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Jim Shea, PE
ASHE National President 2025-2026



New Directions

Spring is always a busy and energizing time for ASHE. Across the country, sections are delivering strong programming, which has always been a foundational element of our organization, and it has been great to see that momentum firsthand.

Since the start of the year, I have had the opportunity to visit eight sections, each offering something unique. From the Middle Tennessee Section's 20th Anniversary celebration, to the Franklin Section's longstanding venison dinner tradition, to Circle City's Strikes for Scholarships event, and New England's first Scholarship and Awards Banquet, each event reflects the strength and creativity of our sections. I have also had the chance to connect with members in Phoenix and New York City, and even spend time back home with the Lake Erie Section at a recent Board meeting.

This time of year really highlights what makes ASHE special. The ability to connect, share experiences, and see the dedication of our volunteers up close is incredibly rewarding. Across the country, section leaders continue to put in the work to deliver meaningful programming, while also supporting impressive scholarship and awards initiatives. That impact is real, and it is something we should all be proud of.

At the National level, we continue to make steady progress on our key priorities. Membership, technology, and section engagement remain areas of focus. Our National Directors have been very active visiting sections and helping strengthen the connection between National and local leadership. It has been great to see that level of engagement, and I remain hopeful that we can reach every section through those efforts.

We are also seeing continued advancement in our technology initiatives. More sections are adopting StarChapter, and our SharePoint rollout is expanding to support section operations and long term continuity. These tools are intended to make life easier for our volunteers and allow them to focus more on what matters most, serving members and growing their sections.

Membership growth continues to be a priority. If you are reading this and have colleagues who are not yet members, I encourage you to invite them to join. ASHE provides value at every stage of your career through professional development, leadership opportunities, and the relationships that make this organization so strong. I appreciate the continued focus on this across all of our sections.

Looking ahead, the next few months will continue to be busy. I am planning visits to the Colorado Section, the Mid-Atlantic Region Conference, and the Southern New Jersey Section's 40th Anniversary event. We will also gather with the Delaware Valley Section for our National Board meeting and to celebrate their 60th Anniversary, a tremendous milestone.

As I enter the final stretch of my term as National President, I continue to be grateful for the opportunity to serve this organization. The experiences, the people, and the impact of ASHE have meant a great deal to me. Thank you for your leadership, your time, and your commitment to making ASHE what it is today.

Together, we will continue to build on this momentum and ensure a strong future for our Society. 

In This Issue

- 3 New Directions: President's Message
- 5 From scanner's Chair
- 6 Brecksville Road Bridge Deck Replacement: A Corridor Reimagined
- 10 New U.S. 27 Bridge Helps Renew Richmond, Indiana
- 12 Mile Markers: Celebrating 250 Years of Transportation Infrastructure and Innovation in the Nation's Capital
- 16 Transforming a Rural Corridor into a Safer, More Connected Transportation Network
- 22 Surveying San Antonio's VIA Green Line
- 26 As the Wheel Turns: Dewberry Promotes Four in Mid-Atlantic Offices
- 28 Restoring the Brilliance of One of Pennsylvania's Most Outstanding Concrete Bridges
- 32 Mile Markers: ASHE NY Metro Projects of the Year
- 34 VDOT Partners with HNTB for New Walker Road Bridge
- 38 Mile Markers: Engineering the Vibe: Reinventing Highway Networking
- 40 Mile Markers: Remembering Roland Nesslinger
- 42 A New Standard for Intersection Safety in Central Ohio

6 Brecksville Road Bridge Deck Replacement: A Corridor Reimagined



16 Transforming a Rural Corridor into a Safer, More Connected Transportation Network



34 VDOT Partners with HNTB for New Walker Road Bridge



From scanner's Chair

The scanner continues to serve as the premier platform for showcasing groundbreaking transportation projects from coast to coast. It is where innovation is recognized, leadership is celebrated, and the future of our industry takes shape.

We invite you to share how your organization integrates forward-thinking solutions, overcomes complex challenges, drives continuous improvement, and fosters a culture rooted in leadership and accountability. As infrastructure projects grow in scale and complexity, strong leadership is no longer optional—it is essential. By investing in leadership development, organizations strengthen their ability to steward public funds responsibly, deliver resilient infrastructure, and ensure the long-term sustainability of the assets that connect our communities.

Our industry understands that preparing the next generation of leaders requires more than technical expertise. It requires mentorship, opportunity, and a commitment to cultivating talent. Through intentional training and meaningful engagement, we empower future leaders to confidently navigate the evolving landscape of infrastructure development.

We encourage you to submit highlights from your Project of the Year award winners, including photos of the recipients. We also welcome stories about the initiatives you are advancing—whether through scholarship programs, creative outreach to emerging professionals, or impactful Future Leaders and mentorship programs. Your efforts strengthen the profession and inspire excellence across the ASHE community.

Looking ahead, we are excited for the 2026 ASHE National Conference taking place May 27–31, 2026, at the Bethesda North Marriott Hotel in Bethesda, Maryland, proudly hosted by the Chesapeake and Potomac Sections. For conference details, please visit: www.2026conference.ashe.pro.

We look forward to gathering, connecting, and celebrating our shared accomplishments.

The Scanner Committee is already reviewing and scoring all published articles across the four issues—from Summer through Spring 2025–2026—for the SAY (Scanner Article of the Year) Awards. We are proud to recognize the top-scoring articles that exemplify innovation, insight, and leadership. Awards will be presented to the selected authors at the National Conference luncheon.

In addition, we encourage you to participate in the “People's Choice” Award by casting your vote for your favorite article. The winner will be announced at the Annual Banquet on Saturday night. Simply scan the QR code included in your Conference welcome packet to take part.

Rhonda Cardone
scanner Chairwoman
ASHE New York Metro Section



2025-2026 Scanner ARTICLE of the YEAR AWARD

Starting with all articles appearing in *scanner* from summer through spring issues, the *scanner* committee will choose first-, second- and third-place winners for the SAY Award. The committee will judge each article on:

- Value to the engineering profession
- Value to the community
- Innovation
- Photo quality/content connection
- Overall uniqueness

All incorporating ASHE Strategic Plan Objectives.

The annual SAY Award winners will be announced at ASHE National Conference, May 27-31, 2026.

Sections, keep those articles coming!

Say
what?



Brecksville Road Bridge Deck Replacement: A Corridor Reimagined

By Emily Wellman, Manager of Bridge Engineering, Osborn Engineering
ASHE Lake Erie Section

The Brecksville Road (SR-21) Bridge over Interstate 480 in Independence, Ohio, is a vital connector between residential and commercial areas and serves as a reliever route for Interstate 77. Carrying two lanes of traffic in each direction and the Greater Cleveland Regional Transit Authority’s (GCRTA) 77F bus route, the bridge plays a critical role in regional mobility.

In response to structural deterioration and aesthetic concerns, Osborn Engineering led the design of a transformative deck replacement and rehabilitation project that balanced engineering innovation with community vision.

Formally known as CUY-021-09.09, the bridge is a 4-span welded steel girder bridge with an overall length of 418

feet and an out-to-out deck width of 66 feet and 4 inches, including sidewalks on both sides. Highly visible from the I-77/I-480 interchange just to the west, the existing function-over-form design and deteriorating structural condition raised this bridge to a high priority for both the Ohio Department of Transportation District 12 (ODOT D12) and the City of Independence.

The City’s priorities emphasized constructable aesthetic improvements that could be incorporated within the already-programmed scope of work to enhance user experience both on and under the bridge. ODOT’s rehabilitation scope focused on common-sense structural improvements to extend the service life of the bridge.

Scope items included early load rating of the existing beams to ensure their suitability for reuse with current

design loading, replacing the non-composite deck with a new composite reinforced concrete deck, seismic upgrades, and substructure rehabilitation.

Cracked pier cap cantilevers were repaired, and fixed bearings at Piers 1 and 2 were replaced with elastomeric bearings with improved anchor bolts to meet seismic anchorage requirements. All other bearings were reset as needed. Pier columns at fixed bearing locations were strengthened using a composite fiber-wrap system to meet seismic ductility criteria.

A key challenge was maintaining traffic flow during construction. Traffic demand and regional connectivity required vehicular traffic to be maintained in both directions while allowing for pedestrian access across the bridge.

This had to be achieved on the existing bridge deck width, as the existing deck cantilevers were already at their structural limit. Widening for maintenance of traffic (MOT) would have required an additional girder line and substructure widening – a significant change in scope and construction cost.

To maintain two lanes of traffic and pedestrian access, the team implemented a phased construction strategy with a deck construction joint over the center girder and no closure pour. This approach required precise planning, including the use of mechanical rebar connectors at the phased construction joint. These connectors had to be field-bent to accommodate the bridge cross-slope to ensure design grades and required concrete covers were met while working in a tight construction space.

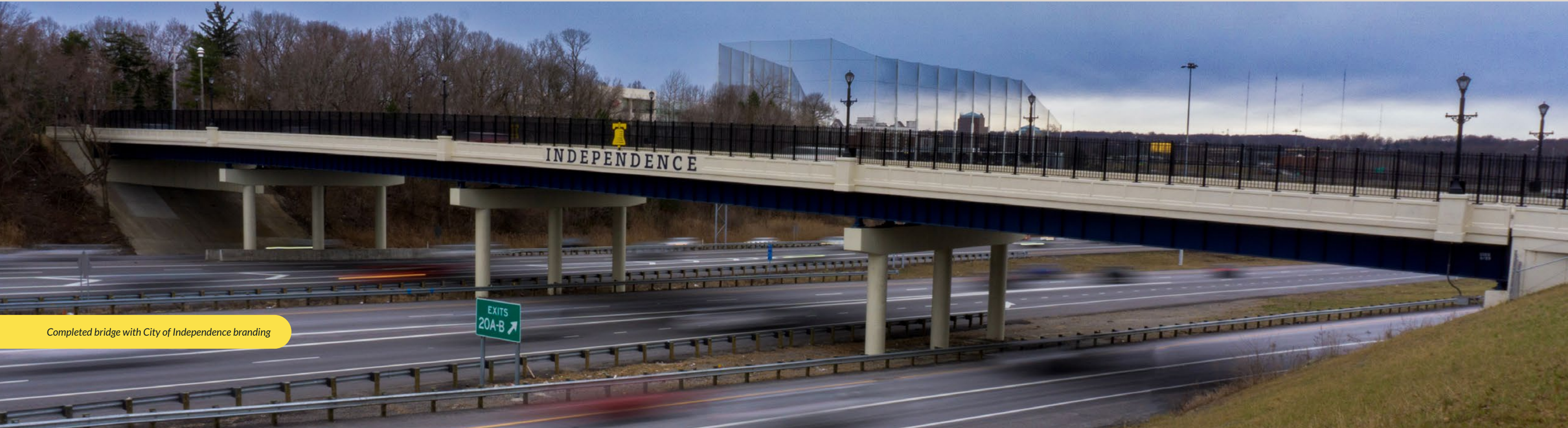
(Continued on page 8)



Brecksville Road Bridge prior to rehabilitation, showing deteriorated conditions



Locating pier cap reinforcement with GPR



Completed bridge with City of Independence branding

Coordination with concurrent infrastructure projects added complexity. The Valley View Bridge project (CUY-480-18.42), a design-build effort by ODOT D12, was underway directly beneath the Brecksville Road Bridge throughout design and construction.

Osborn, ODOT, and Chagrin Valley Paving worked closely with the Valley View design-build team to align construction schedules and avoid conflicts between Brecksville Road substructure rehabilitation work and fluctuating construction and MOT phases on I-480. This collaboration extended from design through construction and was instrumental in the project’s success.

Utility coordination was another major undertaking. Ten utility companies were involved, including electric, telecom, lighting, fiber, gas, and water. The City of Independence requested no overhead lines in the corridor in the final condition, requiring all existing aerial utilities to be relocated below the bridge deck and supported on the bridge girders.

Osborn managed separate design contracts with several communication providers to integrate conduit systems for the existing and new facilities into the bridge structure. This required detailed phasing and coordination to maintain all utility service throughout construction.

Roadway service improvements were also incorporated into the scope of work. The existing sight distance of 178 feet from the commercial drive at the northeast bridge corner was significantly below the 385 feet required for the 40 mph design speed.

An innovative cantilevered approach slab was implemented to improve this situation. By extending the sidewalk and parapet wall over the wingwall, Osborn significantly improved visibility to 248 feet without altering the roadway profile or impacting the bridge superstructure.

Aesthetic enhancements were developed in partnership with the City of Independence to align with its master plan. These included custom decorative fencing with bell-shaped attachments, formed parapets featuring city branding, and lighting using the city’s signature poles. The result is a visually striking bridge that enhances the pedestrian experience and serves as a gateway visible from I-77 and I-480.

Construction began in February 2022 and concluded in June 2023. The final project cost was \$4,547,750, only slightly above the engineer’s estimate of \$4,510,000.



Finished Brecksville Road Bridge overlooking the completed I-480 Valley View Bridge

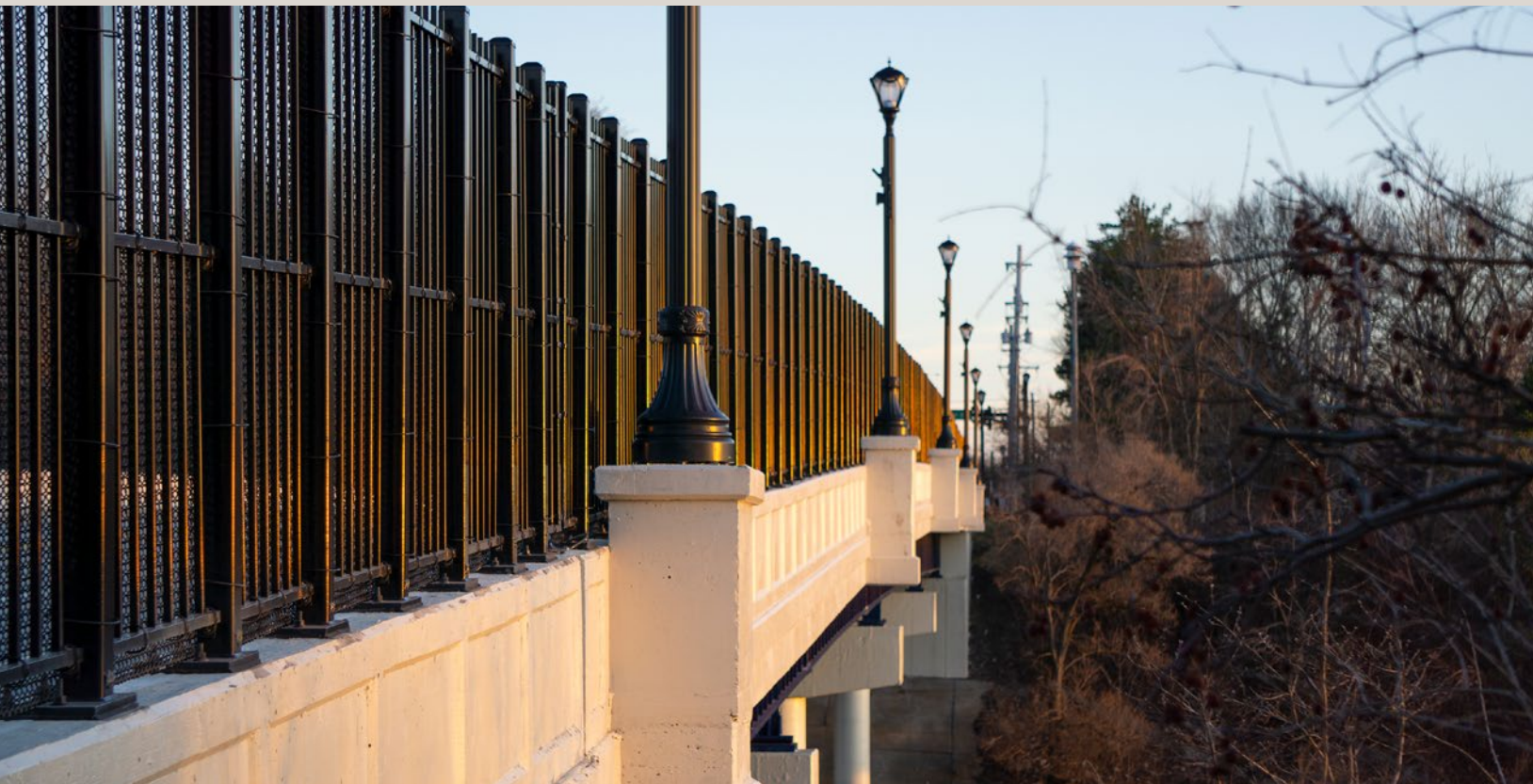
Lessons-Learned

For a rehabilitation project of this size with complex phasing, stakeholder coordination, and utility involvement, unknown conditions and challenges are expected in construction. In this case, construction proceeded smoothly, with the design and owner’s team working collaboratively with the contractor, Chagrin Valley Paving, to troubleshoot the minor issues that arose.

Lessons learned included utilizing ground-penetrating radar (GPR) to locate existing pier cap rebar and designing fixed bearing load plates with additional area to allow for field positioning of bearing anchor rods. The project also

highlighted the need for flexible phasing strategies and proactive coordination with utilities, adjacent businesses, and infrastructure projects. Despite the challenges, the project was completed on schedule and without major traffic disruptions.

The Brecksville Road Bridge deck replacement stands as a model of technical excellence, inter-agency coordination, and community-focused design. It demonstrates how thoughtful engineering design and stakeholder collaboration can transform aging infrastructure into a safe, functional, and visually appealing asset for the region.



Barrier, fence, and light pole aesthetic details



Aerial view of deck construction phasing



Overnight deck placement with phased construction

New U.S. 27 Bridge Helps Renew Richmond, Indiana

By Holli Burreta, Parsons
ASHE Circle City

On January 8th, 2025, the new U.S. Highway 27 bridge opened to traffic in historic downtown Richmond, Indiana. The multi-span bridge is a crucial aspect of travel through Richmond for drivers and pedestrians alike.

The new structure includes varying depth plate girders, column piers on drilled shafts, disc bearings, Americans with Disabilities Act (ADA) improvements and aesthetic detailing. All of these attributes contribute to a successful modern bridge that drives transportation through the heart of Richmond.

The need for a new bridge was dire for downtown Richmond. The previous structure was outdated, lacked ADA compliance, and was functionally obsolete.

The Parsons engineering team assessed all the problems with the previous structure and delivered an efficient and economical design while using aesthetic features to blend with the historic downtown cityscape. The new bridge now consists of seven spans while the prior structure had seventeen. The new structure utilizes variable depth plate girders to effectively meet the vertical clearance requirements over both city streets and railroad tracks, while managing irregular span lengths and skews.

“We’ve changed what was once a dangerous eyesore into a new seven-span bridge showpiece for the historic city of Richmond.”

— Sean Porter
Parsons Structural
Department Manager

Another unique quality of the new bridge is the use of disc bearings to allow for transverse and longitudinal movement and rotation. The plate girders are supported with column piers on drilled shafts.

The bridge has several aesthetic features that make it a beautiful addition to the historic downtown. The engineering team worked with the City of Richmond to shape the bridge to align with the vision for the area and to pay homage to the city’s history.

A formliner was used on the concrete railing of the bridge, and star detailing was added to the concrete pedestals to pay homage to the City of Richmond. The “Richmond Star” originates from the star symbol molded into the historic bricks that can be found throughout the city. Steel lettering of “Richmond” was incorporated into the pedestrian fencing.

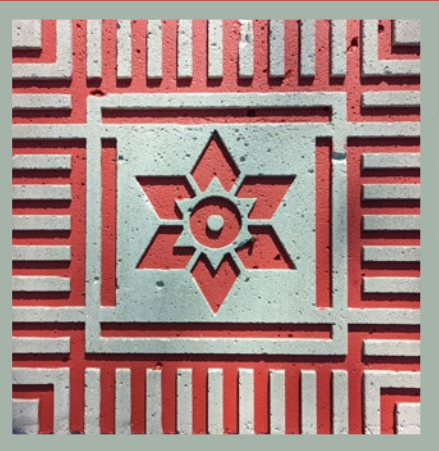
“We’ve changed what was once a dangerous eyesore into a new seven-span bridge showpiece for the historic city of Richmond,” said Parsons Structural Department Manager Sean Porter. “The ‘Richmond Star’ form liner and custom Richmond lettering were developed for this project, and the aesthetics leave this area with something to be truly proud of.

“It is truly satisfying to celebrate the opening of this bridge.”

The complication of designing an intricate bridge with the existing infrastructure of a historic downtown area created challenges of its own. The bridge is located directly adjacent to several historic buildings, requiring vibration monitoring and considering issues with pedestrians accessing the roofs from the previous bridge structure.

With the use of a modified pedestrian fencing attached to the bridge railing, access to the adjacent roofs has been eliminated. The new structure addressed inadequacies of the existing structure regarding ADA compliance. The new bridge provided a 6.5-foot-wide sidewalk with new curb ramps on the roadway approaches.

The new bridge brings revitalization to historic downtown Richmond through a combination of thorough design work, detailed construction, and artistic elements. The opening of the U.S. 27 bridge gives the heart of Richmond a signature structure to welcome visitors for years to come. 



The Historic Richmond Star was incorporated as an aesthetic detail on the bridge



Aerial photo of the bridge show casing how the bridge blends into the city



The bridge features custom railing and was constructed close to historic buildings



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1776–1850

EARLY FOUNDATIONS

Waterways and primitive roads dominated the post-Revolutionary era. The Erie Canal (1825) revolutionized freight movement, linking inland regions to coastal markets and reducing costs dramatically. Turnpikes and stagecoach routes expanded connectivity, laying the groundwork for national growth.

1850–1900

THE RAILROAD ERA

Railroads became the backbone of American transportation, enabling rapid movement of goods and people across vast distances. The completion of the Transcontinental Railroad in 1869 unified the country, spurred industrialization, and opened the West for settlement.

1900–1950

AUTOMOBILE AND HIGHWAY EXPANSION

The invention of the automobile and mass production by Henry Ford transformed personal mobility. By the 1920s, cars were commonplace, prompting the development of paved roads and early highway systems. The Federal Aid Road Act (1916) marked the beginning of a national roadway network.

1956–1980

THE INTERSTATE REVOLUTION

The Federal-Aid Highway Act of 1956 launched the Interstate Highway System, one of the largest infrastructure projects in history. This network reshaped urban development, enabled suburban growth, and facilitated interstate commerce.

1980–Present

MODERNIZATION AND MULTIMODAL INTEGRATION

Advancements in aviation, public transit, and freight logistics have created a multimodal system supporting global trade and urban mobility. Today, transportation professionals focus on resilience, equity, and decarbonization, with electric vehicles, autonomous systems, and smart infrastructure leading the way.

Looking Ahead

The challenge is clear: will we lead the way toward a cleaner, smarter, and more connected future?

As we celebrate 250 years of progress, the next frontier—sustainable, technology-driven mobility—promises to redefine how we move people and goods for generations to come. The answer depends on the choices we make today.

Join us May 27–31 at the 2026 ASHE National Conference

to celebrate our progress and start planning for even greater achievements together.



2026 AMERICAN SOCIETY OF HIGHWAY ENGINEERS NATIONAL CONFERENCE

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Transforming a Rural Corridor into a Safer, More Connected Transportation Network

By Diana Tout, PE, Technical Service Manager, Highway, ms consultants, inc. and Susana Williamson, Senior Marketing Specialist, ms consultants, inc.
ASHE Central Ohio Section

Cosgray, Scioto Darby, and Alton and Darby Creek Roads are key arterial routes serving the western portion of the City of Hilliard and western Franklin County, Ohio.

The project site, formerly home to Jerman Farms, was acquired by the City. Following acquisition, it was transitioned from agricultural use to a planned-unit development that includes a critical transportation component. Concurrently, the site was developed to include community amenities such as new soccer fields, a fire station, and The Well, a 111,000-square-foot recreation and wellness campus.

(Continued on page 18)



Lane spirals and dedicated exit points guide drivers smoothly through the roundabout, eliminating lane changes and reducing conflict points while maintaining efficient operations at a high-volume intersection

The Well



Clover Groff Run Stream Restoration



Athletic Complex



Concurrent infrastructure, recreation, and environmental projects required extensive coordination among design and construction teams, with sequencing and material reuse carefully managed to maintain schedules and maximize efficiency across overlapping efforts

Before improvements, north-south travel required motorists to navigate two intersections along Scioto Darby Road, forcing drivers to traverse nearly half a mile in an east-west direction to continue their route.

This configuration resulted in congestion-related crashes, long vehicle queues, poor intersection operations, and significant delays. The corridor also lacked pedestrian and bicycle facilities connecting surrounding neighborhoods to community amenities and green spaces. To address these conditions, the City of Hilliard engaged ms consultants to complete a feasibility study and the subsequent design of a safer, less congested roadway and active transportation network.

Implementing a New Road Configuration to Support Traffic Flow

Cosgray Road was extended south to align directly with Alton and Darby Creek Road, eliminating the dogleg condition that contributed to congestion and delays. Three roundabouts were designed as part of the improvement, including a multi-lane hybrid roundabout at Scioto Darby Road and two single-lane roundabouts. The newly constructed configuration improves traffic flow and supports surrounding development.



Aerial view of the completed roadway improvements demonstrating enhanced traffic flow, improved safety, and stronger pedestrian connectivity. Serving as a key gateway, the project supports a more walkable, connected community.

Engineering a High-Volume Intersection for Safety and Efficiency

The intersection of Cosgray Road and Scioto Darby Road is expected to serve more than 30,000 vehicles per day. A traffic study determined that the roundabout at Scioto Darby Road would reduce fatal and injury crashes by more than 70% compared to a traditional signalized intersection.

The team incorporated best practices from similar roundabouts nationwide. Multiple design iterations were evaluated to identify a lane configuration that met traffic, operational, and safety goals while minimizing pavement area and environmental impacts.

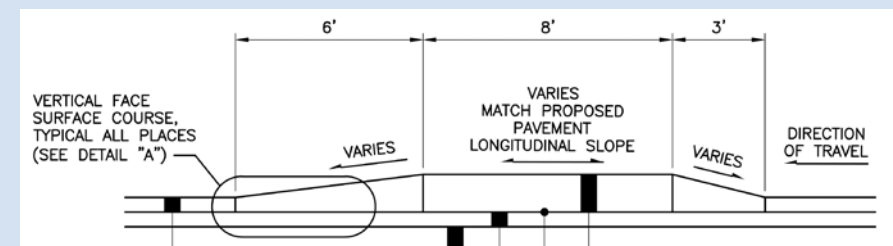
The new multi-lane hybrid roundabout features lane spirals with dedicated exit points for each lane. Pavement markings guide drivers through the roundabout and allow vehicles to move smoothly to their exits without changing lanes, reducing crash potential. Travel speeds and conflict points are reduced, improving safety for all users, including pedestrians who benefit from shorter crossing distances.

Expanding Multimodal Access Through Shared-Use Paths and Crossings

To support the City's goal of creating a walkable community, the following multimodal amenities were integrated:

- **Shared-use paths** along both sides of Cosgray Road provide safe and convenient access for cyclists and pedestrians, connecting to existing facilities along Scioto Darby Road and the regional Hellbranch Trail. The paths also link directly to The Well and more than 20 new soccer fields. High-visibility crosswalks with medians and rectangular rapid flashing beacons were included at two locations to connect the path system with nearby neighborhoods.
- **Raised crosswalks** at the multilane roundabout support the federal Public Right-of-Way Accessibility Guidelines and function as a traffic-calming feature by encouraging lower vehicle speeds.

These connections strengthen access to recreational amenities and support an active transportation network.



Raised crosswalks enhance pedestrian accessibility and visibility while supporting traffic calming, encouraging lower vehicle speeds, and improving safety at roundabout entry and exit points

Navigating Complex Design and Construction Coordination Across Concurrent Projects

The Cosgray Road Extension coincided with development of The Well campus, relocation of soccer fields, and restoration of the adjacent Clover Groff Run stream. These overlapping initiatives required significant collaboration and communication among multiple design teams, as changes to one project often affected others.

Maximizing material use and balancing earthwork within the area were crucial project factors. Excavated earth from another project was repurposed, reducing hauling and material transport costs.

Multiple projects were designed and constructed simultaneously, with the Cosgray Road Extension cutting through the middle of the site, requiring continuous coordination to align sequencing. Contractors worked collaboratively to maintain schedules and avoid impacting adjacent work.

Minimizing Property Impacts While Maintaining Traffic Operations

Property impacts were minimized by configuring the Scioto Darby Road roundabout to avoid grading within the Clover Groff Run boundary. Only three temporary right-of-way easements were required, expediting acquisitions and reducing costs.

Maintenance of traffic was critical and focused on safety and minimizing disruption to commuters, businesses, and school operations. East-west traffic flow was achieved by shifting the roundabout south of the existing intersection, maintaining access to businesses. The construction schedule was planned around the school calendar, reducing impacts to bus routes.

(Continued on page 20)



The project received the ASHE Central Ohio 2024 Project of the Year (Over \$10M) and the ASHE Great Lakes 2025 Project of the Year (Over \$10M) awards for its innovative design, complex project coordination, and measurable safety and mobility improvements.

Project Partners:

City of Hilliard
ms consultants, inc.
Miller Brothers Construction

Integrating Aesthetic Design at a Community Gateway

Aesthetics played a significant role, as the area serves as a gateway to public amenities such as The Well, soccer fields, and the municipal park. Roundabout truck aprons feature patterned brick pavers transitioning from burnt sienna to slate hues, while splitter islands and outside truck aprons incorporate charcoal-toned concrete pavers, creating a modern and visually appealing design. Additionally, a steel-backed, honey-toned timber guardrail was selected to blend with the surrounding environment.

The tree-lined Cosgray Road Extension incorporates native flowers, grasses, and bushes to enhance the corridor's aesthetics, contributing to a unified visual theme.

Implementing a Cost-Effective Sustainable Design Within a Sensitive Watershed

Located within the Big Darby Creek Watershed, the project was subject to strict stormwater management requirements to protect the watershed's biological integrity. Green stormwater treatment features, including vegetated filter bioretention cells, were used. Maintenance costs were reduced through selecting drought-resistant plant species, eliminating the need for an irrigation system, and using "no mow" grasses to minimize maintenance costs.

Together, these improvements enhance traffic safety, reduce congestion, increase operational efficiency and strengthen pedestrian and bicycle connectivity. Serving as the gateway to the City of Hilliard's wellness campus, the project supports a more connected and walkable community for residents and visitors. 



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SURVEYING SAN ANTONIO'S VIA GREEN LINE

By Dawn Vernon, Marketing & Business Development Director, BMB
ASHE San Antonio

Along San Pedro Avenue, one of San Antonio's most historic and complex transportation corridors, VIA Metropolitan Transit's Advanced Rapid Transit (ART) Green Line is taking shape. Once complete, the transformative 10.3-mile north-south connection will link the San Antonio International Airport, downtown, and the historic Missions area.

With 26 new stations planned and service anticipated in 2028, the Green Line demands an exceptional level of precision beneath the surface, where boundaries, control, utilities, and ownership define what is possible above ground. At the center of that effort is surveying.

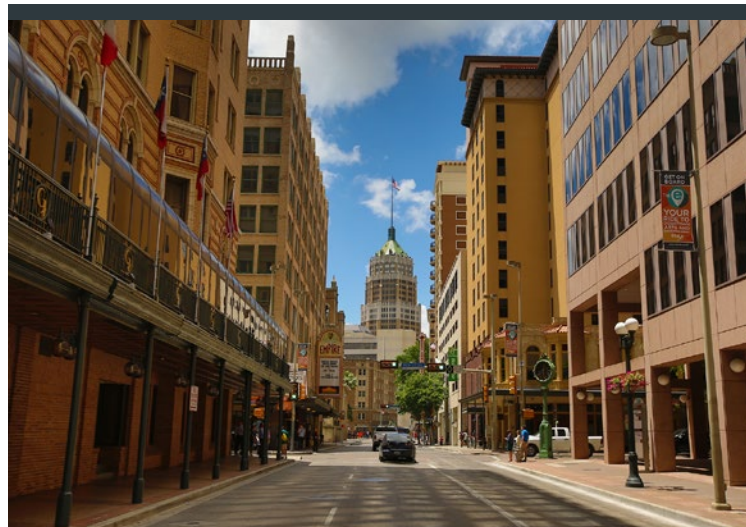
As a subconsultant to Parsons Corporation, Bain Medina Bain's (BMB) role on the VIA Green Line extended far beyond conventional mapping. The firm provided comprehensive surveying services that established the spatial framework for design, permitting, and construction coordination along the corridor.

From the outset, the survey team developed and verified horizontal and vertical control to ensure a consistent, reliable reference system across the entire project. Control sheets were prepared, reviewed during weekly coordination meetings, and refined as the design advanced, providing engineers, planners, and agency partners with confidence that every dataset aligned with a common datum.

Supplemental surveys were conducted as needed to support evolving civil design, reflecting the realities of a linear corridor that crosses multiple neighborhoods, jurisdictions, and utility systems.

BMB staked centerlines for utilities slated for relocation during the design phase, verified control for construction, and remained on call around the clock to address time-sensitive needs from VIA and Parsons, the program management and design team. This responsiveness allowed survey information to keep pace with design decisions and agency coordination, minimizing delays and uncertainty.

A significant component of the work involved intensive research and boundary analysis. Along San Pedro Avenue and within the Olmos Basin, BMB investigated property ownership, confirmed easements, and clarified jurisdictional



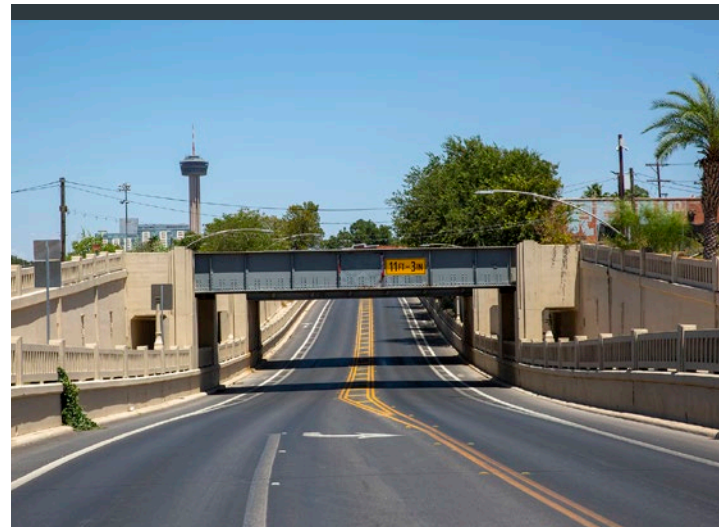
Northbound San Pedro and Mandalay

responsibilities – critical tasks in an area where public infrastructure, drainage facilities, and private parcels intersect.

Approximately 100 parcels were researched to support temporary construction easements (TCEs) and right-of-way (ROW) needs. Legal descriptions were prepared, parcels were updated as design limits shifted, and boundaries along the Green Line corridor were confirmed and set in the field to establish a defensible project footprint.

Field investigations were equally comprehensive. BMB conducted detailed topographic surveys, including additional coverage along Alamo Street and Breeden Street, where design complexity required more granular data. Tree surveys documented existing canopy conditions to support environmental reviews and compliance with the City of San Antonio's tree ordinance.

Storm and sanitary sewer systems were verified in the field, including on-site coordination with Parsons staff to confirm pipe sizes, inverts, and alignments. Storm drain data was collected and cataloged to inform drainage analysis and utility coordination, while subsurface utility information was supported through coordination with Texas 811 and integration of available records.

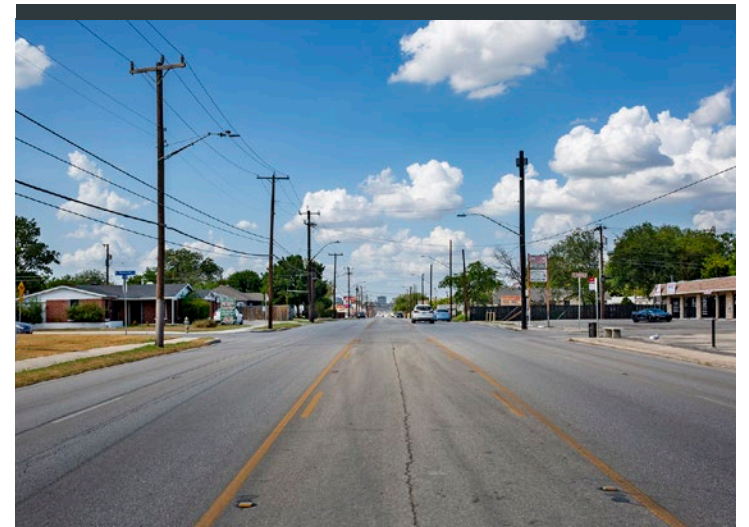


Southbound St. Mary's Street at Houston Street

Advanced data management played a crucial role in translating fieldwork into usable design tools. Existing SAG line information was scanned and incorporated into isometric mapping, ensuring legacy data was preserved and aligned with current surveys. All survey data underwent rigorous QA/QC review, including control checks, plan sheet verification, and consistency reviews, before deliverables were issued.

The result was a set of survey products that designers could rely on for accuracy, completeness, and regulatory acceptance.

BMB's surveying services also supported broader regulatory and coordination efforts tied to the corridor. Accurate parcel data and boundary control underpinned coordination with city departments and agencies, including those responsible for drainage, utilities, and right-of-way. By establishing clear ownership and easement limits early, the survey team reduced risk during permitting and helped streamline later phases of design and construction.



Northbound St. Mary's Street at Roosevelt Park Drive

Throughout the project, surveying was not treated as a one-time task, but as an ongoing, adaptive service integrated into the overall delivery of the Green Line. Weekly meetings ensured alignment with the design team, while on-call availability enabled surveyors to respond immediately to field questions or scope changes. Deliverables were prepared in accordance with the project's scope of services and refined as needed to address agency comments or evolving design requirements.

For a project of this scale and visibility, success depends on getting the fundamentals right. The VIA ART Green Line's promise of faster, more reliable transit rests on a foundation of precise measurements, verified boundaries, and trusted control. Through comprehensive surveying, diligent research, and continuous coordination, BMB provided the spatial certainty necessary to transition the Green Line from concept to reality, ensuring that every station, lane, and utility relocation is based on accurate, defensible data. 🇺🇸



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AsTheWheelTurns

ASHE Members on the Move!



Dewberry Promotes Four in Mid-Atlantic Offices

Dewberry has announced the promotion of four employees across Maryland and Virginia, including a vice president and three associate vice presidents.

VICE PRESIDENT



Jim Bennett, PE, has been promoted to vice president and serves as business unit manager for the firm's **Gainesville, Va.**, engineering and land surveying practice. He has over 40 years of experience in consulting, design services, and land development.

ASSOCIATE VICE PRESIDENTS



Aaron Cheskis, PE, DBIA, is a senior project engineer for the firm's alternative delivery practice in **Baltimore, Md.**, and has over 25 years of experience in transportation engineering. Cheskis is a member of ASHE and the American Society of Civil Engineers.



Jerome Hall, based out of Dewberry's **Ashland, Va.**, office, serves as program manager with the design-build practice and has a background in the electrical, commercial, industrial, and wireless industries.



David Weems, PE, is a principal engineer in the firm's **Leesburg, Va.**, office with nearly 40 years of experience in site/civil engineering for residential, commercial, and mixed-use developments. He is a member of the Engineers & Surveyors Institute.

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RESTORING THE BRILLIANCE OF ONE OF PENNSYLVANIA'S MOST OUTSTANDING CONCRETE BRIDGES

Nicki Jacobs, PE, PTOE, RSP1 and Robert Bochicchio, PE, DBIA
ASHE North East Penn

Market Street Bridge's six open spandrel arches over the Susquehanna River, looking southwest toward the City of Wilkes-Barre
Source: Greenman-Pedersen, Inc.

As it exists today, the historic and architecturally significant Market Street Bridge in Wilkes-Barre, Pa., is stunning and compels attention from those with or without an engineering-driven mindset. The 12-span, 1,274-foot-long, 93-foot-wide concrete arch bridge carries tens of thousands of vehicles on State Route 1009 daily, making it a major artery connecting the City of Wilkes-Barre and Kingston Borough. The monumental Beaux Arts-style bridge, designed by nationally prominent New York architects Carrere & Hastings, stands as a gateway to downtown Wilkes-Barre and as one of Pennsylvania's most outstanding concrete bridges.

In 2001, a Memorandum of Agreement between the US Army Corps of Engineers, Baltimore District and the Pennsylvania State Historic Preservation Office granted the bridge its own Historic American Engineering Record (HAER) No. PA-342. HAER No. PA-342 notes the 1929 bridge, the fourth and grandest structure to cross the Susquehanna River at this location, reflects the evolution of Wilkes-Barre from an 18th-century agricultural settlement into a thriving metropolis built upon the coal industry.

The bridge is divided into six closed spandrel arches over floodplain areas such as Nesbitt Park, the River Common and Luzerne County Levee Trail, and six open spandrel arches over the Susquehanna River. Elements on the bridge, such as its four iconic pylons topped with 2-ton eagles carved from limestone, granite balustrades, cap railings, decorative lighting fixtures, and stairways to riverfront parks, are impossible to ignore, especially for pedestrians and bicyclists who can get up close and personal with its beautiful detailing.

(Continued on page 31)

In-depth, hands-on inspection within the open spandrel arches
Source: Greenman-Pedersen, Inc.



MARKET STREET BRIDGE HISTORY

Clockwise from top left:

Second Market Street Bridge, circa 1890. Old Covered Bridge (built 1825), looking north from the east bank of Susquehanna River

Third Market Street Bridge (built 1892), looking north from the east bank of the Susquehanna River during the 1902 flood

Limousines escorting the first streetcar across the fourth Market Street Bridge (built 1926), looking northwest from the Sterling Hotel in Wilkes-Barre, showing northerly elevation

Source: Library of Congress Prints & Photographs Online Catalog



One of the four iconic pylons topped with an eagle carved from limestone
Source: Greenman-Pedersen, Inc.

Preserving a structure of this size requires regular condition assessments and inspections. Pennsylvania Department of Transportation (PennDOT) Engineering District 4-0 enlisted the support of Greenman-Pedersen, Inc. (GPI) and their subconsultants, Navarro & Wright Consulting Engineers, Inc., American Geotechnical & Environmental Services, Inc., and VCS Engineering to perform an in-depth inspection of the iconic structure.

The GPI team systematically performed soundings of the structure's components, completed coring to assess the infill materials within the closed spandrel arch spans, and tested for structural defects that cannot be observed through tactile methods. The investigation utilized ground penetrating radar, continuity testing, corrosion potential, chloride testing, carbonation testing, and petrographic analysis. Through this testing, the bridge was also evaluated for Alkali-Silica Reaction as a mechanism of deterioration.

The five-month endeavor concluded that the structure requires major rehabilitation to preserve its brilliance.

The design and public involvement activities for the project are well underway and involve extensive coordination with multiple government agencies, planning organizations, local officials, emergency services, and other project stakeholders.

The project will address structural deficiencies, with the bulk of the structural repairs being concrete and masonry repairs throughout the structure. In addition, debris clean up, scour mitigation, and a Polyester Polymer Concrete overlay on the deck are proposed.

Associated roadway work will include pavement rehabilitation, ADA ramp reconstruction, drainage improvements, signal improvements, and signing and pavement marking upgrades.

No adverse effects are anticipated since the preservation work will repair the structure in-kind. In final conditions, the bridge will maintain its existing horizontal and vertical alignments, skew, and width, fortify its structural integrity, and remind us once again of its remarkableness. 🇺🇸



Top: Northeast side of the structure with one of two access points to Nesbitt Park and trails
Bottom: In-depth, hands-on inspection work of Span 2, looking northeast
Source: Greenman-Pedersen, Inc.



Project of the Year Award for Large Projects over \$40M: Central Business District Tolling Program Infrastructure and Collection System

WINNING TEAM:

- MTA Bridges & Tunnels
- HDR
- Parsons
- TransCore

The Metropolitan Transportation Authority is addressing its decades-old traffic burdens by tolling vehicles entering what have historically been the borough's most congested areas, disincentivizing private vehicles and encouraging transit use in a designated Congestion Relief Zone (CRZ). The cordon-based system seeks to reduce congestion, improve mobility, improve air quality and raise \$15 billion for the region's transit systems.

The system began operation on Jan. 5, 2025, and assesses tolls for vehicles driving into what's now being referred to as Manhattan's CRZ. Toll prices vary by time of day with higher rates during peak travel hours, and by vehicle type. The design has over 100 detection points, most of which are on urban streets and use innovative methods of detection to blend the infrastructure into the urban landscape. When possible, equipment was mounted to existing infrastructure, or on light poles that match those elsewhere in a neighborhood. Innovative side-fire tolling equipment was also used to reduce overhead structures.

Combining design, construction, operation and maintenance under a single contract eliminated multiple procurement processes, saving considerable time and effort in implementing the necessary infrastructure while ensuring long-term operational efficiency and encouraging use of innovative technologies.



The Central Business District Tolling Program tolls vehicles entering the Congestion Relief Zone (CRZ), an area south and inclusive of 60th Street in Manhattan, historically the city's most congested area



From left: Sergio Reis (MTA), Rich Carpinone (MTA), Cathy Sheridan (MTA), Romolo De Santis (MTA), Seth Condell (Parsons), Allison C. de Cerreño (MTA), Larry Henson (TransCore), Liz Pierson (HDR), Nichola Angel (MTA), Zulema Robinson (MTA), Clint Holley (TransCore)



2025

LARGE
PROJECT OF THE
YEAR

> \$40M

ASHE NY METRO



Project of the Year Award for Small Projects under \$40M: Rehabilitation of Glenn Curtiss Blvd. Bridge over Meadowbrook Parkway



2025

SMALL
PROJECT OF THE
YEAR

< \$40M

ASHE NY METRO

WINNING TEAM:

- Nassau County DPW
- Greenman-Pedersen, Inc./GPI
- Hardesty & Hanover, LLP
- Bove Industries, Inc.

The Glenn Curtiss Bridge, an essential structure over the Meadowbrook Parkway located in the Town of Hempstead in East Meadow, is undergoing an extensive rehabilitation to enhance its durability, functionality, and safety for the years to come. This vital project has encompassed a wide array of structural and civil engineering upgrades designed to modernize the bridge and ensure its compliance with contemporary standards.

Construction began in Spring 2024 and is expected to be completed by Summer 2026.



From left: John Madera, PE - Project Engineer (H&H), Philip Pachacz - Project Superintendent (Bove Industries), Charles Longworth, PE - Project Manager (GPI)



The rehabilitated Glenn Curtiss Boulevard Bridge

VDOT Partners with HNTB for New Walker Road Bridge

By Hiren Prajapati, HNTB
ASHE Potomac Section

The Walker Road Bridge over Piney Run (Rte. 681) in Fairfax County, Va., was originally constructed in 1932 as a single-lane timber structure and was later reconstructed in 1978. The original single-lane bridge once served a rural area, which has grown into an established exurban community.

Due to structural deterioration over time, the existing bridge became weight-restricted to vehicles under 10 tons and was highly susceptible to flooding during major storms, creating significant safety and accessibility challenges for the community and emergency services. Serving approximately 4,800 vehicles daily, the bridge was a critical link for local residents, yet its limitations hindered mobility and posed ongoing maintenance concerns.

To address these issues, the Virginia Department of Transportation (VDOT) partnered with HNTB to design a modern, resilient

replacement using Accelerated Bridge Construction (ABC) methods. The innovative approach minimized disruption by reducing the full road closure to just 14 days, compared to months under traditional methods.

The new two-lane bridge includes a sidewalk on the southbound side for future pedestrian connectivity, improved hydraulic capacity through a larger opening, and reinforced embankments with riprap armoring to withstand

flooding. The design also prioritized minimizing right-of-way impacts and construction-related traffic delays.

This project exemplifies engineering excellence through its rapid delivery, modular design, and resilience-focused solutions, ensuring long-term durability and enhanced safety for the surrounding Fairfax County community.

This project exemplifies engineering excellence through its rapid delivery, modular design, and resilience-focused solutions, ensuring long-term durability and enhanced safety for the surrounding Fairfax County community.

DESIGNING A MODERN STRUCTURE

HNTB developed a modular design for VDOT using prefabricated concrete elements for both the bridge substructure and superstructure. The new bridge is nearly 52 feet long and 40 feet wide—substantially larger than the former timber bridge, which spanned only 18 feet in length and 22 feet in width.

HNTB also performed all hydraulic & hydrologic analysis (H&HA) and traffic analysis for the project. The H&HA ensured the new bridge

design could accommodate Piney Run’s flow characteristics and withstand extreme storm events without overtopping or causing upstream flooding. This analysis guided the decision to provide a larger hydraulic opening while maintaining minimal changes to the roadway profile, improving resilience and reducing flood risk.

In parallel, HNTB conducted a comprehensive traffic analysis to develop a closure and detour plan that minimized
(Continued on page 37)



Aerial view of construction site after riprap placement





Top: Superstructure precast units being put in place Bottom: New bridge open to traffic during final construction stages



Installation of precast abutment units



HNTB, boots on the ground

disruption to the 4,800 vehicles that use Walker Road daily, ensuring emergency access and community connectivity throughout construction.

A distinctive feature of this project is the use of precast substructure elements for both the abutment backwalls and the turned-back wingwalls. Each precast panel was fabricated with 1'-9" voids designed to receive HP10x57 steel piles, installed at 5-foot spacing and pre-drilled into the underlying rock. Six panels were set over the piles to form the abutments and wingwalls.

After placement, the pile voids were filled with high early-strength concrete, and the 12-inch joints between panels were filled with ultra-high performance concrete (UHPC), creating a continuous structural system. To protect against scour, the panel toes were armored with approximately 4 feet of Class II dry riprap.

The bridge superstructure consists of standard voided slab spans, a system commonly used by VDOT across the state. During fabrication, an additional composite wearing surface was cast onto the panels. This allowed the finished deck to be ground in the field to achieve proper alignment and account for small variations in camber and elevation. The exterior beams were fabricated with integral curbs to support the bridge railing, making them the heaviest components to transport and install.

ABC IN ACTION

To accelerate construction and reduce disruptions to local traffic, VDOT elected to complete the replacement during a 14-day closure using modular components that could be quickly assembled on site. The roadway approaches were also reinforced with protective armoring, improving the crossing's resilience in an area that frequently overtops during high-water events.

The project also incorporated precast approach slabs, further accelerating construction by eliminating the need for

onsite concrete pouring and curing. Each approach slab was composed of five precast panels that were cast and cured offsite, then placed directly on the beam ends and precast sleeper slab.

The abutments were backfilled with flowable fill topped with select granular material to provide stability and support. Finally, the joints between the panels were filled with UHPC, joining the slabs into a single continuous unit.

The construction sequence was carefully planned to maximize work completed prior to the bridge closure. New pre-drilled pile foundations for the abutments and wingwalls were installed through the existing roadway and embankment while traffic was maintained.

Once the 14-day closure began, crews demolished the existing bridge and excavated for the new abutments and riprap protection. Precast abutment and wingwall panels were then set over the piles, and their joints were filled to complete the abutments.

After backfilling and placing riprap to protect the stream and foundations, crews installed the precast voided slab panels, sleeper slabs, and approach slabs. Closure joints between the superstructure and approach panels were then filled, followed by final grading and paving of the roadway approaches, allowing the bridge to reopen to traffic.

With traffic restored and community connectivity reestablished, finishing touches were completed behind temporary barriers. These included installation of the sidewalk, curb and gutter, and guardrails.

The use of modular bridge elements made it possible to replace the structure quickly while minimizing impacts to both the traveling public and the surrounding environment. By eliminating the need for onsite forming, pouring, and curing of concrete, prefabricated elements shortened the closure period and reduced exposure risks for construction workers. 



Engineering the Vibe

Reinventing Highway Networking

By Aubrey Blackman, Marketing Specialist at French & Parrello & Associates
ASHE Southern New Jersey

For decades, the American Society of Highway Engineers (ASHE) has been the gold standard for technical excellence in highway engineering. From deep-dive project post-mortems to the policy updates that steer our industry, the Society has been the backbone of transportation progress.

But as the profession evolves — and as a new generation of engineers seeks community alongside credentials — sections across the country are asking a critical question: How do we make a technical society feel truly alive?

The Southern New Jersey (SNJ) Section is answering that question with a deceptively simple strategy: **engineering the vibe.**

People, Not Just Presentations

This shift isn't about abandoning our technical foundation. Instead, it's an acknowledgment that people — not just PowerPoint presentations — are the heartbeat of a vibrant organization. In an industry that can sometimes feel formal or intimidating to a college student or a junior engineer-in-training (EIT), the SNJ Section is intentionally designing experiences that feel human and welcoming, while remaining firmly rooted in professional purpose.

Like many technical organizations, ASHE faces the perennial challenge of engaging younger members. For engineers under 35, the barrier to entry isn't a lack of interest; it's a lack of place.

Walking into a room of seasoned veterans and stagnant agendas can be daunting. In our post-pandemic landscape, the art of organic, casual networking has become a rare commodity.

Shifting the Model

Rather than asking new members to fit into a legacy mold, the SNJ Section is redesigning the mold itself. By expanding programming to include social-forward events, the section has created low-pressure gateways into the Society without sacrificing technical value or professional development.

Importantly, **PDH hours are still fully incorporated** through our programming but delivered in ways that better reflect how engineers actually learn and engage. The SNJ Section emphasizes:

- **Lunch & Learn Series** that blend focused technical content with open discussion and peer exchange.
- **Interactive, panel-style events** that replace traditional lecture-only presentations, encouraging real-time questions, shared experiences, and dialogue across career levels.

These approaches recognize that learning doesn't have to be passive to be rigorous. **Recent examples of this shift include:**

- **Drilling Techniques & Equipment – Live Demonstration:** A hands-on drilling demo by EnviroProbe followed by a happy hour.
- **Fall Social & Student Resume Workshop:** A hybrid event where students received professional feedback in one lane and bowled strikes with industry professionals in the next.
- **Inaugural Bags & Brews Cornhole Tournament:** A friendly competition at a local brewery that raised funds for our Student Scholarship Program.
- **Socials & Happy Hours:** Informal spaces to “talk shop” (or not) — no podiums or microphones required.

Why Engagement Matters

As engineers, we're builders — not just of structures and systems, but of ideas, trust, and impact. Every time we communicate, we're given a chance to turn complexity into clarity, to spark curiosity, and to bring people with us on the journey.

But too often we see the same pattern: being an engineer gets used as an excuse to squeeze a three-hour lecture into a 30-minute monotone thesis, overflowing with overly detailed, tiny plans that no one in the room can realistically follow. Then comes a version of one of the typical engineer stereotypes we've all heard:

“I'm an engineer and I prefer the company of my cat.”

Except... our members prove every day that this isn't true. They show up to reconnect with old friends and colleagues. They come to make new relationships, to exchange ideas, to be part of something bigger than their day-to-day.

You might say that not every event is a hit — and you'd be correct. You can always tell when we've missed the mark. Heads drop. Phones come out. And sometimes even a certain board member's former manager starts drifting into a mid-presentation nap.

But when we have a hit? **We feel it.**

Like the night we ditched PowerPoint for Mentimeter. When the room lit up with panelists and audience volleying questions back and forth. When the energy built so strongly that we ran 30 minutes past our rental time — and still, **not a single person stood up to quietly slip out and head home to their families.**

That's what audience engagement looks like. That's what connection feels like. That's when you know the message is landing. This is more than a critique — it's an invitation.

A challenge to our speakers and event planners to rise.

Because when we communicate with purpose and passion, something powerful happens: **Our work doesn't just function; it inspires.**

The ROI of Connection

These events aren't meant to replace technical sessions; they are designed to supercharge them. When engineers are comfortable with one another, the professional benefits follow. Mentorship happens organically. Questions are asked more freely. Collaboration becomes the default.

For a student, a casual conversation with a Senior Project Manager can provide clarity no textbook ever could. For a veteran professional, these settings offer a direct line to emerging talent in an authentic environment. In a relationship-driven industry, engineering the vibe isn't a distraction — it's a strategic investment.

A Call to Action

The Southern New Jersey Section's growth-focused culture reflects a broader truth: technical expertise is the what, but belonging is the why. Engineers want to be part of a community, not just a mailing list.

To our members: bring a colleague to the next social. Invite an intern or junior engineer to a Lunch & Learn or panel discussion. One positive, low-pressure interaction can redefine their perception of ASHE and turn a one-time attendee into a lifelong member.

Engineering the vibe doesn't make us less professional; it makes us more inclusive, more engaging, and more reflective of the people who power our infrastructure. By reinventing how we connect, Southern New Jersey is ensuring that ASHE remains not just technically elite, but culturally indispensable for generations to come.



Event: "Safety Panel with DVRPC, SJTPO and more..."
Pictured: (Moderator) Lindsey Klein, Imperial Traffic & Data Collection, President and Panelists (Jennifer Marandino, PE, SJTPO, Executive Director; Kevin Murphy, DVPRC, Manager, Office of Safe Streets; Daniel Hornickel, Township of Medford, Township Manager)



Event: "Drilling Techniques and Equipment - Live Demonstration Field Event & Social"
Pictured: (Instructor) Doug Lindes, Enviroprobe, Inc. — over 40 attendees



Event: "Bags & Brews Cornhole Tournament & Fundraiser"
Pictured: Over 50 attendees



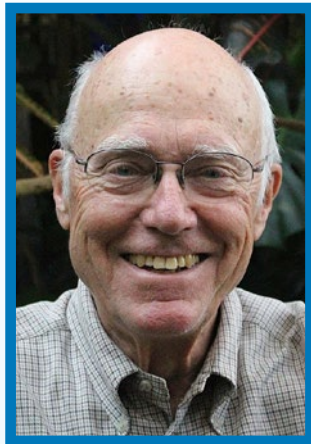
Event: "ASHE SNJ Social & Resume Workshop"
Pictured: "Year 2100 Storm" & Billy Voll, French & Parrello Associates

MileMarkers

News From Across ASHE-Miles



Remembering Roland Nesslinger



ROLAND NESSLINGER

Renowned transportation engineer Roland Anton “Ness” Nesslinger, born June 20, 1929, passed away on Jan. 4 in Columbus, Ohio at the age of 96. A child of the Great Depression, Ness came into the world with a big smile and a generous nature that endured his lifetime. A devoted husband, father, grandpa and great-grandpa, he often joked that he couldn’t believe he had lived so long.

Ness was born on Staten Island, New York, to Carla and Karl Nesslinger. He graduated from New Dorp High school in 1947 and earned a B.S. degree in Civil Engineering from Clarkson College in 1952. Ness was drafted into the 5th Regimental Combat Team of the United States Army in 1953. Drafted into the U.S. Army in 1953, he served in Korea alongside his brother, Ralph, from 1953 to 1954.

On Jan. 24, 1953, Ness married Sylvia Barbara Pfeiffer in New York. They met years before while he was a counselor at Camp Aquehonga and she was a vacationer staying across Half Moon Lake in Narrowsburg, N.Y. Upon his return from Korea, they settled in Delaware, Ohio.

Ness began a distinguished career in civil engineering, working in various leadership roles at the Ohio Department of Transportation, including Superintendent of Public Works, and later with Parsons Brinkerhoff and Burgess & Niple. Ness worked with six Ohio governors and was widely respected for his professionalism and diplomacy. He was active in the American Society of Highway Engineers and the American Right of Way Association and was named ASHE Person of the Year in 2000.

Ness was a licensed professional engineer in eight states living in Ohio, Louisiana and New Mexico and working in those states and many others throughout his career.

Ness and Sylvia raised three children: Martha Lee (Mark Bittner), Karl Alan (Victoria Hackman) and Diana Elizabeth (Don Fisher). Ness was a devoted father and grandfather, passionate about hiking, gardening, camping and sports, and served as a Boy Scout Troop leader. Most of all, Ness was a man of faith, deeply involved in church throughout his life.

Known for his humility, Ness rarely spoke of his accomplishments, instead crediting others and appreciating the beauty of the places and people he encountered. Whether reflecting on his military service or professional work, he emphasized teamwork, gratitude, and quiet dedication.

Ness is survived by his wife of nearly 73 years, Sylvia; his three his children and their spouses; ten grandchildren; and five great-grandchildren. So many very good friends have preceded Ness in death and are undoubtedly waiting eagerly for this generous, kind, fun loving man to share in the next piece of the journey.

TRANSPORTATION

CONSTRUCTION MANAGEMENT & INSPECTION SERVICES



FDR PARK 29 ACRE TIDAL WETLAND MITIGATION

Agencies: Philadelphia Industrial Development Corporation, for Philadelphia International Airport

Construction Cost: \$20.5M

Duration: 2022-2024

Tectonic Services: Construction Management & Construction Inspection

Location: Philadelphia, PA

RIDGE PIKE SECTION A

Agencies: Montgomery County and Pennsylvania Department of Transportation District 6-0

Construction Cost: \$43M

Duration: 2025-2028

Tectonic Services: Construction Inspection

Location: Plymouth Meeting, PA

MARIO CUOMO BRIDGE

Agencies: NYS Thruway Authority / NYS Department of Transportation

Construction Cost: \$3.9B

Duration: 2013-2019

Tectonic Services: Construction Inspection & Third Party Quality Control Materials Testing

Location: Tarrytown, NY



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A New Standard for Intersection Safety in Central Ohio

By Aaron Call, OHM Advisors
ASHE Central Ohio Section

When the Central Ohio Chapter of ASHE named OHM Advisors' turbo roundabout in Delaware County its 2025 Project of the Year, the recognition represented more than a single successful design. It affirmed what is possible when agencies, engineers, and communities come together around a shared commitment to safety, innovation, and long-term performance.

Located at the intersection of Home Road and U.S. Route 23 in rapidly growing Orange Township, the project responded to a familiar challenge facing communities across Ohio – and the nation.

Increasing traffic volumes, a high percentage of left-turn movements, and growing safety concerns demanded more than a conventional solution. The County was not simply looking for capacity but also a safer, more intuitive intersection that would serve residents well into the future.

What elevated this project was not innovation for innovation's sake, but thoughtful application. From early traffic analysis through final construction, the team worked closely with Delaware County, Orange Township, and construction partners to tailor the design to local needs.

The resulting turbo roundabout is one of only a handful currently operating in the United States and among the first in Ohio. Its selection as Project of the Year reflects both its technical sophistication and its real-world impact.

How it Works

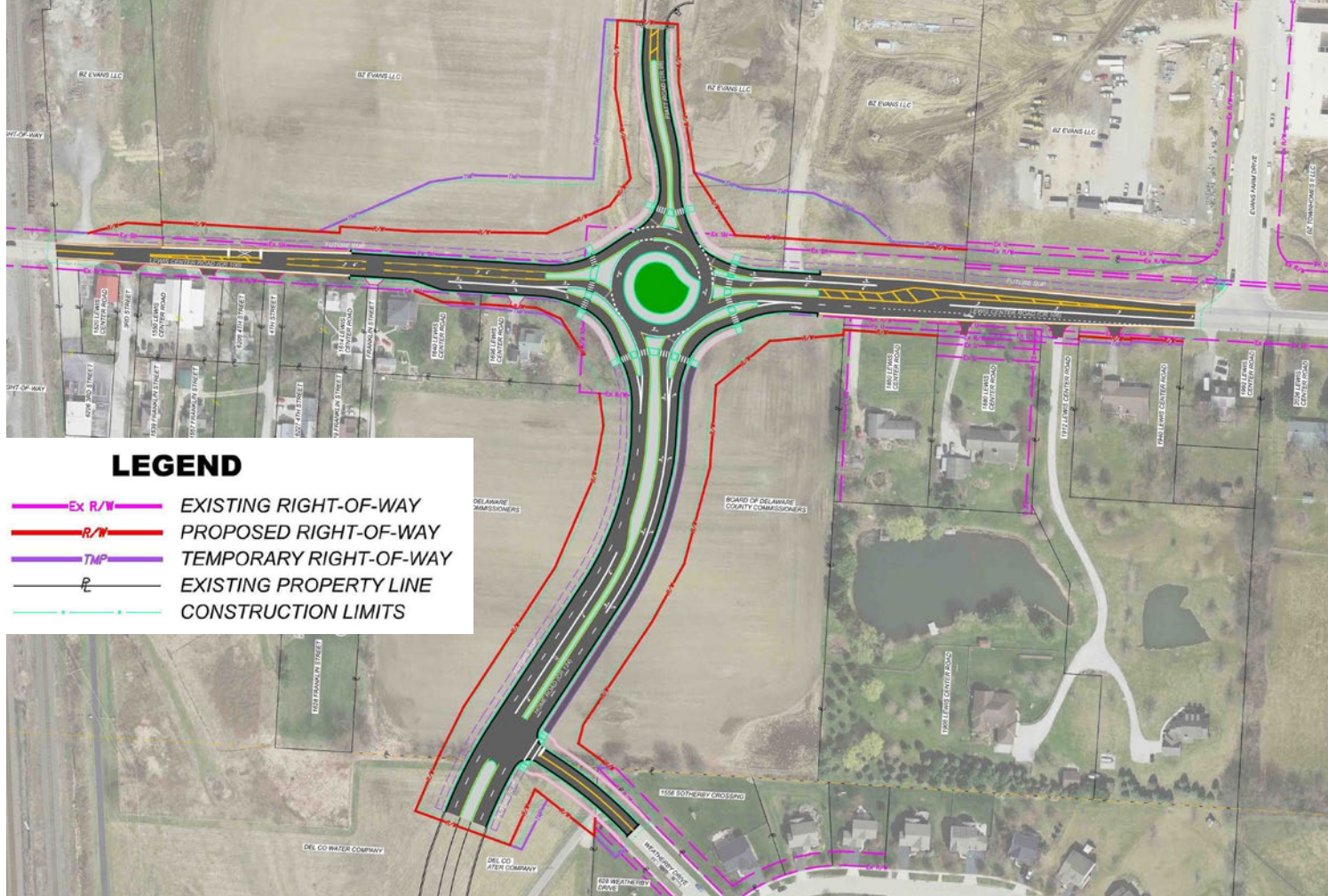
By guiding drivers into the correct lane before entering the intersection and preventing weaving within the circulatory roadway, the turbo roundabout design reduces conflict points while maintaining efficient traffic flow. These characteristics directly address the types of crashes that continue to occur far too often at traditional intersections.

A modified knee configuration separated left-turn and through movements using raised lane dividers that reinforce lane discipline without limiting access for emergency vehicles, trucks, or snowplows.

Clear signage, pavement markings, and geometric cues were carefully coordinated to support driver understanding from the moment they approach the intersection.

(Continued on page 45)





Plan view exhibit supported public involvement by translating complex roadway improvements into a clear, accessible visual for the community

Project Benefits

The project also reflects a holistic view of infrastructure performance. By eliminating traffic signals, the roundabout reduces energy use and improves resilience during power outages. LED lighting enhances visibility while minimizing long-term maintenance demands. Reuse of existing pavement and efficient construction staging helped control costs and limit disruptions during construction. Landscaping elements were selected for durability and low maintenance, reinforcing both function and aesthetics.

Since opening in late 2023, the roundabout has impressively performed as intended, efficiently accommodating traffic volumes while delivering a smoother, calmer driving experience.

While long-term crash data will continue to develop, early observations confirm improved operations and reduced congestion, particularly during peak travel periods. For local drivers, the intersection no longer feels like a bottleneck or a hazard, but a predictable part of the roadway network.

A Model of Innovation

For the engineering community, this project represents something broader. It demonstrates that emerging intersection forms can be successfully introduced in Ohio when supported by data, collaboration, and clear communication. It shows how agencies willing to challenge conventional approaches can deliver safer outcomes without sacrificing efficiency or constructability.

The ASHE Project of the Year award recognizes projects that exemplify technical excellence, complexity, and positive community impact. This turbo roundabout embodies all three.

More importantly, it reinforces the responsibility engineers carry with every design decision. Intersections are where safety outcomes are often determined, and innovation, when applied thoughtfully, can save lives.

OHM Advisors is proud of the recognition and grateful for the partnership that made this project possible.

As communities continue to grow and transportation challenges evolve, this project stands as a model for how collaboration and creativity can shape safer, more resilient infrastructure across Central Ohio and beyond. 🇺🇸



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ASHE Scholarship Totals from 2021 to 2025



Region Totals

Great Lakes
\$108,100

Mid-Atlantic
\$170,719

Northeast
\$800,286

Southwest
\$111,500

Southeast
\$105,774.70

National
\$10,000.00

ASHE Regions
Grand Total
\$1,306,379.70

Great Lakes Region

	2021-2022	2022-2023	2023-2024	2024-2025
Bluegrass	\$ 1,000.00	\$ 1,000.00	\$ 1,500.00	\$ 2,000.00
Central Dacotah	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 0.00
Central Ohio	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
Circle City	N/A	N/A	\$ 4,400.00	\$ 4,000.00
Cuyahoga Valley	\$ 3,000.00	\$ 3,000.00	\$ 7,000.00	\$ 3,000.00
Derby City	\$ 1,200.00	\$ 1,500.00	\$ 1,500.00	\$ 3,000.00
Lake Erie	\$ 2,500.00	\$ 4,500.00	\$ 4,500.00	\$ 3,000.00
Northwest Ohio	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1,500.00
Triko Valley	\$ 6,500.00	\$ 6,500.00	\$ 6,500.00	\$ 6,500.00
Grand Region Total	\$ 22,200.00	\$ 24,500.00	\$ 33,400.00	\$ 28,000.00

Mid-Atlantic Region

Blue Ridge	\$ 0.00	\$ 5,000.00	\$ 0.00	\$ 0.00
Chesapeake	\$ 13,000.00	\$ 12,000.00	\$ 11,000.00	\$ 15,000.00
Carolina Piedmont	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2,500.00
Carolina Triangle	\$ 8,000.00	\$ 8,000.00	\$ 16,000.00	\$ 16,000.00
Greater Hampton Rds	\$ 4,000.00	\$ 3,227.00	\$ 3,616.00	\$ 3,876.00
North Central WV	\$ 0.00	\$ 0.00	\$ 1,500.00	\$ 4,000.00
Old Dominion	\$ 4,000.00	\$ 2,000.00	\$ 4,000.00	\$ 14,000.00
Potomac	\$ 8,000.00	\$ 3,000.00	\$ 3,000.00	\$ 6,000.00
South Carolina	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Grand Region Total	\$ 37,000.00	\$ 33,227.00	\$ 39,116.00	\$ 61,376.00

Northeast Region

Albany	\$ 3,000.00	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00
Altoona	\$ 4,500.00	\$ 4,500.00	\$ 1,500.00	\$ 1,500.00
Central New York	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Clearfield	\$ 5,500.00	\$ 7,000.00	\$ 7,500.00	\$ 7,000.00
Delaware Valley	\$ 11,250.00	\$ 4,750.00	\$ 15,000.00	\$ 17,000.00
East Penn	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 10,000.00
First State	\$ 15,000.00	\$ 23,000.00	\$ 25,000.00	\$ 25,000.00
Franklin	\$ 10,000.00	\$ 10,000.00	\$ 11,000.00	\$ 12,000.00
Harrisburg	\$ 26,000.00	\$ 17,000.00	\$ 25,000.00	\$ 25,000.00
Long Island	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Mid-Allegheny	\$ 1,500.00	\$ 1,500.00	\$ 0.00	\$ 3,000.00
North Central NJ	\$ 15,000.00	\$ 15,000.00	\$ 8,500.00	\$ 15,000.00
New England	N/A	N/A	N/A	N/A
New York Metro	\$ 33,000.00	\$ 33,500.00	\$ 17,500.00	\$ 25,000.00
North East Penn	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 21,000.00
Pittsburgh	\$ 0.00	\$ 0.00	\$ 2,500.00	\$ 5,000.00
Southern New Jersey	\$ 19,500.00	\$ 20,000.00	\$ 24,000.00	\$ 24,000.00
Southwest Penn	\$ 13,500.00	\$ 11,000.00	\$ 18,500.00	\$ 14,000.00
Williamsport	\$ 2,057.00	\$ 2,313.00	\$ 2,627.00	\$ 2,749.00
Grand Region Total	\$199,807.00	\$191,563.00	\$200,167.00	\$208,749.00

Southwest Region

Central Texas	N/A	\$ 10,000.00	\$ 10,000.00	\$ 12,000.00
Colorado	N/A	N/A	N/A	\$ 0.00
Dallas-Fort Worth	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Houston	\$ 0.00	\$ 4,000.00	\$ 8,000.00	\$ 17,500.00
Phoenix Sonoran	\$ 10,000.00	\$ 10,000.00	\$ 15,000.00	\$ 15,000.00
San Antonio	N/A	N/A	N/A	\$ 0.00
Grand Region Total	\$ 10,000.00	\$ 24,000.00	\$ 33,000.00	\$ 44,500.00

Southeast Region

Alabama	\$ 2,050.00	\$ 0.00	\$ 1,500.00	\$ 500.00
Central Florida	\$ 600.00	\$ 0.00	\$ 0.00	\$ 0.00
Georgia	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
Middle Tennessee	\$ 5,000.00	\$ 7,000.00	\$ 4,000.00	\$ 7,000.00
Northeast Florida	\$ 19,494.70	\$ 7,130.00	\$ 10,000.00	\$ 12,500.00
South Florida	\$ 0.00	\$ 0.00	\$ 0.00	\$ 2,000.00
Tampa Bay	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Tennessee Valley	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3,000.00
Grand Region Total	\$ 33,144.70	\$ 20,130.00	\$ 21,500.00	\$ 31,000.00



CELEBRATING 250 YEARS OF TRANSPORTATION INFRASTRUCTURE AND INNOVATION



MAY 27-31, 2026

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AMERICAN SOCIETY OF HIGHWAY ENGINEERS

610 Radcon Street
Johnstown, PA 15904

Change Service Requested



ASHE

National Membership

Regions and Sections

Northeast Region

SECTIONS

Albany	85
Altoona	201
Central New York	48
Clearfield	193
Delaware Valley	341
East Penn	125
First State	232
Franklin	103
Harrisburg	421
Long Island	34
Mid-Allegheny	94
New England	50
New York Metro	180
North Central New Jersey	120
North East Penn	155
Pittsburgh	543
Southern New Jersey	200
Southwest Penn	240
Williamsport	71

Subtotal 3,436

Mid-Atlantic Region

SECTIONS

Blue Ridge	50
Carolina Piedmont	52
Carolina Triangle	223
Chesapeake	290
Greater Hampton Roads	72
North Central West Virginia	51
Old Dominion	79
Potomac	172
South Carolina	68

Subtotal 1,057

Southeast Region

SECTIONS

Alabama	57
Central Florida	128
Georgia	685
Middle Tennessee	293
Northeast Florida	225
South Florida	47
Tampa Bay	64
Tennessee Valley	152

Subtotal 1,651

Great Lakes Region

SECTIONS

Bluegrass	147
Central Dacotah	70
Central Ohio	211
Circle City	62
Cuyahoga Valley	114
Derby City	100
Lake Erie	249
Northwest Ohio	43
Triko Valley	152

Subtotal 1,148

Southwest Region

SECTIONS

Central Texas	74
Colorado	46
Dallas-Fort Worth	85
Houston	97
Phoenix Sonoran	148
San Antonio	38

Subtotal 488

National Total 7,780

Professional Status	56%
Government	12%
Consultant	75%
Contractor	5%
Other	8%



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**Emerging Section
locations:**

**Carolina Coastal
Illinois
Kansas City**