

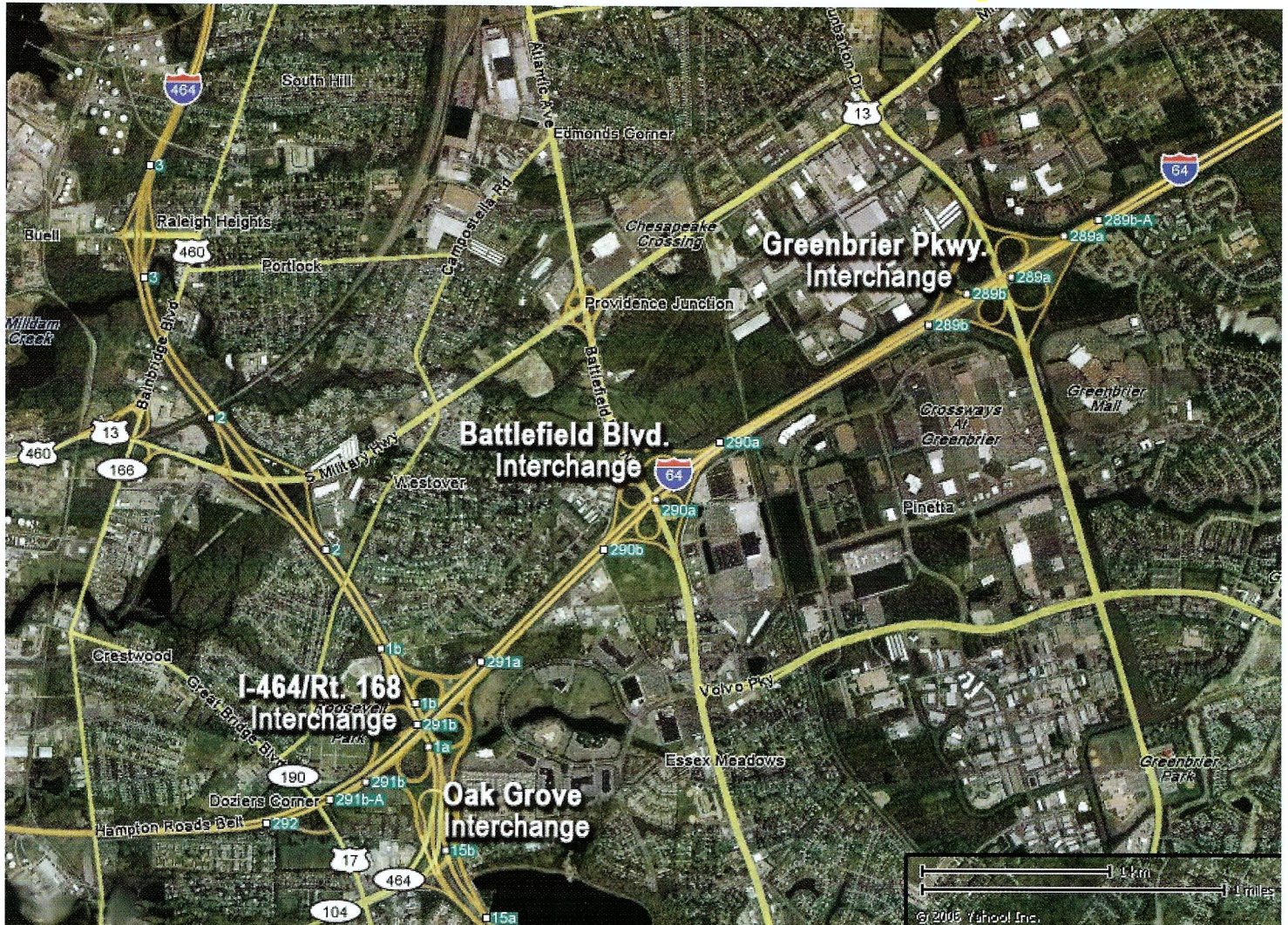


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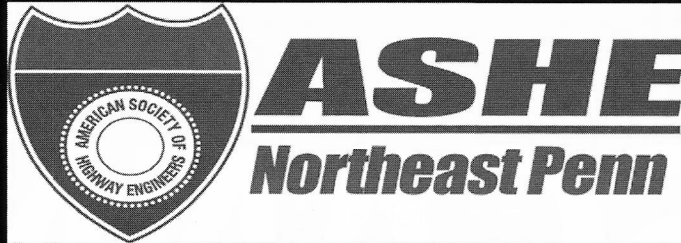


8 Cover Story

Creative Solutions for an Urban Interstate Corridor

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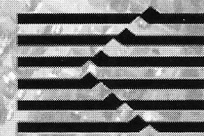
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Did I miss the 2007 SCANNER Winter issue?

The Winter 2007 issue was renamed Spring. In order to bring the SCANNER issues in line with the actual seasons, the ASHE Board revised the publication schedule as follows.

Issue	Distribution
Spring	March
Summer	June
Fall	September
Winter	December

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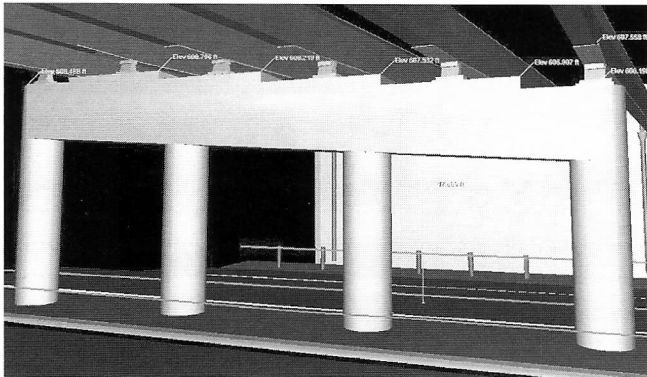
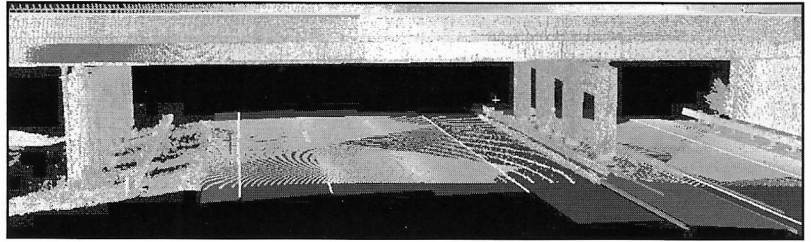
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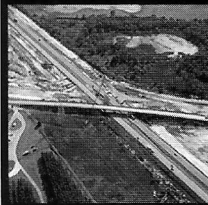
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President's Message

Richard S. Prentice

The American Society of Highway Engineers promotes a safe and efficient highway system for mobility now and in the future. To do this, we support education, innovation, and partnership for our members. ASHE plays an active role in the continuing education of its members. We provide opportunities for you to maximize your professional skills through our workshops and seminars.

Currently, 31 states require continuing education for licensure renewal, but that is slowly changing. In time I feel that all fifty states will require continuing education in order to maintain a P.E. license.

The International Association of Continuing Education and Training (IACET) developed the Continuing Education Unit (CEU) more than 30 years ago, and they remain the CEU caretaker to this day. IACET has established a strong reputation for standards in continuing education. Numerous professional accreditation boards recognize their CEU's.

ASHE worked long and hard to get approved as an authorized provider of IACET CEU's. Why? Because we wanted to offer our members something that was of value to them. The highway industry is strengthened by the standards we established for effective programs. Thanks to the efforts of Pat Dougherty (past National President) and Elaine Elbich (past Delaware Valley Section President) the first time that ASHE issued CEU's was at the 1997 National Conference.

Most of the states in which we have sections recognize IACET CEU's, but this does not guarantee that an IACET CEU will automatically be accepted. The CEU's may be subject to additional review by the state registration board.

Those sections in states that do not have a continuing education requirement are Delaware, Kentucky, Maryland, New Jersey, Pennsylvania, Virginia, and Washington DC. But I do remember hearing something in March 2006 about Virginia planning to enact a continuing education requirement.

On November 29, 2006 the Governor of Pennsylvania signed a Continuing Education Bill (#655) into law. This new law requires the Commonwealth's Professional Registration Board to adopt regulations establishing requirements for "mandatory continuing education for individuals licensed and registered under the Engineer, Land Surveyor and Geologist Registration Act. As a condition of biannual renewal, 24 CEU's will now be required during each two-year licensure period." The first licensure period to require continuing education will be determined by the adopted regulations and must be announced within 18 months of the effective date, which is January 28, 2007. This means that the regulations must be completed before August 2008. The law requires the Pennsylvania Registration Board to approve all courses, locations, instructors and providers of this mandatory continuing education. I am the CEU Coordinator for ASHE, so I will work closely with the registration board to ensure that the CEU's we offer are accepted.

If you know of a state registration board that does not recognize IACET CEU's, please let me know. I, along with IACET, will meet with them to explain the standards of our continuing education programs. I will lead this charge because above being the ASHE National President, I am also the ASHE CEU Coordinator with IACET. ■

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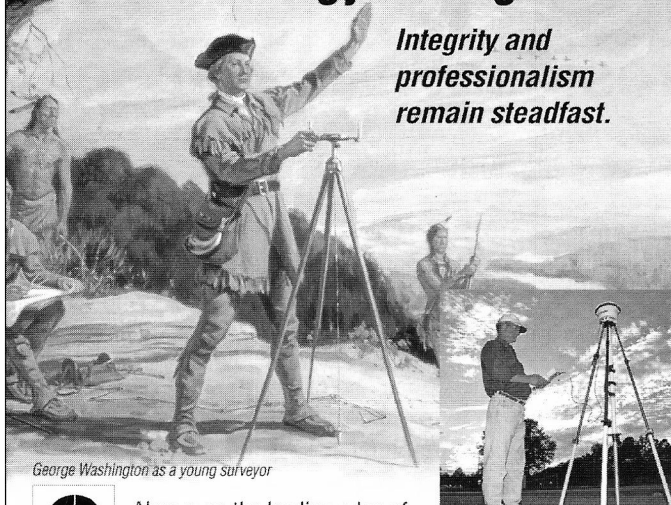
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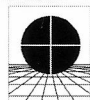
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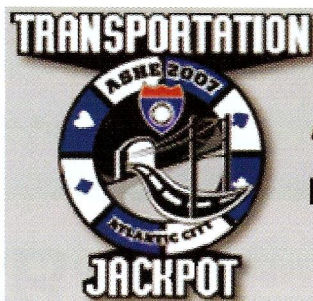
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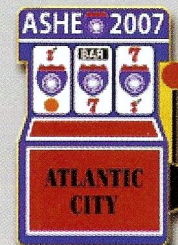
ASHE 2007 NATIONAL CONFERENCE

May 20-24, 2007

The Tropicana Hotel & Casino

Brighton and The Boardwalk

Atlantic City, NJ 08401



The host of the ASHE 2007 National Conference is Region 6, and the theme for the Conference is Transportation Jackpot. There are technical programs planned as well as featured events such as the Ice Breaker, Boardwalk Blast, golf, tours and numerous opportunities to get together to network, exchange ideas, and plan for the future.

The technical programs are divided into three tracks, which will focus on the funding, management, and security of our Transportation System. The first track, Funding of Transportation Projects, will offer insight on sources and types of funding that will carry the nation's transportation systems into the next decade. The second track, Managing Transportation Systems, will provide new and innovative ideas and concepts to monitor traffic and safety conditions on a 24-hour basis. The third track, Security of Transportation Systems, will present the latest techniques and solutions for ensuring the security of transportation systems and the traveling public.

The ASHE 2007 National Conference starts with the Ice Breaker on Sunday, May 20, in the Grand Exhibition Center, Tropicana Hotel and Casino. This is the perfect spot to reconnect with old friends, meet and network with new industry contacts.

Monday evening, May 21, at the Royal Swan Ballroom of the hotel, will be the Boardwalk Blast. Here you will step back in time when the Steel Pier was in its hey day eating boardwalk food and dancing to your favorite summertime tunes.

The Atlantic City and South Jersey area is about more than just gaming casinos. You will find a wealth of other activities available to suit your personal preference – historical sites, shopping, recreational options such as boating and fishing and a great championship golf course at Seaview Bay.

With all of these great things to do, the Conference Committee has scheduled one day of free time, Tuesday May 22, for attendees and their spouse/guest to choose their activity of choice. Whether you go off on your own or participate in one of the great tours arranged by the Committee, e.g., Atlantic City Cruises, Ocean Life Center & Aquarium, Historic Cape May, Historic Smithville, Wheaton

Village/Renault Winery, and USS NJ Battleship and Museum.

The golf outing will be held at the Seaview Bay Course on Tuesday morning, May 22. Ocean breezes and classic bunkers provide a real Scottish feel, all with a skyline view of Atlantic City.

The formal gala dinner is planned for Wednesday, May 23, and will be an elegant affair wrapping up a wonderful week at the Conference.

For more information on sponsorships, the programs, events, tours, golf, and the casino, please log onto www.highwayengineers.org and click on the conference icon in the center of the page for more details. All ASHE members, nonmembers, and guests are encouraged to attend the ASHE 2007 National Conference to be held May 20-24 at The Tropicana Hotel & Casino, Atlantic City, New Jersey. ■

ASHE NATIONAL CONFERENCES

	DATE	LOCATION	HOSTED BY
2007	May 20 - 24	Atlantic City, NJ	Region 6
2008	June 11 - 15	Hershey, PA	Region 4
2009	June 3 - 7	Atlanta, GA	Region 8
2010		Cincinnati, OH	Triko Valley Section
2011		Orlando, FL	Central Florida Section
2012		Seven Springs, PA	S.W. Penn Section

Interstate 64 Battlefield Boulevard Interchange

Creative Solutions for an Urban Interstate Corridor

Charles Thorn, P.E., and William Mackey, Jr., P.E.

*In cooperation with the Virginia Department of Transportation,
the City of Chesapeake, and the Federal Highway Administration*

Project History

In order to accommodate additional development and roadway projects constructed in the vicinity, the Interstate 64 widening project in Virginia Beach and Chesapeake, Virginia increased in scope from what was conceived more than 15 years ago by the Virginia Department of Transportation (VDOT). The project now includes additional travel lanes, a high-occupancy vehicle (HOV) lane in each direction, plus urban interchange modifications to Battlefield Boulevard, Greenbrier Parkway, and I-464. The Battlefield Boulevard interchange and interstate widening project is the continuance of improvements within the local Interstate 64 6-mile corridor that stretches from just south of the Interstate 264 interchange in Virginia Beach to the Interstate 464 interchange in Chesapeake. The project limits are a significant portion of the corridor stretching from the Greenbrier Parkway interchange to the I-464 interchange for approximately two miles in the heart of urban development, which includes some of the largest retail outlets and commerce centers in the region.

The project began in 1992 when VDOT concluded that HOV lanes on I-64 should extend several more miles to the west. The engineering consulting firm Kimley-Horn and Associates, Inc. was awarded the engineering contract to study and design two of the three phases of improvements. Phased construction included widening Interstate 64 from Indian River Road through Greenbrier Parkway, and reconstruction of the Greenbrier Parkway interchange as phase 1; HOV widening from Greenbrier Parkway through Battlefield Boulevard as phase 2, and from Battlefield Boulevard through I-464 interchange to near the western city limit of Chesapeake as phase 3.

The Problem

Phase 1 construction concluded in 1997. In 1998, an Interstate Access Modification Study of the Oak Grove Interchange was completed. The Oak Grove Interchange is off of the new City of Chesapeake's Expressway toll road, which is served from I-64. The study examined and modeled the entire corridor as one system since the four interchanges are close enough that modifications to one would send a ripple effect influencing each operation. Results from the traffic analysis concluded that the once typical HOV expansion project would need to transform into a larger integrated solution



I-64 Battlefield Boulevard interchange looking east



Oak Grove interchange looking south from the I-64/I-464 interchange

to adequately resolve the higher traffic capacity issues that had emerged within the corridor, specifically in the proximity of the Battlefield Boulevard interchange. With the capacity increase to the interstate came numerous unresolved associated concerns—mainly the need to integrate the newly constructed Greenbrier Parkway interchange with the proposed Battlefield Boulevard and I-64 interchange improvements. The Battlefield Boulevard and Greenbrier Parkway interchanges are projected to handle almost 100,000 vehicles per day by 2026 and the nearest ramps were only approximately one-half mile apart. The dilemma was how to tie the collector/distributor roads (CDRs) together and whether or not traffic needed to be able to access the mainline interstate and, if so, how that should be accomplished.

Alternatives

Engineering options to resolve the issues brought up by the traffic study were limited due to several major constraints. The premier constraint being that the nearly one mile interchange spacing restricted the ramp configurations that could be achieved for Battlefield Boulevard and dramatically decreased the amount of access points to the mainline for routing traffic on and off for each interchange. The following design alternatives were evaluated.

No Mainline Access - The design would prevent access to the mainline between the interchanges. Traffic to each interchange would come exclusively from CDRs located parallel to the mainline and exiting/entering the mainline to/from the CDR would occur at the beginning and the end of the CDR with no interim entry/exit between interchanges. The traffic analysis indicated that if this option was utilized more traffic would be on the CDR than on the mainline. So, needless to say, this was not a reasonable option.

Combination CDR and On/Off Ramps - This option, although typical for the region, would require significant design exceptions from the Federal Highway Administration (FHWA) due to ramp spacing between interchanges. The weaving distance was far less than desirable and given the number of vehicles using the facility in this area, it would probably be marked by collisions. Furthermore, a grade separated railroad crossing exists roughly halfway in between the Greenbrier Parkway and Battlefield Boulevard interchanges, thereby increasing the complication of trying to taper the CDRs into the mainline and then reintroduce them to serve the Battlefield Boulevard interchange. Bottom line—not enough distance existed in between the interchanges to get vehicles to and from the CDR and the mainline in the traditional manner.

Braided Ramp Design - The concept of the braided ramp, although relatively new to southern Virginia, has been used for many years in other parts of the United States. The strategy provides for on and off ramps to be separated vertically by a bridge structure, thus eliminating weaving. Not only does the braided ramp design reduce congestion and risk of collisions, but this particular application has a small footprint so no additional right-of-way acquisition is required. Due to development both existing and proposed in the



I-64 Greenbrier interchange looking west

Greenbrier area of Chesapeake, this was a constraint both physically and economically. Other design constraints involved the need for overhead railroad structures for eastbound and westbound CDRs, environmental issues, and citizen/business concerns due to staging of construction and construction traffic.

The Solution

After several design review iterations, it was decided that the project's ultimate design would include the braided ramps. However, the I-64 widening project construction plan development had only just begun. There were a series of reviews and approvals involving federal and state agencies. Constructibility concerns had to be addressed such as drainage, structures, signage, lighting, ITS, and utilities so that each element of the project would not be in conflict during construction. Mechanically stabilized earth (MSE) walls proved to be a valuable asset to the design package because the retaining wall type suited ideally with the braided ramp design and the limited right-of-way. Other challenges included coordination with Virginia Dominion Power for high tension electric distribution lines in the vicinity of both the railroad overhead structures and implementation of sound barrier walls to protect neighboring subdivisions.

After more than a decade of design effort, the project has developed into one of the regions largest and most anticipated construction projects with a total construction budget of more than \$100 million. Construction of the project was awarded in March 2006, and has progressed quickly during the first year. The braided ramps have become the project's unique image and the region eagerly awaits their completion.

If this story has a moral, it would be something like...urban interstates are complicated systems. Studying them in pieces will not provide the solution that will address the operational issues associated with the system. In order to arrive at the best solution, one must step back and analyze the complete system—the earlier in the design development the better. ■

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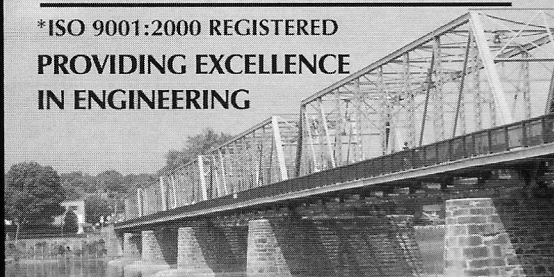
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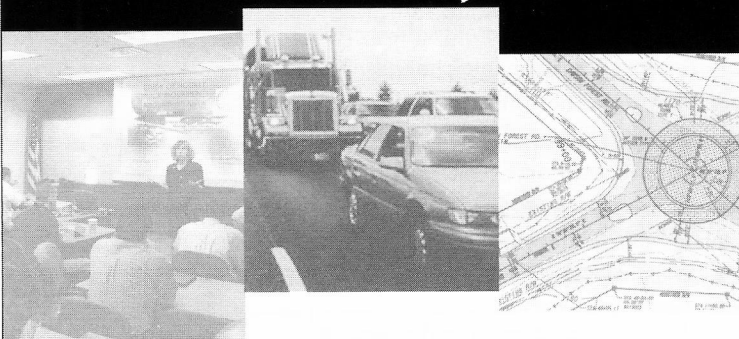
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Pennsylvania Highways

Looking Back – Looking Ahead

Richard S. Prentice, Senior Design Specialist of McMahon Associates, Inc.

Our nation celebrated the Interstate Highway System's 50th Anniversary on June 29, 2006; it is hard to imagine traveling throughout Pennsylvania without it.

The Federal Aid Highway Act of 1925 created the U.S. Highway System, which developed the first national standard for America's highways.

US Route 1 connects the major cities of the east coast; running from Maine to Florida, it passes through Philadelphia, PA. US Route 30 runs from New Jersey to Oregon and the Lincoln Highway, a major east-west highway in Pennsylvania, became part of US Route 30. These and other US Routes were built under the 1925 Highway Act.

Gov. Pinchot's Depression-Era Plan

The stock market crash in 1929 and the depression that followed spurred the federal and state governments to become even more involved in rebuilding America's highways. In 1931, Pennsylvania's Governor Pinchot began his ambitious plan to pave 20,000 miles of dirt roads, creating innumerable road construction jobs for many of the Commonwealth's unemployed citizens. In 1938, the federal government backed up its commitment to the nation's highways by re-writing the Federal Aid Road Act, but the following year World War II broke out. The U.S. government restricted the nation's road building efforts to only defense related projects.

Eisenhower's Vision

After the war, President Eisenhower told Congress that our highway network was obsolete. The Federal Aid Highway Act of 1956 created the Interstate Highway System. It set the standard for interstate and defense

highways. Ultimately, today's Interstate System swelled to its current 46,837 miles of highways, 55,512 bridges, and 104 tunnels. Eisenhower had envisioned the \$50 billion Interstate Highway program would be completed in ten years. In actuality, it took 50-years and \$450 billion to construct the Interstate Highway System. Pennsylvania stakes claim to the first section of Interstate, since the Pennsylvania Turnpike between Irwin and Carlisle opened in 1940 and was incorporated into the Interstate System as I-70 and I-76. Pennsylvania has 12 Primary Interstate Highways and 10 Interstate Spurs within its borders.

Today: Truck Miles Top 388 Billion

Statistics show that 26 million trucks traveled 388 billion miles and carried 10.7 billion tons of freight worth \$623 billion in 2005. These 40-ton tractor-trailers have become an ever-present sight on our nation's highways. The Interstate Highway System has played an important role in the nation's economy and quality of life, but the system requires renewed investment. Many portions of the Interstate network are now strained to capacity. Ninety percent of the system is 30 years old or older, so we must stay focused on maintaining its infrastructure. The highway industry has worked closely with structural engineers, material experts, and the FHWA, looking for better designs and materials.

New Materials

As a result of this effort, we now have Superpave and high-performance concrete for our highways. Plastic beams, and fiber-reinforced polymer coatings have also been developed. These lightweight, high strength, corrosion resistant materials give new life to bridges.

... one day a platoon of smart cars (computer controlled) will be able to travel along a smart lane (pavement with imbedded guide wires) at 60 MPH with only 18-inches (spacing distance) between their bumpers. The result is one smart lane will be able to carry the equivalent of 12 non-smart lanes.

Smart Travel

Environmental laws will not allow endless widening of our Interstate highways, so other solutions are needed to relieve congestion. Although Intelligent Transportation Systems (ITS) may not be the total solution, it provides ways to improve the congestion problem. Today, ITS can monitor traffic flows, alerting drivers of congested areas with variable-message signs and radio announcements. Looking into the future, one day a platoon of smart cars (computer controlled) will be able to travel along a smart lane (pavement with imbedded guide wires) at 60 MPH with only 18-inches (spacing distance) between their bumpers. The result is one smart lane will be able to carry the equivalent of 12 non-smart lanes. This very close separation of the platoon's smart cars remains safe because a central computer or computers would control everything through the guide wires.

"Highways" continued p. 21



Settlers Cabin Interchange with the Parkway West

Thomas E. Riester, P.E.

Vice President – Transportation Services (Mackin Engineering Company)

ASHE Pittsburgh Section

The Settlers Cabin Interchange Project was initiated in the mid 1980's when Mackin Engineering Company and Allegheny County initiated preliminary studies for a new interchange with the Parkway West (S.R. 22/30) in Robinson Township, Allegheny County, Pennsylvania. The project is located approximately 15 miles northwest of downtown Pittsburgh. In the years that followed, an interchange alternative was selected, and subsequently, a cooperative agreement was executed between Allegheny County, the Pennsylvania Department of Transportation – District 11, the FHWA, Robinson Township, Bayer Corporation, and Robinson Park Associates to fund design and construction of the interchange. Design was initiated in October 1998 by Mackin Engineering Company, and construction was completed in late October 2005 by Balfour Beatty Construction Incorporated.

The purpose of the project was to provide a new interchange with the Parkway West which would provide direct access to the Bayer Corporation U.S. Headquarters, and provide improved access to undeveloped land along the Campbell's Run Road Corridor.

Additionally, the project was to widen existing Campbell's Run Road, (a narrow two-lane county road), provide traffic improvements, and to provide improvements to facilitate future widening of the Parkway West to 6 lanes (and subsequent conversion to I-376). All improvements were to be accomplished while minimizing impacts to existing business/industry in the corridor, and while maintaining the existing four lanes of traffic on the Parkway West.

The overall project included widening of 1.8 miles of S.R. 22/30; reconstruction of one mile of Campbell's Run Road, including extensive traffic improvements; construction of the extension of Ridge Road; the Ridge Road Bridge over the Parkway, seven walls and two culverts. Design was initiated in October 1998 and completed in June 2003. The construction cost of the project was approximately \$ 28,000,000; \$2,000,000 less than the original bid price.

Key elements of the project included:

Interchange Configuration – One of the major goals of the project was to preserve maximum land for future development while retaining existing commercial business within the corridor. Numerous interchange alternatives were investigated and eliminated because they did not meet the objective – the modified split diamond interchange which was ultimately selected and constructed maximized developable land and minimized impacts. Retaining walls, steepened slopes, and minor alignment shifts were utilized to minimize impacts to existing businesses.

Campbell's Run Road – Campbell's Run Road was relocated and widened to meet 20 year traffic projections; turning lanes and signals were installed at three intersections. The initial traffic analysis, using the Southwest Pennsylvania Commission (SPC) model, required as many as eight lanes on Campbell's Run Road (the SPC model re-allocated excess Parkway traffic to Campbell's Run Road). As a result of close cooperation with SPC and District 11-0, the model was re-calibrated, and the required number of lanes on Campbell's Run Road was reduced to four lanes, with 1-2 turning lanes at intersections.

Traffic Signals – The new signal system on Campbell's Run Road and Ridge Road was interconnected with spread spectrum radio. Five intersections were signalized.

Retaining Walls – Soldier Beam Retaining Walls along the Parkway West were designed to ensure global stability of the hillside – cut sections were highly susceptible to land slides, and would have required total take of a portion of the adjacent Chestnut Ridge Apartment Complex.

Parkway West – The entire project was designed to support future widening of the Parkway West, without future demolition of any of the new construction. The Ridge Road Bridge over the Parkway was lengthened to permit future widening; auxiliary lanes were provided between on and off ramps, reducing congestion due to weaving action, and effectively widening the Parkway to 3 lanes.

Ridge Road Bridge – The bridge which carries Ridge Road over the Parkway, is 187' long by 109' wide, carries four thru lanes and three turning lanes required for the adjacent Campbell's Run Road Intersection.

Maintenance of Traffic – Four lanes of traffic were maintained on S.R. 22/30 (with an ADT of 73,000) throughout the construction period, without significant congestion or major incidents.

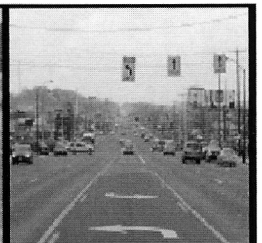
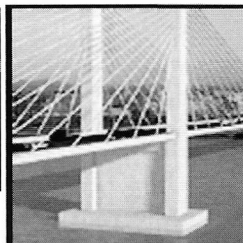
The completed project provides greatly improved access from the Parkway to areas south and north of the Parkway, greatly facilitating economic development. The project was designed and constructed on schedule through the cooperation and of all project partners. ■

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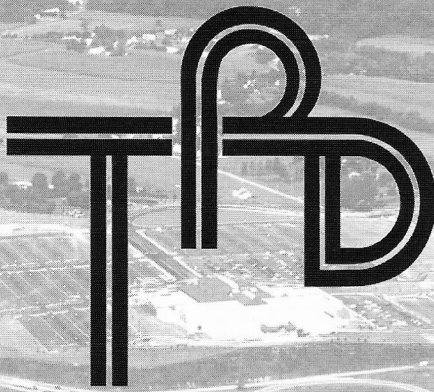
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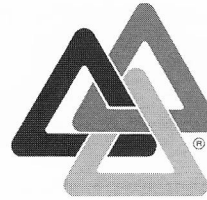


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Robert E. Yeager National Treasurer

Bob is a member of the Altoona Section in Region 4. Joining ASHE in 1963, he was a board member and President of the Altoona Section. Bob served on the National board and became National President in 1974. He has been our National Treasurer since 1975. With over 30 years of dedicated service to ASHE, the National Board granted him an Honorary Membership on April 17, 1998.

Bob earned his B.S. in Civil Engineering from Pennsylvania State University (1959). He continued his education at Cornell University in Construction Engineering. Bob began his career as a field engineer with the Harrison Construction Company and then with the S. J. Groves Construction Company. Over the next 23 years, he refined his construction skills with Vipond & Vipond, Inc., earning promotions from Supervisor to Project Manager, to Vice President of Construction. Bob switched to the I.A. Construction Company where he worked for 10 years as their District Manager. From 1995 to 1997 Bob was the owner of R. E. Yeager Consulting, Inc. He retired in 1997 after working more than 38 years in the construction industry. Bob has an E.I.T. and is a Professional Land Surveyor in Pennsylvania.

Bob and Mariann have been married for 50 years. They reside at their horse farm in Hollidaysburg, PA. Bob and Mariann are members of the Zion Lutheran Church. They have 2 grown children, Susan and Jeffrey. Bob and his wife enjoy traveling around the country in their motor home, so their Yorkshire terriers can travel with them. Bob is an active member of the Juniata Lodge F & A.M. #282, the Valley of the Consistory Scottish Rites, the B.P.O. Elks Lodge #212, and the 796th Military Police Battalion Association. Bob enjoys

hunting and is a member of the Trout Run Rod & Gun Club in Clearfield County.

Shirley Stuttler President's Assistant

Shirley has been a member of the Franklin Section for 25 years. She has served as the Section Secretary for 20 years and has the distinction of being the first woman President of the Franklin Section. Shirley served as a National Director from 1996 to 2002, and at which time she was appointed as the National President's Assistant. She also serves on the National Board as Chair of the Section Operating Manual Committee and serves as a member of the National Conference, and Society History Committees.

Shirley retired in March 2005 from PennDOT Engineering District 1-0 with 35½ years service.

Shirley and her husband John have been married for 18 years. They reside in Cochran, PA. They have three children; David, who is 36 years old; Jay, who is 31 years old; and Jim, who is 27 years old, and his wife Katie. They are also the proud grandparents of their grandson, Adam. In past years, Shirley participated in both indoor and outdoor archery competitions, where she won several state medals in the Woman Class A Division for compound bow. Shirley and John enjoy traveling and taking cruises with their friends. When they really want to relax they spend time at the family cottage located along the Allegheny River where they enjoy riding in the hovercraft, which John built.

WAndrew Bitner, P.E. Region 4 Director

Drew has been a member of the Harrisburg Section since 1972. He was elected to the Section Board in 1997 and has served as their 2nd Vice President, 1st

Vice President, and President. Drew also served on several committees for the National Conference in Lancaster and chaired the Section's Audit Committee for two years. He participates in the Youth Education programs speaking to 7th and 8th grades about engineering, particularly highways and bridges. Drew believes that this effort is his first and most important duty as an ASHE officer. He organized the Harrisburg Section's Golf Outing, where all profits go into the ASHE Scholarship Fund. The Section awarded six \$1,500 Scholarships in the spring of 2005 and again in 2006. In 2007 the Section awarded seven \$1,500 scholarships. Drew organized and chaired the Annual ASHE/PSPE/ASCE Seafood Picnic and Casino Night for three years. In 2004 Drew was elected as Region 4 President/National Director and in 2005 was named Harrisburg Section's Member of the Year.

Drew is a Professional Engineer and Professional Land Surveyor in Pennsylvania. He earned his B.S. in Civil Engineering from Tri-State College (1967). After working for two summers as a part-time employee at PennDOT, he was hired full-time after he graduated from college. Drew worked in the public sector for over 30 years. He held various positions in the Design, Maintenance, and Construction Units. Drew served as the Assistant District Engineer for Construction for 12 years. Drew retired from PennDOT in 1997 and joined Johnson, Mirmiran & Thompson serving as Assistant Branch Manager for the York Office. In 1999 he accepted a position at Urban Engineers as Vice President and Branch Manager of the Mechanicsburg Office. 2005-2006 Dawood Engineering, Incorporated hired Drew naming him Vice President overseeing the firm's growing highway and bridge program, business development, and quality assurance/quality control functions. In January 2007 Drew was hired as Vice President of VE Engineering Inc.



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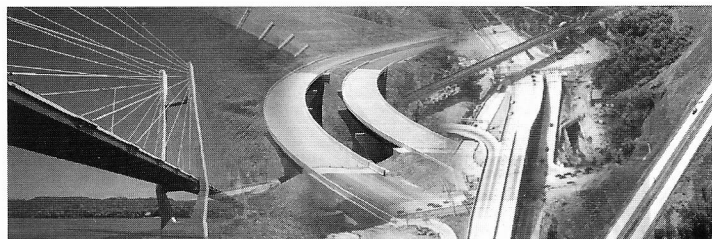
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Drew is active in the National Society of Professional Engineers, Pennsylvania Society of Professional Engineers, Vice President of Professional Engineers in Private Practice, and the American Society of Civil Engineers since 1965. He is also affiliated with PAPA, ACPA, ACEC, CMAA, APC, APWA, PUCA, the Harrisburg Regional Chamber of Commerce and the West Shore Chamber of Commerce.

Drew's civic activities include the Boy Scouts of America as former York-Adams Area Council District Commissioner, Committee Chairman of Troop 312, Charter Organization Representative, Past Cubmaster and Assistant Cubmaster of Pack 284. He is President of the Board of Trustees of the Harrisburg Academy, a private independent school, K-12, where his children attended school. Drew is also past treasurer and Past Master of Lowther Manor Masonic Lodge No. 781 in Camp Hill, PA, and a member of all the appendant Masonic bodies, including Chapter, Council, Commandary, Consistory, Tall Cedars of Lebanon, and Shire.

Drew and Ginny have been married for (37) years. They reside in Lewisberry, Pennsylvania. They are the proud parents of two boys: Todd (20) attends WPI in Worcester, Massachusetts, for Bio-Medical Engineering, and Michael (15) attends the Harrisburg Academy. The Bitner family also includes two cats. Drew has coached both baseball and soccer, and his hobbies are golfing, hunting, and fishing.

Andrew S. Stasek Region 5 Director

Andy has been a member of the East Penn Section of ASHE since 1966. He served as the Section Secretary, on the Section Board of Directors from 1978 to 1995, Member of the Special Events Committee, Public Relations Committee, Auditing Committee, Constitution and Bylaws Committee, Nomination Committee, and the Scholarship Committee

from 1989 to the present. Andy served on the Fifth Annual Conference Committee in 1967, the Fifteenth Annual Conference Committee in 1977, and the Twenty-Fifth Annual Conference Committee in 1987. He received the East Penn Section Service Award 1991-92. Andy was elected to be Region 5 President/National Director in 2004.

Andy attended Penn State University. He has over (44) years experience in the highway industry, more than (40) of those years with the Pennsylvania Department of Highways / Pennsylvania Department of Transportation. He worked in Engineering District 5-0 for a short time in the Design Unit and then for the remainder of his career in the Construction Unit. He has had the distinction of working on the construction of the three interstate highways built in that District; on Interstate 80 as a Construction Inspector, on Interstate 81 as a Project Manager, and on Interstate 78 as an Assistant District Construction Manager. After the completion of I-78 in 1991, he supervised the construction program in Berks, Schuylkill, Carbon, and Monroe Counties. Andy has served as an Assistant District Construction Manager for (16) years. He was Nominee for the Secretaries Award for Excellence 1998, Honoree PennDOT Star of Excellence Award 2000, and received the Secretaries Award for Excellence 1992. Andy served on PennDOT'S Construction Training Steering Committee from its inception and was Chairman in 1995-96. He served on the committee organizing the first seven Construction Management Training Workshops. Andy retired from PennDOT in 2002 and accepted a position with Traffic Planning and Design Incorporated where he serves as TPD'S Quality Control Manager for Design Services. He is a Professional Land Surveyor in Pennsylvania.

Andy received his hometown's Mayors Award for Community Service in 2001 for his work on the design and construction of the expansion of their athletic complex.

Andy and Patricia have been married

for (43) years. They reside in McAdoo, PA where they have been residents their entire lives. They are the proud parents of one daughter Rosemary. Andy's hobbies are woodworking, traveling, walking, camping, and the great outdoors.

Robert Wm. Muir, Jr., PE Region 6 Director

Bob is a charter member of the First State Section and has been a member of ASHE for over 18 years. Bob served on the Board of Directors, holding the positions of Director, 2nd Vice President, 1st Vice President, and President. In 1998, the First State Section named Bob as their Regional Director. Refocusing his energy, he became very active in Region 6. He served as the Regional Secretary for 3 years and was elected to Region 6 President/National Director in 2004. On the National Board, Bob sits on the Constitution/By-Laws Committee and chairs the Ethics/Practice Committee. The First State Section named him their First State Man of the Year for 2001-2002.

Bob has nearly 30 years of progressive experience in engineering and construction. He began his career in the mid 1970's working at the Ludwig Honold Company in their Engineering Department. He then accepted a job with the Phoenix Steel Corporation, where he was able to hone his skills in preliminary studies, survey & layout, design, estimating, scheduling, contract administration, and inspection. In 1983, Bob began working for Pavlo Engineering Co. (and their successor firms of OPA Engineers and Rust E&I) where he remained for 14 years. While employed by Pavlo, Bob pursued his undergraduate education, in the evening, at Drexel University. He was awarded the George W. Childs Scholarship for academic achievement. In 1993, Bob graduated Magna Cum Laude from Drexel University with a B.S. in Construction Management. Bob joined Greggo & Ferrara, Inc. as a Project Manager working on the

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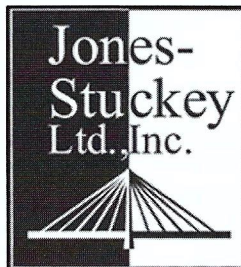


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Churchmans Road - SR7 Interchange, the I-95 Bridge Rehab over SR7, the I-95 Brandywine Bridge Rehab, and the Delaware Memorial Bridge West Approach Repaving & Modifications. Bob is a Licensed Professional Engineer in the State of Delaware, and has taught Construction Management and Engineering at the University of Delaware since 1999. In August 2004, he left Greggo & Ferrara to pursue full time Civil Engineering graduate studies at Virginia Tech; he completed Masters Degree requirements in August 2005. His graduate research assistant work at Virginia Tech included investigating and developing training practices for the construction industry. Other research topics included innovative project delivery methods, 3D Machine Control, and Information Technology Applications in Construction. Bob plans to work towards a Ph.D. on a part-time basis through Virginia Tech. He is currently employed as full-time faculty in the Construction Management Program at Drexel University at the rank of Assistant Professor. He recently launched a consulting practice focusing on organizational and human performance improvement in engineering and construction firms.

Bob and his wife Joan Marie have been married over 30 years. They reside (in a house that he built) in Mullica Hill, New Jersey. Bob and Joan Marie are the proud parents of their daughter Linda and her husband Adam Conover; and their 2 sons Craig, and Rob. They are the proud grandparents of Ali (8), Adam II (5), and Jackson (3½).

Bob and Joan Marie are active members of the Lambs Road Church. He is a church elder and coached soccer and youth wrestling. They participate in a homeless outreach program, and took part in a mission to Guatemala for their church. Bob likes football, soccer, and is a fan of college/high school wrestling. He and Joan Marie both enjoy traveling and spending quality time with family and friends.

Paul R. Trapp, Jr. Region 7 Director

Paul is a charter member of the Old Dominion section and has been active since its founding in 1990. He has served in various capacities, including two terms as President from 1997 through 1999, and currently represents Region 7 on the National Board of Directors. He was involved in the planning and organization of the 2006 National Conference in Williamsburg, serving as the Entertainment Chair and on the Executive Committee.

Paul is Managing Principal for Infrastructure & Environmental Services at Timmons Group, a Richmond-based consulting engineering firm with offices in Virginia, North Carolina and Pennsylvania. He has over 20 years of experience in transportation planning, engineering, permitting and construction. He has been the project manager on many projects for state and local governments as well as industrial and other private sector clients. His areas of expertise include roadway design, corridor studies and traffic impact

analyses.

Paul earned his BS in Civil Engineering in 1983 at Rensselaer Polytechnic Institute in Troy, New York. He worked for the New York State Department of Transportation for five years before relocating to Virginia in 1988. While working for NYSDOT, he obtained his MBA at the State University of New York at Albany.

Paul was active in the Virginia Section of ITE (VASITE) for over 10 years and served a three-year term on the Engineering Leadership Committee for the Virginia Road and Transportation Builders Association (VRTBA). He is also a 2002 graduate of Leadership Metro Richmond, a leadership development and community service program for improving the quality of life in the Richmond region.

In addition to transportation, Paul's other passion is education. He is currently President of the Board of Trustees for the Chesterfield Public Education Foundation and has served as County Council representative for the Robious Elementary and Middle School PTA's.

Paul and his wife Jill enjoy traveling and celebrated their 20th wedding anniversary in 2006 by taking a Windstar cruise along the coast of Spain, France and Italy. They are the proud parents of 3 boys (ages 16, 13 and 10) and a 10 year-old daughter that they adopted from Russia in 1998. Paul and his family live in Midlothian, Virginia, are members of St. Edward's church and are involved in many youth sports and school-related activities. ■

"Highways" continued from p. 11

Our Next, Grand Vision

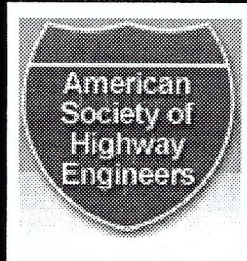
The golden anniversary of the Interstate Highway System needs to be more than just a celebration. Modern technology will continue to bring great advancements to transportation as we begin planning for the future. Dwight D. Eisenhower's original vision carried us a long way over the last 50 years. As a McMahon employee and a member of the American Society of Highway Engineers, I believe that in order to make comparable strides over the next 50 years, we need a new vision. We must call upon the brightest and most talented among us to set a new vision and over these next 50 years plan and build beyond expectations. ■

About the Author

Richard Prentice has worked in the Highway Industry for 38 years. He joined McMahon Associates, Inc. in Fort Washington, PA after 36 years with the Pennsylvania Department of Transportation. His experience includes highway design, bridge design, safety assessment, and traffic design. In June 2006, Mr. Prentice was elected as National President of the American Society of Highway Engineers, of which he has been a member for 34 years.

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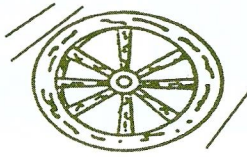
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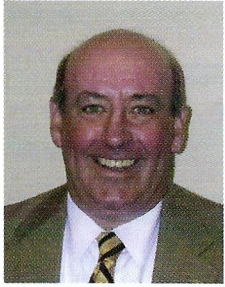
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As the Wheel Turns

DMJM Harris Appoints Chief Bridge Engineer



DMJM Harris appointed **Thomas J. Dougan, PE**, as Chief Bridge Engineer for Pennsylvania Operations. Mr. Dougan is a Vice President in the Pittsburgh office and has 32 years of experience, the last 10 of those years with DMJM Harris. He is a registered Professional Engineer in Pennsylvania, Ohio and West Virginia, and prior to this appointment was DMJM

Harris's Market Sector Leader for Highway and Bridge Projects in Pennsylvania.

Mr. Dougan is an active member of the ASHE Pittsburgh Section, is on the Board of Directors of ASHE's Altoona Section, and is an active member of the Association for Bridge Construction and Design.

Mr. Dougan's responsibilities will be to coordinate the bridge design efforts of DMJM Harris's Pennsylvania offices, provide design oversight for all bridge design projects, and assist DMJM Harris's Technical Directors in ensuring QA/QC protocols are implemented. He will also serve as a liaison with PennDOT, the Pennsylvania Turnpike Commission and other governmental agencies.

Prosch Joins Woolpert's Site Civil Design Group

(Columbus, OH) - **James Prosch, PE**, recently joined Woolpert Inc. as a project director for the firm's site civil design group in Columbus. Prosch returns to Woolpert with over 21 years of design experience and will be responsible for management, design and plan development for various transportation-related projects.

Prosch's experience includes urban and rural highway and drainage design, planning studies, bridge hydraulics, traffic control, preparation of construction specifications and contract documents and environmental documentation. He has completed designs for numerous highway projects ranging from local street resurfacing to bridge replacements and new freeways.

Prosch earned his bachelor's in civil engineering from Ohio University. He is a registered engineer in Ohio, Kentucky, Michigan, Florida and West Virginia. Prosch is a member of the Columbus Engineer's Club and the American Society of Highway Engineers Central Ohio section, where he also sits on the board of directors.

Bitner Named Vice President of VE Engineering Inc.



(New Cumberland, PA) VE Engineering Inc. is pleased to announce **W. Andrew Bitner, P.E., P.L.S.** has joined our firm as Vice President. As the former Assistant District Engineer for Construction for PennDOT District 8-0, VE Engineering and our clients will benefit greatly from Drew's 40 years in design and construction including the management of construction projects with high levels of complexity, which

makes him uniquely qualified to spearhead the expansion of our construction inspection and management services.

Drew is a national director of the American Society of Highway Engineers, an active member of the Pennsylvania Society of Professional Engineers/Professional Engineers in Private Practice, and the American Society of Civil Engineers, in addition to his many other engineering, public works, civic, and professional organizations. It is hard to find anyone more experienced or more respected in the industry, especially the public sector, and he will be a tremendous asset adding expertise and enhanced services for VE Engineering's clients.

Zink Named a Senior Associate




(Mt. Laurel, NJ) **Thomas G. Zink, P.E.**, was recently named a senior associate with Gannett Fleming, an international planning, design, and construction management firm. Zink serves as the manager of the Structural Department in the firm's Mt. Laurel, N.J., office.

With more than 15 years of engineering experience, Zink is responsible for managing bridge design, inspection, and rehabilitation projects. He also serves as a member of Gannett Fleming's Bridge Practice Leadership Team and is responsible for the development and implementation of quality assurance and control procedures for bridge design.

Zink holds a bachelor of science in civil and architectural engineering from Drexel University. He is a registered professional engineer in New Jersey and Pennsylvania and serves on the Board of Directors for the Southern New Jersey Section of the American Society of Highway Engineers. ■

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Lake Erie	96
Northwest Ohio	47
Triko Valley	141
Western Reserve	6

Region 2	
Clearfield	111
Franklin	214
Mid Allegheny	104

Region 3	
Pittsburgh	602
N. Central West Virginia	56
Potomac Highlands	54
South West Penn	244

Region 4	
Harrisburg	407
Altoona	184

Region 5	
North East Penn	127
East Penn	108
Williamsport	139

Region 6	
Delaware Valley	414
First State	139
New York Metro	133
North Central New Jersey	127
Southern New Jersey	231

Region 7	
Potomac	128
Chesapeake	109
Old Dominion	53
Greater Hampton Roads	71


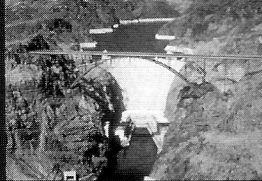

Region 8	
Carolina Piedmont	43
Carolina Triangle	230
Georgia	405
Middle Tennessee	103

Region 9	
Tampa Bay	108
Central Florida	128
Northeast Florida	269
Gold Coast	59

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