF; 36 SF/CTN
1981, 1982 - 1.08 LBS/SF; 72 SF/CTN
1985, 1986 – 1.08 LBS/SF; 80 SF/CTN

Minimum Order Quantity
1 carton

Metric Items Available
1941M, 1944M, 1945M, 1905M, 1912M, 1912MHRC, 1914M, 1915M, 1916M – Metric items are subject to extended lead times and minimum quantities. Contact your representative for more details.

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BPCS-3039-1023

Armstrong® World Industries

MINERAL FIBER – Standard

WILLIAMSON COUNTY FACILITIES MINIMUM DESIGN SPECIFICATIONS

DIVISION	ITEM	DESCRIPTION
GENERAL		
	ADA	Meets all current ADA Standards.
	CODE COMPLIANCE	Meets Wilco Adoped Codes
	TRAINING	Provide training for specialty systems/items
STRUCTURAL		
	ROOF	Design roof structure with the capacity to support future solar panel installation.
	ENVELOPE	Building envelope should be water tight.
	STUDS	All stud walls should be a minimum 20 GA material unless AE suggests otherwise
	ROOF ACCESS	If equipment is installed on roof, access should include at a minimum, a roof hatch for access, preferably with a permanently installed access ladder
		Compressor crane at edge of building or unobstructed hatch with mechanical crane for future maintenance of HVAC equipment
	PLANS	Update Architectural Plan
MECHANICAL		
	FILTER	2" filter racks at any air handler filter location.
		Advanced photo-catalytic oxidation type filtration.
	MAINTENANCE ACCESS	Place all units to allow for ground level maintenance and filter changes. If above ceiling installation is necessary, then install access doors.
		Avoid the necessity of ceiling tile removal to do maintenance. Use items such as catwalks if necessary for ease of maintenance.
	DUCT	All duct should be hard metal duct with exterior insulation, except for register drops can be flex if necessary.
	LOW AMBIENT	Install low ambient kits on all DX, RTU's, etc. to allow for humidity control in cold weather conditions.
	CONTROLS	Controls should be compatible with Wilco's existing automated controls software/hardware.
		Update automated logic graphics and zones (including floor plan graphics)
		Exhaust fans need CT's and automated logic graphic
		Mini splits need bacnet capability or ZN card and automated logic graphic
		(see exterior lighting) No HVAC controls on lighting ZN cards
	C.O. DUCT DETECTOR	Should not be powered by RTU. This allows maintenance to shutdown HVAC without setting off fire alarm.
	SOUND ISSUES	All open-air (open-plenum) areas should be designed with effective sound deadening boots at all return air grills entering office or meeting type space
ELECTRICAL		
	WIRING	All electrical wire to be installed in hard pipe conduit, except for fixture whips, which should have a maximum length of 6'.
		All feeders and branch circuits shall be installed in EMT, IC, or Rigid conduit unless specifically noted in these specifications.
		No MC cable will be used unless specifically approved.
	FIXTURES	LED fixtures or equivalent energy use.
		all fixtures installed in acoustical ceilings shall have a minimum of two independent support hangers tied to structure.
	LIGHTING MOUNTS	No Tapcon masonry mounts since the fixtures are likely to pull-out of masonry walls
	LIGHTING CONTROLS	Acuity - Schedule lighting scene programming 30-days after Occupant move-in.
	EXTERIOR LIGHTING	No photocells - Lighting should be run off a separate ZN card and automated logic controlled with updated graphics
		Light poles anywhere near vehicle areas must be set on concrete base 36-in high to prevent vehicle damage.
	AS-BUILT PLANS	Must include conduit pathways and sizes, j-box locations and sizes, and circuitry
PLUMBING		
	LAYOUT	No pluming walls for restrooms on exterior envelope of buildings
	FIXTURES	Automatic (touch-less): toilets, lavatory fixtures.
	TRAP PRIMERS	Use threaded connection supply-off of inverted "Y" on lavatory tailpipe
	HOSE BIBS	Specify only freeze-proof hose bibs & inimize
		No exterior hosebibs built into building exterior. Use only in-ground quick-connect

WILLIAMSON COUNTY FACILITIES MINIMUM DESIGN SPECIFICATIONS

FIRE PROTECTION		
	FIRE ALARM	Existing Buildings with Simplex - use Simplex products
		New Buildings or Exist Buildings without Simplex - use Silent Night (non propietary E.g. Farenhyt)
		CO detectors, if required, shall be located in the interior of the building, in the occupied space being monitored. No CO duct detectors allowed.
		Building that are being expanded (added onto), shall expand on the existing system using only system compatible equipment by manufucturer.
		Wireless dialer will be used for notification to monitoring company - No POTS lines and will be set up with JCI monitoring.
		Supply facilities fire systems specialist with fire panel program and all passcode levels.
		Fire Alarm panel/room must have internet connectivity
	PLANS	Update whole building plans (digital) and coordinate update of fire panel info and device labeling
ACCESS CONTROL		
	CARD READERS	Where card readers are installed, use multi-class card readers which are compatible with Wilco's software/hardware.
	DOOR HARDWARE	Locksets should be heavy duty cylindrical style with figure-8 style IC core and a 7 pin combination configuration.
		Lockset/Handle Finishes should be brushed stainless (brushed nickel)
		No Piano Hinges on Doors
		Key boxes & specefic key box for elevator(s)
IT		
	DHCP COMPLAINT	Dynamic Host Client Protocol compliant controllers for all devices connected to Wilco IT systems
INTERIORS		
	SOUND BATTS	Install sound batting at office and meeting room walls and ceilings regardless of the quantity or type of building envelope insulation or deck insulation.
	PAINT	Use only wilco standard colors and materials, DO NOT color-match
	CEILINGS	Sound deadening Accoustical Tile, not light weight foam type.
		Label ceiling grid for concealed equipment locations including all electrical disconnects, water valves, HVAC equipment etc.
	RESTROOM PARTITIONS	No laminate surfaces allowed
	RESTROOM MIRRORS	Frameless type. DO NOT butt to counter or backsplash below.
ROOFS		
	WALKWAY MATS	Fully-adhered walkway mats from roof access points to mechanical maintnenance access location for roof top units.
	EQUIPMENT LIFTS	Provide cranes in accessible locations to lift repair equipment where rooftop equipment is installed (meet OSHA & ANSI standards)
MAINTENANCE		
	FACILITIES CLOSET	All buildings should include a maintenance closet with storage space for such items as touch-up paint, spare lamps, spare ceiling tile,
		spare carpet tiles, ladders, etc.
	JANITORIAL CLOSET	All buildings should include a mop sink closet with storage space for cleaning supplies on shelving and space for rolling carts/mop buckets.
	RESTROOM ACCESSORIES	Automatic hand dryers at restrooms.
		Double roll S.S. toilet paper dispensers, multi-fold towel dispensers, hand dryers provided by Wilco contract provider
LANDSCAPING		
	PLANT SELECTION	Use only low water native and adaptive plants. Small turf areas. Overdesign for pedestrian traffic.
	IRRIGATION	Irrigated areas should be kept to a minimum and overall irrigation should be kept to a minimum.
	IRRIGATION CONTROLS	Irrigation that is installed should have controls that are compatible with Wilco's existing automated control and monitoring software/hardware
	DESIGN	Concrete walk around building perimeter. No grass at edge of building. No small turf islands, use mulching materials instead.
		No shade trees to interfere with signage, lighting or utilities.
WAREHOUSE / GARAGE / SHOPS		
	ORIENTATION	Building orientation should be such that the overhead doors face North and South to allow for prevailing wind ventilation and/or install large exhaust fans for mechanical ventilation.
	SAFETY/HEALTH	Hand wash sink, eyewash stations, water fountain, ice machine floor drain.

EXHIBIT B

MINIMUM INSURANCE COVERAGES AND MINIMUM COVERAGE AMOUNTS

Minimum Insurance Requirements

A. Contractor shall carry insurance in the types and amounts indicated below for the duration of the Contract/Agreement, which shall include items owned by Owner in the care, custody and control of Contractor prior to and during construction. Contractor must also complete and file the declaration pages from the insurance policies with Owner whenever a previously identified policy period expires during the term of the Agreement, as proof of continuing coverage. Contractor shall update all expired policies prior to submission of any payment requests hereunder. Failure to update policies shall be reason for payment to be withheld until evidence for renewal is provided to the Owner. If the Contractor fails to obtain, maintain or renew any insurance required by this Contract/Agreement, the Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Contract/Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

B. All policies of insurance provided by the Contractor must comply with the requirements set forth herein, the Contract/Agreement and the laws of the State of Texas.

C. The Contractor shall provide and maintain, until the Work covered in the Contract/Agreement is completed and accepted by the Owner, the minimum insurance coverages in the minimum amounts as described below.

	Type of Coverage	Limits of Liability
1.	Worker's Compensation	Statutory
2.	Employer's Liability	
	Bodily Injury by Accident	$500,000 Ea. Accident
	Bodily Injury by Disease	$500,000 Ea. Employee
	Bodily Injury by Disease	$500,000 Policy Limit

3. Commercial general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:

COVERAGE	PER OCCURRENCE
Commercial General Liability (including premises, completed operations and contractual)	$1,000,000
Aggregate policy limits:	$2,000,000

4. Comprehensive automobile and auto liability insurance (covering owned, hired, leased and non-owned vehicles):

COVERAGE	PER PERSON	PER OCCURRENCE
Bodily injury (including death)	$1,000,000	$1,000,000
Property damage	$1,000,000	$1,000,000
Aggregate policy limits	No aggregate limit	

5. Builder’s Risk Insurance (all-risks)

An all-risk policy, in the amount equal at all times to 100% of the Contract Price or Contract Sum. The policy shall include coverage for loss or damage

caused by certified acts of terrorism as defined in the Terrorism Risk Insurance Act. The policy shall be issued in the name of the Contractor and shall name its Subcontractors as additional insureds. The Owner shall be named as a loss payee on the policy. The builders risk policy shall have endorsements as follow:

a. This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises. If off-site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored.

b. For renovation projects and or portions of work contained within an existing structure, the Owner waives subrogation for damage by fire to existing building structure(s), if the Builder's Risk Policy has been endorsed to include coverage for existing building structure(s) in the amount described in the Special Conditions. However, Contractor shall not be required to obtain such an endorsement unless specifically required by the Special Conditions in the Contract Documents. The aforementioned waiver of subrogation shall not be effective unless such endorsement is obtained.

6. Flood insurance when specified in Supplementary General Conditions or Special Conditions.

7. Umbrella coverage in the amount of not less than $5,000,000.

D. Workers' Compensation Insurance Coverage:

1. Definitions:

(a) Certificate of coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Workers' Compensation Commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the Project.
(b) Duration of the Project - includes the time from the beginning of the work on the Project until the Contractor's/person's work on the Project has been completed and accepted by the Owner.

(c) Coverage – Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, §401.011(44).

(d) Persons providing services on the Project ("subcontractor") - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the Project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the Project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

2. The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, §401.011(44) for all employees of the Contractor providing services on the Project, for the duration of the Project.
3. The Contractor must provide a certificate of coverage prior to execution of the Agreement/Contract, and in no event later than ten (10) days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.
4. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the Project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the Owner showing that coverage has been extended.
5. The Contractor shall obtain from each person providing services on a project, and provide to the Owner:

   (a.) a certificate of coverage, prior to that person beginning work on the Project, so the Owner will have on file certificates of coverage showing coverage for all persons providing services on the Project; and

   (b.) no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.

6. The Contractor shall retain all required certificates of coverage for the duration of the Project and for one year thereafter.
7. The Contractor shall notify the Owner in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.
8. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9. The Contractor shall contractually require each person with who it contracts to provide services on a project, to:

   (a) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas labor Code, Section 401.011(44) for all of its employees providing services on the Project, for the duration of the Project;
   (b) provide to the Contractor, prior to that person beginning work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;
   (c) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
   (d) obtain from each other person with whom it contracts, and provide to the Contractor:

      i. a certificate of coverage, prior to the other person beginning work on the Project; and
      ii. a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;

   (e) retain all required certificate of coverage on file for the duration of the Project and for one year thereafter;

(f) notify the Owner in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and

(g) contractually require each person with whom it contracts, to perform as required by paragraphs (a)-(g), with the certificates of coverage to be provided to the person for whom they are providing services.

10. By signing the Agreement/Contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the Commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

11. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the Owner to declare the Agreement/Contract void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the Owner.

E. If insurance policies are not written for the amounts specified herein, Contractor shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of primary coverage.

F. Insurance coverage required hereunder shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A- or better by A.M. Best Company, or otherwise acceptable to Owner.

G. The Owner ("Williamson County, Texas"), its officials, employees and volunteers shall be named as an additional insured on all required policies. These insurance policies shall contain the appropriate additional insured endorsement signed by a person authorized by that insurer to bind coverage on its behalf.

H. The furnishing of the above listed insurance coverage, as may be modified by the Contract Documents, must be tendered prior to execution of the Agreement/Contract,

and in no event later than ten (10) days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.

I. Owner reserves the right to review the insurance requirements set forth herein during the Contract/Agreement and to make reasonable adjustments to the insurance coverage and their limits when deemed necessary and prudent by the Owner based upon changes in statutory law, court decisions, or the claims history of the industry as well as the Contractor.

J. Owner shall be entitled, upon request, and without expense, to receive complete copies of the policies with all endorsements and may make any reasonable requests for deletion, or revision or modification of particular policy terms, conditions, limitations, or exclusions, except where policy provisions are established by law or regulation binding upon the Parties or the underwriter of any of such polices. Damages caused by the Contractor and not covered by insurance shall be paid by the Contractor.

K. Contractor shall be responsible for payment of premiums for all of the insurance coverages required hereunder. Contractor further agrees that for each claim, suit or action made against insurance provided hereunder, with respect to all matters for which the Contractor is responsible hereunder, Contractor shall be solely responsible for all deductibles and self-insured retentions. Any deductibles or self-insured retentions over $75,000 in the Contractor's insurance must be declared and approved in writing by Owner in advance.

L. Contractor shall contractually require each person or entity with whom it contracts to provide services in relation to the Work, to comply with every insurance requirement that Contractor must comply with hereunder. More specifically, each person or entity with whom Contractor contracts to provide services on the in relation to the Work must comply with each insurance requirement hereunder just as if such person or entity was the Contractor. Thus, every reference to Contractor under each insurance requirement hereunder shall mean and include each person or entity with whom Contractor contracts to provide services in relation to the Work. If any such person or entity with whom Contractor contracts to provide services in relation to the Work fails to obtain, maintain or renew any insurance required by this Contract/Agreement, Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Contract/Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

EXHIBIT C

Williamson County
Vendor Reimbursement Policy

The purpose of this Williamson County Vendor Reimbursement Policy ("Policy") is to provide clear guidelines to vendors on Williamson County's expectations and requirements regarding allowable reimbursable expenditures and required backup. The Policy will also minimize conflicts related to invoice payments and define non-reimbursable items. This Policy is considered a guideline and is not a contract.

This Policy may be altered, deleted or amended, at any time and without prior notice to vendors, by action of the Williamson County Commissioners Court. Unenforceable provisions of this Policy, as imposed by applicable law, regulations, or judicial decisions, shall be deemed to be deleted. Any revisions to this Policy will be distributed to all current vendors doing business with the County.

1. Invoices and Affidavits

1.1 Invoices must adequately describe the goods or services provided to County and include all required backup (i.e. reimbursable expenses, mileage log, timesheets, receipts detailing expenses incurred etc.) that is in a form acceptable to the Williamson County Auditor. Invoices that do not adequately describe the goods or services provided to County or contain backup that is satisfactory to the Williamson County Auditor will be returned to vendor for revisions and the provision above relating to invoice errors resolved in favor of the County shall control as to the required actions of vendor and when such invoice must be paid by the County.

1.2 In the event an invoice includes charges based upon hourly billing rates for services or any other rates based upon the amount of time worked by an individual or individuals in performing services, whether the charges are being billed directly to the County or whether they are the basis of invoices from subcontractors for which the vendor seeks reimbursement from the County, the charges shall be accompanied by an affidavit signed by an officer or principal of the vendor certifying that the work was performed, it was authorized by the County and that all information contained in the invoice that is being submitted is true and correct.

1.3 Upon County's request, vendor must submit all bills paid affidavits wherein vendor must swear and affirm that vendor has paid each of its subcontractors, laborers, suppliers and material in full for all labor and materials provided to vendor for or in connection with services and work performed for County and, further, vendor must swear and affirm that vendor is not aware of any unpaid bills, claims, demands, or causes of action by any of its subcontractors, laborers, suppliers, or material for or in connection with the furnishing of labor or materials, or both, for services and work performed for County.

2. Travel Reimbursement

2.1 The County will only cover costs associated with travel for vendors outside a 45-mile radius from the Williamson County Courthouse, 710 Main Street, Georgetown, Texas 78626.

2.2 The County will only cover costs associated with travel as documented work for County. If a vendor is also doing business for another client, the travel costs must be split in proportion to the amount of work actually performed for the County and the other client. The only allowable travel expense will be for the specific days worked for Williamson County.

2.3 No advance payments will be made to vendor for travel expenditures. The travel expenditure may only be reimbursed after the expenditure/trip has already occurred and vendor has provided the Williamson County Auditor with all necessary and required backup.

2.4 Vendors must submit all travel reimbursement requests on each employee in full. Specifically, a travel reimbursement request must include all related travel reimbursement expenses relating to a particular trip for which vendor seeks reimbursement. Partial travel reimbursement requests will not be accepted (i.e. vendor should not submit hotel and mileage one month then the next month submit rental car and airfare). If the travel reimbursement appears incomplete, the invoice will be sent back to the vendor to be submitted when all information is ready to submit in full.

2.5 Reimbursement for transportation costs will be at the most reasonable means of transportation (i.e.: airline costs will be reimbursed for coach rate, rental car costs will only be reimbursed if rental car travel was most reasonable means of travel as compared to travel by air).

2.6 The County will not be responsible for, nor will the County reimburse additional charges due to personal preference or personal convenience of individual traveling.

2.7 The County will not reimburse airfare costs if airfare costs were higher than costs of mileage reimbursement.

2.8 Additional expenses associated with travel that is extended to save costs (i.e. Saturday night stay) may be reimbursed if costs of airfare would be less than the cost of additional expenses (lodging, meals, car rental, mileage) if the trip had not been extended. Documentation satisfactory to the Williamson County Auditor will be required to justify expenditure.

2.9 County will only reimburse travel expense to necessary personnel of the vendor (i.e. no spouse, friends or family members).

2.10 Except as otherwise set forth herein, a vendor must provide a paid receipt for all expenses. If a receipt cannot be obtained, a written sworn statement of the expense from the vendor may be substituted for the receipt.

2.11 Sales tax for meals and hotel stays are the only sales taxes that will be reimbursed. Sales tax on goods purchased will not be reimbursed. A sales tax exemption form is available from the Williamson County Auditor's Office upon request.

2.12 The County will not pay for any late charges on reimbursable items. It is the responsibility of the vendor to pay the invoice first and seek reimbursement from the County.

3. Meals

3.1 Meal reimbursements are limited to a maximum of $59.00 per day on overnight travel. On day travel (travel that does not require an overnight stay), meal reimbursements are limited to a maximum of $25.00 per day. The travel must be outside the Williamson County Courthouse, 710 Main Street, Georgetown, Texas 78626 by a 45-mile radius.

3.2 Receipts are required on meal reimbursement amounts up to the maximum per day amount stated for overnight or day travel. If receipts are not presented, the vendor can request per diem (per diem limits refer to 3.2). However, a vendor cannot combine per diem and meal receipts. Only one method shall be allowed.

3.3 Meals are reimbursable only to vendors who do not have necessary personnel located within a 45-mile radius of the Williamson County Courthouse, 710 Main Street, Georgetown, Texas 78626, who are capable of carrying the vendor's obligations to the County. Meals will not be reimbursed to vendors who are located within a 45-mile radius of the Williamson County Courthouse.

3.4 County will not reimburse for alcoholic beverages.

3.5 Tips are reimbursable but must be reasonable to limitation of meal allowance

3.6 No meals purchased for entertainment purposes will be allowed.

3.7 Meal reimbursement must be substantiated with a hotel receipt.

4. **Lodging**
   - 4.1 Hotel accommodations require an itemized hotel folio as a receipt. The lodging receipt should include name of the motel/hotel, number of occupant(s), goods or services for each individual charge (room rental, food, tax, etc.) and the name of the occupant(s). Credit card receipts or any other form of receipt are not acceptable.
   - 4.2 Vendors will be reimbursed for a single room rate charge plus any applicable tax. If a single room is not available, the vendor must provide documentation to prove that a single room was not available in order to justify the expense over and above the single room rate. A vendor may also be required to provide additional documentation if a particular room rate appears to be excessive.
   - 4.3 Personal telephone charges, whether local or long distance, will not be reimbursed.

5. **Airfare**
   - 5.1 The County will only reimburse up to a coach price fare for air travel.
   - 5.2 The County will exclude any additional charges due to personal preference or personal convenience of the individual traveling (i.e. seat preference charges, airline upgrades, etc. will not be an allowable reimbursement)
   - 5.3 Air travel expenses must be supported with receipt copy of an airline ticket or an itinerary with actual ticket price paid. If tickets are purchased through a website, vendor must submit a copy of the webpage showing the ticket price if no paper ticket was issued.
   - 5.4 Cancellation and/or change flight fees may be reimbursed by the County but vendor must provide the Williamson County Auditor with documentation in writing from a County department head providing authorization for the change.
   - 5.5 The County will not reimburse vendor for tickets purchased with frequent flyer miles.

6. **Car Rental**
   - 6.1 Vendors that must travel may rent a car at their destination when it is less expensive than other transportation such as taxis, airport shuttles or public transportation such as buses or subways.
   - 6.2 Cars rented must be economy or mid-size. Luxury vehicle rentals will not be reimbursed. Any rental costs over and above the cost of a mid-size rental will be adjusted.
   - 6.3 Vendors will be reimbursed for rental cars if the rental car cost would have been less than the mileage reimbursement cost (based on the distance from vendor's point of origin to Williamson County, Texas) had the vendor driven vendor's car.
   - 6.4 Vendors must return a car rental with appropriate fuel levels as required by rental agreement to avoid the car rental company from adding fuel charges.
   - 6.5 Rental agreement and credit card receipt must be provided to County as back up for the request for reimbursement.
   - 6.6 Insurance purchased when renting vehicle may also be reimbursed.
   - 6.7 Car Rental optional extras such as GPS, roadside assistance, and administrative fees on Tolls will not be reimbursed.

7. **Personal Car Usage**
   - 7.1 Personal vehicle usage will be reimbursed in an amount equal to the standard mileage rate allowed by the IRS.
   - 7.2 Per code of Federal Regulations, Title 26, Subtitle A, Chapter 1, Subchapter B, Part IX, Section 274(d), all expense reimbursement requests must include the following:
     - 7.2.1.1 Date
     - 7.2.1.2 Destination
     - 7.2.1.3 Purpose

7.2.1.4 Name of traveler(s)
7.2.1.5 Correspondence that verifies business purpose of the expense

7.3 The mileage for a personal vehicle must document the date, location of travel to/from, number of miles traveled and purpose of trip.

7.4 Mileage will be reimbursed on the basis of the most commonly used route.

7.5 Reimbursement for mileage shall not exceed the cost of a round trip coach airfare.

7.6 Reimbursement for mileage shall be prohibited between place of residence and usual place of work.

7.7 Mileage should be calculated from employee's regular place of work or their residence, whichever is the shorter distance when traveling to a meeting or traveling to Williamson County, Texas for vendors who are located outside of the Williamson County Courthouse, 710 Main Street, Georgetown, Texas 78626 by at least a 45-mile radius.

7.8 When more than one person travels in same vehicle, only one person may claim mileage reimbursement.

7.9 Tolls, if reasonable, are reimbursable. Receipts are required for reimbursement. If a receipt is not obtainable, then written documentation of expense must be submitted for reimbursement (administrative fees on Tolls will not be reimbursed).

7.10 Parking fees, if reasonable are reimbursable for meetings and hotel stays. For vendors who contract with a third party for visitor parking at vendor's place of business, Williamson County will not reimburse a vendor based on a percentage of its contracted visitor parking fees. Rather, Williamson County will reimburse Vendor for visitor parking on an individual basis for each time a visitor uses Vendor's visitor parking. Receipts are required for reimbursement. If a receipt is not obtainable, then written documentation of expense must be submitted for reimbursement.

7.11 Operating and maintenance expenses as well as other personal expenses, such as parking tickets, traffic violations, and car repairs and collision damage are not reimbursable.

8. Other Expenses

8.1 Taxi fare, bus tickets, conference registrations, parking, etc. must have a proper original receipt.

9. Repayment of Non-reimbursable Expense.

Vendors must, upon demand, immediately repay County for all inappropriately reimbursed expenses whenever an audit or subsequent review of any expense reimbursement documentation finds that such expense was reimbursed contrary to these guidelines and this Policy. Williamson County reserves the right to retain any amounts that are due or that become due to a vendor in order to collect any inappropriately reimbursed expenses that a vendor was paid.

10. Non-Reimbursable Expenses

In addition to the non-reimbursable items set forth above in this Policy, the following is a non-exhaustive list of expenses that will not be reimbursed by Williamson County:

10.1 Alcoholic beverages/tobacco products
10.2 Personal phone calls
10.3 Laundry service
10.4 Valet service (excludes hotel valet)
10.5 Movie rentals
10.6 Damage to personal items
10.7 Flowers/plants

10.8 Greeting cards
10.9 Fines and/or penalties
10.10 Entertainment, personal clothing, personal sundries and services
10.11 Transportation/mileage to places of entertainment or similar personal activities
10.12 Upgrades to airfare, hotel and/or car rental
10.13 Airport parking above the most affordable rate available
10.14 Excessive weight baggage fees or cost associated with more than two airline bags
10.15 Auto repairs
10.16 Babysitter fees, kennel costs, pet or house-sitting fees
10.17 Saunas, massages or exercise facilities
10.18 Credit card delinquency fees or service fees
10.19 Doctor bills, prescription and other medical services
10.20 Hand tools
10.21 Safety Equipment (hard hats, safety vests, etc.)
10.22 Office Supplies
10.23 Lifetime memberships to any association
10.24 Donations to other entities
10.25 Any items that could be construed as campaigning
10.26 Technology Fees
10.27 Sales tax on goods purchased
10.28 Any other expenses which Williamson County deems, in its sole discretion, to be inappropriate or unnecessary expenditures.

EXHIBIT D

UNIFORM GENERAL CONDITIONS

TABLE OF ARTICLES

ARTICLE 1
GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

1.1.1 CONTRACT DOCUMENTS

Contract Documents are enumerated in the Contract between the Owner and Contractor (hereinafter the Contract) and consist of the Contract, Conditions of the Contract as revised, Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Contract and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Owner or the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding requirements.

1.1.2 CONTRACT

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants or (4) between any persons or entities other than the Owner and the Contractor.

1.1.3 WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by separate contractors.

1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

1.1.7 INSTRUMENTS OF SERVICE

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

1.1.8 KNOWLEDGE

The terms "knowledge," "recognize," and "discover," their respective derivatives, and similar terms in the Contract Documents, as used in reference to the Contractor, shall be interpreted to mean that which the Contractor knows (or should know), recognizes (or should recognize), and discovers (or should discover) in exercising the care, skill, and diligence required by the Contract Documents. Analogously, the expression "reasonably inferable" and similar terms in the Contract Documents shall be interpreted to mean reasonably inferable by a contractor familiar with the Project and exercising the care, skill, and diligence required of the Contractor by the Contract Documents.

1.1.9 PRODUCT

Materials, systems, and equipment incorporated or to be incorporated in the Work.

1.1.10 PROVIDE

Furnish and install and shall include, without limitation, labor, materials, equipment, transportation, services, and other items required to complete the referenced tasks.

1.1.11 FURNISH

Pay for, deliver (or receive), unload, inspect, and store products, materials, equipment, and accessories as specified while retaining care, custody and control until received for installation based on a signed receipt.

1.1.12 INSTALL

Receive, unload, inspect, and store as specified while retaining care, custody and control; set or place in position, make required connections; and adjust and test as specified in the Contract Documents for satisfactory performance and operation.

1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

1.2.1

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary,

and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results. In the event of inconsistencies within or between parts of the Contract Documents, or between the Contract Documents and applicable standards, codes, and ordinances, the Contractor shall (i) provide the better quality or greater quantity of Work or (ii) comply with the more stringent requirement; either or both in accordance with the Owner or the Architect's interpretation. The terms and conditions of this **Paragraph 1.2.1**, however, shall not relieve the Contractor of any of the obligations set forth in the Contract Documents.

1.2.2

Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

1.2.3

Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

.1 Whenever a product is specified in accordance with a Federal Specification, an ASTM Standard, an American National Standards Institute Specification, or other Association Standard, the Contractor, if required by the Specifications or if requested by the Owner, shall present evidence from the manufacture, certifying the product complies with the particular Standard or Specification. When required by the Contract Documents, supporting data shall be submitted to substantiate compliance.

.2 Whenever a product is specified or shown by describing proprietary items, model numbers, catalog numbers, manufacturer, trade names, or similar reference, no substitutions may be made unless accepted in strict accordance with the Substitution requirements stated in the Specifications or, if no Substitution requirements are stated in the Specifications, in accordance with the requirements stated elsewhere in the Contract Documents. Where two or more products are shown or specified, the Contractor has the option to use either of those shown or specified.

1.3 CAPITALIZATION

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles or (3) the titles of other documents published by the American Institute of Architects.

1.4 INTERPRETATION

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article

is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

1.5 USE OF DRAWINGS AND OTHER INSTRUMENTS OF SERVICE

1.5.1

The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and will retain all common law, statutory and other reserved rights, including copyrights, except as provided in the Owner-Architect Agreement. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

1.5.2

The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants.

1.6 TRANSMISSION OF DATA IN DIGITAL FORM

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall establish the necessary protocols governing such transmissions in writing, unless otherwise already provided in the Agreement or the Contract Documents.

ARTICLE 2
OWNER

2.1 GENERAL

The Owner means Williamson County acting through any duly authorized representative as provided in the Contract, and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization ("Owner's Designated Representative"). The term "Owner" means the Owner or the Owner's authorized representative.

2.2 OWNER

2.2.1 Appropriation of Funds by Owner

Owner believes it has sufficient funds currently available and authorized for expenditure to finance the costs of the Agreement between Owner and Contractor. Contractor understands and agrees that the Owner's payment of amounts under the Agreement between Owner and Contractor is contingent on the Owner receiving appropriations or other expenditure authority sufficient to allow the Owner, in the exercise of reasonable administrative discretion, to continue to make payments under the Agreement.

2.2.2

Unless specifically stated otherwise in the Contract Documents, Contractor shall secure and pay for necessary permits, approvals, assessments, and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

2.2.3

The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. Except for surveys or grade information, the Contractor shall compare the information furnished by the Owner, including, but not limited to, soil tests, with visibly observable physical conditions and the Contract Documents and, on the basis of such review, promptly report to the Owner and the Architect any known conflicts, errors or omissions. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

2.2.4

The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

2.2.5

Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions.

2.3 OWNER'S RIGHT TO STOP THE WORK

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by **Section 12.2** or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a **ten (10)-calendar day** period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect or failure. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

2.5 EXTENT OF OWNER RIGHTS

2.5.1

The rights stated in this **Article 2** and elsewhere in the Contract Documents are cumulative and not in limitation of any rights of the Owner (1) granted in the Contract Documents, (2) at law, or (3) in equity.

2.5.2

In no event shall the Owner have control over, charge of, or any responsibility for construction means, methods, techniques, sequences, or procedures or for safety precautions and programs in connection with the Work, notwithstanding any of the rights and authority granted the Owner in the Contract Documents.

2.6 OWNER'S RIGHT TO RECORDS

2.6.1

The Contractor's records, which shall include but not be limited to accounting records, written policies and procedures, subcontractor files (including proposals of successful bidders), original estimates, estimating work sheets, correspondence, schedules, change order files (including documentation covering negotiated settlements), and any other supporting evidence necessary to substantiate charges related to this contract (all foregoing hereinafter referred to as "records") and shall be open to inspection and subject to audit and/or reproduction, during normal working hours, by Owner's agent or its authorized representative to the extent necessary to adequately permit evaluation and verification of any invoices, payments or claims submitted by the Contractor or any of his payees. Such records subject to examination shall also include, but not be limited to, those records necessary to evaluate and verify direct and indirect costs (including overhead allocations) as they may apply to costs associated with this Contract.

2.6.2
For the purpose of such audits, inspections, examinations and evaluations, the Owner's agent, or authorized representatives shall have access to said records from the effective date of this Contract for the duration of Work and until **three (3) years** (or longer if required by law) after the date of final payment by Owner to Contractor.

2.6.3
Owner's agent or its authorized representative shall have access during normal business hours to the Contractor's facilities, shall have access to all necessary records and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with this **Section 2.6**. Owner's agent or authorized representative shall give auditees reasonable advance notice of intended audits.

2.6.4
Contractor shall require all subcontractors, insurance agents, and material suppliers (payees) with cost plus contracts, if permitted, and not fixed price contracts to comply with the provisions of this **Article 2** by insertion of the requirements hereof in a written contract agreement between Contractor and payee. Failure to obtain such written contracts which include such provisions shall be reason to exclude some or all of the related payee's costs from amounts payable to the Contractor pursuant to this contract.

ARTICLE 3
CONTRACTOR

3.1 GENERAL

3.1.1
The Contractor is the person or entity identified as such in the Contract and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under the Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative, and if these General Conditions are used in conjunction with the Contract between Owner and Construction Manager-At-Risk, the term "Contractor" shall mean the Construction Manager.

3.1.2
The Contractor shall perform the Work in strict accordance with the Contract Documents.

3.1.3
The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's

administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

3.2.1

Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents. Prior to execution of the Contract, the Contractor and each Subcontractor shall have evaluated and satisfied themselves as to the observable conditions and limitations under which the Work is to be performed, including, without limitation, (i) the location, condition, layout, and nature of the Project site and surrounding areas, (ii) generally prevailing climatic conditions, (iii) anticipated labor supply and costs, (iv) availability and cost of materials, tools, and equipment, and (v) other similar issues. The Owner assumes no responsibility or liability for the physical condition or safety of the Project site or any improvements located on the Project site. Except as set forth in **Section 10.3**, the Contractor and its Subcontractors shall be responsible for providing a safe place for the performance of the Work. The Owner shall not be required to make any adjustment in either the Contract Sum or the Contract Time in connection with any failure by the Contractor or any Subcontractor to have complied with the requirements of **this Section 3.2**.

3.2.2

Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to **Paragraph 2.2.3**, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Owner and Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner. The Contractor shall verify the accuracy of elevations, dimensions, locations, and field measurements. In all cases of the interconnection of its Work with existing or other Work, the Contractor shall verify at the site all dimensions relating to such existing or other Work.

.1 All of Contractor's and Subcontractors' work shall conform to the Contract Documents. Contractor shall be responsible for the details of the Work necessary to carry out the intent of the drawings and specifications, or which are customarily performed. When more detailed information is required for performance of the Work or when an interpretation of the Contract Documents is requested, the Contractor shall submit a written request for information to the Architect or Owner (as required), and the Owner or Architect shall furnish such information or interpretation. Where only part of the Work is indicated, similar parts shall be considered repetitive. Where any detail is shown and components thereof are fully described, similar details not fully described shall be considered to incorporate the fully described details and components.

.2 The Contractor has had an opportunity to examine, and has carefully examined, all of the Contract Documents and Project site, and has fully acquainted itself with the scope of work, design, availability of materials, existing facilities, access, general topography, soil structure, subsurface conditions, obstructions, and all other conditions pertaining to the Work, the site of the Work, and its surrounding; that it has made necessary investigations to a full understanding of the difficulties which may be encountered in performing the Work; and that anything in any Contract Documents, or in any representations, statements, or information made or furnished by Owner or its representatives notwithstanding, Contractor will complete the Work for the compensation stated in the Contract. In addition thereto, Contractor represents that it is fully qualified to do the Work in accordance with the terms of the Contract in the time specified.

3.2.3

The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Owner and the Architect any nonconformity discovered by or made known to the Contractor as a request for information.

3.2.4

If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to **Paragraphs 3.2.2 or 3.2.3** above, the Contractor shall make Claims as provided in **Article 15**.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

3.3.1

The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. Subcontractors are responsible for directing their forces on their portions of the Work. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor and Subcontractors shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required means, methods, techniques, sequences or procedures.

3.3.2

The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

3.3.3

The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

3.3.4

Inspection of the progress, quantity, or quality of the Work done by the Owner, any Owner's representative, any governmental agency, or the Architect, or any inspector, shall not relieve the Contractor of any responsibility for the compliance of the Work with the Contract Documents. The Owner or its approved representative (heretofore referred to as Owner's representative) shall have access to the worksite and all Work. No supervision or inspection by the Owner's representative, nor the authority to act nor any other actions taken by the Owner's representative shall relieve the Contractor of any of its obligations under the Contract Documents nor give rise to any duty on the part of the Owner.

3.4 LABOR AND MATERIALS

3.4.1

Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

.1 **Duty to Pay Prevailing Wage Rates.** The Contractor shall pay not less than the wage scale of the various classes of labor as shown on the "Prevailing Wage Schedule" provided by the Owner. The specified wage rates are minimum rates only, and are not representations that qualified labor adequate to perform the Work is available locally at the prevailing wage rates. The Owner is not bound to pay—and will not consider—any claims for additional compensation made by any Contractor because the Contractor pays wages in excess of the applicable minimum rate contained in the Contract Documents. The "Prevailing Wage Schedule" is not a representation that quantities of qualified labor adequate to perform the Work may be found locally at the specified wage rates.

a) For classifications not shown, workers shall not be paid less than the wage indicated for Laborers. The Contractor shall notify each worker commencing work on the Project the worker's job classification and the established minimum wage rate required to be paid, as well as the actual amount being paid. The notice must be delivered to and signed in acknowledgement of receipt by the employee and must list both the monetary wages and fringe benefits to be paid or furnished for each classification in which the worker is assigned duties. When requested by Owner, competent evidence of compliance with the Texas Prevailing Wage Law shall be furnished by Contractor.

b) A copy of each worker wage rate notification shall be submitted to the Owner with the Application for Payment for the period during which the worker began on-site activities.

.2 **Prevailing Wage Schedule.** The "Prevailing Wage Schedule" shall be determined by the Owner in compliance with **Texas Government Code, Chapter 2258**. Should the Contractor at any time become aware that a particular skill or trade not reflected on the Owner's Prevailing Wage Schedule will be or is being employed in the Work, whether by the Contractor or by a subcontractor, the Contractor shall promptly inform the Owner and shall specify a wage rate for that skill or trade, which shall bind the Contractor.

.3 Penalty for Violation. The Contractor and any Subcontractor shall pay to the Owner a penalty of **sixty dollars ($60.00)** for each worker employed for each calendar day, or portion thereof, that the worker is paid less than the wage rates stipulated in the Prevailing Wage Schedule or any supplement thereto pursuant to **Paragraph 3.4.1.2** above. The Contractor and each Subcontractor shall keep, or cause to be kept, an accurate record showing the names and occupations of all workers employed in connection with the Work, and showing the actual per diem wages paid to each worker, which records shall be open at all reasonable hours for the inspection by the Owner.

.4 Complaints of Violations of Prevailing Wage Rates. Within **thirty-one (31) days** of receipt of information concerning a violation of **Texas Government Code, Chapter 2258**, the Owner shall make an initial determination as to whether good cause exists to believe a violation occurred. The Owner's decision on the initial determination shall be reduced to writing and sent to the Contractor or Subcontractor against whom the violation was alleged, and to the affected worker. When a good cause finding is made, the Owner shall retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the Prevailing Wage Schedule and any supplements thereto, together with the applicable penalties, such amounts being subtracted from successive progress payments pending a final decision on the violation.

.5 Arbitration Required if Violation not Resolved. After the Owner makes its initial determination, the affected Contractor or Subcontractor and worker have **fourteen (14) days** in which to resolve the issue of whether a violation occurred, including the amount that should be retained by Owner or paid to the affected worker. If the Contractor or Subcontractor and affected worker reach an agreement concerning the worker's claim, the Contractor shall promptly notify the Owner in a written document signed by the worker. It the Contractor or Subcontractor and affected worker do not agree before the **fifteenth (15th) day** after the Owner's determination, the Contractor or Subcontractor and affected worker must participate in binding arbitration in accordance with the **Texas General Arbitration Act, Chapter 171, Tex. Civ. Prac. & Rem. Code**. The parties to the arbitration have **ten (10) days** after the expiration of the **fifteen (15) days** referred to above, to agree on an arbitrator; if by the **eleventh (11th) day** there is no agreement to an arbitrator, a district court shall appoint an arbitrator on the petition of any of the parties to the arbitration.

.6 Arbitration Award. If an arbitrator determines that a violation has occurred, the arbitrator shall assess and award against the Contractor or Subcontractor the amount of penalty as provided in this **Section 3.4** and the amount owed the worker. The Owner may use any amounts retained hereunder to pay the worker the amount as designated in the arbitration award. If the Owner has not retained enough from the Contractor or Subcontractor to pay the worker in accordance with the arbitration

award, the worker has a right of action against the Contractor and Subcontractor as appropriate, and the surety of either to receive the amount owed, attorneys' fees and court costs. The Contractor shall promptly furnish a copy of the arbitration award to the Owner.

.7 Prevailing Wage Retainage. Money retained pursuant to this **Section 3.4** shall be used to pay the claimant or claimants the difference between the amount the worker received in wages for labor on the Project at the rate paid by the Contractor or Subcontractor and the amount the worker would have received at the general prevailing wage rate as provided by the agreement of the claimant and the Contractor or Subcontractor affected, or in the arbitrator's award. The full statutory penalty of **sixty dollars ($60.00) per day** of violation per worker shall be retained by the Owner to offset its administrative costs, pursuant to **Texas Government Code, §2258.023**. Any retained funds in excess of these amounts shall be paid to the Contractor on the earlier of the next progress payment or final payment. Provided, however, that the Owner shall have no duty to release any funds to either the claimant or the Contractor until it has received the notices of agreement or the arbitration award as provided under **Paragraphs 3.4.2 and 3.4.3**.

.8 No Extension of Time. If the Owner determines that good cause exists to believe a violation has occurred, the Contractor shall not be entitled to an extension of time for any delay arising directly or indirectly from of the procedures set forth in this **Section 3.4**.

3.4.2

Except in the case of minor changes in the Work authorized by the Owner or Architect in accordance with **Paragraphs 3.12.8 or Section 7.4**, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive. If the Contractor desires to submit an alternate product or method in lieu of what has been specified or shown in the Contract Documents, the Contractor shall comply with the Substitution requirements listed in the Specifications, or if there are no Substitution requirements listed in the Specifications, then the following provisions apply:

.1 The Contractor must submit to the Architect and the Owner (1) a full explanation of the proposed substitution and submittal of all supporting data, including technical information, catalog cuts, warranties, test results, installation instructions, operating procedures, and other like information necessary for a complete evaluation of the substitution; (2) the adjustment, if any, in the Contract Sum, in the event the substitution is acceptable; (3) the adjustment, if any, in the time of completion of the Contract and the construction schedule in the event the substitution is acceptable; and (4) a statement indicating Contractor accepts the warranty and correction obligations in connection with the proposed substitution as if originally specified by the Architect.

Proposals for substitutions shall be to the Architect in sufficient time to allow the Architect no less than **ten (10) working days** for review. No substitutions will be considered or allowed without the Contractor's submittal of complete substantiating data and information as stated hereinbefore.

3.4.3
The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

3.4.4
The Contractor shall only employ or use labor in connection with the Work capable of working harmoniously with all trades, crafts, and any other individuals associated with the Project.

3.4.5.
In case the progress of the Work is affected by any undue delay in furnishing or installing any items or materials or equipment required under the Contract Documents because of such conflict involving any such labor agreement or regulation, the Owner may require that other material or equipment of equal kind and quality be provided pursuant to a Change Order or Construction Change Directive.

3.5 WARRANTY

3.5.1
The Contractor warrants to the Owner: (1) that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise; (2) that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit; (3) that the Work will be done strictly in accordance with the Contract Documents; (4) that all products are installed per the manufacturer's instructions, and in such a way that the manufacturer's warranties are preserved, including the use of a manufacturer-certified installer, if required by the manufacturer; (5) and that the Work, when finally completed, will provide a complete Project that meets the intent of the Contract Documents.

The Contractor represents and warrants to the Owner that its materials and workmanship, including without limitation, construction means, methods, procedures and techniques necessary to perform the Work, use of materials, selection of equipment and requirements of product manufacturers are and shall be consistent with: (1) good and sound practices within the construction industry; (2) generally prevailing and accepted industry standards applicable to the Work; (3) requirements of any warranties applicable to the Work subject to **Paragraph 3.2.3**. Work, materials, or equipment not conforming to these requirements shall

be considered defective, and promptly after written notification of non-conformance shall be repaired or replaced by Contractor with Work conforming to this warranty. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Owner or Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

.1 Contractor further warrants that all materials or equipment of a category or classification will be a product of the same manufacturer and such materials or equipment shall be of the same lot, batch or type and that such materials and equipment will be as specified.

3.5.2

The Contractor agrees to assign to the Owner at the time of final completion of the Work any and all manufacturer's warranties relating to materials and labor used in the Work and further agrees to perform the Work in such manner so as to preserve any and all such manufacturer's warranties.

3.6 TAXES

State Sales and Use Taxes. Sales, use or similar taxes imposed by a governmental authority that are related to the Work and for which the Contractor is liable; provided, however, Owner is a body corporate and politic under the laws of the State of Texas and claims exemption from sales and use taxes under Texas Tax Code Ann. 151.309, as amended, and the services and materials subject of the Contract are being secured for use by Owner. Exemption certificates will be provided to Contractor upon request. As a precondition to the Owner reimbursing Contractor for allowable sales and use taxes, Contractor must, on its own, first attempt to use such tax exemption certificates in order to assert the exemption. In the event Contractor's efforts to use the tax exemption certificate is unsuccessful and provided that under the laws of the State of Texas an exemption from sales and use taxes is allowed. Owner will reimburse Contractor for such sales and use taxes upon Contractor providing sufficient and satisfactory documentation to the Williamson County Auditor.

3.7 PERMITS, FEES, NOTICES, AND COMPLIANCE WITH LAWS

3.7.1

Unless otherwise provided, the Contractor shall secure, pay for, and, as soon as practicable, furnish the Owner with copies or certificates of all permits and fees, licenses, and inspections necessary for the proper execution and completion of the Work, including, without limitation, all building permits. All connection charges, assessments, or inspection fees as may be imposed by any municipal agency or utility company are included in the Contract Sum and shall be the Contractor's responsibility.

3.7.2
The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

3.7.3
If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction and damages resulting therefrom.

3.7.4 Concealed or Unknown Conditions
If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than **twenty-one (21) calendar days** after first observance of the conditions. The Owner will promptly investigate such conditions and, if the Owner determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will authorize an equitable adjustment in the Contract Sum or Contract Time, or both. If the Owner determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Owner shall promptly notify the Contractor in writing, stating the reasons. If the Contractor disputes the Owner's determination, the Contractor party may assert a Claim as provided in **Article 15**.

3.7.5
If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in **Article 15**.

3.8 ALLOWANCES

3.8.1
The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

3.8.2
Unless otherwise provided in the Contract Documents,

.1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

.2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and

.3 whenever costs are more than or less than allowances, the Contractor shall, prior to purchasing any such materials, notify the Owner in writing of the cost and whether such cost will exceed the amount of the allowance. If Owner authorizes Contractor to proceed, after receiving the Contractor's estimate of the total cost, then the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under **Paragraph 3.8.2.1** and (2) changes in Contractor's costs under **Paragraph 3.8.2.2**.

3.9 SUPERINTENDENT

3.9.1
The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent or Contractor's project manager shall be as binding as if given to the Contractor. Important oral communications shall be immediately confirmed in writing.

3.9.2
The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the name and qualifications of a proposed superintendent. The Owner or Architect may reply within **fourteen (14) calendar days** to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to the proposed superintendent or (2) that the Owner and Architect require additional time to review. Failure of the Owner or Architect to reply within the **fourteen (14)-calendar day** period shall constitute notice of no reasonable objection.

3.9.3
The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

3.10.1
The Contractor, as provided in the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

3.10.2
The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Architect's approval. The Architect's approval shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

3.10.3
The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

3.10.4
The construction schedule shall be a detailed precedence-style critical path management ("CPM") schedule in a format satisfactory to the Owner that shall (1) provide a graphic representation of all activities and events that will occur during performance of the Work; (2) identify each phase of construction and occupancy; and (3) set forth dates that are critical in ensuring the timely and orderly completion of the Work in accordance with the requirements of the Contract Documents (hereinafter referred to as the "Milestone Date"). Upon review and acceptance by the Owner of the Milestone Dates, the construction schedule shall be deemed part of the Contract Documents. If not accepted, the construction schedule shall be promptly revised by the Contractor in accordance with the recommendations of the Owner and resubmitted for acceptance. The Contractor shall monitor the progress of the Work for conformance with the requirements of the construction schedule and shall promptly advise

the Owner of any delays or potential delays. The accepted construction schedule shall be updated to reflect actual conditions as set forth in **Paragraph 3.10.1** or if requested by the Owner. In the event any progress report indicates any delays, the Contractor shall propose an affirmative plan to correct the delay, including overtime and/or additional labor, if necessary. In no event shall any progress report constitute an adjustment in the Contract Time, any Milestone date, or the Contract Sum unless any such adjustment is agreed to by the Owner and authorize pursuant to a Change Order.

3.10.5

In the event the Owner determines that the performance of the Work, as of a Milestone Date, has not progressed or reach the level of completion required by the Contract Documents, the Owner shall have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including without limitation, (1) working additional shifts or overtime, (2) supplying additional manpower, equipment, and facilities, and (3) other similar measures. Such measures so continue until the progress of the Work complies with the stage of completion required by the Contract Documents. The Owner's right to require such measures is solely for the purpose of ensuring the Contractors compliance with the construction schedule.

3.11 DOCUMENTS AT THE SITE

The Contractor shall maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

3.12 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

3.12.1

Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

3.12.2

Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

3.12.3

Samples are physical examples that illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

3.12.4
Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of **Paragraph 4.2.7**. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

3.12.5
The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors.

3.12.6
By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

3.12.7
The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals until the respective submittal has been approved by the Architect.

3.12.8
The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by the Architect's approval thereof.

3.12.9

The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice, the Architect's approval of a resubmission shall not apply to such revisions.

3.12.10

The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this **Paragraph 3.12.10**, the Architect will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

3.13 USE OF SITE

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

3.14 CUTTING AND PATCHING

3.14.1

The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly as required by the Contract Documents. All

areas requiring cutting, fitting, and patching shall be restored to the condition existing prior to the cutting, fitting and patching, unless otherwise required by the Contract Documents.

3.14.2

The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

3.15 CLEANING UP

3.15.1

The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

3.15.2

If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and Owner shall be entitled to reimbursement from the Contractor.

3.16 ACCESS TO WORK

The Owner and Architect shall, at all times, have access to the Work in preparation and progress wherever located.

3.17 ROYALTIES, PATENTS AND COPYRIGHTS

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

3.18 INDEMNIFICATION

3.18.1 INDEMNITY

OTHER THAN EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL INDEMNIFY, DEFEND, AND HOLD HARMLESS OWNER, ITS EMPLOYEES, AND ASSIGNS (THE "INDEMNIFIED PARTIES" OR "INDEMNITEES") FROM AND AGAINST CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ARISING OUT OF OR ALLEGED TO BE RESULTING FROM THE PERFORMANCE OF THIS CONTRACT, TO THE EXTENT CAUSED BY THE NEGLIGENT OR WILLFUL ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, SUB-SUBCONTRACTORS, OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THEM OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE. CONTRACTOR SHALL NOT BE REQUIRED TO INDEMNIFY, HOLD HARMLESS OR DEFEND THE INDEMNIFIED PARTIES AGAINST A CLAIM CAUSED BY THE NEGLIGENCE OR FAULT, OR THE BREACH OR VIOLATION OF A STATUTE, ORDINANCE, GOVERNMENTAL REGULATION, STANDARD, OR RULE OF THE INDEMNITEE, OR OTHER PARTY OTHER THAN CONTRACTOR OR ITS AGENT, EMPLOYEE, OR SUBCONTRACTOR OF ANY TIER, EXCEPT THAT CONTRACTOR SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE INDEMNIFIED PARTIES AGAINST ANY CLAIMS FOR THE BODILY INJURY OR DEATH OF AN EMPLOYEE OF CONTRACTOR, ITS AGENTS, OR IT SUBCONTRACTORS OF ANY TIER.

3.18.2 INDEMNITY – EMPLOYEE PERSONAL INJURY CLAIMS

TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL INDEMNIFY, DEFEND, AND HOLD HARMLESS THE INDEMNIFIED PARTIES AND SHALL ASSUME ENTIRE RESPONSIBILITY AND LIABILITY (OTHER THAN AS A RESULT OF AN INDEMNIFIED PARTY'S GROSS NEGLIGENCE) FOR ANY CLAIM OR ACTION BASED ON OR ARISING OUT OF THE PERSONAL INJURY, INCLUDING THE DEATH, OF ANY EMPLOYEE OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY SUB-SUBCONTRACTOR, OR OF ANY OTHER ENTITY FOR WHOSE ACTS THEY MAY BE LIABLE, WHICH OCCURRED OR WAS ALLEGED TO HAVE OCCURRED ON THE PROJECT SITE OR IN CONNECTION WITH THE PERFORMANCE OF THE WORK OF THIS CONTRACT. CONTRACTOR HEREBY INDEMNIFIES THE INDEMNIFIED PARTIES EVEN TO THE EXTENT THAT SUCH PERSONAL INJURY WAS CAUSED OR ALLEGED TO HAVE BEEN CAUSED BY THE COMPARATIVE OR CONCURRENT NEGLIGENCE OF THE STRICT LIABILITY OF ANY INDEMNIFIED PARTY. THIS INDEMNIFICATION SHALL NOT BE LIMITED TO DAMAGES, COMPENSATION, OR BENEFITS PAYABLE UNDER INSURANCE POLICIES, WORKERS COMPENSATION ACTS, DISABILITY BENEFITS ACTS, OR OTHER EMPLOYEES BENEFIT ACTS.

3.18.3

THE CONTRACTOR'S INDEMNITY OBLIGATIONS UNDER THIS **SECTION 3.18** SHALL ALSO SPECIFICALLY INCLUDE, WITHOUT LIMITATION, ALL FINES, PENALTIES,

DAMAGES, LIABILITY, COSTS, EXPENSES (INCLUDING, WITHOUT LIMITATION, REASONABLE ATTORNEYS' FEES) ARISING OUT OF, OR IN CONNECTION WITH, ANY (1) VIOLATION OF OR FAILURE TO COMPLY WITH ANY LAW, STATUTE, ORDINANCE, RULE, REGULATION, CODE OR REQUIREMENT OF A PUBLIC AUTHORITY THAT BEARS UPON THE PERFORMANCE OF THE WORK BY THE CONTRACTOR, A SUBCONTRACTOR, OR ANY PERSON OR ENTITY FOR WHOM EITHER IS RESPONSIBLE, (2) MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF EXECUTION OR PERFORMANCE OF THE WORK, AND (3) FAILURE TO SECURE AND PAY FOR PERMITS, FEES, APPROVALS, LICENSES, AND INSPECTIONS AS REQUIRED UNDER THE CONTRACT DOCUMENTS, OR ANY VIOLATION OF ANY PERMIT OR OTHER APPROVAL OF A PUBLIC AUTHORITY APPLICABLE TO THE WORK, BY THE CONTRACTOR, A SUBCONTRACTOR, OR ANY PERSON OR ENTITY FOR WHOM EITHER IS RESPONSIBLE.

ARTICLE 4
ARCHITECT

4.1 GENERAL

4.1.1
The Owner shall retain an architect lawfully licensed to practice architecture or an entity lawfully practicing architecture in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Contract and is referred to throughout the Contract Documents as if singular in number.

4.1.2
Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.

4.1.3
In the event that Owner has not engaged an architect and an architect is not identified in the Contract, but, rather, engages an engineer for the Project, all references made in these General Conditions to the "Architect" shall mean and include the engineer identified as the "Engineer" in the Contract and all duties, responsibilities and limitations of authority of the Architect, as set forth in the Contract Documents, shall apply to the Engineer.

4.2 ADMINISTRATION OF THE CONTRACT

4.2.1
The Architect will provide administration of the Contract as described in the Owner-Architect Agreement. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

4.2.2

The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, except as provided in **Paragraph 3.3.1**.

4.2.3

On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

4.2.4 COMMUNICATIONS AND CONTRACT ADMINISTRATION

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to relate relevant communications between Owner and Architect to the Architect. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

4.2.5

If included in Architect's scope of work, the agreement between Owner and Architect, or if requested by the Owner, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts based on the Architect's evaluations of the Contractor's Applications for Payment.

4.2.6

To the extent permitted by the agreement between Owner and Architect, the Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect, in consultation with the Owner,

will have authority to require inspection or testing of the Work in accordance with **Paragraphs 13.5.2 through 13.5.3**, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect or the Owner to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

4.2.7

To the extent provided in the agreement between Owner and Architect, the Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Owner and Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under **Sections 3.3, 3.5, and 3.12**. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

4.2.8

If requested by Owner, the Architect will prepare Change Orders and Construction Change Directives with the Owner's prior written consent, but the Architect may authorize minor changes in the Work as provided in the agreement between Owner and Architect, or in **Section 7.4**. If requested by Owner, the Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in **Paragraph 3.7.4**.

4.2.9

If requested by Owner, the Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to **Section 9.8**; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to **Section 9.10**; and issue a final Certificate for Payment pursuant to **Section 9.10**.

4.2.10
If the Owner and Architect agree, the Architect will provide one or more project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities, and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

4.2.11
If requested by Owner, the Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

4.2.12
Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings.

4.2.13
The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents, and if approved by Owner.

4.2.14
The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5
SUBCONTRACTORS

5.1 DEFINITIONS

5.1.1
A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

5.1.2
A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is

referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

5.2 AWARD OF SUBCONTRACTS

5.2.1 FOR CONSTRUCTION MANAGER AT-RISK CONTRACTS

The Construction Manager shall publicly advertise for bids or proposals and receive bids or proposals from trade contractors or Subcontractors for the performance of all major elements of the work other than the minor work that may be included in the general conditions. The Construction Manager may seek to perform portions of the work itself if:

.1 the Construction Manager submits its bid or proposal for those portions of the Work in the same manner as all other trade contractors or Subcontractors; and

.2 the Owner determines that the Construction Manager's bid or proposal provides the best value for the Owner.

.3 Review of Bids or Proposals. Construction Manager shall review all trade contractor or Subcontractor bids or proposals in a manner that does not disclose the contents of the bid or proposal during the selection process to a person not employed by the Construction Manager, Architect, Engineer, or Owner. All bids or proposals shall be made available to the Owner on request and to the public after the later of the award of the Contract or the **seventh (7th) business day** after the date of final selection of bids or proposals. If the Construction Manager reviews, evaluates, and recommends to the Owner a bid or proposal from a trade contractor or subcontractor but the Owner requires another bid or proposal to be accepted, the Owner shall compensate the Construction Manager by a change in the Contract Sum, Contract Time, or Cost of the Work for any additional cost and risk that the Construction manager incurs because of the Owner's requirement that another bid or proposal be accepted.

5.2.2

The Contractor shall not contract with a proposed Subcontractor, person, or entity to whom the Owner has made reasonable objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made a reasonable objection.

5.2.3

If the Owner has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time may be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract

Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

5.2.4
The Contractor shall not substitute a Subcontractor, person, or entity previously selected if the Owner makes reasonable objection to such substitution.

5.3 SUBCONTRACTUAL RELATIONS

5.3.1
By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

5.3.2
All subcontracts shall be in writing and, if requested, Contractor shall provide Owner with copies of executed subcontracts.

5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

5.4.1
The Contract is for Owner's benefit, its successors and assigns who, as well as Contractor, may directly enforce all rights and warranties, express or implied herein, but Subcontractors shall have recourse only against Contractor and not against Owner. Owner may rely solely upon Contractor for enforcement of all Subcontracts. To effect such purpose, Contractor assigns to Owner all right to bring any actions against subcontractors and material vendors without waiver by Owner of his right against Contractor because of defaults, delays and

effects for which a subcontractor or material vendor may also be liable, said assignment being effective only if:

.1 Contractor is in default under the Contract Documents; or

.2 Owner has terminated the Contract in accordance with the Contract Documents; and

.3 Only for those subcontract agreements which the Owner accepts by notifying the Subcontractor and Contractor in writing; and

.4 The assignment is subject to the prior rights of the surety, if any, obligated under any bond relating to the Contract.

5.4.2
Upon such assignment, if the Work has been suspended for more than **thirty (30) calendar days**, the Subcontractor's compensation may be equitably adjusted for increases in cost resulting from the suspension.

5.4.3
Upon such assignment to the Owner under this **Section 5.4**, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

5.4.4
The Architect and the Owner shall have the right to request from any Subcontractor at any time during the course of construction, a notarized affidavit stating the amount of monies which have been paid to the Subcontractor as of any certain stipulated date.

ARTICLE 6
CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

6.1.1
The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in **Article 15**.

6.1.2
When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Contract.

6.1.3
The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.

6.2 MUTUAL RESPONSIBILITY

6.2.1
The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

6.2.2
If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect and the Owner apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

6.2.3
The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a separate contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a separate contractor's delays, improperly timed activities, damage to the Work or defective construction.

6.2.4
The Contractor shall promptly remedy damage the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or separate contractors as provided in **Paragraph 10.2.5**.

6.2.5
The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in **Section 3.14**.

6.2.6
All separate contractors shall sign a site access agreement with Contractor setting forth duties, responsibilities, safety, and administrative requirements.

6.3 OWNER'S RIGHT TO CLEAN UP
If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and allocate the cost among those responsible.

ARTICLE 7
CHANGES IN THE WORK

7.1 GENERAL

7.1.1
Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this **Article 7** and elsewhere in the Contract Documents.

7.1.2
A Change Order shall be based upon agreement among the Owner, Contractor and Architect; a Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Owner or Architect alone.

7.1.3
Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work. Except as permitted in **Section 7.3** and **Paragraph 9.7.2**, a change in the Contract Sum or the Contract Time shall be accomplished only by Change Order. Accordingly, no course of conduct or dealings between the parties, nor express or implied acceptance of alterations or additions to the Work, and no claim that Owner has been unjustly enriched by any alteration of or addition to the Work, whether or not there is, in fact, any unjust enrichment to the Work, shall be the basis of any Claim to an increase in any amounts due under the Contract Documents or a change in any time period provided for in the Contract Documents.

7.2 CHANGE ORDERS

7.2.1
A Change Order is a written instrument signed by the Owner, Contractor and Architect stating their agreement upon all of the following:

.1 The change in the Work;

.2 The amount of the adjustment, if any, in the Contract Sum; and

.3 The extent of the adjustment, if any, in the Contract Time.

7.2.2
Contractor's Change Order shall set forth in clear and precise detail breakdowns of labor and materials for all trades involved and the estimated impact on the dates of Substantial Completion. Contractor shall furnish supporting data as reasonably requested by Owner.

7.2.3
Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including, but not limited to, all direct and indirect costs associated with such change and any and all adjustments to the Contract Sum and the construction schedule.

7.3 CONSTRUCTION CHANGE DIRECTIVES

7.3.1
A Construction Change Directive is a written order signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

7.3.2
A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

7.3.3
If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

.1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;

.2 Unit prices stated in the Contract Documents or subsequently agreed upon;

.3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or

.4 As provided in **Paragraph 7.3.7**.

7.3.4
If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

7.3.5
Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

7.3.6
A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

7.3.7
If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Owner shall determine the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Contract, or if no such amount is set forth in the Contract, a reasonable amount. In such case, and also under **Paragraph 7.3.3.3**, the Contractor shall keep and present, in such form as the Owner or Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this **Paragraph 7.3.7** shall be limited to the following:

.1 Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;

.2 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;

.3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;

.4 Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and

.5 Additional costs of supervision and field office personnel directly attributable to the change.

7.3.8

The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Owner or the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

7.3.9

Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Owner will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Owner determines to be reasonably justified. The Owner's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of Contractor to disagree and assert a Claim in accordance with **Article 15**.

7.3.10

When the Owner and Contractor agree with a determination made concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

7.4 MINOR CHANGES IN THE WORK

If permitted in the agreement between Owner and Architect, the Architect has authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents.

ARTICLE 8
TIME

8.1 CONTRACT TIME

TIME IS AN ESSENTIAL ELEMENT OF THE CONTRACT. The Contract Time is the time between the dates indicated in the Notice to Proceed for commencement of the Work and for achieving Substantial Completion. The Contract Time can be modified only by Change Order. Failure to achieve Substantial Completion within the Contract Time, as otherwise agreed to in writing, will cause damage to Owner and may subject Contractor to liquidated damages as provided in the Contract. If Contractor fails to achieve Final Completion within **thirty (30) calendar days** after Substantial Completion or a mutually agreed upon longer period of time between Contractor and Owner, Contractor shall be responsible for Owner's additional inspection, project management, and maintenance cost to the extent caused by Contractor's failure to achieve Final Completion.

8.2 NOTICE TO PROCEED

Owner will issue a Notice to Proceed which shall state the dates for beginning the Work and for achieving Substantial Completion of the Work.

8.3 WORK PROGRESS SCHEDULE

Unless indicated otherwise, Contractor shall submit to Owner and Architect the initial Work Progress Schedule for the Work in relation to the entire Project not later than **twenty-one (21) calendar days** after the effective date of the Notice to Proceed. Unless indicated otherwise, the Work Progress Schedule shall be computerized Critical Path Method (CPM) with fully editable logic. This initial schedule shall indicate the dates for starting and completing the various aspects required to complete the Work, including mobilization, procurement, installation, testing, inspection, delivery of Close-out Documents, and acceptance of all the Work of the Contract. When acceptable to Owner, the initially accepted schedule shall be the Baseline Schedule for comparison to actual conditions throughout the Contract duration.

8.3.1 SCHEDULE REQUIREMENTS

Contractor shall submit electronic and paper copy of the initial Work Progress Schedule reflecting accurate and reliable representations of the planned progress of the Work, the Work to date if any, and of Contractor's actual plans for its completion. Contractor shall organize and provide adequate detail, so the schedule is capable of measuring and forecasting the effect of delaying events on completed and uncompleted activities.

.1 Contractor shall resubmit initial schedule as required to address review comments from Architect and Owner until such schedule is accepted as the Baseline Schedule.

.2 Submittal of a schedule, schedule revision or schedule update constitutes Contractor's representation to Owner of the accurate depiction of all progress to date and that Contractor will follow the schedule as submitted in performing the Work.

8.3.2 SCHEDULE UPDATES

Contractor shall update the Work Progress Schedule and the Submittal Register monthly, as a minimum, to reflect progress to date and current plans for completing the Work, while maintaining original schedule as Baseline Schedule and submit electronic copies of the update to Owner and Architect as directed, but as a minimum with each request for payment. Owner has no duty to make progress payments unless accompanied by the updated Work Progress Schedule. Show the anticipated date of completion reflecting all extensions of time granted through Change Order as of the date of the update. Contractor may revise the Work Progress Schedule when in Contractor's judgment it becomes necessary for the management of the Work. Contractor shall identify all proposed changes to schedule logic to Owner and to Architect via an executive summary accompanying the updated schedule for review prior to final implementation of revisions into a revised Baseline Schedule. Schedule changes that materially impact Owner's operations shall be communicated promptly to Owner and Architect and shall not be incorporated into the revised Baseline Schedule without Owner's consent.

8.3.3

The Work Progress Schedule is for Contractor's use in managing the Work and submittal of the schedule, and successive updates or revisions, is for the information of Owner and to demonstrate that Contractor has complied with requirements for planning the Work. Owner's acceptance of a schedule, schedule update, or revision constitutes Owner's agreement to coordinate its own activities with Contractor's activities as shown on the schedule.

.1 Acceptance of the Work Progress Schedule, or update and/or revision thereto does not indicate any approval of Contractor's proposed sequences and duration.

.2 Acceptance of a Work Progress Schedule update or revision indicating early or late completion does not constitute Owner's consent, alter the terms of the Contract, or waive either Contractor's responsibility for timely completion or Owner's right to damages for Contractor's failure to do so.

.3 Scheduled dates for completion of any activity or the entire Work do not constitute a change in terms of the Contract. Change Orders are the only method of modifying the Substantial Completion Date(s) and Contract Time.

8.4 COMPLETION OF WORK

Contractor is accountable for completing the Work within the Contract Time stated in the Contract, or as otherwise amended by Change Order.

8.4.1

If, in the judgment of Owner, the work is behind schedule and the rate of placement of Work is inadequate to regain scheduled progress to ensure timely completion of the entire Work or

a separable portion thereof, Contractor, when so informed by Owner, shall immediately take action to increase the rate of work placement by:

.1 An increase in working forces.

.2 An increase in equipment or tools.

.3 An increase in hours of work or number of shifts.

.4 Expedite delivery of materials.

.5 Other action proposed, if acceptable to Owner.

8.4.2
Within **ten (10) calendar days** after such notice from Owner, Contractor shall notify Owner in writing of the specific measures taken or planned to increase the rate of progress. Contactor shall include an estimate as to the date of scheduled progress recovery and an updated Work Progress Schedule illustrating Contractor's plan for achieving timely completion of the Project. Should Owner deem the plan of action inadequate, Contractor shall take additional steps or make adjustments, as necessary, to its plan of action until it meets with Owner's approval.

8.5 MODIFICATION OF CONTRACT TIME

8.5.1
Delays and extension of time as hereinafter described are valid only if executed in accordance with provisions set forth in **Article 7**.

8.5.2
When a delay defined herein as excusable prevents Contractor from completing the Work within the Contract Time, Contractor is entitled to an extension of time. Owner will make an equitable adjustment and extend the number of days lost because of excusable delay or Weather Days, as measured by Contractor's progress schedule. All extensions of time will be granted in calendar days. In no event, however, will an extension of time be granted for delays that merely extend the duration of non-critical activities without delaying the project Substantial Completion date(s).

.1 A "Weather Day" is a day on which Contractor's current schedule indicates Work is to be done, and on which inclement weather or related site conditions prevent Contractor from performing **seven (7) continuous hours** of Work on the critical path between the hours of 7:00 a.m. and 6:00 p.m.

A. Weather days are excusable delays and, in the event of precipitation, Contractor may claim **one (1) Weather Day** for each day of the duration of the precipitation plus an additional day for each **tenth (1/10th) of an inch** of accumulation as determined by a third-party website agreed upon by Owner and Contractor.

B. At the end of each calendar month, Contractor shall submit to Owner and Architect a list of Weather Days occurring in that month along with documentation of the impact on critical activities. Based on confirmation by Owner, any time extension granted will be issued by Change Order. If Contractor and Owner cannot agree on the time extension, Owner may issue a Construction Change Directive (CCD) for a fair and reasonable time extension.

.2 Excusable Delay. Contractor is entitled to an equitable adjustment of the Contract Time, issued via Change Order, for delays caused by the following:

A. Errors, omissions, and imperfections in design, which Architect corrects by means of changes in the Drawings and Specifications.

B. Unanticipated physical conditions at the Site, which Architect corrects by means of changes to the Drawings and Specifications or for which Owner directs changes in the Work identified in the Contract Documents.

C. Failure of Owner to have secured property, right-of-way, or easements necessary for Work to begin or progress.

D. Changes in the Work that effect activities identified in Contractor's schedule as "critical" to completion of the entire Work, if such changes are ordered by Owner or recommended by Architect and ordered by Owner.

E. Suspension of Work for unexpected natural events, Force Majeure (sometimes called "acts of God"), civil unrest, strikes or other events which are not within the reasonable control of Contractor.

F. Suspension of Work for convenience of Owner, which prevents Contractor from completing the Work within the Contract Time.

G. Administrative delays caused by activities or approval requirements related to an Authority Having Jurisdiction.

8.5.3

Contractor's relief in the event of such delays is the time impact to the critical path as determined by analysis of Contractor's schedule. In the event that Contractor incurs additional direct costs because of the excusable delays other than described in **Subparagraph**

8.5.2.2.D and within the reasonable control of Owner, the Contract Sum and Contract Time are to be equitably adjusted by Owner pursuant to the provisions of **Article 7**.

8.6 NO DAMAGES FOR DELAY

Due to the unique requirements of working within a public facility which may be shared with other user-groups and adjacent to other public facilities, Owner may, at any time, restrict the Work to non-disruptive activities to reduce noise, vibration, air pollution, or any other nuisance, intrusion, or danger affecting adjacent public functions and duties. In each case, Owner will make a good faith effort to provide sufficient advanced notice of restriction to Contractor; and, Contractor shall make a good faith effort to reallocate activities, materials, and forces onsite to avoid delay to the project schedule. Contractor has no claim for monetary damages for delay or hindrances to the Work from any cause, including, without limitation, any act or omission of Owner.

8.7 CONCURRENT DELAY

When the completion of the Work is simultaneously delayed by an excusable delay and a delay arising from a cause not designated as excusable, Contractor may not be entitled to a time extension for the period of concurrent delay.

8.8 OTHER TIME EXTENSION REQUESTS

Time extensions requested in association with changes to the Work directed or requested by Owner shall be included with Contractor's proposed costs for such change. Time extensions requested for inclement weather are covered by **Paragraph 8.5.2.1** above. If Contractor believes that the completion of the Work is delayed by a circumstance other than for changes directed to the Work or weather, they shall give Owner written notice, stating the nature of the delay and the activities potentially affected, within **five (5) calendar days** after the onset of the event or circumstance giving rise to the excusable delay. Contractor shall provide sufficient written evidence to document the delay. In the case of a continuing cause of delay, only one claim is necessary. State claims for extensions of time in numbers of whole or half days.

8.8.1

Within **ten (10) calendar days** after the cessation of the delay, Contractor shall formalize its request for extension of time in writing to include a full analysis of the schedule impact of the delay and substantiation of the excusable nature of the delay. All changes to the Contract Time or made as a result of such claims is by Change Order, as set forth in **Article 7**.

8.8.2

No extension of time releases Contractor or the Surety furnishing a performance or payment bond from any obligations under the Contract or such a bond. Those obligations remain in full force until the discharge of the Contract.

8.8.3 CONTENTS OF TIME EXTENSION REQUESTS

Contractor shall provide with each Time Extension Request a quantitative demonstration of the impact of the delay on project completion time, based on the Work Progress Schedule. Contractor shall include with Time Extension Requests a reasonably detailed narrative setting forth:

.1 The nature of the delay and its cause; the basis of Contractor's claim of entitlement to a time extension.

.2 Documentation of the actual impacts of the claimed delay on the critical path indicated in Contractor's Work Progress Schedule, and any concurrent delays.

.3 Description and documentation of steps taken by Contractor to mitigate the effect of the claimed delay, including, when appropriate, the modification of the Work Progress Schedule.

8.8.4 OWNER'S RESPONSE

Owner will respond to the Time Extension Request by providing to Contractor written notice of the number of days granted, if any, and giving its reason if this number differs from the number of days requested by Contractor.

.1 Owner will not grant time extensions for delays that do not affect the Contract Substantial Completion date.

.2 Owner will respond to each properly submitted Time Extension Request within **fifteen (15) calendar days** following receipt. If Owner cannot reasonably make a determination about Contractor's entitlement to a time extension within that time, Owner will notify Contractor in writing. Unless otherwise agreed by Contractor, Owner has no more than **fifteen (15) additional calendar days** to prepare a final response. If Owner fails to respond within **forty-five (45) calendar days** from the date the Time Extension Request is received, Contractor is entitled to a time extension in the amount requested.

8.9 FAILURE TO COMPLETE WORK WITHIN THE CONTRACT TIME

TIME IS AN ESSENTIAL ELEMENT OF THE CONTRACT. Contractor's failure to substantially complete the Work within the Contract Time or to achieve Substantial Completion as required will cause damage to Owner. These damages shall be liquidated by agreement of Contractor and Owner, in the amount per day as set forth in the Contract.

8.10 LIQUIDATED DAMAGES

Owner may collect liquidated damages due from Contractor directly or indirectly by reducing the Contract Sum in the amount of liquidated damages stated in the Contract.

ARTICLE 9
PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

The Contract Sum is stated in the Contract and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

9.2 SCHEDULE OF VALUES

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price ("GMP"), the Contractor shall submit to the Owner and Architect, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Owner may require. This schedule, unless objected to by the Owner, shall be used as a basis for reviewing the Contractor's Applications for Payment.

9.3 APPLICATIONS FOR PAYMENT

9.3.1

As provided in the Contract and in the Contract Documents, the Contractor shall submit to the Owner and Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under **Section 9.2**., for completed portions of the Work. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and shall reflect retainage if provided for in the Contract Documents.

.1 As provided in **Paragraph 7.3.9**, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Owner or the Architect, but not yet included in Change Orders.

.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

.3 If requested by Owner or required elsewhere in the Contract Documents, Each Application for Payment shall be accompanied by the following, all in a form and substance satisfactory to the Owner:

a) With each Application for Payment: a current Sworn Statement from the Contractor setting forth all Subcontractors and all material suppliers with whom the Contractor has subcontracted, the amount of each such subcontract, the amount requested for any Subcontractor or material supplier in the Application for Payment, and the amount to be paid to the Contractor from such progress payment;

b) With each Application for Payment: a duly executed Conditional Waiver and Release on Progress Payment from the Contractor and Subcontractors establishing receipt of payment or satisfaction of the payment requested by the Contractor in the current Application for Payment;

c) Commencing with the second Application for Payment submitted by the Contractor, a duly executed Unconditional Waiver and Release on Progress Payment from Contractor and all Subcontractors, material suppliers and, where appropriate, lower tier subcontractors that have billed more than **five thousand dollars ($5,000)** on a single application of payment, establishing receipt of payment or satisfaction of payment of all amounts requested on behalf of such entities and disbursed prior to submittal by the Contractor of the current Application for Payment;

d) With the Final Application for Payment: Contractor shall submit a Conditional Waiver and Release on Final Payment as required by **Texas Property Code, §53.284**. Upon receipt of final payment, Contractor shall submit an Unconditional Waiver and Release on Final Payment as required by **Texas Property Code, §53.284**; and

e) Such other information, documentation, and materials as the Owner, or the title insurer may require in order to ensure that Owner's property is free of lien claims. Such other documents may include, without limitation, original copies of lien or bond claim releases suitable for filing with the County Clerk in Williamson County, Texas.

9.3.2

Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

9.3.3

The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, bond claims, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

.1 The Contractor further expressly undertakes to defend Owner, at the Contractor's sole expense, against any actions, lawsuits, or proceedings brought against Owner as a result of liens filed against the Work, the site of any of the Work, the Project site and any improvements thereon, or any portion of the property of any of Owner (referred to collectively as "liens" in this **Paragraph 9.3.3**), provide the Owner has paid Contractor pursuant to the requirements of the Contract Documents. The Contractor hereby agrees to indemnify and hold Owner harmless against any such liens or claims of lien and agrees to pay any judgment or lien resulting from any such actions, lawsuits, or proceedings.

.2 The Owner shall release any payments withheld due to a lien or bond claims if the Contractor obtains security acceptable to the Owner, however, the Contractor shall not be relieved of any responsibilities or obligations under this **Paragraph 9.3.3**, including, without limitation, the duty to defend and indemnify Owner.

.3 Retainage. The Owner shall withhold from each progress payment, as retainage, **five percent (5%)** of the total earned amount. Retainage so withheld shall be managed in conformance with **Texas Government Code, Chapter 2252, Subchapter B**. Any request for reduction or release of retainage shall be accompanied by written consent of the Contractor's Surety. No such request shall be made until the Contractor has earned at least **sixty-five percent (65%)** of the total Contract Sum.

.4 For purposes of **Texas Government Code, §2251.021 (a)(2)**, the date the performance of service is completed is the date when the Owner's representative approves the Application for Payment.

9.4 CERTIFICATES FOR PAYMENT

9.4.1

The Architect will, within **seven (7) business days** after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the

Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in **Paragraph 9.5.1**.

9.4.2

The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data comprising the Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

9.5 DECISIONS TO WITHHOLD CERTIFICATION

9.5.1

The Owner or Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Owner or Architect's opinion the representations to the Owner required by **Paragraph 9.4.2** cannot be made. If the Owner or Architect is unable to certify payment in the amount of the Application, the Owner or Architect will notify the Contractor. If the Contractor and Architect, or Contractor and Owner, as the case may be, cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount that can be certified. The Owner or Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Owner or Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in **Paragraph 3.3.2**, because of

.1 defective Work not remedied;

.2 third party claims filed or reasonable evidence indicating probable filing of such claims;

.3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;

.4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;

.5 damage to the Owner or a separate contractor;

.6 failure to maintain the scheduled progress, or reasonable evidence that the Work will not be completed within the Contract Time;

.7 failure to comply with the requirements of **Texas Government Code, Chapter 2258** (Prevailing Wage Law);

.8 failure to include sufficient documentation to support the amount of payment requested for the Project;

.9 failure to obtain, maintain, or renew insurance coverage, payment/performance bonds or warranty bond required by the Contract Documents; or

.10 repeated failure to carry out the Work in accordance with the Contract Documents.

9.5.2
When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

9.6 PROGRESS PAYMENTS

9.6.1
The Owner shall make payment in the manner and within the time provided in the Contract Documents and in accordance with **Texas Government Code, Chapter 2251**.

9.6.2
The Contractor shall pay each Subcontractor no later than **ten (10) calendar days** after receipt of payment from the Owner the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

9.6.3
The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and material and equipment suppliers amounts paid by the

Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within **seven (7) calendar days**, the Owner shall have the right to contact Subcontractors to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by law.

9.6.4
Contractor payments to material and equipment suppliers shall be treated in a manner similar to that provided in **Paragraph 9.6.2**.

9.6.5
A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

9.7 FAILURE OF PAYMENT

9.7.1
If the Architect is required to issue Certificates for Payment and, through no fault of the Contractor, the Architect fails to timely issue Certificates for Payment in the time permitted in the Contract Documents, or if the Owner does not pay the Contractor by the date established in the Contract Documents, then the Contractor may, upon **twenty-one (21) business days** written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received.

9.7.2
If the Owner is entitled to reimbursement or payment from the Contractor under or pursuant to the Contract Documents, such payment shall be made promptly upon demand by the Owner. Notwithstanding anything contained in the Contract Documents to the contrary, if the Contractor fails to promptly make any payment due the Owner, or if the Owner incurs any costs and expenses to cure any default of the Contractor or to correct defective work, the Owner shall have an absolute right to offset such amount against the Contract Sum and may, in the Owner's sole discretion, elect either to (1) deduct an amount equal to that which the Owner is entitled from any payment then or thereafter due the Contractor from the Owner, or (2) issue a written notice to the Contractor reducing the Contract Sum by an amount equal to that which the Owner is entitled.

9.8 SUBSTANTIAL COMPLETION

9.8.1
Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use; provided, however, that as a

condition precedent to Substantial Completion, the Owner has received all certificates of occupancy and any other permits, approvals, licenses, and other documents from any governmental authority having jurisdiction thereof necessary for the beneficial occupancy of the Project.

9.8.2
When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Owner and Architect a comprehensive list of items to be completed or corrected prior to final payment (punch list). Failure to include an item on the punch list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

9.8.3
Upon receipt of the Contractor's punch list, the Owner and Architect will examine the Work to determine whether the Work or designated portion thereof is substantially complete. If the Owner and/or Architect's examination discloses any item, whether or not included on the Contractor's punch list, that is not sufficiently complete in accordance with the Contract Documents, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Owner or Architect. In such case, the Contractor shall then submit a request for another examination by the Owner or Architect to determine Substantial Completion.

9.8.4
When the Work or designated portion thereof is substantially complete, the Architect, if required by the Contract Documents, or Owner will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Unless otherwise provided, Contractor shall complete all items on the punch list within **thirty (30) calendar days** of Substantial Completion. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

9.8.5
The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage.

9.9 PARTIAL OCCUPANCY OR USE

9.9.1

The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under **Paragraph 11.3.1.5**, the surety, and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under **Paragraph 9.8.2**. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld.

9.9.2

Immediately prior to partial occupancy or use, the Owner, Contractor and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

9.9.3

Partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

9.10 FINAL COMPLETION AND FINAL PAYMENT

9.10.1

Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner and Architect will make such inspection and, when the Owner and Architect find the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in **Paragraph 9.10.2** as precedent to the Contractor's being entitled to final payment have been fulfilled. All warranties and guarantees required under or pursuant to the Contract Documents shall be assembled and delivered by the Contractor to the Architect as part of the final Application for Payment. The final Certificate for Payment will not be issued by the Architect until all warranties and guarantees have been received and accepted by the Owner.

9.10.2
Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Owner and Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work have been paid or otherwise satisfied, within the period of time required by **Texas Government Code, Chapter 2251**, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least **thirty (30) business days** prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety to final payment, (5) a warranty bond in a form acceptable to Owner, and (6) other data establishing payment or satisfaction of obligations, such as receipts, unconditional full and final releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner.

9.10.3
The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

.1 Claims, security interests or encumbrances arising out of the Contract and unsettled;

.2 failure of the Work to comply with the requirements of the Contract Documents; or

.3 terms of warranties required by the Contract Documents.

9.10.4
Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10
PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS
The Contractor and its Subcontractors shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1
The Contractor and its Subcontractors shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

.1 employees on the Work and other persons who may be affected thereby;

.2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and

.3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement during construction.

10.2.2
The Contractor and its Subcontractors shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury, or loss. Notwithstanding any language to the contrary, the Owner shall not have any responsibility for job site inspections or safety recommendations. Any inspections or observations by the Owner or the Architect are solely for the benefit of the Owner and shall not create any duties or obligations to anyone else.

10.2.3
The Contractor and its Subcontractors shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

10.2.4
When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

10.2.5
The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in **Paragraphs 10.2.1.2 and 10.2.1.3** caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under **Paragraphs 10.2.1.2 and 10.2.1.3**, except damage or loss attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of

the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under **Section 3.18**.

10.2.6
The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

10.2.7
The Contractor and its Subcontractors shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

10.2.8 Injury or Damage to Person or Property
If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding **twenty-one (21) calendar days** after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

10.2.9
When all or a portion of the Work is suspended for any reason, the Contractor shall securely fasten down all covering and fully protect the Work, as necessary, from injury or damage by any cause.

10.2.10
The Contractor shall promptly report in writing to the Owner and Architect all accidents arising out of or in connection with the Work that cause death, personal injury, or property damage.

10.3 HAZARDOUS MATERIALS

10.3.1
The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing.

10.3.2

Upon receipt of the Contractor's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written notice from the Owner.

10.3.3

The Owner shall not be responsible under this **Section 10.3** for materials or substances the Contractor brings to the site unless such materials or substances are expressly required by the Contract Documents. The Owner shall be responsible for materials or substances expressly required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

10.3.4

The Contractor shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Contractor brings to the site or negligently handles, or (2) where the Contractor fails to perform its obligations under **Paragraph 10.3.1**, except to the extent that the cost and expense are due to the Owner's fault or negligence.

10.4 EMERGENCIES

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time, if any, claimed by the Contractor on account of an emergency shall be determined as provided in **Article 7** and **Article 15**.

ARTICLE 11
INSURANCE AND BONDS

11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.1

The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

.1 Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;

.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;

.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;

.4 Claims for damages insured by usual personal injury liability coverage;

.5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

.6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;

.7 Claims for bodily injury or property damage arising out of completed operations, which coverage shall be maintained for no less than **four (4) years** following final payment; and

.8 Claims involving contractual liability insurance applicable to the Contractor's obligations under **Section 3.18**.

11.1.2

The insurance required by **Paragraph 11.1.1** shall be written for not less than limits of liability specified in the Contract or the Contract Documents. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

11.1.3

Unless otherwise provided, copies of the insurance policies, in form acceptable to the Owner, shall be provided to Owner within **thirty (30) calendar days** of Owner's request. Except as otherwise provided, all of the policies provided shall name Owner as an additional insured, and such policies shall immediately deliver to Owner copies of all such insurance policies, together with certificates by the insurer evidencing Owner's coverage there under. Each policy of insurance obtained by Contractor pursuant to the Contract Documents shall provide, by endorsement or otherwise (1) that such policy shall not be canceled, endorsed, altered or reissued to effect a change in coverage for any reason or to any extent whatsoever unless the insurer shall have first given Owner and Lender at least **thirty (30) calendar days** prior written notice thereof, and (2) that Owner may, but shall not be obligated to, make premium payments to prevent the cancellation, endorsement, alteration or reissuance of such

policy and such payments shall be accepted by the insurer to prevent the same. Such policies shall provide, by endorsement or otherwise, that Contractor shall be solely responsible for the payment of all premiums under the policies, and that Owner shall have no obligation for the payment thereof, notwithstanding that Owner is named as additional insured under the policy. Any insured loss or claim of loss shall be adjusted to the Owner, and any settlement payments shall be made payable to the Owner as a trustee for the insureds, as their interests may appear. Upon the occurrence of an insured loss or claim of loss, monies received will be held by Owner who shall make distribution in accordance with an agreement to be reached in such event between Owner and Contractor. If the parties are unable to agree between themselves on the settlement of the loss, such dispute shall be resolved in accordance with **Article 15**, below, but the Work of the Project shall nevertheless progress during any such period of dispute without prejudice to the rights of any party to the dispute. The Contractor shall be responsible for any loss within the deductible area of the policy. If Owner is damaged by the failure of Contractor to purchase or maintain such insurance, then Contractor shall bear all costs properly attributable thereto. The Contractor shall affect and maintain similar property insurance on portions of the Work stored off the site or in transit when such portions of the Work are to be included. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until Final Completion of the Project.

11.1.4

The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations.

11.2 OWNER'S LIABILITY INSURANCE

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

11.3 PROPERTY INSURANCE

11.3.1

Unless otherwise provided in the Contract Documents, the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in **Section 9.10** or until no

person or entity other than the Owner has an insurable interest in the property required by this **Section 11.3** to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.

.1 Property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss as well as coverage for building materials while in transit or building materials suitably stored at a temporary location. Property insurance provided by the Contractor shall not cover any tools, apparatus, machinery, scaffolding, hoists, forms, staging, shoring, and other similar items commonly referred to as construction equipment that may be on the site and the capital value of which is not included in the Work. The Contractor shall make its own arrangements for any insurance it may require on such construction equipment. Any such policy obtained by the Contractor under this **Paragraph 11.3.1** shall include a waiver of subrogation in accordance with the requirements of **Paragraph 11.3.4**.

.2 If the Contractor does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Contractor shall so inform the Owner in writing prior to commencement of the Work. If the Owner is damaged by the failure or neglect of the Contractor to purchase or maintain insurance as described above, without so notifying the Owner in writing, then the Contractor shall bear all reasonable costs properly attributable thereto.

.3 Contractor shall be responsible for any deductibles to the extent that the loss arose out of or was cause by Contractor's negligence or breach of the Contract.

.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.

.5 Partial occupancy or use in accordance with **Section 9.9** shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

11.3.2 WAIVERS OF SUBROGATION

The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in **Article 6**, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent of actual recovery of any insurance proceeds under any property insurance obtained pursuant to this **Section 11.3** or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance. However, this waiver shall not apply to property insurance purchased by Owner after completion of the Work or Final Payment, whichever comes first. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in **Article 6**, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

11.3.3

A loss insured under the property insurance shall be adjusted in good faith and made payable to the Owner in good faith for the insureds, as their interests may appear. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

11.4 BONDS

11.4.1

The Contractor is required to tender to Owner, prior to commencing the Work, performance and payment bonds, as required by law. In the event Contractor fails to provide such bonds within the time provided by the Contract, Owner may immediately, upon notice of such failure, or within a reasonable time thereafter, at its sole option and discretion: (1) void this Contract in its entirety; or (2) procure such bonds on behalf of the Contractor, deducting such amounts from the Contract Sum. In the event Owner voids the Contract under this **Section 11.4**, Contractor may forfeit its bid bond.

11.4.2

A Performance Bond is required if the Contract Sum is in excess of **fifty thousand dollars ($50,000)**. The performance bond is solely for the protection of the Owner, in the full amount of the Contract Sum and conditioned on the faithful performance of the Work in accordance with the Contract Documents. The form of the bond shall be approved by the Owner.

11.4.3
A Payment Bond is required if the Contract Sum is in excess of **twenty-five thousand dollars ($25,000)**. A payment bond is payable to the Owner, in the full amount of the Contract Sum and solely for the protection and use of payment bond beneficiaries who have a direct contractual relationship with the Contractor or a supplier of required materials or labor. The form of bond shall be approved by the Owner.

11.4.4 Warranty Bond.
Prior to final final payment, Contractor shall provide Owner with a Warranty Bond in the sum of ten percent (10%) of the Contract Sum or ten percent (10%) of the GMP for Construction Manager At-Risk Contracts for twelve (12) months from Substantial Completion of the Work. The form of bond shall be approved by the Owner.

11.4.5
Corporate sureties authorized to issue bonds shall be qualified and comply with relevant provisions of the Texas Insurance Code.

11.4.6
Each bond shall be executed by a corporate surety or sureties authorized to do business in the State of Texas and acceptable to the Owner. If any bond is for more than **ten percent (10%)** of the surety's capital and surplus, the Owner may require certification that the company has reinsured the excess portion with one or more reinsurers authorized, accredited, or trusteed to do business in the State. A reinsurer may not reinsure for more than **ten percent (10%)** of its capital and surplus. If a surety upon a bond loses its authority to do business in the State, the Contractor shall within **thirty (30) calendar days** after such loss furnish a replacement bond at no added cost to the Owner.

11.4.7
Each bond shall be accompanied by a valid Power-of-Attorney (issued by the surety company and attached, signed and sealed with the corporate embosses seal, to the bond) authorizing the attorney in fact who signs the bond to commit the company to the terms of the bond, and stating any limit in the amount for which the attorney can issue a single bond.

11.4.8
The process of requiring and accepting bonds and making claims thereunder shall be conducted in compliance with **Texas Government Code, Chapter 2253**. If for any reason a statutory payment or performance bond is not honored by the surety, the Contractor shall fully indemnify and hold the Owner harmless of and from any costs, losses, obligations or liabilities it incurs as a result.

11.4.9

Owner shall furnish certified copies of a payment bond and the related Contract between Owner and Contractor to any qualified person seeking copies who complies with **Texas Government Code, §2253.026**.

11.4.10 Claims on Payment Bonds.

Claims on payment bonds must be sent directly to the Contractor and its surety in accordance with Texas Government Code, §2253.041. All Payment Bond claimants are cautioned that no lien exists on the funds unpaid to the Contractor on such contract, and that reliance on notices sent to the Owner may result in loss of their rights against the Contractor and/or its surety. The Owner is not responsible in any manner to a claimant for collection of unpaid bills, and accepts no such responsibility because of any representation by any agent or employee.

11.4.11 Payment Claims when Payment Bond not Required.

When the value of the Contract between Owner and the Contractor is less than twenty-five thousand dollars ($25,000), claimants and their rights are governed by Texas Property Code, §53.231-239. These provisions set out the requirements for filing a valid lien on funds unpaid to the Contractor as of the time of filing the claim, actions necessary to release the lien and satisfaction of such claims.

11.4.12

Sureties shall be listed on the **Department of the Treasury's Listing of Approved Sureties** stating companies holding Certificates of Authority as acceptable sureties on Federal Bonds and acceptable reinsuring companies (Department Circular 570).

11.5 GENERAL REQUIREMENTS

11.5.1

Unless otherwise provided in the Contract Documents, all insurance coverage procured by the Contractor shall be provided by insurance companies having policy holder ratings no lower than "A" and financial ratings not lower than "VIII" in the Best's Insurance Guide, the latest edition in effect as of the date of the Contract, and subsequently in effect at the time of renewal of any policies required by the Contract Documents.

11.5.2

If the Owner is damaged by failure of the Contractor to purchase or maintain insurance required under this **Article 11**, then the Contractor shall bear all reasonable costs (including attorneys' fees and court and settlement expenses) properly attributable thereto.

ARTICLE 12
UNCOVERING AND CORRECTION OF WORK

12.1 UNCOVERING OF WORK

12.1.1
If a portion of the Work is covered contrary to the Owner or Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Owner or Architect, be uncovered for examination and be replaced at the Contractor's expense without change in the Contract Time. If prior to the date of Substantial Completion the Contractor, a Subcontractor, or anyone for whom either is responsible uses or damages any portion of the Work (other than start-up), including, without limitation, mechanical, electrical, plumbing, and other building systems, machinery, equipment, or other mechanical device, the Contractor shall cause such item to be restored to "like new" condition at no expense to the Owner.

12.1.2
If a portion of the Work has been covered that the Owner or Architect has not specifically requested to examine prior to its being covered, the Owner or Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

12.2 CORRECTION OF WORK

12.2.1
The Contractor shall promptly correct Work rejected by the Owner or Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

12.2.2 AFTER SUBSTANTIAL COMPLETION

.1 In addition to the Contractor's obligations under **Section 3.5**, if, within **one (1) year** after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under **Paragraph 9.9.1**, or by terms of an applicable special warranty required by the Contract Documents, any

of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so. The Owner shall give such notice promptly after discovery of the condition. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may, without prejudice to any other remedies, correct it in accordance with **Section 2.4** or file a claim with the surety of any applicable warranty bond.

.2 The **one (1)-year** period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

12.2.3

The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

12.2.4

The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

12.2.5

Nothing contained in this **Section 12.2** shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the **one (1)-year** period for correction of Work as described in **Paragraph 12.2.2** relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

12.3 ACCEPTANCE OF NONCONFORMING WORK

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13
MISCELLANEOUS PROVISIONS

13.1 GOVERNING LAW

The Contract shall be governed by the law of Williamson County, Texas.

13.2 SUCCESSORS AND ASSIGNS

The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements and obligations contained in the Contract Documents. Except as provided in the Contract Documents or by law, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

13.3 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

13.4 RIGHTS AND REMEDIES

13.4.1

Except as expressly provided in the Contract Documents, duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

13.4.2

No action or failure to act by the Owner, Architect or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

13.5 TESTS AND INSPECTIONS

13.5.1

Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority. The Contractor shall give the Owner and Architect timely notice of when and where tests and inspections are to be made so that the Owner and Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals where building

codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor.

13.5.2
If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under **Paragraph 13.5.1**, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Owner and Architect of when and where tests and inspections are to be made so that the Owner and Architect may be present for such procedures.

13.5.3
If such procedures for testing, inspection or approval under **Paragraphs 13.5.1 and 13.5.2** reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Architect's services and expenses shall be at the Contractor's expense. The Contractor also agrees the cost of testing services related to remedial operations performed to correct deficiencies in the Work, shall be borne by the Contractor.

13.5.4
Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Owner and Architect.

13.5.5
If the Architect is to observe tests, inspections or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

13.5.6
Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

13.6 INTEREST
The rate of interest that accrues on an overdue payment is the rate in effect on September 1 of the fiscal year in which the payment becomes overdue. The rate in effect on September 1 is equal to the sum of:

13.6.1
one percent (1%); and

13.6.2

the prime rate as published in the Wall Street Journal on the **first (1st) day of July** of the preceding fiscal year that does not fall on a Saturday or Sunday pursuant to **Texas Government Code, §2251.025**.

13.7 TIME LIMITS ON CLAIMS

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the time limits provided by law. Nothing herein shall be construed as shortening the period of time Owner has for commencing claims to less than what is required by law.

13.8 APPLICATION TO SUBCONTRACTS

Any specific requirement in the Contract that the responsibilities or obligations of Contractor also apply to a Subcontractor is added for emphasis and are also hereby deemed to include a Subcontractor of any tier. The omission of a reference to a Subcontractor in connection with any of Contractor's responsibilities or obligations shall not be construed to diminish, abrogate or limit any responsibilities or obligations of a Subcontractor of any tier under the Contract Documents or the applicable subcontract.

13.9 GENERAL PROVISIONS

13.9.1

All personal pronouns used in the Contract, whether used in the masculine, feminine, or neuter gender, shall include all other genders; and the singular shall included the plural and vice versa. Titles of articles, sections, and paragraphs are for convenience only and neither limit nor amplify the provisions of the Contract. The use herein of the word "including," when following any general statement, term, or matter, shall not be construed to limit such statement, term, or matter to the specific items or matters set forth immediately following such word or to similar items or matters, whether or not non-limiting language (such words as "without limitation," or "but not limited to," or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement, term, or matter.

13.9.2

Wherever possible, each provision of this Contract shall be interpreted in a manner as to be effective and valid under applicable law. If, however, any provision of this Contract, or portion thereof, is prohibited by law or found invalid under any law, only such provision or portion thereof shall be ineffective, without in any manner invalidating or affecting the remaining provisions of this Contract or valid portions of such provision, which are hereby deemed servable.

13.10 NO ORAL WAIVER

The Provisions of the Contract Documents shall not be changed, amended, waived, or otherwise modified in any respect except by a writing signed by Owner. No person is authorized on behalf of Owner to orally change, amend, waive, or otherwise modify the terms of the Contract Documents or any of the Contractor's duties or obligations under or arising out of the Contract Documents. Any change, waiver, approval, or consent granted to the Contractor shall be limited to the specific matters stated in the writing signed by Owner, and shall not relieve Contractor of any other of the duties and obligations under the Contract Documents. No "constructive" changes shall be allowed.

13.11 TEXAS PUBLIC INFORMATION ACT

To the extent, if any, that any provision in the Contract Documents is in conflict with Tex. Gov't Code 552.001 et seq., as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood and agreed that Owner, its officers and employees may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any information or data furnished to Owner whether or not the same are available to the public. It is further understood that Owner, its officers and employees shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that Owner, its officers and employees shall have no liability or obligation to Contractor for the disclosure to the public, or to any person or persons, of any software or a part thereof, or other items or data furnished to Owner by Contractor in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

13.12 EQUAL OPPORTUNITY IN EMPLOYMENT

The Contractor agrees that during the performance of the Contract it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Parties 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 or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship.

ARTICLE 14
TERMINATION OR SUSPENSION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR

14.1.1

The Contractor may terminate the Contract if the Work is stopped for a period of **ninety (90) consecutive days** through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing

portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

.1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;

.2 An act of government, such as a declaration of national emergency that requires all Work to be stopped; or

.3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in **Paragraph 9.4.1**, or because the Owner has not made payment on an undisputed Certificate for Payment within the time stated in the Contract Documents.

14.1.2

The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays or interruptions of the entire Work by the Owner as described in **Section 14.3** constitute in the aggregate more than **one hundred percent (100%)** of the total number of days scheduled for completion, or **one hundred twenty (120) days** in any **three hundred sixty-five (365)-day** period, whichever is less.

14.1.3

If one of the reasons described in **Paragraph 14.1.1 or 14.1.2** exists, the Contractor may, upon **thirty (30) business days** written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

14.2 TERMINATION BY THE OWNER FOR CAUSE

14.2.1

The Owner may terminate the Contract if the Contractor

.1 fails to commence the Work in accordance with the provisions of the Contract,

.2 fails to prosecute the Work to completion thereof in a diligent, efficient, timely, workmanlike, skillful and careful manner and in strict accordance with the provisions of the Contract,

.3 fails to use an adequate amount or quality of personnel or equipment to complete the Work without undue delay,

.4 fails to perform any of its obligations under the Contract,

.5 fails to make prompt payments when due to its Subcontractors and Suppliers, or as required by **Texas Government Code, Chapter 2251**,

.6 files any petition or other pleading seeking any relief under any provisions of the Federal Bankruptcy Act, as amended, or any other federal or state statute or law providing for reorganization of debts or other relief from creditors, permits a receiver or other person to be appointed on account of its insolvency or financial condition, or becomes insolvent,

.7 creates any situation or state of facts which would authorize or permit an involuntary petition in bankruptcy to be filed against Contractor, or

.8 has not met or in Owner's opinion will not meet the dates of Substantial Completion set forth in the Contract Documents.

14.2.2
When any of the above reasons exist, the Owner, in its sole and absolute discretion, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, **thirty (30) calendar days** written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

.1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;

.2 Accept assignment of subcontracts pursuant to **Section 5.4**; and

.3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

14.2.3
When the Owner terminates the Contract for one of the reasons stated in **Paragraph 14.2.1**, the Contractor shall not be entitled to receive further payment until the Work is finished. In the event that a final decision under **Article 15**, below, is rendered that sufficient cause did not exist for termination under this **Section 14.2**, then the termination shall be considered a termination for convenience, under **Section 14.4**, below.

14.2.4
If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages and costs incurred by the Owner in finishing the Work and not expressly waived,

such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner.

14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

14.3.1
The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

14.3.2
The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in **Paragraph 14.3.1**. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

.1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or

.2 that an equitable adjustment is made or denied under another provision of the Contract.

14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

14.4.1
The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

14.4.2
Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

.1 cease operations as directed by the Owner in the notice;

.2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and

.3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

14.4.3
Upon such termination, the Contractor shall recover the amounts provided in **Paragraph 12.1.3** of the Contract.

ARTICLE 15
CLAIMS AND DISPUTES

15.1 CLAIMS

15.1.1 DEFINITION

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim.

15.1.2 NOTICE OF CLAIMS

Claims for events arising during the performance of the Work by Contractor must be initiated by written notice to the other party with a copy sent to the Owner; provided, however, that the claimant shall use its best efforts to furnish the other party, as expeditiously as possible, with notice of any Claim including, without limitation, those in connection with concealed or unknown conditions, once such claim is recognized, and shall take steps to mitigate the alleged or potential damages, delay, or other adverse consequences arising out of the condition that is the cause of such a Claim. Claims by Contractor must be initiated within **ten (10) business days** after occurrence of the event giving rise to such Claim or within **ten (10) business days** after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Claims may also be reserved in writing within the time limits set forth in this **Paragraph 15.1.2**. Any notice of Claim or reservation of Claim must clearly identify the alleged cause and the nature of the Claim and include data and information available to the claimant that will facilitate prompt verification and evaluation of the Claim.

15.1.3 CONTINUING CONTRACT PERFORMANCE

Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in **Section 9.7** and **Article 14**, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the Contract Documents.

15.1.4 CLAIMS FOR ADDITIONAL COST

If the Contractor wishes to make a Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under **Section 10.4**.

15.1.5 CLAIMS FOR ADDITIONAL TIME

.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.

15.2 MEDIATION

15.2.1
Claims, disputes, or other matters in controversy arising out of or related to the Contract except those waived shall be subject to mediation as a condition precedent to seeking redress in a court of competent jurisdiction.

15.2.2
The parties shall endeavor to resolve their Claims by mediation, which shall consist of a single mediator who is knowledgeable about the subject matter of the Contract. A request for mediation shall be made in writing, delivered to the other party to the Contract.

15.2.3
The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Williamson County, Texas. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

15.2.4
All disputes not resolved through mediation shall be decided in litigation in Williamson County, Texas.

15.2.5 NO WAIVER OF IMMUNITY
Nothing in the Contract Documents shall be deemed to waive, modify or amend any legal defense available at law or in equity to Owner, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. Owner does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

falkenberg
CONSTRUCTION CO., INC.
2435 109TH ST. | GRAND PRAIRIE, TX. 75050
T.214-324-4779 FALKENBERGCONSTRUCTION.COM

April 26, 2024

Williamson County Facilities
3101 SE Inner Loop
Georgetown, TX 78626

Proposal No.: [redacted]

Reference: Inner Loop Annex - IT Dept Reno

Contract No.: Buy Board 581-19

Attention: Daryl Mutz

We propose to furnish labor, material and equipment for the Inner Loop Annex - IT Dept Reno project for the sum as follows:

Proposal Breakdown		
RS Means Cost		**$184,170.78**
Coefficient	**0.98**	**$3,683.42**
Sub Total		**$180,487.36**
Bond	**2.5%**	**$4,512.18**
PROPOSAL TOTAL		**$184,999.55**

One Hundred Eighty-Four Thousand Nine Hundred Ninety-Nine and 55/100 ---------- Dollars

I. Documents:

A. Drawing Numbers:

B. Specifications:

II. Scope of Work:

Division 08 (Openings) & Div 9 (Finishes)

Cover & protect existing finishes
Provide & install Workplace Solutions modular walls, frames, doors, accessories, and hardward
Workplace Solutions invoice dated 4/22/24 approved by WILCO via email 4/23/24
Patch prime & paint walls at electrical outlets where new modular wall systems will be installed at offices 300A, 300B & 300C
Patch drywall, tape & float at AV box
Repaint walls at Offices 226 & 2776 B
Rough in a new opening to receive a 3-0 x 7-0 timely frame color to match existing at room 707
Rework ceiling grid as needed to accommodate relocation of fixtures
Patch base at new door opening
Patch carpet a new door opening
Install new wood door
Stain wood door to match existing
Repaint room 707 both sides of corridor wall

Division 23 (HVAC)

Offices 300A,300B,300C,300D,300E, and 300F

Relocate (2) existing supply diffusers for West side of office
Furnish & install (1) new supply run with manual damper and diffuser from existing supply run for West side of office.
Furnish & install (1) new main supply branch duct from main supply duct to serve middle space of room.
Furnish & install (2) new supply branch ducts with manual dampers and supply diffusers for middle space of room.

Furnish & install (1) new supply branch duct from main supply branch duct with manual damper & diffuser for East side of office.

Offices 226 & 2776 B

Relocate (1) existing supply diffuser.
Furnish & install (1) new supply run with manual damper and diffuser.

Office 707 A & B

Extend existing supply duct and add new supply diffuser with manual damper.
Remove flex duct on existing diffuser & connect it to new extended ductwork.
Furnish & install (2) return air transfer grilles.

Division 26 (Electrical)

This proposal assumes that the "Existing" circuitry being extended is of sufficient size & rating to provide additional circuitry. Any additional circuitry requirements are not included

Offices 226 & 2776 B

Separate "Existing" lighting controls to achieve individual light switch controls to accommodate the newly installed Demountable wall using the "Existing" lighting circuitry & install "New" line voltage 0-10v dimmer switches

Offices 300A,300B,300C,300D,300E, and 300F

Separate Existing" lighting controls to achieve individual light switch controls for offices 300A,300B,300C,300D,300E, & 300F using the "Existing" lighting circuitry using dimmer switches
Relocating "Existing" Receptacles/Data outlets that interfere with the new demountable walls

Office 707 A & B

Separate "Existing" lighting controls to achieve individual light switch controls to accommodate the newly installed Demountable wall using the "Existing" lighting circuitry & install dimmer switch
Install (1) New duplex WHT 20A 120v circuitry to provide power for "New" Desk location & (1) raceway/pathway for (1) low data jack extending from the "Existing" circuitry
Provide Raceways from Existing lighting systems to "New" demountable wall switch locations

Daily Cleaning
Final Clean

III. Exclusions:

Sales tax, overtime, permit fees
Any Work to the Fire Suppression System
Any Plumbing Work
Any Security or Data Electrical Work
After Hours Work
Any work outside the SOW
Abatement of any type
Structural framing

IV. Clarifications:

This Proposal will remain in effect for a period of (30) Days
This Proposal accounts for 40hrs of General Contractor Supervision Time

Thank you for the opportunity to bid this and any future projects.

Sincerely,

Falkenberg Construction Co., Inc.

Kady Williams
Construction Manager