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President's Message

Richard S. Prentice

I recently read two thought provoking articles that I need to share with you. Randal O'Toole, an adjunct scholar at the Cato Institute, wrote the first article, and David Hartgen, a professor at the University of North Carolina, wrote the second article. Both articles were about the federal subsidies that local transit systems get.

Mr. O'Toole's article is titled *A Desire Named Streetcar*. The following is a summary of his article about how federal subsidies encourage wasteful local transit systems.

"The nation's mass transit system is a classic example of how special interests prevail over the needs and interests of voters and taxpayers. Total inflation-adjusted subsidies to transit – busses and trains – have more than doubled since 1990, yet total ridership has increased by less than ten percent. By comparison, urban driving has increased by 42 percent.

"Prior to 1964, when Congress began subsidizing transit, the industry was mostly private. Since then, the industry has been almost entirely taken over by state and local governments. Today more than three of every four dollars spent on transit comes from taxpayers, not transit riders.

"The effectiveness of local transit systems is undermined by federal subsidies, which encourage the construction of highly visible and expensive services such as light-rail trains to suburban areas despite the chronically low number of riders on these routes. Federal subsidies to transit advocacy groups and misguided environmental and labor regulations also encourage a larger investment of taxpayer money in wasteful transit systems.

"The ideal solution would be to devolve transit and other transportation funding entirely to state and local governments. Short of that, Congress should reform the federal transportation funding system to minimize the adverse incentives it creates.

Mr. Hartgen's article is titled *Need More Roads, Not Mass Transit*. The following is a summary of his article about misplaced funding priorities.

"Despite growing frustration, drivers, businesses and political leaders have resigned themselves to the reality of living with traffic jams. But living with it is going to become increasingly difficult. Today, just four cities have daily congestion delays of 50 percent. But over the next 25 years, 30 cities will join that club. And drivers in 12 of those cities will face delays of 75 percent. What this means is what should be a 45-minute commute, takes 80 minutes.

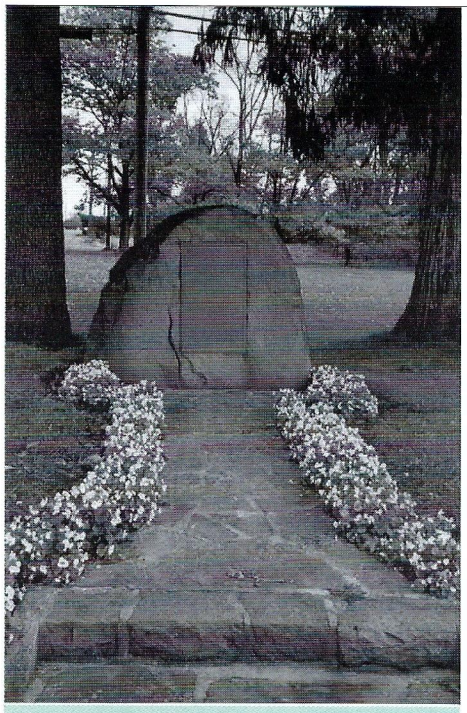
"The nation's mass transit system is a classic example of how special interests prevail over the needs and interests of voters and taxpayers." - Randall O'Toole, A Desire Named Streetcar

"In the next six years the federal government will spend more than $286 billion on highway and urban transportation, and cities and states are pouring hundreds of billions more. At least $1.3 trillion will be spent on urban transportation improvements over the next 25 years. So how is it possible that we will be worse off after all that spending?

"We are wasting the dollars we have. Most of the well-intended long-range transportation plans focus on the wrong things and fail to deliver congestion relief. Many cities spend well over 50 percent of their money on transit projects. Less than three percent of the commuters ride transit, and there's no evidence that massive numbers of drivers will give up their cars to use public transit. Planners say no matter how many new lanes and roads we build, they will fill up too. But that's supposed to happen. You don't build roads hoping no one will use them. Drivers change routes to take advantage of extra capacity, so the region flows better because these changes relieve tie-ups on other roads.

"The good news is that reducing traffic congestion is neither difficult nor costly. Adding road capacity nationwide would cost about $21 billion per year over 25 years. Much cheaper than the ineffective alternatives that are being planned. The payback in travel time is huge – 7.7 billion hours saved each year. We need the political will to re-address continuing traffic congestion issues by providing the needed road capacity. If we don't, our cities will slowly strangle."

Whatever we think of our highways and the sometimes-maddening traffic, this vast road system is integral to our nation's economy. Maybe it's time for us to be that forum for the highway industry. We need to speak to the federal government about where our tax dollars should be spent. Congress has created a system that promotes extravagant spending on mass transit and on rail lines. Urban rail systems can cost 50 times more to build than to start bus service. Buses use highways, so both the transit industry and the highway industry benefit. The federal government needs to know this. We can provide that single voice, but we all must work together to be heard. It may prove to be successful, with federal funds being directed to things that benefit the transportation industry and the taxpayers who fund it. ■



Pinchot Roads

Tom Brado, LaConie Jackson and Kathy Weiser

"In the hard winters, the farmers would not get out - at all - for three months...then when the thaw came and the snow stopped, it might be another month or two until the road was passable."

In July 1931, Former Governor of Pennsylvania, Gifford Pinchot visited an old county lane to break ground to begin a massive paving program throughout Pennsylvania. At the ceremony, Governor Pinchot stated that the purpose of the program was "to get the farmers out of the mud."

The summer of 2006 marked the 75th anniversary of the inauguration of the rural road improvement program in Pennsylvania under the Act of June 22, 1931. This program, which added 20,000 miles of road to the state system, profoundly changed transportation in Pennsylvania and the entire country. In this period it was recognized that rural road improvement was a matter of federal and state concern, and not the total responsibility of the counties and municipalities. Members of ASHE Harrisburg Section played a key role in the celebration of this landmark legislation.

Early in 2006 Ray Britcher, a former PennDOT employee and past Harrisburg ASHE president, notified the Board of Directors that the original monument which marked the 1931 ground breaking of the rural road program was in need of restoration. Ray convinced the Board that restoring the monument would be an excellent public service project for ASHE. ASHE Board member, LaConie Jackson was chosen to spearhead the effort as committee chairperson with assistance from ASHE Harrisburg Section president Kathy Weiser.

The original monument was dedicated on August 15, 1934 at a site less than two miles west of Lewisberry, Pennsylvania and about 50 feet south of present day PA177. It was the same location where former Governor of Pennsylvania, Gifford Pinchot, on July 23, 1931, visited an old county lane to break ground to begin a massive paving program throughout Pennsylvania. At the ceremony, Governor Pinchot stated that the purpose of the program was "to get the farmers out of the mud." The roads became known as "Pinchot Roads." They consisted of bituminous asphalt over a layer of stone, followed the "lay of the land" and were very narrow.

The program energized the farming industry and made roads passable year-round, as well as provided much needed jobs during the Great Depression. The United States had a 25 percent unemployment rate and Pennsylvania had a million men out of work. This road-building program was in part a work relief measure, and thus relied more on manual labor than on machinery to put people to work. Pinchot's efforts, and subsequent road-building work relief projects enacted only a few years later by the federal government under President Franklin Delano Roosevelt's "New Deal" modernized Pennsylvania's and the nation's infrastructure.

Friday, July 21, 2006 was chosen for the rededication of the restored monument. LaConie Jackson worked with PennDOT District 8-0 Executive Barry G. Hoffman, P.E. in obtaining permission for the restoration of the monument. PennDOT cleared the brush away from the area surrounding the monument and planted grass. On his own initiative, a PennDOT District 8-0 maintenance worker planted flowers from his nursery along the short walkway leading to the monument. ASHE Harrisburg contributed $1400 for the

Cover photo

Pictured from left to right with Governor Pinchot's 1931 Studebaker Presidential: Richard H. Hogg, Barry G. Hoffman, Richard S. Prentice, Dennis C. Wolff (in car), Kathy Weiser and LaConie Jackson.

restoration work on the monument. Governor Pinchot's 1931 Studebaker Presidential was driven to the ceremony by two sisters from Dillsburg, Pennsylvania. Their father, William Strayer, had bought the car as a work vehicle but restored it once he discovered its history. Copies of historic newspapers were displayed along with photographs from the State Archives chosen by Greg Penny, PennDOT District 8-0 Community Relations Coordinator. The speakers included PennDOT District 8-0 Executive Barry G. Hoffman, PennDOT Deputy Secretary for Highway Administration Richard H. Hogg, P.E., Pennsylvania Secretary of Agriculture Dennis C. Wolff, ASHE National President Richard S. Prentice, ASHE Harrisburg Section President Kathy Weiser and ASHE Board Member LaConie Jackson, who also served as the master of ceremonies. The unveiling was performed by the nephew and grand nephew of the two young girls who had unveiled the monument in 1934. At the ceremony, Barry Hoffman recounted hearing stories during his youth of his great grandfather during the Great Depression years.

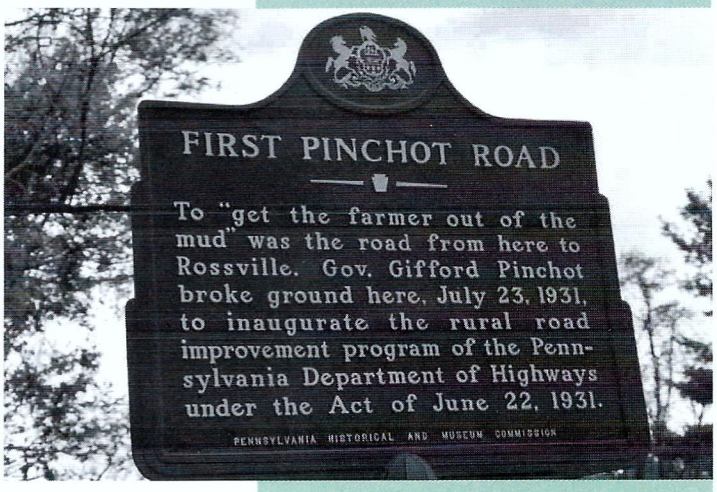
"In the hard winters, the farmers would not get out—at all—for three months," Hoffman said. "And then when the thaw came and the snow stopped, it might be another month or two until the road was passable."

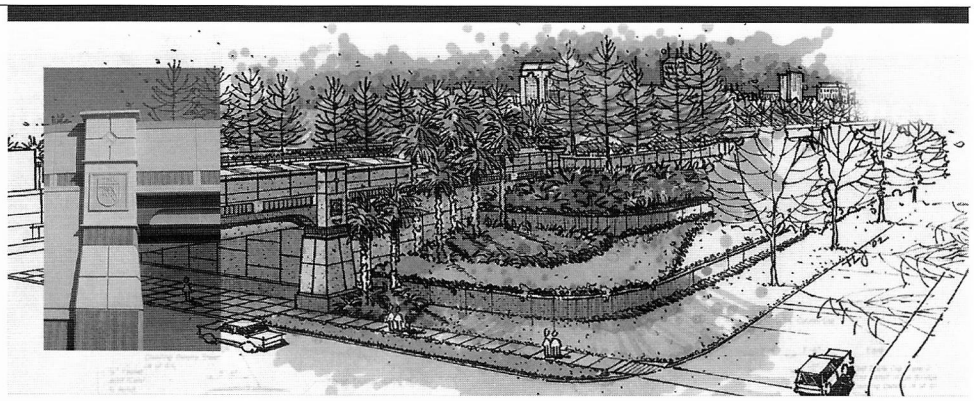
During the 1930s, Hoffman said, his grandfather, Harry Hoffman, got a job running a grader on a Pinchot Road crew earning 50 cents an hour.

"In addition to putting people back to work, it improved the overall mobility of a whole lot of folks and strengthened the economy," Hoffman said. "It was the best example of government investment."

ASHE Harrisburg was proud to participate in this ceremony and to lead the effort of restoring the Pinchot monument. It is rewarding to look back at past challenges that the transportation industry faced while continuing to move forward and find solutions for present day challenges. Coincidentally, ASHE Harrisburg will host the 2008 ASHE National Convention, and the theme is: LOOKING BACK – MOVING FORWARD. ■

The following ASHE Board members were present at the ceremony with PennDOT's Deputy Secretary and District 8-0 Executive (l-r): LaConie Jackson, Dave Snively, Drew Bitner, PennDOT Deputy Secretary Rick Hogg, PennDOT District 8-0 Executive Barry Hoffman, Todd Morris, Robert Hendricks, Kathy Weiser and Jenni Woodworth.





SR 408: Rendering with overlay of replica of pre-cast bridge pylons

Enhancing the Face of the Community through Context-Sensitive Design

The Orlando-Orange County Expressway Authority State Road 408 Widening

Scott Kamien, PBSJ

Traffic volume on Orlando's State Road 408 (SR 408) is quickly approaching 140,000 vehicles for a typical weekday, with projected growth to 175,000 vehicles within the next ten years. The SR 408 is an Orlando toll road that extends 16 miles from the Florida Turnpike to State Road 50. This boost in growth is well beyond the road's original design capacity. When the road was originally built in 1972, the SR 408 literally split the City of Orlando. The solution needed not only to relieve congestion, but also to do so in a manner that the community embraced.

Seeking a resolution, the Orlando-Orange County Expressway Authority worked with general engineering contractor, PBS&J, to develop concepts through a context-sensitive design. It was determined that a context-sensitive design would result in a much better expressway for the traveling public and a better quality of life for surrounding neighborhoods and businesses. By combining architectural elements and roadway design, an innovative design emerged which, today, enhances the face of the community.

To start, a multi-disciplinary approach was employed to develop and implement the context-sensitive design from the initial planning stage. Once the concepts were finished, numerous public meetings were held during the design phase of the project to collect input, which resulted in positive feedback from the community and local government.

Key elements of the aesthetic design included planter walls, soundwalls, bridge pylons, a gateway bridge feature and a community park. All of these components were thoughtfully incorporated into a common theme that was based on the local community. Each component was designed with colors and textures that complemented the adjacent neighborhoods. A series of 5-foot tall planters not only softened the appearance of the expressway walls, but also provided a great venue for restoration of native plants and canopy trees along the SR 408 frontage. The use of these walls and the native landscape materials minimized the impact to the neighborhoods and, in many instances, improved the overall look.

A signature component at each bridge was the design and development of pre-cast bridge pylons. These pre-cast pylons were designed to reflect a batten column, matching many of the Craftsman-style homes along the frontage. These pylons were further accented by decorative logo plaques to add interest and identify SR 408 to travelers.

The bridges were designed with a façade (a cladding system) to conceal slope pavement and the piers. This clean look is also functional as it prevents trespassers from having access under the bridge decks. Decorative architectural pre-cast panels, typically reserved for buildings, were designed using native Florida stone in two shades of earth tones to compliment the rich, green tone selected for bridge arches. The lower portion of the cladding walls were developed using a texture to match planter walls that encompass the majority of the expressway.

Before proceeding to construction, a life-size mock-up of critical aesthetic design components was constructed off site, allowing designers to see their concepts and make design changes as needed. The design model added to the success of the project by facilitating the collaboration of the designer, the architectural pre-caster and the roadway contractor, and helped them work in concert to achieve the numerous aesthetic features in the design. The off-site prototype was an innovative element that increased ownership of the aesthetic concepts among the design and construction team partners, and brought the context-sensitive design of SR 408 to life. ■

Trip Generation Rates for 55+ Active Adult Communities

Larry H. Klepner
Director, Delaware Technology Transfer Center, University of Delaware

55+ Active Adult Communities are sprouting throughout the nation as our population ages, but stays healthier and more vigorous. Transportation agencies responsible for the road networks near these communities have relatively little research upon which to guide them in approving these communities or determining the magnitude of required street and highway improvements.

In Delaware, the DOT is responsible for about 90 percent of all streets and highways in the state including public roads in residential developments. DelDOT, therefore, has a vital interest in the amount of trips generated by 55+ communities, particularly in comparison to non-age restricted housing. Accordingly, DelDOT asked the Delaware Center for Transportation[1] at the University of Delaware to research this issue as part of DelDOT's FY 2006 Annual Transportation Research Program. David P. Racca, a Policy Scientist at the University's Center for Applied Demography and Survey Research, conducted the project, Active Adult (55+) Community Trip Generation Rates.

Project Goals

- Identify the household structure and travel characteristics of Delaware's 55+ population.
- Develop household data in age restricted communities.
- Survey similar literature for communities nationwide.
- Identify Delaware specific information including development facilities that would affect travel characteristics.
- Produce a flexible model to assist planners in judging the impacts of 55+ communities.

Delaware data were gathered primarily from the DelDOT Trip Monitoring System which since 1995 has conducted approximately 200 telephone interviews per month to collect travel characteristics. For national data, Racca utilized the Nationwide Personal Transportation Survey collected by the U.S. Census Bureau and studies of individual communities done by consultants.

Findings

- 29% of Delaware households are eligible to live in 55+ communities.
- The models created in this report can predict the effects of age, income, vehicle ownership, and several other variables on trip generation.
- Household trips decline with the age of the inhabitants.
- In 55+ communities, daily household trips are 2/3 those of non-age restricted communities. Peak hour household trips are 1/3 of non-age restricted communities.
- Typical trip generations are:

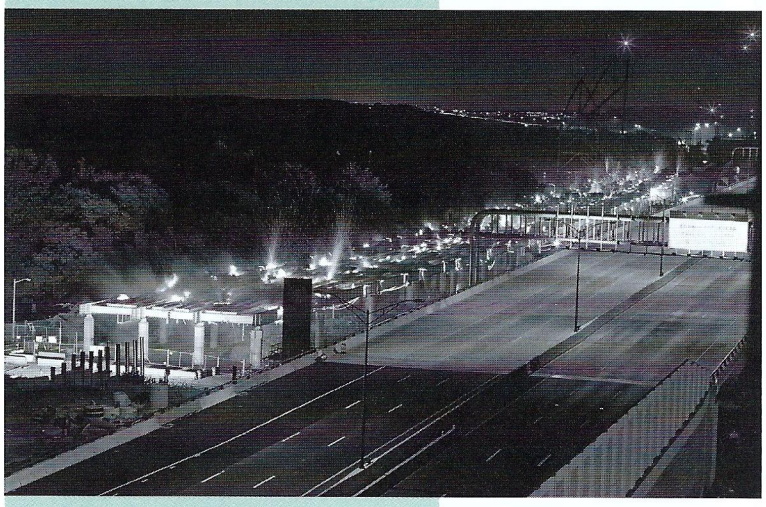
	AM peak hour	PM peak hour	Daily
55+ Communities	0.29	0.3	4.6
Unrestricted Communities	0.85	0.9	7.0

* Data estimates are for weekdays only. Weekend travel would be expected to show differences.

ASHE members in other states are likely to be confronting similar demographic changes to those occurring in Delaware. The study discussed in this article should be of interest to them. The full report is on-line at http://www.cadsr.udel.edu./TRANSPORTATION/publications.htm. David Racca, may be contacted at 302-831-1698 or DRACCA@UDEL.EDU.

Article submitted by Lawrence H. Klepner, Director, Delaware Technology Transfer Center at the Delaware Center for Transportation, University of Delaware with permission of the author of the research report.

[1] The Delaware Center for Transportation is a partnership among the University of Delaware, the Delaware Department of Transportation, and the Federal Highway Administration. It conducts research, education, and technology transfer activities for the transportation community in Delaware.



Wilson Bridge Span Demolition Clears Way for Final Construction

Scott M. Kozel

On August 29, 2006, 33 minutes after midnight, the Virginia approach to the original Woodrow Wilson Bridge was demolished by a series of explosive charges. All traffic on the segment of the Beltway was stopped for 30 minutes, for the detonation. Five-second time lapse photo by VDOT, from the top floor of a Hunting Towers Apartment building.

In a year of major milestones for the Woodrow Wilson Bridge (WWB) Project, another major milestone occurred at 12:33 AM on August 29, 2006, with the after-midnight demolition of the Virginia overland approach of the original Woodrow Wilson Bridge, which was demolished in less than 10 seconds by a series of explosive demolition charges.

The Woodrow Wilson Bridge Project has been under construction since October 2000, to provide a new 12-lane Potomac River bridge and to overall upgrade 7.5 miles of the I-95/I-495 Capital Beltway in Maryland and Virginia, to a width of 10 to 12 lanes, including the reconstruction of four urban interchanges, with a total of all costs of $2.42 billion. Over $1.2 billion in construction contracts have been started to date, sufficient to complete by early 2009, I-95/I-495 10- to 12-lane reconstruction between west of US-1 and east of MD-210, including the new Potomac River bridge (it will open with 10 lanes and the expanded approaches will tie into the 8-lane I-95/I-495 on either side). The final project segment at Telegraph Road is planned for completion in 2011.

The first new 6-lane Woodrow Wilson Memorial Bridge (it has the same name as the original bridge) opened in two stages, the 3-lane Outer Loop (Maryland-bound) side on the weekend of June 9-11, 2006, and the 3-lane Inner Loop (Virginia-bound) side on the weekend of July 14-16, 2006. Each weekend entailed major roadway reconstruction where several thousand tons of hotmix asphalt pavement was placed, to complete the land roadway approach tie-in construction to the new bridge. The original 6-lane Woodrow Wilson Bridge, which opened to traffic in 1961, was permanently closed to traffic on July 15, 2006.

Construction of the second new 6-lane Woodrow Wilson Bridge is over 50% complete, but its overland Virginia approach will occupy a portion of the same location as that of the original bridge's Virginia approach, so that portion of the original bridge needed to be demolished as soon as possible.

Demolition of the bridge's reinforced concrete roadway deck was accomplished by mechanical tools, leaving the rubble underneath the bridge's piers and steel girder superstructure. This portion of the WWB Project passes by the edge of Old Town Alexandria, which is an historic residential urban area, so considerations of noise, dust and construction impacts are critical aspects of the project management. Project team officials and governmental officials conducted two public meetings for the purpose of soliciting citizen input to the demolition process for the Virginia approach of the original Woodrow Wilson Bridge.

Project team engineers determined that explosive demolition of this segment of the bridge, would accelerate the demolition and removal of the spans, and would be less expensive monetarily, as compared to mechanical demolition via jackhammers and other demolition tools. DemTech, Inc., of Dubois, Wyoming, was chosen as the subcontractor for this explosive demolition operation, and they are highly experienced with decades of experience in this type of demolition work.

All traffic on the Woodrow Wilson Bridge segment of the Capital Beltway was excluded for over 30 minutes, so that the detonations would not endanger vehicular traffic. The Wilson Bridge carries very high traffic volumes of over 190,000 AADT (annual average daily traffic), so the operation was scheduled for midnight on a Monday, at one of the lower-traffic periods, to reduce Beltway traffic disruption as much as possible.

The WWB Project team conducted a regional contest, "Wilson Bridge Toughest Bridge Commute Contest," to choose a citizen who would press an antique plunger to fire the explosive charges, upon signal from the contractor personnel. Daniel G. Ruefly, a resident of Accokeek, Md., who was seriously injured in an automobile accident on the Wilson Bridge several years ago, was the winner of the contest. While the pushing of the plunger was ceremonial and did not have a physical connection to the charges, it did trigger a message to the detonation team to commence blasting. The contest and ceremony generated enormous public interest. The contest and demolition event received enormous news coverage, both domestically and abroad. Within the U.S., an audience of more than 100 million read/heard/saw it in media coverage, or roughly one in three Americans. A public viewing stand was built on the nearby Washington Street Urban Deck (which passes over the Beltway), and hundreds of citizens came to watch the detonation — there was much cheering when it occurred! Readers may watch a movie file of the detonation, hear a "Bridge of Misery" song composed for the contest and enjoy other novel aspects of the contest at www.wilsonbridge.com/bridgeDemolition.htm.

This demolition operation was part of the Virginia Approach Spans contract (Contract BR-3B) of the WWB Project, whose prime contractor is Virginia Approach Constructors, a joint venture of Granite Construction Company of Watsonville, California, and Corman Construction, Inc., of Annapolis Junction, Maryland. (This contract, and all of the contracts for the new Potomac River bridge, are administered by the Maryland State Highway Administration.)

After removal of the concrete rubble and steel girders and stringers, construction could begin on the second new bridge's Virginia abutment and remaining unbuilt foundations, with construction of the V-piers and superstructure to follow. The project plan is to complete the 6-lane second new bridge and to open it to traffic in mid-2008, with 5 directional lanes initially operating on each new bridge, thereby eliminating one of the worst highway bottlenecks on the Eastern seaboard. ■

Scott M. Kozel is a senior member of the Old Dominion Section (Richmond, Virginia) of ASHE, and he has 32 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 Woodrow Wilson Bridge with many details and photos of the WWB Project.

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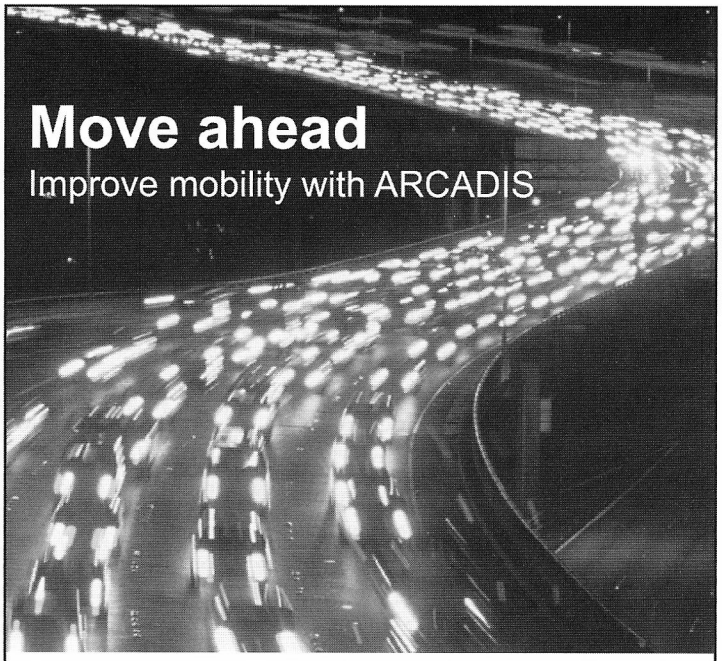

ASHE Officers 2006-2007

Nancy D. Buchanan, P.E.
Region 9 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 and a licensed engineer in Florida and Georgia. She is the Transportation Director for Stone, Joca & Mahoney, Inc., a local engineering firm in Jacksonville. She oversees roadway projects for clients such as FDOT and local cities and counties. Nancy has over 22 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.

Kevin E. Duris, P.E.
Region 3 Director

Kevin is a member of the Pittsburgh Section and serves as chairman of the Section Website Committee. He has been active on the ASHE Pittsburgh Board of Directors since 1995 and served as President in 2000. Kevin was chairman of the Sponsorship/Advertising Committee for the 2005 ASHE National Conference hosted by the Pittsburgh Section. He is a current chairman of the National Board Conference Committee, member of the New Sections and Website National Committee. Kevin has been involved on National Committees since 2000.

Kevin earned his B.S. in Mining Engineering from the University of Pittsburgh in 1980. After graduating, he was hired by Trumbull Corporation, a heavy and highway contractor located in Pittsburgh, PA. His first assignment was Project Engineer for a project on I-80, Brookville, PA. He has held field positions as Project Engineer, Superintendent and Project Manager on many projects in Pennsylvania. During the winter months, Kevin helped estimate bids until permanently settling into Trumbull's main Pittsburgh office in 1988. Here, he estimated bids and is currently the Assistant Chief Estimator. Most recently, Kevin lead the estimating team to successful bids for the $93 million reconstruction of I-79 in Allegheny County, PA and the design/build reconstruction of PA Turnpike for $18 million in Butler County, PA. Kevin is a Professional Engineer in the state of Pennsylvania. Since 2004, he has been a member of the APC specification review committee.

Kevin is single and resides in Oakmont, PA. He enjoys golf, racquetball, swimming, boating, skiing, rollerblading, riding his Harley and home improvement projects. Kevin never misses too many golf outings and never misses a Steelers game.

John Hetrick, P.E.
Region 2 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 of 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 five years and holds the position of Project Manager-Construction.

John received his Associate Degree in 1969 from the DuBois Campus of Penn State University. 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 (27) who lives in Cincinnati and is a student at the University of Cincinnati,

Natalie (24) who lives in Pittsburgh and is a nurse at Children's Hospital, and Michael (21) who is a student at Indiana University of PA. The family pet is a golden retriever named Penny. John's hobbies include golf, hunting, bicycling, and attending home Penn State football games.

Calvin Leggett, P.E.
Region 8 Director

Calvin has been a member of the ASHE Carolina Triangle Section for (14) years and served as Section President in 1988. He also is a member and former President of the Raleigh Engineers Club, member of the North Carolina Section of the International Institute of Transportation Engineers, and a Registered Professional Engineer in North Carolina.

Calvin was born in Oxford, Mississippi where he attended grammar and high school. He then attended the University of Mississippi and received a Bachelors of Science degree in 1973. Calvin received a Master of Civil Engineering Degree from North Carolina State University in 1975.

His career began with the North Carolina Department of Transportation where he served as a Planning Engineer in the Planning and Research Branch. He developed long-range transportation plans for various towns and cities in North Carolina and later held the position of Unit Head until 1985.

In 1985 he went to work for the City of Raleigh in the roles of Transportation Services Engineer, MPO Director, and Transit Administrator. While working with the City, some of his major accomplishments were the expansion and update of the Capital Area Long Range Transportation Plan, approval of development plans for the Briar Creek area and the NCSU Centennial Campus, development of the City's first transportation Impact Fee ordinance, and opening of the Moore Square Transit Transfer Facility.

Calvin returned to work for the NCDOT in 1988 as head of the Program Development Branch. This branch has primary responsibility for the development of the State's multi-year Transportation Improvement Program, scheduling of the preconstruction activities leading to the right-of-way acquisition, and award of contracts for major construction projects, financial management of Federal and State Roadway Construction Funds, preliminary project studies, municipal and private agreements, and State aid to local street systems. In 1993 he was promoted to Director of Planning and Programming.

In 1999, he was reassigned as Manager of a new Program Development Branch, which incorporates the previous Program Development Branch's activities with Research and Analysis functions. He provides leadership and guidance to developing NCDOT positions on federal legislative and reauthorization issues. He developed the successful legislations to create a statewide toll road authority, and since 2003 has also worked with the NC Turnpike Authority. In 2005 he served as Chair of the Planning Committee for the first North Carolina Transportation Forum held in Charlotte.

Calvin has a (13) year old daughter, Lydia Elaine. Calvin is a member and Elder in the Hudson Memorial Presbyterian Church in Raleigh.

Frank O'Hare, P.E.
Region 1 Director

Frank is a member of the Central Ohio Section and served as President in 1995-1996. He was the first Region 1 President, and also served on the 1992 and 2004 National Conference Committee.

Frank received his BSCE Degree in 1974 from Purdue University.

Frank has 31 years of diverse engineering experience and is employed as a Senior Project Manager for Hatch Mott MacDonald, located in Columbus, Ohio. He has worked extensively with local, state, and federal clients in the areas of project management, preliminary and final design, corridor studies and project planning, development of design criteria, contract management, and construction administration. His diverse background also includes serving as project manager for large civil projects including dams and locks, bridges, and highways. He is a Registered Professional Engineer in Ohio, Indiana, Michigan, Kentucky, and West Virginia. Frank is also a Professional Surveyor in Ohio and Land Surveyor in Indiana.

A highlight of his career was being Project Manager for the Soo Locks Study, which was awarded the National Performance Review Certificate by the Vice President of the United Sates for innovation in government in 1996. He was the Project Manager responsible for directing a team of engineers in the preparation of a conceptual design and cost estimate for a new lock to replace the Davis and Sabin Locks on the north side of the Soo Locks site. He was instrumental in establishing new approach criteria for the 1,000-foot ships that navigate the locks. Innovative approaches to the construction of the lock walls, valving placed below the chamber, and the approach walls were proposed and accepted by the USACE.

He is presently Vice President of the City of Gahanna Planning Commission.

Frank has been a member of the American Society of Civil Engineers since 1975, the Columbus Engineer's Club since 1985, the Society of American Military Engineers, and American Council of Engineering Companies of Ohio, and Past Chairman of the Transportation Committee.

Frank and his wife, Kathleen, both from Auburn, Indiana, have been married for (31) years and reside in Gahanna, OH. The family pet is a cat named Duesenberg which was named after the classic cars that were built in his home town of Auburn, Indiana. Frank enjoys fishing and traveling, and he is currently adding skiing to this list. ■

PennDOT District 10-0 Tarrtown Bridge Shredded Tire Project

Stephen P. Geidel, PE, District 10-0 Geotechnical Engineer

PennDOT District 10-0 constructed the bridge approach embankment using shredded tires as lightweight fill on both sides of the single span structure on State Route 4023.

The Pennsylvania Department of Transportation, Engineering District 10-0 recently completed a project in Tarrtown, Pennsylvania, Armstrong County utilizing shredded tires as the approach embankment. The purpose of the tire shred embankment was to provide a lightweight fill for embankment construction over existing soft soils. Over 780,000 tires were shredded onsite to produce the 9360 CY of lightweight embankment needed to complete the project.

Collections occurred through various methods to obtain the large amount of scrap tires required to complete the project. Tires from six Pennsylvania abandoned tire pile dumps were utilized; four community collections days occurred in Armstrong and Indiana Counties; tires from sites under DEP consent orders for cleanup were sent to the site; and other traditional sources such as tire dealers, supplied spent tires to the site. The Pennsylvania Department of Environmental Protection (DEP) provided joint funding and assistance for the cleanup of the sites.

The project was the first of such projects to be built in the Commonwealth. PennDOT District 10-0 constructed the bridge approach embankment using shredded tires as lightweight fill on both sides of the single-span structure on State Route 4023. The bridge spans the limestone run a small tributary to the Allegheny River. The pool elevation on the Allegheny River in this area is controlled by a series of lock and dams to provide for commercial and recreational boating. During periods of high river flows, backwater from the river has deposited soft silt sediments along the stream banks of the limestone run. The shear strength of these sediments did not provide sufficient strength for the construction of a conventional embankment. Conventional soil embankments typically have a unit weight of around 120 lb/CF, while tire shreds typically weigh approximately 50 1b/CF. In addition, construction of the lightweight embankment reduced the amount of time required to achieve acceptable settlement of the area so paving could be completed sooner.

For this project two layers of tire shred lightweight embankment were used in the northern approach and one layer in the southern approach. To minimize fire potential, a maximum height of tire shreds was limited to 10 feet. A 3 foot layer of soil was utilized to separate the two layers of tires in the northern embankment. Due to the overall height of embankment in the southern approach only one 10-foot layer of tires could be placed.

To further the future use of tire shreds in embankment, PennDOT incorporated over 230 embankment monitoring devices at cost of over $200,000 to monitor the performance of the embankment during and after construction. Monitoring of the site continues today to collect valuable information for the future successful use of tire shreds. Instruments used include inclinometers, total pressure cells behind the abutments, piezometers, and thermistors. The inclinometers had a dual purpose of measuring both horizontal and vertical movements of the embankment during and post construction. Each inclinometer contains between five and fifteen monitoring magnets to monitor the settlement of the embankment at different levels.

A six-acre site near the bridge location served as a stockpiling and processing site for the tires as they arrived on the project from the various locations. Tires were shredded to engineering specifications set forth in the contract such as length, gradations, free and exposed steel amounts and allowable deleterious materials (oils, gasoline, diesel, ice, snow and burnt tires.)

The bridge was placed in service in fall of 2005. Indications to date show the embankment continues to perform as predicted. This project provided an opportunity for PennDOT to assist local communities throughout the state with the recycling of a difficult product. The innovative use of tires for this project will hopefully provide valuable information for future projects to continue and expand the engineering use of waste tire products. ■

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Profile

The *SCANNER* is published quarterly by the American Society of Highway Engineers and delivered to over 6,008 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**

Drew Bitner, 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

PROJECT MANAGER

SAI Consulting Engineers, Inc. (SAI) is a civil and structural consulting/engineering firm that specializes in the design, inspection, and construction management of transportation, industrial, institutional, and commercial projects.

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As the Wheel Turns

Daniel J. DiFrancesco, P.E Joins Pennoni Associates as Transportation Division Manager

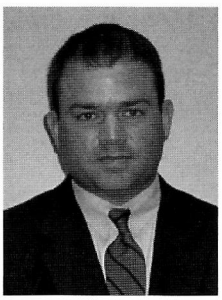
Philadelphia – Pennoni Associates Inc. is pleased to announce that Daniel J. DiFrancesco, P.E., recently joined the firm as the Transportation Division Manager for its Cranford, New Jersey, office.

Mr. DiFrancesco has 33 years of engineering and construction experience in transportation projects and is a Registered Professional Engineer in several states, including New Jersey, New York, Pennsylvania, Connecticut, Maryland and Florida. He earned a Bachelor of Science degree in Civil Engineering from Newark College of Engineering and a Master of Science degree in Civil Engineering from the New Jersey Institute of Technology. In his new role, Mr. DiFrancesco will be responsible for the day-to-day operations of the division and will focus first on the Hunterdon County Bridge D345 over Third Neshanic River.

"Dan is well respected in the industry and we feel fortunate to have such a respected individual join Pennoni," stated Ronald C. Moore, Associate Vice President. "Dan's extensive management experience will help us to continue to grow our Transportation presence in North Jersey along with expanding our bridge design services throughout New Jersey. As our Transportation Division Manager for our Cranford office, Dan will help expand and strengthen our transportation engineering services to both existing and future clients."

Mr. DiFrancesco stays active in the industry through membership in various organizations, including the American Society of Civil Engineers (ASCE), the New Jersey Association of Structural Engineers (NJASE), the American Society of Highway Engineers (ASHE), the American Concrete Institute (ACI), the Precast/Prestressed Concrete Institute (PCI) and the American Institute of Steel Construction (AISC).

A resident of Scotch Plains, New Jersey, Mr. DiFrancesco lives with his wife, Patricia, and his two sons, Derrick and Ryan.



Philip A. Horsey, P.E., Promoted to Transportation Division Manager

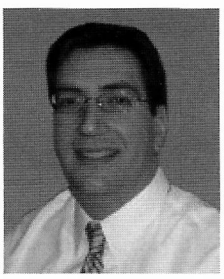
Philadelphia – Pennoni Associates Inc. is pleased to announce the promotion of Philip A. Horsey, P.E., to Wilmington's Transportation Division Manager. Mr. Horsey has been with Pennoni for 4 years and most recently served as Project Engineer. In his new role, he will be responsible for the day-to-day operations of the division.

Mr. Horsey is a registered Professional Engineer in DE and MD, and has 9 years of experience in the design and design coordination of multiple highway and streetscape projects. His background includes working for DelDOT for 5 years in the Road Design section, serving as Project Engineer. As Transportation Division Manager, he is currently pursuing DelDOT and DNREC Open End Agreements.

"Phil is an excellent highway engineer and project manager. He is a true leader and will do a great job as Wilmington's Transportation Division Manager," stated Ted F. Januszka, P.E., Pennoni's Associate Vice President and Regional Transportation Manager. "I look forward to continue to work with Phil in growing our practice in Delaware."

Mr. Horsey earned a Bachelor of Science degree in Civil Engineering from the University of Delaware and completed graduate level course work from the University of Delaware in Highway Geometric Design, Earth Retaining Structures, and Construction Methods and Management. He has also completed several University of Delaware Engineering Outreach Short Courses. Mr. Horsey is a member of the American Society of Highway Engineers, First State Section, where he is currently sitting on the Board of Directors.

A resident of Wawaset Park in Wilmington, Mr. Horsey enjoys spending his free time playing golf and rugby. He also enjoys triathlons, gardening and cooking.



Kenneth R. Fulmer, P.E. promoted to Vice President at Urban Engineers, Inc.

Philadelphia - Kenneth R. Fulmer, P.E., has been promoted to vice president at Philadelphia-based Urban Engineers, Inc. Fulmer, who joined Urban in 1992, will assume the position of deputy director of the New Jersey, Maryland, DC, New York, and Connecticut Division of the firms construction management group.

A resident of Trappe, Pennsylvania, Fulmer is a graduate of Drexel University with a masters degree in engineering management, a bachelors degree in civil engineering, and a bachelors degree in architectural engineering. He is a registered professional engineer in four states and a member of the Construction Management Association of America and American Society of Highway Engineers.

Fulmer has 16 years of diversified experience in construction management, field inspection and scheduling on major transit, highway and building projects. Prior to joining Urban he worked as a facilities designer for Amtrak and served as a traffic engineer for the City of Philadelphia. ■

Membership

Region 1
- Cuyahoga Valley 139
- Central Dacotah 75
- Central Ohio 176
- Derby City 56
- Lake Erie 96
- Northwest Ohio 47
- Triko Valley 134
- Western Reserve 6

Region 2
- Clearfield 109
- Franklin 212
- Mid-Allegheny 87

Region 3
- Pittsburgh 602
- N. Central West Virginia 44
- Potomac Highlands 53
- S.W. Penn 245

Region 4
- Harrisburg 385
- Altoona 178

Region 5
- N.E. Penn 127
- East Penn 106
- Williamsport 139

Region 6
- Delaware Valley 413
- First State 137
- New York Metro 124
- N. Central N.J. 112
- Southern N.J. 228

Region 7
- Potomac 128
- Chesapeake 109
- Old Dominion 52
- Greater Hampton Roads 74

Region 8
- Carolina Piedmont 94
- Carolina Triangle 231
- Georgia 384
- Middle Tennessee 96

Region 9
- Tampa Bay 98
- Central Florida 105
- N.E. Florida 230
- North Florida 0
- Gold Coast 59

Total 5690

- Professional Status 53%
- DOT 16%
- Consultant 67%
- Contractor 8%
- Other 9%

Membership Awards Reap Great Benefits

ASHE National has two membership awards to encourage membership growth amongst our 38 Sections. The Gene G. Smith Award is presented to the Section that brings in the most new members each year and the George K. Hart Award is presented to the Section that has the highest percentage growth each year. The awards are based on the section membership changes from May 1 to April 30 and the awards are presented at the closing banquet of the annual conference.

Each award includes a fully paid registration for one member of the winning Section to go to the 2007 National Conference in Atlantic City from May 20-24, 2007. This past year, the Georgia Section signed up the most members and the New York Metro Section had the highest percentage growth. Tom Ziegler of the Georgia Section accepted the award for his Section and Mike Hershey of the New York Metro Section accepted the award for his Section.

THE ASHE SCANNER
Drew Bitner, P.E. Managing Editor
c/o Wanner Associates, Inc.
908 North Second Street
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