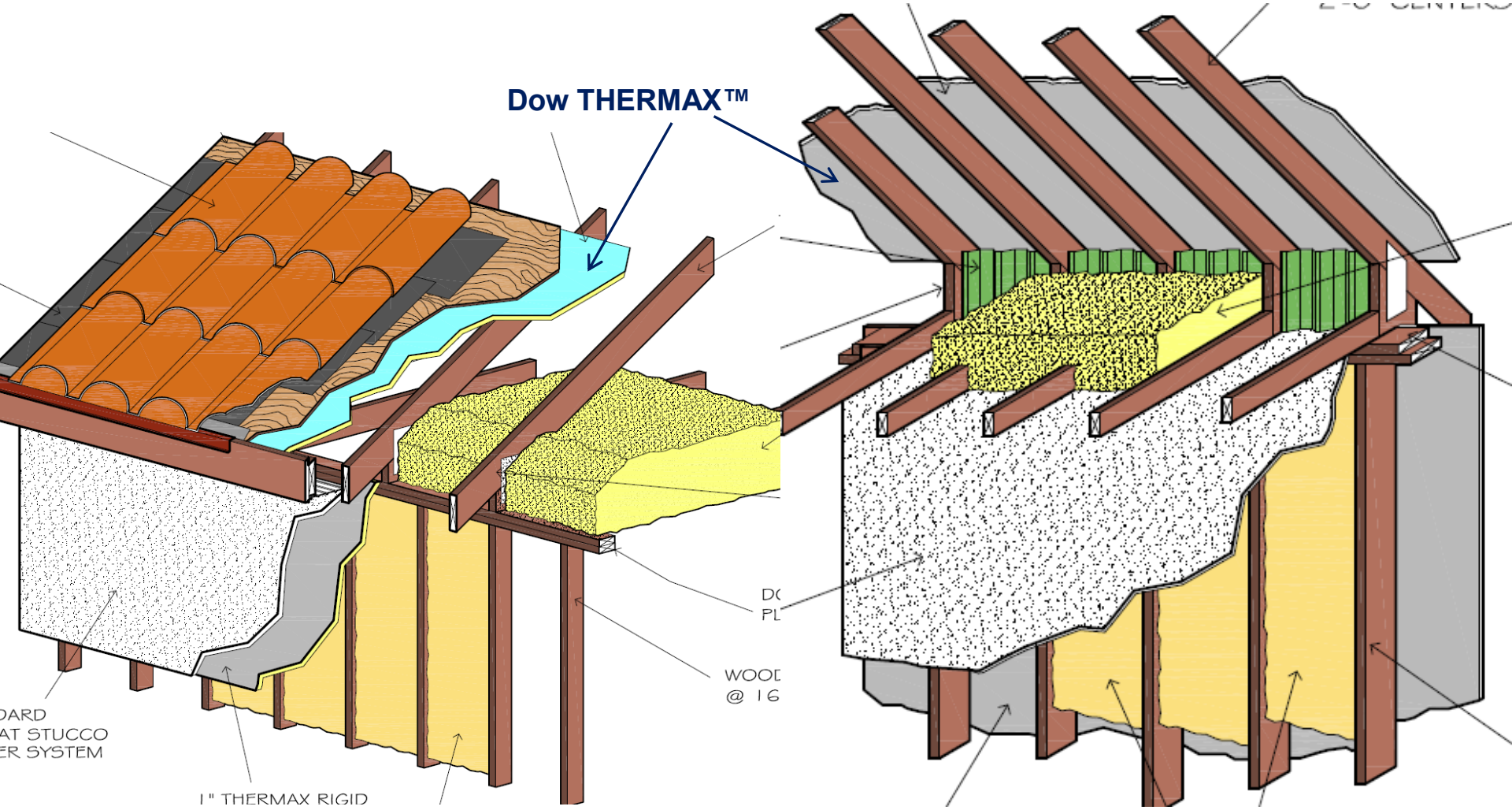
Building Solutions

Dow Building Solutions for Title 24 Energy Requirements

CBIA CEC Forum
November 21, 2014

Dow.com

Roof Solution: THERMAX Attached on Truss or Rafter



Wall Solutions

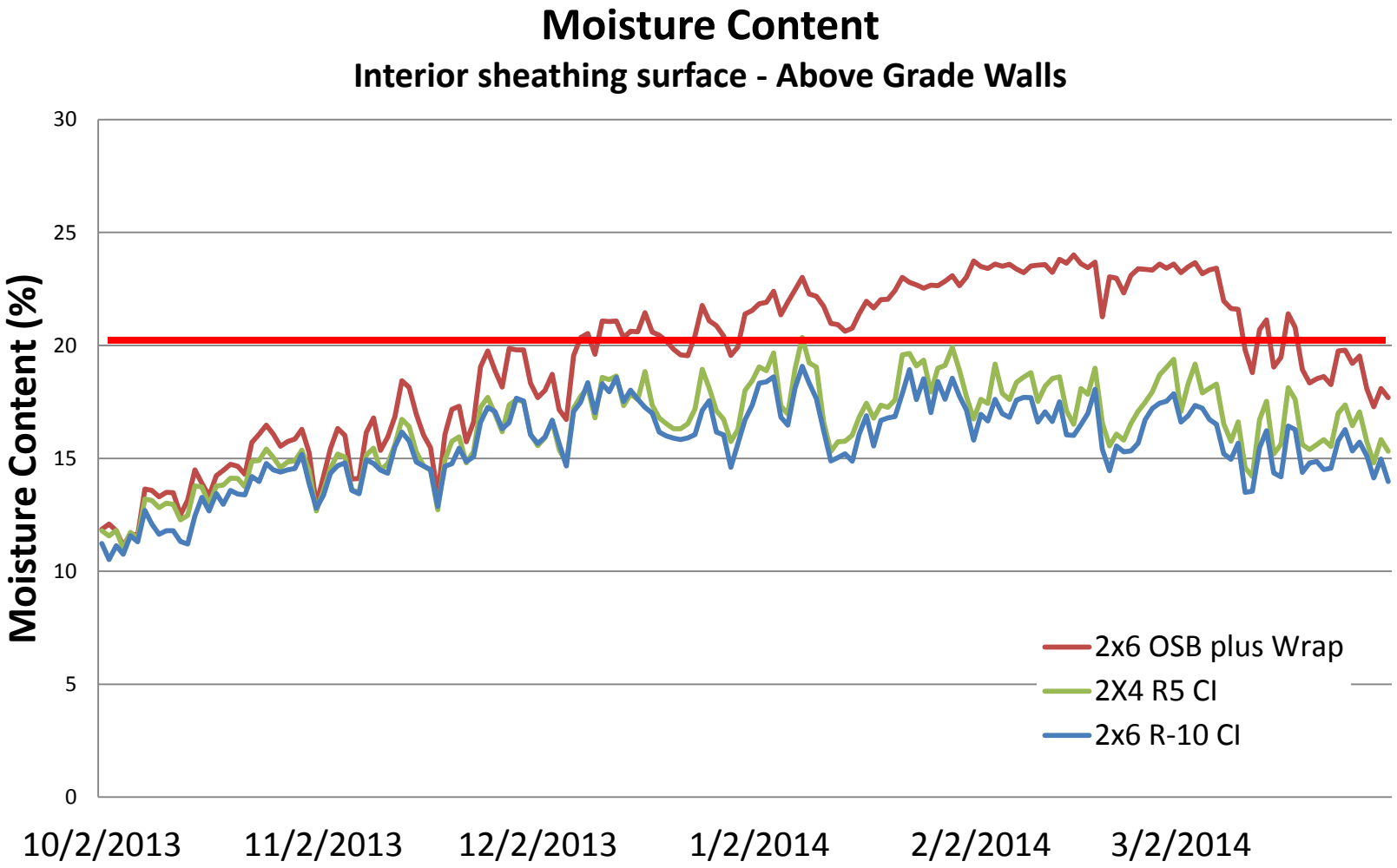
DOW CONFIDENTIAL - Do not share without permission

Why Continuous Insulation?

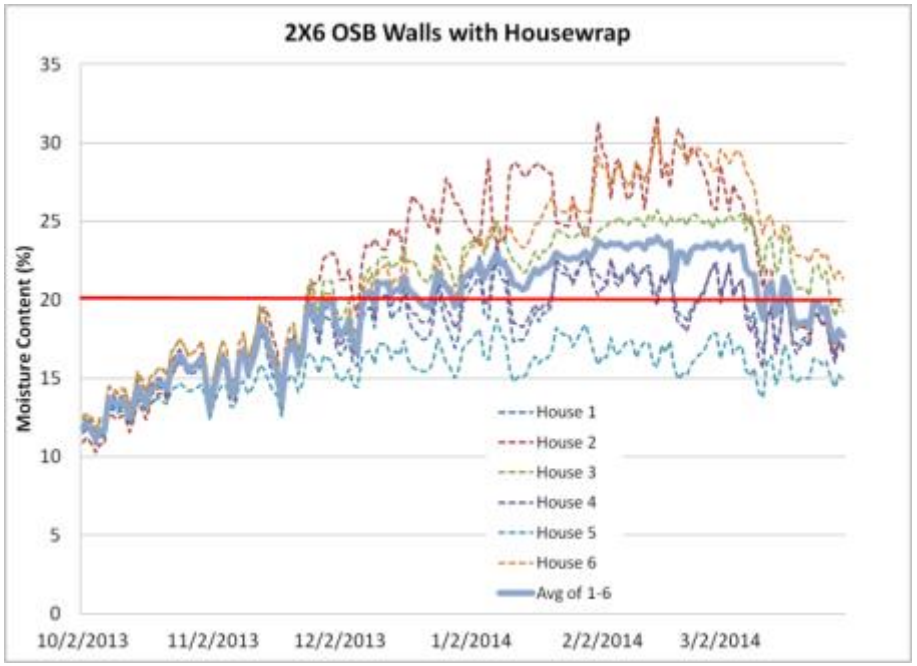
- Minimize Thermal Bridging
- Reduce Moisture Issues

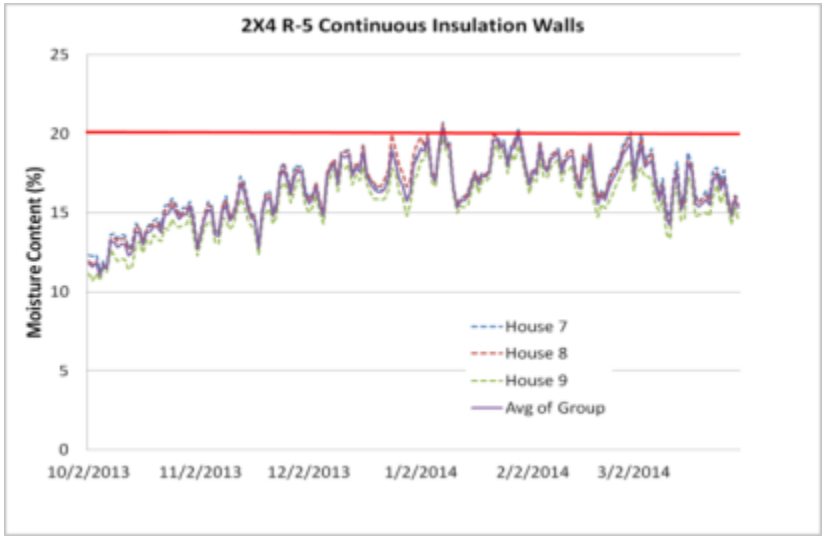
Why Continuous Insulation?

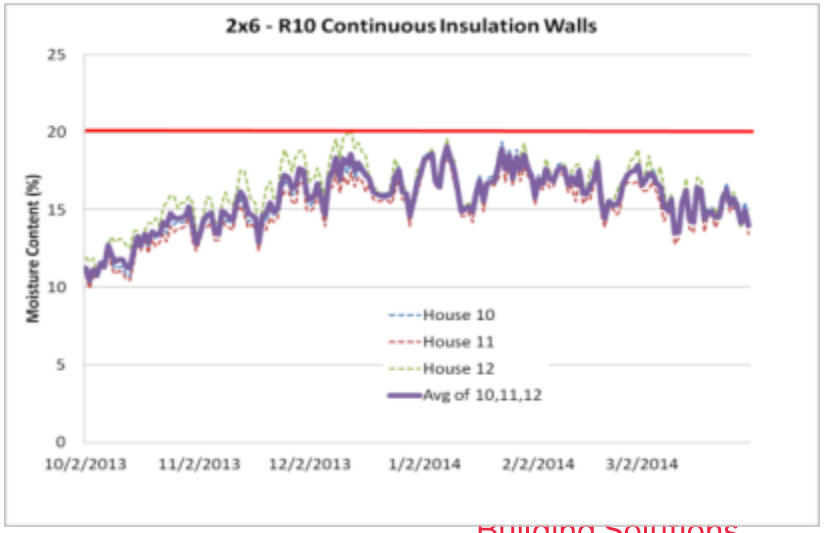
Breathable or Dry… You Pick…



And more consistent….







Water Resistive Barrier

ICC-ES Code Report Approved WRB

Passes ASTM E331

- 5 Gal/FT^2/Hour
- 6.24 psf pressure
- 2 Hour Duration
- No Water Penetration

ICC EVALUATION SERVICE

Most Widely Accepted and Trusted

ICC-ES Evaluation Report

ESR-2142

Reissued October 1, 2012

This report is subject to renewal October 1, 2014.

Underwriters Laboratories ICC-ES/UL Dual Report

Click on the logo to access UL Certification

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

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 21 00—Thermal Insulation
Section: 07 25 00—Water-Resistive Barriers/Weather Barriers
Section: 07 27 00—Air Barriers

REPORT HOLDER:

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EVALUATION SUBJECT:

STYROFOAM™ BRAND INSULATION BOARDS AND DOW FAN-FOLD PRODUCTS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2012 and 2009 *International Building Code®* (IBC)
- 2012 and 2009 *International Residential Code®* (IRC)
- 2012 and 2009 *International Energy Conservation Code®* (IECC)

Properties evaluated:

- Surface burning characteristics
- Attic installations
- Crawl space installations
- Air barrier
- Water-resistive barrier

telecommunication shelters, concrete modular buildings, agricultural buildings, buildings regulated under IBC Section 312 (Utility and Miscellaneous, Group U), or structures constructed in accordance with the IBC or IRC, with no coverings applied to the foam plastics when the boards are installed in accordance with Section 4.2.

Dow fan-fold products are extruded polystyrene foam plastic boards used as nonstructural thermal insulation in roofs, on foundations or on walls constructed in accordance with the IBC or IRC.

Sto Insul-X™ insulation boards are extruded polystyrene foam plastic boards used as nonstructural thermal insulation on walls constructed in accordance with the IBC or IRC.

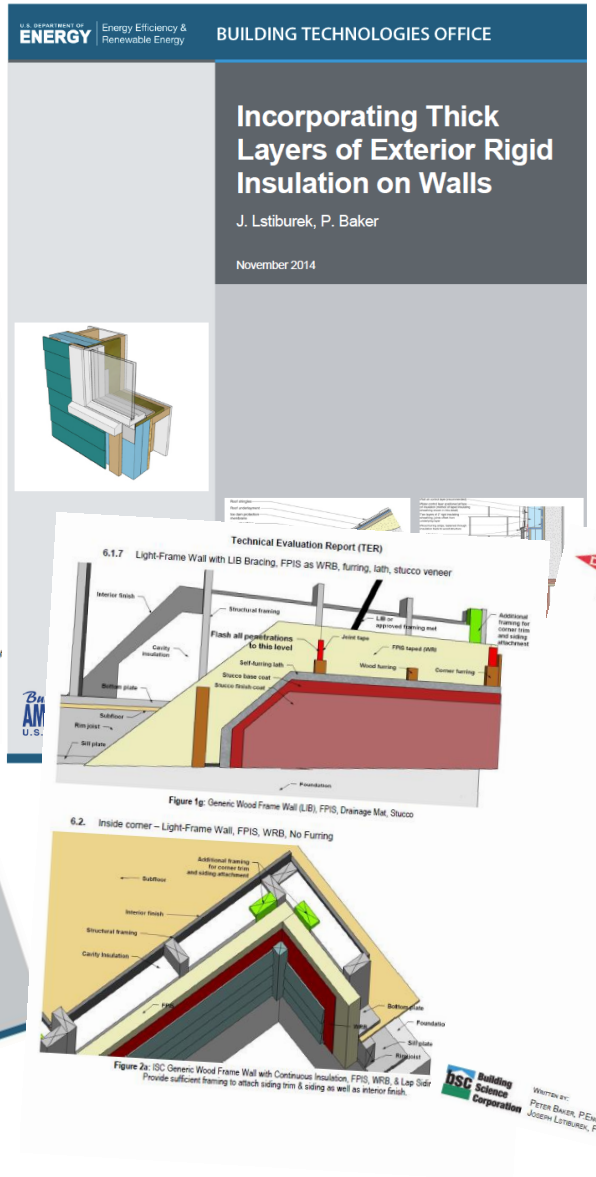
STYROFOAM DURAMATE™ Plus, STYROFOAM Residential Sheathing, STYROFOAM Residing Board, STYROFOAM Utility, STYROFOAM SCOREBOARD, STYROFOAM Sheathing Material, STYROFOAM Ship Lap, STYROFOAM Square Edge, STYROFOAM Tongue and Groove, STYROFOAM CAVITYMATE™ Ultra STYROFOAM XPS Insulation, Dow High Performance Underlayment, BLUECOR™, and Dow Protection Board III brand insulation boards may be used as alternatives to the water-resistive barriers specified in the IBC, IRC and UBC when installed as set forth in Section 4.3.

3.0 DESCRIPTION

3.1 STYROFOAM Brand Insulation Boards:

STYROFOAM brand insulation boards are extruded polystyrene foam plastic. The boards are available as various products having the product names and properties detailed in Table 1. The boards are available in various lengths and widths and in thicknesses up to 4 inches. The actual board thickness provided is determined based on the *R*-value stated for the product.

Attachment and Construction Details Solutions



Exterior Door Installation

Install and flash per manufacturer requirements

1” or Less STYROFOAM

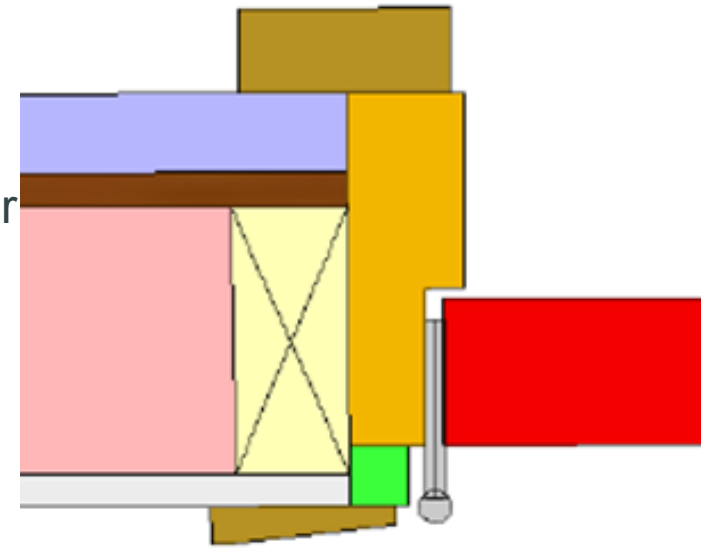
- Add 1” wood support for threshold on exterior
- Install standard 4-9/16” jamb flush to exterior foam sheathing
- Add 1” jamb extension to interior
- Full 180° swing possible

1-1/2” STYROFOAM

- Add 1-1/2” wood support for threshold on exterior
- Use standard 6-9/16” jamb
- Pad casing ½” back to drywall on interior

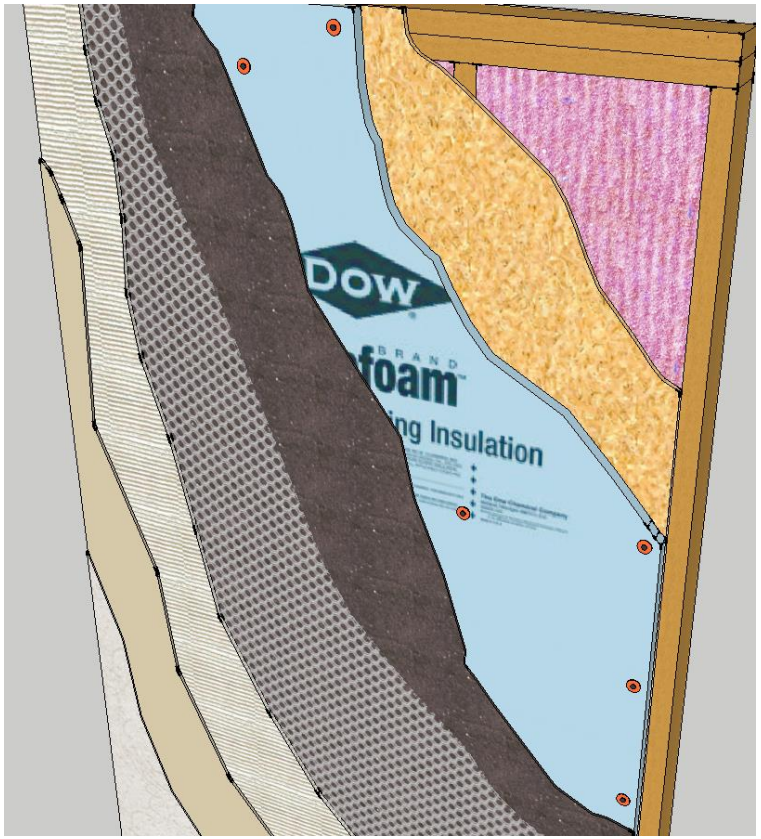
2” STYROFOAM

- Add 2” wood support for threshold on exterior
- Use standard 6-9/16” jamb



2016 Wall Assembly Solutions “Prescriptive”

Option	Frame	Continuous Insulation	Cavity	U-Value
1	2x4	1.5″ R-7.5 STYROFOAM	R-15	0.050*
2	2x4	2″ R-10 STYROFOAM	R-11	0.050
3	2x4	.75″ R4 STYROFOAM + 1-Coat R4 Stucco	R-15	0.050
4	2x6	1″ R-5 STYROFOAM	R-19	0.050*



Recommended assembly for XPS in Stucco applications

*Assumes 7/16 WSP

QUESTIONS ???

Thank You

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