MCM Certified Fabricator Requirements

The Metal Composite Material Council of the Metal Construction Association has developed the following certification requirements for the purpose of identifying select fabricators that have demonstrated their superior capabilities to deliver outstanding applications of Metal Composite Material panels for architectural applications. The certification requirements have been developed within the context of a quantifiable measurement system for each of the major considerations that make for an excellent application.

The system of measurement is flexible enough to be able to include fabricators that may have exhibited moderate performance in one of the areas, providing that they can compensate with superior performance in other areas.

Specifically, each of the areas has a maximum "score" of 10 points. A total minimum "score" of 32 points would yield an acceptable level of performance for the fabricator to be determined to meet the MCM System Certified Fabricator rating.

The four areas for consideration and rating system are:

Section 1: Experience

Experience will be defined as the number of consecutive years the MCM fabricator has fabricated a minimum of 150,000 square feet utilizing 4mm thickness MCM.

<u>Years</u>	<u>Points</u>
3	5
4	8
5	10

Required documentation: The applicant must provide a letter from the MCM manufacturer(s) documenting purchase history of 4mm MCM panels for the most recent, one to five-year period. Multiple manufacturers will be accepted, provided the total square footage of all 4mm MCM wall panels purchased per year is at least 150,000 square feet, in each consecutive year. The letter(s) must be on company letterhead and signed by an authorized MCM manufacturer representative.

Section 2: Services

Some fabricators do everything from project design, to fabrication, to installation. Other fabricators may subcontract some of these services or not participate directly in a particular segment of the fabrication process. Therefore, a scale was developed to rate the fabricators, dependent upon their chosen level of involvement with all of the required services.

The scale listed below can yield a total of 10 points:

<u>Criteria</u>	<u>Points</u>
In-house fabrication	6
Installation certification program	3
Engineering Services	1

Required documentation:

- 1. In-house fabrication: The applicant must provide a description of the fabrication process and location of the company-controlled facility.
- 2. Installation certification program: The applicant must provide a copy of the company's documented installation certification program.
- 3. Engineering Services: Provide or coordinate, and take responsibility for, engineering services including providing signed and sealed calculations and shop drawings, as required.

Section 3: MCM Systems

Attachment systems, and system performance, are integral to what makes an excellent fabricator. Therefore, the rating system outlined below is an important part of the certification requirements and is specifically called out in the building code and or in typical MCM project specifications. In order for a system to qualify for this section it must be owned by the applicant and meet each requirement listed below.

There are primarily two types of systems that incorporate MCM cladding:

- Exterior envelope systems that resist both wind loading (deflection) and water infiltration at the exterior panels and joints. These systems are identified as "Weather Envelope Systems" and would also generally include curtainwall infill panel applications.
- Exterior systems that minimize the water penetration behind the cladding and incorporate an air cavity behind the exterior cladding to allow for drainage and some level of pressure moderation. These systems are identified as "Rainscreen Systems".

Weather Envelope System Performance Requirements

- 1. ASTM E 283 Static Air Infiltration No more than 0.06 cfm/ft² @ 6.24psf pressure.
- ASTM E 330 Structural Design Load Deflection of framing members shall not exceed L/60 of the clear span or shall anchor deflection exceed 1/16" at +/- 30psf pressure.
- 3. ASTM E 331 Static Water Infiltration No uncontrolled water passing from the panel system onto the substrate at 12psf pressure.

Rainscreen System Performance Requirements

1. AAMA 508 – Pressure Equalized Rainscreen (PER) Including ASTM E330 performance.– (Performance requirements are included as part of the standard)

Or

- AAMA 509 Drained and Back Ventilated Rainscreen (DBVR) Including ASTM E330 performance.– (This is a relative performance standard. There are no pass/fail criteria.)
- ASTM E 330 Structural Design Load Deflection of framing members shall not exceed L/60 of the clear span or shall anchor deflection exceed 1/16" at +/- 30psf pressure.

Required documentation:

Each specific type of system where performance testing is provided will be recognized as a component of the Certified Fabricator's "recognized" program. Only those systems that meet the performance levels identified will be included as part of this program. Reporting of those "recognized" systems will be shown as:

System	System	Test	Test	Performance	Performance –
Туре	Name	Date	Standard	Character	Pass/Fail (Met
Envelope /		(Mon/Yr)			Requirements)
Rainscreen					
Envelope	XYZ		ASTM	Air infiltration	Pass/Fail
			E283		
Envelope	XYZ		ASTM	Structural	Allowable load
			E330	Performance	
Envelope	XYZ		ASTM	Static Water	Pass/Fail
-			E331	Penetration	
Rainscreen	XYZ		AAMA	Pressure	Pass/E330 psf
			508	Equalized	
			(w/E330)	Rainscreen	
Rainscreen	XYZ		AAMA	Drained &	Relative position on
			509	Back	performance
			(w/E330)	Ventilated	chart/E330 psf
				Rainscreen	-

Recognized Systems (Example text in bold italics)

Other System Recognitions (as reported by outside agencies)

System Type	System	Recognized by:	Recognized by:	Recognized by:
Envelope /	Name	Florida / Miami-	New York City	
Rainscreen		Dade	Building Code	
Envelope	XYZ			
Envelope	XYZ			
Rainscreen	XYZ			
Rainscreen	XYZ			
Rainscreen	XYZ			

The test reports for each system type being submitted as a level of expertise for the MCM Certified Fabricator must be from a laboratory accredited by the International Accreditation Service, Inc. (IAS) or equivalent accreditation organization.

Number of Systems Certified	<u>Points</u>
One	5
Тwo	8
Three	10

Required documentation: The applicant must provide copies of test reports for each company owned system with corresponding accreditation from the testing laboratory. The test reports must specifically recognize the fabricator or identify the system tested in adequate detail to identify the system in the report.

Additional Fabrication Points

- NFPA 285 Compliance Testing Maximum 1 Point (Regardless if the number of installation systems tested)– Having an installation system that has been tested to the code recognized version of NFPA 285 for any of the Recognized Systems. NFPA 285 tested systems show the Certified Fabricators understanding of the code requirements and the recognized importance of fire testing required in the building codes.
- Other System Recognitions 1 Point (each) Major Jurisdiction Recognition – Specific written code recognition by major jurisdictions such as New York City, Miami-Dade County, etc. require additional performance testing beyond the nationally recognized building codes. These added recognitions represent the Certified Fabricators knowledge of local code requirements and attention to the local performance requirements.

Section 4: Financial Strength

The construction industry has developed a very objective method for determining the financial strength of a company by the issuance of Surety Bonds. Insurance companies are willing to issue either payment and performance bonds (for installed subcontracts) or material bonds (for materials only purchase orders) to owners that guarantee that if the insured company does not complete the scope of work, then the insurance company will.

Obviously, the insurance companies will only issue these bonds on companies that they feel have financial strength. However, some fabricators are not accustomed to providing bonds so an additional method of determining financial strength was developed for the **MCM System Fabricator Certification Program**.

Financial Strength Considerations:

A. Bonding - Supply a letter of commitment from A+ or better surety (as rated by A. M. Best) for either a total aggregate of \$4,000,000 for payment and performance bond or \$2,000,000 material bond.

Required documentation:

The applicant must provide one of the following:

- A letter of commitment for A+ or better surety (as rated by A.M. Best) for either a \$1,000,000 individual project bond and/or a total aggregate for \$4,000,000 for payment and performance bond or \$2,000,000 material bond; or
- A letter of assurance from an independent certified public accountant that the company meets each "health" standard.

Financial Ratios – CFMA publishes a set of guideline ratios for "healthy" financial conditions for "Specialty Trade Contractors." Three of the most important are (revenues less than \$10 million):

- 1. Total debt / Equity less than 3 times
- 2. Annual revenues / Adjusted working capital (current assets current liabilities) less than 20 times
- 3. Annual revenues / equity less than 12.5 times

Each letter must be dated within 30 days of the date of application.

- **B. Liability Insurance** Applicant must supply a verifiable Certificate of Liability Insurance with a minimum of:
 - \$1,000,000 General Liability coverage
 - \$1,000,000 of Automotive coverage
 - \$5,000,000 Umbrella Liability coverage
 - and \$1,000,000 workers compensation.

Required documentation:

Applicant must provide proof of coverage that must be dated within 30 days of the date of application.

C. EMR - Provide an Experienced Modification Rate (EMR) from the insurance provider of less than 1.0.

Required documentation:

Applicant must provide proof of coverage that must be dated within 30 days of the date of application.

	<u>Criteria</u>	<u>Points</u>
•	Meet all three financial strength indicators (A, B, and C)	10
•	Meet financial strength indicators (A and B)	8
•	Meet financial strength indicator (A)	6

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