



Designer™ Series

Technical/Installation Information

IMPORTANT NOTICE

READ THIS MANUAL COMPLETELY PRIOR TO BEGINNING THE INSTALLATION OF THE Designer™ Series WALL SYSTEM. MBCI DETAILS MUST BE FOLLOWED AS A MINIMUM TO INSURE APPROPRIATE WARRANTIES WILL BE ISSUED.

ALWAYS INSPECT EACH AND EVERY PANEL AND ALL ACCESSORIES BEFORE INSTALLATION. NEVER INSTALL ANY PRODUCT IF ITS QUALITY IS IN QUESTION. NOTIFY MBCI IMMEDIATELY IF ANY PRODUCT IS BELIEVED TO BE OUT OF TOLERANCE OR HAS BEEN DAMAGED DURING SHIPMENT.

IF THERE IS A CONFLICT BETWEEN APPROVED ERECTION DRAWINGS PROVIDED OR APPROVED BY MBCI AND THE DETAILS IN THIS MANUAL, THE PROJECT ERECTION DRAWINGS WILL TAKE PRECEDENCE.

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Architectural panels with wide, flat areas are inherently difficult to install without some oil canning being exhibited. As such, these panels should be installed over a true, well-aligned substructure. Extreme care is required and special installation techniques may be necessary, such as crowning the panels with a material like a foam backer rod to prevent or reduce oil canning.

The Engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the North American Specification for the Design of Cold-Formed Steel Structural Members published by the American Iron and Steel Institute to facilitate design. This Specification contains the design criteria for cold-formed steel components. Along with the Specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.

Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. In a continuing effort to refine and improve products, MBCI reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. **To ensure you have the latest information available, please inquire or visit our website at www.mbc.com.** Application details are for illustration purposes only and may not be appropriate for all environmental conditions, building designs or panel profiles. Projects should be designed to conform to applicable building codes, regulations and accepted industry practices. If there is a conflict between this manual and project erection drawings, the erection drawings will take precedence.

For complete performance specifications, product limitations and disclaimers, please consult MBCI's Paint and Galvalume Plus® warranties. Upon receipt of payment in full, these warranties are available upon request for all painted or Galvalume Plus®, prime products. Sample copies can be found at www.mbc.com or contact your local MBCI Sales Representative.

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INSTALLATION GUIDELINES

I. Pre-Order

- A. Prior to ordering panels, all dimensions should be confirmed by field measurements.

II. Jobsite Storage and Handling

- A. Check the shipment against the shipping list.
- B. Damaged material must be noted on Bill of Lading.
- C. Panels should be handled carefully. A spreader bar of appropriate length is recommended for hoisting.
- D. Check to see that moisture has not formed inside the bundles during shipment. If moisture is present, panels should be wiped dry, then restacked and loosely covered so that air can circulate between the panels.

III. Application Checklist

- A. Check substructure for proper alignment and uniformity to avoid panel distortion.
- B. Periodic check of panel alignment is crucial to proper panel installation.
- C. When installing panels over blanket insulation, it may be necessary to push middle of panel in as clips and fasteners are installed to maintain a consistent flat surface along the wall.
- D. Keep panels clean during installation. Do not allow panels to come into contact with or water runoff from lead, copper, or graphite.

PRODUCT INFORMATION

ARCHITECT/ENGINEER INFORMATION

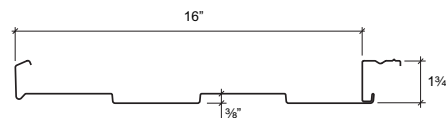
1. **Designer™ Series** is a concealed fastener wall panel designed to be used as either a retrofit wall panel or in new construction.
2. Wall girts to which the **Designer™ Series** panels are to be attached must be properly aligned to prevent oil canning of the panels.
3. Heavier gauges and embossing minimizes oil canning. Industry standard - 24 gauge material. Oil canning is not a cause for rejection.
4. For continuous runs over 30', please inquire.
5. Caution for new construction - the **Designer™ Series** panel does not provide diaphragm capabilities.

MBCI DESIGNER™ SERIES FORMED METAL WALL PANELS

The Designer Series panels provide the toughness of metal while creating an attractive, flexible and functional wall or fascia panel. The Designer Series is offered in a fluted panel which is equally effective for new construction or retrofitting existing buildings.

The Designer Series 16.0 Fluted Panel offers a continuous rib design with a hidden sidelap where the panels join together. Ribs are 4-inches wide and 3/8-inches deep, providing interesting shadow lines along the length of the wall. The panel legs are 1 3/4-inch deep allowing ample space for rigid board, blanket or batt insulation in the cavity.

The panel features concealed fastening systems enhancing the appearance. One leg of the panel is attached to the structure using a fastener attached through the female leg, and the other leg snaps securely into the adjoining panel to lock them into position.



MBCI offers four separate concealed fastener wall panels, the Designer Series, ShadowRib™, NuWall® and the FW Panel.

The Designer Series panel is a concealed fastener fluted wall panel. The ShadowRib™ panel combines aesthetics, economy and function to bring definition to metal structures. NuWall®, a tertiary concealed fastener wall panel from MBCI, combines the ease of installation in both new and retrofit applications with a pleasing aesthetic appeal. NuWall is ideal for both new and retrofit construction. Finally, the FW Panel can be used in single skin applications or as a component of composite wall systems.

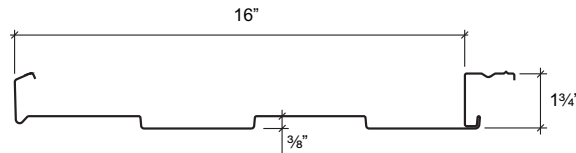
MBCI manufactures metal panels with the most technologically advanced manufacturing line in the United States. Our metal panel finish offerings allow for a multitude of design opportunities. Whether you're an architect looking for the best design solution, a contractor in need of efficient materials that are easy to install or a building owner looking to save money on maintenance costs, our panels make the difference.

Consult your local MBCI sales representative for design assistance. Visit www.mbc.com for a list of MBCI office locations and contacts.

Designer™ Series and ShadowRib™ are trademarks of Metal Building Components, Inc. (MBCI). NuWall® is a registered trademark of Metal Building Components, Inc. (MBCI). This document is Copyright© 2012 MBCI.

PRODUCT INFORMATION

GENERAL DESCRIPTION 16" FLUTED



Coverage Width - 16"

Panel Attachment - See page DS-11

Panel Substrate - Galvalume Plus®

Panel Finish - Smooth or Embossed

Gauge - 24 & 22

PRODUCT SELECTION CHART

	Galvalume Plus®	Signature® 300*	Signature® 300* Metallic	Signature® 200*
24 gauge	●	●	●	●
22 gauge	■	■	■	■

*See architectural color chart for available colors.

- - Available in any quantity
- - Panel Finish - Smooth or Embossed

NOTICE
Contact **MBCI** for Positive and Negative Wind Load information.

PRODUCT INFORMATION

16" FLUTED

SECTION PROPERTIES								
PANEL GAUGE	Fy (KSI)	WEIGHT (PSF)	NEGATIVE BENDING			POSITIVE BENDING		
			Ixe (IN.4/FT.)	Sxe (IN.3/FT.)	Maxo (KIP-IN.)	Ixe (IN.4/FT.)	Sxe (IN.3/FT.)	Maxo (KIP-IN.)
24	50	1.85	0.0931	0.1516	4.5395	0.0809	0.0570	1.7066
22	50	2.23	0.1258	0.2204	6.5995	0.1101	0.0777	2.3237

NOTES:

1. All calculations for the properties of Designer Series panels are calculated in accordance with the 2007 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members.
2. Ixe is for deflection determination.
3. Sxe is for bending.
4. Maxo is allowable bending moment.
5. All values are for one foot of panel width.

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

24 Gauge (Fy = 50 KSI)

SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
SINGLE	POSITIVE WIND LOAD	113.5	71.1	45.5	31.6	20.6	13.8	9.7
2-SPAN	POSITIVE WIND LOAD	90.0	67.5	45.1	31.4	23.1	17.7	14.0
3-SPAN	POSITIVE WIND LOAD	102.3	76.7	56.1	39.1	28.8	22.1	17.5
4-SPAN	POSITIVE WIND LOAD	98.5	73.9	52.5	36.6	26.9	17.7	16.3

22 Gauge (Fy = 50 KSI)

SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
SINGLE	POSITIVE WIND LOAD	172.4	97.0	62.1	43.1	28.1	18.8	13.2
2-SPAN	POSITIVE WIND LOAD	149.5	96.0	61.7	42.9	31.6	24.2	19.1
3-SPAN	POSITIVE WIND LOAD	169.8	119.5	76.9	53.5	39.4	30.2	23.9
4-SPAN	POSITIVE WIND LOAD	163.4	111.8	71.8	50.0	36.8	28.2	19.8

NOTES:

1. Allowable loads are based on uniform span lengths and Fy = 50 ksi.
2. POSITIVE WIND LOAD is limited by bending, shear, combined shear & bending, and web crippling.
3. POSITIVE WIND LOAD is limited by a maximum deflection ratio of L/120.
4. The weight of the panel has not been deducted from the allowable loads.
5. **THE ABOVE LOADS ARE NOT FOR USE WHEN DESIGNING PANELS TO RESIST WIND UPLIFT.**
6. Please contact manufacturer or manufacturer's website for most current allowable negative wind loads.

PRODUCT INFORMATION

SPECIFICATIONS

SECTION 07 42 13.13 – FORMED METAL WALL PANELS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. [Fluted-profile], concealed fastener metal wall panels, with related metal trim and accessories.

1.2 RELATED REQUIREMENTS

Specifier: If retaining this optional article, edit list below to correspond to Project.

- A. Division 01 Section "Sustainable Design Requirements" for related LEED general requirements.
- B. Division 05 Section "Structural Steel Framing" for steel framing supporting metal panels.
- C. Division 05 Section "Cold-Formed Metal Framing" for cold-formed metal framing supporting metal panels.
- D. Division 07 Section "Thermal Insulation" for thermal insulation installed behind metal panels.
- E. Division 07 Section "Air Barriers" for air barriers within wall assembly and adjacent to wall assembly.
- F. Division 07 Section "Metal Soffit and Wall Liner Panels" for soffit and wall liner panels installed with metal panels.
- G. Division 07 Section "Sheet Metal Flashing and Trim" for sheet metal flashing items in addition to items specified in this Section.
- H. Division 13 Section "Metal Building Systems" for steel framing supporting metal panels.

1.3 REFERENCES

Specifier: If retaining this optional article, edit list below to correspond to Project.

- A. American Architectural Manufacturer's Association (AAMA): www.aamanet.org:
 - 1. AAMA 621 - Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) & Zinc-Aluminum Coated Steel Substrates.
 - 2. AAMA 809.2 Voluntary Specification Non-Drying Sealants.
- B. American Society of Civil Engineers (ASCE): www.asce.org/codes-standards:
 - 1. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.
- C. ASTM International (ASTM): www.astm.org:
 - 1. ASTM A755 - Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
 - 2. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
 - 3. ASTM C920 - Specification for Elastomeric Joint Sealants.
 - 4. ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
 - 5. ASTM D4214 - Test Methods for Evaluating Degree of Chalking of Exterior Paint Films.
 - 6. ASTM E1592 - Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference.
- D. International Accreditation Service (IAS):
 - 1. IAS AC472 Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems, Part B.
- E. US Green Building Council (USGBC): www.usgbc.org:
 - 1. Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

1.4 QUALITY ASSURANCE

- A. Manufacturer/Source: Provide metal panel assemblies and accessories from a single manufacturer accredited under IAS AC472, Part B.
- B. Manufacturer Qualifications: Approved manufacturer listed in this

Section with minimum five years experience in manufacture of similar products in successful use in similar applications.

Specifier: Retain paragraph below if Owner allows substitutions but requires control over qualifying of substituted manufacturers.

- 1. Approval of Comparable Products: Submit the following in accordance with project substitution requirements, within time allowed for substitution review:
 - a. Product data, including certified independent test data indicating compliance with requirements.
 - b. Samples of each component.
 - c. Sample shop drawings from similar project.
 - d. Project References: Minimum of five installations not less than three years old, with Owner and Architect contact information.
 - e. Sample warranty.
 - f. Certificate of accreditation under IAS AC472 Part B.
- 2. Substitutions following award of contract are not allowed except as stipulated in Division 01 General Requirements.
- 3. Approved manufacturers must meet separate requirements of Submittals Article.

Specifier: Review of manufacturers' qualifying of installers is recommended. MBCI requires Installer and supervisor certification when project requirements include extended warranty.

- C. Installer Qualifications: Experienced Installer [certified by metal panel manufacturer] with minimum of five years experience with successfully completed projects of a similar nature and scope.

- 1. Installer's Field Supervisor: Experienced mechanic [certified by metal panel manufacturer] supervising work on site whenever work is underway.

Specifier: Retain paragraph below and edit as appropriate for Federal projects and for public works projects utilizing Federal funds; consult with project Contracting Officer. Coordinate with Submittals Article.

- D. Buy American Compliance: Materials provided under work of this Section shall comply with the following requirements:
 - 1. Buy American Act of 1933 BAA-41 U.S.C §§ 10a – 10d.
 - 2. Buy American provisions of Section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA).
- E. Steel Construction Publications: Comply with published recommendations in the following, unless more stringent requirements are indicated.
 - 1. American Institute of Steel Construction (AISC): "Steel Construction Manual."
 - 2. American Iron and Steel Institute (AISI): "Cold Formed Steel Design Manual."

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Prior to erection of framing, conduct preinstallation meeting at site attended by Owner, Architect, metal panel installer, metal panel manufacturer's technical representative, inspection agency and related trade contractors.
 - 1. Coordinate building framing in relation to metal panel system.
 - 2. Coordinate openings and penetrations of metal panel system.
 - 3. Coordinate work of Division 07 Sections "Roof Specialties" and "Roof Accessories" and openings and penetrations and manufacturer's accessories with installation of metal panels.

1.6 ACTION SUBMITTALS

- A. Product Data: Manufacturer's data sheets for specified products. Include data indicating compliance with performance requirements.

Specifier: Retain and edit below to comply with Project requirements for LEED or other sustainable design requirements.
- B. LEED Submittals:
 - 1. Credit MR 4 Recycled Content: Product data indicating the following:
 - a. Material costs for each product having recycled content.
 - b. Percentages by weight of post-consumer and pre-consumer recycled content for each item.

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- c. Total weight of products provided.
- 2. Credit IEQ 4.1 Low-Emitting Materials - Adhesives and Sealants: Product data for sealants and sealant primers used inside the weatherproofing system, indicating VOC content.
- C. Shop Drawings: Show layouts of metal panels. Include details of each condition of installation, panel profiles, and attachment to building. Provide details at a minimum scale 1-1/2-inch per foot of edge conditions, joints, fastener and sealant placement, flashings, openings, penetrations, and special details. Make distinctions between factory and field assembled work.
 - 1. Indicate points of supporting structure that must coordinate with metal panel system installation.
 - 2. Include structural data indicating compliance with performance requirements and requirements of local authorities having jurisdiction.
- D. Samples for Initial Selection: For each exposed product specified including sealants. Provide representative color charts of manufacturer's full range of colors.
- E. Samples for Verification: Provide 12-inch- (305 mm-) long section of each metal panel profile. Provide color chip verifying color selection.

1.7 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Indicating compliance of products with requirements.
- B. Qualification Information: For Installer firm and Installer's field supervisor.
- C. IAS Accreditation Certificate: Indicating that manufacturer is accredited under provisions of IAS AC472 Part B.
- D. Buy American Certification: Manufacturers' letters of compliance acceptable to authorities having jurisdiction, indicating that products comply with requirements.
- E. Florida State Building Code Certificate: Indicating that products comply with requirements of Florida State Building Code. www.floridabuilding.org/pr/pr_app_srch.aspx
- F. Manufacturer's warranty: Unexecuted sample copy of manufacturer's warranty.

1.8 CLOSEOUT SUBMITTALS

- A. Maintenance data.
- B. Manufacturer's Warranty: Executed copy of manufacturer's warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Protect products of metal panel system during shipping, handling, and storage to prevent staining, denting, deterioration of components or other damage. Protect panels and trim bundles during shipping.
 - 1. Deliver, unload, store, and erect metal panels and accessory items without misshaping panels or exposing panels to surface damage from weather or construction operations.
 - 2. Store in accordance with Manufacturer's written instruction. Provide wood collars for stacking and handling in the field.
 - 3. Shield foam insulated metal panels from direct sunlight until installation.

1.10 WARRANTY

Specifier: Warranty terms below are available from MBCI. Verify that other allowable manufacturers furnish warranty meeting requirements.

- A. Special Manufacturer's Warranty: On manufacturer's standard form, in which manufacturer agrees to repair or replace metal panel assemblies that fail in materials and workmanship within [one] year from date of Substantial Completion.
- B. Special Panel Finish Warranty: On Manufacturer's standard form, in which Manufacturer agrees to repair or replace metal panels that evidence deterioration of factory-applied finish within the warranty period, as follows:

Specifier: Retain finish warranty paragraph that corresponds to selected metal panel finish system.

Several exotic and metallic colors are available from MBCI with limited warranty periods; verify warranty period for selected colors with manufacturer.

1. Fluoropolymer Two-Coat System:
 - a. Basis of Design System: MBCI, Signature 300.
 - b. Color fading in excess of 5 Hunter units per ASTM D 2244.
 - c. Chalking in excess of No. 8 rating per ASTM D 4214.
 - d. Failure of adhesion, peeling, checking, or cracking.
 - e. Warranty Period: [40] years from date of Substantial Completion.
2. Modified Silicone-Polyester Two-Coat System:
 - a. Basis of Design System: MBCI, Signature 200.
 - b. Color fading in excess of 7 Hunter units per ASTM D 2244.
 - c. Chalking in excess of No. 6 rating per ASTM D 4214.
 - d. Failure of adhesion, peeling, checking, or cracking.
 - e. Warranty Period: [30] years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURER

Specifier: Retain basis of design manufacturer and products listed in this Article where allowed. If inserting comparable manufacturers, carefully review products and engineering capabilities in relation to requirements of this Section, to ensure that other approved manufacturers offer products meeting MBCI's standards.

- A. Basis of Design Manufacturer: MBCI Metal Roof and Wall Systems, Division of NCI Group, Inc.; Houston TX. Tel: (877)713-6224; Email: info@mbci.com; Web: www.mbci.com.
 - 1. Provide basis of design product[, or comparable product approved by Architect prior to bid].

2.2 PERFORMANCE REQUIREMENTS

- A. General: Provide metal panel system meeting performance requirements as determined by application of specified tests by a qualified testing facility on manufacturer's standard assemblies.

Specifier: "Recycled Content" Paragraph below describes calculation utilized for LEED-NC Credit MR 4. Modify as required to meet project recycled content requirements, or delete if recycled content requirements are stipulated solely in Division 01 Section "Sustainable Design Requirements."

- B. Recycled Content: For Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than [25] percent.
- C. Structural Performance: Provide metal panel assemblies capable of withstanding the effects of indicated loads and stresses within limits and under conditions indicated, as determined by ASTM E1592:

Specifier: Consult structural engineer and edit below as required by local codes. Insert structural data below if not indicated on drawings. Select applicable deflection limit.

1. Wind Loads: Determine loads based on uniform pressure, importance factor, exposure category, and basic wind speed indicated on drawings.
 - a. Wind Negative Pressure: Certify capacity of metal panels by actual testing of proposed assembly.
2. Deflection Limits: Withstand inward and outward wind-load design pressures in accordance with applicable building code with maximum deflection of 1/120 of the span with no evidence of failure.
3. Seismic Performance: Comply with ASCE 7 Sections 9, "Earthquake Loads."
- D. Florida State Building Code Compliance: Provide metal roof and wall panels complying with requirements for installation under Florida State Building Code outside of high velocity wind zone.
- E. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures.

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Accommodate movement of support structure caused by thermal expansion and contraction. Allow for deflection and design for thermal stresses caused by temperature differences from one side of the panel to the other.

2.3 FORMED METAL WALL PANELS

- A. Fluted-Rib-Profile, Concealed Fastener Metal Wall Panels: Structural metal panels consisting of formed metal sheet with vertical panel edges and two 4-inch (102-mm) inverse batten flutes, with flush joints between panels, field assembled with nested lapped edges, and attached to supports using concealed fasteners.
1. Basis of Design: MBCI, Designer Series 16.0 Fluted Panel.

Specifier: Material description below corresponds to BIEC International, Inc. <http://galvalume.com/> Galvalume substrate, available Prepainted from MBCI.

Second paragraph below describes Galvalume Plus with clear acrylic coating for use as exposed metallic finish.

2. Aluminum-Zinc Alloy-Coated Steel Sheet: ASTM A792/A792M, structural quality, Grade 50, Coating Class AZ50 (Grade 340, Coating Class AZM150), prepainted by the coil-coating process per ASTM A755/A755M.

Specifier: Prior to selecting metal thickness and panel thickness below, consult manufacturer's span tables and review selection against panel thickness requirements and span condition. Select appropriate panel configuration to meet requirements of design wind pressure. Formed metal wall panels do not provide diaphragm strength for building stability. Thicker metal and embossing help reduce oil canning.

- a. Nominal Thickness: [0.023 inch/24 gage (0.60 mm)] [0.029 inch/22 gage (0.76 mm)] coated thickness, with [smooth] [stucco embossed] surface.
1. Exterior Finish: [Modified silicone-polyester two-coat system] [Fluoropolymer two-coat system] [Fluoropolymer two-coat metallic color system] [Exposed Galvalume Plus coating].
2. Color: [As indicated] [As selected by Architect from manufacturer's standard colors] [Match Architect's custom color].
3. Panel Width: 16 inches (406 mm).
4. Panel Thickness: 1-3/4 inch (44 mm).

2.4 MISCELLANEOUS MATERIALS

- A. General: Provide complete metal panel assemblies incorporating trim, copings, fasciae, gutters and downspouts, and miscellaneous flashings. Provide required fasteners, closure strips, and sealants as indicated in manufacturer's written instructions.
- B. Flashing and Trim: Match material, thickness, and finish of metal panels.
- C. Panel Fasteners: Self-tapping screws and other acceptable fasteners recommended by metal panel manufacturer. Where exposed fasteners cannot be avoided, supply corrosion-resistant fasteners with heads matching color of metal panels by means of factory-applied coating, with weathertight resilient washers.
- D. Panel Sealants:
1. VOC Content of Interior Sealants: Sealants used inside the weatherproofing system shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - a. Architectural Sealants: 250 g/L.
 2. Concealed Joint Sealant: Non-curing butyl, AAMA 809.2.
 3. Elastomeric Joint Sealant: Urethane sealant, single-component, ASTM C920 Type S, Grade NS, Class 25, Use NT, A, M, G, O.

2.5 FABRICATION

- A. General: Provide factory fabricated and finished metal panels, trim, and accessories meeting performance requirements, indicated profiles, and structural requirements.
- B. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's written instructions, approved shop drawings, and project drawings.

2.6 FINISHES

- A. Finishes, General: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
- B. Modified Silicone-Polyester Two-Coat System: 0.20 – 0.25 mil primer with 0.7 – 0.8 mil color coat[, meeting solar reflectance index requirements].
1. Basis of Design: MBCI, Signature 200.

Specifier: MBCI's fluoropolymer coatings are based on Arkema, Inc. Kynar 500 and Solvay Solexis Hylar 500 PVF2 resins.

- C. Fluoropolymer Two-Coat System: 0.2 – 0.3 mil primer with 0.7 – 0.8 mil 70 percent PVDF fluoropolymer color coat, AAMA 621[, meeting solar reflectance index requirements].
1. Basis of Design: MBCI, Signature 300.

Specifier: Select interior face sheet finish from four options below; USDA White system is standard unless otherwise indicated. Verify with MBCI; not all finishes are available on all products.

- D. Interior Face Sheet Coil-Coated Finish System:
1. Silicone Polyester Two-Coat System: 0.20 – 0.25 mil primer with 0.7 – 0.8 mil color coat.
 - a. Basis of Design: MBCI, USDA White.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine metal panel system substrate with Installer present. Inspect for erection tolerances and other conditions that would adversely affect installation of metal panels.
1. Inspect framing that will support insulated metal panels to determine if support components are installed as indicated on approved shop drawings and are within tolerances acceptable to metal panel manufacturer and installer. Confirm presence of acceptable framing members at recommended spacing to match installation requirements of metal panels.
 2. Panel Support Tolerances: Confirm that metal panel supports are within tolerances acceptable to metal panel manufacturer but not greater than the following:
 - a. At Girt Spacing 10 feet (3048 mm) or More: 1/4 inches (6 mm) out only.
 - b. At Girt Spacing Less Than 10 feet (3048 mm): 1/8 inches (3 mm) out only.
- B. Correct out-of-tolerance work and other deficient conditions prior to proceeding with insulated metal panel installation.

3.2 METAL PANEL INSTALLATION

- A. Concealed-Fastener Formed Metal Panels: Install metal panel system in accordance with manufacturer's written instructions, approved shop drawings, project drawings, and referenced publications. Install metal panels in orientation, sizes, and locations indicated. Anchor panels and other components securely in place. Provide for thermal and structural movement.
- B. Fasten metal panels to supports with fasteners at each location indicated on approved shop drawings, at spacing and with fasteners recommended by manufacturer. Fasten panel to support structure through leading panel flange. Snap-fit back flange of subsequent panel into secured flange of previous panel. Where indicated, fasten panels together through flush-fitted panel sides.
1. Cut panels in field where required using manufacturer's recommended methods.
 2. Provide weatherproof jacks for pipe and conduit penetrating metal panels.
 3. Dissimilar Materials: Where elements of metal panel system will come into contact with dissimilar materials, treat faces and edges in contact with dissimilar materials as recommended by metal panel manufacturer.
- C. Attach panel flashing trim pieces to supports using recommended fasteners and joint sealers.
- D. Joint Sealers: Install liquid sealants where indicated and where required for weatherproof performance of metal panel assemblies.
1. Seal panel base assembly, openings, panel head joints, and

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perimeter joints using joint sealers indicated in manufacturer's instructions.

2. Seal perimeter joints between window and door openings and adjacent panels using elastomeric joint sealer.
3. Prepare joints and apply sealants per requirements of Division 07 Section "Joint Sealants."

3.3 ACCESSORY INSTALLATION

- A. General: Install metal panel accessories with positive anchorage to building and weather tight mounting; provide for thermal expansion. Coordinate installation with flashings and other components.
 1. Install components required for a complete metal panel assembly, including trim, copings, flashings, sealants, closure strips, and similar items.
 2. Comply with details of assemblies utilized to establish compliance with performance requirements and manufacturer's written installation instructions.
 3. Set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently weather resistant.

3.4 CLEANING AND PROTECTION

- A. Clean finished surfaces as recommended by metal panel manufacturer.
- B. Replace damaged panels and accessories that cannot be repaired to the satisfaction of the Architect.

END OF SECTION

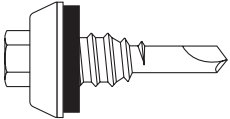

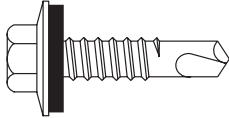
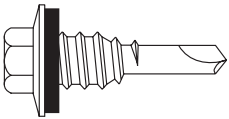


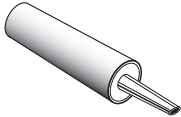
PRODUCT INFORMATION

PRODUCT CHECKLIST

<p>Designer™ Series 16" Fluted Panel</p>		
<p>Outside Corner</p> <p>T-5241 <input type="checkbox"/></p>	<p>Inside Corner</p> <p>T-5251 <input type="checkbox"/></p>	<p>Base Trim</p> <p>T-6307 <input type="checkbox"/></p>
<p>Sill Trim</p> <p>FL-848 <input type="checkbox"/></p>	<p>Support Zee</p> <p>T-6309 <input type="checkbox"/></p>	<p>Spacer Zee</p> <p>T-6246 <input type="checkbox"/></p>
<p>Head/Jamb Cleat</p> <p>To be used with T-6303 or T-6305</p> <p>T-6301 <input type="checkbox"/></p>	<p>Two Piece Jamb Trim</p> <p>To be used with T-6301</p> <p>T-6303 <input type="checkbox"/></p>	<p>Two Piece Head Trim</p> <p>To be used with T-6301</p> <p>T-6305 <input type="checkbox"/></p>

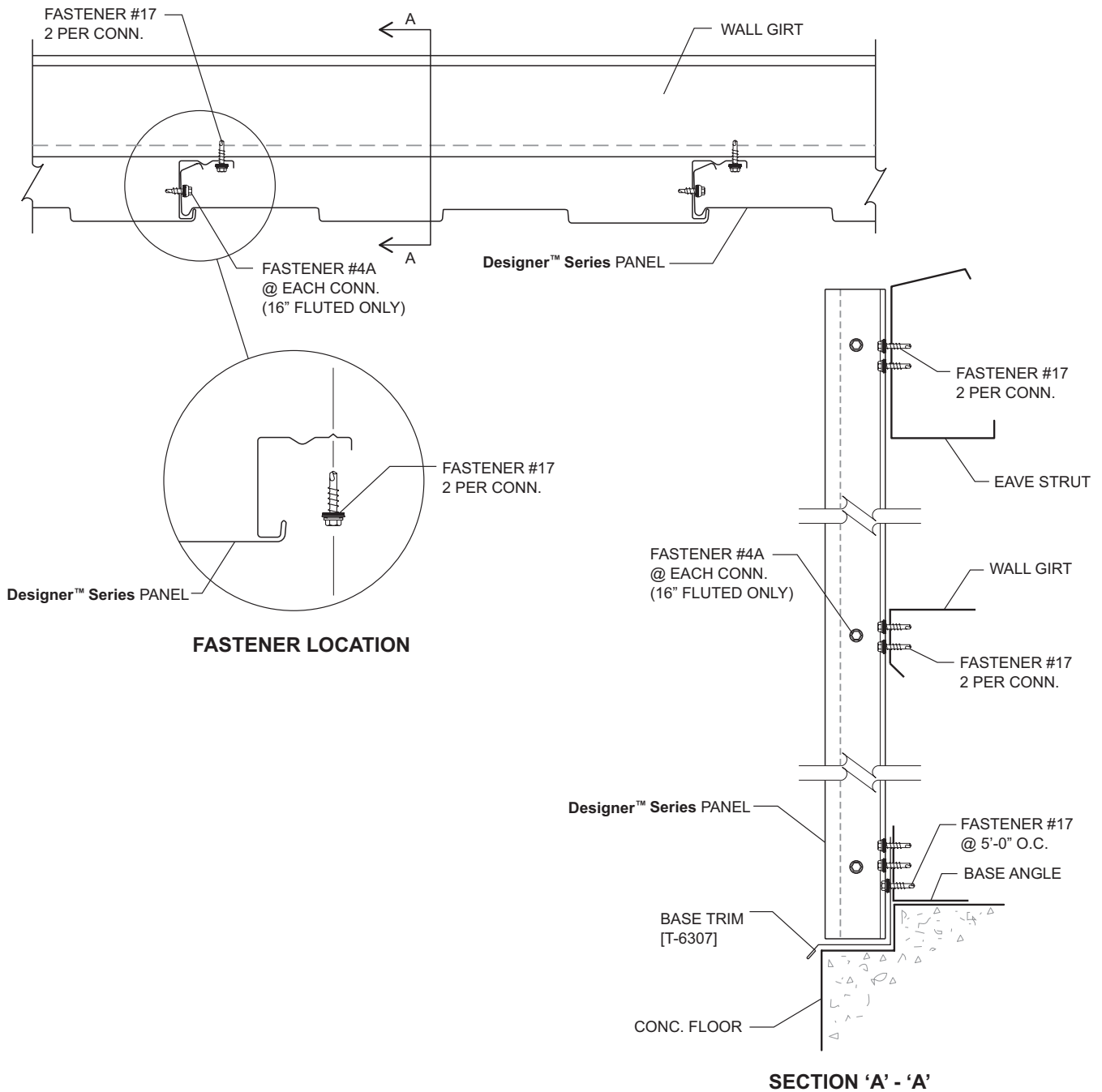
PRODUCT INFORMATION

PRODUCT CHECKLIST

<p>Fastener #4</p>  <input type="checkbox"/>	<p>Fastener #14</p>  <input type="checkbox"/>	<p>Fastener #17</p>  <input type="checkbox"/>
<p>Fastener #4A</p>  <input type="checkbox"/>	<p>Fastener 14A</p>  <input type="checkbox"/>	
<p>Outside Closure</p>  <p>HW-4037 <input type="checkbox"/></p>	<p>Urethane Sealant</p>  <p>HW-540 <input type="checkbox"/></p>	

DETAILS

PANEL ATTACHMENT

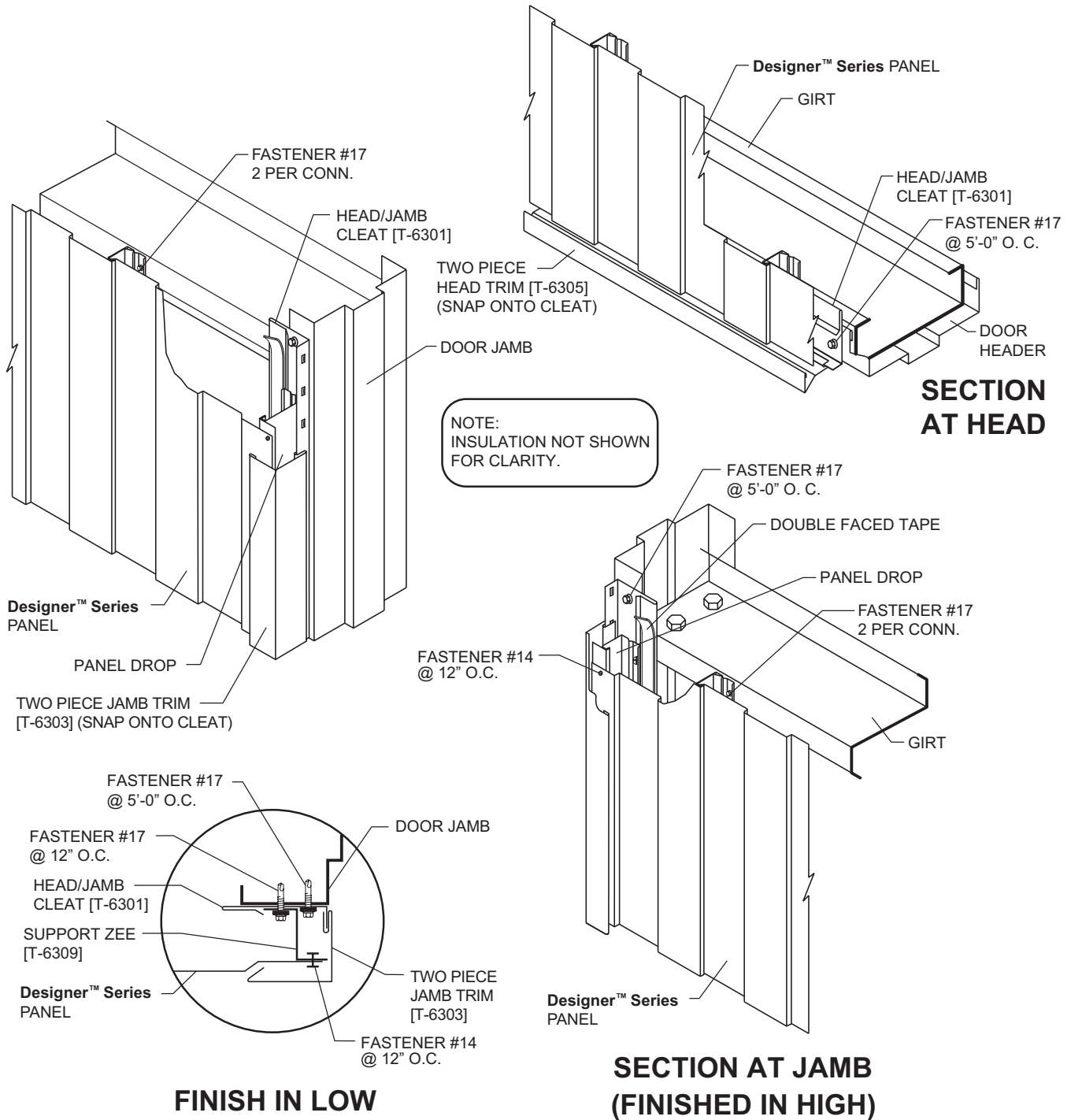


NOTES:

1. Install Fastener #4A horizontally through the seams of the 16" Fluted Designer™ Series panels at each point in which the panel is fastened to the substructure.

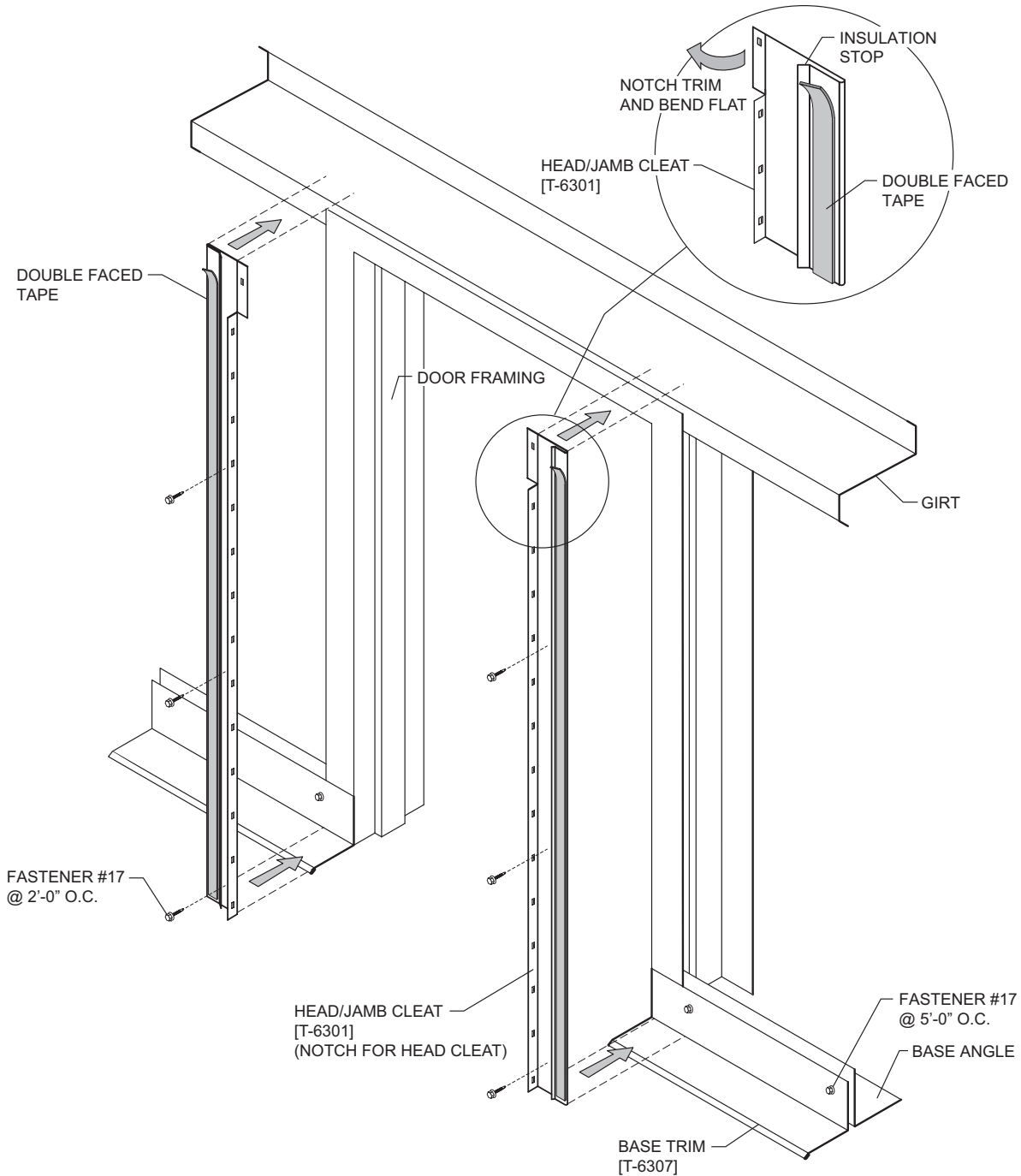
DETAILS

DOOR FRAMING DETAILS Typical Door Header/Jamb Details



DETAILS

DOOR FRAMING DETAILS Jamb Cleat Installation

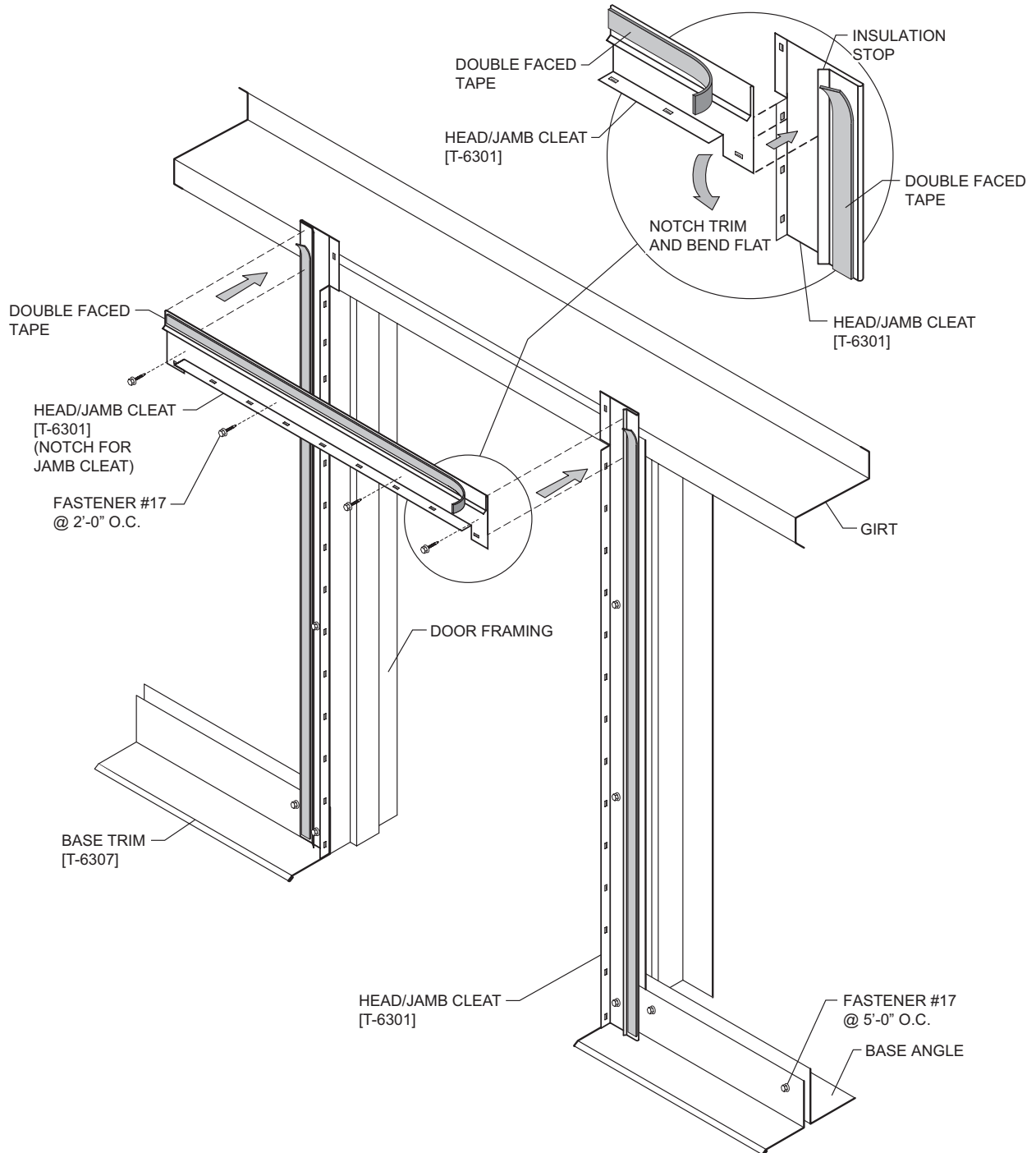


NOTES:

1. Notch top of jamb cleat for header cleat to be attached on top.
2. Attach Header/Jamb Cleat to door jamb with Fastener #17 @ 2'-0" o.c. Header/Jamb Cleat must continue to bottom of wall.
3. Apply Double Faced Tape to Header/Jamb Cleat. Place tape to "Insulation Stop".

DETAILS

DOOR FRAMING DETAILS Header Cleat Installation

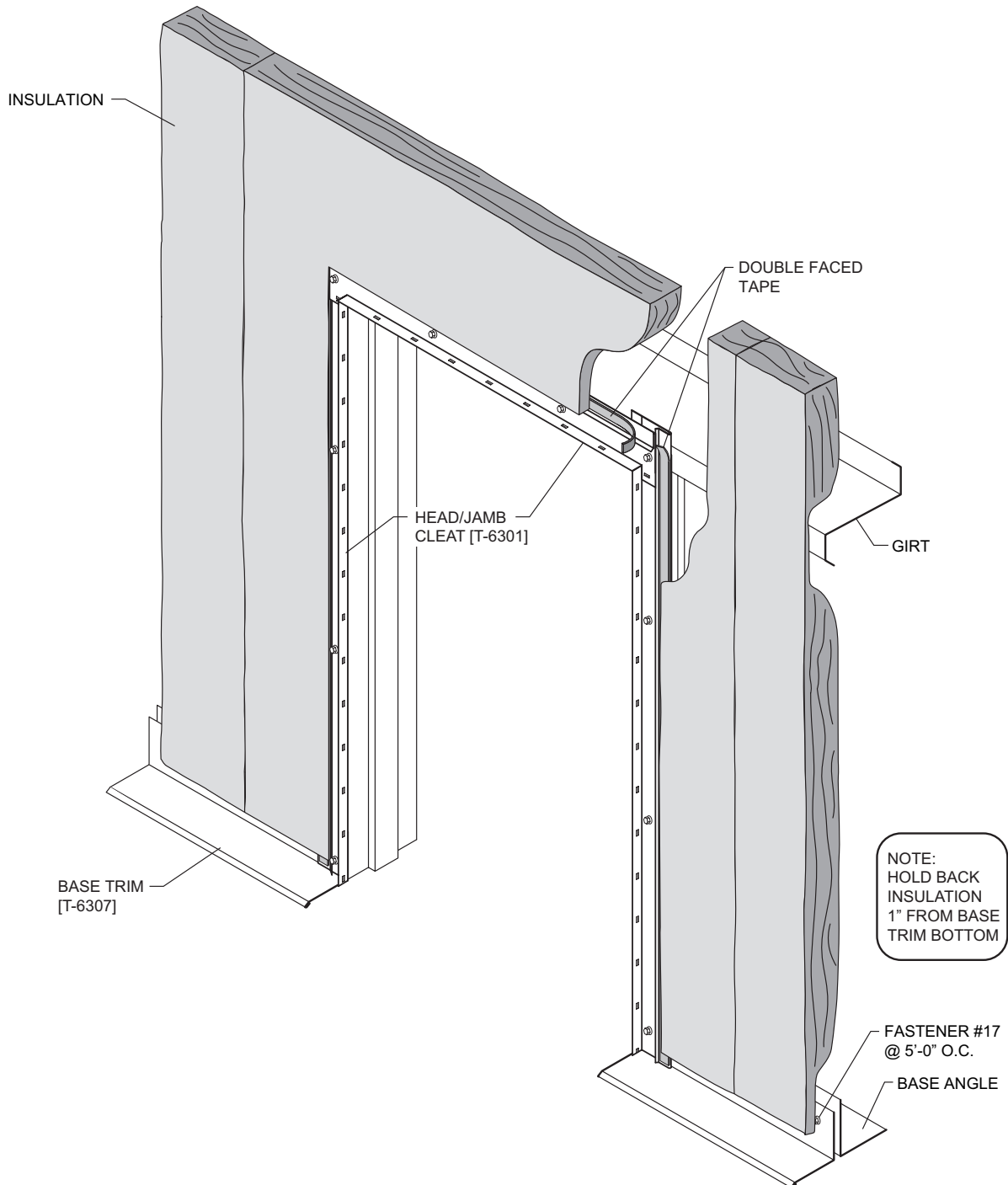


NOTES:

1. Notch header cleat to fit into trough of jamb cleat.
2. Attach header cleat to door header with Fastener #17 @ 2'-0" o.c.
3. Apply Double Faced Tape to header cleat. Place tape to "Insulation Stop".

DETAILS

DOOR FRAMING DETAILS Insulation Installation

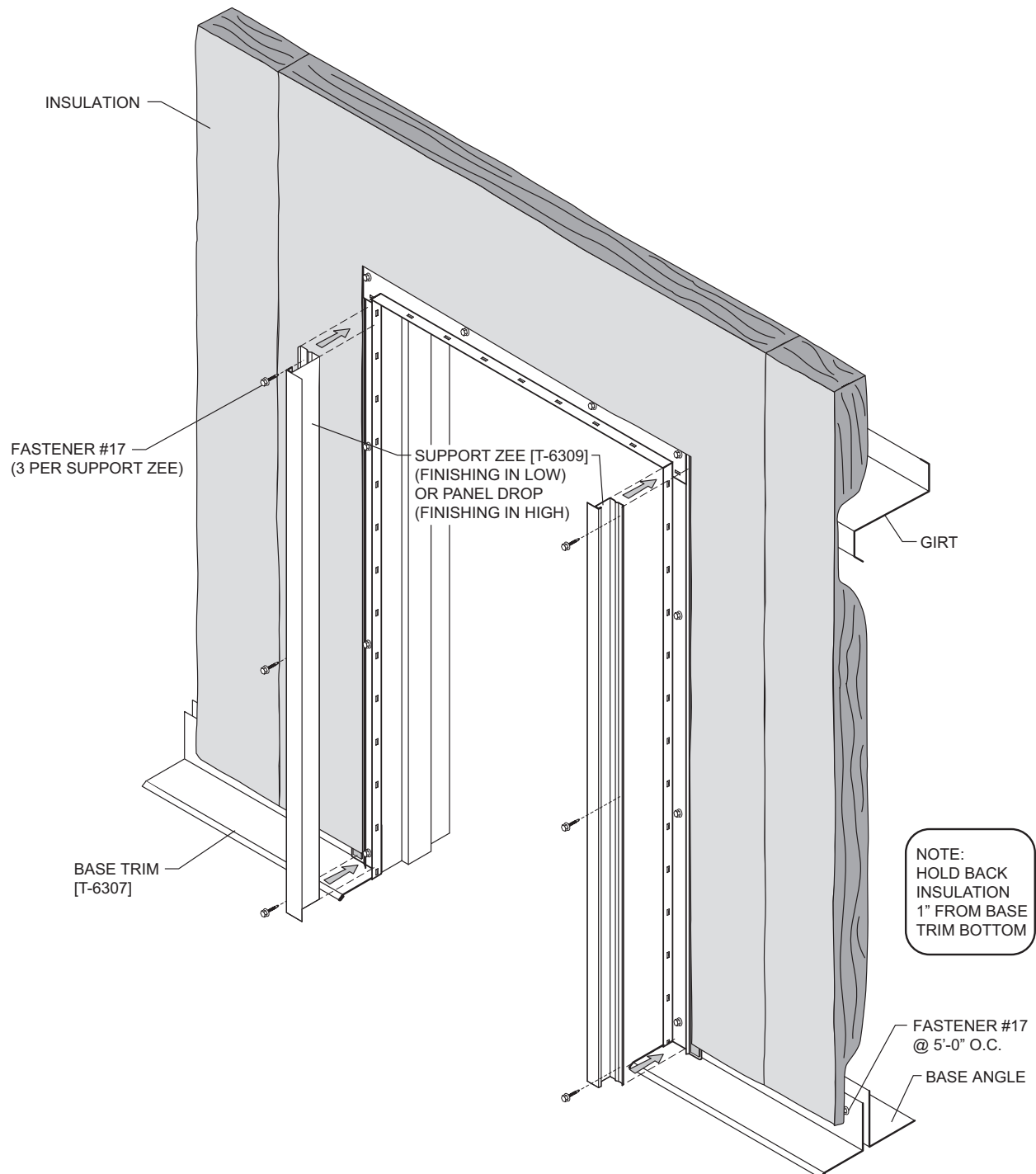


NOTES:

1. Install insulation around door opening. Cut insulation at "Insulation Stop" on Header/Jamb Cleat.

DETAILS

DOOR FRAMING DETAILS Spacer Zee Installation

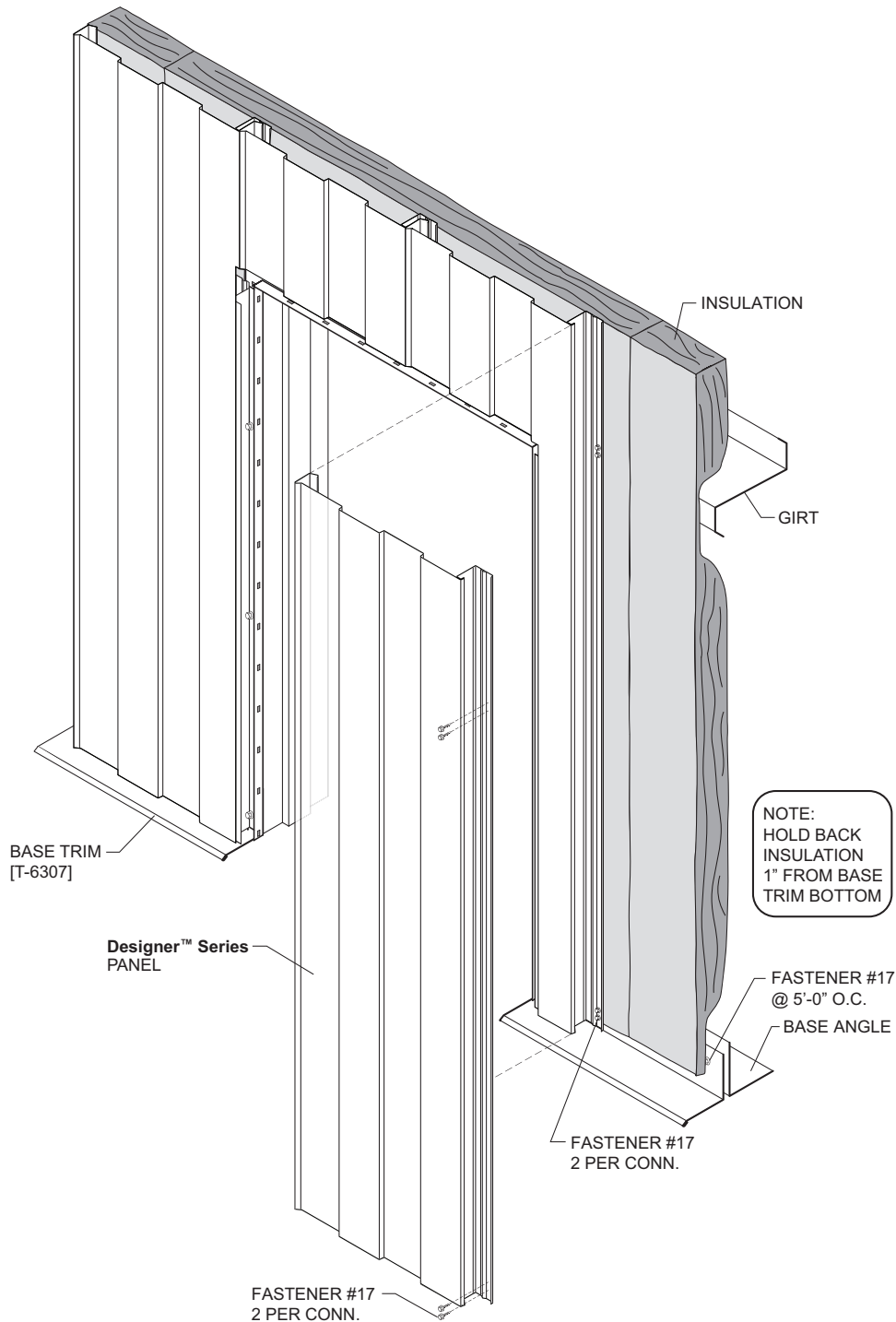


NOTES:

1. Attach Support Zee, when finishing in the low, with Fastener #17 @ 3 per piece. Panel Drop will be used when finishing in the high flute.

DETAILS

DOOR FRAMING DETAILS Panel Installation

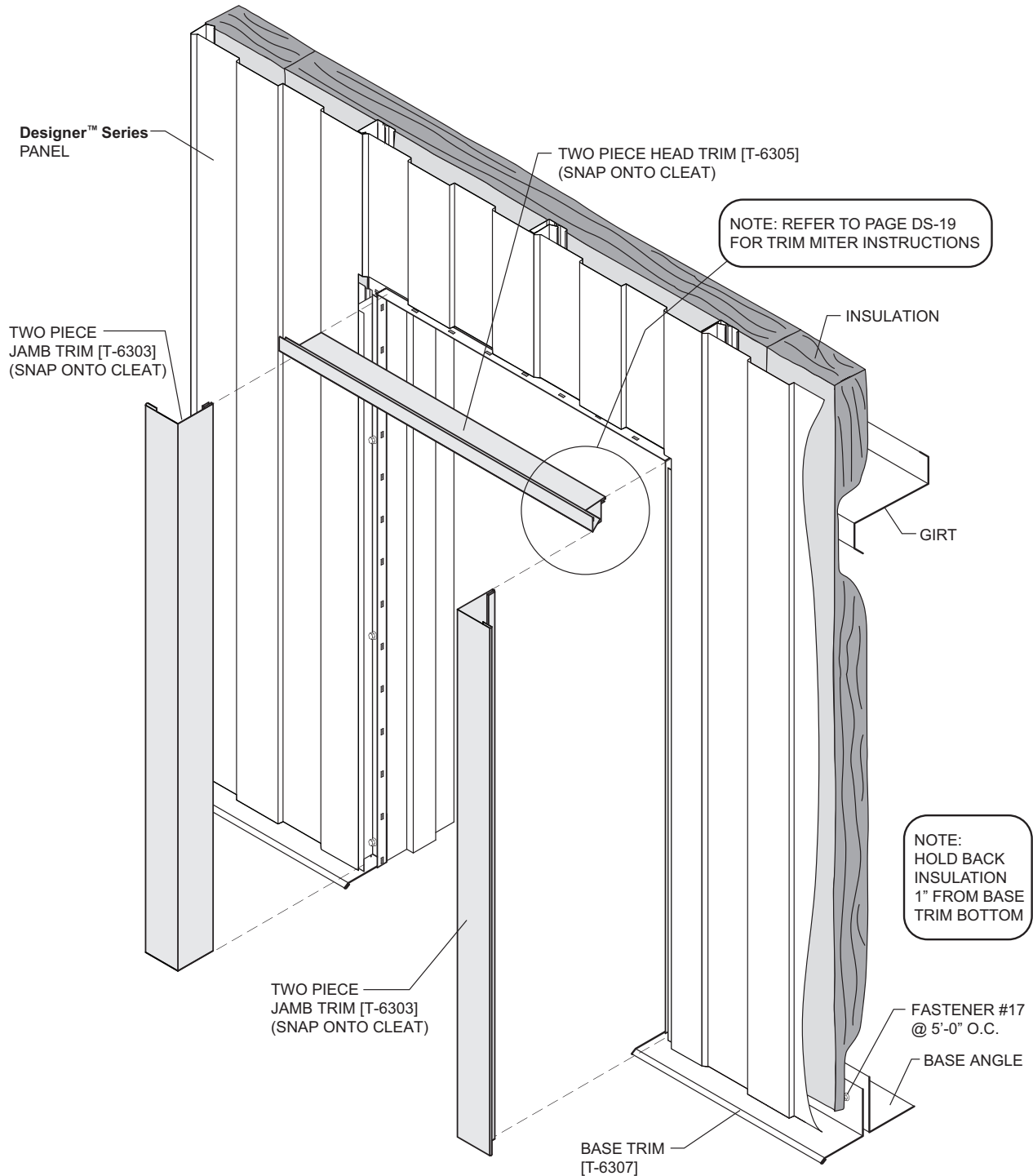


NOTES:

1. Stitch panel side laps with Fastener #4A at each support.

DETAILS

DOOR FRAMING DETAILS Cap Trim Installation

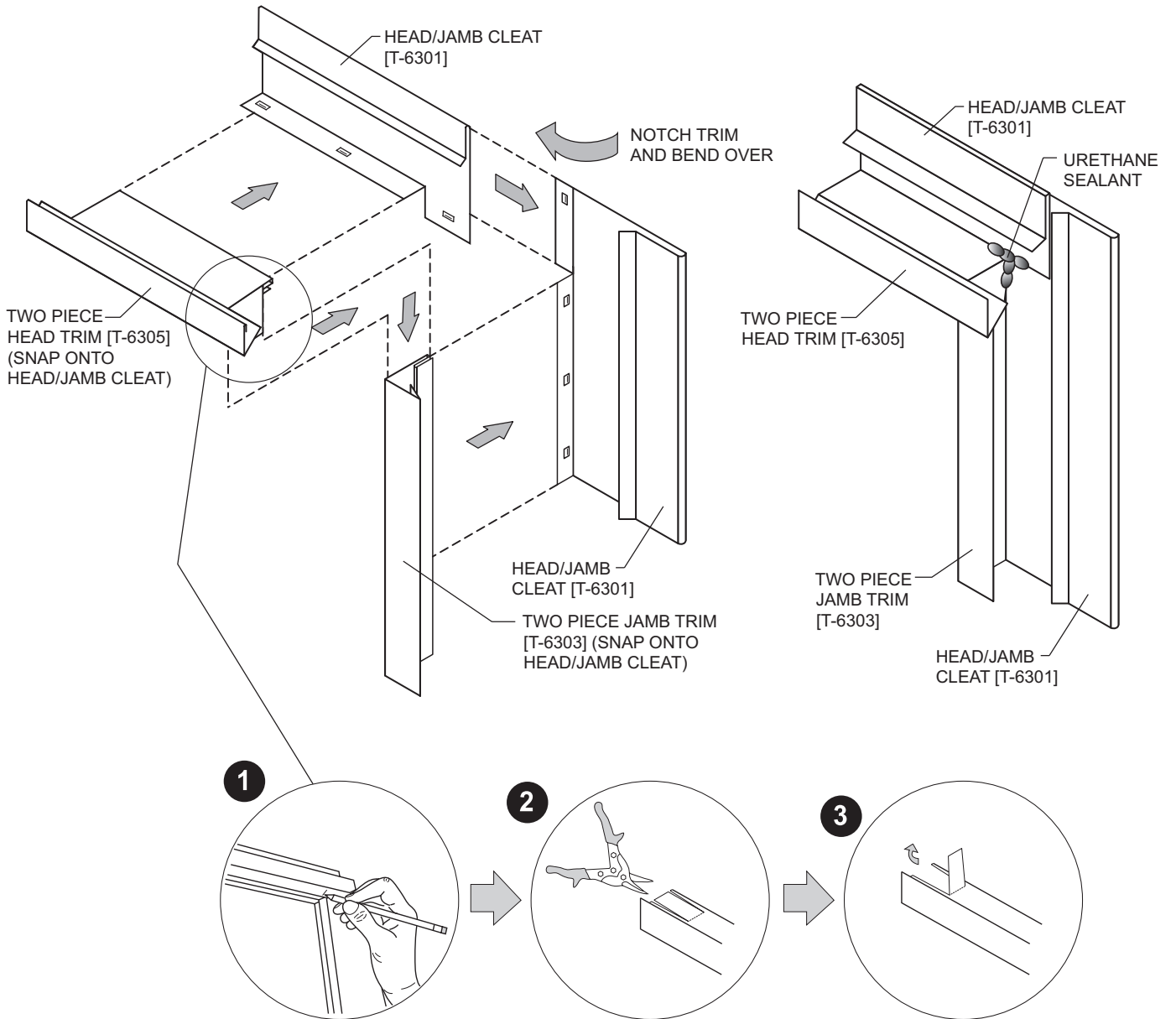


NOTES:

1. Cut and notch tabs to bend down on Header Cap. Snap Header Cap onto cleat.
2. Cut Jamb Cap to length. Snap Jamb Cap onto cleat.

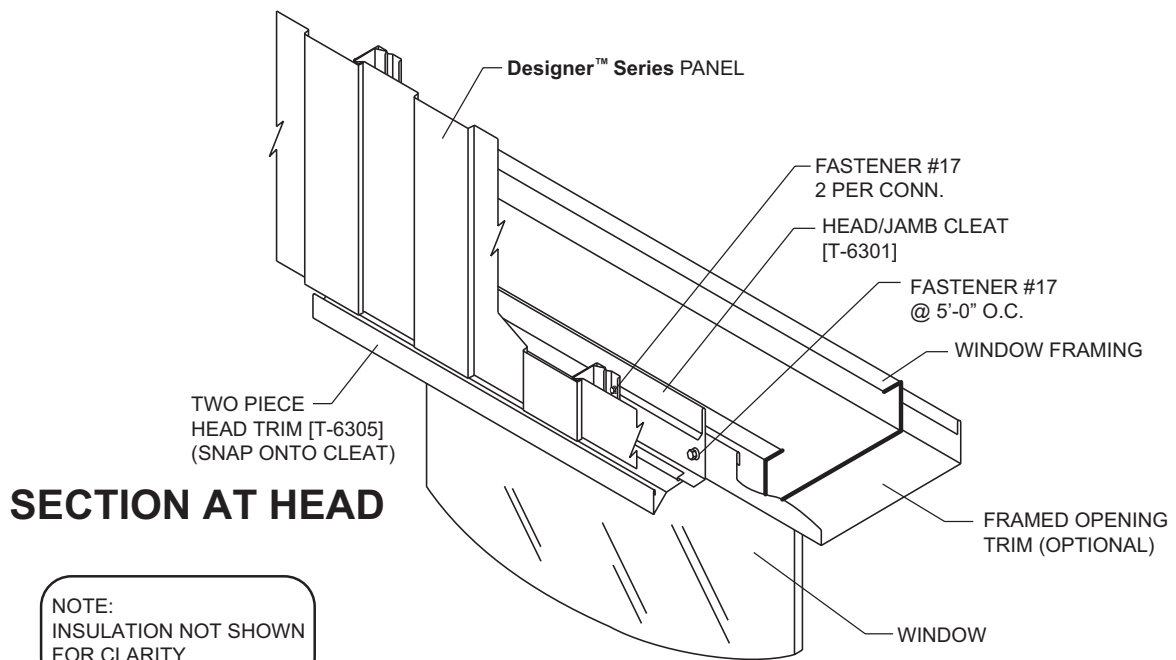
DETAILS

DOOR FRAMING DETAILS Header/Jamb Trim Miter

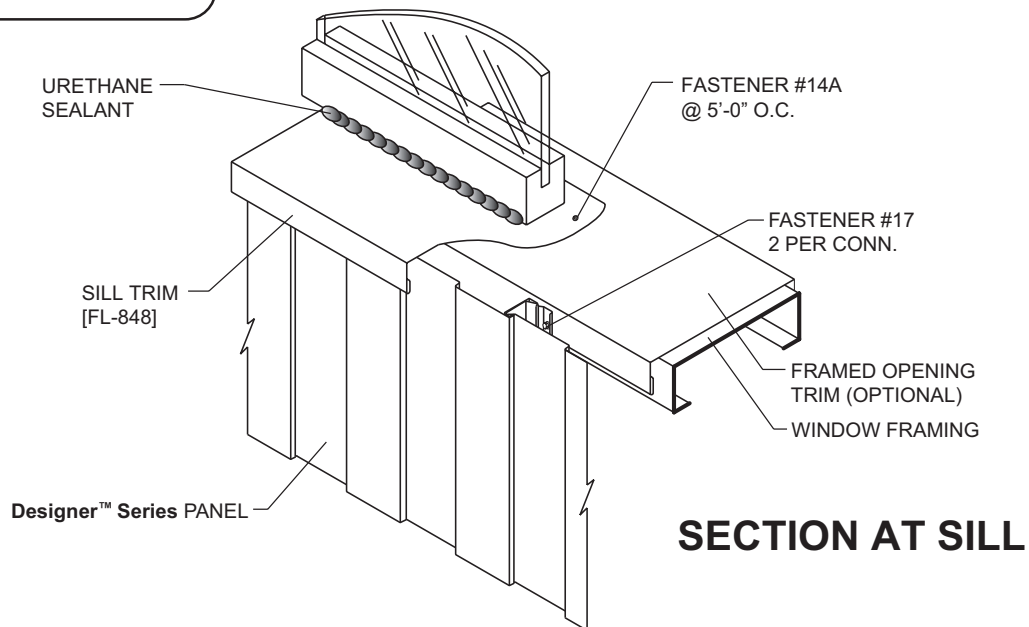


DETAILS

WINDOW FRAMING DETAILS Typical Window Header/Sill Details

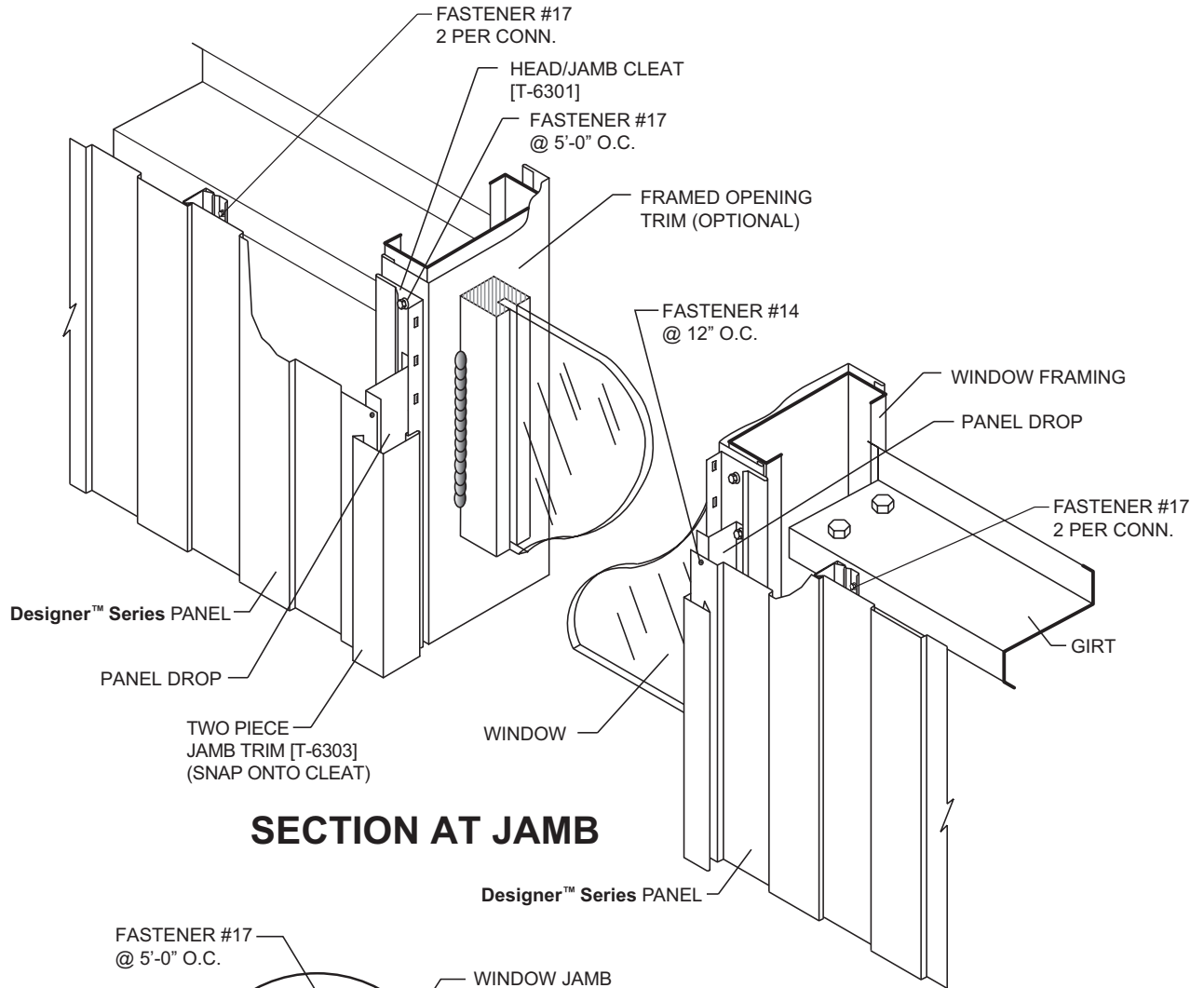


NOTE:
INSULATION NOT SHOWN
FOR CLARITY.

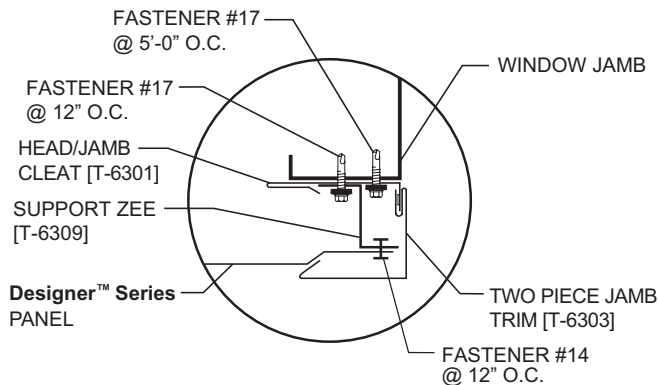


DETAILS

WINDOW FRAMING DETAILS Typical Window Jamb Details



SECTION AT JAMB

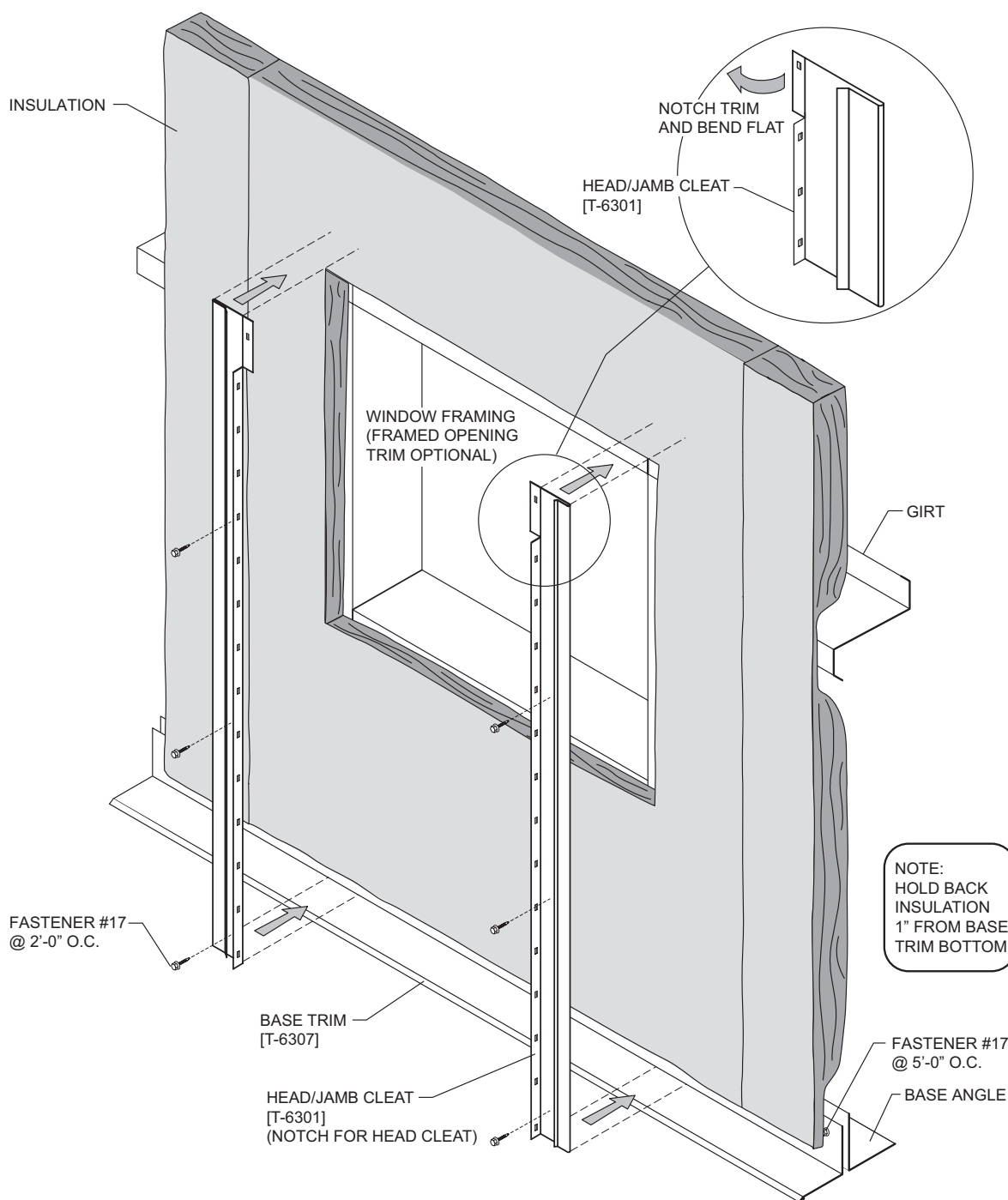


NOTE:
INSULATION NOT SHOWN
FOR CLARITY.

FINISH IN LOW

DETAILS

WINDOW FRAMING DETAILS Jamb Cleat Installation

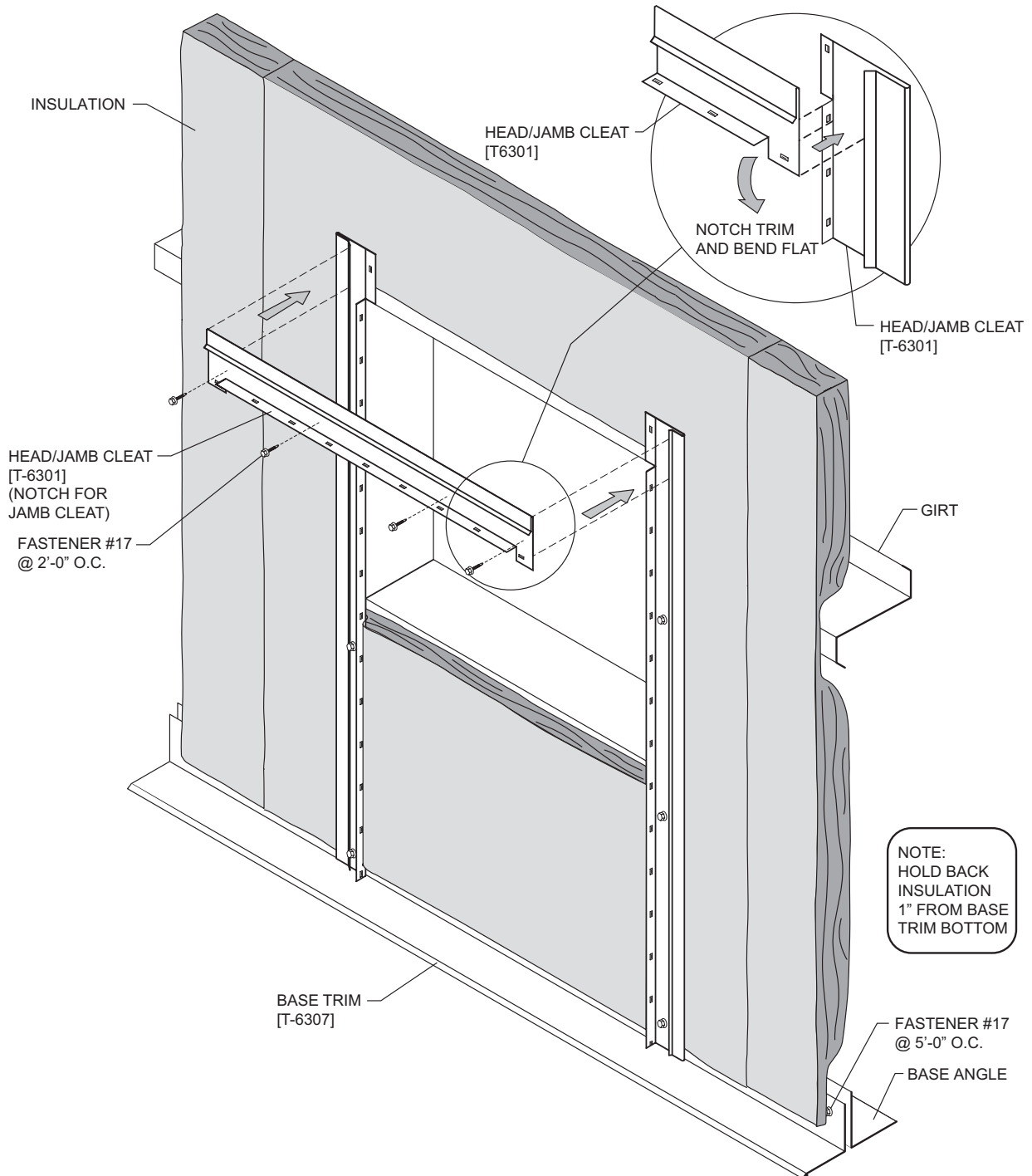


NOTES:

1. Cut insulation out from window opening.
2. Notch top of jamb cleat for header cleat to be attached on top.
3. Attach Header/Jamb Cleat to window jamb with Fastener #17 @ 2'-0" o.c. Header/Jamb Cleat must continue to bottom of wall.

DETAILS

WINDOW FRAMING DETAILS Header Cleat Installation

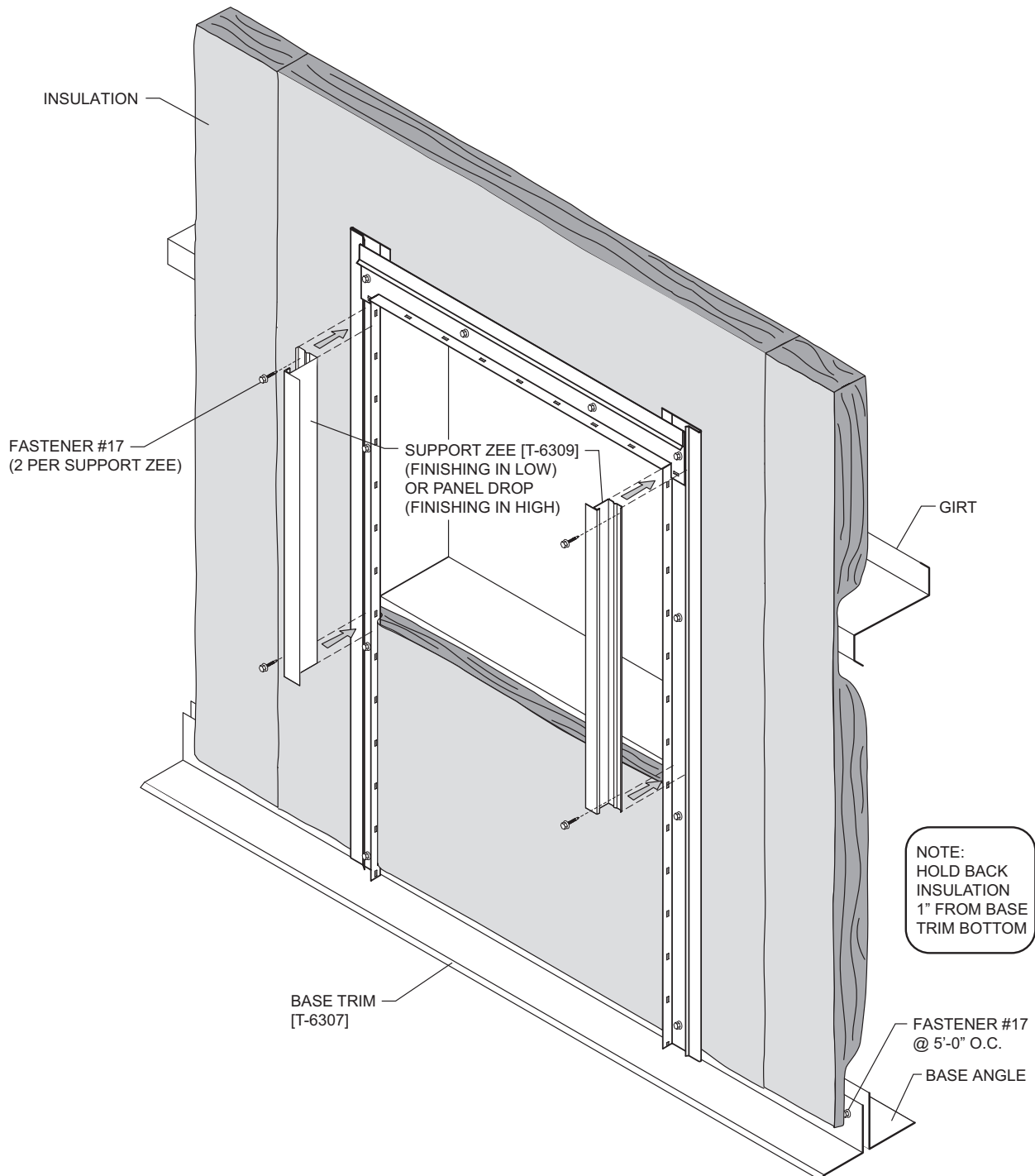


NOTES:

1. Notch header cleat to fit into trough of jamb cleat.
2. Attach header cleat to window header with Fastener #17 @ 2'-0" o.c.

DETAILS

WINDOW FRAMING DETAILS Spacer Zee Installation

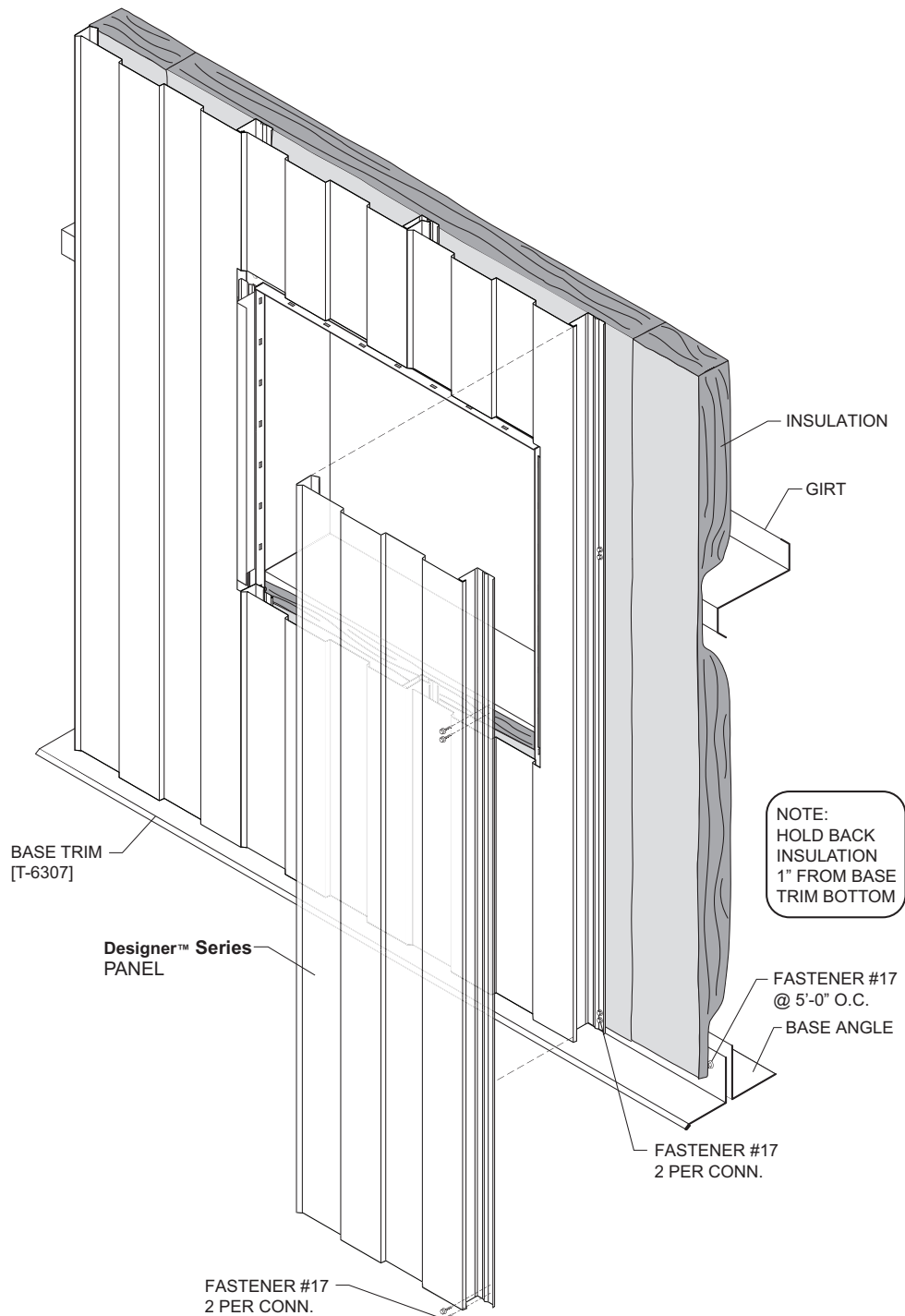


NOTES:

1. Attach support zee, when finishing in the low, with Fastener #17 @ 2 per piece. Panel Drop will be used when finishing in the high flute.

DETAILS

WINDOW FRAMING DETAILS Panel Installation

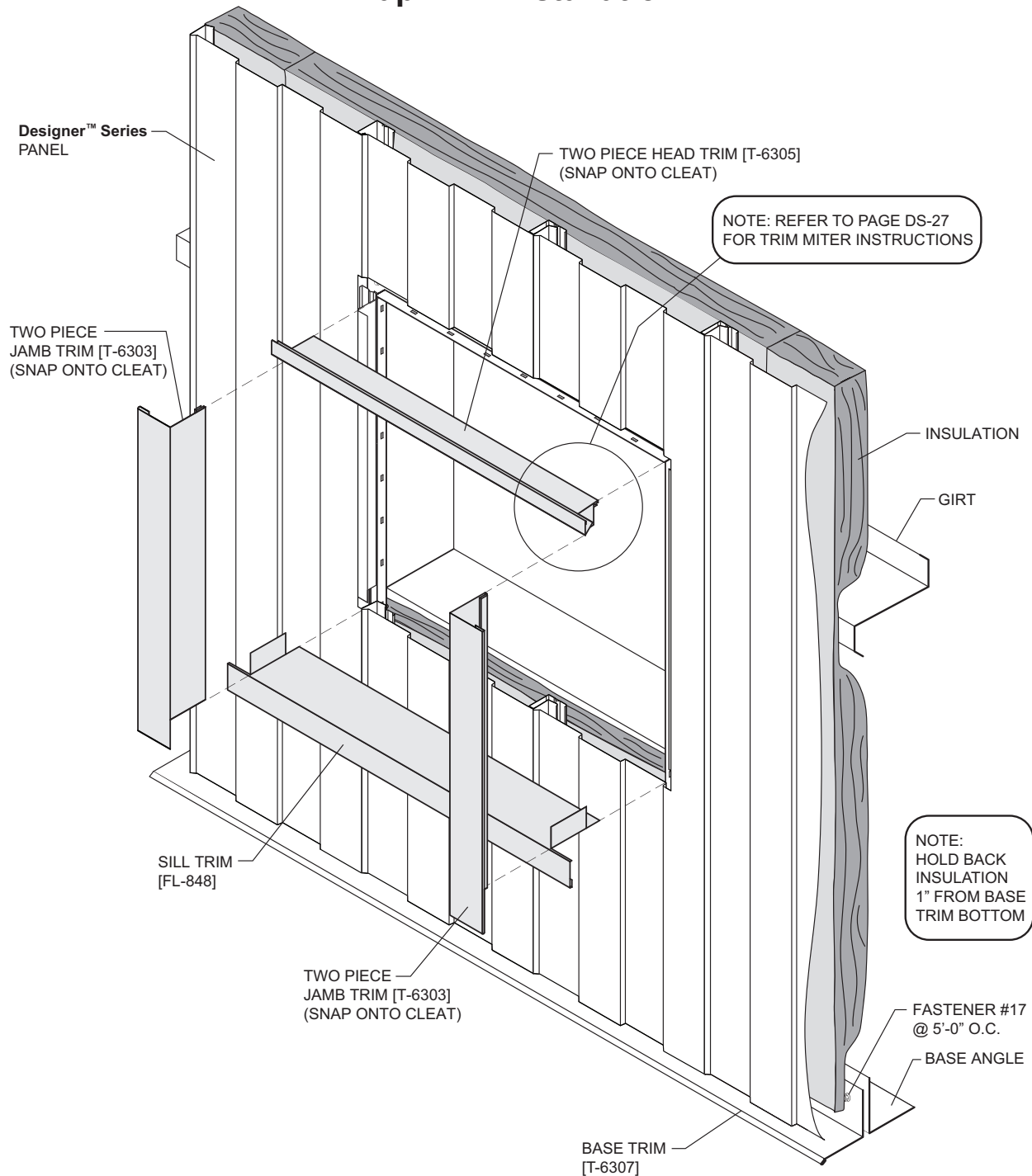


NOTES:

1. Stitch panel side laps with Fastener #4A at each support.

DETAILS

WINDOW FRAMING DETAILS Cap Trim Installation

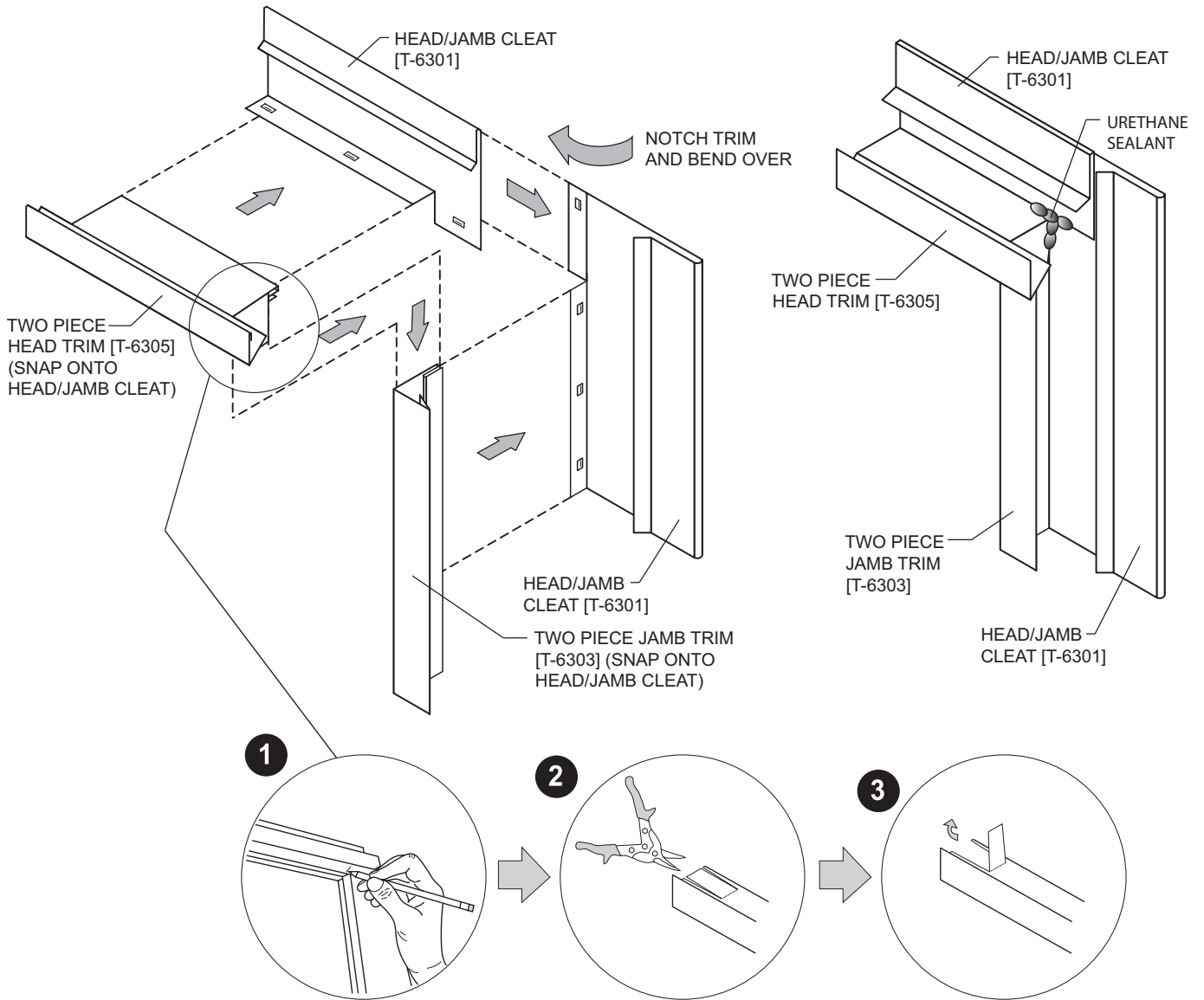


NOTES:

1. Cut and notch tabs to bend down on Header Cap. Snap Header Cap onto cleat.
2. Cut and notch tabs on Sill Trim to bend up behind Jamb Cap. Attach Sill Trim with Fastener #14.
3. Cut and notch Jamb Cap allowing notch to cover Sill Trim. Snap Jamb Cap onto cleat.

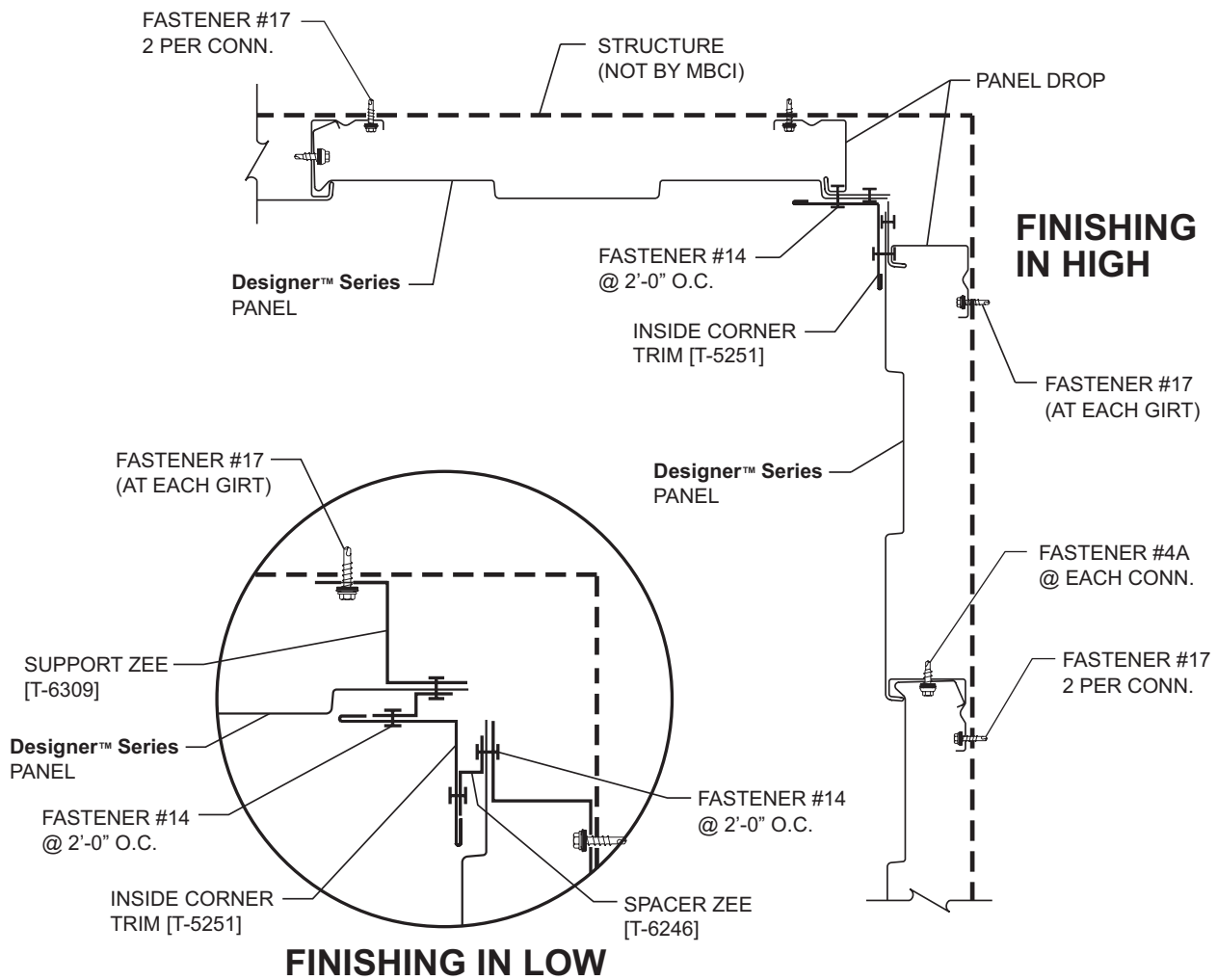
DETAILS

WINDOW FRAMING DETAILS Header/Jamb Trim Miter



DETAILS

Typical Inside Corner Detail

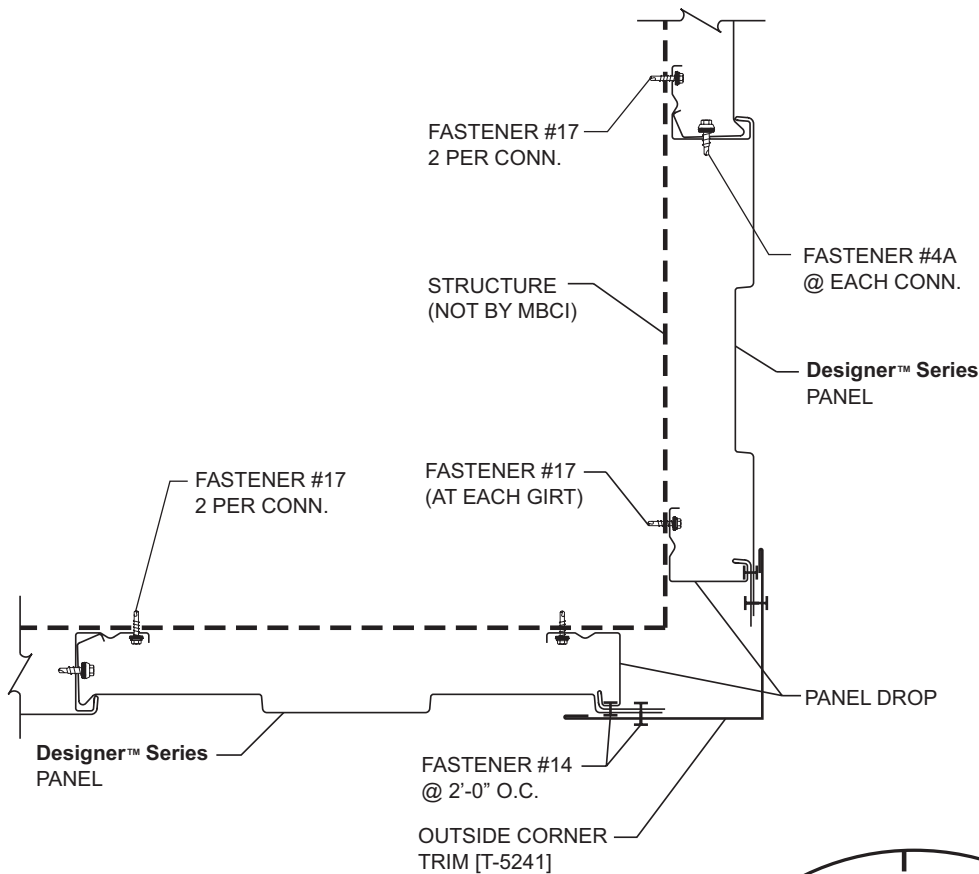


NOTES:

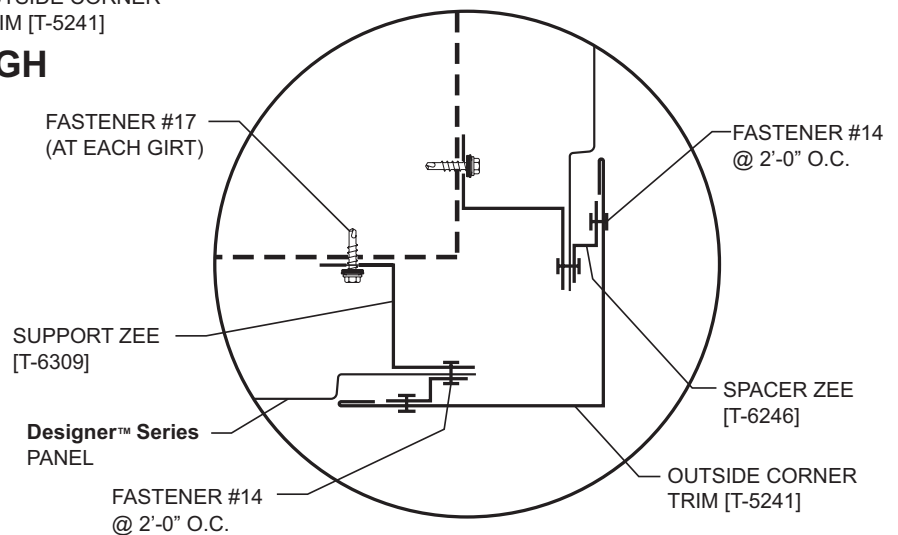
1. Attach panel drop to structure with a Fastener #17 at each girt.
2. Field cut last panel as required and attach to panel drop with Fastener #14 at 2'-0" o.c.
3. Attach Inside Corner Trim to panel with Fastener #14 at 2'-0" o.c.

DETAILS

Typical Outside Corner Detail



FINISHING IN HIGH



FINISHING IN LOW

NOTES:

1. Attach panel drop to structure with a Fastener #17 at each girt.
2. If required, attach spacer zee to panel with a Fastener #14 at 2'-0" o.c.
3. Attach Outside Corner Trim to wall panel with Fastener #14 at 2'-0" o.c.

NOTES



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