

Site Visit Report

Generated: May 22, 2025

Project Details

Project:	Test
Report Number:	#1
Subject:	Testing report before deployment

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Site Observations and Discussions

Building Envelope Related:

1. Window flashing system installation using PolyWall AlumaFlash self-adhered flashing membrane around a window opening with OSB sheathing visible.
2. Electrical conduit (likely MC cable) penetrating through DuPont Tyvek weather-resistant barrier (WRB) with a rough opening that lacks proper sealing.
3. DuPont Tyvek Tape installation at a seam between two sections of commercial weather barrier showing wrinkling or improper adhesion.

The observations collectively point to several building envelope integrity concerns that could compromise the weather-resistant barrier (WRB) system. The PolyWall AlumaFlash installation around the window opening represents a critical waterproofing detail, as window-wall interfaces are common points of water intrusion. While the caption indicates the installation is in progress, the effectiveness of this detail will depend on proper integration with the WRB and exterior cladding systems.

Of significant concern is the electrical conduit penetration through the Tyvek WRB. The rough, unsealed penetration creates a direct pathway for water, air, and vapor migration into the building assembly. Such breaches in the continuous air barrier can lead to moisture-related issues including mold growth, reduced insulation effectiveness, deterioration of sheathing and framing members, and potential indoor air quality problems. Penetrations that are not properly sealed also compromise the building's energy efficiency by allowing air leakage.

The wrinkled or improperly adhered Tyvek Tape at the WRB seam represents another vulnerability. Proper seam treatment is essential for maintaining continuity of the air and water barrier. Wrinkles, gaps, or poor adhesion at seams can create channels for water intrusion and air leakage. Over time, these deficiencies may worsen due to building movement, thermal cycling, and UV exposure, potentially leading to more significant failures.

These observations suggest potential systemic issues with the building envelope installation practices on this project. Improper detailing at critical interfaces (windows, penetrations, seams) indicates possible gaps in quality control processes, contractor training, or construction

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sequencing. If left unaddressed, these deficiencies could lead to premature building deterioration, increased maintenance costs, occupant comfort issues, and potential liability concerns.

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Action Items

1. Implement immediate inspection of all building envelope penetrations, focusing on sealing electrical, mechanical, and plumbing penetrations through the WRB using manufacturer-approved methods and materials. Require photographic documentation of corrections.
2. Conduct a comprehensive review of all window flashing installations to ensure proper shingling of materials, adequate integration with the WRB system, and appropriate end dams to direct water away from the building assembly.
3. Re-examine all WRB seam taping for proper installation per manufacturer specifications, ensuring adequate surface preparation, proper overlapping, and sufficient pressure application during installation to prevent wrinkles and ensure full adhesion.
4. Organize an immediate training session for all trades involved with building envelope work, emphasizing proper penetration sealing techniques, WRB installation sequencing, and critical flashing details.
5. Develop a penetration management plan for any future MEP installations, requiring pre-planning of penetration locations and immediate proper sealing after penetration.
6. Implement a formal quality control inspection protocol specifically for building envelope components, with sign-off required at critical stages before work is concealed by subsequent installations.
7. Consider engaging a building envelope consultant to perform third-party inspections of air barrier continuity, flashing installations, and critical details before exterior cladding installation proceeds.
8. Perform a blower door test at an appropriate stage of construction to identify and address any remaining air leakage pathways in the building envelope.

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Site Photos

Photo 1

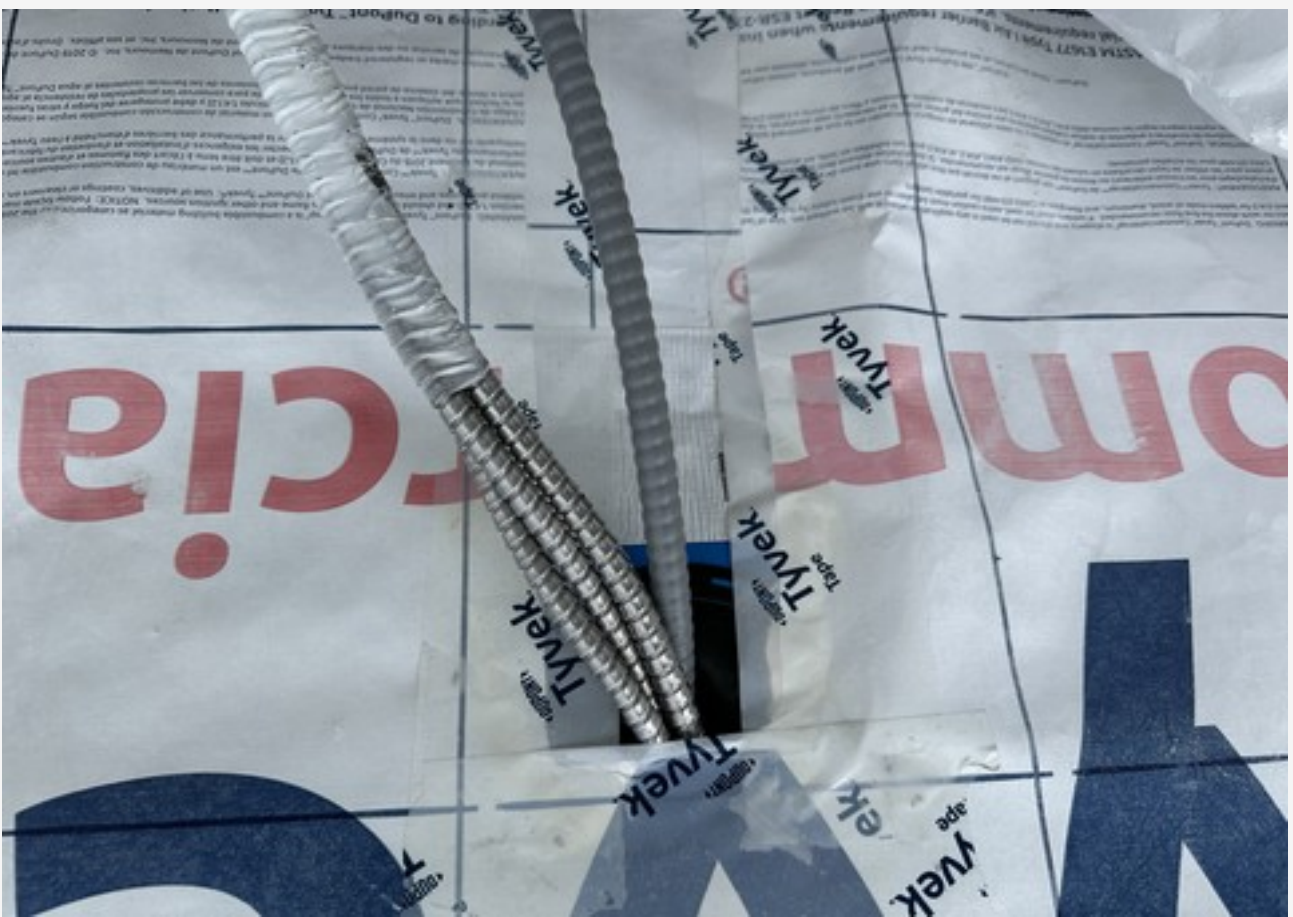


Installation of a window flashing system showing PolyWall AlumaFlash self-adhered flashing membrane being applied around a window opening with OSB sheathing visible above, creating a weather-resistant barrier to prevent water infiltration at the fenestration perimeter.

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Photo 2

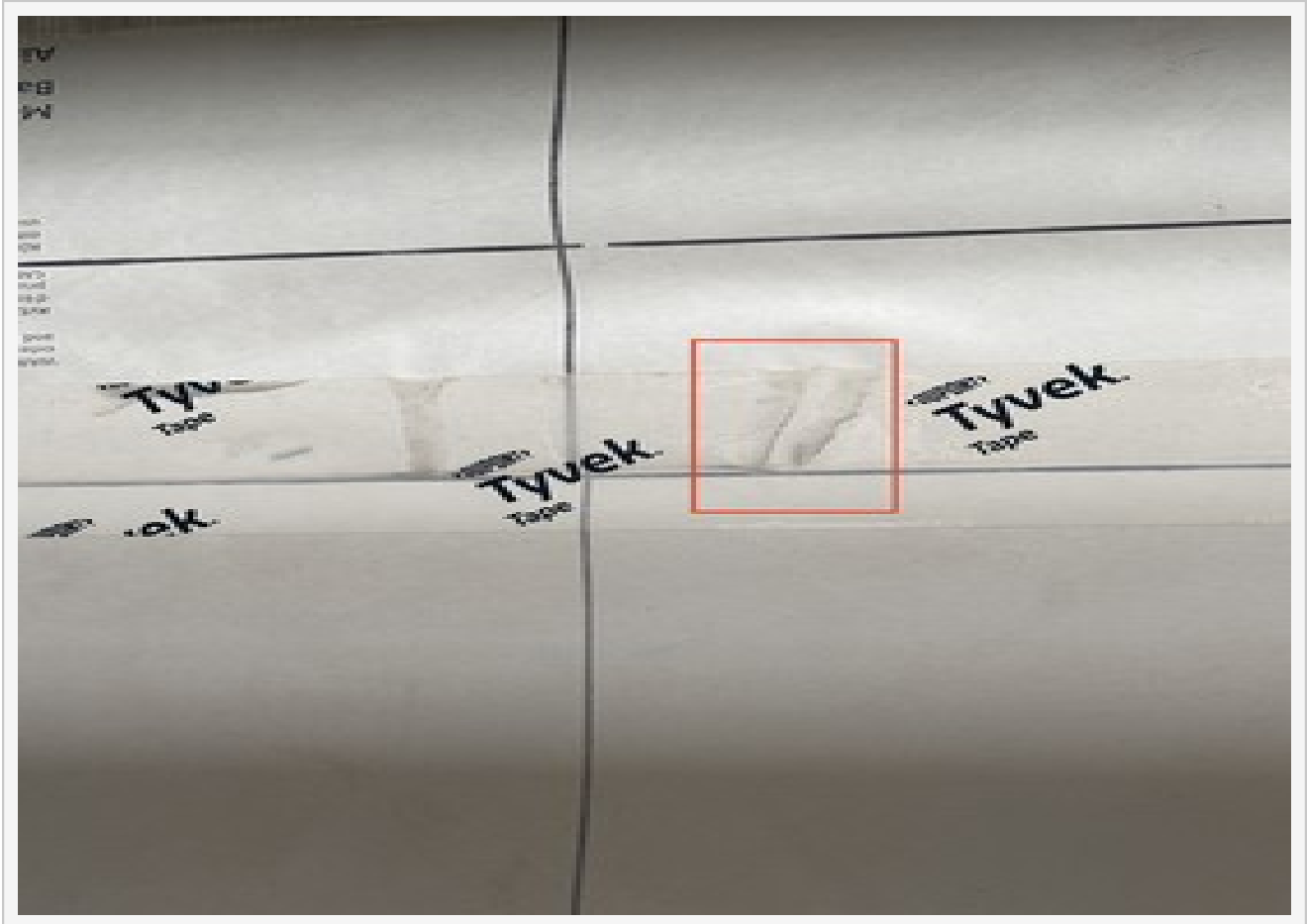


Electrical conduit (likely MC cable) penetrating through DuPont Tyvek weather-resistant barrier (WRB), showing a rough penetration opening that requires proper sealing to maintain the building envelope's weather protection integrity.

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Photo 3



DuPont(TM) Tyvek(R) Tape installation showing a seam with a highlighted area of wrinkling or improper adhesion where two sections of commercial weather barrier meet.