

GENERAL NOTES:

CPI WILL MAKE ALL FURTHER DESIGN DECISIONS BASED UPON THE INFORMATION PROVIDED ON THIS FORM. THIS INCLUDES, BUT IS NOT LIMITED TO, THE USE OF A 3" OR 4" UNIQUAD SYSTEM, ADDITIONAL STRENGTHENING FOR SPAN SIZES. ALL ELEMENTS WILL BE SYMMETRICAL WITHIN THE UNIT AND CPI STANDARD VALUES WILL BE USED THROUGHOUT.

ALL EXTRUDED ALUMINUM FRAMING MEMBERS SHALL BE OF A 6063-T6 OR 6005-T5 ALLOY AND TEMPER.

ALL FASTENERS SHALL BE OF A NON-CORRODING MATERIAL.

CURB FASTENERS WILL BE DETERMINED BY PERIMETER FRAME MATERIAL (WOOD, STEEL, CONCRETE/MASONRY)

PANEL SECTIONS ARE PRE-ASSEMBLED TYPICALLY IN MODULES OF 23 23/32" (NOMINAL),. MAKE UP BAYS ARE STANDARD ON ALL UNITS AND WILL BE LESS THAN THE TYPICAL MODULE SIZE.

ONE (1) PART SILICONE SEALANT, DOW CORNING SERIES #999 TO BE USED WHERE SHOWN.

MINIMUM PERIMETER CURB WIDTH MUST BE 4" OR MORE. THE SUPPORT CURBS SHALL BE DESIGNED AND CONSTRUCTED BY OTHERS TO RESIST LOADS IMPOSED BY THE WALL LIGHT. SEE CURB LOAD INFORMATION ON FOLLOWING SHEETS.

TEST REPORT CERTIFICATION:

CPI CERTIFIES THAT THE GLAZING PANELS MEET THE FOLLOWING STANDARDS.

TEST DESCRIPTION	TEST STANDARD	RESULTS	CPI REPORT #
EVALUATION REPORT	IBC	ICC-ESR EVALUATION REPORT ESR-1253	111
CODE CLASSIFICATION	IBC CHAPTER 26	APPROVED LIGHT TRANSMITTING PLASTICS, CC1 RATING	111
FLAMABILITY			
SELF IGNITION	ASTM 1929-3	1058F	211
SMOKE DENSITY OF PLASTIC	ASTM D2843	54%	210
BURN EXTENT	ASTM D635	CC1 RATING - LESS THAN 1.0" BURN EXTENT	212B
INTERIOR FLAME SPREAD & SMOKE DEVELOPMENT	ASTM E84	CLASS A FLAME SPREAD & SMOKE DEVELOPMENT RATING - FLAME SPREAD INDEX LESS THAN 25	213
STRUCTURAL			
CYCLIC TEST	ASTM E1886-13a	PASS- 100 PSF WIND ZONE 4	
UNIFORM LOAD	ASTM E330-10	PASS- 150 PSF	551, 352
CONCENTRATED LOAD 3" DIAMETER	ASTM E661-09	NO DAMAGE: 400 LBF LOAD	
LARGE MISSILE IMPACT	ASTM E1886/E1996	WITHSTANDS LARGE MISSILE IMPACT OF 350 FT-LBS	550
WATER PENETRATION	ASTM E331-09	NO PENETRATION PER AAMA	360
U FACTOR	PER NFRC 100	0.23, CENTER OF GLASS, UNIQUAD	
LIGHT TRANSMISSION	ASTM D1003	SHALL NOT DECREASE MORE THAN 6% AFTER 10YRS	413

ICC-ES Evaluation Report

ESR-1253

www.icc-es.org | (800) 423-6587 | (562) 699-0543 A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS
Section: 08 04 00—Plastic Glazing

REPORT HOLDER:

CPI DAYLIGHTING, INC.
28662 NORTH BALLARD DRIVE
LAKE FOREST, ILLINOIS 60045
(847) 816-1060
www.cpidaylighting.com

EVALUATION SUBJECT

QUADWALL, UNIQUAD, PENTAGLAS, DUALWALL AND U-LITE PANELS

1.0 EVALUATION SCOPE

Compliance with the following codes:
■ 2012, 2009 and 2006 International Building Code® (IBC)
■ 2013 Abu Dhabi International Building Code (ADIBC)†

†The ADIBC is based on the 2009 IBC, 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Property evaluated:

Light-transmitting plastics

2.0 USES

The Quadwall, UniQuad, Pentaglas, Dualwall and U-Lite panels described in this report comply with the requirements for light-transmitting plastics in 2012, 2009 and 2006 IBC Section 2606.4. End use of the panels is outside the scope of this report, thereby requiring that compliance with the IBC requirements applicable to the end use (such as, but not limited to, structural and durability performance) be demonstrated to the code official.

3.0 DESCRIPTION

The Quadwall, UniQuad, Pentaglas, Dualwall and U-Lite translucent polycarbonate panels recognized in this report are light-transmitting plastics complying with IBC Section 2606.4, and have a CC1 plastic combustibility classification. The panels are available in up to a 45.3-foot (13 800 mm) length and in various widths, thicknesses and configurations. See Table 1 and Figure

1 for size and configuration details. As shown in Table 1 and Figure 1, the 8- and 10-millimeter-thick Quadwall, UniQuad, and Pentaglas panels are identical panels, except for the product name.

4.0 INSTALLATION

Use of the Quadwall, UniQuad, Pentaglas, Dualwall and U-Lite panels recognized in this report is limited to applications permitted by the IBC for light-transmitting plastics. The manufacturer's published installation instructions and this report must be strictly adhered to.

5.0 CONDITIONS OF USE

The Quadwall, UniQuad, Pentaglas, Dualwall and U-Lite panels described in this report comply with, or are suitable alternatives to what is specified in, those codes indicated in Section 1.0 of this report, subject to the following conditions:

5.1 The panels are manufactured, installed and identified as called for in this report, the IBC and the manufacturer's published installation instructions. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.

5.2 End use of the panels requires justification of compliance with appropriate code requirements, including installation, structural, impact and durability considerations.

6.0 EVIDENCE SUBMITTED

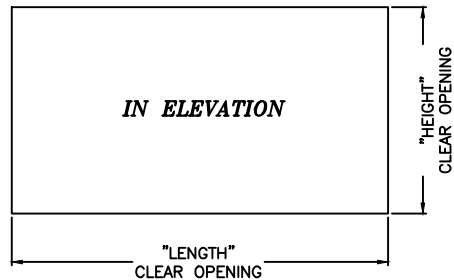
6.1 Reports of tests in accordance with ASTM D1929, ASTM D2843, ASTM D635, and ASTM E84.

6.2 Quality documentation.

7.0 IDENTIFICATION

The panels are identified with a label bearing the manufacturer's name (CPI Daylighting), the product name (Quadwall, UniQuad, Pentaglas, Dualwall or U-Lite), the CC1 plastic classification and the evaluation report number (ESR-1253).

ELEVATION TERMINOLOGY:



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UNIQUAD - WALL LIGHT

- DATA ENTRY FORM -

① UNIQUAD: RECTANGULAR ELEVATIONS ONLY (PANELIZED GLAZING, FRAMES KNOCKED DOWN)

② PERIMETER FRAME MATERIAL:

- STEEL MINIMUM 12GA STEEL FRAMING WILL BE REQUIRED AROUND PERIMETER.
- WOOD MINIMUM OF (2) 2" X 6" LUMBER WILL BE REQUIRED AROUND PERIMETER. (DOUGLAS FIR, G = 0.49 MIN)
- CONCRETE MINIMUM CURB WIDTH OF 6".
- CMU, GROUT FILLED MINIMUM CURB WIDTH OF 6".

③ UNIQUAD DIMENSIONS: 12'-0" MAX HEIGHT FOR ALL CURB MATERIALS

PANEL THICKNESS	SPAN CONDITION	DESIGN LOAD IN PSF		
		20 PSF	30 PSF	40 PSF
3"	SINGLE SPAN	8'-0"	7'-0"	6'-5"
4"	SINGLE SPAN	12'-0"	10'-11"	9'-11"

LENGTH: _____ (CLEAR OPENING DIMENSIONS TO NEAREST 1/16")

HEIGHT: _____ (CLEAR OPENING DIMENSIONS TO NEAREST 1/16")

④ PERIMETER THERMAL BREAK:

- INCLUDED
- EXCLUDED

⑤ EXTERIOR & INTERIOR GLAZING:

- EXTERIOR GLAZING COLOR (10mm)
 - CLEAR MATTE
 - WHITE MATTE
 - ICE WHITE MATTE
- INTERIOR GLAZING COLOR (10mm)
 - CLEAR MATTE
 - WHITE MATTE
 - ICE WHITE MATTE

⑥ ALUMINUM FINISH & COLOR:

- MILL
- STANDARD CPI CRF (2603) → COLOR NAME _____
- PREMIUM CPI CRF (2604) → COLOR CODE _____
- PREMIUM+ CPI CRF (2605)/STD. 70% KYNAR (2 COAT)
- ANODIZED →
 - CLEAR 204-R1
 - CLEAR 215-R1
 - DARK BRONZE ANO-303

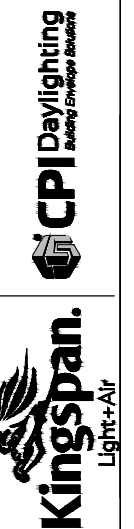
⑦ QUANTITY OF IDENTICAL UNITS: _____ (PLEASE USE SEPARATE SUBMITTAL FORMS FOR VARYING WALL LIGHT SIZES.)

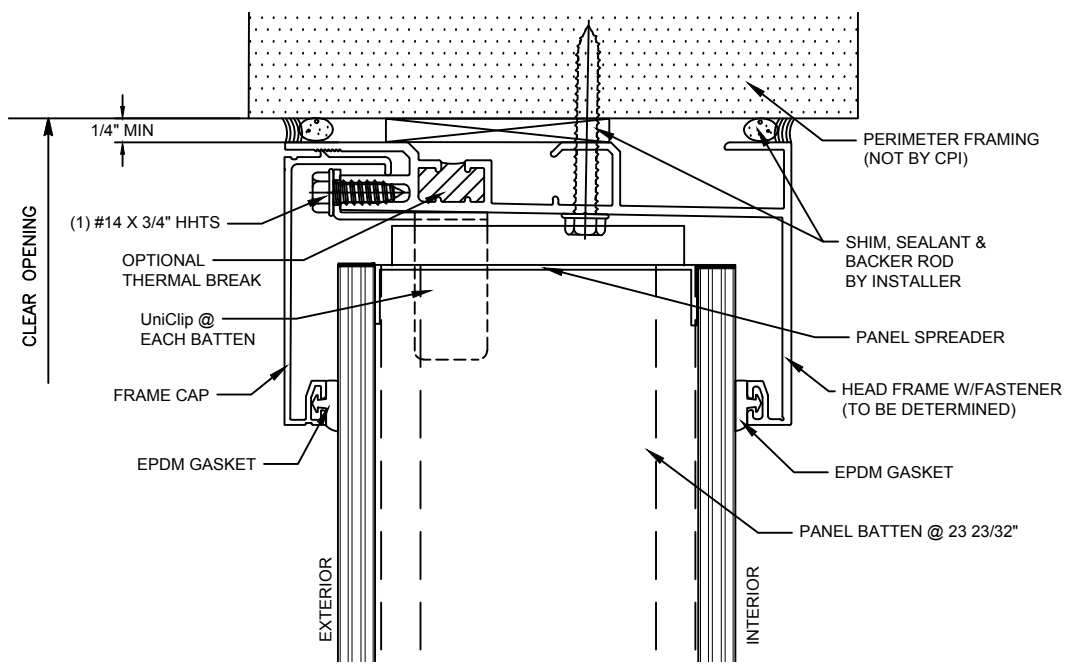
⑧ AUTHORIZATION TO PROCEED:
 THIS PAGE DEFINES ALL SPECIFICATIONS FOR THIS WALL LIGHT ORDER - I HAVE NO FURTHER SPECIFICATIONS OR REQUIREMENTS.
 CPI QUOTE #: _____ ITEM #: _____
 PROJECT NAME: _____
 COMPANY: _____
 SIGNATURE: _____
 AUTHORIZED SIGNER: (PLEASE PRINT) _____
 DATE: _____

NOTE: COMPLETE JOB INFO SHEET REQUIRED BEFORE RELEASE TO FABRICATION.

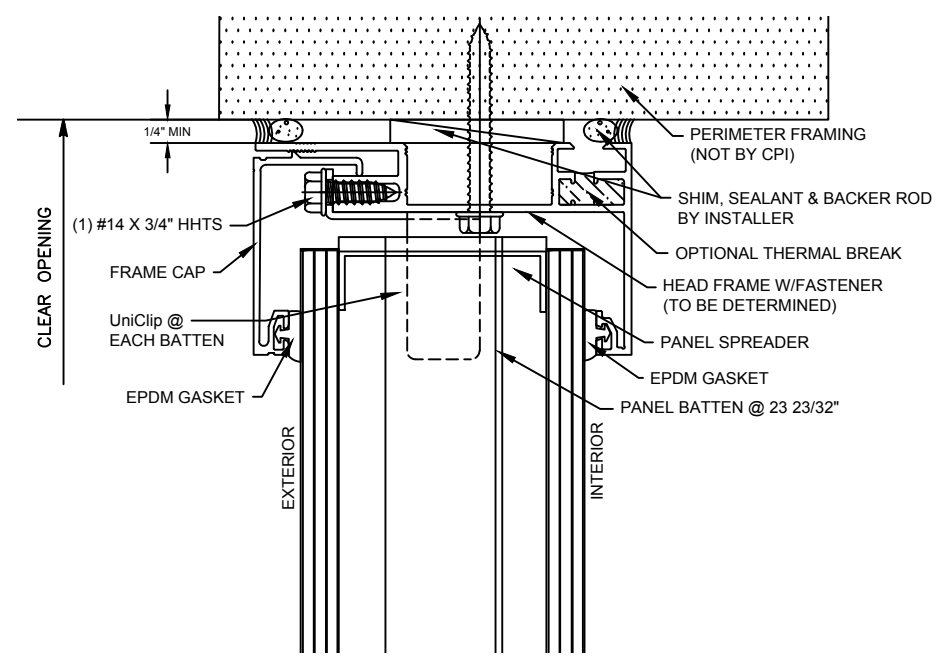
DIRECT 2 FAB

SUBMITTAL PACKAGE
RECTANGULAR WALL LIGHTS
UNIQUAD - WALL LIGHT
GENERAL NOTES, TECHNICAL DATA
"DIRECTLY FROM ORDER ENTRY TO FABRICATION FLOOR"

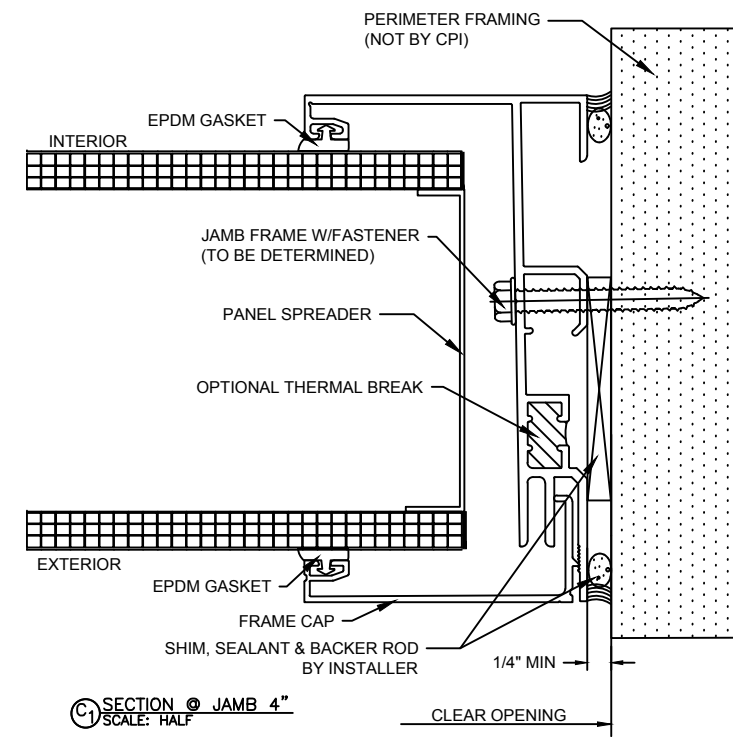




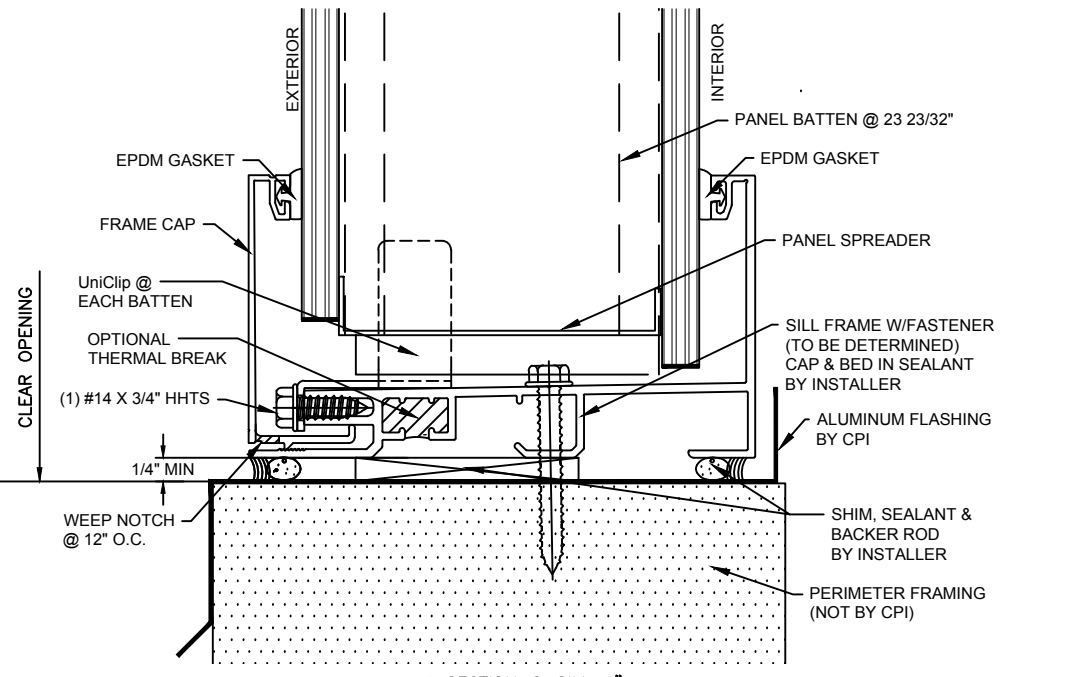
A) SECTION @ HEAD 4" SCALE: HALF



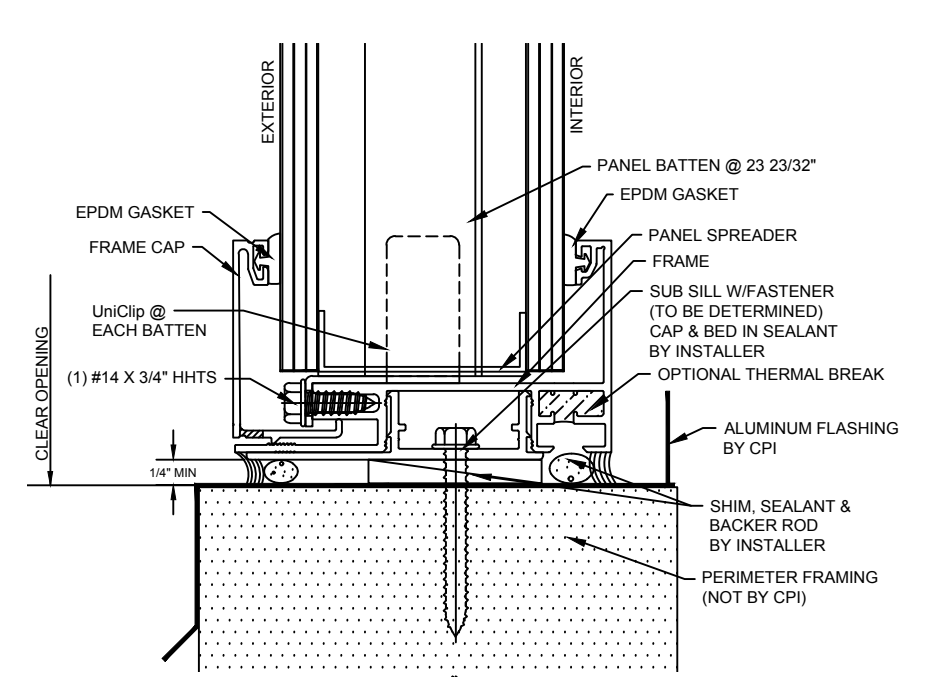
A2) SECTION @ HEAD 3" SCALE: HALF



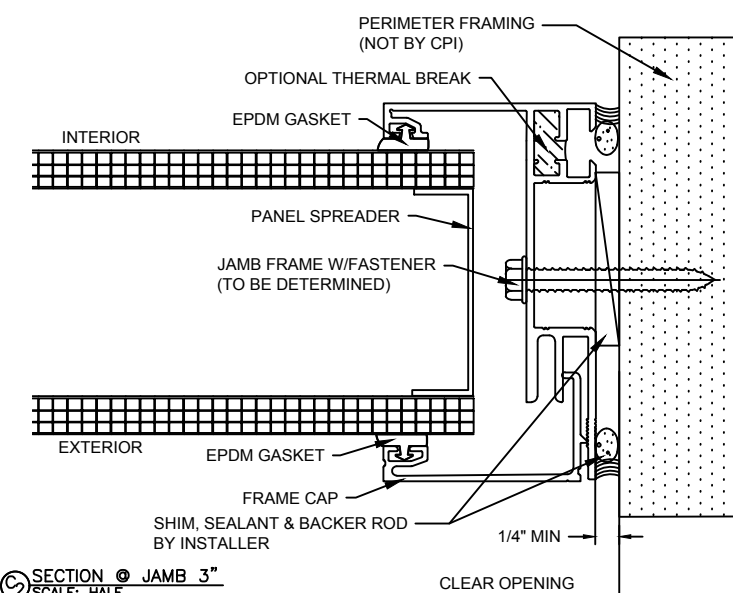
C) SECTION @ JAMB 4" SCALE: HALF



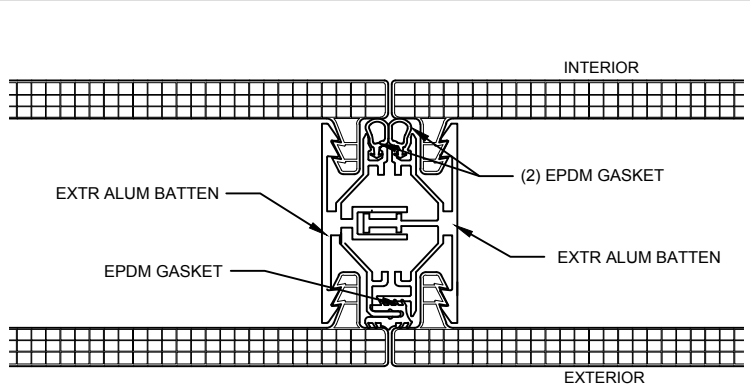
B) SECTION @ SILL 4" SCALE: HALF



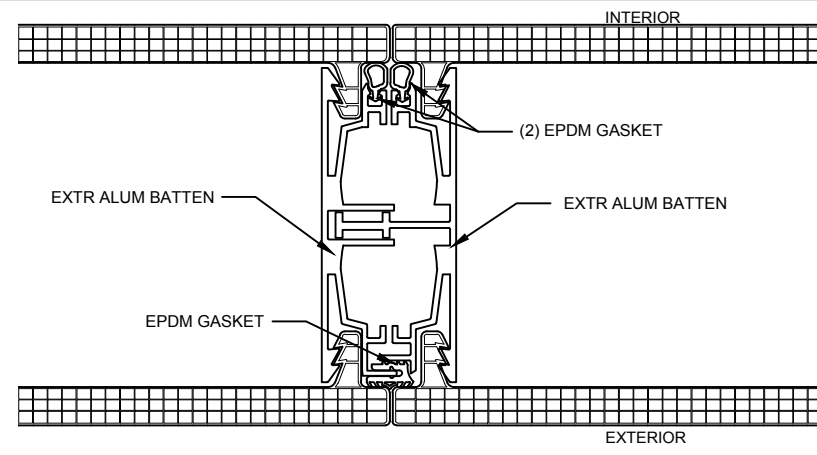
B2) SECTION @ SILL 3" SCALE: HALF



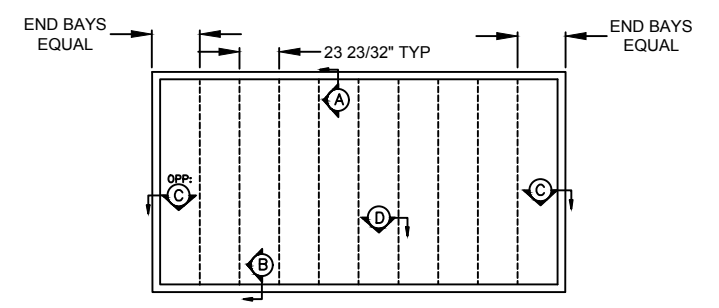
C2) SECTION @ JAMB 3" SCALE: HALF



D1) SECTION @ BATTEN SCALE: HALF SCALE 3" UNIQUAD PANEL



D2) SECTION @ BATTEN SCALE: HALF SCALE 4" UNIQUAD PANEL



ELEVATION

NOTE:
SCALE OF DETAILS WILL BE ACCURATE ONLY WHEN PRINTED WITH 1:1 SCALING ON 11 X 17 PAPER

NOTE:
ALL UNITS SHARE THESE DETAILS.
END BAYS WILL BE SENT FASTENED TO TYPICAL PANEL.
THICKNESS SYSTEM BASED ON SPAN AND LOADING CONSIDERATIONS.

*MAXIMUM SPAN FOR 4" UNIQUAD IS 9'-6"
*MAXIMUM SPAN FOR 3" UNIQUAD IS 6'-0"

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SUBMITTAL PACKAGE
RECTANGULAR UNIQUAD
UNIQUAD - WALL LIGHT
"DIRECTLY FROM ORDER TO FABRICATION FLOOR"

CPI Daylighting
Building Envelope Solutions

Kingspan
Light+Air

SHEET:
UNI-1B
1/27/16