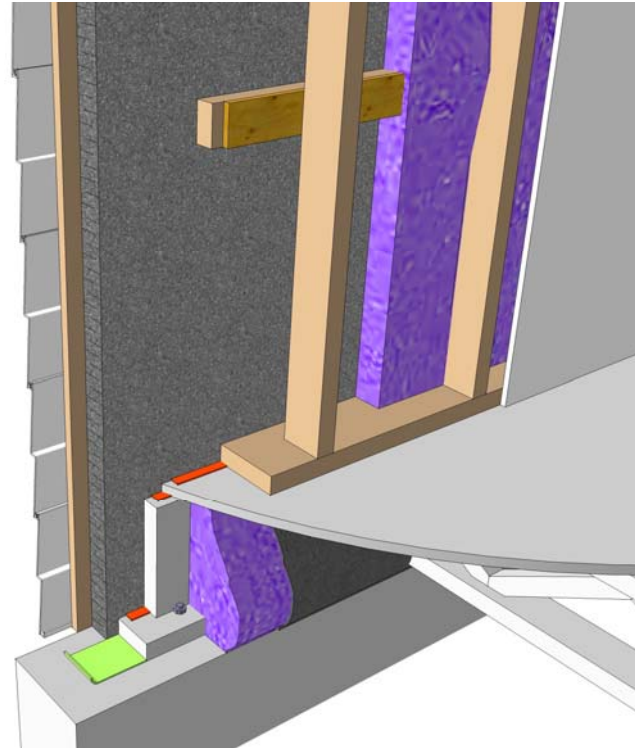
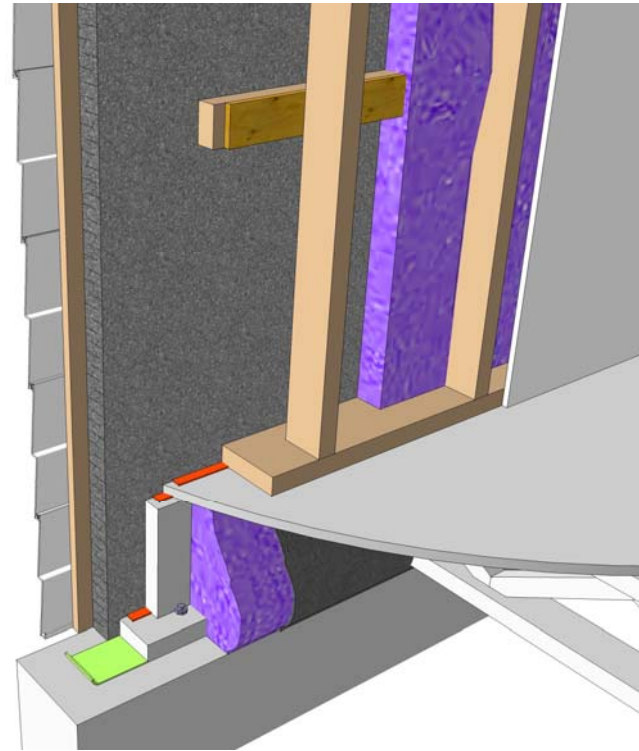
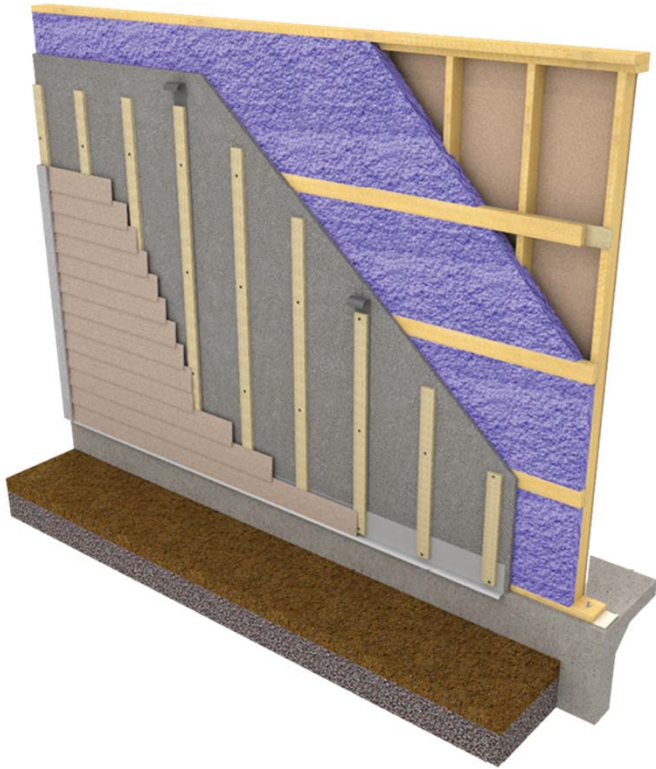


Discover the Flexibility of Using a Tested Air Tight Continuous Insulation (CI) Wall System for Your NZE Project

May 31, 2018



BASF HP+™ Wall System XR Series Featuring an R24 Effective Assembly




Components in HP+™ Wall

- Neopor® EPS
 - ▶ CI and Sheathing Membrane
- WALLTITE® Spray Foam
 - ▶ Insulation, air sealing, vapour barrier, racking strength
- MasterSeal® NP-1 Caulking
 - ▶ Air sealing
- HP+ Flash Liquid Flashing Membrane
 - ▶ Liquid flashing membrane around windows and penetrations



Resources Available

- Working with trades on site during construction
- Installation Manual
- Structural Engineering Reports
- System is compliant with NBC
- 10 Year Warranty to the builder
- CAN/ULC S742 Air Barrier System Tested




BASF HP+ Wall XR Series - Limit States

BASF, Inc.
180 Park Avenue
Florham Park, NJ 07932
973-245-6000
baf.com

DIVISION: 06 00 00 - WOOD, PLASTICS, AND COMPOSITES
Section: 06 12 00 - Structural Panels
Section: 06 12 19 - Shear Wall Panels
Section: 06 16 00 - Sheathing

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




TER No. 1506-01

Issue Date: October 21, 2015
Updated: May 11, 2018
Subject to Renewal: January 1, 2019

1. Products Evaluated:

- 1.1. BASF HP+ Wall XR Series utilizing WALLTITE® v.3 medium density Polyurethane Foam (SPF) in combination with NEOPOR® Expanded Polystyrene (EPS) Foam Plastic Insulating Sheathing (FPIS) with 50 mm x 50 mm (2" x 2") horizontal Z-bar girts or Hat Channels.
- 1.2. For the most recent version of this Technical Evaluation Report (TER), visit drjengineering.org. For more detailed state professional engineering and code compliance legal requirements and references, visit drjengineering.org/statelaw. DrJ is fully compliant with all state professional engineering and code compliance laws.
- 1.3. This TER can be used to obtain product approval in any country that is an IAF MLA Signatory (all countries found [here](#)) and covered by an IAF MLA Evaluation per the Purpose of the MLA (as an example, see letter to ANSI from the Standards Council of Canada). Manufacturers can go to jurisdictions in the U.S., Canada and other [IAF MLA Signatory Countries](#) and have their products readily approved by authorities having jurisdiction using [DrJ's ANSI accreditation](#).

DrJ is a Professional Engineering Approved Source




- DrJ is an ISO/IEC 17050 accredited product certification body through ANSI Accreditation Services.
- DrJ provides certified evaluations that are signed and sealed by a P.E.
- DrJ's work is backed up by professional liability insurance.
- DrJ is fully compliant with ISO Section 1702.

6300 Enterprise Lane • Madison WI 53719 • 888.319.4748 • drjengineering.org

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1 | HP+™ Wall System Installation Manual




HP+™ Wall System

HP+™ Wall System

Technical Installation

Manual



BASF

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Issue Date: 9 September 2017

CONTENTS:

General Information	1
Handling and Storage	3
Framing and Bracing Requirements	3
OSB/Neopor® Foam Plastic Insulating Sheathing	5
WALLTITE® v.3 Spray Polyurethane Foam Installation	9
Water Resistive Barrier (WRB) Considerations	9
Vapour Barrier Considerations	9
Thermal Barrier Requirements	10
Damage Repair Recommendations	10
Appendix A	12

General Information:

Code Requirements:

This manual is intended to provide general information to the builder, designer, and end user. The following guidelines will help you properly install the HP+™ Wall System E, X and XR Series. Failure to install and finish this product in accordance with these guidelines and applicable building codes may lead to personal injury, affect system performance, and violate local building codes. These guidelines will not cover every installation as they are general in nature. Proper installation is defined as the most restrictive requirement specified by BASF Canada, DrJ Engineering Technical Evaluation Report (TER) 1506-02, 1410-01, 1506-01, or 1706-02, manufacturer's installation guidelines, local building code, engineer or architect of record, or other authority having jurisdiction. The builder and / or installer acknowledges that it is solely their obligation to comply with safety and building code requirements.

Neopor® Foam Plastic Insulating Sheathing (FPIS):

Neopor® handling instructions, and this installation manual must be followed throughout installation.

WALLTITE® v.3 medium density Spray Polyurethane Foam (SPF):

WALLTITE® v.3 Application Guidelines, and WALLTITE® v.3 Supplementary Guidelines for the HP+™ Wall System must be followed throughout installation by a Certified Installer that has completed the BASF Quality Assurance and Training Program (QATP), and is in good standing with the Morrison Hershfield Quality Assurance Program (MHQAP).

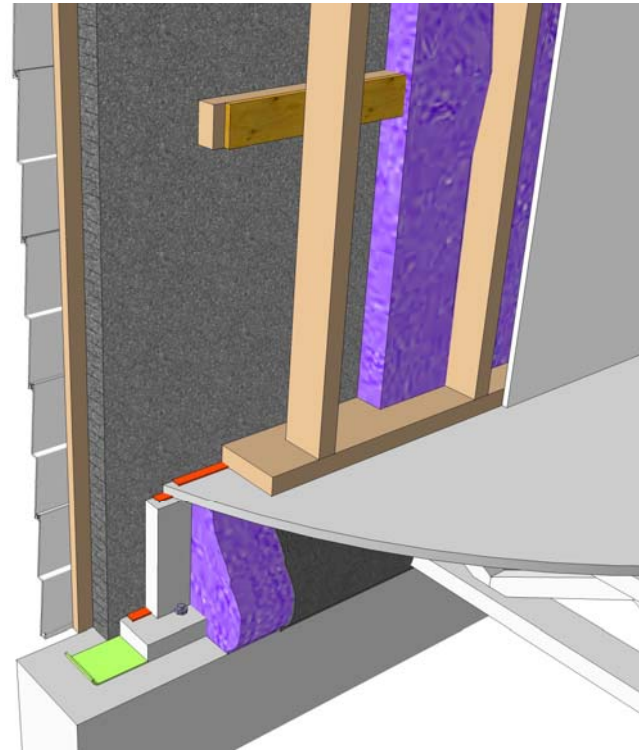
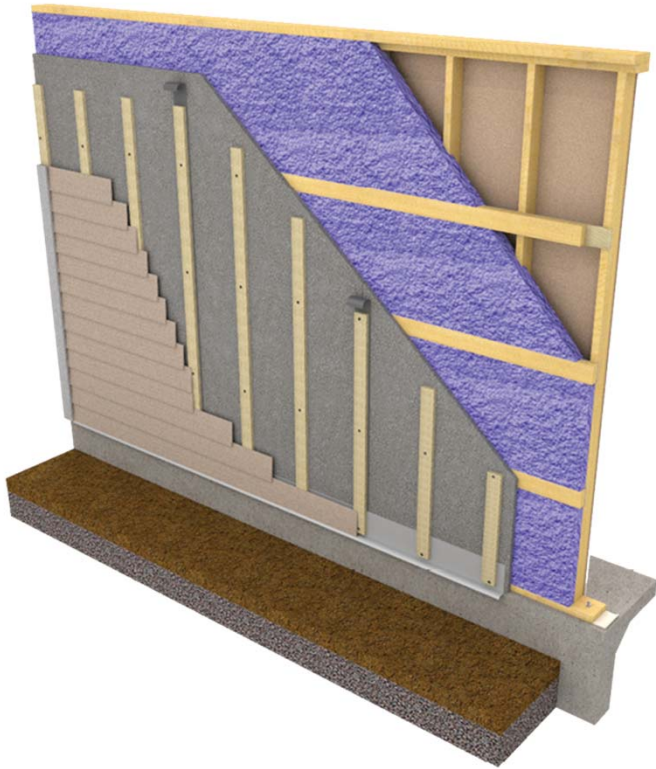
TIP! DrJ Engineering Technical Evaluation Reports (TERs) may be found at www.drjcertification.org/code-compliance. WALLTITE® v.3 and Neopor® documents and information may be found at www.walltite.basf.ca and www.neopor-insulation.com respectively.

Visit us at www.construction.basf.ca to learn more.

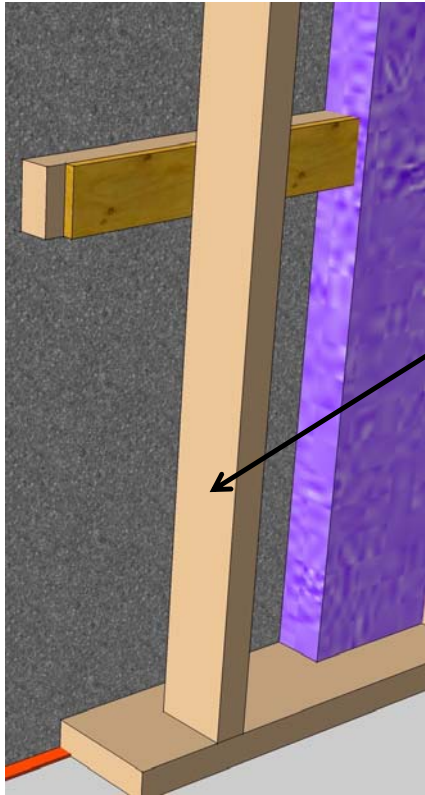
BASF

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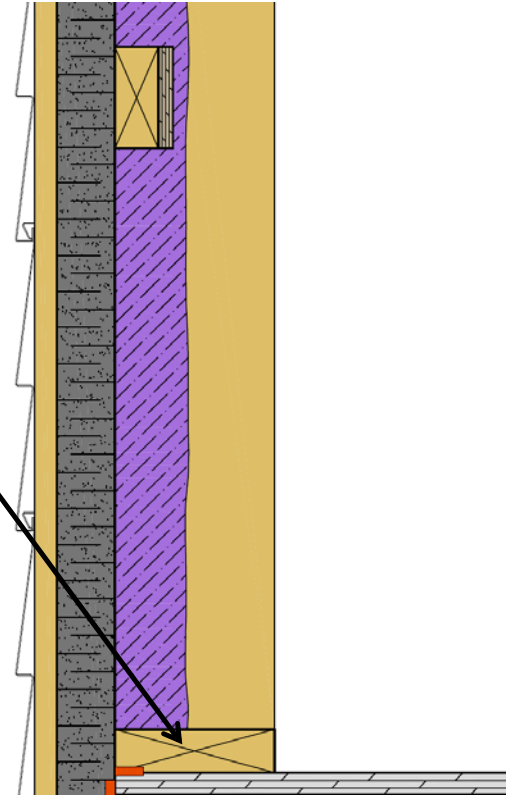
R24 Effective Above Grade Wall



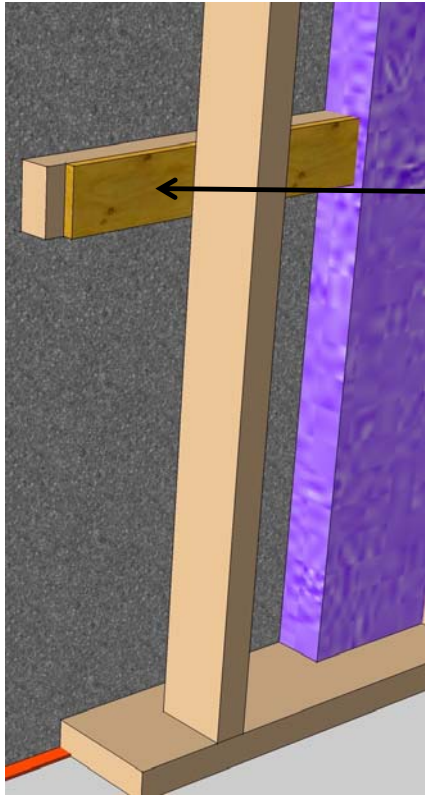
R24 Effective Above Grade Wall



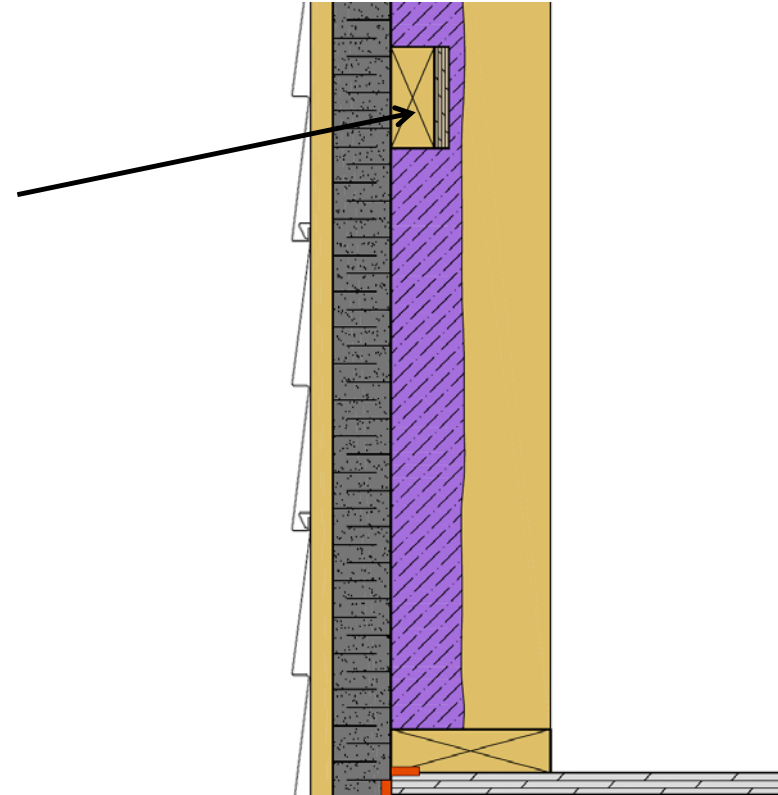
2x6" Top and Bottom Plates
2x4" Studs



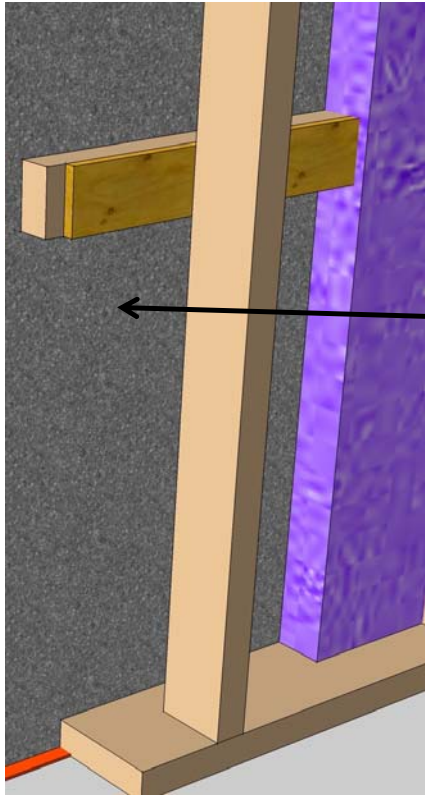
R24 Effective Above Grade Wall



Horizontal Wood Girts
24" o.c. Vertically

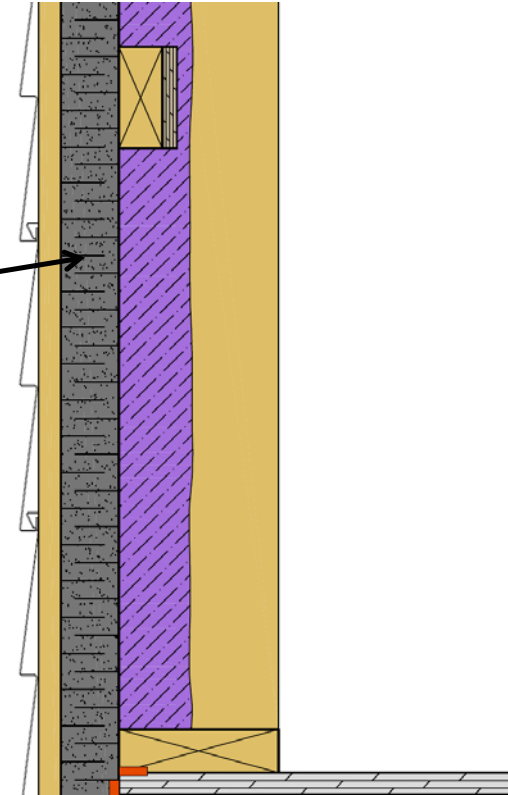


R24 Effective Above Grade Wall

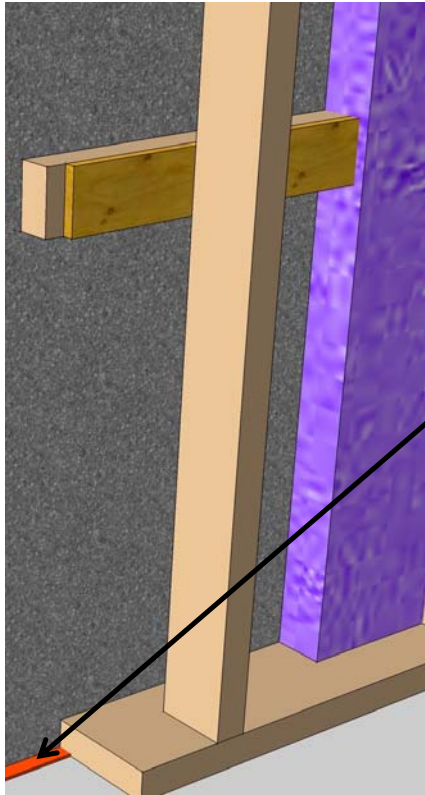


2" NEOPOR® Sheathing

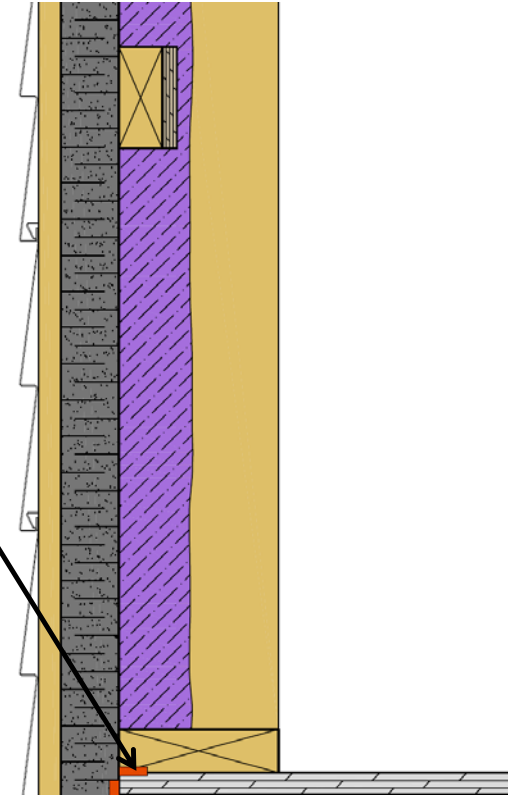
- ▶ CI
- ▶ No Sheathing Membrane Required
- ▶ Joints sealed with compatible tape



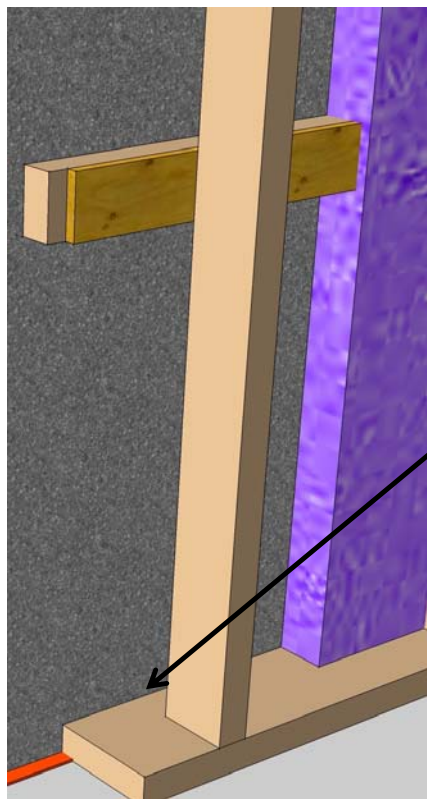
R24 Effective Above Grade Wall



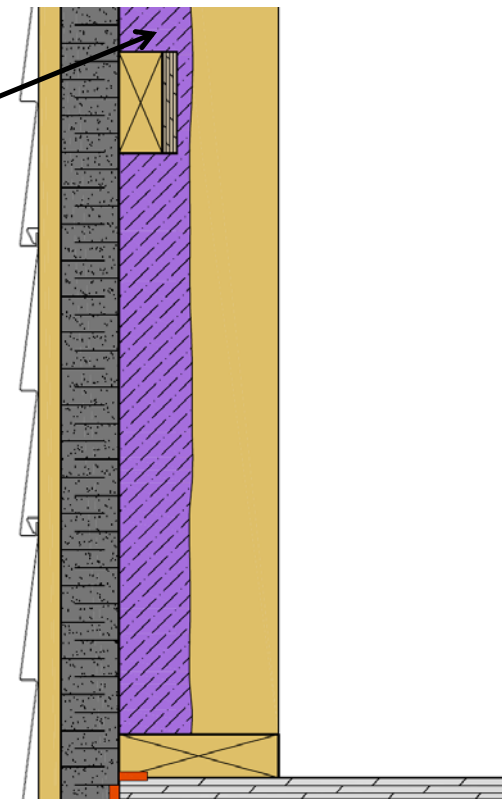
MasterSeal[®] NP-1 Caulking



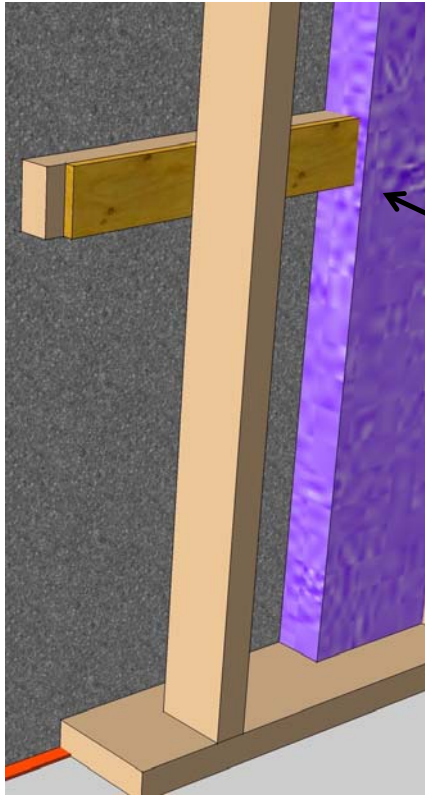
R24 Effective Above Grade Wall



2" space on interior of wall
for more CI

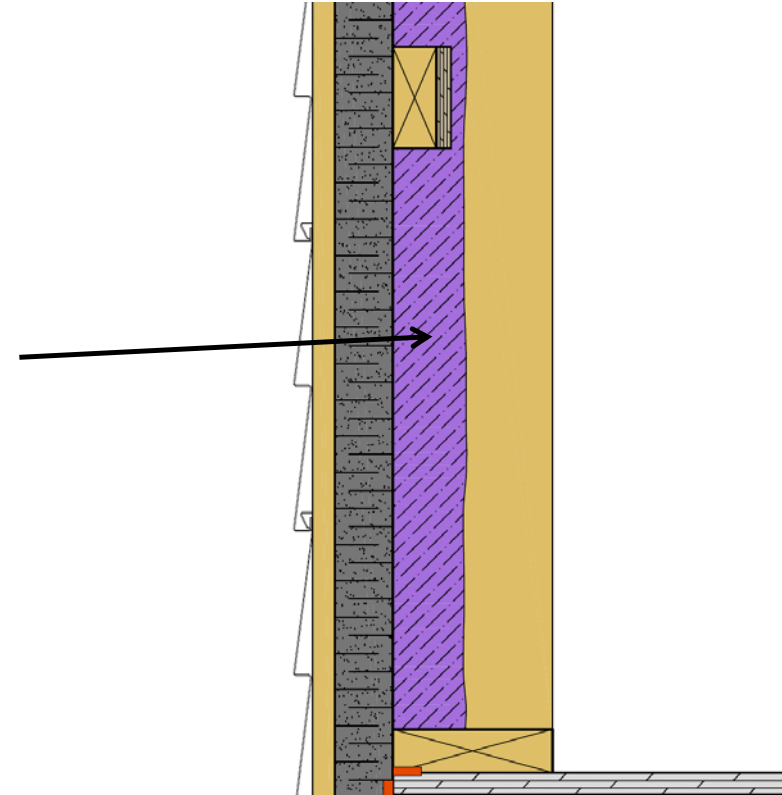


R24 Effective Above Grade Wall



2.5" WALLTITE®

- ▶ Insulation
- ▶ Air sealing
- ▶ Vapour barrier
- ▶ Racking strength



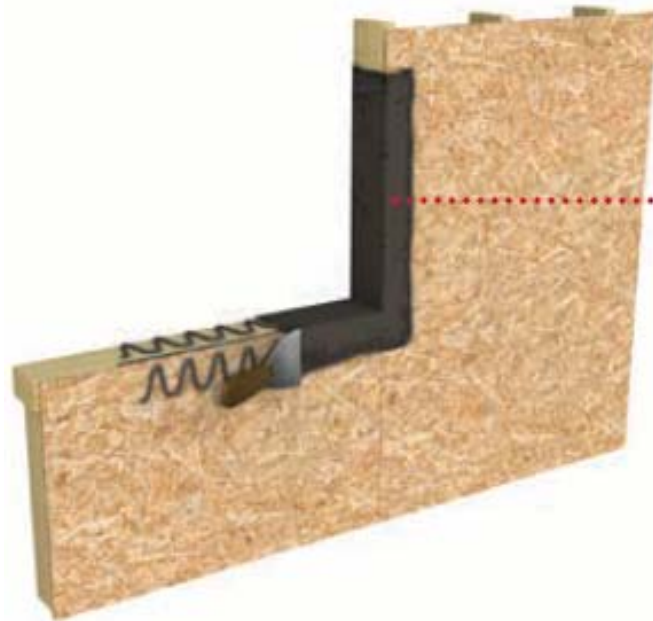
R24 Effective Above Grade Wall



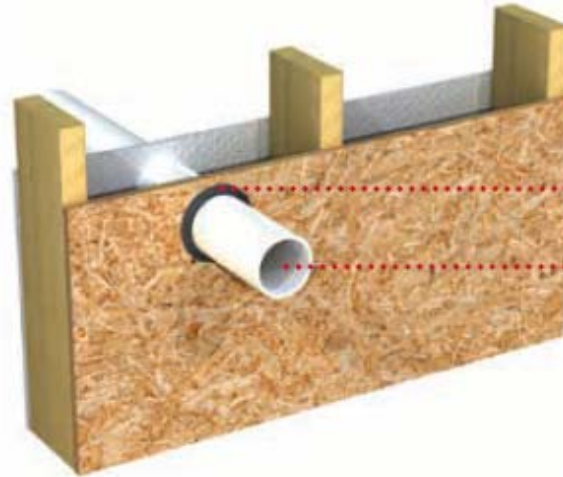
HP+ Flash

Liquid Flashing Membrane

- HP+ Flash is a one-component elastomeric material for use as a flexible waterproof flashing membrane at rough openings



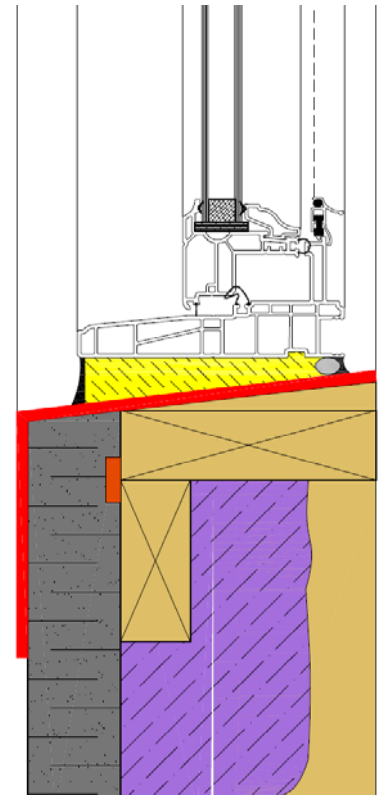
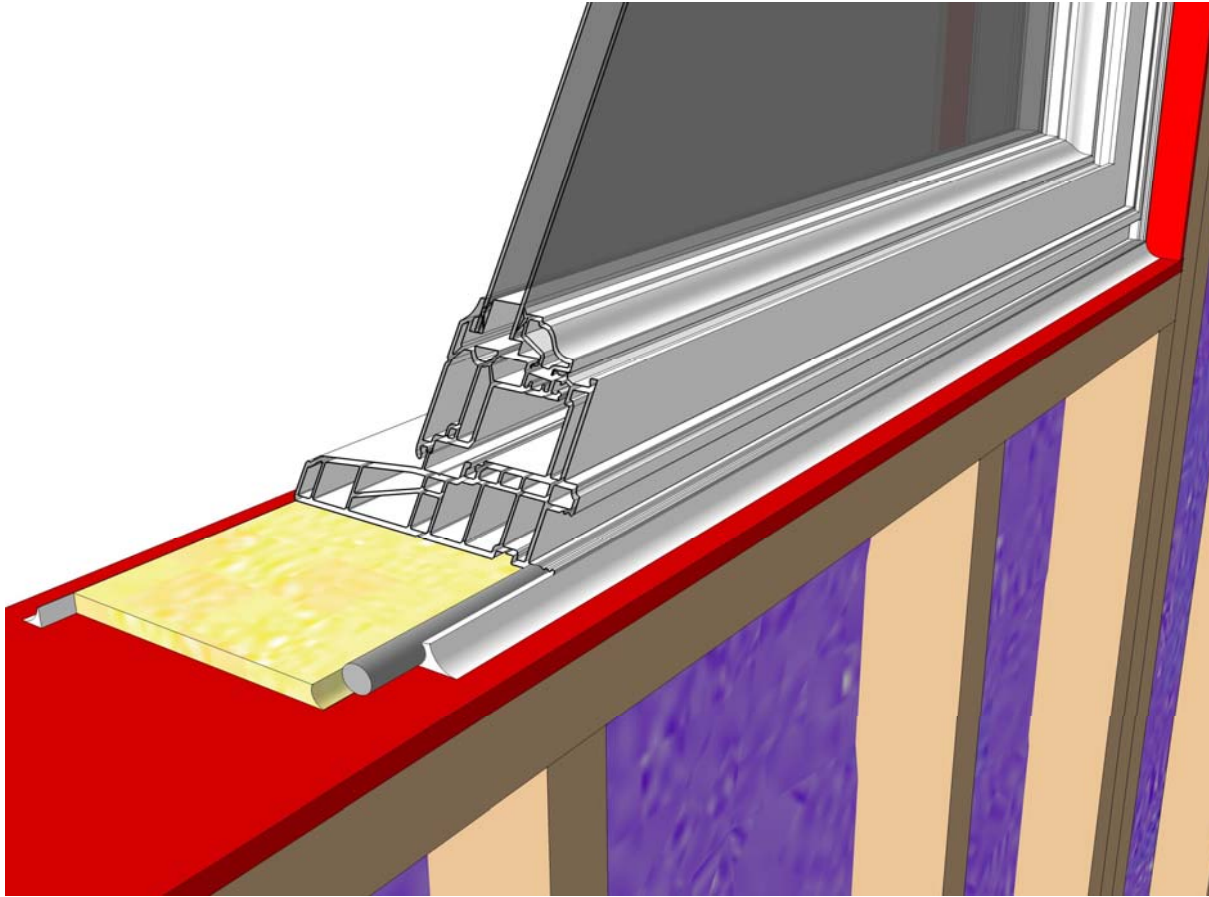
HP+ Flash



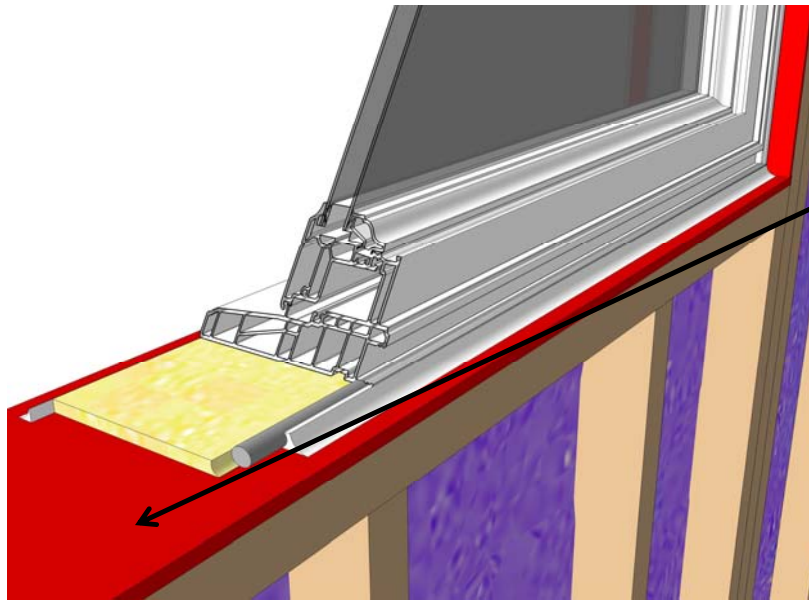
HP+ Flash

Pipe

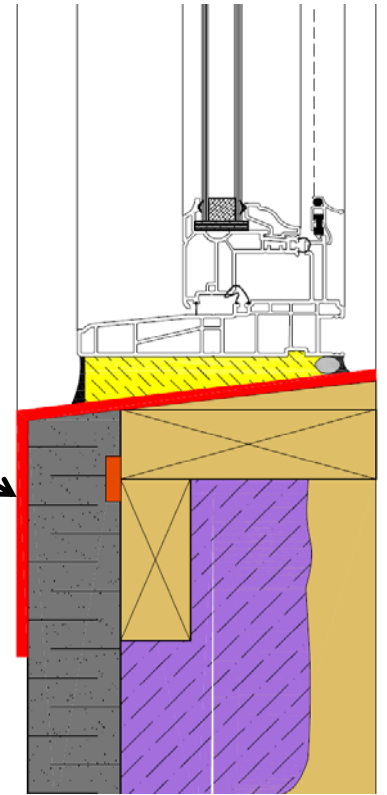
Window Openings



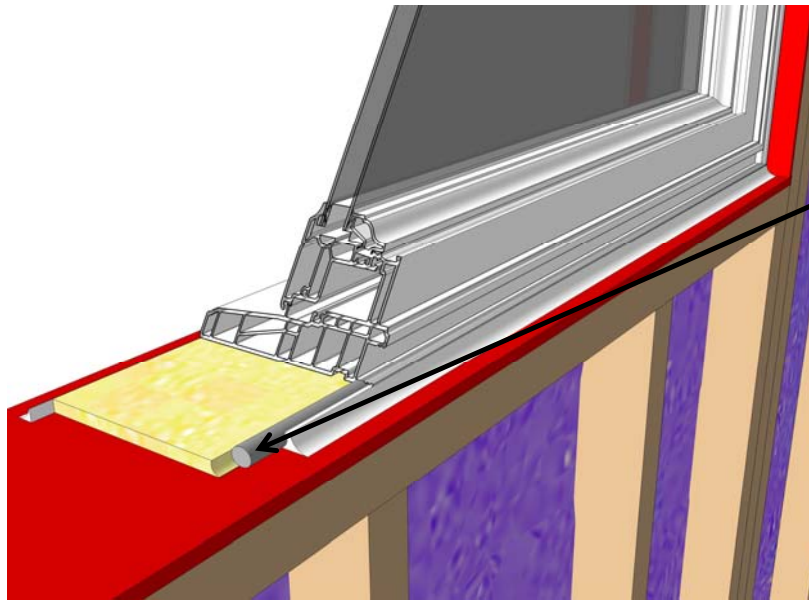
Window Openings



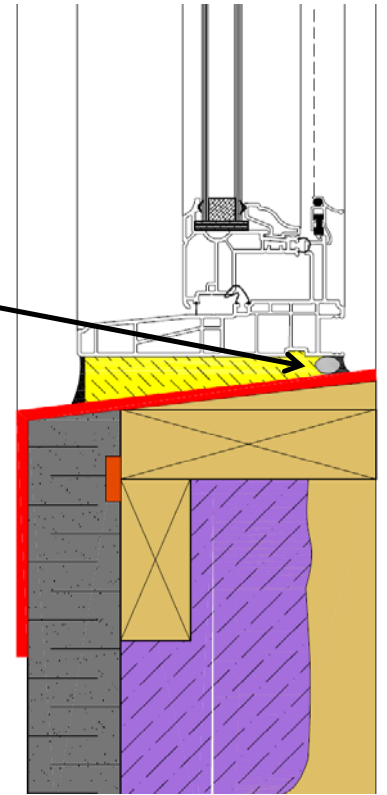
HP+ Flash



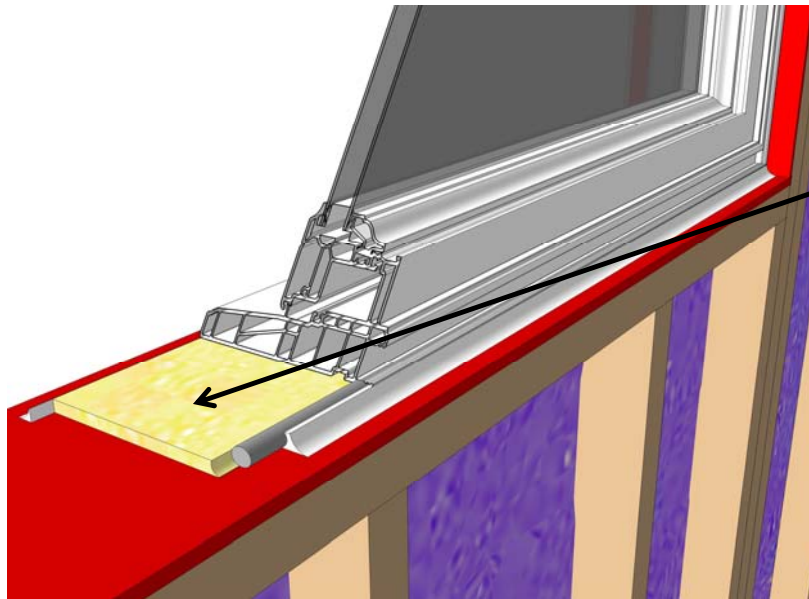
Window Openings



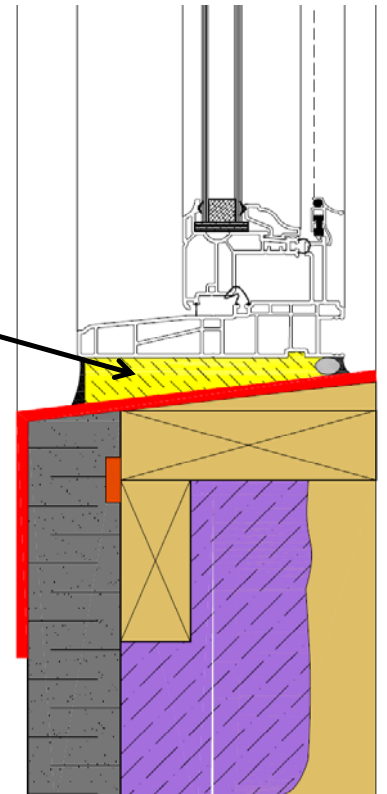
Backer Rod



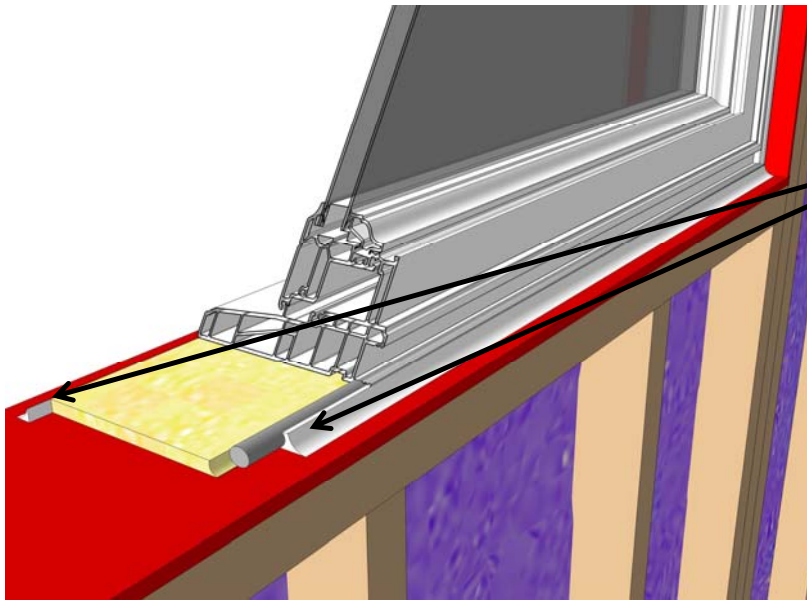
Window Openings



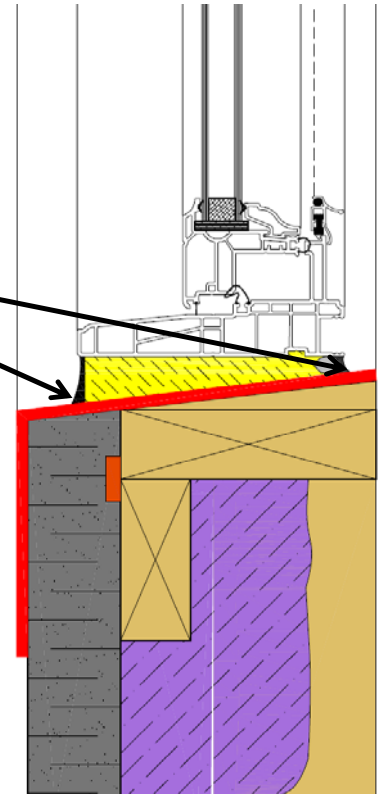
Sealant Foam



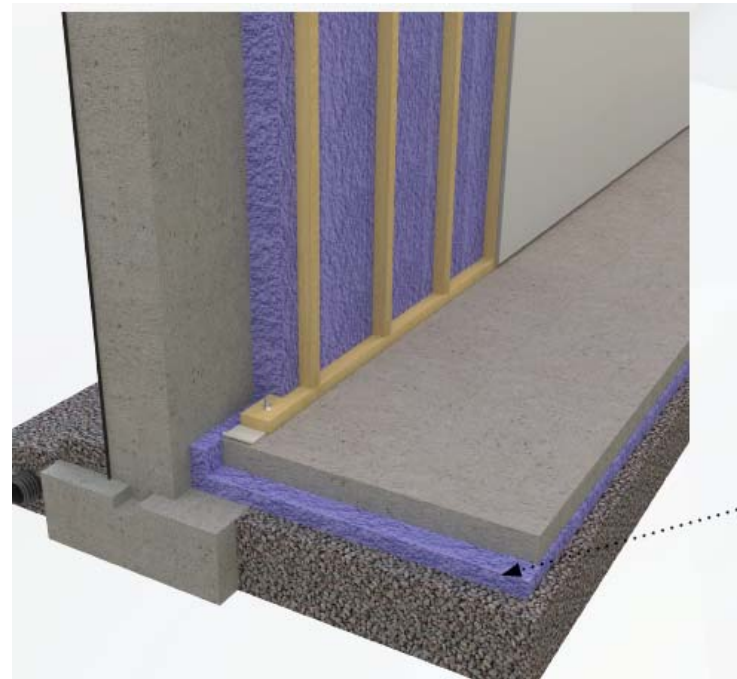
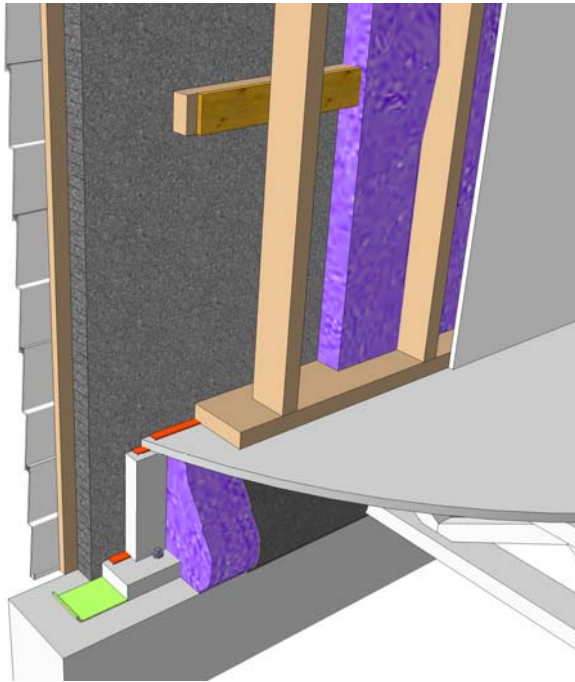
Window Openings



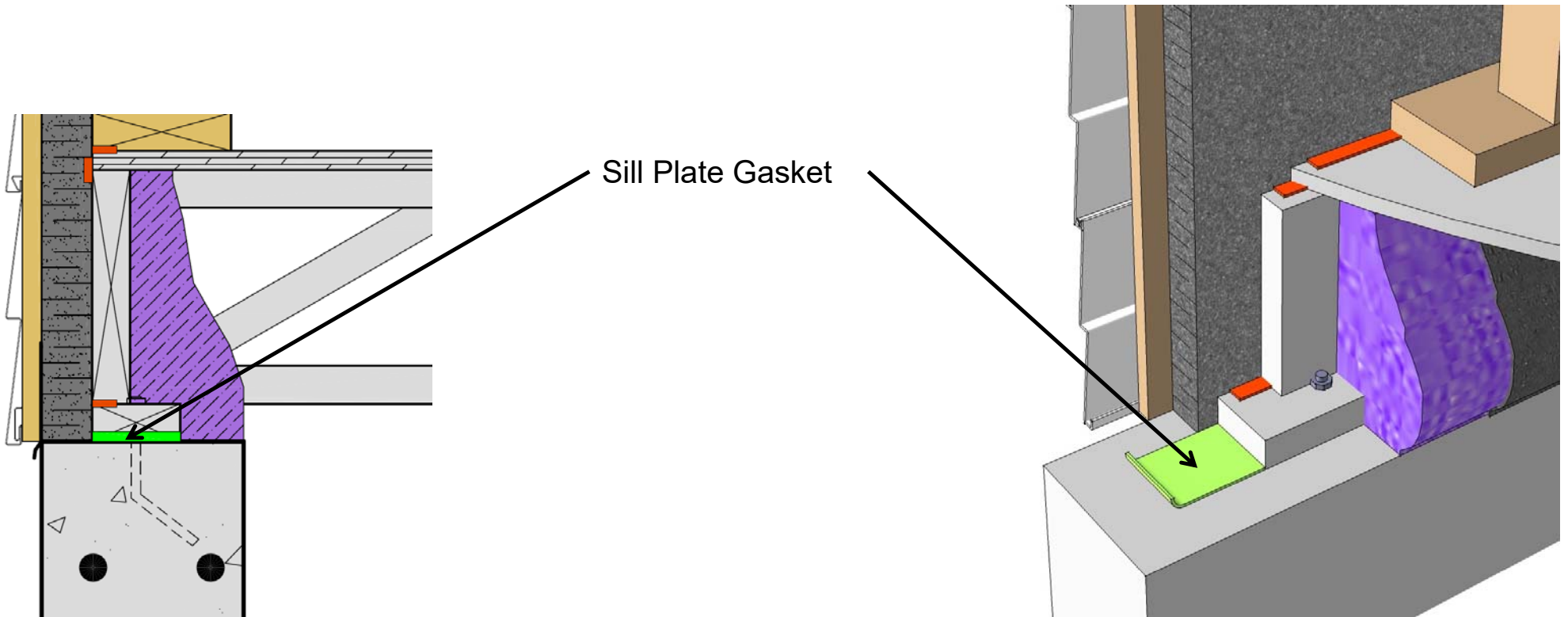
MasterSeal® NP-1



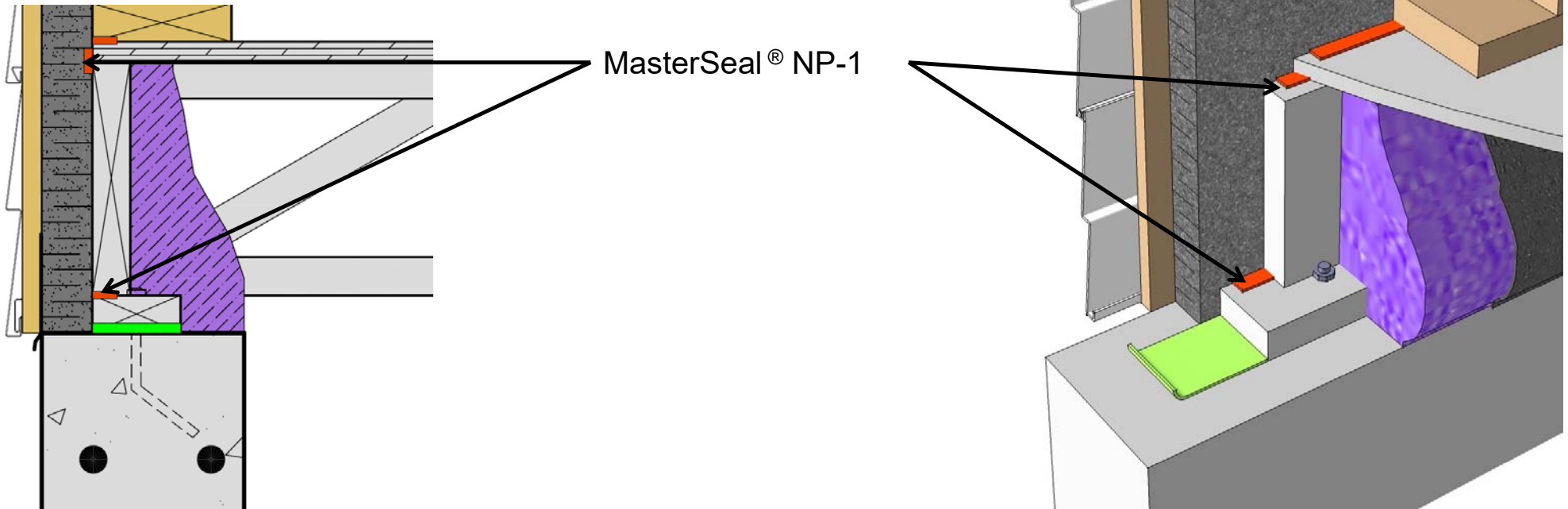
Air Barrier System Continuity to Below Grade



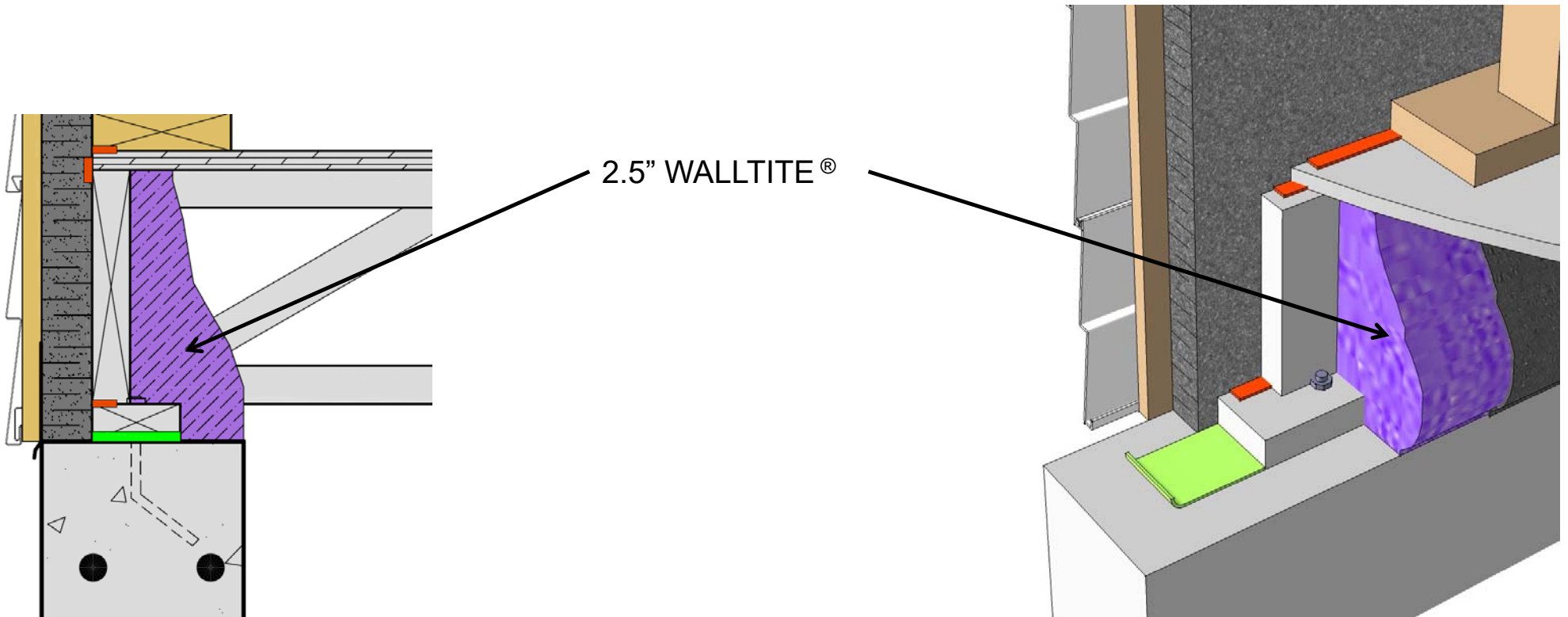
Air Barrier System Continuity to Below Grade



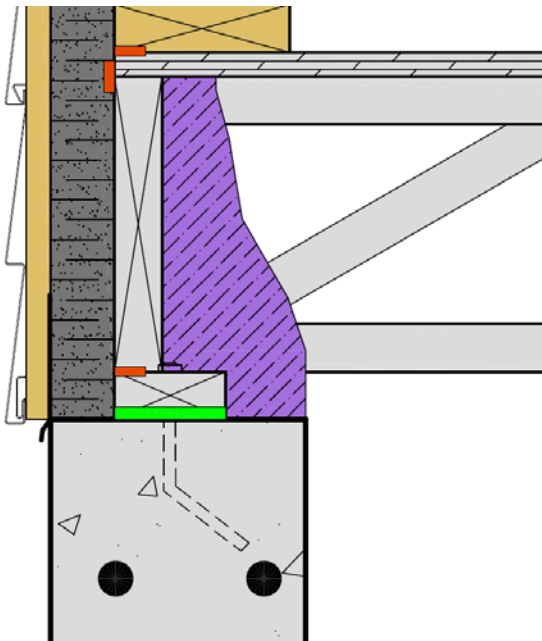
Air Barrier System Continuity to Below Grade



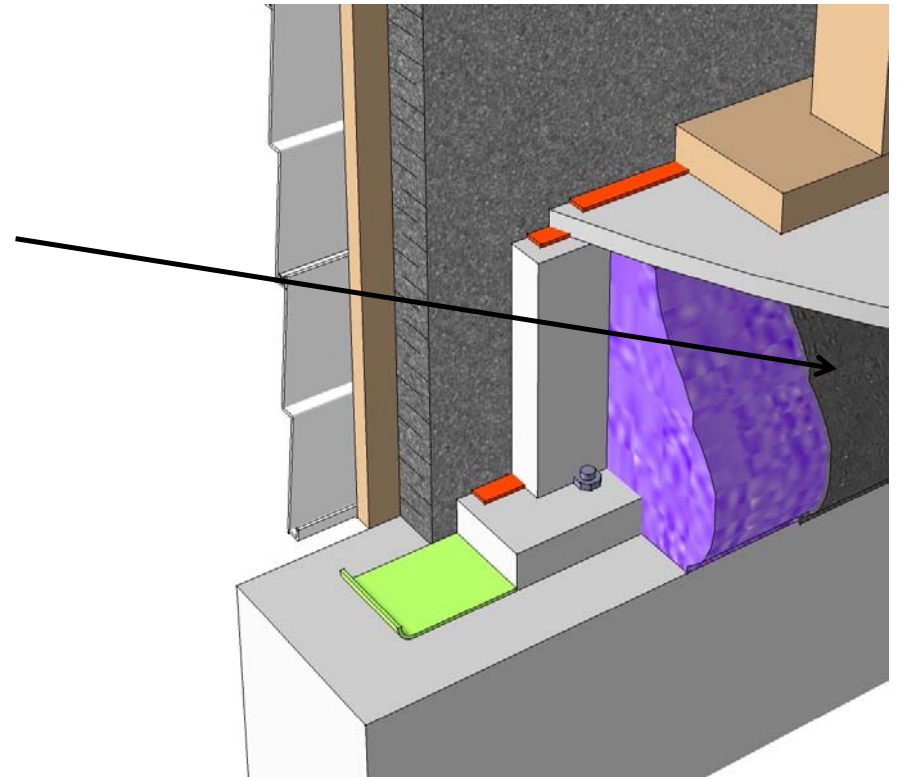
Air Barrier System Continuity to Below Grade



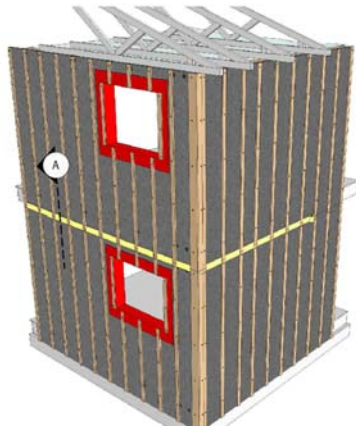
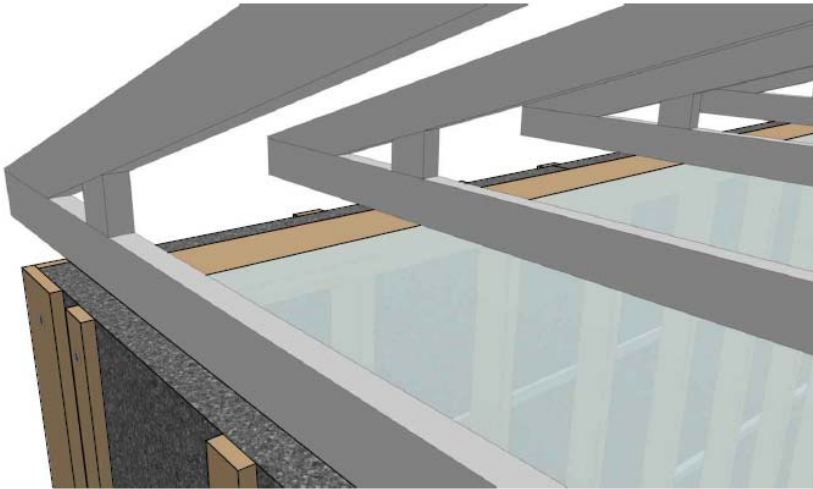
Air Barrier System Continuity to Below Grade



Code Compliant
Thermal Barrier

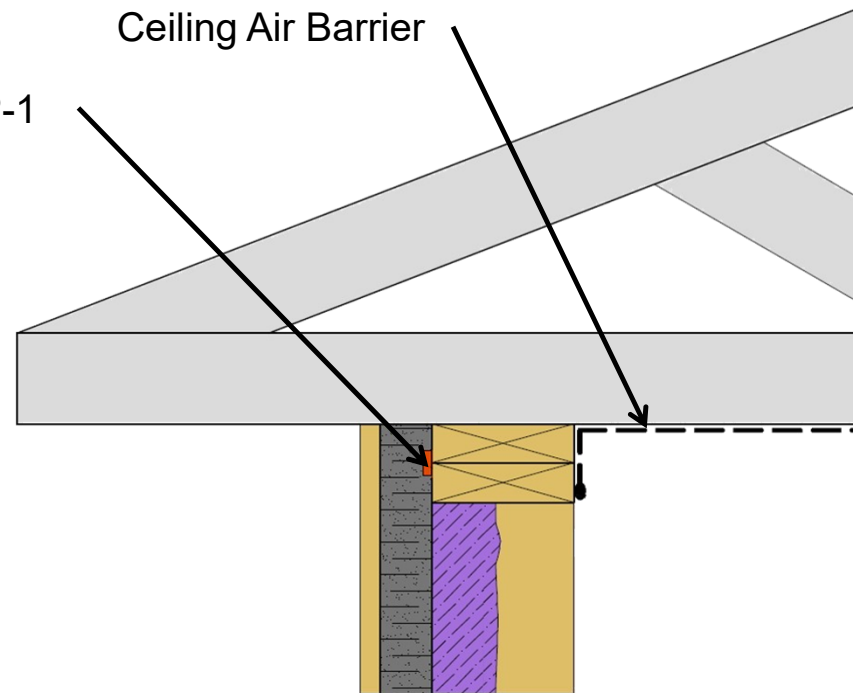


Air Barrier System Continuity at Roof Tie In



MasterSeal® NP-1

Ceiling Air Barrier





We create chemistry



BASF Air Tight Continuous Insulation (CI) Wall System

Presented by Bob Deeks | President RDC Fine Homes
CHBA NZE Webinar | May 31, 2018



More stringent energy codes require a different approach to the design of the building envelope. Builders are looking for new ways of constructing walls that maximize the performance of the different components by integrating them into one system.



Systemized for Success



- Neopor®
- Masterseal NP1 - sealant
- HP+ Flash - window flashing

Key Elements for a High Performance Envelope



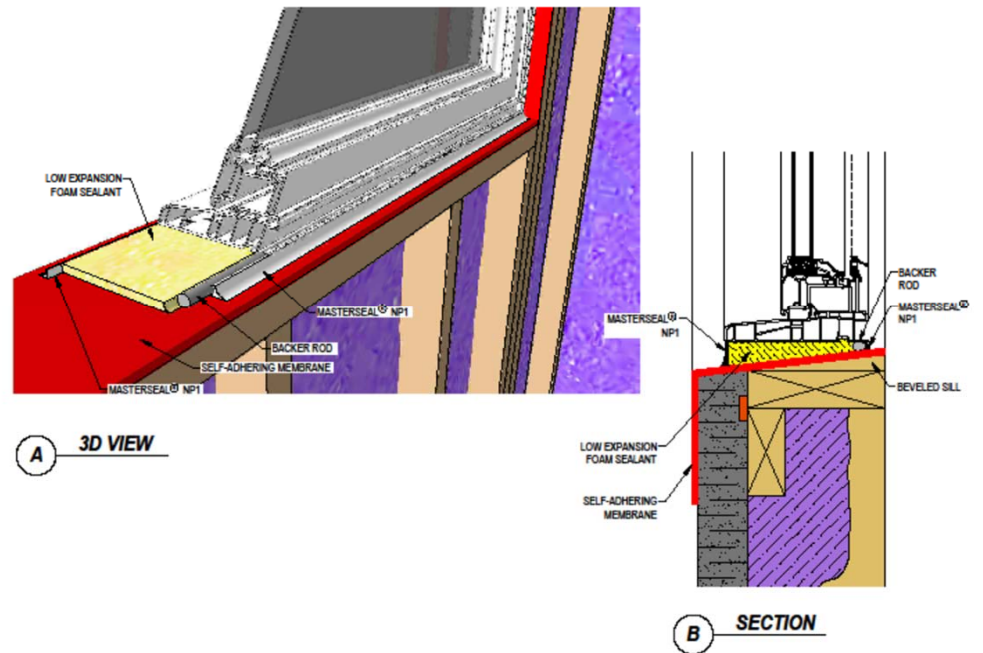
- High effective R values
- Easy to follow air tightness strategy
- Compatible materials
- Complete system
- Durability

Sealing Penetrations



STEP 18 - WINDOWS AND DOORS INSTALLATION

WINDOW INSTALLATION ACCORDING TO ASTM A440.4-7



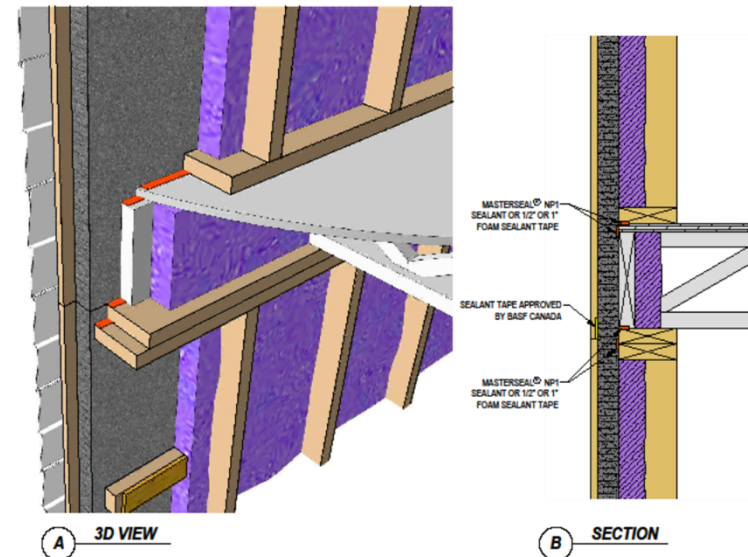
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HP-™ WALL SYSTEM AIR SERIES FIELD ASSEMBLY GUIDE

Air Tightness



STEP 19C - INTERIOR INSULATION: SECOND FLOOR WALLS AND HEADERS



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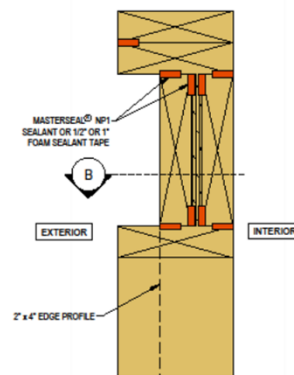
HP-™ WALL SYSTEM AIR SERIES FIELD ASSEMBLY GUIDE

STEP 7B - LINTEL DETAILS

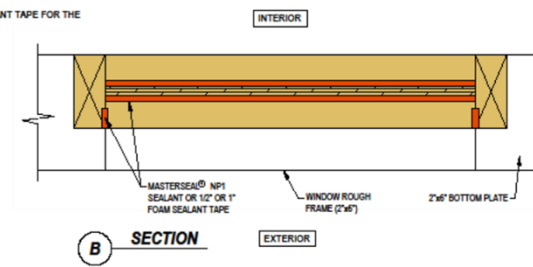
ALL REFERENCE TO MASTERSEAL® NP1 OR 1/2" OR 1" FOAM SEALANT TAPE FOR THE LINTEL IS FOR BEST PRACTICE TO IMPROVE AIR TIGHTNESS

LEGEND

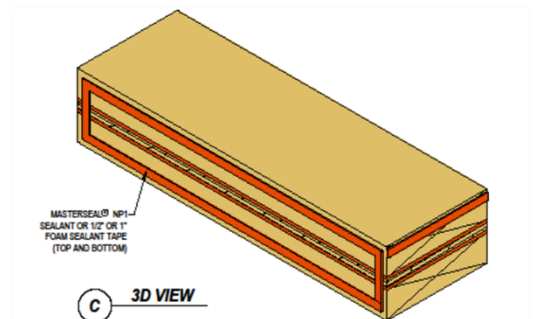
MASTERSEAL® NP1 SEALANT OR 1/2" OR 1" FOAM SEALANT TAPE



A SECTION



B SECTION



C 3D VIEW

BASF
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HP-™ WALL SYSTEM AIR SERIES FIELD ASSEMBLY GUIDE

Weather Resistant Barrier



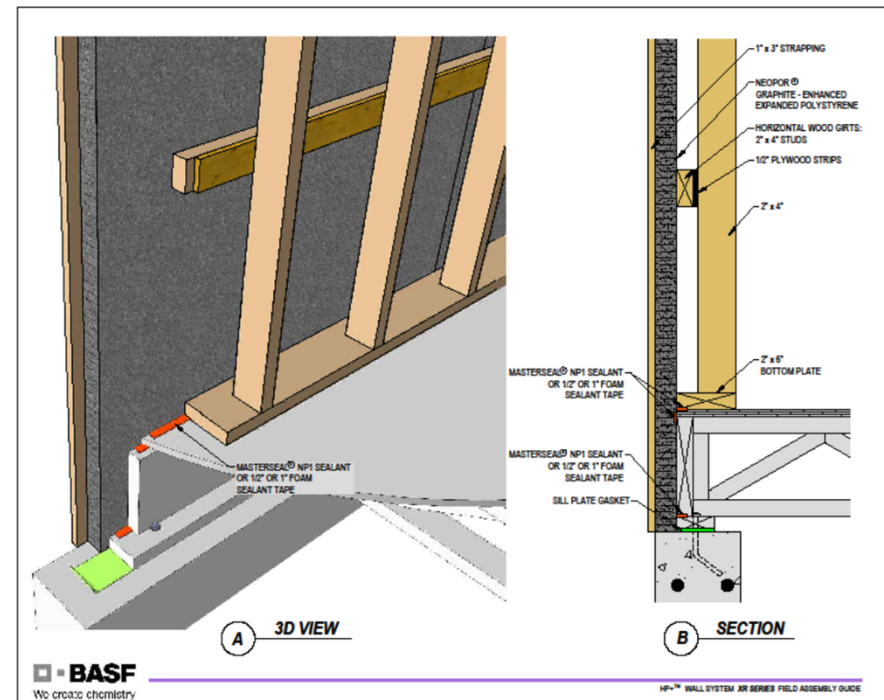
- 3 options for your WRB
 - Building wrap
 - Tape the seams
 - Foam the seams – as shown

Flexible Wall Performance



- Neopor® insulation can come in any thickness required

Framing



WALLTITE® Insulation



STEP 19A - INTERIOR INSULATION CORNER DETAILS

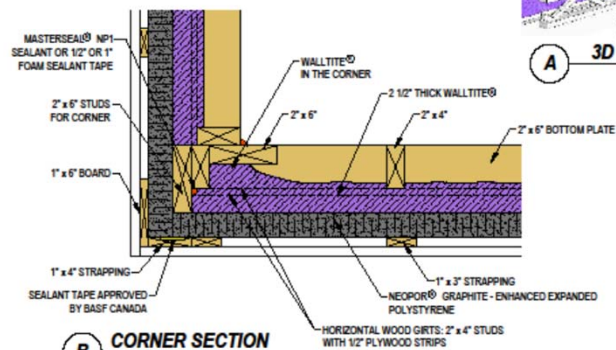
WALLTITE® MUST BE INSTALLED, IN ACCORDANCE WITH BASF'S QUALITY ASSURANCE PROGRAM.

WALLTITE® IS INSTALLED BEFORE OR AFTER ELECTRICAL WIRING AND PLUMBING TASKS

NOTE: REFER TO THE BASF HP+™ TECHNICAL INSTALLATION MANUAL AND THE DJJ ENGINEERING TECHNICAL EVALUATION REPORT



A 3D VIEW



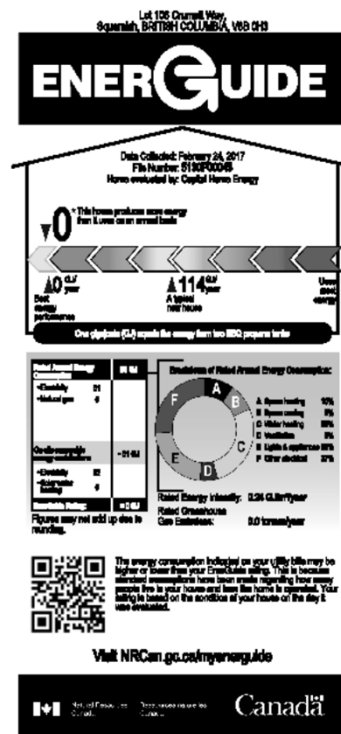
B CORNER SECTION

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HP+™ WALL SYSTEM XR SERIES FIELD ASSEMBLY GUIDE

Performance

Home address: Lot 108 Crumell Way, Squamish, British Columbia, V8B 6H9



NEXT STEPS

If you have had a Renovation Upgrade Report, refer to your report for the next steps to making your home more energy efficient. If you have not yet had a Renovation Upgrade Report, why not contact your window organization to learn what you can do to save on energy costs, reduce greenhouse gas emissions and improve home comfort?

Everyone uses energy in their home differently. This report was developed using standard operating conditions as explained in the glossary. Therefore, your EnerGuide rating will not match your utility bills.

UPGRADE CONSIDERATIONS

Before undertaking upgrades or renovations, find out about appropriate products and installation techniques, and ensure that all renovations meet local building codes and by-laws. Natural Resources Canada does not endorse the services of any contractor, nor any specific product, and accepts no liability in the selection of materials, products, contractors nor performance of professionals.

Where your energy auditor has identified a potential health or safety concern such as lead-based paint, risk of carbon monoxide, or radon, they have endeavored to provide a warning in this report. However, energy auditors are not required to have expertise in health and safety matters, and homeowners are solely responsible for consulting a qualified professional to determine potential hazards before undertaking any upgrades or renovations.

This is an updated EnerGuide rating system. For an explanation of the changes from the previous system, please see NRCan.gc.ca/myenerguide.



Product Support



- On site Team training and support
- Detailed 3D drawings package
- Ongoing technical support
- System warranty

Changes to energy codes

PATHWAY TO 2032: **PART 9 (HOMES)**





Questions

bob@rdcfinehomes.com
604 967 1142 mobile
www.rdcfinehomes.com



Mobile Unit – Schedule of Events

- July 5 – Vancouver, BC
- July 9 – Calgary, AB
- July 11- Edmonton, AB
- July 24 – London, ON
- July 25 – St. Catherines, ON

To register to attend an event:



Sharon Lishman

Sharon.Lishman@basf.com

