



CONCOURSE A/B CONNECTOR AND BAGGAGE HANDLING SYSTEM

BALTIMORE/WASHINGTON THURGOOD MARSHALL INTERNATIONAL AIRPORT

221,300 SF | BALTIMORE, MD

PROJECT OVERVIEW

APPLICANT | PROJECT TEAM | OVERVIEW



APPLICANT NAME

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PROJECT TEAM

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VTC

Architect of Record, Sustainability

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Airport Design Consultants Inc.

Design Architect

Abstract Group

BHS Design & TSA Liaison

Studdiford Technical Solutions

Mechanical, Electrical, Plumbing Engineer

JMT

Cost Estimating

Faithful + Gould

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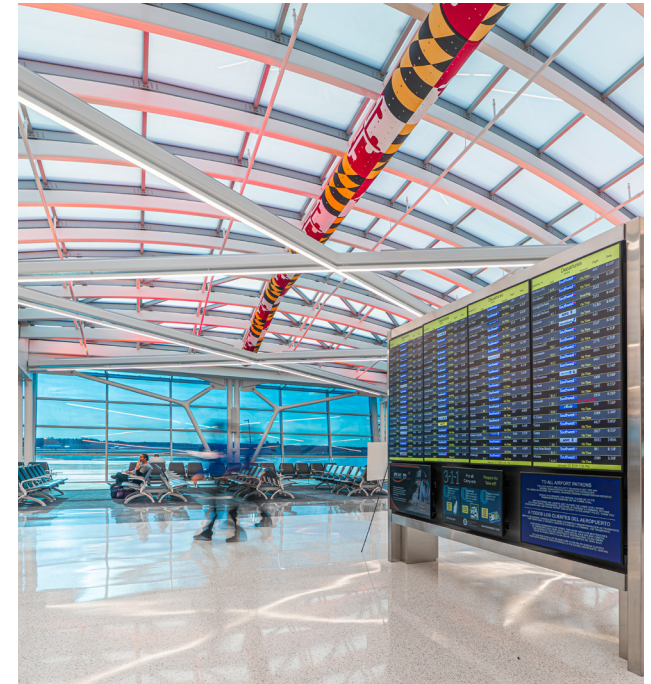
The Maryland Aviation Administration (MAA) commissioned a transformative \$340 million expansion of the AB Terminal at BWI Airport, delivering a major modernization of both passenger amenities and behind-the-scenes operational infrastructure. The project expands and renovates the apron level with a state-of-the-art inline baggage screening system, enhanced inbound and outbound baggage handling equipment, expanded CBIS and CBRA processing areas, new airline operations space, and a new departures-level connector linking Concourses A and B to the existing food court, complete with five holdrooms, two restrooms, airline training facilities, and a vibrant central marketplace for concessions. Designed with long-term flexibility in mind, the expansion strategically incorporates unfinished shell space, allowing the airport to meet immediate operational demands while providing a cost-effective framework for future growth as passenger volumes, market conditions, and funding opportunities evolve.



COMPLETENESS

COMPLETENESS & FINANCIAL VIABILITY

The Concourse A/B Connector and Baggage Handling System project at BWI Airport was officially opened by Governor Wes Moore in January 2026 after nearly a decade of planning and four years of construction. The \$340 million project is fully implemented and operational, providing immediate benefits to passengers, airlines, and the regional economy. The project includes a 142,000-square-foot terminal expansion, 78,000 square feet of renovations, modernized gate areas, new concessions space, upgraded baggage claim facilities, and a state-of-the-art baggage handling system that increases processing capacity from 2,100 to nearly 3,500 bags per hour. These improvements support future passenger growth, enhance operational efficiency, and create additional capacity for Southwest Airlines, BWI's largest carrier. BWI Marshall Airport is one of the largest airports in the Southwest system, and the largest on the East Coast. The terminal enhancements offer Southwest Airlines added capacity to continue its growth at BWI. The investment strengthens one of the region's most important transportation hubs, which generates approximately \$11.3 billion in annual economic impact and supports more than 107,000 jobs. By improving connectivity, reliability, passenger experience, and long-term growth potential, the project represents an effective use of public and airport-generated funds that will continue delivering economic and community benefits for decades.



A SENSE OF PLACE AND QUALITY

LOCALITY, COMMUNITY, REGION

The AB Terminal expansion transforms two previously independent concourses into a unified passenger experience, strengthening the airport's role as a regional gateway for Maryland and the greater Mid-Atlantic. By physically connecting the A and B concourses, the project improves circulation, operational efficiency, and passenger convenience while creating a cohesive architectural identity that reflects the airport's importance to the surrounding community. The expansion establishes a welcoming civic space that enhances the traveler experience and reinforces the terminal as an essential piece of regional infrastructure, serving millions of passengers while supporting the airport's continued economic growth and operational excellence.

A defining challenge of the project was delivering this expanded facility within an exceptionally constrained building envelope. Strict air traffic control tower sightline requirements limited the overall building height, demanding a highly coordinated design approach that balanced architectural ambition with operational necessity. To maximize the sense of openness despite these constraints, the design prioritized the highest possible finished ceiling, creating a light-filled, spacious interior that belies the building's physical limitations. Exposed mechanical systems, made necessary by the limited ceiling plenum, were embraced as an architectural feature rather than concealed. Prominent HVAC ductwork was wrapped with graphics inspired by the Maryland state flag, transforming a functional building system into a bold visual expression of local identity. This integration of state symbolism creates an immediate sense of arrival, celebrating Maryland's heritage while providing a memorable and distinctive experience for travelers.



Beyond its functional improvements, the terminal fosters a strong sense of place by combining efficient infrastructure with design elements that reflect the character and pride of the region. The Maryland-inspired graphics, open gathering spaces, and cohesive architectural language create an environment that is both contemporary and unmistakably rooted in its location. Careful integration of structure, building systems, and construction methods allowed the project to achieve a unified architectural expression while maintaining efficiency, constructability, and long-term value. The result is a terminal expansion that demonstrates excellence in design, construction, economics, marketing, and management, providing an inspiring public environment that serves as both a functional transportation hub and a lasting civic landmark that welcomes visitors while instilling pride in the local community.

SUSTAINABILITY

ELEMENTS OF SUSTAINABILITY

The project's thoughtful integration of sustainable design and construction principles yielded a high-performance facility with long-term operational savings. The sustainability strategies were developed in partnership with MDOT & MAA to optimize the interior environment while aligning closely with BWI's sustainability goals.

DAYLIGHTING, GLARE & ENERGY

Daylighting and glare were chief concerns among all stakeholders. Airports traditionally feature expansive glazing to create bright, open environments with plentiful views to the airfield. Daylighting frequently becomes problematic, however — from passengers squinting through glare in hold rooms to gate agents struggling with screen visibility. Effective daylighting should enhance the airport experience, not detract from it.

This was accomplished through a combination of electrochromic glass on vertical and angled glazing surfaces and an enhanced skylight system. Care was taken to ensure the electrochromic glazing significantly reduced glare throughout the hold rooms, a recurrent complaint of many passengers in airports worldwide. The electrochromic glazing also ensured a comfortable viewing environment for airline employees using screens at gate and ticket podiums.

Beyond occupant comfort, electrochromic glass reduces HVAC loads through its enhanced solar heat gain coefficient, blocking the vast majority of incoming solar radiation when actively tinting. The three-pane skylight system includes both tinted and fritted glazing, providing measured, consistent natural daylighting throughout the day while delivering a much higher insulation value than typically associated with skylight systems — significantly reducing the need for artificial lighting throughout the main connector.

The combination of reduced solar heat gain, abundant natural daylighting, and efficient LED interior and exterior lighting allowed for a reduction in HVAC system size. This resulted in lower energy usage, long-term operational and life-cycle cost savings, and a smaller carbon footprint.



SUSTAINABILITY

ELEMENTS OF SUSTAINABILITY



SUSTAINABLE BUILDING MATERIALS

Existing building structure and materials were retained and reused wherever possible, with details carefully crafted to ensure a seamless transition between existing and new construction — reducing waste and the embodied carbon associated with the project. New materials were selected not only to complement and transition from the existing building, but also to ensure longevity.

Terrazzo was chosen for its beauty, exceptional durability, and incorporation of recycled materials such as glass and marble. Its long lifespan and minimal maintenance requirements contribute to a reduction in building material landfill waste. Materials that can be recycled and repurposed at the end of their lifespan — such as carpet tiles, stainless steel, and wood — were also prioritized during the selection process.

OCCUPANT EXPERIENCE

Inclusive design was among the project's chief goals. Where travelers previously had to use stairs, elevators, or escalators to access several gates, the new design allows for uninterrupted travel via a gradual ramp accessible to all. As noted above, significant attention was paid to daylighting and glare reduction throughout the facility.

The expanded facility also incorporates sophisticated air, energy, and water metering to give BWI ongoing visibility into actual usage patterns. This serves as a tool to compare real energy consumption against predicted levels, enabling corrective action as needed while confirming that occupants benefit from healthy indoor air quality. Together, these measures ensure that a facility designed with aggressive sustainability targets will continue to realize those goals throughout regular operations.

VISIONARY AND EMULATION

The Baltimore/Washington International Airport A/B Terminal Expansion redefines the traditional airport expansion model by balancing immediate operational needs with long-term flexibility. Rather than designing solely for current demand, the design team developed a phased, future-ready solution that incorporates strategically planned shell space for later build-out. This approach, conceived in response to the economic uncertainty following 2020, allows the facility operator to expand passenger amenities, concession offerings, and tenant spaces as demand and funding evolve, without disrupting airport operations or requiring major structural modifications. By embedding adaptability into the building's core design, the project establishes a scalable framework that other airports can replicate to better manage fluctuating passenger volumes and capital investment cycles.

Beyond its forward-thinking planning strategy, the project seamlessly integrates critical operational infrastructure with enhanced passenger experience. The expansion modernizes baggage handling through a new inline screening system and expanded CBIS/CBRA facilities while creating a unified departures experience that connects existing Concourses A and B with new holdrooms, airline training facilities, restrooms, and a centralized marketplace. The result is a light bright unified space that provides ticketed passengers with an atmosphere that is calm and clear and lowers stress levels of all who process through the facility.



A NEED

UNIQUE NEEDS OF THE AREA

The BWI Thurgood Marshall Airport Concourse A/B Connector and Baggage Handling System project directly responds to the growing transportation and economic needs of the Baltimore-Washington region. As one of the busiest airports in the Mid-Atlantic and a critical gateway for residents, businesses, and visitors, BWI required additional capacity to accommodate increasing passenger volumes, improve operational efficiency, and enhance the overall traveler experience. Prior to the project, aging infrastructure and limited baggage processing capacity created operational constraints that could hinder future growth. The completed improvements address these needs through expanded terminal space, upgraded passenger amenities, modernized gate areas, and a new baggage handling system capable of processing nearly 3,500 bags per hour. By enhancing mobility, creating opportunities for future economic development, and improving the customer experience for millions of travelers each year, the project demonstrates a clear and measurable response to the needs of both the surrounding community and its users.



A NEED

UNIQUE NEEDS OF THE AREA



"We celebrate this project that will serve our passengers, support airline growth, and continue driving economic development for our state. By modernizing our airport, we're showing the world that we are making this Maryland's Decade and committed to providing an outstanding travel experience for residents, businesses, and visitors."

Governor Wes Moore | State of Maryland

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