

MITSUBISHI CHEMICAL AMERICA
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PREPARED BY:
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FIRST SUBMITTAL DRAWINGS		UPDATE MANUFACTURERS COMPANY NAME	UPDATE MANUFACTURERS COMPANY NAME		
12/3/14	RJA	1	2	3	4
03/24/18	RJA	1	2	3	4
6/13/23	RJA	1	2	3	4

PRODUCT NAME:	MITSUBISHI CHEMICAL COMPOSITES AMERICA, INC.
DRAWING NUMBER:	SERIES 20 COMPOSITE WALL PANEL SYSTEM
SHEET DESCRIPTION:	COVER SHEET
PAGE NUMBER:	MCCA0004
	001

ALPOLIC AND ALPOLIC/FR

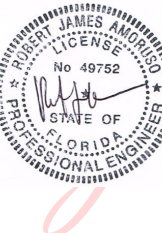
MITSUBISHI CHEMICAL COMPOSITES AMERICA, INC.

ALUMINUM COMPOSITE WALL PANEL SYSTEMS

SERIES 20

GENERAL NOTES:

- THESE ALPOLIC AND ALPOLIC/FR COMPOSITE PANELS SHALL BE USED FOR WALL CONSTRUCTION AND OTHER EXTERIOR DETAILS WHOSE REQUIREMENTS FOR POSITIVE AND NEGATIVE PRESSURES ARE WITHIN THE VALUES STATED IN NOTE 2 OF THIS DRAWING. EACH ACTUAL WALL PROJECT SHALL BE CONSTRUCTED USING THE DETAILS SHOWN ON THESE DRAWINGS AS MINIMUM REQUIRED SPECIFICATIONS
- THE WALL DESIGN ALLOWABLE PRESSURES FOR THESE WALL PANEL SYSTEMS ARE + 90 PSF/ -90 PSF.
- THESE ALPOLIC and ALPOLIC/FR COMPOSITE WALL PANEL SYSTEMS ARE TESTED IN ACCORDANCE WITH THE FOLLOWING PROTOCOLS PER THE CURRENT EDITION OF THE FLORIDA BUILDING CODE: TAS-202-94, UNIFORM STATIC AIR PRESSURE TEST AND TAS-203-94, CYCLIC WIND PRESSURE TEST. THEY SHALL BE INSTALLED ON FRONT OF A 5/8" (5 PLY) PLYWOOD SUBSTRATE SUPPORTED BY STEEL STUDS AT 16" O.C. AS SHOWN IN THESE APPROVED DRAWINGS.
- DEVIATIONS FROM THE APPROVED INSTALLATION METHODS SHOWN ON THIS PRODUCT APPROVAL DRAWING SHALL REQUIRE SITE SPECIFIC EVALUATION BY A LICENSED DESIGN PROFESSIONAL.



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Amoruso
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ROBERT J. AMORUSO, P.E.
FL PE LICENSE NO. 49752

PERFORMANCE RATING

DESIGN PRESSURE	IMPACT RATING
+/-90 PSF	NONE
PER ATI/INTERTEK TEST REPORT NO. D9531.09-602-18, DATED 10/10/14. INCLUDES WATER PENETRATION TESTING TO 100 PSF DP (15 PSF TEST PRESSURE) AND AIR INFILTRATION TESTING TO 6.24 PSF.	

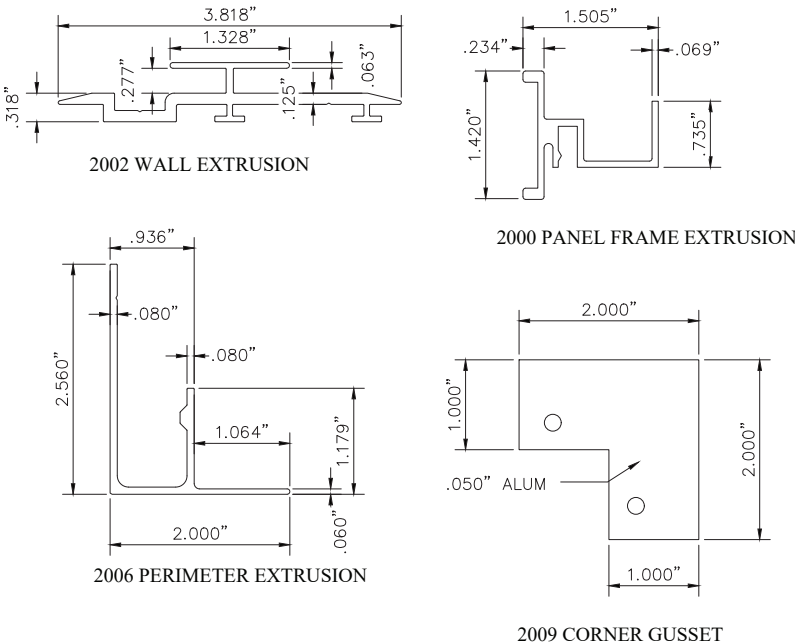
ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	EQ	EQUAL	OA	OVERALL
ALUM	ALUMINUM	EJ	EXPANSION JOINT	OC	ON CENTER
ABD	AS BUILT DIMENSION	EIFS	EXT. INSULATED FINISH SYS	OPP	OPPOSITE HAND
ARCH	ARCHITECT	FD	FIELD DIMENSION	PFD	PANEL FACE DIM
BO	BOTTOM OF	FIN	FINISH	RO	ROUGH OPENING
CLG	CEILING	GA	GAUGE	SS	STAINLESS STEEL
CL	CENTER LINE	GC	GENERAL CONTRACTOR	TO	TOP OF
DIA	DIAMETER	MDS	METAL DESIGN SYSTEMS	TYP	TYPICAL
DIM	DIMENSION	MIR	MIRRORED VIEW	VIF	VERIFY IN FIELD
DWG	DRAWING	MOD	MODULAR DIMENSION	WP	WORK POINT
ELEV	ELEVATION	NTS	NOT TO SCALE		

CLADDING SYSTEM INFORMATION

Panel System:	SERIES 20 ACM 1/2" JOINT
Nominal Depth:	2 1/4"
Material Manufacturer:	ALPOLIC OR ALPOLIC FR
Core Material:	THERMOPLASTIC
Material Thickness:	4MM
Skin Thickness:	.020
Finish:	BASED ON PROJECT SPECIFIC SPECIFICATIONS
Color:	BASED ON PROJECT SPECIFIC SPECIFICATIONS

SERIES 20 EXTRUSION IDENTIFICATION CHART

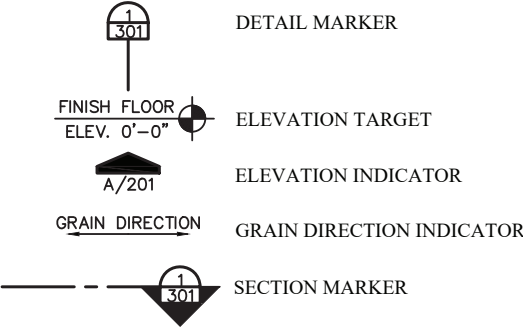


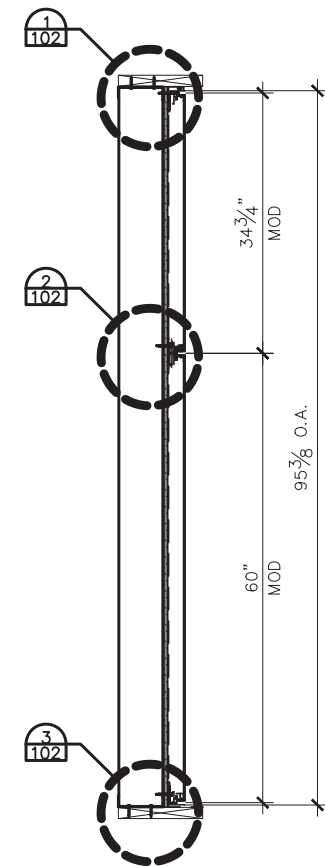
MATERIAL INFORMATION

- Alpolic and Alpolic/FR Composite Panels are composed of a thermoplastic core faced on both sides with .020" thick 3105-H14 alloy aluminum. See table below for Alpolic and Alpolic/FR face sheet properties.
- Panels are manufactured in nominal thickness of 3, 4 and 6mm.
- Panels are manufactured by Mitsubishi Chemical Composites America, Inc. 401 Volvo Parkway-Building 1, Chesapeake, VA 23320
- Panels and extrusion systems are fabricated by Metal Design System, Inc., 4150 C Street SW, Cedar Rapids, IA 52404
- Aluminum extrusions are 6063-T6 and are proprietary to Metal Design Systems, Inc.
- Metal studs and track are 16ga. galvanized steel 50ksi yield.
- Plywood is 5 ply exterior grade sheathing.
- Fastening Schedule - see table on sheet 101.

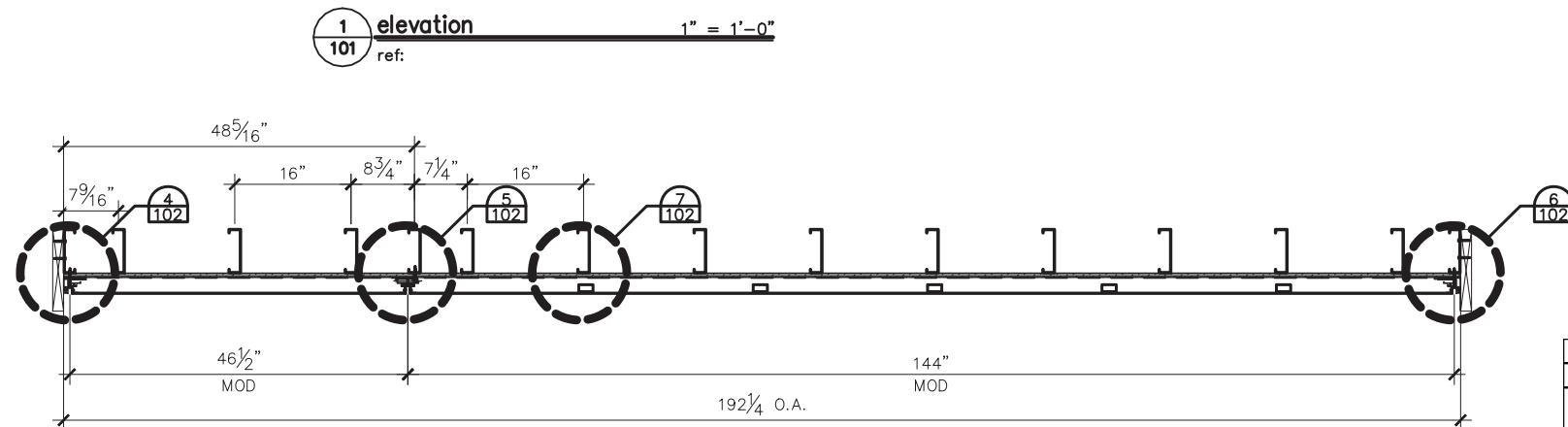
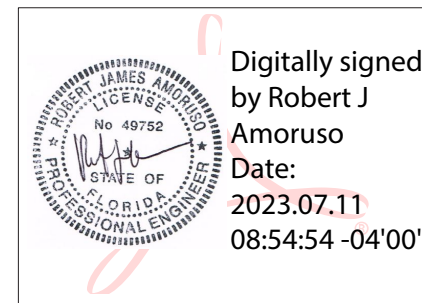
DESCRIPTION	TEST	4MM ALPOLIC RESULTS	4MM ALPOLIC/FR RESULTS
SPECIFIC GRAVITY	N/A	1.38	1.9
WEIGHT	N/A	1.12 LB/SQ. FT.	1.56 LB/SQ. FT.
TENSILE STRENGTH	ASTM E-8	7452 PSI	5693 PSI
ELONGATION	ASTM E-8	16%	8%
FLAME SPREAD INDEX	ASTM E-84	0	0
SMOKE DEVELOPED INDEX	ASTM E-84	0	10
SELF IGNITION TEMPERATURE	ASTM D-1929	752°F	837°F
FLASH IGNITION TEMPERATURE	ASTM D-1929	716°F	811°F

SYMBOLS





A-A section 1" = 1'-0"
101 ref:

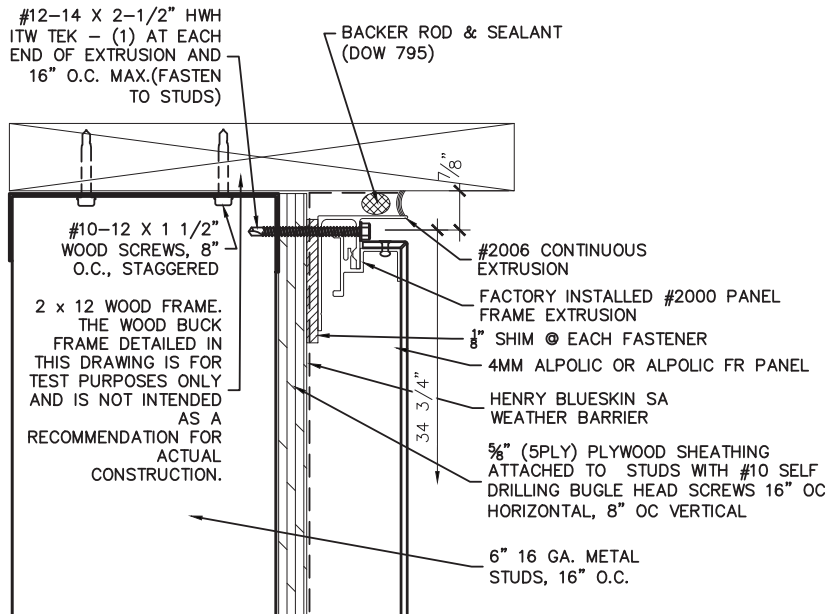


B-B plan section 1" = 1'-0"

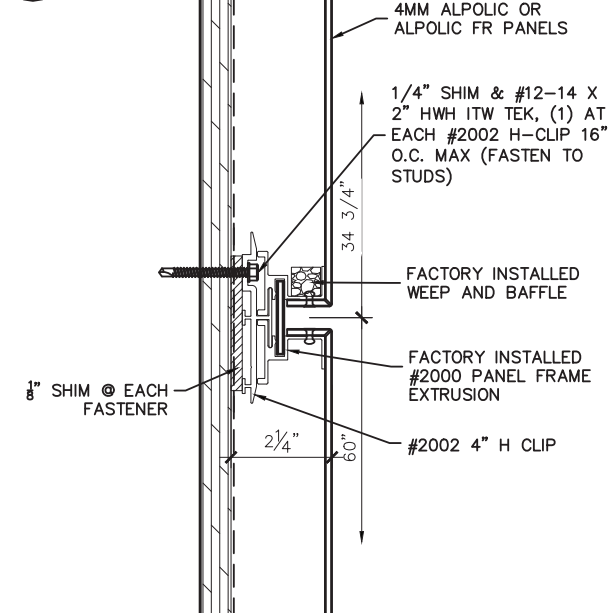
Fastener Schedule				
Description of Use	Fastener Type	Specification	Size	Corrosion Resistance - Remarks
Panel Support Extrusions to Steel Stud	ITW Buildex Tek's Self-Drilling Fasteners, Hex Washer Head	ICC-ES ESR-1976	#12-14 x 2-1/2"	ITW Proprietary Climaseal® or plated with electrodeposited zinc (E-Zinc) complying with the minimum corrosion resistance requirements of ASTM F1941
Panel to Support Extrusions	Rivet	n/a	3/16"	300 Stainless Steel
Steel Stud to Test Buck (not recommended for actual construction)	Pan or Hex Head Wood Screw	ANSI B18.6.1	#10-12 x 1-1/2"	This screw is used for test buck installation only. Corrosion resistance is not required.
5/8" Plywood to Steel Studs (not recommended for actual construction)	Self-Drilling Bugle Head Screws	n/a	#10	This screw is used for test buck installation only. Corrosion resistance is not required.

This product approval document only shows installation of the panel wall and support structure to substrate comprised of 5/8" plywood supported by steel studs. Fastening requirements for other code conforming substrates shall be the responsibility of others in conformance with the current edition of the Florida Building Code including use of corrosion resistant fasteners.

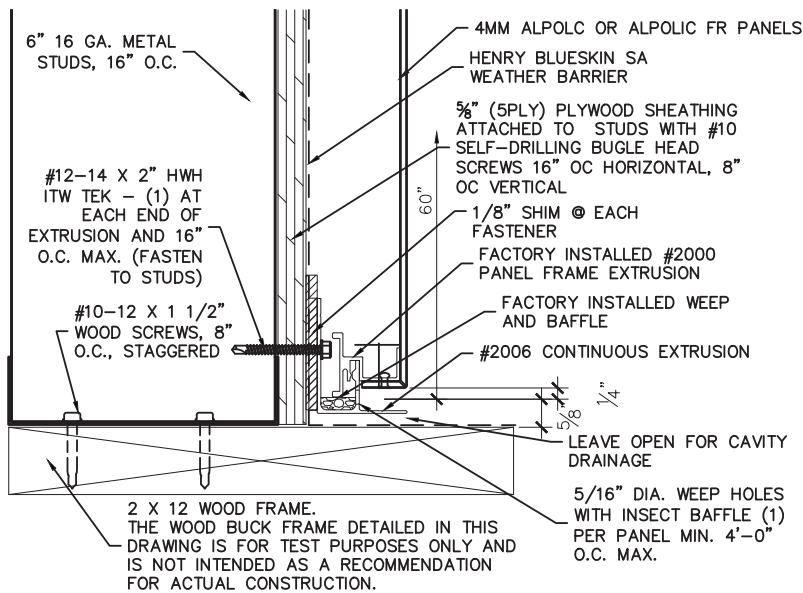
D:\Documents\PTC Work\ Folder-Vitrushield Plastics Composites America\482-0903 MP2A 08112018\0323 FPC Renewal\0323 FPC Renewal - Vitrushield\0323 FPC Renewal - Robert Amoruso_6/20/2023 3:31 PM



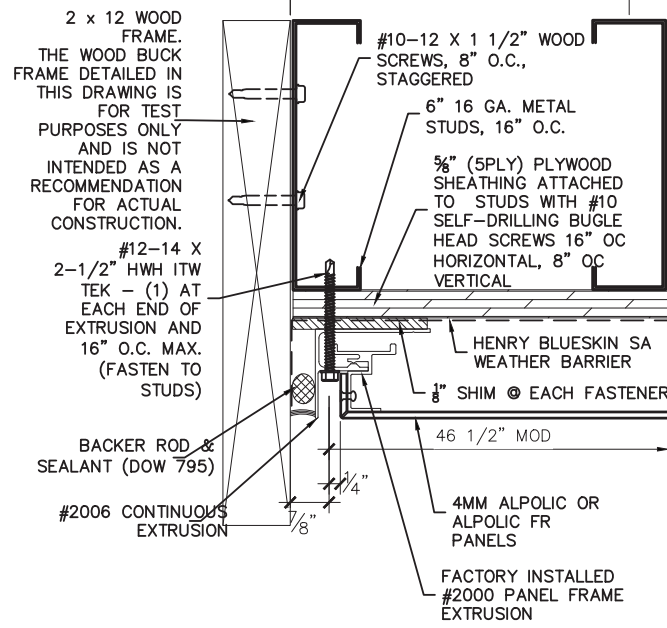
1 termination detail @ head 6" = 1'-0"



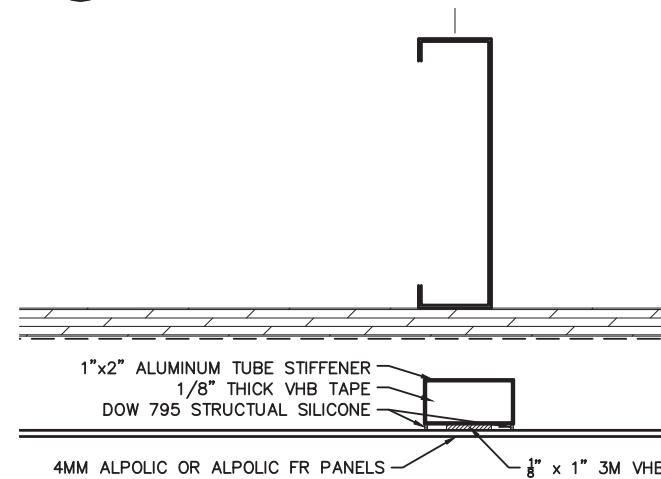
2 typ horizontal joint detail 6" = 1'-0"



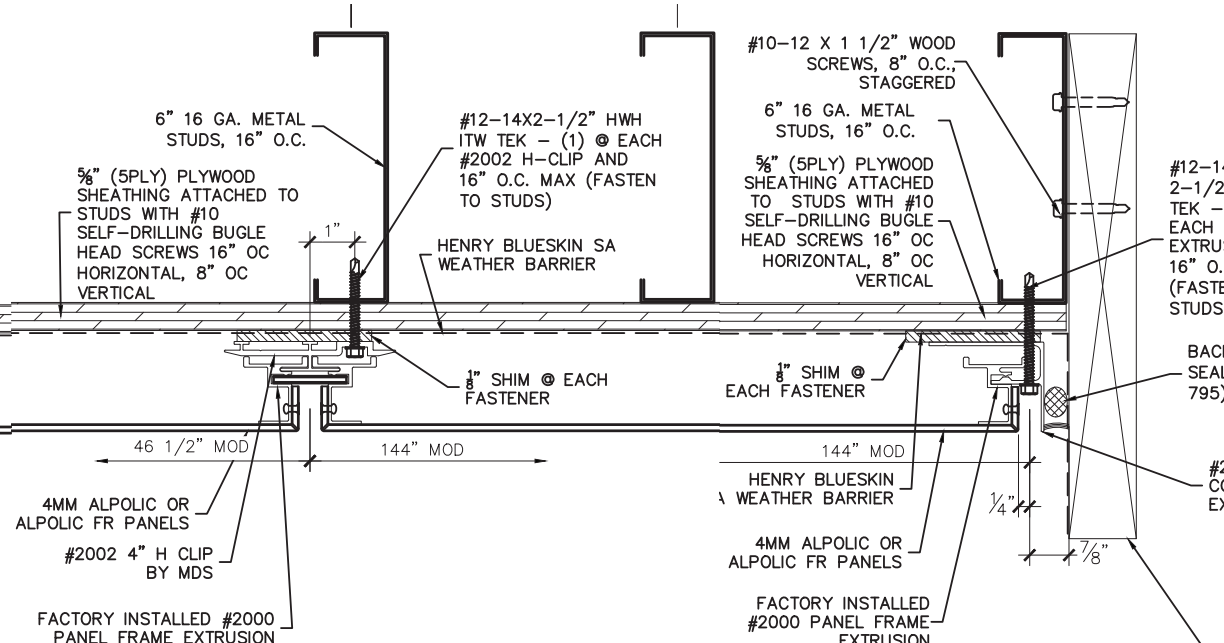
3 panel termination detail @ base 6" = 1'-0"



4 panel termination detail 6" = 1'-0"

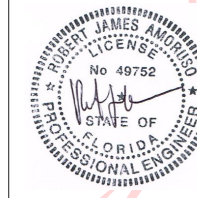


7 stiffener detail 6" = 1'-0"



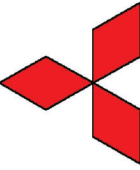
5 typ vertical panel joint detail 6" = 1'-0"

6 panel termination detail 6" = 1'-0"



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PRODUCT NAME:		DETAILS
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SERIES 20 COMPOSITE WALL PANEL SYSTEM		
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DRAWING NUMBER:		MCCA0004
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