

A National Gypsum Case Study

PermaBase® BRAND Cement Board Stucco System

National Gypsum's PermaBase® BRAND Cement Board Is the Next Generation of Cement Board Stucco

PROJECT

Chippewa Valley Home Builders Association Parade of Homes model home in Eau Claire, Wis.

BUILDER

Peterson Custom Homes, Eau Claire, Wis.

INSTALLER

Nelson Masonry, Rice Lake, Wis.

SUPPLIER

Tamarack Materials, Bloomington, Minn.



Project Overview: In the 1990s, moisture intrusion plagued many homes built using EIFS and other cladding systems. As a result, some parts of the country have restricted the use of EIFS in residential application. In the absence of a synthetic alternative, Eau Claire homeowners who've wanted to achieve a stucco finish have relied on conventional methods that, though durable and impact-resistant, have been cumbersome to apply and required lengthy construction timelines to complete.

Project Objective:

Applicators recently elected to feature a new method, the PermaBase® Cement Board Stucco Wall System from National Gypsum, on a 5,500-square-foot show home during the annual Chippewa Valley Home Builders Association Parade of Homes. The four-bedroom, five-bathroom floor plan included a number of exterior arches and peaks that required a flexible, easy-to-work-with exterior wall system.

PermaBase Solution: With a Cement Board Stucco System, the quality of the installation is improved by using PermaBase Cement Board, a product that is consistently manufactured to ASTM C 1325 standards, to replace the field applied lath and scratch coat application used in a conventional stucco finish.

Most commonly used as cement backer board with ceramic tile, National Gypsum's PermaBase also can be used in the exterior walls of residential and low-rise commercial buildings. It joins a polymer-based fiberglass mesh and base coat with an acrylic exterior textured finish to create a water-managed, high-impact resistant wall system. Each step takes only days to install and cure – significantly shorter than the seven to 28 days required between the steps of conventional stucco

application – saving contractors both time and money. In addition, the Cement Board Stucco System features double-reinforced seams to reduce joint cracking.

When complete, the PermaBase method offers a weather-resistant barrier that complies with ASTM D 226 to protect the structural components underneath. That's because exterior cladding applications without an underlying drainage plane could trap moisture. PermaBase installs against such a medium, allowing incidental water that enters through windows or doors to drain out the bottom of the wall, preventing long-term moisture damage.

– Continued on back



Continued from front –

Builder’s Perspective: “The spring doesn’t start here until about mid-April, which means the stucco applicators didn’t have a lot of time to finish the job before the Parade of Homes deadline in early June,” said builder Chris Peterson. “The Cement Board Stucco System easily saved us at least two weeks, and it finished with a nice, even look that’s definitely more impact-resistant than traditional applications.”

Installer’s Perspective: “The Cement Board Stucco application was much less involved than conventional stucco methods,” said Chris Nelson, owner of Nelson Masonry. “We were able to handle the job in a fraction

of the time with only about a third of the guys. It’s a better looking, longer lasting, faster, less expensive option. I’m not sure I’ll ever use conventional stucco again.”

Supplier’s Perspective: “Cement Board Stucco is like having the best of both worlds,” said Larry Houns, sales representative for Tamarack Materials. “It’s a hybrid that offers the faster application and drying time of EIFS, but also the hardness of conventional stucco. Coatings are only as tough as what they’re applied to – and while there’s probably something somewhere hard enough to damage cement board, it’s still going to be significantly more resistant to impact than EIFS foam.”

COST COMPARISON

	Conventional 3-Coat Stucco	PermaBase Cement Board Stucco System
Estimated Materials Cost	\$2.15/SF	\$2.25/SF
Labor	\$6.85/SF	\$4.75/SF
Estimated Installed Cost	\$9.00/SF*	\$7.00.SF*

*Based on flat wall areas excluding trim and window/door openings.

Technical Information

PermaBase® BRAND Cement Board Stucco System

Water-Managed, High Impact Resistant Wall System

CEMENT BOARD STUCCO WALL SYSTEM

Description

Cement Board Stucco is a water-managed exterior wall system designed to provide increased high-impact and weather resistance and improved dimensional stability.

For the purposes of meeting structural racking or fire code requirements, it is applied over the following approved sheathings:

- Exposure 1 or exterior plywood (grade C-D or better)
- Exposure 1 OSB
- Glass mat gypsum substrate meeting ASTM C 1177

It combines the strength and durability of PermaBase Cement Board with the performance and beauty of reinforced base coats and textured finishes. All finishes are available in a limitless color selection and offer performance enhancement options ranging from extra mildew resistance to added flexibility.

Behind the system, a weather-resistant barrier complying with ASTM D 226 protects approved sheathings and other structural components and serves as a component to evacuate incidental water. Cement Board Stucco allows you to enclose and finish a project in as little as two days, speeding occupancy.

Uses

For high-impact and weather-resistant exterior wall in residential and low-rise commercial applications.

Advantages

Durability/Strength: Moisture resistant, durable PermaBase Cement Board substrates applied over a primary sheathing provide extraordinary impact and puncture resistance to the system.

Weather Resistance: 100% Acrylic base coats and finishes repel weather at the system’s surface.

Water-Managed Design: The water-managed design of the system provides exterior drainage of incidental water that might enter around or through window or door openings and penetrate behind the cladding in frame construction.

Design Options: Cement Board Stucco provides the popular stucco look, including the attachment of special pre-molded shapes and a wide variety of finish texture and color options in standard colors and custom colors.

Contact exterior coatings manufacturer for color and installation instructions.



Technical Info: 1-800-NATIONAL
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