

# Helping you design sustainable buildings.

## GREEN BUILDING PROGRAMS AND CREDITS OVERVIEW

AdvanTech® panels and ZIP System® products can help you keep pace with code bodies and earn points toward green building programs such as:

- International Green Construction Code
- California Green Building Standards Code
- National Green Building Standard
- USGBC's LEED v4 Homes Design and Construction
- USGBC's LEED v4 Building Design and Construction

In general, points can be awarded in the following areas:

- Use of certified wood and engineered wood products
- Use of local and regionally harvested and manufactured materials
- Use of bio-based and low-emitting materials
- Use of energy-efficient products or construction practices
- Use of water-resistive barriers and proper moisture management and practices
- Use of manufacturing practices that use energy from renewable sources

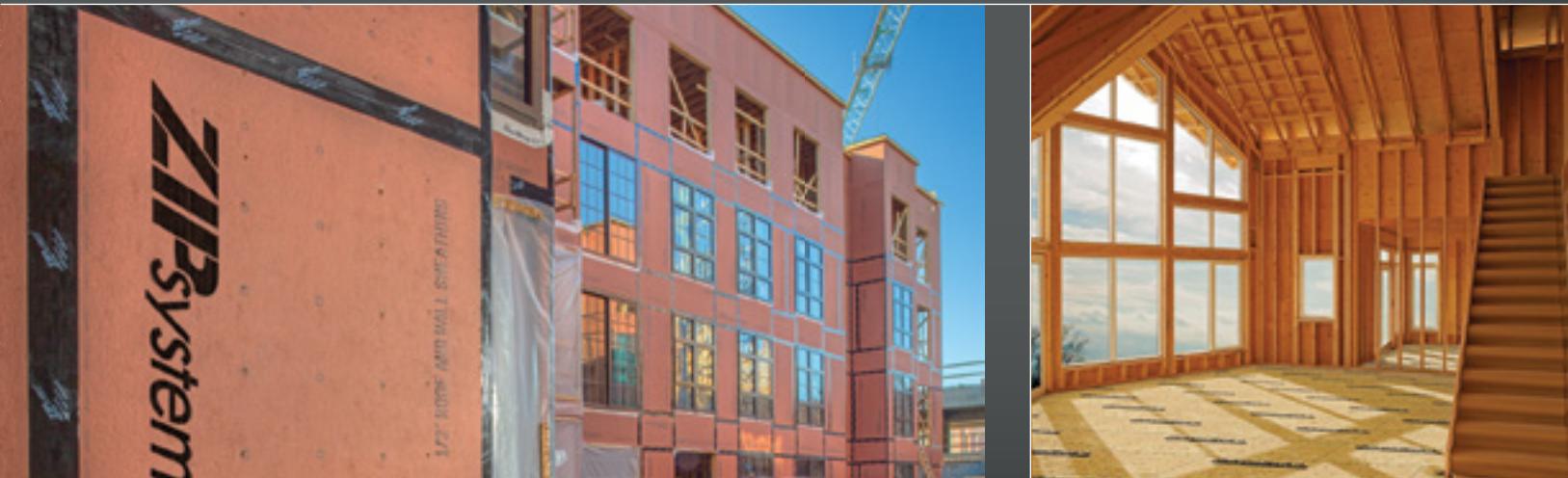
## Environmental Product Declaration

- AdvanTech® flooring and ZIP System® sheathing and tape manufacturing processes are **greater than 99% landfill free. Just 2% of waste is produced, with most of it being recycled.**
- **Wood, which is 100% biodegradable, is the main component** of Huber Engineered Woods products, comprising more than 90% of each product.
- Huber Engineered Woods utilizes manufacturing plants located in Commerce, GA; Broken Bow, OK; Crystal Hill, VA; and Easton, ME, **reducing the distance materials travel** to and from the plants.
- ZIP System sheathing and tape and AdvanTech flooring **require no energy or water during the use stage**, and require no maintenance, repair, replacement, or refurbishment during their service lives.
- ZIP System roof and wall sheathing provides **air sealing potential for buildings**. ZIP System® R-sheathing provides air sealing and thermal resistance.
- All ZIP System sheathing products include **built-in water resistive barriers** to prevent moisture leakage in homes.
- ZIP System® R-6 R-sheathing requires just **10-16 months of service to make up for its global warming impacts**, thanks to its built-in continuous foam insulation.
- In a 30-day exposure test, **AdvanTech flooring had less water absorption – or less moisture content – on average than the competitive OSB and plywood panels tested**. AdvanTech 23/32" flooring did not drop below the PS-2 industry standard for subfloor stiffness when tested. This stiffness retention could be an indicator of a longer product service life.

To get the whole Huber Engineered Woods sustainability story visit [www.HuberWood.com/about-huber/environmental/sustainable-practices](http://www.HuberWood.com/about-huber/environmental/sustainable-practices)



# Design in energy-efficiency that takes the LEED.



ACCORDING TO THE U.S. DEPARTMENT OF ENERGY, BUILDINGS USE 39% OF THE ENERGY AND 74% OF THE ELECTRICITY PRODUCED EACH YEAR IN THE UNITED STATES. Leadership in Energy and Environmental Design's (LEED) Energy & Atmosphere category encourages a wide variety of energy-wise strategies — commissioning; energy use monitoring; efficient design and construction; efficient appliances, systems and lighting; the use of renewable and clean sources of energy, generated on-site or off-site, and other innovative measures.

A higher level of energy efficiency comes standard when you specify and build with ZIP System® wall sheathing and ZIP System™ flashing tape. By significantly reducing air leakage, ZIP System wall sheathing contributes to greater occupant comfort and energy efficiency in a building. By simply taping panel seams with ZIP System tape, ZIP System wall sheathing effectively seals the wall system, decreasing unwanted air leakage into and out of the building shell. This helps protect the R-Value of insulation, which reduces heating and cooling costs. Manufactured with the environment in mind, AdvanTech® flooring and sheathing also contributes points toward green building programs such as LEED® and the National Green Building Standard.

Read on to learn why AdvanTech® flooring and sheathing and ZIP System® sheathing and tape products are superior choices under the various green certification programs. For more detailed and up-to-date information, visit [www.HuberArchitectLibrary.com](http://www.HuberArchitectLibrary.com).

Read on to learn how AdvanTech® flooring and sheathing and ZIP System® sheathing and tape contribute to various sustainable building programs.

For more detailed and up-to-date information, visit [www.HuberArchitectLibrary.com](http://www.HuberArchitectLibrary.com).

# Leadership in Energy and Environmental Design (LEED).

**DEVELOPED BY THE U.S. GREEN BUILDING COUNCIL (USGBC) IN MARCH 2000**, LEED promotes sustainable building and development practices through a suite of rating systems that recognize projects that implement strategies for better environmental and health performance. There are different areas of eligibility for single-family vs. multifamily/light construction, as shown below.

Table 1:  
Summary of Areas of Eligibility with USGBC's LEED v4 Homes

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
EAc7	Air Infiltration	2 max	To earn 1 or 2 points based on air leakage rates determined by testing and verification.				○	○
MR	FSC certified tropical wood	Prerequisite	All wood must be nontropical or certified by FSC or USGBC-approved equivalent. <sup>2</sup>	2	2	2	2	2
MRc3	Environmentally preferable products for roof, wall & floors; interior & exterior framing & sheathing	0.5 each 8 max	Option 1: To earn points use framing that is extracted, processed and manufactured within 100 miles (160 km) of the site for a minimum of 50% (by weight or volume) of the component. <sup>6</sup>	○	○	○	○	
			Option 2: Use wood products certified by FSC or USGBC-approved equivalent. <sup>2</sup>	2	2	2	2	2
EQc2	Low emitting materials	1	To earn 1 point use wood composite products containing no-added urea-formaldehyde resins.	●	●	●	●	●



**Table 2:**  
Summary of Areas of Eligibility with USGBC's LEED v4 Building Design and Construction (BD+C)

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
MRC3	Sourcing of raw materials - certification of new wood products	1	Option 2: Use wood-based materials/products certified by FSC or USGBC-approved equivalent. <sup>2</sup>	2	2	2	2	2
MRC3	Sourcing of raw materials - source location	N/A	Products meeting the requirements of MRC3 Option 2 may be eligible for additional credit based on source location (extraction, manufacture and purchase point) based on location relative to project site. <sup>2,6</sup>	6	6	6	6	
IEQc2.2	Low emitting materials	N/A	EWP and lumber products do not apply to the composite wood product definition. <sup>4</sup>					

<sup>2</sup> Forest certification credit for LEED 2009 resources FSC exclusively and LEED v4 resources either FSC or USGBC-approved equivalent. Contact USGBC for a list of approved equivalent programs.

<sup>4</sup> This area is not to be confused with the provisions of EQ 4.4 in LEED (Table 4) because the California Air Resources Board (CARB) does not regulate engineered wood product emissions.

<sup>6</sup> Regional material calculations based on project location provided by Huber upon request.

# International Green Construction Code (IgCC).

THE IGCC IS THE FIRST MODEL CODE TO INCLUDE SUSTAINABILITY MEASURES FOR THE ENTIRE CONSTRUCTION PROJECT AND ITS SITE — from design through construction, certificate of occupancy and beyond. The new code is expected to make buildings more efficient, reduce waste, and have a positive impact on health, safety and community welfare.



Table 3:

● Verified attribute

○ Eligible for points

■ This provision does not apply to this product

## Summary of Areas of Eligibility with 2012 International Green Construction Code

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing	
505.2.4	Bio-based products	N/A	All Huber wood products are qualified as bio-based.	●	●	●	●	○ <sup>5</sup>	
505.2.5	Indigenous materials	N/A	Products shall be recovered, harvested, extracted & manufactured within a 500 mile (800 km) radius of the building site. Where only a portion of a material or product is recovered, harvested, extracted & manufactured within 500 miles (800 km), only that portion shall be included. Where resources are transported by water or rail, the distance to the building site shall be determined by multiplying the distance the resources are transported by water or rail by 0.25, & adding that number to the distance transported by means other than water or rail. <sup>6</sup>	○	○	○	○		
605.1.2.1.1	Air barrier installation	N/A	Install the system in accordance with the manufacturer's installation instructions and ICC-ES evaluation report ESR-1474.				●	●	
806.1	Formaldehyde emissions	N/A	Huber wood structural panels comply with US DOC PS 2 (See ESR-1785, ESR-1473, ESR-1474 and ESR-2227) and are exempt from formaldehyde emissions testing.	●	●	●	●	○ <sup>5</sup>	

<sup>5</sup> Eligibility applies only to the wood-based sheathing portion of the panel.<sup>6</sup> Regional material calculations based on project location provided by Huber upon request.

# National Green Building Standard.

THE NATIONAL GREEN BUILDING STANDARD (ICC 700 OR “THE STANDARD”) IS THE ONLY RESIDENTIAL GREEN BUILDING RATING SYSTEM approved by ANSI, the American National Standards Institute, as an American National Standard. Single family, multifamily, residential renovation and site development projects are eligible. Certification is provided by the NAHB Research Center.

Table 4:  
Summary of Areas of Eligibility with the National Green Building Standard (ICC 700-2012)

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
602.1.8	Water-resistive barrier	Mandatory	Install a water-resistive barrier and/or drainage plan system behind exterior veneer and/or siding.				●	●
606.1(2) 11.606.1(b) 12.1(A).606.1	Two types of biobased materials are used, each for more than 1% of the project's projected building material cost	6	To earn 6 points products must be at least 1% of the construction material cost AND another biobased product at 1% of material cost must be used. 1 or 3 points are available for greater than 0.5%.	●	●	●	●	○ <sup>5</sup>
606.2(1) 11.606.2(1) 12.1(A).606.1	Two certified wood-based products are used for minor elements of the building, such as all walls, floors or roof	3	To earn 3 points a second certified wood product must also be used as a minor element <sup>1</sup>	●	●	●	●	○ <sup>5</sup>

Table 4: continued

● Verified attribute

○ Eligible for points

■ This provision does not apply to this product

## Summary of Areas of Eligibility with the National Green Building Standard (ICC 700-2012)

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
606.2(2) 11.606.2(2) 12.1(A).606.2	Two certified wood-based products are used for major elements of the building, such as all walls, floors or roof	4	To earn 4 points a second certified wood product must also be used as a major element. <sup>1</sup>	●	●	●	●	○ <sup>5</sup>
606.3 11.606.3	Materials are used for major components of the building are manufactured using a minimum of 33% of primary manufacturing process energy derived from renewable sources, combustible waste sources, or renewable energy credits	2 each 6 max	To earn 6 points the products must be used for at least 3 major components of the building. 2 points may be earned when used for each major component.	●	●	●	●	○ <sup>5</sup>
609.1 11.609.1 12.1(A).609.1	Regional materials	2 each 10 max	To earn 2 points verify material is produced, grows naturally, or occurs naturally within 500 miles (805 km) of the job site if transported by truck or 1500 miles (2414 km) if transported for at least 80% of the total distance by rail or water. Products that are assembled or produced from multiple raw materials qualify if the weighted average (by weight or volume) of the distance the raw materials have been transported meet the distance criteria. <sup>6</sup>	○	○	○	○	
701.4.3.2 11.701.4.3.2 12.1.701.4.3.1	Insulation and air sealing	3 15 max	Insulation and air sealing is installed in accordance with all the following, as applicable: (1) third-party verification performed 15 pts, (2) no third-party verification performed 3 pts				○	○

<sup>1</sup> Certification is required of the manufacturer only. Vendor Chain of Custody is not required to qualify for this point.<sup>5</sup> Eligibility applies only to the wood-based sheathing portion of the panel.<sup>6</sup> Regional material calculations based on project location provided by Huber upon request.

# National Green Building Standard.

Table 4: continued

Summary of Areas of Eligibility with the National Green Building Standard (ICC 700-2012)

● Verified attribute      ○ Eligible for points

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
901.4(1) 11.901.4(1) 12.1.901.4(1)	Structural plywood used for floor, wall, and/or roof sheathing complies with DOC PS 1 and/or DOC PS 2. OSB used for floor, wall, and/or roof sheathing complies with DOC PS 2. Panels are made with moisture-resistant adhesives & the trademark indicates the adhesives are Exposure 1 or Exterior (plywood) & Exposure 1 (OSB)	Mandatory	To meet this a minimum of 85% of OSB or plywood in the building must consist of Huber products.	●	●	●	●	●
901.4(6) 11.901.4(6)	Non-emitting products, which can include structural wood components	4	A minimum of 85% of product in the building are the identified Huber products.	●	●	●	●	○ <sup>5</sup>

Table 5:

● Verified attribute

○ Eligible for points

■ This provision does not apply to this product

## Summary of Areas of Eligibility with the National Green Building Standard (ICC 700-2008)

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
602.9	Water-resistive barrier	Mandatory	Install a water-resistive barrier and/or drainage plan system behind exterior veneer and/or siding.				●	●
606.1(2)	Two types of biobased materials are used, each for more than 1% of the project's projected building material cost	6	To earn 6 points products must be at least 1% of the construction material cost AND another bio-based product at 1% of material cost must be used. 1 or 3 points are available for greater than 0.5%.	●	●	●	●	○ <sup>5</sup>
606.2(1)	Two certified wood-based products are used for minor elements of the building, such as all walls, floors or roof	3	To earn 3 points a second certified wood product must also be used as a minor element. <sup>1</sup>	●	●	●	●	○ <sup>5</sup>
606.2(2)	Two certified wood-based products are used for major elements of the building, such as all walls, floors or roof	4	To earn 4 points a second certified wood product must also be used as a major element. <sup>1</sup>	●	●	●	●	○ <sup>5</sup>
606.3	Materials are used for major components of the building that are manufactured using a minimum of 33% of primary manufacturing process energy derived from renewable sources, combustible waste sources, or renewable energy credits	2 each 6 max	To earn 6 points the products must be used for at least 3 major components of the building. 2 points may be earned when used for each major component.	●	●	●	●	○ <sup>5</sup>
608.1	Indigenous materials	2 each 10 max	To earn 2 points verify local products are originated, produced, grow naturally or occur naturally within 500 miles (805 km) of job site. <sup>6</sup>	○	○	○	○	■

<sup>1</sup> Certification is required of the manufacturer only. Vendor Chain of Custody is not required to qualify for this point.<sup>5</sup> Eligibility applies only to the wood-based sheathing portion of the panel.<sup>6</sup> Regional material calculations based on project location provided by Huber upon request.

# National Green Building Standard.

Table 5: continued

● Verified attribute

○ Eligible for points

■ This provision does not apply to this product

Summary of Areas of Eligibility with the National Green Building Standard (ICC 700-2008)

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
703.2.1	Insulation and air sealing	3 15 max	Insulation and air sealing is installed in accordance with all the following, as applicable: (1) third-party verification performed 15 pts, (2) no third-party verification performed 3 pts				○	○
901.4(1)	Structural plywood used for floor, wall, and/or roof sheathing complies with DOC PS 1 and/or DOC PS 2. OSB used for floor, wall, and/or roof sheathing complies with DOC PS 2. Panels are made with moisture-resistant adhesives & the trademark indicates the adhesives are Exposure 1 or Exterior (plywood) & Exposure 1 (OSB)	Mandatory	To meet this a minimum of 85% of OSB or plywood in the building must consist of Huber products.	●	●	●	●	●
901.4(6)	Non-emitting products, which can include structural wood framing	4	A minimum of 85% of product in the building are the identified Huber products.	●	●	●	●	●

# California Green Building Standards Code.

**CALIFORNIA LEADS THE COUNTRY IN THE REGULATION OF THE BUILDING INDUSTRY.** Referred to as CALGreen Code, the California Green Building Standards Code establishes green building standards for residential and commercial building in the state. As part of the larger California Building Standards Code, CALGreen Code regulations are updated every three years.

Table 6:  
Summary of Areas of Eligibility with 2013 California Green Building Standards Code

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
A5.405.1	Regional materials	Elective	Verify local products that are extracted, processed and manufactured within California or 500 miles (805 km) of the job site. <sup>3</sup>	○	○	○	○	
A4.405.4 A5.405.2	Bio-based materials	Elective	All Huber wood products are qualified as bio-based.	●	●	●	●	○ <sup>5</sup>
A4.405.4(3) A4.405.4(5)	Renewable sources	Elective	Materials from renewable sources (such as engineered wood).	●	●	●	●	○ <sup>5</sup>
A5.405.2.1	Certified Wood	Elective	Under review by California Building Standards Commission. <sup>3</sup>	N/A	N/A	N/A	N/A	N/A

<sup>3</sup> CGBSC recognizes importance of use of certified forest products, however the specific requirements are currently under development.

<sup>5</sup> Eligibility applies only to the wood-based sheathing portion of the panel.

<sup>6</sup> Regional material calculations based on project location provided by Huber upon request.

# California Green Building Standards Code.

Table 6: continued

 Eligible for points

 This provision does not apply to this product

Summary of Areas of Eligibility with 2013 California Green Building Standards Code

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
5.407.1	Water-resistant exterior wall assembly	Mandatory	Huber products provide a water-resistant exterior wall envelope.					
4.504.5 5.504.4.5	Composite wood product emissions	Mandatory	EWP products do not apply to the composite wood product definition. <sup>4</sup>					

# American National Standards Institute (ANSI)/Green Building Initiative (GBI).

Table 7:

● Verified attribute

○ Eligible for points

■ This provision does not apply to this product

Summary of Areas of Eligibility with ANSI/GBI 01-2010 – Green Building Assessment Protocol for Commercial Buildings

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify	AdvanTech® Sheathing	AdvanTech® Flooring	ZIP System® Roof Sheathing	ZIP System® Wall Sheathing	ZIP System® R-sheathing
10.1.2.2	Bio based Products - building assemblies	7 max	All Huber wood products are qualified as biobased.	●	●	●	●	○ <sup>5</sup>
10.1.4.1	Regional Materials - building assemblies	5 max	To earn credits use products that are extracted, processed and manufactured within 500 miles (805 km) of the site for a minimum of 90% (by weight or volume of the component. <sup>6</sup>	○	○	○	○	■
10.3.2.1	Certified wood	6	Between 10% and 60% or more of wood-based products used in the building are third party certified.	●	●	●	●	○ <sup>5</sup>

4 This area is not to be confused with the provisions of EQ 4.4 in LEED (Table 4) because the California Air Resources Board (CARB) does not regulate engineered wood product emissions.

5 Eligibility applies only to the wood-based sheathing portion of the panel.

6 Regional material calculations based on project location provided by Huber upon request.

## ARCHITECT LIBRARY

# Supporting great design with valuable resources.

HUBER UNDERSTANDS YOUR NEED FOR READY ACCESS TO THE LATEST PRODUCT AND TECHNICAL INFORMATION. Through the Huber Architect Library, you'll find a vast array of valuable resources including product data, continuing education, 3-part specs, sustainability/environmental information and other valuable resources. In addition, you'll find a variety of AIA approved courses covering flooring, roofing and building envelope topics.

Discover resources at [www.HuberArchitectLibrary.com](http://www.HuberArchitectLibrary.com).

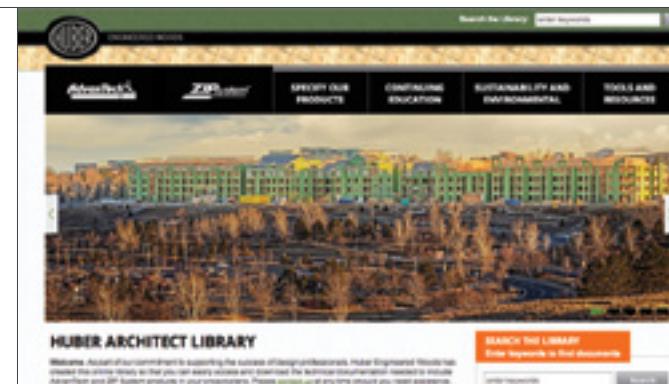
### Product Data:

- CAD Details
- MSDS Sheets
- Evaluation Service Reports
- Sustainability reports
- Technical tips
- Installation manuals
- Warranty information
- FAQs

### 3-part Specs:

(Available at [www.HuberArchitectLibrary.com/specify-our-products](http://www.HuberArchitectLibrary.com/specify-our-products))

- AdvanTech® Subflooring and Sheathing (061600 Short Form)
- AdvanTech® Subflooring and Sheathing (Masterspec 2004 Formatting)
- ZIP System® R-sheathing (061613 Short Form)
- ZIP System® Sheathing (061600 Short Form)
- ZIP System® Sheathing (061600 Masterspec 2004 Formatting)
- ZIP System® Wall Air Barrier (072723 Masterspec 2004 Formatting)
- ZIP System® Wall Weather Barrier (072500 Short Form)



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## ARCHITECT CREDENTIALS

# CEU Courses

HUBER IS DEDICATED TO HELPING ARCHITECTS MAINTAIN THEIR CREDENTIALS BY MAKING A VARIETY OF CEU COURSES AVAILABLE. Each course is worth 1 AIA HSW Learning Unit Credit. Here are just a few of the topics covered by our current courses. For a complete course listing, visit [www.HuberArchitectLibrary.com](http://www.HuberArchitectLibrary.com).

### CEU Courses:

*All courses are approved by the AIA and are 1 hour in length and yield 1 credit hour.*

#### **HEW 104 The Makings of a Great Subfloor**

Identifies the three types of subfloors; describes the characteristics that make for a safe, sound, sustainable subfloor; explains the importance of Evaluation Service Report standards; and details the implications of excessive moisture in a subfloor.

#### **HEW 106 Subflooring, The Hidden Asset**

Reviews subflooring as a structural layer of support between the joists and the finished floor. Covers why floors squeak, creak, move, sag, or separate as an effect of a faulty subfloor. Also explains how sub-par subflooring can contribute to multiple performance failures resulting in costly callbacks or reworks that can effect a reputation. Upon completion, architects will understand the fine points of what constitutes a good subfloor.

#### **HEW 502 Air, Water and Moisture Management in Light Commercial Building Envelopes**

Identifies vapor differences in both physical properties and behavior; identifies the four D's of water management; explores the physics of air and moisture movement through the building enclosure; recognizes pitfalls with how today's buildings are being designed and built; identifies alternative moisture and air barrier design solutions; and identifies potential liabilities and solutions of typical commercial walls.

#### **HEW 602 Building Envelope Technologies for Energy Efficient Designs**

Identifies energy codes or standards used in the United States; identifies concerns that impact the energy efficiency performance of the building envelope; discusses reducing air leakage and thermal bridging in the building envelope and defines energy-efficient wall sheathing solution options.

#### **HEW 603 The Energy Efficiency Challenge**

Reviews residential energy use and how changes in building codes and standards are driving improved energy performance in residential construction. Identifies new design and construction methods, materials, and systems that can be used to help reduce the energy requirements of homes and make them more efficient.

# Frequently asked questions.

**Q:** Can Gypcrete underlayment be applied directly to AdvanTech® flooring?

**A:** AdvanTech® flooring is an excellent substrate for gypsum underlayment. AdvanTech flooring is manufactured to have a higher wood and resin density than commodity OSB or plywood subflooring, resulting in high performing strength, stiffness and moisture resistance. With a lower water absorption rate, AdvanTech flooring is resistant to edge swell and strand delamination, resulting in a flatter, smoother subfloor. For additional information on gypsum application over AdvanTech subflooring, please see our technical bulletin, *AnvanTech's Advantage with Gypsum Underlayment*. This can be found in the Technical Tips section of [www.HuberArchitectLibrary.com/advantech](http://www.HuberArchitectLibrary.com/advantech)

**Q:** Can I install AdvanTech® flooring over a concrete slab?

**A:** There are two acceptable methods for installing AdvanTech® flooring over a concrete slab; direct application to the slab and application to sleeper system. Both applications require a vapor barrier be installed over the concrete slab prior to the application of AdvanTech flooring. For fastening guidelines and additional installation information, please see our technical bulletin, *Installing AdvanTech over a Concrete Slab*. This can be found in the Technical Tips section of [www.HuberArchitectLibrary.com/advantech](http://www.HuberArchitectLibrary.com/advantech)

**Q:** Does AdvanTech® flooring provide a Sound Transmission Class (STC) rating?

**A:** Sound Transmission Class is a rating of how well a building partition attenuates airborne sound. The rating is dependent on the components of the assembly, i.e., flooring or sheathing thickness, insulation type/thickness and floor covering. AdvanTech® flooring does not carry an individual STC rating but will provide equivalent sound deadening performance to other OSB and plywood subflooring panels.

**Q:** Can engineered hardwood floors be glued down directly to AdvanTech® flooring?

**A:** Yes, engineered hardwood flooring may be glued directly to AdvanTech flooring. Due to the water resistance of AdvanTech flooring, latex and water-based adhesives will not bond well to the panel surface. We recommend using a moisture-cured urethane for glue-down hardwood applications.

**Q:** Does AdvanTech® flooring carry a fire rating?

**A:** AdvanTech® flooring will provide the same fire resistance as commodity OSB or plywood subfloor with an equivalent panel thickness. AdvanTech flooring is a fully combustible wood structural panel and may be used in fire rated assemblies wherever a standard "wood structural panel" is specified.

**Q:** Can AdvanTech® flooring be installed as a floating floor system?

**A:** When installed per the National Wood Flooring Association's floating subfloor guidelines, AdvanTech® flooring can be used as a floating subfloor system. With unique strength, stiffness and dimensional stability, AdvanTech flooring is an excellent choice for floating subfloor applications.

**Q:** Can AdvanTech® panels be installed as a 2-layer floating floor system?

**A:** Yes, you can install AdvanTech® panels as a 2-layer floor system. For information on how to install AdvanTech panels as a 2-layer system, please see our technical bulletin, *AnvanTech® Panels Installed as a 2-Layer Floating Subfloor*. This can be found in the Technical Tips section of [www.HuberArchitectLibrary.com/advantech](http://www.HuberArchitectLibrary.com/advantech)

## ZIP SYSTEM® SHEATHING AND TAPE

# Frequently asked questions.

**Q:** Do overdriven fasteners affect ZIP System® sheathing?

**A:** Nails used to attach ZIP System® sheathing to supporting framing members may occasionally penetrate beyond the face of ZIP System sheathing. ZIP System sheathing has been tested against water penetration in both laboratory and field conditions using standard ASTM tests at specified pressures. The panel with overdriven fasteners satisfied the same performance requirements as panels installed with fastener heads flush. Because of this, Huber Engineered Woods does not require taping or sealing overdriven fasteners. ZIP System panels that are attached with overdriven fasteners will not void the ZIP System warranty. For additional information on overdriven fasteners, please see our technical bulletin, *Overdriven Fasteners in ZIP System Sheathing*. This can be found in the Technical Tips section of [www.HuberArchitectLibrary.com/zip-system](http://www.HuberArchitectLibrary.com/zip-system)

**Q:** Can ZIP System® sheathing be used in both roof and wall applications?

**A:** Previously, 1/2" and 5/8" ZIP System sheathing panels were only code-recognized for use on the roof and branded "ROOF USE ONLY." Likewise, 7/16" panels were code-recognized for wall use and stamped "WALL USE ONLY." In 2012, Huber Engineered Woods obtained code-recognition for all ZIP System® sheathing panel thicknesses to be used for both roof and wall applications. Please note that ZIP System sheathing panels now reference both ICC-ES code recognition reports, ESR-1473 (wall) and ESR-1474 (roof). Currently, the green water-resistive overlay is on the 7/16" panel thickness, while the sienna overlay is on the 1/2" and 5/8" thicknesses.

**Q:** What type of roof and wall coverings can be installed directly to ZIP System® sheathing?

**A:** ZIP System® sheathing panels may be covered with any code-complying wall covering or one carrying a current ICC-ES Evaluation Service Report. For roof applications,

ZIP System sheathing is approved for use with the following roof coverings: asphalt-fiberglass shingles, metal roofs, clay and concrete tile, slate and slate-type shingles, wood shakes and wood shingles. For roof and wall coverings that require multiple, water-resistant layers, ZIP System sheathing is intended to replace the first layer. For additional information, please see our technical bulletin, *Acceptable Roof and Wall Coverings on ZIP System Sheathing*. This can be found in the Technical Tips section of [www.HuberArchitectLibrary.com/zip-system](http://www.HuberArchitectLibrary.com/zip-system)

**Q:** Can I use ZIP System™ tape as a flashing tape?

**A:** Yes, ZIP System™ tape is code recognized in ESR-2227 as a pressure-sensitive, self-adhering, cold-applied tape to be used as flashing around windows, door frames, wall penetrations and roof penetrations. ZIP System tape is not warranted when used on substrates other than ZIP System sheathing.

**Q:** How long can I leave the ZIP System® sheathing exposed before I install roof and wall coverings?

**A:** ZIP System® sheathing can be exposed for up to 180 days.\*

**Q:** What type of fasteners should be used to install ZIP System® R-sheathing?

**A:** When installing ZIP System® R-sheathing, fasten the panels to the framing members with code-approved fasteners. When used to resist lateral forces, nail fastener penetration into the wood wall stud should be a minimum 1 1/2" (i.e., 1 1/2" R-sheathing requires minimum 10d common nails). If staples are used, fasteners must penetrate a minimum 1" into the framing. When used as a braced wall panel or engineered shear wall, ZIP System R-sheathing must be fastened according to Table 1 in ICC-ES Evaluation Service Report 3373.

**Q:** At what temperatures can ZIP System™ liquid flash and ZIP System™ tape be installed?

**A:** When installing ZIP System™ liquid flash, the ambient and panel surface temperatures should be between 35°–110° F (2°–43° C). When installing ZIP System™ tape, the ambient and panel surface temperatures should be between 20°–120° F (-7°–49° C).

\* Limitations and restrictions apply. Visit [ZIPSystem.com](http://ZIPSystem.com) for details.



ZIP SYSTEM® SHEATHING AND TAPE

# Portfolio



## ZIP SYSTEM® SHEATHING AND TAPE

## Assisted living



**Left:** The Views at Harbortown, Jacksonville, FL; Fairfield Residential, Developer/Owner

**Above:** Abundant Life Living Springs, Delanco, NJ; Domus, General Contractor; Kitchen & Associates, Architect

ZIP SYSTEM® SHEATHING AND TAPE

# Mixed use development





**“** Building paper seems to always end up flapping in the breeze and pulling and tearing. Or, the siding guy puts the paper on late and covers it up right away so there is no way to know if it's done correctly. ZIP System® sheathing adds a lot of value. It's easy to install correctly. **”**

— Keith Anderson, Clark Builders Group, Arlington, VA



**Top Left:** Loudoun Station Apartments, Ashburn, VA; Comstock Companies, Owner; DSC Design, Architect; Davis Construction, General Contractor; RPM Framing, Framer  
**Opposite Page and Bottom:** 77H (Walmart Apartments), Washington, DC; Clark Builders Group, General Contractor; Modu Tech, Framer; The JBG Companies, Owner

ZIP SYSTEM® SHEATHING AND TAPE

# Multifamily



**Above:** Alta Alameda Station, Denver, CO; Wood Partners, Developer/Owner; Alameda Builders, LLC, General Contractors



“The ZIP System® sheathing and tape was a great choice to accomplish the goal of an energy-efficient home. Working together with other components such as spray foam insulation, geothermal HVAC, superior walls and good windows, ZIP System sheathing and tape performs its function well to work as one unit. It has held up extremely well.”

— Darrell Nichols



**Top Left:** Bexley Village at Concord Mills, Charlotte, NC; Weinstein, Owner; Carocon Corporation, General Contractor  
**Bottom:** AMLI, Broomfield, CO; Wood Partners, Owner

ZIP SYSTEM® SHEATHING AND TAPE

# Single family/residential



**Above:** Mandarin Oaks Reserve, Jacksonville, FL; DreamFinders Homes, Owner



“For my energy-efficient homes, I rely on the exterior sheathing system that helps me manage labor time and costs — ZIP System® sheathing and tape. The system is engineered to install quick and easy to get the job done right.”

— Patrick Zalupski, DreamFinders Homes, Orange Park, FL



**Top:** Iron Creek Homes, Edmond, OK

**Bottom:** Mandarin Oaks Reserve, Jacksonville, FL; DreamFinders Homes, Owner

ADVANTECH® FLOORING AND SHEATHING

# Portfolio



ADVANTECH® FLOORING

# Commercial

“ I've seen puddles of water on subfloors of some jobsites. I'll walk in and see drywall mud all over the floor and silicone caulking, construction debris everywhere. With AdvanTech® flooring, we don't need to go back and repair. All we do is just clean it up and apply the floor. ”

— Patric Santerre, ARCADIA designworks LLC, Portland, Maine



**Opposite Page and Above:** The Lofts at Seigle Point, Charlotte, NC; Charlotte Housing Authority, Owner; Cline Design, Architect; Bovis, General Contractor

ADVANTECH® FLOORING AND SHEATHING

# Commercial





“AdvanTech® flooring is a strong, sturdy product that helps us provide homes with a solid feeling. This translates into a quieter living area.”

— Kevin Rogerson, VP of Lindsey Construction Co., Inc.



**Opposite Page and Top Right:** St. Anthony's Garden, Covington, LA; Gibbs Construction

**Top Left and Bottom:** The Lofts at Seigle Point, Charlotte, NC; Charlotte Housing Authority, Owner; Cline Design, Architect; Bovis, General Contractor

ADVANTECH® FLOORING

# Single family/residential





“ I build strong with AdvanTech® because I want to be confident that the materials I use will not only stand up to abuse but also stand up to weather issues, which we have a lot of in New England. So AdvanTech has seemed to be the product that I would choose over any plywood product. ”

— Frank Whitty, TMR Development,  
Middleboro, MA



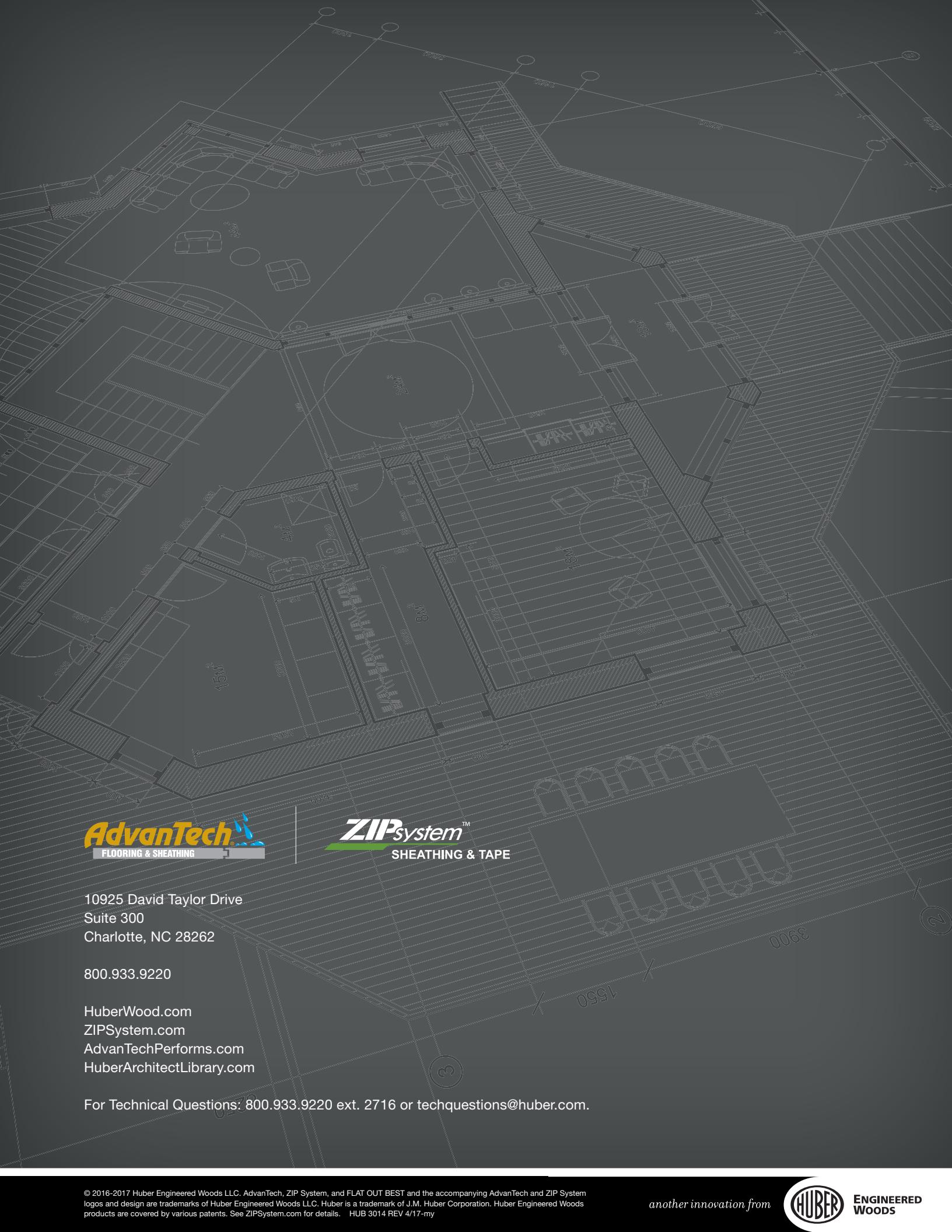
**Top:** Steven Baczek, Architect, Rochester, MA

**Bottom:** Michael St. Hilaire (Builder), Burlington, VT

**Opposite Page:** Greg Shover, Shover Construction, Shelburne, VT

## NOTES

## NOTES



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