ASHE SCANNER

Fall 2007

www.highwayengineers.org

Cover Story

ASHE Northeast Penn

Is proud to present our

2006 – 2007 SPONSORS

ASHE

AMERICAN SOCIETY
OF HIGHWAY ENGINEERS

OFFICERS 2007-2008

Perry M. Schweiss, P.E.	President
Richard Clifton, P.E.	First Vice President
Kevin E. Duris, P.E.	Second Vice President
Richard S. Prentice	Past President
Terence D. Conner, P.E.	Secretary
Robert E. Yeager, P.L.S.	Treasurer

DIRECTORS

1 Year

Paul Trapp	Old Dominion
Calvin W. Leggett, P.E	Carolina Triangle
Nancy D. Buchanan, P.E.	Northeast Florida

2 Years

Frank O'Hare, P.E.	Central Ohio
John L. Hetrick, P.E.	Mid-Allegheny
Gerald J. Pitzer, P.E.	Pittsburgh

3 Years

Thomas S. Morisi	Altoona
Richard N. Cochrane, P.E	Northeast Penn
Albert Algazi, P.E.	Southern New Jersey

President's Assistant	Shirley A. Stuttler

NATIONAL HEADQUARTERS

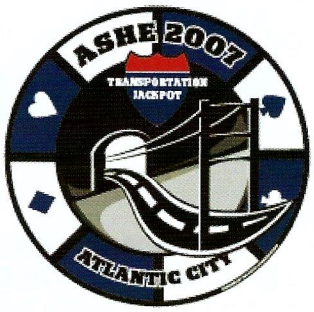
113 Heritage Hills Road
Uniontown, PA 15401
724-929-2760 or 407-836-7929
(South-East)
www.highwayengineers.org

Send address changes to
ASHE's National Headquarters
as well as your home section.

Departments and Columns

Advertiser Index

ASHE Region 6



ASHE REGION 6

Delaware Valley Section
First State Section
New York Metro Section
North Central New Jersey Section
Southern New Jersey Section

2007 Conference Steering Committee

Rodney Pello
Executive
Richard S. Prentice
Secretary
Robert Snowden
Counsel
Albert Algazi
Treasurer/Finance Chair
Samir D. Mody
Hotel Liaison
Registration & Reception
Scott Sibley
Delaware Valley
Michael Hershey
New York Metro
Joseph Matthews
North Central New Jersey
Robert Muir
First State

Committee Chairs

Rob Prophet
Advertising
Bob Milliken
Exhibit
Nevin Garabaglu
Finance/Hotel Coordinator
Ed McMahon
Transportation
Lisa Soto/Bob Nash
PR/Publicity
Polina Knaster
Entertainment
Dan DiFrancesco
Technical
Joe Danyo
Golf Outing
Rob Morrison
Program

CONFERENCE 2007

We would like to thank all the participants and attendees at the 2007 ASHE National Conference in Atlantic City.

In addition, our Region recognizes the following sponsors for their support and participation.

We are grateful to these Sponsors who helped make our conference the best to date.

American Geotechnical Environmental Services Inc
Amy S. Green Environmental Consultants
Arora & Associates
ASHE Cuyahoga Valley Section
ASHE Pittsburgh Section
C. V. Associates
CECO Associates
ECS Mid Atlantic
Greenhorne & O'Mara, Inc.
New Jersey Alliance for Action
NJ Credit Union
NJCEC
Prestige Environmental
T&M Associates
Taylor Wiseman & Taylor
Trumbull Corporation
Whitney, Bailey, Cox & Magnani, LLC

Thank you,
2007 Steering Committee

President's Message

Perry M. Schweiss

Greetings to all - it is an honor and a privilege to serve as President of the American Society of Highway Engineers for 2007-2008. I am looking forward to doing my part to maintain the highest quality of service to the organization. My predecessors have well-paved footsteps in which I will follow.

Another exciting year is ahead with projections for continued growth spearheaded by Dave Jones (Central Ohio Section), New Sections Committee Chair. In recent years, Dave and his committee members have taken an active approach to search for new Section champions and expanding the ASHE boundaries. A more aggressive public relations strategy was also implemented by Sandy Ivory (Altoona Section) and her Public Relations Committee to spread the ASHE message beyond our current sections. Nancy Buchanan (Northeast Florida Section) will be continuing the work as she chairs the Public Relations Committee for 2007-2008.

This year will be especially exciting as we prepare for the 50th anniversary celebration that will culminate at the National Conference to be held in Hershey, Pennsylvania, June 2008. The Harrisburg area will serve as the meeting place in 2008 as it did in 1958 where ASHE had its humble beginnings. A commemorative booklet providing the history of ASHE is being developed by Steve Lester (DelawareValley Section) and the Society History Committee for this special occasion and will be provided as a keepsake to all the attendees of the 2008 National Conference. National is encouraging all the sections who have not responded to the request to update their history to do so soon to be part of this treasured keepsake.

As the organization moves forward, the National Board will focus efforts building upon the improvements made to our information sources. The Scanner and our website have both experienced exciting upgrades. Drew Bitner (Harrisburg Section) and his committee initiated this effort and have been working diligently in this endeavor over the past few years. John Hetrick (Mid-Allegheny Section) will be continuing Drew's work for 2007-2008.

It is always a pleasure to meet the young people in our industry and to discuss new ideas for the organization and the industry as a whole. Several sections have various special student and or young member organizations within their sections. These special organizations were formed for the purpose of ensuring that the vitality of the ASHE sections continues well into the future. We will look to merge these ideas for encouraging young people to actively participate in ASHE at the National level.

We will also continue to actively participate in issues that affect the transportation industry such as funding, legislative matters, etc. Calvin Leggett (Carolina Triangle Section) and the Legislative Review Committee will continually monitor National and local issues pertaining to the highway industry. Calvin has assembled a network of ASHE members that disseminates and exchanges information regarding the latest legislative activity. This network will permit National to more expeditiously mobilize the necessary section, committee chair, etc. into action regarding a specific issue.

As I mentioned at the 2007 National Conference Annual President's Dinner, I believe ASHE truly embodies the spirit of belonging. As members we are an integral part of a greater whole that literally provides the network that our nation relies on for commerce, recreation, and so much more. We all appreciate that others occupy a place in our transportation industry and, although we can certainly take pride in our own accomplishments, we understand the people we interact with everyday have as much to offer as we ourselves do.

ASHE is very fortunate to have a dedicated and diverse group of individuals to represent the membership on the National Board. I look forward to working with the Officers and Board of Directors this upcoming year. I also encourage the membership to share any ideas you may have in improving the services of ASHE by contacting me directly at:

Perry M. Schweiss
c/o SP&K Engineering, Inc.
126 Kaider Road
Uniontown, PA 15401
724-439-1600 Office
724-880-9288 Mobile
724-439-5449 Fax
pschweiss@spkengr.com

I look forward to hearing from you and meeting many of you at your section dinner meetings and at the 2008 National Conference! ■

DMJM HARRIS | AECOM

TRANSIT AIRPORTS HIGHWAYS BRIDGES MARINE ENERGY PM/CM PLANNING

He'll probably be working for us in about 15 years.

He could head up highway design. Or program development or an environmental practice. For more than 75 years, DMJM Harris has been bringing together the most creative thinkers in every discipline. Our project managers build teams that know how to anticipate and address stakeholder issues, put together creative financial solutions and, of course, deliver sound and original engineering results.

No matter how large the project, we have the experience, the knowledge, the resources of AECOM and – most importantly – the people to get it done.

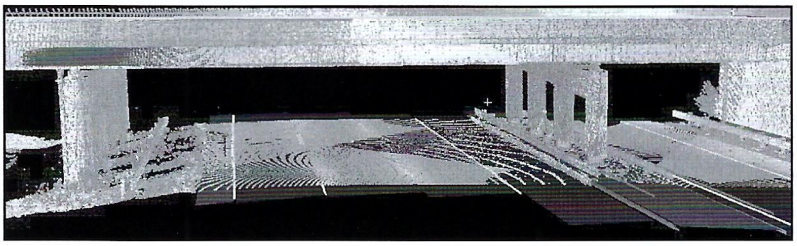
866-433-9001

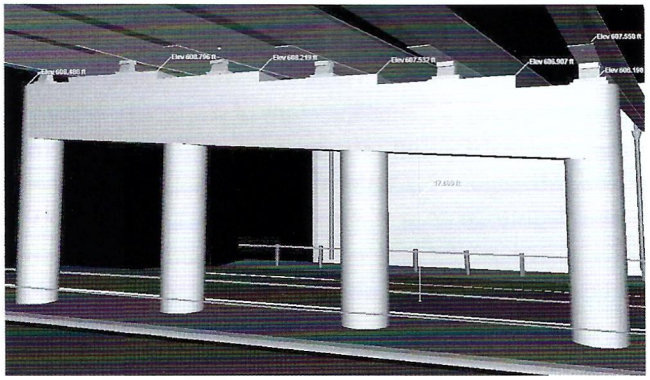
www.dmjmharris.com

Supporting the design professional with detailed 3D scanned data of the built environment...

Consider our scanning service as a supplement to your own in-house survey efforts or count on our expertise as the solution for all your base mapping needs.

- Berding Surveying and B3D Scanning, LLC provide complete as-built data capture for your bridge, structure and roadway projects.
- Data easily integrates with aerial and conventional base survey mapping.
- Little or no interruption to traveling public.
- Accesses hard to reach, remote or unsafe structures.
- Survey grade results.





Berding Surveying and B3D Scanning serves the transportation, architectural, energy and plant design professionals with solutions that accurately model and describe the built environment.

Berding Surveying

741 Main St., Milford (Cincinnati), Ohio 45150
www.berdingsurveying.com www.b3dscan.com
(513) 831-5505 (513) 831-6620
(888) 254-5755

Springfield Interchange Improvement Project is Complete

Scott M. Kozel

The Springfield Interchange Improvement Project involved reconstructing what is actually two interchanges: 1) The interchange between Shirley Highway and the Capital Beltway. Shirley Highway is I-95 south of the Beltway, and is I-395 north of the Beltway. The Capital Beltway is I-495 throughout in Virginia and Maryland, and it carries I-95 also east of Shirley Highway, on the eastern half of the Beltway. 2) The interchange between I-95 Shirley Highway and VA-644. VA-644 is Franconia Road east of I-95 and is Old Keene Mill Road west of I-95.

The opening of the final two bridges on the project in April 2007 marked the near completion of the 8-year project, as the only remaining work was some paving work, completing and opening two local ramps, and other incidental work over the next couple months, and the project was completed in June 2007.

The Springfield Interchange is in Fairfax County, Virginia, 10 miles from Washington, D.C. A daily average of about 430,000 vehicles pass through the Springfield Interchange, where I-95, I-395 and I-495 junction. To improve traffic flow, the Virginia Department of Transportation (VDOT) rebuilt the interchange in 7seven construction contracts staged over an 8-year period to make it safer for commuters and long-distance travelers. The project consisted of building more than 50 bridges, building high-capacity semi-directional ramps, and widening I-95 to 24 lanes between the Beltway and Franconia Road. The reconstructed interchange provides for future growth, as traffic volumes are projected to increase to about 500,000 vehicles per day by 2020. The new interchange allows that traffic to move safely, quickly and easily, and through traffic is separated from local traffic. The rebuilt interchange is a vast improvement over the original interchange.

The Springfield Interchange reconstruction was staged over eight years to make the project more affordable, lessening the amount of annual expenditures during the construction period; also to lessen the amount of construction that was underway at any one time, thereby making maintenance of traffic easier. While this is two interchanges and approaches, it is a vast area and such construction staging was possible without overlapping stages getting in the way of each other; sections of the project could open in stages, each providing benefits to the traveling public.

VDOT's congestion mitigation plan effort was a success. This plan involved a variety of VDOT-funded alternatives to driving alone through the construction area, including carpooling and riding buses via the building of over 5,000 new park-and-ride spaces along the I-95 corridor, and funding for enhanced Virginia Railway Express (VRE) commuter rail service along the I-95 corridor. There were fears from some public officials and various citizens that placing this busy interchange area under reconstruction, would cause nightmarish traffic congestion well beyond the amount of traffic congestion that was already occurring, and those concerns did not materialize, likely because drivers modified their travel patterns accordingly, and because of VDOT's congestion management plan.

The reconstructed I-95/VA-644 interchange and associated Springfield local road expansions were completed in November 2001. Most of the Beltway segment upgrades were completed in 2004. The 2-lane southbound I-95 flyover roadway from the I-95/I-495 Beltway Inner Loop to I-95 southbound (the I-95 southbound through route, toward Richmond) opened in May 2004. The 1-lane flyover ramp from southbound I-395 to the I-95/I-495 Beltway Outer Loop opened in October 2005. The 2-lane collector-distributor roadway carrying southbound I-395 traffic to Springfield and Franconia via VA-644 opened in October 2005. The 2-lane northbound I-95 flyover roadway from I-95 northbound to the I-95/I-495 Beltway Outer Loop (the I-95 northbound through route, toward Baltimore) opened in January 2006. The 3-lane northbound flyover ramp from I-95 northbound to the I-495 Beltway Inner Loop (toward Tysons Corner) opened in August 2006. The 2-lane express southbound ramp from the I-495 Beltway Outer Loop to I-95 southbound opened in December 2006. The relocated portion of the 2-lane ramp from the I-495 Beltway Outer Loop to I-395 northbound, opened in March 2007. The remaining portions of the project were completed by June 2007.

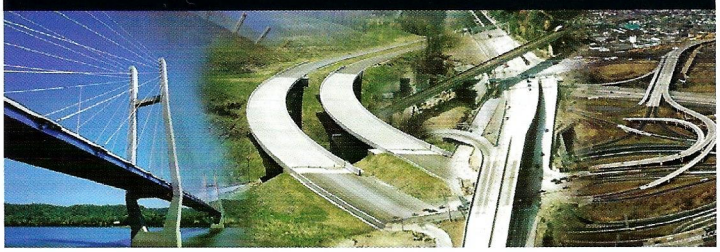
The Springfield Interchange Improvement Project limits of construction on the Capital Beltway were almost 2 miles on either side of Shirley Highway. The limits of construction on Shirley Highway were almost a mile north of the Beltway, and over 1&1/2 miles south of the Beltway.

The total cost of the Springfield Interchange Project, for engineering, right-of-way, construction, and all other costs, is estimated at $676 million.

Local road construction included over a mile of 8- and 10-lane widening on VA-644 in the I-95 area, and over a mile of 4- and 6-lane widening on Commerce Street and Loisdale Road in the same vicinity. Included was the replacement of the 2-lane Commerce Street viaduct over I-95, with a modern 4-lane divided bridge with

"Springfield" continued p. 9

Looking for full-service?



Baker provides a full range of professional services that address the complete life cycle of our customers' transportation challenges:

- Program and Project Management
- Planning
- Design
- Construction Management and Inspection
- Traffic Studies
- ITS
- NEPA Studies
- Cultural Resources Services
- Public Involvement Services
- Mapping and GIS
- Context Sensitive Solutions and Visualization
- Software Development
- Training
- Asset Inspections and Inventories

Baker

1.800.553.1153 • www.mbakercorp.com

PICKERING, CORTS & SUMMERSON, INC.

CONSULTING ENGINEERS, LAND SURVEYORS, PLANNERS AND LANDSCAPE ARCHITECTS

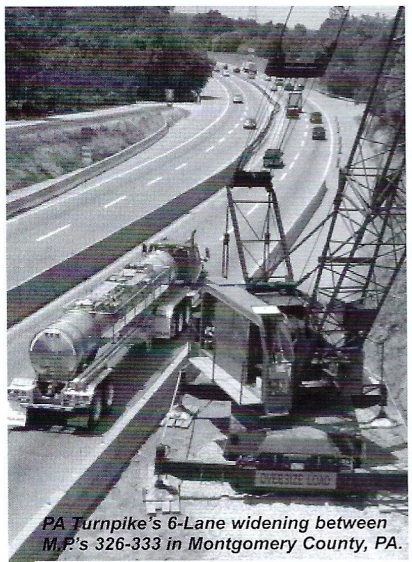
ASHE 2006
Project of the Year
Delaware Valley Section

S.R. 413 Section 005
Bristol Township/Bristol Borough,
Bucks County, Pennsylvania
PennDOT Engineering District 6-0

NEWTOWN, PA ▪ CENTER VALLEY, PA ▪ PLYMOUTH MEETING, PA ▪ TRENTON, NJ

CAREER OPPORTUNITIES AVAILABLE

WWW.PCS-INC.BIZ



PA Turnpike's 6-Lane widening between M.P.'s 326-333 in Montgomery County, PA.

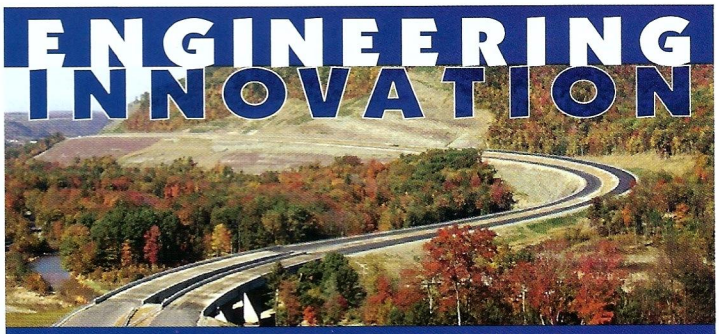
Construction Management
Traffic Engineering
Environmental Assessments
Intermodal Facilities
Highway Design
Bridge Design & Inspection
Noise/Sound Barriers
GIS/Mapping

BUCHART HORN, INC. / BASCO ASSOCIATES
Engineers, Architects & Planners

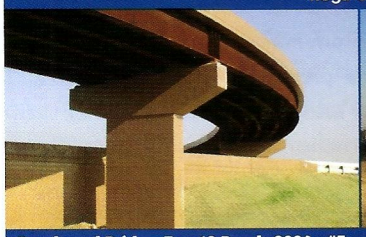
THE INDUSTRIAL PLAZA OF YORK
445 West Philadelphia Street
York, PA 17401-3383

800-274-2224 **www.bh-ba.com**

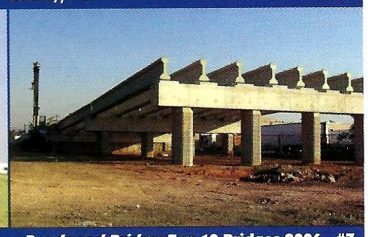
ENGINEERING INNOVATION



***Roads and Bridges* Top 10 Roads 2006 - #2**
U.S. Route 15, Section D52
Tioga County, Pa.



***Roads and Bridges* Top 10 Roads 2006 - #5**
Interstate 83, Relocation/Improvement
York, Pa.



***Roads and Bridges* Top 10 Bridges 2006 - #7**
Monroe Street Viaduct, Replacement
Baltimore, Md.

Planning • Design • Design-Build • Construction Management

Gannett Fleming
A Tradition of Excellence

(800) 233-1055 www.gannettfleming.com

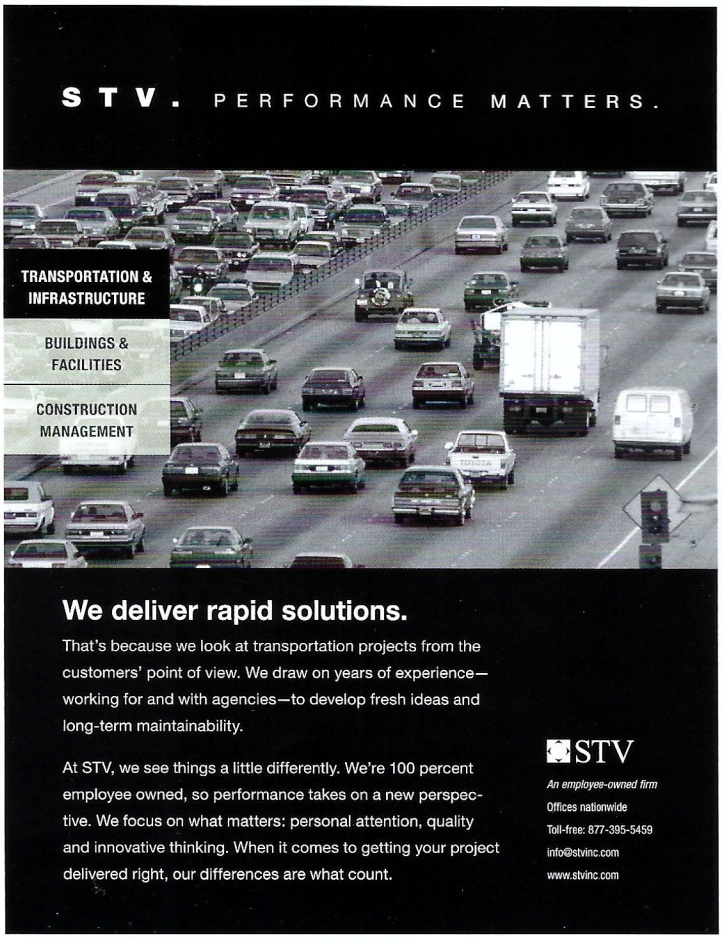
"Springfield" continued from p. 7

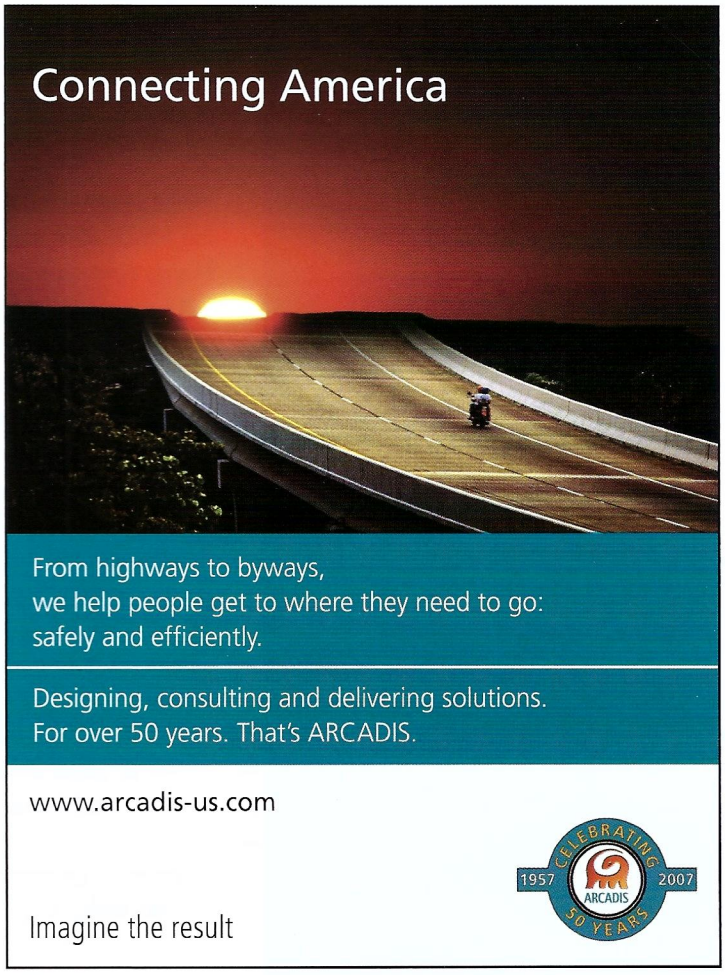
sidewalks on either side for pedestrians and bicycles. The expansion of VA-644 Franconia Road near the Springfield Mall included elevated 2-lane-each-way express roadways with the grade separation of two intersections, that over Loisdale Road and Frontier Drive, with outer local 3-lane-each-way VA-644 roadways intersecting the cross streets at grade.

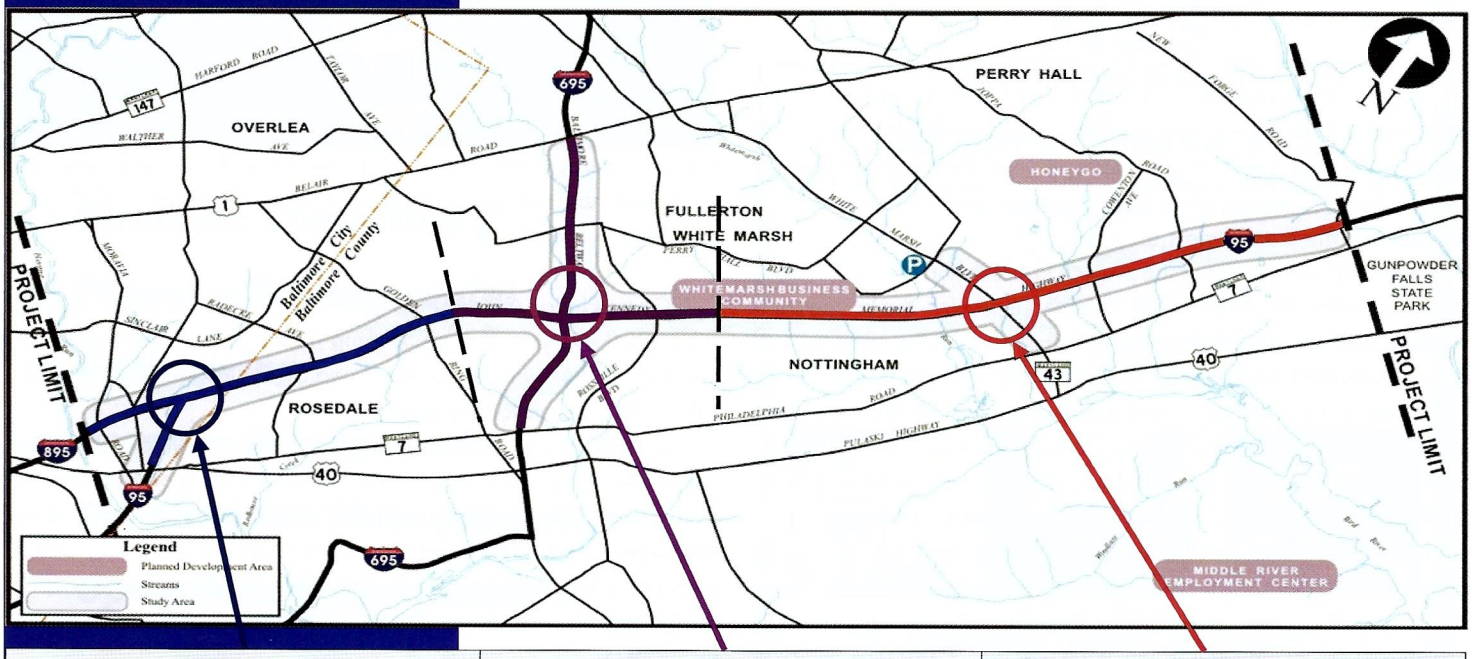
The final two phases of the project, Phase 6 and Phase 7, mainly focused on the I-95/I-395/I-495 interchange, mainly the bridges and roadways for the elevated ramps, but also included the remainder of the northbound I-95 roadway south of I-495. Phases 6 and 7 were constructed in one contract, and the Commonwealth Transportation Board awarded the $99.8 million contract on September 17, 2003, to Archer Western Contractors Ltd., with completion planned in mid-2007. VDOT's Six-Year Program (SYIP) budgeted cost for this contract was $123 million, which included the award amount plus contingencies and construction engineering. The Inspector's Estimated Amount to Complete (per VDOT's Dashboard) when the contract reached 100% completion in late June was $113,239,026, which is 13.4% above the award cost, but is still less than the original contract estimated cost plus 16% contingencies that was programmed into the SYIP for this project before the contract was awarded. Due to the high complexity of the contract, a higher factor for contingencies was budgeted than the typical highway industry standard of 10% on a construction project. ■

Cover Photo: Aerial photo by VDOT in January 2007 of the I-95/I-395/I-495 interchange, looking north. Capital Beltway (I-495 and I-95/I-495) runs left to right, and Shirley Highway (I-95 and I-395) runs from bottom to upper right.

Scott M. Kozel is a senior member of the Old Dominion Section (Richmond, Virginia) of ASHE, and he has 33 years of experience in the highway industry. Kozel is the author of the "Roads to the Future" Highway and Transportation History internet website www.roadstothefuture.com, which includes an extensive article about the Springfield Interchange Project with many details and photos of the project.







SEGMENT 1	SEGMENT 2	SEGMENT 3
I-95/I-895 Split to Kenwood Avenue	I-95 from Kenwood Avenue to Rossville Boulevard I-695 from MD 7 to US 1	Rossville Boulevard to New Forge Road

I-95 Express Toll Lanes

Chris McGuire, Chesapeake Section ASHE

The I-95 Express Toll Lanes℠ (ETLs℠) Project, known during project planning as I-95 Section 100, consists of a widening and reconstruction of 10 miles of Interstate 95 from the I-95/I-895 split north of Baltimore City to New Forge Road, 2 miles north of White Marsh Boulevard (MD 43). Reconstruction of the interchanges at I-895, I-695, and MD 43 will be included as part of the overall project scope.

The widening will consist of shifting the existing or general purpose lanes to the outside of the existing travel lanes and constructing Express Toll Lanes within the median of the existing right-of-way. The final roadway section will consist of four General Purpose and two ETLs in each direction of traffic.

The ETLs will be operated using Open Road Tolling (ORT) Technology which will allow Electronic Toll Collection (ETC) at normal highway speeds. Use of the ETLs will require motorists to use E-Z Pass℠. Access to the ETLs will be provided at the north and south project limits, as well as at each of the three interchanges. The toll rate structure for the ETLs will be based upon the time of day and will be developed to manage the congestion in order to maintain relatively free-flowing traffic conditions.

The corridor has been divided into three segments for design and construction purposes. The segments, from the southern limits to the northern limits, are as follows:

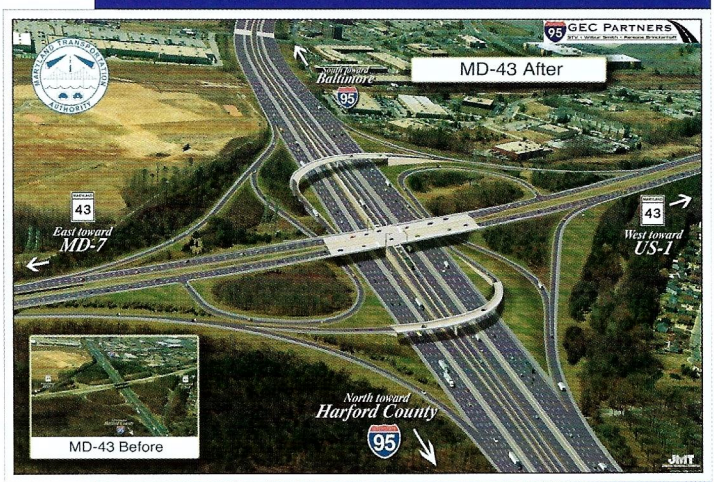
- **Segment 1** – I-95 / I-895 Split north to Kenwood Avenue, including the I-95 / I-895 interchange.
- **Segment 2** – Kenwood Avenue north to Rossville Boulevard, including the I-95 / I-695 interchange.
- **Segment** 3 – Rossville Boulevard north to New Forge Road, including the I-95 / MD 43 interchange.

The graphics on the right show the existing interchange in the inset photo and the proposed interchange configurations within each associated segment. Various construction contracts have been developed within each segment to facilitate the completion of critical items of work and to facilitate maintenance of traffic (MOT) on the General Purpose Lanes while the Express Toll LanesSM (ETLsSM) or "Managed Lanes" are being constructed. Construction currently underway includes three overpass structures at Rossville Boulevard, Cowenton Avenue, and Joppa Road, and mainline contracts at I-895 and I-695.

Construction of the first mainline section of I-95 involves the relocated I-895 General Purpose northbound roadway, a portion of I-95 north of the split, the reconstruction of the Moravia Road interchange (including a new Moravia Road overpass structure), and the replacement of the Moravia Park Drive Overpass. This work was started in October 2006 and is expected to be completed in the Fall of 2008.

The second mainline contract involves the first of two major contracts at the I-95/I-695 Interchange. This work consists of construction of the mainline General Purpose Lanes through the interchange as well as the General Purpose ramps and ramp structures. This contract began in January, 2007. The number of contracts under construction for the entire corridor will increase to nine by the middle of 2008. These contracts will consist of the MD 43 Interchange, the second I-95/I-695 Interchange contract, the second I-95/I-895 Interchange contract, and several mainline I-95 contracts. The overall completion of the I-95 ETLs Project is scheduled for 2011.

I-95 ETLs (Section 100) is the first of four sections of I-95 to be improved between the I-95/I-895 split to the Delaware State Line according to the I-95 Master Plan. Section 200 is currently in the planning phase; its limits are a 16-mile section of I-95 from New Forge Road to MD Route 22 in Harford County. The section from New Forge Road to MD 24 is currently scheduled to start construction in late 2010 and be completed by the end of 2013. ETLs are just one of the alternatives being studied. ■



2007 Conference in Review

Al Agazi

Reviews of the 2007 ASHE Conference attendees by almost 700 guests were very positive. Comments focused on the highly energized technical program, the facility, and the social events. The live crash test got very high marks (thank you Quixote Corporation) along with the Route 52 construction field trip. The presentation from the New Jersey Turnpike Authority was highly attended along with NJDOT Route 52 and Funding presentations. The longest bridge in the world presentation, China project, also received very good comments. All other presentations were very well attended and very interesting.

The Golf tournament at the Seaview Marriott Bay Course, host of the 1942 PGA, was first class as it will host later this year the 2007 LPGA's ShopRite Classic.

All spouse tours starting with the Cruise, Aquarium, Historic Cape May & Smithville, and Wheaton Village/Renault Winery were a hit.

Most attendees took advantage of the beach boardwalk, the shows, the casino night life and the fine dining during the conference.

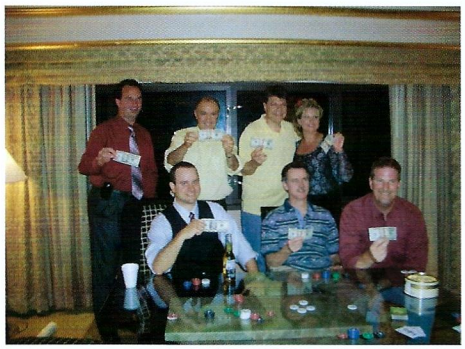
Every night, the hospitality room stayed open till 4 AM. The Jersey guys can be blamed for the late closing.

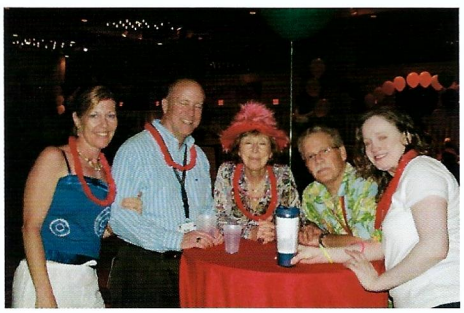
The Ice Breaker was a good start for the conference where old friends got together. The Boardwalk Blast was a lot of fun for both the young and the young at heart. The age distinction of the participants disappeared on the colorful dancing floor. The young enjoyed the adults becoming kids again.

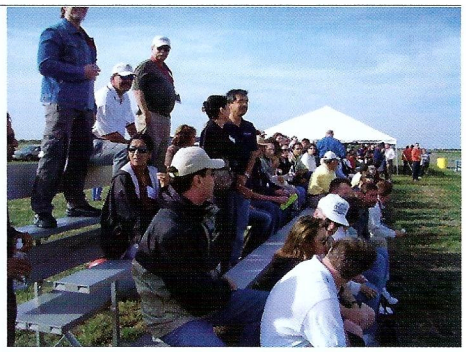
The spectacular formal Gala Dinner was the right event in which to introduce Perry Schweiss our new President and say goodbye to Dick Prentice for a job well done.

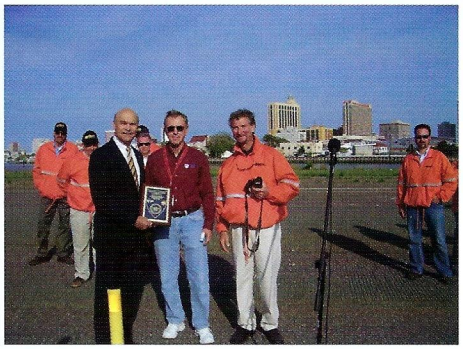
Several new directors were sworn in office for the first time to join the national board.

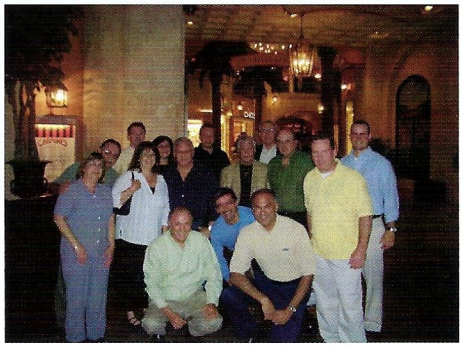
Region 6 the host of the conference is very thankful and fortunate to have such incredibly dedicated members who took many hours away from their families to make this conference very successful. The 1000 members of Region 6 can't express enough their gratitude to the conference volunteers and their sponsors.

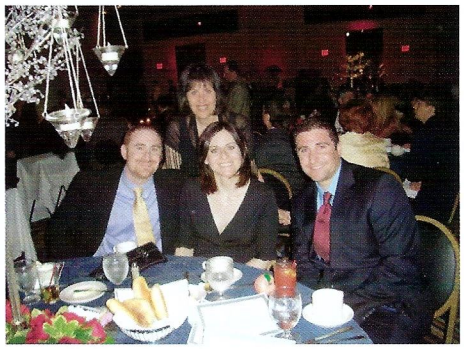


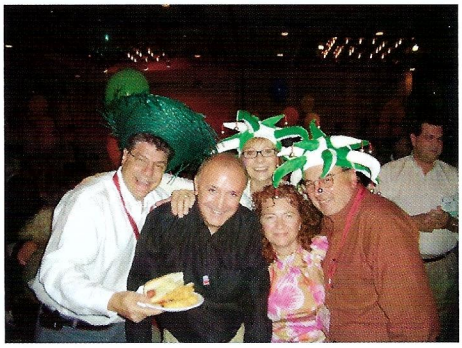












AMERICAN SOCIETY OF HIGHWAY ENGINEERS
2007 Grant Presentations

Jack Lettiere
Robert E. Pearson/Person of the Year Award

Sections are asked to select a nominee for this most prestigious award. Consideration is to be given, by the Section, as to whether this person is active in any highway related societies, has had impact on the highway industry statewide, that the person is willing to give personal time for the good of the industry, and does this person have overwhelming respect of his/her peers.

Sunshine Foundation
Russell Horn $1,000 Grant

A $1,000 grant is given to the favorite charity of the recipient of the Robert E. Pearson/Person of the Year Award. Russell E. Horn, Sr., P.E., is the Founding Father of the York, Pennsylvania Engineering Firm, Buchart Horn, Incorporated. He is a charter member of the First Section of ASHE in Harrisburg, PA and is the 17th name to appear on the original charter. Jack Lettiere selected the Sunshine Foundation as this year's charity to receive Mr. Horn's grant.

ASHE Georgia Section
Gene G. Smith Award

This award is presented to the section with the largest number of new members within the current fiscal year.

ASHE Middle Tennessee Section
George Hart Award

This award is presented to the section with the largest percent increase in membership within the current fiscal year.

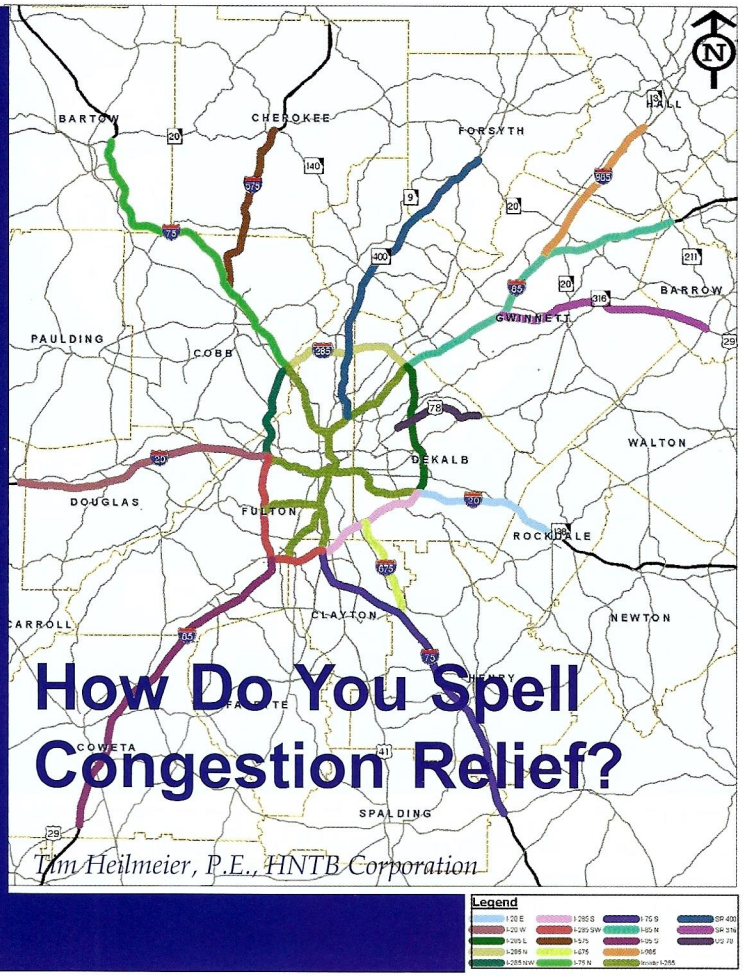
Andy Stasek P.E.

President's Award for successful efforts in Region 5

David Jones P.E.

President's Award for successful efforts in starting new Sections

As the problem of traffic congestion in many of the nation's largest urban areas accelerates, cash-strapped states are scrambling for new sources of relief. Georgia knows the problem all too well.



How Do You Spell Congestion Relief?

Tim Heilmeier, P.E., HNTB Corporation

In recent studies, metropolitan Atlanta ranked as the 11th most-congested urban area in the nation. The city's average peak-hour traveler experienced 67 hours of traffic delay in 2003, up from 38 hours a decade earlier. The cumulative congestion was estimated to cost the region $1.75 billion in lost productivity and up to 71 million gallons of wasted fuel each year.

The Georgia Department of Transportation (GDOT) kept pace with the region's congestion for decades, but a population explosion in the mid-1990s made it nearly impossible to accommodate the resulting traffic growth. That increase - and the spike in auto emissions it produced - contributed to the region's designation as a non-attainment area under the Environmental Protection Agency's Clean Air Act. As a result, Atlanta was not permitted to build any new capacity projects until it created a viable plan for conformity.

That problem, combined with the shortfall in federal gas tax revenues, is preventing GDOT and many other DOTS from delivering critically needed infrastructure projects. The situation threatens to dampen the economic vitality and quality of life of both the Atlanta region and the state of Georgia.

Managing Demand with Managed Lanes

GDOT hopes a pioneering study may establish a framework and implementation plan to ease commuters' frustrations. With the assistance of HNTB Corporation, GDOT has initiated the Metro Atlanta Managed Lane System Plan study to identify an interstate network system that would preserve mobility during peak traffic hours by guaranteeing a posted-speed ride.

Managed lane pricing is a tool that both regulates peak-period demand and provides an alternative revenue source. The concept reflects the emerging paradigm embraced by many sophisticated owners that they should focus on developing and delivering strategic assets.

"The managed lanes concept is a tool that will help us derive the maximum benefit from our existing system at a time when right-of-way acquisition and construction costs are skyrocketing," said Georgia Transportation Commissioner Harold E. Linnenkohl.

GDOT's study is evaluating the possibility of adding about 275 interstate miles, or 1,100 existing lane miles, of managed lanes. When complete, it will provide data upon which a master plan for a unified network of managed lanes can be built. The ultimate goals of that master plan are to: (1) provide Atlanta motorists with much-needed mobility options, (2) ensure Georgia's continued economic vitality, and (3) improve the quality of life.

An integrated managed lane system would be an asset to Georgia. But realization of this asset requires both a vision and an investment. Estimated at $30 billion, the collective network of managed highway lanes would be one of the largest, most ambitious and most innovative initiatives in Georgia's history. Without financial assistance, however, GDOT can't afford to construct it quickly enough to meet demand.

Georgia's Proactive Approach

The passage of SAFETEA-LU in August 2005 presented a new possibility for public agencies, as it encourages DOTs and others to find innovative solutions that move beyond traditional funding mechanisms. Georgia, being one step ahead of Congress, passed its own landmark public-private initiatives (PPI) legislation in 2003 and then expanding its scope in 2005.

Today, GDOT can proactively solicit proposals — and accept unsolicited proposals — from the private sector to help deliver critically needed surface transportation projects. Access to private dollars is allowing the agency to accelerate its plan to guarantee commuters congestion-free rides in the emerging managed lane system.

Public Joins Private

Every PPI project is different. In some cases, where funding gaps can be bridged over a traditional 30- to 35-year period, toll revenue bonds, Transportation Infrastructure Finance and Innovation Act loans (TIFIAs), Private Activity Bonds (PABs) and the like are sufficient to craft a workable finance plan. Thus, PPIs in this model primarily are design-build projects where the developer helps secure financing. The upfront equity investment required by the developers can be relatively small.

However, Atlanta's managed lane network might be implemented in conjunction with interstate corridor reconstructions. The enormous costs of these projects, coupled with the relatively limited revenue available from priced managed lanes, has made it increasingly difficult to apply the design-build-finance PPI model on Atlanta's managed lane projects, especially when GDOT has limited funds to contribute to the effort.

Revenue from tolling of managed lane facilities can provide a continuous funding stream, but it isn't always sufficient to bridge a funding gap over a 30- to 35-year finance window. If that's the case, private developers can structure feasible, long-term financial plans when given the opportunity to fully invest in a project from its inception. They can offer to front every dime for a project and, in return, realize greater returns. Private developers operate the facility for a predetermined time — in some cases up to 99 years — and keep all that they earn. This approach is commonly referred to as the non-revenue sharing concession model.

GDOT has been cautious of this model, perhaps because of the legitimate fear that it would be seen as bad business and not in the public's interest to relinquish later-year revenues to private-sector financiers. In response, a new hybrid model of concession, predicated on tiered or banded revenue sharing between the public and private sector, has emerged. This revenue-sharing model may well present the future of GDOT PPI projects.

The HOV Lane – and Beyond

Tolling and PPIs are reflective of another emerging reality and culture change – transportation is no longer an entitlement but rather a commodity for which the user receives value in return for a fee. What form that commodity will take in Atlanta is still under review.

GDOT's groundbreaking Metro Atlanta Managed Lane System Plan study will evaluate a wide range of lane management techniques, including pricing, eligibility (e.g., by occupancy or vehicle type) and access control:

HOV2+, HOV3+ and HOV4+ Lanes: These managed lanes are based on occupancy requirements and would limit access to high-occupancy vehicles (HOVs) with at least two, three and four passengers, respectively.

HOT Lanes (Including HOT2+, HOT3+ and HOT4+): High-occupancy toll (HOT) lanes offer access, for a fee, to vehicles that don't meet minimum HOV occupancy requirements. HOT lanes maximize highway system efficiency by "selling" unused capacity in HOV lanes.

ETL: Express toll lanes drop the occupancy requirement altogether. While these lanes derive the greatest revenue, they often grant free access to buses and other public transit vehicles.

TOL: Truck-only lanes (TOL) divert truck traffic away from passenger car lanes, enhancing safety and reducing wear and tear on older highways. Truck lanes represent a very new concept and associated policies have yet to emerge.

TOT: Truck-only toll (TOT) lanes are a subset of TOL. Truckers in these lanes would pay a fee to bypass congestion and save time. Currently there are no TOT lanes in the United States.

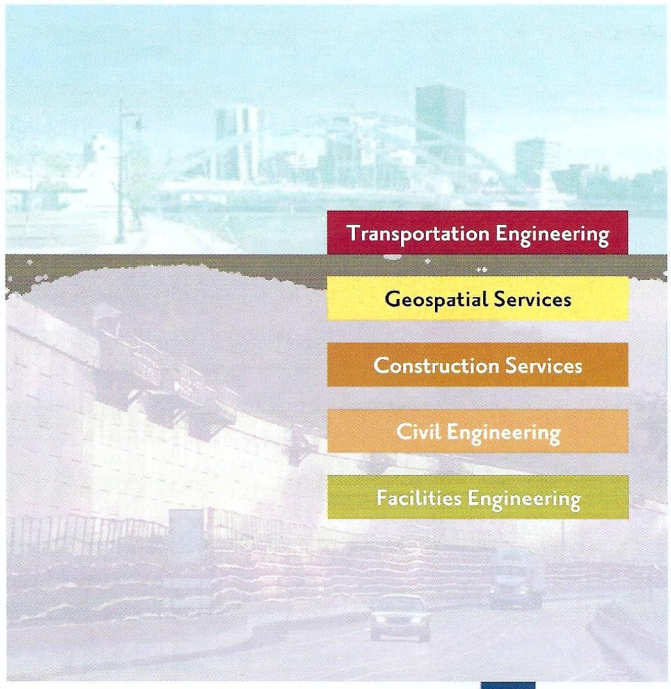
GDOT is working to educate public officials and other stakeholders about the innovation behind managed lanes and, in turn, encourage them to establish policies to support system delivery.

A Faster Future For a Fee

By the summer of 2008, GDOT will achieve its goal of creating a strategic, unified and systematic master plan for implementing the Metro Atlanta Managed Lane System. This comprehensive master plan will define funding requirements and limitations, outline appropriate policies, calculate the network's anticipated cost and revenue potential, determine points of access and designate the limits of each managed lane.

"Congestion can be beat if we have the courage to make difficult decisions and the will to use innovative programs like managed lanes and public-private initiatives whenever we have the appropriate opportunities," Commissioner Linnenkohl said. ■

Author Tim Heilmeier is an associate vice president and senior project manager for transportation planning and design projects in the Atlanta office of HNTB Corporation. He currently serves as project manager for GDOT on its public-private initiatives program.



ERDMAN ANTHONY

Mechanicsburg, PA / 717.766.1741

erdmananthony.com

ENGINEERING INFRASTRUCTURE SOLUTIONS ... FOR A CHANGING WORLD

SPK

Sucevic, Piccolomini & Kuchar Engineering, Inc.

126 Kaider Road, Uniontown, PA 15401
Tel: 724.439-1600 | Fax: 724-439-5449
spkengr@spkengr.com | www.spkengr.com

PennDOT District 2-0
S.R. 0080 Section B09

SPK ENGINEERING 1982 - 2007 25th ANNIVERSARY

Highway Design
Bridge Design
Traffic Analysis and Design
Hydrologic and Hydraulic Engineering
Right of Way/Property Investigation
Surveying

URBAN ENGINEERS

Providing Excellence In Engineering

Founded 1960 | Employee Owned | *ISO 9001:2000 Registered

- Transportation
- Construction Services
- Environmental
- Facilites/Building Systems
- Planning/GIS
- Program Management

Pennsylvania Locations:

*530 Walnut Street, 14th Floor
Philadelphia, PA 19106
V: 215.922.8080

*156 Cumberland Parkway, Ste. 1
Mechanicsburg, PA 17055
V: 717.796.0624

1 Willamsburg Place
Warrendale, PA 15086
V: 724.934.2090

1319 Sassafras Street
Erie, PA 16501
V: 814.453.5702

www.urbanengineers.com

STREET SMARTS©

Planning • Transportation Engineering • Surveying

www.streetsmarts.us

SOLID COMMITMENT TO EXCELLENCE

Fitting Modern Features to Historical Bridges

Ahmad Faqiri, P.E., and Corey Fenwick

When Hilliards Bridge, a historic pony truss in Southampton, New Jersey, was closed due to flood damage from a storm in the summer of 2004, residents worried about the loss of a historic landmark and the loss of convenience that the small-town single-lane bridge brought. Burlington County had planned to rehabilitate the bridge for years, but now that it had been rendered unusable, rejuvenating the bridge became a priority.

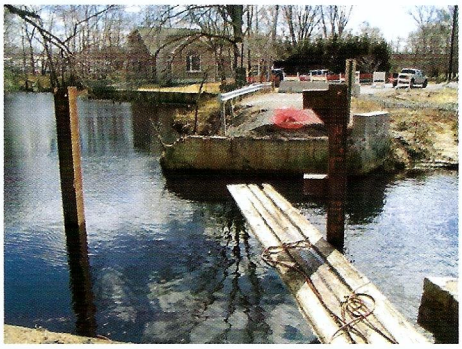
Philadelphia-based consulting engineering firm Pennoni Associates knew that it was important to the county and residents near the structure that the bridge's historical integrity remain intact. By sifting through the many rules and safety requirements of several governing bodies, Pennoni was able to come up with a design that brought the bridge up-to-date with modern features while still remaining true to its historic look.

When rehabilitating a historical bridge, a balance must be struck between the bridge's integrity and contemporary traffic safety. Modern techniques are regulated by the Federal Highway Administration and Departments of Transportation and are determined in line with present-day structures. Often times, the safety features on modern bridges do not work on historical ones. To incorporate these new details into a bridge such as Hilliards, special designs are required so the new safety features are functional and supportive, yet still possess a historic look. There is no set way to incorporate modern features into historic structures, so creativity and interpretation have to be utilized when coming up with a design. Pennoni was able to do so by abiding to the standards of Burlington County and the American Association of State Highway and Transportation Officials, while keeping the size and shape of the bridge similar to its original aesthetics.

A particularly challenging detail required in the bridge's rehabilitation was its guiderail-to-bridge vehicular railing connection. These connections are normally regulated by Departments of Transportation. New Jersey's typical detail did not work with Hilliards Bridge's design. Pennoni had to look into alternative connections and find a connection system that yielded the most practical solution.

With the approval of the county, Pennoni was able to use a guiderail-to-bridge railing connection system similar to what is used by Pennsylvania Department of Transportation. The system integrated the bridge railing with the approach guiderails in a very smooth way while complementing the historic essence of the bridge. The new connection was able to meet all modern safety requirements and its current traffic demand while retaining its classic look.

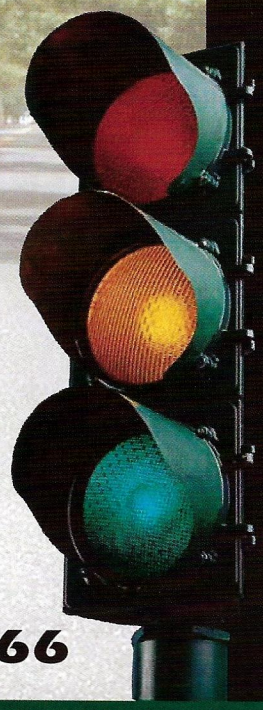
Since keeping the historic look of the bridge was so important, many steps were taken to maintain it. Wingwall sheeting was designed to be covered with a stone masonry veneer and stone cap. Sheet piling was used instead of concrete for the project's abutments, conserving



construction time and cost. The offsite refurbishing of the bridge's steel trusses and laying of a new timber deck also helped to keep its historic integrity.

By examining different types of regulations that would update Hilliards Bridge's safety features and work with its original aesthetics, Pennoni was able to find a balance between modern features and classic style. Happy with the results, The Preservation Commission of Historic Southampton selected Pennoni as a recipient of their 2006 Historic Preservation Award for its work on the structure. By September 2006, the bridge was again able to be used by the community. ■

HELPING YOU GET THERE SAFELY SINCE 1966



Pennsylvania
Doylestown
King of Prussia
Lehigh Valley
Mechanicsburg
Philadelphia
Pittsburgh
Scranton
State College
Uniontown
Wilkes-Barre
West Chester

Mid-Atlantic
Baltimore
Wilmington

New Jersey
Cedar Knolls
Cranford
Haddon Heights
Vineland

New England
Andover, MA
Salem, NH

New York
New York City

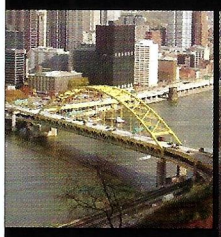
Tennessee
Knoxville

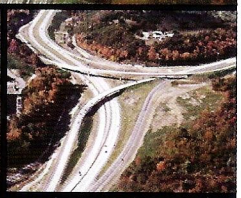
Pennoni
PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS

One Drexel Plaza, 3001 Market Street
Philadelphia, PA 19104
Tel: 215-222-3000 | Fax: 215-222-0384

www.pennoni.com

Engineering Solutions for Your Community





Pittsburgh, PA
412.497.6000

Philadelphia, PA
610.768.7737

Allentown, PA
610.740.1010

Weirton, WV
304.748.8740

Cincinnati, OH
513.936.6140

Columbus, OH
614.418.1761

- Transportation
- Environmental Planning
- Geotechnical
- Design & Construction Management
- Security/Vulnerability Assessments

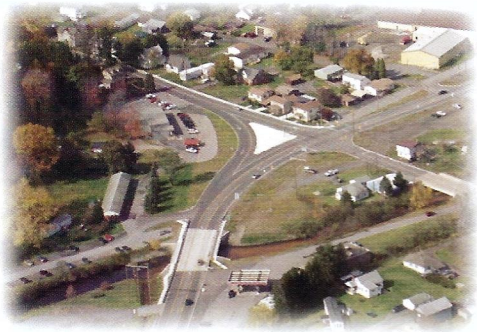
Offices Nationwide
www.hdrinc.com

HDR
ONE COMPANY | *Many Solutions*℠

HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

[BUILDING RELATIONSHIPS. DESIGNING SOLUTIONS.]

Celebrating 45 years of excellence



© 2007 Herbert, Rowland & Grubic, Inc.

TRANSPORTATION • SURVEYING • GIS
WATER RESOURCES/ENVIRONMENTAL STUDIES & DESIGN
FINANCIAL • WATER & WASTEWATER SYSTEMS
LAND DEVELOPMENT • ELECTRICAL ENGINEERING

Serving the Mid-Atlantic Region
717.564.1121 • www.hrg-inc.com

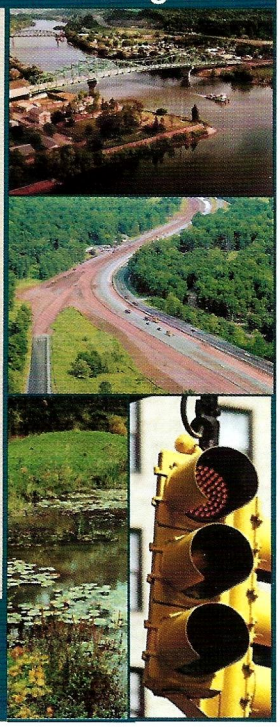
DAWOOD
PEOPLE ENGINEERING INNOVATION

www.dawoodeng.com

CORPORATE OFFICE
Harrisburg, PA
717-732-8576

ADDITIONAL OFFICES
Pittsburgh, PA
Grantville, PA

- Highway
- Structural
- Surveying
- Environmental
- Design/Build
- Traffic Engineering
- Civil Engineering
- Bridge Inspection
- Geotechnical



For career opportunities please visit:
www.dawoodeng.com

National Board Announces Two New Membership Incentive Awards

Rich Clifton, P.E.

Congratulations to the membership award winners for 2006-2007. The Georgia Section received the Gene G. Smith Award for the second year in a row. This award is presented to the Section that adds the most members in a year. The Georgia Section added 120 new members between April 1, 2006 and March 31, 2007, bringing their total membership up to 429, moving them ahead of Harrisburg and Delaware Valley to become the second largest Section in ASHE (Pittsburgh remains number one with almost 600 members – WOW). The Middle Tennessee Section received the George Hart Award for increasing their membership by 61.5%. They added 59 members to their roster bringing their total membership up to 155, making them the 12th largest Section – very impressive for a Section that is only two years old.

The membership incentive program keeps changing to try to encourage more competition and provide more incentive to the Sections to try to grow. Last year the national Board of Directors added a financial incentive by giving the winning Sections a full registration to the National Conference, including the Past Presidents' Luncheon and the annual banquet. This year the Board changed the awards from plaques to ribbons which the winning Sections can show off on their banners at the National Conference. For next year, the Board is pleased to announce two new membership incentive awards for ASHE Sections – the Terence Conner Award and the Robert Yeager Award. These awards have been named to honor our current Secretary and Treasurer, both of whom will be stepping down after this year after more than three decades of service to ASHE national.

The Terence Conner Award will be awarded to the Section that has the best retention of existing members. While the Board is pleased that Sections are working hard to add members, it is just as important to recognize those Sections that work hard to keep their existing members. The Board recognizes that it is very likely that several sections will have only a few or even zero drops. In case of a tie for this award, the number of new members added will be used as the tiebreaker; however, the Sections that win the Hart or Smith Awards will not be eligible to win this award in a tiebreaker (they are, however, eligible to win the award outright.)

The Robert Yeager Award is intended to recognize the Section that maintains the most diverse membership. One distinctive character of ASHE is that all members are treated equally, no matter how he or she contributes to the highway industry. This fact is often what attracts a potential member to the organization so maintaining a balanced and diverse membership should also help boost membership and is, therefore, worthy of recognition. In April, the national Membership Committee will evaluate each section based on the number of government members, number of consultant members, number of contractor members, and the number of supplier/other members. The committee will also look at the number of retirees that have maintained their membership in each section. The Section that is determined to have the best mix/balance of membership will receive this award. In the unlikely event of a tie, the larger Section will receive the award.

Like the Hart and Smith Awards, the Sections that win the Conner and Yeager Awards will receive a full registration to the National Conference where they will be awarded a distinctive ribbon to display on their Section banner at subsequent conferences. So get out there and reach out to potential members in work sectors that are not well represented in your Section but do not forget to maintain a strong program keeps your current members active in ASHE. ■

RAMEY KEMP & ASSOCIATES
RALEIGH, NC WINSTON-SALEM, NC RICHMOND, VA
5808 Faringdon Place, Suite 100, Raleigh, NC 27609
Tel: 919-872-5115 Fax: 919-878-5416
www.rameykemp.com
Transportation Engineering • Traffic Signal Design • Roadway Design
Planning & Environmental Studies

American Geotechnical & Environmental Services, Inc.
A.G.E.S., Inc. provides award-winning geotechnical and foundation engineering, and design for public and private clients.
Canonsburg, PA • King of Prussia, PA
Hollidaysburg, PA • Baltimore, MD
www.agesinc.com

Timing is Everything on Ohio State Route 53 Project

Paul E. Proudfoot, P.E., P.S., President/CEO Proudfoot Associates, Inc.

Improving Traffic Flow to and from Turnpike Brings Economic Benefits

"The great thing about this project is that it is proactive. It's being completed before things become critical. Often, by the time a roadway is widened it has already become a congested mess, but we're ahead of the curve on this project." ~Ken Myers, Safety Service Director, City of Fremont

Originally constructed in 1957 as a two-lane roadway along an existing County Road through acres of farmland, State Route 53 now moves more than 25,000 vehicles a day between the City of Fremont and the Ohio Turnpike. The State Route 53 corridor that was home to only a few businesses 25 years ago is now a bustling commercial business district often referred to as Fremont's new Main Street.

According to Ken Myers, safety/service director for the City of Fremont, the widened roadway should be able to handle "whatever traffic comes its way." Upon completion, State Route 53 between Fremont and the Ohio Turnpike will be able to meet 20-year traffic projections of 41,000 vehicles per day.

Myers credited the Ohio Department of Transportation (ODOT) and the Ohio Transportation Review Advisory Committee for having the foresight to see the need for an expanded State Route 53 when it was approved for funding in 2002. In addition to increasing mobility, Myers sees the widened roadway as a means to improve safety and enhance economic development.

Supporting the influx of all this activity is a $14.7 million widening project that is on schedule for completion in September of 2007. The 2.71-mile segment of roadway stretching from North Street in Fremont to the Ohio Turnpike is being widened from two lanes to four to five lanes. Ramps at the U.S. 6/20 interchange in Fremont are also being rebuilt and reconfigured as part of the project. One directional ramp has been eliminated because of interference from an adjacent intersection and an adjacent ramp was modified to handle traffic from the eliminated ramp. Businesses along this limited access highway are accessible by side roads and service roads from major intersections, which are also being improved with new turn lanes and synchronized traffic signals.

Five intersections were reconstructed with new signal poles, heads, conduit, cable, and controllers. A new signal was also included to service Holiday Drive. Signals at five of the six intersections are interconnected with programmed, time-of-day, time based coordination. All signal heads have energy-saving LED lamps. According to ODOT, the LED lamps are brighter, more visible, last from 7 to 10 years and use 85 percent less electricity.

The SAN-53-10.15 Roadway and Bridge Widening project was designed by Proudfoot Associates in Toledo. Engineers from Proudfoot Associates prepared a report for ODOT on possible alternatives for the project in the early 1990's. Lack of funding stopped the project for several years until 2002 when funds became available and the project need intensified. At that time, Proudfoot Associates was contracted by ODOT to begin working on the design. ODOT put the project out for bid in March 2005. Great Lakes Construction Company was the low bidder and awarded the construction contract. Subconsultants on the the project are the Shelly Company (asphalt), Lake Erie Construction (guardrails and signs), Cleveland Barricading Systems (traffic control), Oglesby Construction (striping), Miller Cable (signals), and Alpha Structures (steel fabricators). The ODOT District 2 project manager on the project is Brian

French, P.E.; Thomas Yurysta, P.E., served as project manager for Proudfoot Associates; and Albert Leonard, P.E., is handling the project for Great Lakes.

According to Yurysta, one of the most challenging aspects of the design were plans for maintenance of traffic. Because of State Route 53's link to the turnpike and the heavy traffic flow, one lane of traffic needed to be open in each direction during construction. There were no alternate routes to handle traffic so part-width construction was needed in order to keep two lanes open at all times with left turn lanes at major intersections. Portable concrete barriers with impact attenuators at the exposed ends are being used extensively to separate the work area from traffic lanes.

The project involved upgrades to three bridges originally built in the 1950's: State Route 53 over U.S. 6/ U.S. 20; State Route 53 over the Norfolk and Southern Railroad; and State Route 53 over Muskellunge Creek. As part of the project work, Proudfoot Associates studied all three bridges to determine if they could be upgraded to meet HS-25 loading without total replacement. It was recommended that all three bridges could be upgraded and improved, rather than replaced.

The U.S. 6/U.S. 20 (SAN-53-1064) bridge is being widened from 30 feet to 72 feet. The bridge is a four-span, continuous steel beam structure 250.5 feet long with a reinforced concrete deck and substructures. The vertical clearance under the bridge is being increased from 14.5 feet to 16 feet.

The Muskellunge Creek (SAN-53-1259) bridge is being widened from 44 feet to 84 feet. The bridge is a three-span continuous steel beam structure 161-feet long with a reinforced concrete deck and substructures. Both substructures will be widened to accommodate the new superstructure members by extending existing abutments and adding additional pier columns and a new cap.

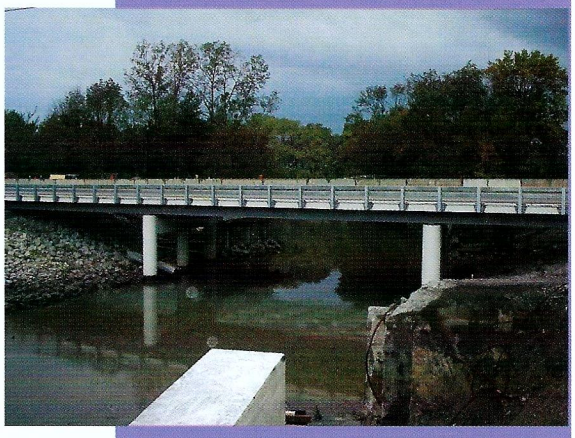
Stretching over the Norfolk and Southern Railroad tracks, the SAN-53-1176 bridge is being widened from 30 feet to 84 feet. The 202-foot-long bridge is a three-span continuous steel beam structure with reinforced concrete deck and substructures. The substructure will be widened to accommodate the new superstructure members by extending the existing abutments and adding additional "T"-type and column piers.

Because of poor underlying soils, high embankments at the bridges needed to be designed with vertical wick drains, with constant monitoring of the pore water pressure. The need to accelerate the release of underlying moisture was key to reducing the earth settlement time to less than six months, which kept the project on schedule. Pneumatic piezometers and settlement platforms were used to monitor pressure and measure the settlement rate. A fine balance was needed to remove the underlying water, but not raise pore water pressure to a critical level that would cause an embankment failure. Bowser Morner (geotechnical consultant) designed the settlement system and performed the field monitoring.

Although a wide right-of-way had been acquired for the roadway when it became a state route in 1957, 25 additional small parcels were acquired for the widening project, although no buildings were displaced. The preliminary development phase included complete environmental research and documentation involving historical, cultural, archaeological, and biological analysis, along with a public meeting. A Phase I Environmental Assessment, Categorical Exclusion Document (Level 3) was also included in the project. ■

State Route 53 over U.S.6/U.S.20

State Route 53 over the Norfolk Southern Railroad



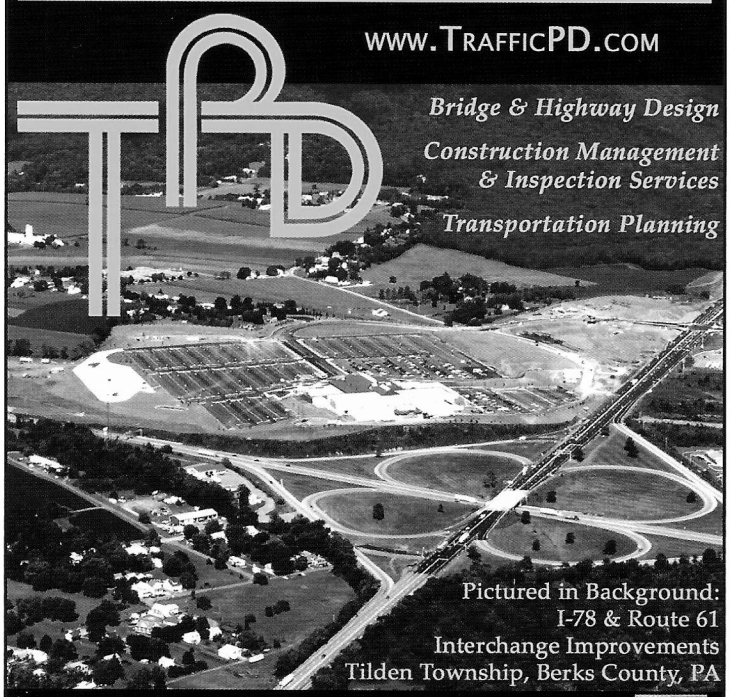
State Route 53 over Muskellunge Creek

TRAFFIC PLANNING AND DESIGN, INC.

WWW.TRAFFICPD.COM

TPD

Bridge & Highway Design
Construction Management & Inspection Services
Transportation Planning



Pictured in Background:
I-78 & Route 61
Interchange Improvements
Tilden Township, Berks County, PA

Now Hiring Transportation & Design Engineers:

Pottstown, PA *Harrisburg, PA*
Lehigh Valley, PA *Camden, NJ*

BEST PLACES to work in PA

TOP TWENTY-FIVE CE NEWS BEST FIRMS

Partners you rely on
Quality you trust

SCHOOR DEPALMA
Engineers and Consultants

Philadelphia Office
1700 Market Street
Suite 1005
Philadelphia, PA 19103
215.972.8100
www.schoordepalma.com

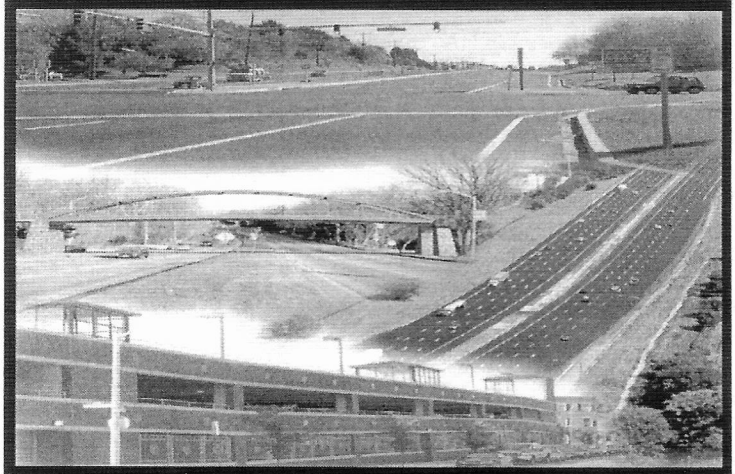
TRANSPORTATION ▪ PUBLIC WORKS
BUILDING SERVICES ▪ LAND DEVELOPMENT
ENVIRONMENTAL ▪ TELECOMMUNICATIONS

Pennsylvania ▪ New Jersey ▪ New York
Maryland ▪ Florida ▪ Arizona

QualityFirst®

WHITNEY, BAILEY, COX & MAGNANI, LLC
Consulting Engineers

Transportation Engineering
Traffic Engineering
Bridge Engineering
Building Structural Engineering
Construction Inspection
Surveying
Land Development
Landscape Architecture
Master Planning
Environmental Engineering



PENNSYLVANIA
MARYLAND

600 Bursca Drive, Suite 609
Pittsburgh, PA 15017

355 North 21st Street, Suite 100
Camp Hill, PA 17011

849 Fairmount Avenue, Suite 100
Baltimore, MD 21286

1-800-673-9312
www.wbcm.com

Better Asphalt.
It costs less and lasts longer.

Highway Engineers

DOT studies have proven that adding SBR polymer increases service life of asphalt pavements by 20% to 25% while only costing 13% more to place. The net cost savings allow DOTs and other agencies to spend the extra $$$ to pave more streets.

Betterasphalt.com

Start building longer-lasting, lower-cost asphalt pavements. Add Rub•R•Road SBR Latex to your specifications.

Now, *more than ever*, you need Rub•R•Road.

Rubber Compounds For Better Paving ™Since 1951
rub•r•road™

330-678-7050
PO Box 456 Kent, OH 44240

University Research News

Handheld device 'sees' damage in concrete bridges, piers

May 18, 2007 - Engineers at MIT have developed a new technique for detecting damage in concrete bridges and piers that could increase the safety of aging infrastructure by allowing easier, more frequent, onsite inspections.

The technique involves use of a hand-held radar device that can "see" through the fiberglass-polymer wrapping often used to strengthen aging concrete columns to detect damage behind the wrapping not visible to the naked eye. Such damage can occur on the concrete itself, or to areas where layers of the wrapping have come loose from one another or even debonded from the concrete.

The new noninvasive technique can be used onsite from a distance of more than 10 meters (30 feet) and requires no dismantling or obstruction of the infrastructure. It provides immediate, onsite feedback.

Called FAR-NDT (far-field airborne radar nondestructive testing), the technique could prove especially advantageous for bridges that span rivers or highways, which can prove inaccessible for other inspection techniques. MIT researchers first reported the technique in the proceedings of the International Conference on Structural Faults and Repair held in Edinburgh, Scotland, last year.

"The use of radar for detecting hidden defects and deterioration behind covered surfaces offers great potential for wide-range use in assessing the safety of bridges and buildings that have been retrofitted with composite materials," said Professor Oral Buyukozturk of the Department of Civil and Environmental Engineering (CEE), who developed the technique with CEE graduate student Tzu-Yang Yu and Dennis Blejer of MIT Lincoln Laboratory, where prototype radar measurements were made.

Fiberglass-polymer jacketing - shiny, textured fabric in black or ivory often seen wrapped around concrete columns - is widely used to upgrade existing concrete structures so they can carry a greater load or sustain additional earthquake impact. The wrap is also commonly used to retrofit structures that are damaged or deteriorating from weather or other wear.

Techniques presently available for inspecting these fiberglass-polymer jacketing systems require the inspector to come in direct or close contact with the structure. Some actually require removal of a physical sample, which itself could create a safety issue. The advantage of the new technique is that it allows a rapid inspection from a distance and provides computerized visualization of internal damages.

"This technique would allow the engineers to perform reliable, in-situ inspection for visualizing and characterizing hidden damages from distances without having to endanger the structure by taking specimens from it, and at the same time, without disturbing the traffic or service," said Yu, whose Ph.D. thesis will focus on this research. "The project is an excellent example of bridging fundamental science and engineering applications."

Researchers have demonstrated the validity and potential of the new technique through experiments and computer simulations by sending and receiving radar signals using a "horn" antenna to inspect bridge piers from distances of more than 10 meters. In their experiments, a horn antenna transmits a radar signal to a fiber-wrapped concrete specimen, which reflects the signal back to the antenna. The collected data are then converted by an imaging algorithm into a visualization of the interior of the specimen, including any damage.

Researchers say that the concept has been validated by their initial experimental results using an existing prototype radar system and by computer simulations. Future development of appropriate portable radar equipment for onsite use is necessary before the system can be placed in widespread use by industry. [1]

"Research" continued p. 25

PB
100 YEARS®

- **Strategic Consulting**
- **Planning/Environmental**
- **Engineering**
- **Program Management**
- **Construction Management**
- **Operations & Maintenance**

For career opportunities in transportation planning, design and construction phase services, please visit www.pbworld.com

M&S

"EXPERIENCED & DEDICATED"

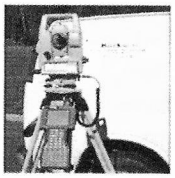
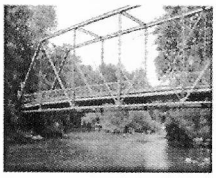
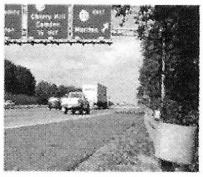
Malick & Scherer, P.C.

Consulting Engineers • Construction Inspectors
Professional Land Surveyors

DBE / MBE / ESBE

Serving NJ • NY • PA

Arif R. Malick, P.E.
Glenn J. Scherer, P.E.
Michael J. McAlpin, P.L.S.

- Highway & Traffic Engineering
- Hydraulics & SWM Design
- Environmental Services
- Land Surveying Services

One Salem Square, 295 Route 22 East
Whitehouse Station, New Jersey 08889
Phone (908) 534-4995 • Fax (908) 534-0507
m&s@malickandscherer.com

Experience and leadership aimed at fulfilling your project needs.

- Highway and Bridge Design
- Planning and Traffic Engineering
- Construction Engineering & Inspection
- Right-of-Way Acquisition
- Coating Evaluation, Specification and Inspection Services
- Water & Environment
- Site/Land Development
- Hazards Mitigation and Security

G&O GREENHORNE & O'MARA
CONSULTING ENGINEERS

16 offices nationally ▪ Mid-Atlantic offices: Laurel & Baltimore, MD; Mechanicsburg, PA; Richmond, VA; and Fairmont, WV ▪ **Toll Free 866.322.8905** ▪ **G-and-O.com**

Gibson-Thomas Engineering Co., Inc.
Consulting Engineers

- Highway Engineering
- Environmental Engineering
- Hydraulic and Hydrologic Studies
- Construction Management and Inspection
- Surveying
- Bridge Engineering
- Land Development
- Water Distribution & Treatment
- Wastewater Collection & Treatment
- Stormwater Management

Providing Consulting Engineering Services Since 1916

CORPORATE HEADQUARTERS:
1004 Ligonier Street, Fifth Floor
PO Box 853
Latrobe, PA 15650
Tel: 724-539-8562 Fax: 724-539-3697

Latrobe • Harrisburg • Pittsburgh

ISO 9001:2000 Certified
www.gibson-thomas.com

"Research" continued from p. 23

Pitt and PennDOT Partner to Conduct Research and Education

A solid, years-long working relationship between the University of Pittsburgh and the Pennsylvania Department of Transportation (PennDOT) has led to the signing of a five-year Intergovernmental Agreement, effective Jan. 1, 2007, wherein PennDOT will fund up to $5 million per year in University research, education, or technology transfer projects addressing transportation issues.

The contract is administered by Pitt's civil and environmental engineering department (CEE), but department chair Radisav D. Vidic hopes to pool faculty experts from an array of Pitt schools and departments in order to tackle any project PennDOT might propose, including land-use planning and the effects of urban sprawl.

"PennDOT issues are not only in the area of civil and environmental engineering, and we want other departments involved so we can be prepared for whatever PennDOT might require," said Vidic.

"We are delighted to enter into this agreement with Pitt," said Bill Pogash, PennDOT's research division manager. "We also have a similar agreement with Pennsylvania State University. By working with the talented faculty and students at both of these institutions, we hope to strengthen our professional relationship."

In 2004, PennDOT worked with Pitt on a three-year, $2.1 million project to examine the environmental impact of Interstate 99 construction activities that will connect I-70 and I-80. Led by CEE professor Raphael G. Quimpo, the project studies ways to preserve surrounding wildlife during and after construction, divert road runoff from spilling into nearby waterways, and minimize the environmental factors that would cause the road to deteriorate.

In another project, pavement engineer Julie M. Vandenbossche, a CEE associate professor and head of Pitt's Pavement Mechanics and Materials Laboratory, is working on "smart pavement." Sensors within the pavement monitor surrounding environmental conditions as well as the deformation of the roadway over time. Her research is being conducted to develop tools that will assist PennDOT in the design and construction of more cost-effective pavements. Vandenbossche published an initial report on smart pavement in 2005 and a project update in 2006. PennDOT officials would like to continue the project under this new agreement, said Michael Bonini, PennDOT's program manager for the project.

"Over the last five years, all of our projects conducted by Pitt faculty have been done on time, on budget, and with all finished products delivered," Bonini said.

Another major initiative of this agreement involves letting students participate in project research and implementation with the intent of providing real - world learning experiences to encourage students to consider jobs in transportation-particularly with PennDOT - later in their careers, Pogash said.

"We have high hopes that the overall project will be successful and benefit both of our organizations," Pogash added.

Using Coal Fly Ash to Recycle Asphalt Pavements

Ohio State civil engineering students and project staff install monitoring devices last summer on Long Spurling Road in Warren County, Ohio, as part of Bill Wolfe's pavement recycling research.

Much of the almost 2 million miles of asphalt roadways in the United States is severely distressed and in need of repair or replacement. Over the past few decades, increasing traffic demands and repair costs, environmental concerns and an emphasis on safe, efficient transportation systems have stimulated research to explore methods to reuse and recycle pavement materials.

One example is the work of Bill Wolfe, a professor in the Department of Civil and Environmental Engineering and Geodetic Science. Wolfe has partnered with the two fastest growing counties in Ohio, Delaware and Warren, to conduct full-scale field demonstration projects in pavement recycling. Sections of failing asphalt pavements in those counties are being rebuilt using Ohio coal-generated fly ash as a cementing agent, and Wolfe's research team will spend at least two years evaluating the pavement performance.

This three-year project, totaling more than $2 million, is funded primarily by the Ohio Coal Development Office with additional support from the Delaware and Warren county engineer's offices, Base Construction, Carmeuse NA, Headwater Resources and others.

The project findings will enable users of the technology to reap significant cost savings when compared with the common practice of removing old pavement systems and rebuilding the roadways. Lowered costs should be a strong impetus to economic development and provide for safe and secure means of road transportation for goods and people.

In addition, the technology addresses a very important environmental issue, Wolfe says.

"Since the production of 1 ton of cement produces about 1 ton of carbon dioxide, which is then released into the atmosphere," he says, "the widespread replacement of cement with fly ash in roadway reconstruction will result in significant reductions in the generation of this greenhouse gas." [2] ■

---

[1] *The work is funded by the National Science Foundation. A version of this article appeared in MIT Tech Talk on May 23, 2007.*

Contact: Denise Brehm, Civil and Environmental Engineering. Ref: http://web.mit.edu/newsoffice/2007/inspection-0518.html; August 16, 2007.

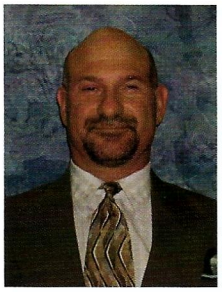
[2] *For more information contact Bill Wolfe, (614) 292-0790, wolfe.10@osu.edu. Ref: http://www.eng.ohio-state.edu/nie/article.php?e=783&s=4&a=3. August 16, 2007.*

As the Wheel Turns

John Derr, P.E., was appointed a regional transportation director with Gannett Fleming, an international planning, design, and construction management firm. Derr recently relocated from Gannett Fleming's corporate headquarters in Harrisburg, Pa., to the firm's Phoenix, Ariz., location.

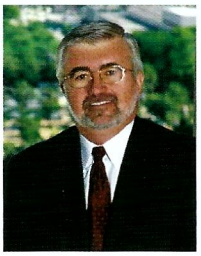
Derr holds a bachelor of science in civil and environmental engineering from The University of Wisconsin-Madison. He is a registered professional engineer in Arizona, Pennsylvania, Florida, Maine, and Texas.

Active in professional associations, Derr serves as the vice chair of the Young Executive Leadership Council of the American Road & Transportation Builders Association and is a past president of the American Society of Highway Engineers Board. He is an active member of the Institute of Transportation Engineers and the International Bridge, Tunnel, and Turnpike Association.



McMahon Associates, Inc., a full-service transportation engineering and planning firm with over 31 years of service, is proud to announce that **Richard DiCesare, P.E., PTOE**, has been promoted to general manager of the Fort Lauderdale office. Mr. DiCesare draws on over 25 years of extensive experience in traffic and highway engineering and transportation planning. He has provided comprehensive consulting services within these disciplines for private sector clients, local municipal agencies, state/county DOT's and private/public institutions within several states. In addition to managing projects and performing related engineering duties, Mr. DiCesare has routinely presented traffic flow concepts and transportation projects to municipal officials, traffic control boards and public advisory groups.

TBE Group, a full-service international consulting, design and engineering firm, is pleased to announce that **Keith Furukawa, PE,** has been promoted to Director from Assistant Director and has also assumed the role of Ohio Business Unit Manager, while continuing as Senior Project Manager for TBE's Utilities Division/Northern Region's Ohio operations. Based in TBE's Twinsburg, Ohio, office, Furukawa manages TBE's statewide SUE contract with the Ohio Department of Transportation and has successfully expanded SUE services into several secondary Ohio markets. Furukawa joined TBE in 1999.



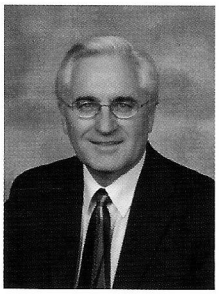
The American Council of Engineering Companies of PA, in announcing its Officers and Board of Directors for 2007 – 2008, has named Urban Engineers' **Joseph P. McAtee, P.E.,** as President of the organization.

McAtee, Urban's Executive Vice President and Chief Operating Officer, joined the firm in 1967, and is one of the principal owners of the organization. A licensed Professional Engineer in ten states, he holds a BS in Civil Engineering from Drexel University. In addition to ACEC/PA, McAtee is a member of numerous technical societies, including the American Society of Highway Engineers, and sits on the board of the Construction Management Association of America, the World Trade Association of Philadelphia, serves as Chair of Drexel University's Goodwin College Construction Management Advisory Council, and is outgoing Chairman of the March of Dimes Transportation, Building and Construction Industry Luncheon Board in the Philadelphia area.

Lisa M. Robert, PE, of Mulkey Engineers & Consultants has been named to the Elizabeth Edgar Hall (EEH) Board of Directors in Jacksonville, FL. EEH is a local not-for-profit organization that strives to assist Jacksonville women in becoming educated and self-sufficient through college scholarships. The board is comprised of local women from a variety of cultural backgrounds who volunteer their time to help other women reach success.

"I am so excited about being a part of a local organization that focuses on advancing women to the level of success and self-sufficiency that we all strive for," says Robert, principal and director of Florida operations and construction services manager for Mulkey Engineers & Consultants.

"We are really proud of Lisa. Her commitment to the community is parallel to the cornerstone of Mulkey's corporate giving. We are committed to enhancing arts and education in the communities where we work and live," says Jill Heath, president of Mulkey Engineers & Consultants.



North Dakota Department of Transportation is pleased to announce the promotion of **Francis Ziegler** as the North Dakota's Director of Transportation. Ziegler was appointed Director on October 5, 2006, by Governor John Hoeven. He had previously served as North Dakota Department of Transportation Director of the Office of Project Development.

Francis earned his Bachelor of Science degree in civil engineering from the North Dakota State University in 1970. Francis has worked for the Department of Transportation since 1970. Francis has served the state of North Dakota in a number of capacities for 36 years, including Director of the Office of Project Development, West Region Engineer, Assistant Chief Engineer (Operations), Construction Engineer, and Project and Resident Engineer.

Francis is a Professional Engineer with a background in field construction, statewide operations (construction and maintenance), planning and programming of projects, budget, environmental document preparation, and plan development.

Francis has also served on a number of civic organizations. He has been president of the Bismarck Park Board, the Bismarck Recreation Council, and the Ronald McDonald House Board. He is a member of the American Society of Highway Engineers and the National Society of Professional Engineers. ■

McM McMahon Associates, Inc.
Transportation Engineers & Planners
RESPONSIVE TRANSPORTATION SOLUTIONS

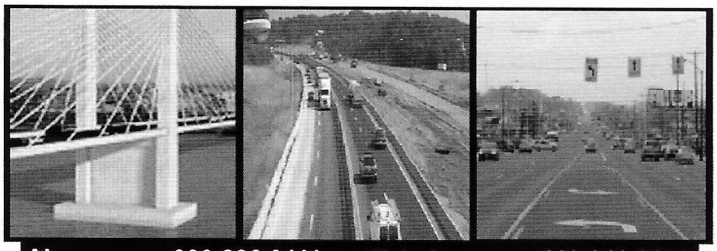
We turn traffic confusion...

...into engineering solutions!

Land Survey	Traffic Data Collection
Highway/Intersection Design	ITS/Traffic Signal Design
Structural Design	Corridor/Traffic Studies
Construction Observation/Management	Transportation Planning

Corporate Headquarters:
Pennsylvania: Fort Washington 215.283.9444
Regional Offices:
Florida: Palm Beach Gardens - Fort Lauderdale - Fort Myers - Miami
Massachusetts: Boston Pennsylvania: Exton - Mechanicsburg
New Jersey: Yardville

www.mcmtrans.com



Akron	330.836.9111	Toledo	419.246.0839
Cleveland	216.622.2400	Youngstown	330.743.5100
Columbus	614.464.4500		
Cincinnati	513.651.3440		

URS

Rummel, Klepper & Kahl, LLP

Consulting Engineers Since 1923

- ❒ Highways and Bridges
- ❒ Traffic / ITS
- ❒ Transit Systems
- ❒ Water / Wastewater Facilities
- ❒ Natural Gas / Utility Systems
- ❒ Geotechnical Engineering
- ❒ Environmental Assessments
- ❒ Hazardous Waste Remediation
- ❒ Construction Engineering / Inspection
- ❒ Geographic Information Systems

RK&K OFFICES

York, Pennsylvania
Norristown, Pennsylvania
Keyser, West Virginia
Raleigh, North Carolina
Concord, North Carolina
Dover, Delaware
Richmond, Virginia
Virginia Beach, Virginia
Fairfax, Virginia
Newport News, Virginia
Staunton, Virginia
Washington, D.C.

Headquarters: Baltimore, Maryland

www.rkk.com

RK&K

50 Years of Full Service Engineering Excellence

Over 600 Highly Trained Professionals
Imagine What We Could Do For You!

CHA
CLOUGH HARBOUR & ASSOCIATES LLP
915 State Street, Erie, PA 16501-1405
www.cloughharbour.com

ASHE National Board Member Bios 2007-2008

Al Algazi, P.E.
Region 6 National Director

Al has more than 32 years experience in the transportation industry of which 28 years were with the NJDOT and more than four with Hardesty & Hanover where he currently is employed.

Al attended Polytechnic Institute of New York where he received a B.S. in Engineering, the College of New Jersey for their Business Administration Program, and also received his M.S. from New Jersey Institute of Technology in Engineering Management. He is a licensed professional engineer in both New Jersey and Pennsylvania. He is also a certified Public Manager from the Rutgers University NJDOT program.

Al joined the South Jersey ASHE Section approximately seven years ago. Within one year he joined the Southern New Jersey Section's Board as the Director of Public Relations.

A year later, in 2001, he was Chair of the Membership Committee. In one year, the membership at the Southern New Jersey Section almost doubled. Al was responsible for an addition of approximately 100 new members in that year.

In 2001, Al was nominated for the Region 6 Director, representing the Southern New Jersey Section, which he accepted. Al also became the Region 6 Treasurer.

In 2003 he chaired the Region 6 Annual Seminar that was held at the College of New Jersey. Almost 300 attended the seminar that included 120 NJDOT Engineers and Consultants. It was noted that it was the largest ever attendance for an ASHE Regional Seminar. This seminar also raised more than $13,000 that was used for the ASHE 2007 National Conference held in Atlantic City.

Al continued to support other fund raising events for New Jersey ASHE Sections that would eventually be dedicated for 2007 National Conference.

In 2003, Al was challenged by Rod Pello, ASHE National President at the time, to initiate a new section in New York City. One year later, in 2004, the New York Metro Section was chartered. It currently has approximately 180 members.

In 2004, Al was asked by David Jones, National ASHE President, to join the New Sections National Committee. So far Al has been in Boston and Syracuse making contacts with hopes of chartering in these areas. Expectations are high that the Syracuse Section will be chartered this year.

In addition to the National New Sections Committee, Al is serving on the 2007 National Membership and Legislative Review Committees.

Nancy D. Buchanan, P.E.
Region 9 National Director

Nancy is a member of the Northeast Florida Section. She has served in various roles for this section including President, Vice-President, Programs Committee Chair, 2004 National Conference Committee Co-chair, and the Strategic Planning Committee Co-chair. Nancy was actually a charter member of the Georgia section before returning to her hometown of Jacksonville, Florida.

Nancy is a graduate of the University of Florida; she is a licensed engineer in the states of Florida and Georgia. She is the Transportation Director for Stone Joca & Associates, Inc., a local engineering firm in Jacksonville. She oversees roadway projects for clients such as FDOT and local cities and counties. Nancy has over 23 years of experience.

Over the past several years, Nancy has been honored with the ASHE Northeast Florida Section's President Award (2004, 2005, 2006). She has served on the local Jacksonville National Engineers Week committee, helping to raise funds for a permanent scholarship endowment for engineering students at the University of North Florida. Nancy is also on the Engineering Advisory Council for the University of North Florida.

Nancy is a Jacksonville native, with longtime family ties to the region. Nancy has been a member of the Jacksonville Gator Club and the Florida Striders Club. She has also been a Girl Scout leader and a regular volunteer at My House, a non-profit home for at-risk babies. Additionally, she has served as an advisor for youth groups at her church.

Nancy and Rick live on the St. Mary's River at the state line between Florida and Georgia. Nancy thinks that it epitomizes their ongoing college rivalries (she's a Florida Gator fan; he's a Georgia Bulldog fan). They have three incredibly smart cats (they are learning English as a second language). In her free time, she enjoys spending time with family and friends, playing tennis, running, scuba diving, and reading war histories.

Richard D. Clifton, P.E.
First Vice President

Rich is a charter member of the Carolina Piedmont and Greater Hampton Roads Sections. He served as the Organizing Committee Secretary and Section Secretary for the Carolina Piedmont Section from 1994 to 1999. He also served as co-chairman of the Organizing Committee of the Greater Hampton Roads Section in 2000, then serving as that Section's 1st Vice President, President and,

finally, Past President. His committee responsibilities included chairing the Constitution and By-Laws committees and the Nominating committees for both Sections. He also served as chairman of the Executive Committee for the 2006 National Conference in Williamsburg. Rich has been a member of the national Board of Directors since 2003 when he became the National Director for Region 7.

Rich earned his BS in Civil Engineering from Virginia Tech. After graduating in 1986 he began his career with Charlotte DOT as a Traffic Engineer. In 1990, Rich was promoted to the manager of the Implementation Section. While in Charlotte, he continued his education by taking graduate courses in Transportation Engineering at the University of North Carolina - Charlotte. In 1997, Rich was named the "City of Charlotte Employee of the Year;" an honor he cherishes not because he was selected but because his nomination was signed by his entire staff and dozens of other CDOT workers.

In 1999, Rich and his family decided to return to their native Virginia where he helped to open a new office for Kubilins Transportation Group in Newport News. In 2001, Rich accepted a position as the Regional Traffic Engineering Manager in the Newport News office of Gannett Fleming, Inc. He was made an Associate of the firm in 2002 and in July of 2005 Rich was promoted to Transportation Engineering Services Manager for Gannett's Newport News office, overseeing roadway design, traffic engineering and structural services in Virginia. In December 2006 Rich decided to return to the public sector by becoming the manager of Project Management Office for the Hampton Roads District of the Virginia Department of Transportation. Rich is a registered Professional Engineer in North Carolina, Virginia, and Maryland.

Rich is also a member of the Institute of Transportation Engineers and he is very active in scouting, serving a second term as the Cubmaster of his youngest son's Cub Scout pack. Rich has also served the pack as a den leader, a Webelos leader, Committee Chairman, and fundraising chairman. He is also very involved at the District level, having served as a Unit Commissioner and as the District Membership Chairman for the Chesapeake Bay District.

Rich and Glenda have been married for 20 years. They reside in Poquoson, Virginia (near Newport News). They are the proud parents of two sons, Brooks (12) and Tyler (10). The family pets are a cat named Lucy and a young Labrador/Border Collie mix named Ashes. Rich enjoys gardening and woodworking, but still doesn't have much time for either even with his move back to the public sector. His other interests are NASCAR racing, Carolina Panthers football, Virginia Tech football and taking his scouts hiking, camping, fishing, etc.

Richard N. Cochrane, P.E.
Region 5 National Director

Richard Cochrane is currently the Acting District Executive in PennDOT's District 4-0. He has been employed by the Pennsylvania Department of Transportation for 33 years. During that time he has worked in Districts 11 and 4, as well as in PennDOT's Central Office in both research and pavement management.

For 17 years, he managed large construction projects and other construction activities in District 4 including the Casey Highway in Lackawanna County. Most recently, he has served as Assistant District Engineer for Construction and Portfolio Manager in District 4 and served as acting County Manager in Pike County.

He is also an avid bicyclist and private pilot, and has an interest in the history of transportation and public works.

Mr. Cochrane is a graduate of the Pennsylvania State University, with degrees in Civil Engineering and Public Administration.

John Hetrick, P.E.
Region 2 National Director

John is a charter member of the Mid-Allegheny Section located in Indiana, PA. He previously held the positions of Section Treasurer and President, and has been a Section Board Member for six years.

He retired from Pennsylvania Department of Transportation, Engineering District 10-0, with 32 years service. During his career with PennDOT he held the positions of Maintenance Program Coordinator, Assistant District Traffic Engineer for the Operations Section, and later the Design Section, and lastly District Maintenance Program Engineer. He also received the Star of Excellence Award while serving with the Department. Currently John is employed with SAI Consulting Engineers of Pittsburgh. He has been with the company for six years and holds the position of Project Manager-Construction.

John received his Associate Degree from the DuBois Campus of Penn State University (1969). He is a Registered Professional Engineer and Land Surveyor in Pennsylvania. He is a past member of the Board of Directors of the Indiana County American Red Cross, and Boy Scouts of America - Penn Woods Council.

John and his wife, Ann, reside in Indiana, PA along with their three children; Eric (28) who lives in Cincinnati and is a student at the University of Cincinnati, Natalie (25) who lives in Pittsburgh and is a nurse at Children's Hospital, and Michael (22) who is a student at San Diego Golf Academy at Myrtle Beach campus. The family pet is a golden retriever named Penny. John's hobbies include golf, hunting and bicycling. He is active in his church were he is the Sunday School Treasurer, usher, and volunteer for the church food bank. ■

Classifieds

Transportation Engineering Manager

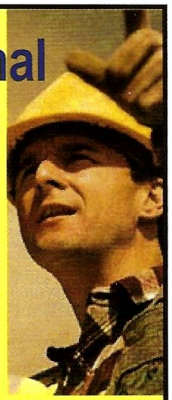
GTS TECHNOLOGIES RockSolid

GTS Technologies, Inc., (www.gtstech.com) a well respected, medium sized, civil engineering consulting firm in Harrisburg, Pennsylvania, with offices in Exton and Hazleton, is seeking a senior-level Transportation Engineering Manager to take the lead in growing the firm's transportation design and engineering group. Qualifications must include a minimum of 8 to 10 years experience with PennDOT projects, PE, structural/ highway design, project management and multiple consultant coordination experience. Responsibilities will include developing a service group to serve existing and new clients, assisting with preparing winning proposals, mentoring staff, design and oversight, performing QA/QC on transportation projects, and participating with the management team on decisions related to the transportation group. Salary commensurate with experience. EOE. Competitive benefits program. Submit resumes in confidentiality to Managers@gtstech.com

CIVIL ENGINEERING - HIGHWAY

Robson Forensic is a multi-discipline forensic engineering firm practicing throughout northeastern and central US. We seek mature professionals, experienced in the design, construction and maintenance of roadways. You would be part of a comprehensive team that investigates roadway collisions. The team includes vehicle engineers and operators, crash reconstructionists, human factors engineers, biomechanical engineers and highway engineers. Your role would be to determine if there are improper roadway conditions that were a cause of a particular incident. You must be degreed and registered, with excellent analytical and communication skills. Please e-mail your resume and a cover letter describing you and your previous experience to jobs@robsonforensic.com. Ref: TS-082007. Please, no fax, no mail.

The Fulcrum International



View recently posted transportation-related jobs on ASHE's online job bank partner, The Fulcrum International. Visit ***www.thefulcrumintl.com*** or call 407.228.1747 to learn more about these positions, or to learn about advertising job openings for your company.

- Applied Technology and Mgt, Inc., Structural Engineer - Charleston, SC
- Bowyer-Singleton & Assoc, Inc., Roadway PM - Orlando & West Palm Bch, FL
- Carter Burgess, PD&E Sr. PM & Traffic Engineer - Fort Lauderdale, FL
- Carter Burgess, Roadway PM - Tampa, FL
- Carter Burgess, Roadway Sr. PM and Drainage Sr. PM - Orlando, FL
- Dallas County (Tx) Public Works Dept. - Civil Engineer - Dallas, TX
- Oregon DOT, Civil Engineer/Planner, Roadway PM, Traffic Engineer, and Geotechnical Sr. Engineer - Salem, OR
- Oregon DOT - Civil Engineer - Designer - Portland, OR
- Parsons, Roadway Engineer & Sr. Engineer - Jacksonville, FL
- PBS&J, Bridge Engineer - Tampa, FL
- R. W. Beck, Inc., BD / Marketing / Public Relations - Orlando, FL
- Wolverton & Assoc., Civil/Roadway Engineer - Duluth, GA

The Fulcrum International

Career Leverage - for the A/E/C Industry

WWW.THEFULCRUMINTL.COM currently averages 50,000 hits per week!

The Oregon Department of Transportation (ODOT)
has a career waiting for YOU in the beautiful State of Oregon!

Join our team! Whether you enjoy big or small town living, the coast, mountains or the high desert ... ODOT has a place for you!

If you love recreation you'll find many opportunities living and working for ODOT in Oregon! Oregon communities offer great schools and family friendly living!

ODOT has a variety of careers and available positions to offer you.

ODOT Engineering careers range from entry level to professionally registered positions. There are also Graduate Engineer and College Engineer internship and trainee programs.

Find out what ODOT has to offer you!
Log onto www.odotjobs.com and apply for jobs now!

Check out the State of Oregon at Oregon.gov

A Career with ODOT Offers:

A comprehensive benefit package including:

- fully paid family medical, dental and vision plans
- generous sick, vacation and personal business leave accruals
- ten paid Holidays a year
- flexible work schedules
- PERS retirement contribution
- flexible tax-free spending accounts; and
- excellent training, development and promotional opportunities!

ODOT is an AA/EEO Employer,
committed to building workforce diversity.

ASHE *SCANNER* & Web Advertising Insertion Order

Advertiser

Company:_____

Contact:_____

Address:_____

City, State, Zip:_____

Phone:_____ E-mail:_____

Signature:_____ Date:_____

Payment preference:

- ❑ Check enclosed (payable to ASHE National)
- ❑ Send an invoice

Place our ad as marked:

SCANNER	Distribution	Ad file due
❑ Winter 2008	December	October 15
❑ Spring 2008	March	January 15
❑ Summer 2008	June	April 15
❑ Fall 2008	September	July 15

www.highwayengineers.org

- ❑ One year

Ad size:

	One run fee	Four run fee
❑ Full page	$ 550	$2,000 ($500/issue)
❑ Half page	$ 450	$1,600 ($400/issue)
❑ Quarter page	$ 350	$1,200 ($300/issue)
❑ Business card	$ 250	$ 800 ($200/issue)
❑ Classified	E-mail text to editor for quote	
		Full Year
❑ Company logo & link on web		$200

Ad Specifications:

Full page	10"(l) x 7 5/8" (w)
Half page	5"(l) x 7 5/8" (w)
Quarter page	5"(l) x 3 13/16" (w)
Business card	1 1/2"(l) x 2 1/2" (w)

- Ads are printed in color.
- Send electronic files in .pdf, .jpg, .tif, or .eps format to jennifer@wannerassoc.com. Resolution: 300 dpi.
- Link your company to the ASHE website. E-mail your company name, logo, and url address to jennifer@wannerassoc.com. Your company will appear for one year on the Consultants, Contractors and Suppliers page.

Profile

The *SCANNER* is published quarterly by the American Society of Highway Engineers and delivered to over 6,000 readers nationwide.

- 16% are State D.O.T. Employees
- 66% are Engineering Consultants
- 9% are Contractors
- 9% are Related Professions
- 50% of the membership have a professional status

***SCANNER* Correspondence**

John Hetrick, P.E., Managing Editor
c/o Wanner Associates
908 N. Second Street
Harrisburg, PA 17102
717-236-2050; Fax: 717-236-2046
E-mail: jennifer@wannerassoc.com

Highway & Bridge Design
Bridge Inspections & Load Ratings
Construction & Program Management
Construction Inspection
Environmental Studies
Geographic Information Systems
Pavement Management Systems
Traffic Studies
Recreation Trails

listen. think. deliver.®

CDM
www.cdm.com

John Franz Jr., P.E.
Vice President
franzjw@cdm.com

Charles Kincaid, P.E., L.S.
Senior Project Manager
kincaidch@cdm.com

Francis Gerace, P.E.
Senior Transportation Engineer
geracefp@cdm.com

consulting · engineering · construction · operations

A.D. MARBLE & COMPANY
An Employee-Owned Company

Natural Resources Investigations
Cultural Resources Investigations
Engineering
Environmental Planning
NEPA Documentation
Socioeconomic Studies
Landscape Architecture
Public Involvement

www.admarble.com

ASHE SCANNER
John Hetrick, P.E., Managing Editor
c/o Wanner Associates, Inc.
908 N. Second Street
Harrisburg, PA 17102

PRESORTED
STANDARD
U.S. Postage PAID
Harrisburg, PA

CHANGE SERVICE REQUESTED

Jones-Stuckey Ltd., Inc.

Jones-Stuckey Ltd., Inc.

Highways • Bridges • Sewers
Waterlines • Recreation • Parks
Environmental Studies
Construction Administration

2323 W. Fifth Avenue • Suite 160
Columbus, OH 43204
TEL 614.486.0401 • FAX 614.486.1194
www.jonesstuckey.com

Civil • Structural Engineers

Transforming Ideas Into Realities...

Rubles Run Bridge
Monongalia County, West Virginia

Highway & Bridge Design
Bridge Inspection & Rehabilitation
Traffic Studies, Traffic Control Plans
Signal & Lighting Design
Condition Assessment & Surveying
Transit Studies
Transportation Planning/GIS
Site Development
Construction Monitoring
Cultural Resources
Environmental
Geotechnical

gai consultants

1.800.292.6076
www.gaiconsultants.com

Charleston, WV • Cincinnati, OH • Florence, KY • Fort Wayne, IN • Jacksonville, FL
Orlando, FL • Philadelphia, PA • Pittsburgh, PA • Richmond, VA

Membership

Region 1	
Cuyahoga Valley	138
Central Dacotah	88
Central Ohio	183
Derby City	74
Lake Erie	108
Northwest Ohio	55
Triko Valley	155
Western Reserve	6
Region 2	
Clearfield	111
Franklin	219
Mid Allegheny	104
Region 3	
Pittsburgh	598
N. Central West Virginia	55
Potomac Highlands	55
South West Penn	250
Region 4	
Harrisburg	407
Altoona	189
Region 5	
North East Penn	127
East Penn	109
Williamsport	155
Central New York	65
Region 6	
Delaware Valley	420
First State	143
New York Metro	138
North Central New Jersey	127
Southern New Jersey	237
Region 7	
Potomac	128
Chesapeake	121
Old Dominion	58
Greater Hampton Roads	71
Region 8	
Carolina Piedmont	41
Carolina Triangle	231
Georgia	460
Middle Tennessee	144
Region 9	
Tampa Bay	109
Central Florida	128
Northeast Florida	292
Gold Coast	59
Total	**6158**
Professional Status	49%
Government	14%
Consultant	67%
Contractor	7%
Other	12%