

THE TRANSPORTATION TIMES

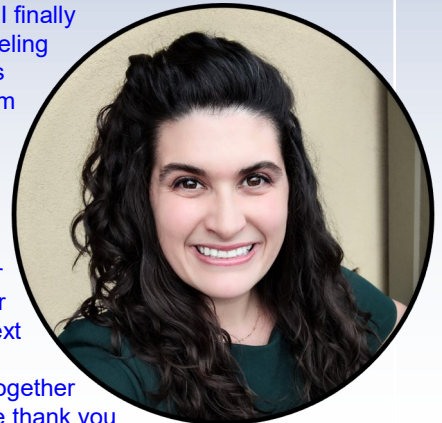
AMERICAN SOCIETY OF HIGHWAY ENGINEERS, DELAWARE VALLEY SECTION

2024-25 EDITION #1



President's Message

Summer is ending and my favorite time of year is finally here. Cool crisp evenings, leaves changing colors, football, and ASHE Del Val meetings of course! It's time to get back into the swing of things and we hope to see everyone at our first dinner meeting on September 18th... except you may notice something, or someone, missing. When my yoga studio announced the trip of a lifetime last fall, I jumped on the opportunity and booked it without any regard for the one thing that should've already been in my calendar! When I finally realized I'd be missing my first meeting as President, I was feeling flustered, but the Board reminded me that's why we have VPs and told me to go enjoy my trip. I'll be thinking of you all as I'm admiring the ancient infrastructure of the past in Greece and hope that you forgive me and welcome Kevin in my absence.



When I attended my first National Conference back in early June, it became even more clear to me that our Section is something special. Our strong past has set the foundation for us to continue to grow and learn from each other, put together unique events and presentations, fund scholarships for the next generation, and strengthen our connections. Our Board and Committee members are top notch and dedicated to putting together another successful season. Our members are awesome! We thank you all for your participation, we couldn't do it without you.

Speaking of the National Conference, this coming June we'll have the opportunity to cohost with ASHE East Penn and ASHE North East Penn and highlight some of our Section's work and accomplishments. Attending the National Conference down in Raleigh was definitely a highlight of my year and I'm urging everyone to save the dates (June 4-8, 2025) and even start to consider what volunteer roles might best fit your strengths, interests, and availability. We can't wait to show everyone from near and far a great time up at Kalahari.

It is an honor to serve as your Section President and I am looking forward to another great year for ASHE Delaware Valley!

Thanks,

Amber Midgley, PE
President, ASHE Delaware Valley Section

Meeting Schedule

Dinner Meetings

September 18

October 16

November 13 (second Wednesday)

January 15, 2025 (joint with ASCE Philadelphia Section)

February 19

March 19

April 16 (Annual Meeting)

Technical Sessions

Technical Sessions will be scheduled throughout the season and will be conducted virtually. See page 6 for more information on this.

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"Changing of the guard"

Incoming President **Amber Midgley** receives the gavel from outgoing President **Isaac Kessler** at our Annual Meeting on April 17, as the Section Presidency was transitioned, wrapping up yet another successful season for our Section.



2024-25 Delaware Valley Section Officers and Board of Directors

This slate of Officers and Board members was installed at our Annual Membership meeting on April 17.

We remain strong with a solid based of knowledge and experience on our Board, with nine Past Section

Presidents being part of the group (indicated by * below).

Thanks to the 2023-24 Nominating Committee - **Amber Midgley (Chair), Bruce Masi, Jeff Obrecht, Nate Parrish and Drew Sirianni** - for their help with the development and preparation of this slate.

Our Section Officers and Directors for the current season are listed here. Please thank these individuals for their volunteer service in the administration and operation of our Section.

President
Amber Midgley, AECOM

First Vice President
Kevin Rice, HNTB

Second Vice President
Don Gusic, CDM Smith

Treasurer
Matt Ward, Gannett Fleming TranSystems

Secretary
Kimberly Waters, JMT

Immediate Past President
Isaac Kessler *, Remington & Vernick Engineers

Board of Directors
Term expires 2025

Peter Berthold *, Pennsylvania Department of Transportation

Bruce Masi *, Gannett Fleming TranSystems

Sean Pence, TPD

Juli Wolfe, RETTEW

Term expires 2026

Steve DiSciullo, Bentley

Mariah Kerr, TPD

Drew Sirianni *, Pennoni

Steve Windle, Bowman

Term expires 2027

Elaine Elbich *, Pennsylvania Department of Transportation

Alexa Egan Harper *, Gannett Fleming TranSystems

Sarah McInnes, Pennsylvania Department of Transportation

Nate Parrish *, HNTB

Regional Director
John Caperilla *, CDR Maguire Engineering

Section Executive
Bob Wright *, Bowman

Section Committees/ Chairs

ASHE/PennDOT Breakfast Meeting
Alexa Egan Harper, Alex Eadline, Co-Chairs

Auditing
Rob Prophet

Dinner Meetings
Steve Windle

Educational
Juli Wolfe

Environmental
Susan Giannantonio

Golf
Don Gusic

Hotel
Bob Wright

Membership
Mariah Kerr

Newsletter
Bob Wright

Nominating
Kevin Rice

Outreach
Steve DiSciullo

Professional Society Relations
Elaine Elbich

Program
Kim Waters

Project of the Year
Alex Eadline

Scholarship
Bruce Masi

Student and Young Members
Sean Pence

In the latter part of last season, the Section Board reviewed the previous committee structure and scope/coverage of each group and proposed some “tweaking” to determine if consolidation and merging would permit a somewhat streamlined and more effective approach. What had been as many as 21 different committees in the 2022-23 season was rethought and revamped to result in the current group of 16 committees, accomplished by this:

- **Dinner Meetings** has expanded to include the formerly separate 50-50 Committee
- **Educational** includes the formerly separate Technical Papers and Technical Sessions Committees
- **Environmental** had been merged into the Educational Committee but has been separated into its own Committee given its scope, focus and program
- **Outreach** includes the formerly separate Public Relations and Website Committees
- **Professional Society Relations** is the renamed and slightly refocused Social/Society Relations Committee
- **Scholarship** encompasses the role of publicity of Scholarship recipients formerly handled within the Public Relations Committee
- **Student and Young Members** includes the Adopt-A-Highway, Student Chapters, and Young Members Committees

If you have an interest in being part of any Committee for the coming season, please contact Section President Amber Midgley (information is provided on page 12).

Annual Golf Outing (XXVIII) - Success !

Our Golf Committee successfully conducted our **28th Annual Section Outing** on what turned out to be a great day weather-wise for golf on June 10 (whether it was a great day golf-wise, well...). The event lured 108 "golfers" out to Bella Vista Golf Course in Gilbertsville to smack a few balls around as well as to network with colleagues, peers and friends. Play followed a scramble format, with the proceeds (over \$9,000) to benefit our **Donna Prentice Memorial Section Scholarship Fund**. We especially appreciate the generosity of our sponsoring firms (shown below).

The winning team had to be decided with a tie-breaker, with two squads reporting in with scores of 56 (10 under par...!). Based on the tie-breaker rules, the winners were as follows:

First place

Brian Cleary, Charles Gushue, Tyler Hall, Dennis Wilson
(a/k/a the McCormick Taylor Group)

Second place

Tom Cornell, Chris Naab, Ensarmu Shino, Jay Sim

Individual prizes were also cited and awarded as follows:

Closest to pin, hole 14

Elaine Elbich, 51' 3"
Brian DiBiase, 10' 8"

Long drive, hole 9

Amber Midgley
Charles Gushue

Thanks to the Golf Outing Committee and Chair **Don Gusic**, as well as the volunteers on hand, for another successful event.

We look forward to our 29th Annual Outing next year.

And, of course, thanks to all who sponsored and participated to make the Outing a success once again!



Regional Conference

Join us at the **1st Annual ASHE Northeast Regional Conference on October 3-4**, which will be conducted at the Hotel Hershey in Hershey, PA.

Registration is currently open and sponsorships are available.

Officials of transportation agencies, including DOT's (DE, NJ, PA), PA Turnpike, DRPA and DRJTBC, among others, will be in attendance and presenting at this event.

Please visit [Conference - ASHE NE Region](#) for more information, registration and sponsorship opportunities.



Young Members Committee Happenings

The spring version of the semi-annual Adopt-A-Highway cleanup event was held on **May 4**. The combined ASHE Young Members Committee and ASCE Younger Members Forum contingent is pictured at right. Thanks for everyone's help with this. The Fall event will be scheduled shortly and notices will be sent in upcoming e-mail blasts and flyers.

A re-match of the popular ASCE/ASHE/MASITE (Mid-Atlantic Section, Institute of Transportation Engineers) **kickball event** (or is it the second annual... we're not sure) was held on June 6. In addition to the noted societies, the Young Professionals in Transportation (YPT) fielded part of a team for this event conducted in Fairmount Park. At stake was the coveted **Traffic Cone Trophy**, with which ASCE walked away from last year's competition. There would be no "two-peat" this time, as, despite the competition being fierce, this year's champions were the combined ASHE/MASITE team – congrats to the champs!



In order to tell the players without a program, ASCE wore blue shirts, ASHE yellow, MASITE orange and YPT red, but we have been told this tended to vary throughout the competition.

This tournament has exploded in popularity since its first kick-off (pun intended) last year, and it was awesome to see so many new faces on the field, as shown in the photo at left. Hopefully this trend continues.

Stay tuned for updates on our upcoming events this season!



DVSP/Sponsors in Transportation/Transition

TPD is thrilled to announce that the firm formerly publicly known as "Traffic Planning and Design, Inc.," has undergone a complete brand refresh, including a revised logo, new website, new URL and updated company name. For many years it has been unofficially known as TPD. As it celebrates its 35th anniversary this year, it is commemorating the fact that it has been more than just "traffic planners and designers" for close to 30 years by making the official leap to adopt "TPD" in place of "Traffic Planning and Design, Inc." Rest assured, it will continue to operate with the same exceptional service offerings and dedicated staff, just under a more efficient and streamlined name!

TPD invites you to explore its refreshed website and to take note of its updated email extensions, which will now be @TPDinc.com. It is excited to be **Moving Forward Together®** as TPD and looks forward to continuing to collaborate with you!

As always, it values your continued partnership and welcome any questions you may have. Please do not hesitate to reach out at info@TPDinc.com.



Reminder - Membership Applications Are Now Electronic !

If you know someone who is considering becoming an ASHE member, our Membership Application can be downloaded and completed, then submitted via e-mail, with payment available via PayPal. PDF files of the applications can be e-mailed, thus paper copies no longer need to be mailed. Please visit our website (delvalley.ashe.pro) and click on the **Membership** tab for more information and details on this. Please feel free to share this information with anyone who may be interested in joining our Section.

We are proud to report that, as of last count, we have **339** Section members, making our Section one of the largest in the ASHE national organization.

Thanks to those of you who continue to support our Section.



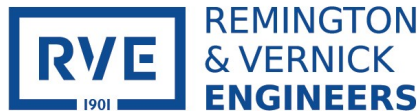


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Delaware Valley Section Patrons (DVSP) 2023-24

Thanks for your support!



Your logo could be here!
(See page 6 for how to become a Delaware Valley Section Patron.)

DVSP Program Sponsorship - Season 20 (!) Gearing Up...

Our Section started the Delaware Valley Section Patron (DVSP) Program in the 2005-06 season to allow supporting firms to be recognized. As you may be aware, the proceeds of the DVSP support our Section's Scholarship Fund. For a single fee for the season, sponsoring firms are cited for their support with their logos displayed on our website and in each edition of THE TRANSPORTATION TIMES. This also provides a "hot link" to access the firm's website directly from ours.

**DVSP benefits
(\$300 for the season)**

**Logo and Hotlink on
Section Website
(delvalley.ashe.pro)**

**Logo in THE
TRANSPORTATION TIMES**

As we enter our 20th season, we thank the 27 firms that have participated in the program last season for their generosity and support. Their logos are shown on page 5 as well as on our website. **We very much appreciate your "service" as a DVSP participant.**

If you are not already a DVSP and would like to join or find out more about the program, please contact Bob Wright (information provided on page 12). We will be soliciting for renewals and new sponsors for the 2024-25 season in September.

*We are pleased to note that five DVSP participants - **AECOM, Bowman (formerly McMahon), McCormick Taylor, TPD and Urban Engineers** - have been sponsors for all 19 years of the Program. Thank you for your long-time support!*

Dinner Meetings – Going "Hybrid" Again; Technical Sessions, Still Virtual...

Our Section Dinner Meeting program was (no surprise) successful and well-received/attended last season. We appreciate your flexibility and accommodation with the two-venue approach, albeit with only one meeting (February) meeting at Maggiano's, and all others at the Crowne Plaza. It is our intent to continue this pattern and we intend to schedule at least two of our Dinner Meetings at Maggiano's (more information will be coming as the season progresses).

We are pleased that we were able to offer varied and interesting topics last season and look forward to continued success when we open the 2024-25 program year in September. We will continue to do what we can to get the maximum benefit for our meeting attendees at the optimal cost as we plan our upcoming meeting program.

Your feedback on the meeting locations, meals, etc. is certainly welcome both in the PDH questionnaire forms as well as direct comments to the Officers and Board. We are here to help make these experiences the best possible and would certainly like to hear from you if you have suggestions, input, etc.

Technical Sessions will continue to be virtual events. We had six Sessions last season (one in June, so technically this season) and have conducted a combined Technical Session/site tour in August, with the intent to continue to offer varying and interesting topics. They will continue to be scheduled, with different starting times (12 Noon or 4 PM), a format that has been popular and has worked successfully over the past four seasons. As always, they will continue to offer the important and valuable PDH benefit.

More information will be provided on scheduled Technical Sessions in upcoming editions of THE TRANSPORTATION TIMES as well as in separate Session flyers and e-mails. We hope you have been able to take advantage of these informative sessions.

Members in Transportation/Transition

Section Recognizes Young Member and Member of the Year

Our Section initiated awards to recognize the significant contributions and activities of Section members in 2023, with the intent of annually citing a Young Member of the Year and a Member of the Year. Nominations were solicited in December and two recipients were selected for these honors, which were awarded at the Section's Annual Meeting on April 17.

Kevin J. Rice, PE was cited as the Section's Young Member of the Year. Kevin is a Section Manager at HNTB at its office in Center City Philadelphia. He manages projects, oversees technical quality, and supervises staff on efforts that have included PennDOT's P3 Rapid Bridge Replacement, intersection projects, SEPTA and Amtrak station upgrades, and traffic safety projects. He additionally serves as the firm's Pennsylvania onboarding manager, where he collaborates with supervisors to help new employees. He has been with the firm for 10 years and has been spearheading the design of safety projects such as the I-76 University Avenue ramp, the US 322/PA 82 intersection, and the Minsi Trail Roundabout in Bucks County. His efforts on these projects are leading to a reduction in crashes throughout the region.

In addition to his design work, Kevin is an active member of our Section and, following service as Section Secretary, was installed as our First Vice President this season. He has been a part of multiple committees,



with involvement in Technical Sessions, Young Member activities, our Golf Outing and our 50-50 Drawings. His work with these groups, in collaboration with others, has brought us virtual Tech Sessions, online meeting registrations, and an increased number of young member events. He lives in the Roxborough section of Philadelphia.

Paul L. Shultes, PE was named as the Section's Member of the Year. Paul is an Associate Vice President with AECOM at its office in Conshohocken but is better known for his work at PennDOT District 6-0, where he started as a Consultant Project Manager in 2005, being promoted to a Consultant Portfolio Manager in 2012. He has been instrumental in this role in the shaping and implementation of infrastructure improvements in the Delaware Valley throughout his over 38-year career. He has managed projects that have been let with a total value of \$1.49 billion. Many of his transformative projects have been associated with the I-95 corridor where he oversees Sections BRI, BSR and CPR, which, in addition to the replacement of aging interstate infrastructure, involve navigating multiple stakeholders and overseeing improvements to all types of modes of transportation.

Paul is truly a team player and looks to work with all the teams to find solutions versus creating roadblocks. He has pushed his Design Project Managers that report to him to design with the thought of not precluding options. This has allowed stakeholders additional time to determine if they want potential amenities that the projects can install but must be maintained by others besides PennDOT. He constantly and consistently looks for ways to push projects forward and his outside-the-box thinking often results in keeping things moving.

Paul is also a mentor not only to his staff but to the engineers and managers that report to him. He makes himself available and will take the time to answer questions on anything from engineering to ECMS. He is committed to building the next generation of managers that will replace him some day...

He is a graduate of the University of Pennsylvania, with Bachelors and Masters degrees received from Penn. (Interestingly, thus far, the two men who have been cited with this award are Penn grads.) He and his family reside in Glenside where he has been an active member of his church for over 40 years.

We congratulate Kevin and Paul on their honors!

[Laspee Cited as Philadelphia Civil Engineer of the Year](#)

The Philadelphia Section ASCE cited Harry Laspee as its 2024 Philadelphia Civil Engineer of the Year. This award, the Section's highest honor, was presented to Harry at the Section's Spring Social and Awards Dinner on May 16.

Harry serves as a Senior Engineer in the Transportation Division at Pennoni at its headquarters in Center City. He has been with Pennoni for 45 years and started with the firm following his graduation from college. He manages the design and contract administration of public works improvement projects for both private and governmental agencies, including bridges, highways, water distribution systems and sanitary and stormwater conveyance systems. Over the course of his career, he has been in responsible charge of the design of public improvements with a combined construction cost of over one billion dollars. He has been involved in many aspects of work including administration of design activities, survey liaison, highway design, utility, and railroad coordination, permitting, preparation of specifications, cost and schedule estimates, and owner and construction liaison and engineering services. He has been available for construction engineering opportunities as well, including the review of shop drawings and responses to requests for information.

Harry has been a key part of many significant roadway, transportation and city utility improvement projects throughout the City and region during his career. Among these, most recently, he was heavily involved in the quick turnaround needed for protection and maintenance of critical sewer and water infrastructure as part of the I-95 emergency response and restoration of the Cottman Avenue interchange bridges that started last summer.

Harry earned his Bachelors degree in Civil Engineering and Construction Technology from Temple University in 1978 and graduated cum laude. He is a member of ASCE in addition to our Section and has professional engineering licensure in Pennsylvania and New Jersey. He was previously recognized as ASCE's Civil Engineering Manager of the Year in 1996 for his notable efforts and service. He and his wife live in Somerton.

In the photo at right, Harry accepts his award plaque from Section President Joe Natale (right) and Section Awards Chair Bob Wright (left).

We congratulate Harry on this esteemed honor!



Environmentally Speaking...

[Comment NOW on PADEP 25 PA. CODE CH. 250 Administration of the Land Recycling Program Changes !!](#)

The Environmental Quality Board proposes to amend Chapter 250, relating to the administration of the Pennsylvania land recycling program. The proposed amendments have been determined to be appropriate based on new risk-based toxicological information, have revised methods to calculate direct contact values, and are protective of public health and the environment.

The changes to soil numeric values change 46 regulated substances; 55% of these changes increase the current values .

Changes to the groundwater numeric values are proposed for 34 regulated substances; half of these changes raise the values.

In addition, to update Chapter 250 Medium Specific Concentrations (MSC), the proposed changes add groundwater and soil MSCs for five compounds in the per- and polyfluoroalkyl substances (PFAS) family.

The proposed rulemaking and the ability to submit comments through September 11, 2024, is available at PADEP's eComment page (<https://www.ahs.dep.pa.gov/eComment/>).

PennDOT is assessing the impact of these changes. Perhaps most notably, the proposed changes result in the lowering of the residential MSC for lead in soil to 200 mg/kg from the current 450 mg/kg MSC. This may affect the classification of soil as clean fill on PennDOT projects, potentially requiring further assessment where post-construction public exposure to soil will occur as well as the transfer of clean fill to third parties.

Committee Happenings

Last Spring, ASHE Del Val Environmental Committee worked with the Valley Forge Park Alliance to organize the first clean-up day scheduled by the Alliance under a new agreement with the Park Service. While a rain date reschedule dampened our turnout, our April 10 event was a successful beginning for the Alliance's program. We thank ASHE Del Val's long-time member **Scott Sibley** for his part as both an ASHE member and a Park Alliance member leading the arrangements.

We look forward to organizing another local event again this season.

Thanks to Jeff Obrecht and Susan Giannantonio for this information.



ASHE Del Val volunteers look on as Scott Sibley shares historical information about the area of the Park where we were cleaning up.

We need your help!

Do you have a local environmental event you love to support? Such as a park cleanup, a tree planting, or similar event in the Delaware Valley that you want to gather volunteers for? The Environmental Committee is looking for our Del Val Section membership ideas on local events to join for environmental volunteer days. We will be selecting an event to support so please email your suggestions to Susan Giannantonio, Environmental Committee Chair, at sgiannantonio@ntmeng.com.

If you have ideas for articles concerning environmental issues of interest to our industry, please reach out to either Susan or Bob Wright (rwright@bowman.com) and share your thoughts with us.



2023 Projects of the Year

Our Section recognized two efforts as part of our Project of the Year competition last season. As has been done in the past, the process was broken into two categories based on construction cost (under \$20 million and \$20 million and over). Additionally, we identified a special category for a unique solution and response to the I-95 emergency repairs resulting from the fire and bridge collapse in June of last year.

Summaries of our award-winning projects are provided here. For additional information, please see the ASHE Scanner, available online at ashe.pro/scanner.html.

Project of the Year, Outstanding Response

I-95 Bridge Collapse Emergency Repairs

On June 11, 2023, a tanker truck carrying 8500 gallons of gasoline lost control while exiting northbound I-95 on the Cottman Avenue off-ramp in Northeast Philadelphia, resulting in a loss of life and a devastating fire that engulfed the I-95 northbound bridge. The steel beams of the northbound bridge yielded and collapsed within minutes and the southbound bridge was compromised beyond repair. The impact of this sudden and unexpected closure of I-95, a critical East Coast transportation link, with an ADT of 160,000, was significant, thus requiring a quick solution.

As the prime consultant on the contract that included the original bridge design approximately 10 years prior, Benesch developed a plan at the direction of PennDOT, the bridge owner, and engaged Buckley & Company to quickly restore traffic along this corridor. The team created a temporary roadway solution, with a welded wire retaining wall system and geogrid supports filled with ultra-lightweight foamed glass aggregate fill. Once this was constructed up to the roadway base, precast barriers were installed and a temporary asphalt roadway was constructed. The solution considered not only the rapid restoration of I-95 on the temporary roadway, but also construction of the permanent bridge replacement. In an unheard-of duration of 12 days, three lanes of traffic in each direction were restored on the temporary roadway system.



The I-95 solution was a testament to the power of engineering ingenuity, teamwork and resilience. The planning and construction of the temporary roadway required extensive communication and collaboration with PennDOT, Buckley, utility companies, local suppliers/fabricators, and the public. Benesch continues to provide design services for the permanent bridge replacement. When complete, the permanent bridge will restore four lanes and two full shoulders in each direction on I-95 and the Cottman Avenue northbound off-ramp will be reopened to traffic.

I-95 Bridge Collapse Emergency Repairs

Owner - PennDOT District 6-0

Contractor - Buckley & Company

Designer - Benesch

Inspection - Hill International, JMT

Complexity

The Benesch team met this uncommon project with innovative solutions, high-level communication, and constant collaboration. Due to the emergency nature of the situation, the project required design and coordination under a tight timeline with significant public pressure. The team needed to develop solutions without all data and information available. Critical design decisions were made within a few

hours and days of the collapse and needed to satisfy both fixes.

Construction Staging

The staging evaluation revealed that half-width construction of the permanent bridge would be feasible within the existing footprint which would accelerate construction with fewer phases. The team determined that once the temporary roadway was constructed and carrying traffic, construction of the permanent replacement bridge could be competed in two stages - construct the outer half of the permanent bridge replacement in each direction, outside of the operating temporary roadway, and switch traffic to the outer portion of the permanent replacement bridge, remove the temporary roadway, and construct the inner half of the permanent replacement bridge in its place. These phases maintained three 11' lanes of traffic in each direction, providing 75% interstate capacity until the permanent solution was completed.

The proposed staging limits combined with the existing curved, bifurcated and superelevated roadway section required a single bifurcated median barrier. A custom detailed median barrier was needed, and in contact with the original concrete fabricator it was determined that existing forms could be modified to produce the shape needed. The design details and shop drawings were approved within a day. The fabricator worked nonstop to cast the barriers in five days.

Evaluation of Fire Damage

Prior to installing the temporary roadway, the existing fire-damaged abutments were evaluated using concrete core samples. The samples provided information on the depth of damage and the remaining concrete capacity. This information was collected before the temporary roadway construction covered up the abutments, which allowed the team to finalize concrete removal limits for the permanent bridge replacement plans.

New Application of Existing Techniques/Innovation

This project required coordination across multiple disciplines to ensure cohesion between key elements including the structural design of the retaining wall system and assessment of existing sewers under the project site. To protect the Philadelphia Water Department's (PWD) existing sewers and water mains under Cottman Avenue, the use of ultra-lightweight foamed glass aggregate fill to minimize additional loading was evaluated. This aggregate is 85% lighter than standard earthen fill and fabricated locally allowing quick delivery with up to 100 cubic yards per truckload.

Gravix precast modular traffic barriers were used along the exterior of the highly-skewed temporary roadway. These were available locally and offered efficient installation to expedite the timeline.

Social/Economic Considerations

The I-95 bridge collapse posed a significant concern both locally and throughout the country. Closure of this section of I-95 impacted local traffic and businesses in the City of Philadelphia and also threatened the US supply chain along the entire East Coast. The economic impact of this closure was felt by daily commuters, business-related travel for local businesses, interstate truck services, and summer vacation travelers. Restoration of 75% traffic capacity in 12 days, rather than waiting months for a permanent bridge replacement, minimized the economic impacts and inconvenience to the public.

Project of the Year, Over \$20 Million I-95 Reconstruction, Section BS1

As part of the Pennsylvania Department of Transportation's District 6-0 (PennDOT's) I-95 Infrastructure Improvement Program, Section BS1, a major interchange reconstruction effort, must be closely coordinated with adjacent I-95 projects. This \$81.1 million project widened nearly 4000 feet of I-95 at the Bridge Street Interchange from relocated Carver Street to Levick Street in Northeast Philadelphia. Improvements included two bridges and five retaining walls, as well as several local streets, and a modernized stormwater network. Section BS1 construction was awarded in October 2019 and was significantly completed by September 2023.

Complexity

While this may look like a simple project, as a relatively straight section of interstate reconstruction, the challenges are in the details. The project is in a dense, urban area, constrained by a major railroad (Amtrak's Northeast Corridor (NEC) and a parallel arterial



(Tacony Street). In common with many streets in Philadelphia, numerous utilities and sewers are beneath the surface of the local roads. The existence of three 60-inch water mains running parallel to I-95 beneath Tacony Street brought an added complexity as they greatly influenced the structural design, construction approach, and drainage design. The project team extensively utilized test holes to verify record plans and locations of the tunnels, utilities, and other underground obstructions that might impact the structural or drainage designs.

The project included complex traffic control, maintaining six lanes of traffic of traffic on I-95 and pedestrian and vehicle access on the local roads.

Environmental investigation and management of fill were key elements for this project. The team worked with PennDOT regarding special provisions that allowed for testing and reuse of material to the greatest extent possible along the corridor.

New Application of Existing Techniques, Originality, Innovation

This project featured a comprehensive stormwater management strategy that treated over 12 acres of impervious area and used several different measures, including a bioinfiltration basin, tree pits with underground retention, and manufactured treatment devices (MTD) with and without media filters. Tight physical constraints between Amtrak's Northeast Corridor and Tacony Street, which included the noted 60-inch water mains, required creative thinking and innovative techniques to achieve the desired results.

The design involved disconnecting the I-95 storm sewers from the city's existing combined sewer system, extensive stormwater rerouting, large elliptical pipes to maintain cover requirements, and converting to a pipe manifold to avoid existing utilities. An existing combined sewer was also converted to a stormwater-only conveyance. In doing this, the combined sewer overflows to the Delaware River were reduced, flooding was minimized, stormwater runoff quality was improved, and the strain on the city's aging sewer infrastructure was lessened. By removing the stormwater from the City's combined sewer system, the project will help reduce the frequency of combined sewer overflows into the Delaware River. This will reduce the environmental impact to this recreational river that ultimately empties into the Delaware Bay.

The riprap installation and restoration of the shoreline blended the look of the functional living shoreline (previously constructed) with the work required for the outfall. This was done both for looks and for function as Riverfront North Partnership (RNP) is an active stakeholder which picks up trash that accumulates in this area.

Social/Economic Considerations

Demonstrating commitment to stakeholders and to enriching overall livability, PennDOT incorporated several social, economic, and sustainable enhancements into the project, including significant improvements to a nearby recreational facility (Lardner’s Point Park). These improvements included paving the parking area and installing street lighting. The sewer outfall’s design also considered impacts to the park facilities, and restoration of the park area was closely coordinated. This park, along with the Kensington and Tacony (K&T) Trail provides a social and economic benefit to the surrounding neighborhoods. Through stakeholder coordination, the route for a future trail connecting the adjacent neighborhoods to the K&T Trail was anticipated and incorporated in the design layout of walls and grading.

I-95 Reconstruction Section BS1
 Owner - PennDOT District 6-0
 Contractor - H & K Group
 Designer - CDM Smith
 Inspection - Urban Engineers,
 Erdman Anthony

By eliminating lane drops and providing full shoulders on I-95, this project will improve traffic flow on this congested corridor which will ultimately save users the costs associated with traffic delays.

Safety

As part of the reconstruction of I-95, one of the project goals is to bring the interstate up to current standards, which inherently includes improving safety. Full shoulders are provided and signage and pavement markings will improve the roadway from the existing condition. One of the most significant improvements will be the relocation of the southbound off-ramp to Bridge Street. In the current configuration, this ramp enters a city street grid on a residential street in front of many houses. In the future condition, to be completed under an adjacent section of the I-95 program, the ramp will turn under I-95 and intersect with Tacony Street and the Delaware Avenue extension.

Aesthetics and Sustainable Features

Demonstrating commitment to stakeholders and to enriching overall livability, PennDOT incorporated several sustainable enhancements into the project. To maximize sustainability, preserve existing trees, and reduce sewer overflow, careful consideration was given to the layout and grading of the basin and tree pits. The project also incorporated excess 78-inch pipe from another PennDOT project preventing over 300’ of the unused pipe from being landfilled. As part of the environmental work, the project used a detailed soil management plan that involved extensive testing to allow reuse of non-hazardous soils. This approach optimized soil usage and minimized the need for replacement fill.

Form liners were used to give abutments more life and to create consistency along I-95’s retaining walls. The design of the slope wall provides function and aesthetics by discouraging undesired activities under the bridge and providing a unique look. Additionally, the work included a variable height block slope wall to discourage unauthorized use under the Comly Street Bridge.

Project of the Year, Under \$20 Million Ship Road Couplet

The Ship Road Couplet and Chester Valley Trail improvement project is situated within West Whiteland Township, Chester County, at the intersection of US 30 (Lincoln Highway) and Ship Road (SR 1001). The idea of constructing a roadway couplet began in 2015 when the Township conducted a traffic impact fee study. This effort, commonly referred to as an Act 209 study, was performed to identify and help fund necessary roadway improvements that result from future growth. Based on the findings, it was determined that extensive improvements would be required at the intersection to alleviate existing and future congestion. The improvements included the need for additional through-travel lanes on all approaches. However, the necessary widening was deemed infeasible due to the impact it would have on several important historic buildings, including St. Mary’s Chapel and the Ship Inn. Instead, the Plan proposed the Ship Road “roadway couplet”, a pair of parallel one-way streets that carry traffic in opposing directions. Couplets are established to provide greater capacity for automobiles particularly in areas with heavy peak directional demand and right-of-way constraints.



Traffic Planning & Design (TPD) designed the couplet around the Ship Inn and Chapel to balance traffic flow and congestion in the area. This project worked to break up Ship Road into a couplet, in which the existing Ship Road became a one-way northbound road, with a new southbound roadway to be provided approximately 450’ to the west. The design added significant capacity to the existing signalized intersection by creating a pair of smaller intersections in lieu of a large single intersection. The smaller intersections offer more efficiency and safer travel with less widening due to the north-south approaches being one-way, thereby having fewer conflicting turning movements at each intersection.

Additionally, along the new southbound roadway, a segment of the Chester Valley Trail was constructed, a 12’ wide sidepath/trail south of US 30. This segment is critical as it will greatly improve the safety of the trail crossing US 30.

This \$2.9 million project was designed and approved through PennDOT’s Highway Occupancy Permit (HOP) program, and was constructed partially through a PennDOT Multimodal Transportation Fund (MTF) Grant to match the Township’s contribution to construct the northern leg of the southbound portion of the couplet and trail. The southern leg of the southbound travel lanes was financed and constructed by private developers. Construction also included a new traffic signal at the intersection of US 30 and the southbound Ship Road portion of the couplet, reconfiguration of the existing intersection of northbound Ship Road and US 30, as well as the extension of Springdale Drive to southbound Ship Road.

Contact Us

THE TRANSPORTATION TIMES, the newsletter of the Delaware Valley Section, is published and distributed to our members several times each season to advise and update all on current events and happenings in our Section.

If you have news items for future editions of THE TRANSPORTATION TIMES, please feel free to contact us.

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REMINDER

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October 18

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This design not only has minimal impact on the historic buildings at the intersection, but also enhances mobility, reduces congestion, and provides transportation alternatives along the US 30 corridor. A future project will construct a multi-use trail that will connect this project with the Exton Train Station further enhancing the multimodal network of the Township.

A significant economic impact for the Township is anticipated as a result of this project. A mixed-use development proposed in the area between the north-south roadways will include a new Wawa Convenience Store with a gas station and a 150-unit residential community. Private developers are responsible for all roadway improvements south of US 30, including the Ship Road southbound roadway construction, the Springdale Drive extension, the multi-use trail facility and all required roadway modifications at the current US 30/Ship Road intersection. The estimated cost of these improvements for the developers is \$1.5 million.

This project constructed a 12' wide multi-use path along the newly constructed southbound Ship Road alignment that will become part of the Chester Valley Trail. This will provide for an off-road linkage to the SEPTA Exton Regional Rail station through a separate future project. The couplet and trail improvement is part of a much larger Township-wide vision to provide multimodal linkages throughout West Whiteland. The impact will be profound as the trail connects with the Circuit, Philadelphia's regional trail network, as well as SEPTA's Regional Rail system and many commercial and residential destinations throughout West Whiteland and beyond. It will greatly enhance multimodal mobility throughout the Township.

Ship Road Couplet
Owner - West Whiteland Township
Contractor - Road-Con, Inc.
Designer - Traffic Planning & Design (TPD)
Inspection - Pennoni

There were 5 entries submitted in the 2023 Competition. In addition to the winners, other submissions were:

Under \$20 million - Chester Valley Trail Extension

Over \$20 million - SR 1 Section WAV, Roosevelt Expressway over SEPTA/Local Roads



From top, award winners with Project of the Year plaques, I-95 Emergency Response, I-95 Section BS1, Ship Road Couplet



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