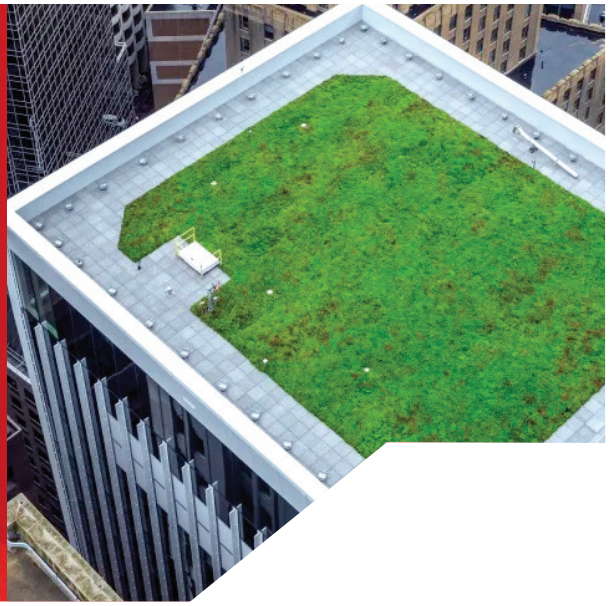
ELEVATE

Winthrop Center



Contractor: Titan Roofing
Interviewed: Colby Baker, Project Manager of Titan Roofing
Project Duration: Oct. 2021 — June 2023
Region: Boston, MA, U.S.A.

PROJECT OVERVIEW

Winthrop Center is a groundbreaking addition to Boston's skyline, setting new standards in sustainability and building performance. As the world's largest Passive House-certified structure, this high-rise showcases cutting-edge energy efficiency and next-generation office and lifestyle amenities. Winthrop Center also brings lasting economic and community benefits. Its Connector Grand Hall and adjacent park offer a public space for dining, concerts, and entertainment, further establishing it as a dynamic hub in the city.

Elevate played a key role in bringing Winthrop Center to life, serving as part of its groundbreaking model of sustainability. This high-rise in Boston sets new standards for energy efficiency and performance, and Elevate's innovative roofing and insulation solutions were integral to achieving that vision. By incorporating UltraPly TPO SA membrane and next-generation ISOGARD polyiso insulation, Elevate helped create a roofing system that enhances durability and efficiency while supporting the building's ambitious sustainability goals.

Colby Baker, Project Manager at **Titan Roofing**, the installing contractor, highlighted the complexity of the installation. "This job was unique in that it was a high-rise in Boston, which is unusual" he says. "At 53 stories tall, it was a first for me. This project used Elevate ISOGARD polyiso insulation, HD Composite Board, and 60-mil TPO SA. We installed the Elevate system on multiple levels, including the second, third, and 53rd floors, as well as the penthouse and its walls."

INSTALLATION CHALLENGES

Originally developed in 2017 by internationally recognized developer **Millennium Partners**, Winthrop Center was designed to redefine building performance and energy conservation. With 70% of CO_2 emissions in the building sector stemming from operations like heating and cooling, the project aimed to implement solutions that enhance sustainability and energy efficiency.

To help achieve this vision, Millennium Partners collaborated with a team of MIT professors led by John E. Fernández, Director of MIT's Environmental Solutions Initiative. Their design focused on promoting health and wellness, enhancing occupant happiness and productivity, and minimizing environmental impact. Fernández played a key role in shaping the building's sustainable design, ensuring that Winthrop Center would serve as a global benchmark for energy-efficient development.

ELEVATE

THE SOLUTION

ROOFING SYSTEM SOLUTION

To ensure the highest energy efficiency and sustainability for the project, Millennium Partners turned to Elevate™ roofing systems, combining innovative insulation and membrane technologies. The selected roofing system was designed not only to provide superior thermal performance but also to stand up to the harsh elements and contribute to long-term energy savings. The solution incorporated Elevate ISOGARD™ polyiso insulation, UltraPly™ TPO SA membrane, and Elevate Edge Metal to create a durable, energy-efficient roof system.

ISOGARD Polyiso Insulation

Elevate ISOGARD polyiso insulation was chosen for its exceptional thermal efficiency, offering up to 40% better performance in cold temperatures compared to other roofing insulation brands*. Typically when the temperature drops, the thermal performance of polyiso insulation decreases. ISOGARD, however, is the only polyiso formulation that becomes more effective as the temperature gets colder. This insulation solution is crucial for helping to reduce heating and cooling costs, maintaining comfortable indoor temperatures, and improving overall energy efficiency for the building. ISOGARD's high R-value per inch makes it one of the most efficient insulation materials available, contributing to a significant reduction in the building's energy consumption.

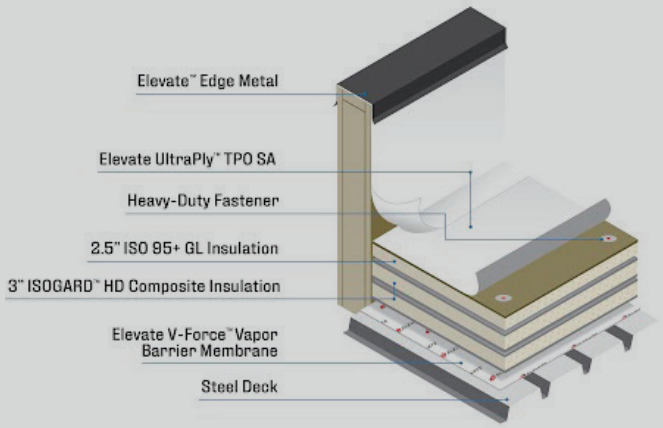
Elevate UltraPly TPO SA

Elevate UltraPly TPO SA roofing membrane was selected for its combination of durability, energy efficiency, and environmental benefits. This self-adhering membrane offers a high level of solar reflectivity, UV resistance, and moisture protection, which helps to maintain a cooler building interior. The reflective surface reduces heat absorption, lowering cooling costs and minimizing the need for excessive air conditioning. TPO SA installs up to 4x faster than fully adhered applications, helping to save time and labor on the jobsite**.

In addition to its energy-saving features, UltraPly TPO SA is an environmentally friendly option. The membrane contains zero volatile organic compounds (VOCs) and does not contain chlorinated or halogenated components, making it an ideal choice for sustainable projects. Beyond sustainability, this membrane delivers long-term performance and reliability, helping to extend the lifespan of the roof.

Elevate Edge Metal

To complete the roofing system, **Elevate Edge Metal** was used to provide enhanced durability and a long-lasting, sleek finish. This product was specifically chosen for its strength, ensuring the roof's edge remains protected against wear and tear from environmental factors. Elevate Edge Metal also adds aesthetic appeal, seamlessly integrating with the rest of the roofing system for a polished, professional look.



MATERIAL CHOICES

Insulation

- 1 Layer of 2.5" ISO 95+ GL Insulation
- 2 Layers of 3" ISOGARD HD Composite

Membrane and Attachment Membrane

- Membrane: UltraPly™ TPO SA
  Membrane Specs: 60 mil TPO 0.60" (1.52mm)
  White, Single weld
- UltraPly TPO Walkway Pad
- V-Force Vapor Barrier Membrane
- Elevate Edge Metal

LEARN MORE

Sales: 800-428-4442 | **Technical:** 800-428-4511

Elevatecommercialbp.com

*The thermal performance of ISOGARD polyiso insulation is up to 40% better than major competitors when tested by an independent third party in cold temperature 40°F (4°C) applications according to ASTM C1289 standards. The increased R-value per inch means better thermal performance from the same roofing systems using the same amount of insulation compared to leading competitive products on the market today

**Based on testing conducted by a third-party in 2017 using UltraPly™ TPO SA versus standard adhered TPO. Application times vary with settings and environmental factors; actual results will vary.

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