

## **KEY CONCEPTS:**

The dimensions and material relationships shown in this detail are not to scale and have been exaggerated for clarity. Actual dimensions will vary, and should be carefully coordinated with sequencing and construction tolerances to ensure the long-term durability and performance of this and similar exterior wall details.

Interface conditions between building envelope materials, components and systems should be fully detailed in a manner that is both technically sound and serviceable. Detailing should, at a minimum, allow for coordination of drainage planes when two or more different wall types are used in the same facade: allow for thermal and moisture-induced changes in material properties and differential thermal movement; and allow for in-service deflection, shrinkage, creep and similar behavior considered to be within the allowable structural limits of the project without compromise to the weather-tight integrity and thermal performance of the building envelope.

The air barrier can either be formed by an exterior side air barrier or by employing the interior side airtight drywall approach.

The location of or need for a vapor retarder within wall assemblies will vary based upon climate, and can be significantly influenced by the storage capacity and vapor permeance of the materials selected for each layer of the wall system. A climate-specific, hygrothermal analysis for any wall assembly should be considered to further evaluate this concern.

See the General section of the WBDG for additional information and guidance.

ARCHITECTURAL PRECAST WINDOW JAMB AND SILL -OVERALL DETAIL

## CONCEPTUAL - NOT FOR CONSTRUCTION

STEP 1: INSTALL SUB-SILL FLASHING WITH UP-TURNED INTERIOR FLASHING LEG AND FULLY SEALED END-DAMS. VERTICAL DIMENSION OF UP-TURNED FLASHING LEG AND END-DAMS MUST MEET OR EXCEED THE EQUIVALENT WATER HEAD FOR THE WATER TEST PRESSURE SPECIFIED BY THE DESIGNER, OR AS PUBLISHED BY THE WINDOW MANUFACTURER [EXAMPLE: A WINDOW PRODUCT WITH A PUBLISHED/SPECIFIED WATER TEST PRESSURE OF 8.0 PSF (1.54 INCHES OF WATER) SHOULD INCLUDE A MINIMUM UP-TURNED SUB-SILL FLASHING LEG AND END-DAMS OF APPROXIMATELY 1.5 INCHES]. PRECAST TO BE SLOPED DOWNWARD AND TO THE EXTERIOR AT ALL HORIZONTAL JOINTS AND BELOW ALL WINDOW LOCATIONS.

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ARCHITECTURAL PRECAST WINDOW JAMB AND SILL -STEP 1

## CONCEPTUAL - NOT FOR CONSTRUCTION $\oplus$ **(**

STEP 2: INSTALL THE WINDOW UNIT AND SECURE USING THE STRUCTURAL ELEMENTS SUPPLIED BY THE MANUFACTURER AND REQUIRED BY THE ENGINEER-OF-RECORD. THE STRUCTURAL CONNECTIONS ARE NOT SHOWN AND ARE THE RESPONSIBILITY OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE WINDOWS ARE BEING INSTALLED TO MEET ALL WIND, SEISMIC, BLAST, LIVE LOAD, DEAD LOAD AND OTHER PROJECT AND BUILDING CODE AND LOADING REQUIREMENTS. WINDOWS ARE TO BE DELIVERED TO THE PROJECT WITHOUT THE SNAP COVERS INSTALLED.

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ARCHITECTURAL PRECAST WINDOW JAMB AND SILL -STEP 2

# CONCEPTUAL - NOT FOR CONSTRUCTION

STEP 3: REMOVE VERTICAL JAMB PRESSURE BAR AND INSTALL SELF-ADHESIVE MEMBRANE ONTO JAMB EXTRUSION, ENSURING DRAINAGE OF THE JAMB WILL NOT BE CONSTRICTED. SECURE MEMBRANE ONTO THE PRECAST. PROVIDE FLASHING OR SIMILAR ACCESSORY AS REQUIRED TO COLLECT AND DRAIN WATER AT THE JAMB CAVITY TO THE BUILDING EXTERIOR. INSTALL SECONDARY JOINT SEALANT AT HORIZONTAL JOINT (RECESSED SEALANT JOINT NOT SHOWN).

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ARCHITECTURAL PRECAST WINDOW JAMB AND SILL -STEP 3

## CONCEPTUAL - NOT FOR CONSTRUCTION $^{(\!+\!)}$ $\oplus$

STEP 4: INSTALL VERTICAL PRESSURE BAR, FOLLOWING ALL MANUFACTURER INSTRUCTIONS, PINCHING MEMBRANE BETWEEN BASE EXTRUSION AND PRESSURE BAR GASKET. INSTALL BACKER ROD AND RECESSED SEALANT JOINTS BETWEEN THE JAMB EXTRUSION AND THE PRECAST CONCRETE AND THE SILL FLASHING AND SILL EXTRUSION. SEALANT JOINT PROFILE TO MEET THE MANUFACTURER REQUIREMENTS. ENSURE SEALANT JOINTS ARE RECESSED DEEP ENOUGH TO ALLOW FOR THE INSTALLATION OF THE SNAP COVERS. SILL SEALANT JOINT TO HAVE WEEPS INSTALLED. INSTALL HORIZONTAL JOINT PRIMARY JOINT SEAL.

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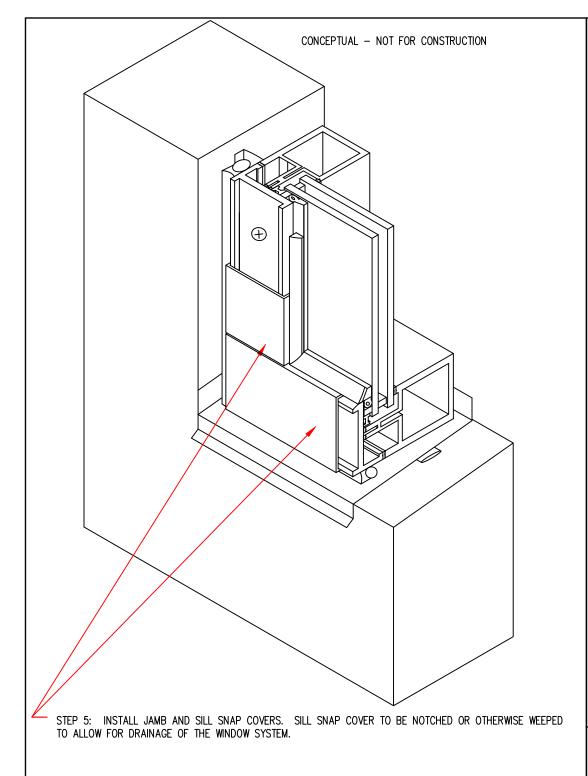
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ARCHITECTURAL PRECAST WINDOW JAMB AND SILL -STEP 5

## CONCEPTUAL - NOT FOR CONSTRUCTION STEP 6: INSTALL LOW-EXPANSION EXPANDING URETHANE FOAM INSULATION BELOW THE SILL PAN FLASHING TO THE BACK OF THE SUPPORTING STRUCTURE FOR THE SILL PAN FLASHING. STEP 6: INSTALL EXPANDING URETHANE FOAM INSULATION TO THE BACK OF THE BACKER ROD FOR THE SEALANT, PROVIDING CONTINUITY OF THE THERMAL BARRIER BETWEEN THE WINDOW FRAME AND INSULATION LAYER BEHIND THE PRECAST. ENSURE FOAM IS INSTALLED IN A CONTROLLED MANNER SO AS TO NOT HAVE FOAM INSTALLED BEYOND THE POINT WHERE INTERIOR FINISHES ABUT THE WINDOW UNIT. INSTALL BACKER ROD ALONG THE TOP OF THE SILL FLASHING SO AS TO NOT FILL THE FLASHING WITH FOAM. SEE HEAD AND JAMB DETAIL FOR ADDITIONAL INFORMATION.

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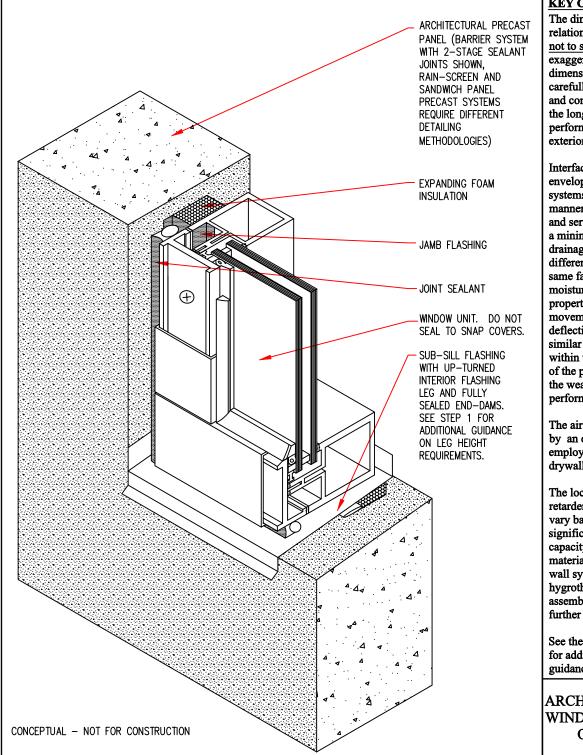
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ARCHITECTURAL PRECAST WINDOW JAMB AND SILL -STEP 6



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