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NEWSLETTER OF THE AMERICAN SOCIETY OF  
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**Winter 2005-1**

## ASHE 2005 in Pittsburgh

*Katie Anderson, Chairman  
Marketing and Promotion Committee  
ASHE 2005*

It's that time again - time to register for the ASHE National Conference. The 2005 Conference will be held at the Sheraton Station Square Hotel in Pittsburgh, PA from Thursday, June 2 through Sunday, June 5. It promises to be a truly outstanding conference beginning with three concurrent technical programs on Thursday afternoon. Each of these sessions will include two presentations. Topics include:

- Maglev
- Innovative Robotics with the Director of the National Robotics Engineering Consortium at Carnegie Mellon University
- Pittsburgh Railroad and Trolley History
- History of the Pennsylvania Turnpike

Social festivities begin with the Ice Breaker reception in the hotel's beautiful Riverfront Room where an outstanding array of exhibitors will welcome you. Visitors to the exhibit area, according to Exhibits Chairman Gene Lipovich, will also enjoy an open bar and hearty hors d'oeuvres. Participants who find themselves unable to catch up with every ASHE colleague in the bustling exhibit area will be able to join them later in the beautiful hospitality lounge with its adjacent outdoor balcony and its dramatic view of downtown Pittsburgh, open every night until midnight.

Friday will feature an excellent series of technical programs, according to Chairman Blair Stocker. Following the 8:00 am general meeting, there will be a "Kick Off" technical session dealing with "Challenges Facing Today's Transportation Agencies," with presentations by officials from the Pennsylvania Department of Transportation, the Port Authority of Allegheny County, the Pennsylvania Turnpike Commission, and Pittsburgh International Airport. Immediately following the Kick Off presentations, members will be able to choose one of three different sessions before lunch.

Then it's time to take a break from technical programs to relax at the Past Presidents' luncheon where we'll honor former national presidents of the American Society of Highway Engineers.

Between 1:00 and 4:30 p.m., members will be able to select from approximately a dozen exciting technical presentations, including:

- The Cooper River Bridge Project, the longest cable stayed bridge in the US, connecting Charleston and Mt. Pleasant, South Carolina,
- The Piedmont Triad International Airport in Greensboro, North Carolina,
- The Mon/Fayette and Southern Beltway Projects in Western Pennsylvania,
- The Hoover Dam By-Pass that will relocate vehicular traffic from the dam, and
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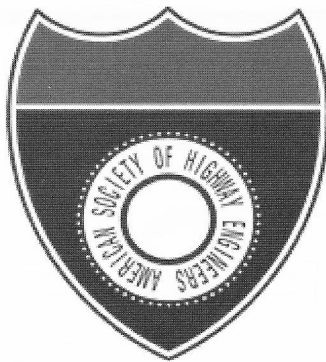


This day-long agenda of technical programs promises to be both thought-provoking and exciting for members and guests alike, unless, of course, you've been enticed away to take part in any of the guest programs assembled by Nancy Vandling's committee. The offerings will include half-day and full-day tours of Pittsburgh's renowned tourist attractions, as well as hidden delights known only to some of the Pittsburgh Section's 600 members. Just a sample of the tours include:

- North Side Tour of PNC Park, lunch at the historic Penn Brewery, the National Aviary and the Warhol Museum.
- Phipps Conservatory and the Frick Art and Historical Center including a tour of Clayton, the Victorian home of Henry Clay Frick.

*"Conference" continued p. 13*





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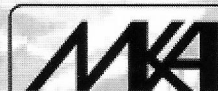


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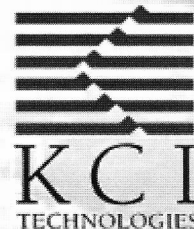
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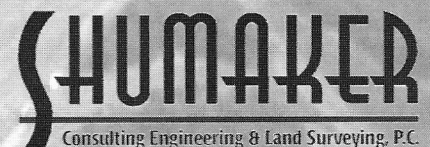
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# President's Message

Rodney P. Pello, P.E.

As we begin a new year, I would like to wish all ASHE members and their families a happy, healthy, peaceful 2005. The new year will be starting off very well for ASHE. On January 20th the New Section Committee Chair, Dave Jones, and Tom Ziegler, National Director from Region 8, attended an organizational meeting in Nashville, Tennessee with individuals very interested in chartering a new Section. We are hopeful the Nashville Section will be chartered in May 2005.

On January 26th we chartered another new Section in Martinsburg, West Virginia. The new Section is part of Region 3 and will be known as the Potomac Highlands Section. Sixty-one new members of the Potomac Highlands Section joined in the chartering.

Finally, there is continuing interest from individuals in Lexington, Kentucky to start a new Section. We are hopeful of having an organizational meeting in the Spring 2005. I would like to commend the New Section Committee for their commitment to grow and expand ASHE into new regions. It is important to the potential success of these efforts that support from the National Board be demonstrated through the New Section Committee. But let me remind everyone to not let our existing memberships be ignored. We must continually strive to retain our current members and grow our existing Sections as well. Don't forget the National Conference in Pittsburgh, June 2 - June 5. ■

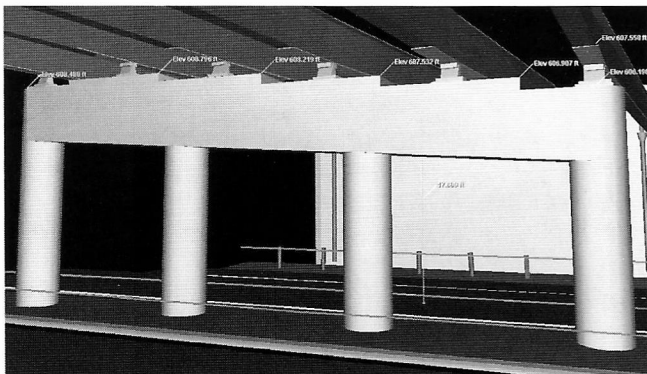
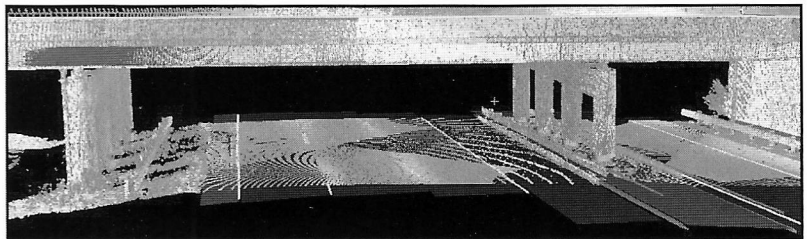
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*Chartered January 26, 2005*

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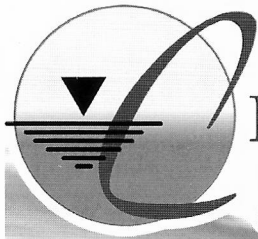
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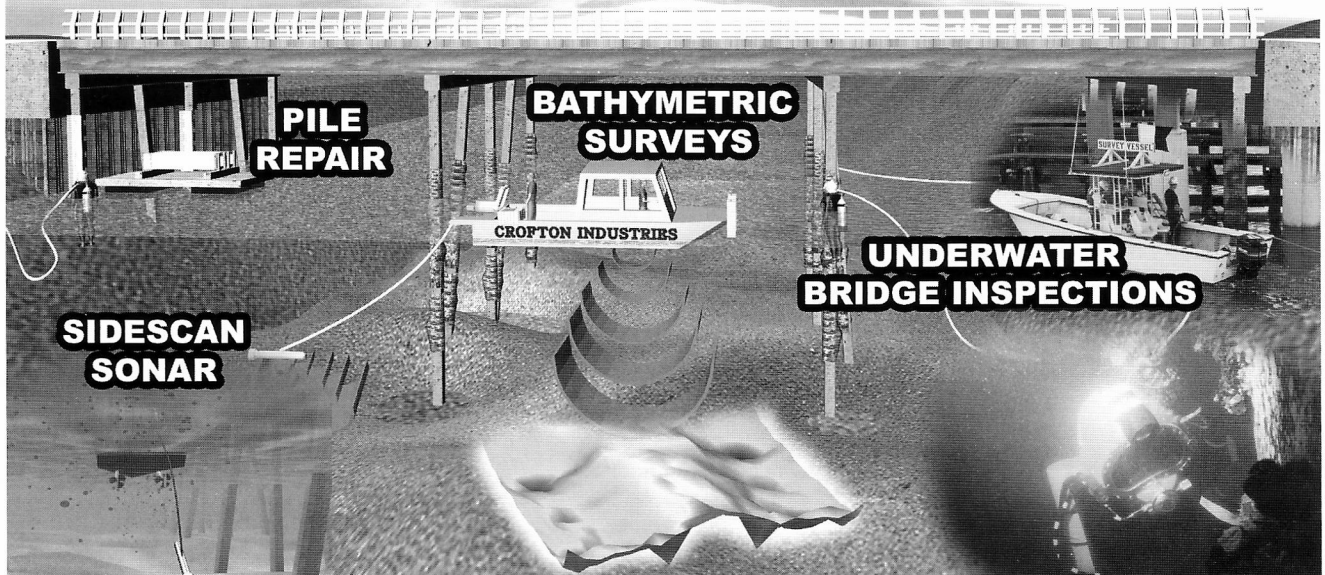


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# Relief is on the Way in Tampa Bay!

A Reconstruction Project for SR 676 (Causeway Blvd.) between US 41 and US 301

Robert W. Fulp, PE and Phuc Duong, EI (Gray-Calhoun & Associates, Inc.)

The Florida Department of Transportation (FDOT) recognizes the need to improve mobility between Brandon (a suburb in eastern Hillsborough County) and the central business district (CBD) of downtown Tampa, Florida. Figure 1 identifies Tampa, Florida. With recent and/or on-going capacity-adding improvements to I-4, SR 60 (Adamo Drive) and the Crosstown Expressway, traffic congestion along the east-west corridors during the peak periods of travel should be reduced. SR 676 (Causeway Boulevard) is another parallel facility used by motorists in making the trips between the CBD and the outlying communities east of Tampa. In an effort to improve the levels of service along Causeway Boulevard, the FDOT plans to widen Causeway Boulevard between SR 45 (US 41) and SR 43 (US 301), approximately 3.2 miles, from a two-lane undivided to a four-lane divided roadway.

The project location is identified in Figure 2. Gray-Calhoun and Associates, Inc. (GCA) and two other consultants have been selected by the FDOT to prepare a traffic operations study and construction plans for the entire length of the project. The purpose of the traffic study is to identify specific geometric improvements required at key intersections along the corridor (i.e., US 41, Maydell Drive, 78th Street and US 301.) In addition, the study will evaluate several alternatives for the future grade-separation at the intersection of Causeway Boulevard and US 41.

One of the most important steps in preparing a traffic operations study is the development of the design year traffic volumes because these volumes will dictate what geometric roadway and intersection improvements are ultimately recommended for design. In utilizing the Metropolitan Planning Organization's (MPO) 2025 Long Range Transportation Plan (LRTP) to forecast travel demand, the traffic engineer/transportation planner must be aware that the model may require significant changes to account for land use changes in the

study area, or changes to the capacity of the surrounding roadways due to expedited roadway construction projects.

In preparing this traffic operations study in accordance with the FDOT guidelines, the following general steps were performed:

1. Collect traffic data - Perform 24-hour, 7-day machine counts and 8-hour manual turning movement counts at selected locations.
2. Perform crash analysis - Plot and analyze three recent years of crash data at key locations.
3. Determine design year traffic - Based on the Tampa Bay Regional Transportation Planning Model, estimate design year traffic volumes for 2025.
4. Perform capacity analysis - Determine existing and future levels of service at pre-selected locations using HCS 2000.
5. Perform grade-separated analysis - Simulate and compare grade-separated alternatives for Causeway Boulevard and US 41 using CORSIM software.
6. Make recommendations - Suggest necessary improvements for Causeway Boulevard at US 41, 78th Street and US 301 (the signalized intersections) and Maydell Drive.

Under existing conditions, the Highway Capacity Software (HCS) analysis of the traffic count data reveals poor levels of service throughout most of the study area. Excessive delay exists at the signalized intersections (i.e., US 41, 78th Street and US 301) during the morning and afternoon peak hours. A high number of crashes also exist at the signalized intersections due to the traffic congestion created by the signal control.

As previously stated, the MPO's 2025 LRTP was utilized in forecasting travel demand along Causeway Boulevard. Those procedures outlined in the FDOT's Project Traffic Handbook were

*"Relief" continued p. 15*

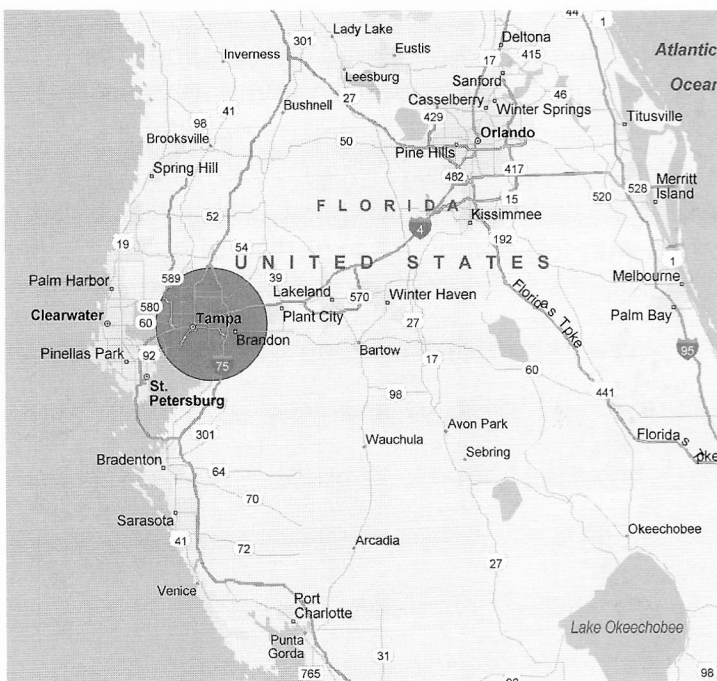


Figure 1: The location of Tampa, Florida

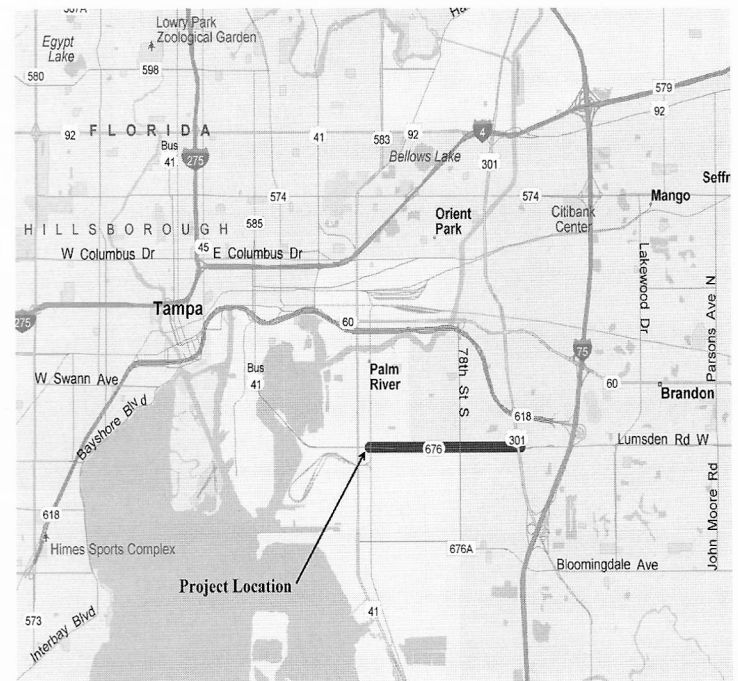
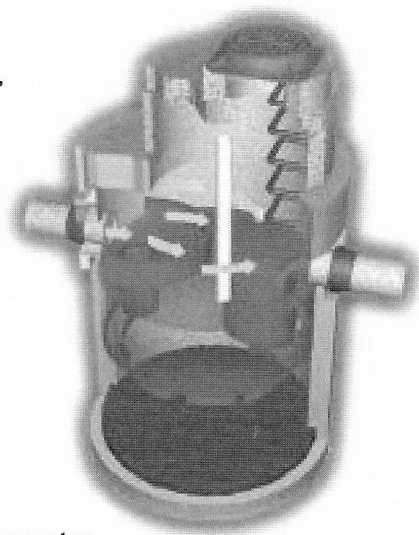


Figure 2: The project Location Map.

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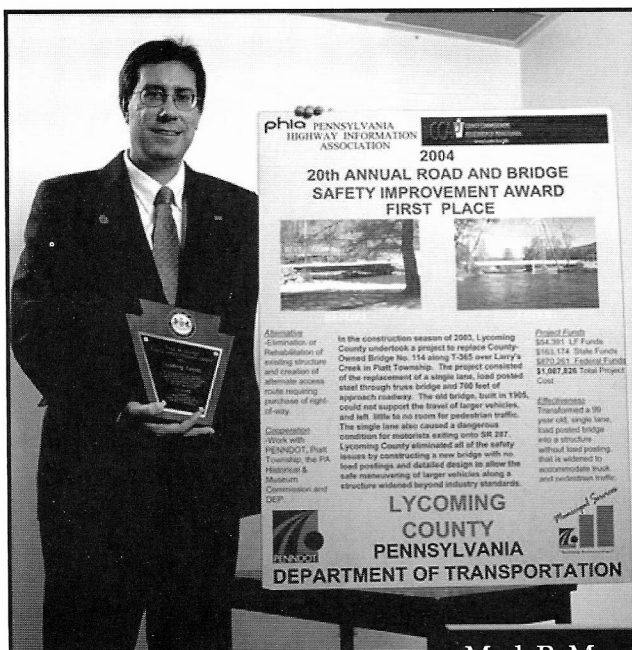
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# Hurricanes Force Quick Action To Maintain Open Roadway

Will Suero, PE  
President, ASHE Gold Coast Section

2004 will certainly be remembered as the “Year of the Hurricanes” for most Floridians. Florida’s Public and Private Infrastructure was impacted to the tune of over \$40 billion statewide. Florida’s Highways were not spared, and one case study follows. On September 4, 2004 Hurricane Frances struck Martin County just south of Stuart, Florida as a Category 2 Storm. On September 25, 2004 Hurricane Jeanne struck Martin County just south of Stuart (Martin County), Florida as a Category 3 Storm. Both storms struck at the same latitude and longitude, 5 miles southeast of Stuart, Florida.

County Road 707/Indian River Drive is a two-lane Major Collector which parallels the west bank of the Indian River/Atlantic Intracoastal Waterway in both Martin and St. Lucie Counties, Florida. A particular section of CR 707 includes a 14.6 mile stretch beginning in Martin County (approximately 1 mile south of the St. Lucie County line) and continuing north to approximately 1.2 miles north of Savannah Road in central St. Lucie County. As a result of the back to back hurricanes, the roadway and/or embankment were damaged or completely destroyed throughout the majority of the 14.6 mile segment. In addition, the existing vegetated natural slope embankment between the roadway and the shore was severely damaged and eroded for nearly the entire length of the project.

The local governments of St. Lucie and Martin Counties approached the Florida Department of Transportation, District 4, for assistance in stabilizing the embankment with a permanent treatment, to ensure the long-term reliability and stability of the roadway. The FDOT agreed to serve as an oversight agency responsible for approving expenditures from Federal Emergency Management Agency (FEMA) funds which became available almost immediately following the storms. Within days of the first hurricane, the Department of Transportation brought together a

team of professionals from inside and outside the Department to evaluate the site conditions, analyze the permanent repair options, and decide on a permanent repair solution. Up to 16 embankment repair alternatives were considered, and the technical group decided on one of three options; Rubble Rip Rap, Articulated Block Rip Rap, and crushed concrete Rip Rap, to be bid as “Optional Materials”.

The Department of Transportation asked HDR Engineering of Miami Lakes, Florida to produce construction plans, specifications, and cost estimates for implementation of the three preferred alternatives noted above. Due to the tight time constraints for spending of the Federal Money (180-days maximum following the emergency declaration) HDR was asked to prepare Bid Ready (Production Complete) Plans, Specifications, and Estimates in 3 days. The work was completed, and within one day of the submittal, review comments were received from the District. Two days later (6 days from NTP) 20 sets of the complete Bid Package (including front end documents) were completed and presented to a group of approximately 12 contractors selected to bid on the emergency repairs. The 14.6 mile project was broken into four segments (1 in Martin County, and 3 in St. Lucie County) to maximize the manpower available from the construction community and therefore ensure successful completion of the work within the 180-day emergency declaration window. All work is on schedule and only minimal problems have arisen during construction. The majority of the work is being done using the articulated concrete block options due to ease of fabrication, and the cost competitiveness of the material. Currently four concrete plants are manufacturing the blocks, from Miami to South Carolina, specifically for work on the four CR 707 projects. The total project construction cost is just under \$30 Million. A sampling of photos from the damaged roadway/embankment and construction progress follows. ■



CR 707 Sand Dune proved vulnerable to storm surge along Florida’s Gold Coast



Installation of Articulating Blocks in December 2004



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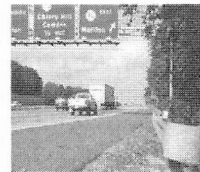
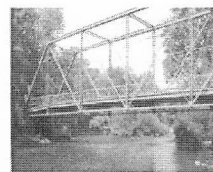
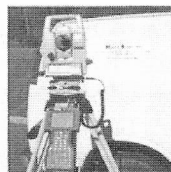
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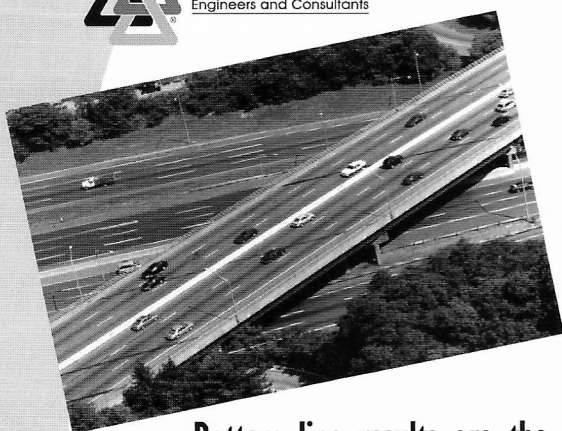


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# SMART Pavement - A Collaborative Effort

*Vic Spinabelli, Dick Corporation*

Heavy traffic and extreme weather conditions are a one-two punch that often means a premature death for the nation's roadways.

To get inside this problem, a collective partnership of the Pennsylvania Department of Transportation (PennDOT), the Federal Highway Administration (FHWA) and the University of Pittsburgh, along with construction manager/inspector Dick Corporation (Dick) and contractor Mascaro Contracting initiated a Smart Pavement research project to study the performance of concrete pavements that is subject to extreme conditions.

As a basis for the study, PennDOT and Dick selected a 210-foot stretch of the westbound lanes of a reconstruction project underway on State Route 22 in Murrysville, Pennsylvania. This Western Pennsylvania roadway is subject to unpredictable weather extremes and heavy industrial traffic.

At the heart of the project, which used standard PennDOT road design, are the more than 400 sensors and three miles of wiring that were embedded into the roadway during construction. These sensors were then connected to dataloggers housed in cabinets adjacent to the roadway. The instrumentation, designed to measure both environmental and applied stresses placed on the roadway, includes everything from temperature and moisture sensors to pressure plates and dynamic and static strain gauges.

In all, fourteen slabs were included in the testing. Half of these slabs were constructed with dowel and tie bars, while they were left out of the other half of the slabs. This will allow researchers to quantify the stresses that develop as a result of the restraint provided by the bars. A weather station was also installed next to the roadway so that ambient air temperature and relative humidity could be documented.

The FHWA was also on-site during concrete placement with its mobile concrete laboratory to support the effort. Extensive testing of over 100 concrete specimens is being performed by the University of Pittsburgh to accurately characterize the material properties of the concrete used for the project.

Over the course of the next four years, an automated system will transmit the data from these sensors to the University of Pittsburgh's School of Engineering. Here they will be incorporated into a database used for storage and ongoing analysis of the information.

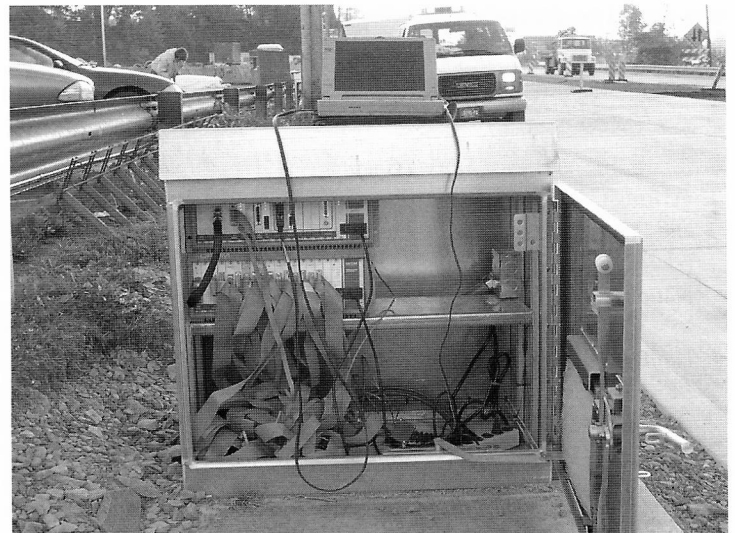
PennDOT and the university will also collect load and profile data on a seasonal basis. Load testing includes falling weight deflectometer (FWD) testing by having combinations of three different trucks with different axle configurations and load levels travel over the test sections. Profile testing involves the use of dipsticks to measure the shape of the slabs. These measurements, made over a 24-hour period, will account for positive and negative temperature gradients present through the profile of the slab.

The information that researchers hope to gain from the \$400,000 project will give an increased understanding of the pavement's response to environmental and applied loads and be useful in addressing the needs of the NCHRP 2002 Pavement Design Guide. Improved understanding of the significance of changes in slab shape and vehicle loads on pavement performance will also be beneficial for evaluating the FHWA's HIPERPAV software.

In the end, the collaboration believes the results will be paramount in finding ways to increase the service life of roadways - ultimately reducing the need for reconstruction and maintenance to the nation's ever-growing, aging transportation network. ■



*Overview of Instrumented Restrained Panels*



*Datalogger Enclosure without Remote Communications System*

# City of Jacksonville Downtown Bridge Lighting

David Laffitte, AIA and James Edwards, PE, Reynolds, Smith and Hills, Inc.

Photographs by: Robert Fallin

Rendering by: Mark Macco

With the 2005 Super Bowl scheduled to play at Jacksonville's Alltel Stadium, community leaders recognized a unique opportunity to showcase downtown Jacksonville for a worldwide audience. The impact of the St. Johns River and its major bridge crossings on the continuing development of the city could be highlighted at the same time.

In fall 2003, John Peyton, Mayor of the City of Jacksonville (COJ); Jose Abreu, Secretary of the Florida Department of Transportation (FDOT); Michael Blaylock, Executive Director of the Jacksonville Transportation Authority (JTA); and Donna Harper, Chairman of the Jacksonville Transportation Authority (JTA) discussed the concept of lighting the Main Street, Hart and the Fuller Warren Bridges in downtown Jacksonville.

Leaders rallied around lighting the major bridges to convey to the worldwide audience the impact of these major St. Johns River crossings to the past, present and future of Jacksonville, "Where Florida Begins."

Lack of a design, no designated funding and the short time to complete the project presented significant, but ultimately surmountable, obstacles to the timely completion of the lighting project. The JTA Executive Director took the lead role and challenged JTA's general engineering consultant, Reynolds, Smith and Hills (RS&H), to develop a design that would be dramatic, cost effective and completed before Super Bowl XXXIX.

The architecture of significant city landmarks is difficult to appreciate in the dark. For this reason, lighting of the bridges sought to capture the imagination of the nighttime viewing audience and thus create an indelible contribution to the nighttime image of the city. Lighting designs were created to accentuate defining physical characteristics of each bridge structure with an emphasis on lighting those elements which perform the lion's share of load carrying and functionality for the structure.

The John T. Alsop, Jr. (Main Street) Lift-Span Bridge was designed in 1938 and is characterized by riveted steel through trusses and a center lift span. In order to accommodate the passage of taller vessel

traffic on the St. Johns River, the lift-span rises between the two prominent bridge towers, thus providing the necessary vertical opening. These lift towers have an architectural presence holding their own against the high-rise buildings on both sides of the river. The height of the towers, coupled with their brilliant blue color, distinguish this steel lift-span bridge and result in a prominent visual statement against the backdrop of the downtown skyline. To bring the prominence of this structure to a nighttime audience blue metal halide spotlights were used to light up the steel beams, girders and trusses, thus making this



John T. Alsop, Jr. (Main Street) Lift-Span Bridge

downtown landmark as identifiable at night as it is by day.

The Hart Bridge is characterized by a distinctive camel back steel truss with suspended main span. The structure was designed in 1964

*The Northeast Florida Chapter of ASHE, Public Relations Committee sent a calling to all members to submit an article for a Technical Writing Contest. First Prize is a one-night stay at the Sawgrass Marriott; second prize is a gift certificate to Ragtime Tavern and Seafood Grille; and third prize is \$25 cash. All of the articles were judged by the Board of Directors and Public Relations Committee based on the content as it related to the highway industry. All three winners will be recognized in the ASHE First Coast Interchange Newsletter and submitted to the National SCANNER Newsletter.*

*With all the votes finalized, ASHE is pleased to announce the winners for the First Technical Writing Contest: first place is awarded to David Laffitte, AIA and James Edwards, PE (RS&H) for "City of Jacksonville Downtown Bridge Lighting;" second place is awarded to Buckley Williams, PE (ETM) for "Interchange at Interstate 95 and St. Augustine Road - "The Gateway to Jacksonville;" and third place is awarded to Brett H. Pielstick, PE (Eisman and Russo) for "CEI - A Catalyst for Construction." All three winners were presented their prizes during the January Luncheon. Special thanks to all those who participated in the contest.*

*Kimberly A. Holland, P.E.*

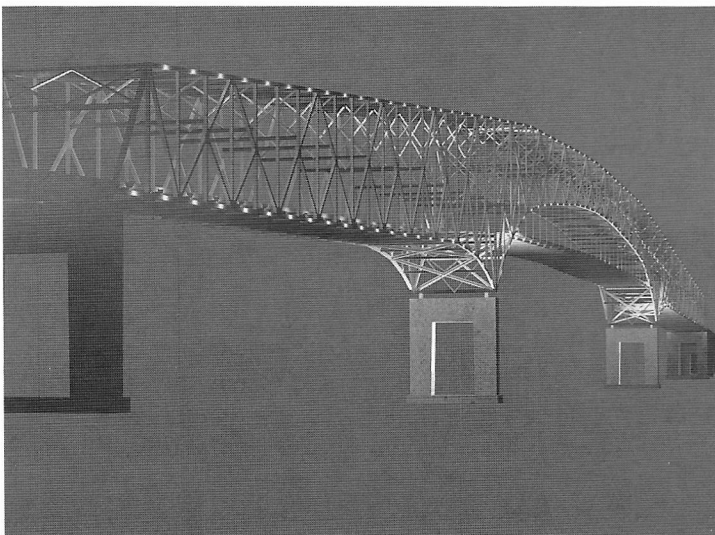


to carry vehicle traffic across a much wider section of the St. Johns River than its Main Street Bridge neighbor. The structure was also designed to accommodate passage of significant river-borne vessel traffic that travels from port facilities to downtown riverfront interests without incorporation of a movable bridge span. The necessary vertical clearance of the bridge over the river to accommodate both vehicle and vessel traffic resulted in a high profile structure that can be viewed in its entirety from many vantage points around the city. The ability to view the entire structure from a variety of locations contributes to an overall light and airy aesthetic structure when viewed from a distance. Traversing the bridge by vehicle or navigating under the bridge by vessel leaves the traveler with an appreciation for the inherent strength and gracefulness achieved by the structure's designer. The lighting design sought to highlight both the strength and grace of this signature Jacksonville bridge. "Trace lighting" outlines the graceful arched shape of the truss superstructure thus making it visible in the evening hours from all of the same daytime viewing locations. Uplighting of the slender two-column concrete piers, in combination with this center span lighting, creates a dramatic gateway for cruise ships and pleasure boaters on the St. Johns River.

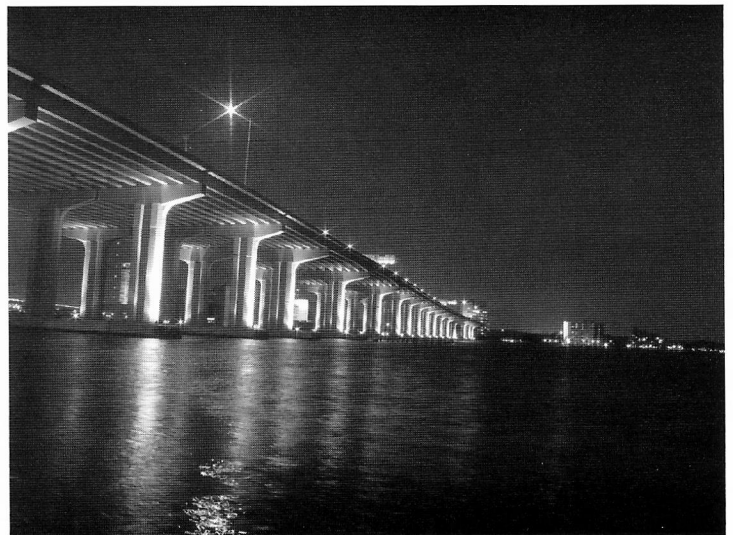
Constructed in 2000, the Fuller Warren Bridge is the newest and busiest of these three St. Johns River crossings. The superstructure consists of prestressed concrete beams with a composite concrete deck, typical for the modern era of utilitarian river crossings. The depth of the superstructure is relatively shallow as compared to the height of the tall, supporting concrete piers. Because of this ribbonlike appearance of the concrete beam superstructure within the context imposed by the massive concrete piers, the lighting design focused on the illumination of these piers which march across the river and provide

the most architecturally significant aspect of the bridge. The concrete piers offer the best opportunity for providing an aesthetic lighting experience comparable in scope to the other two bridges illuminated as part of this project, as these substructure elements are plainly visible from areas on both the north and south banks of the river. Additionally, the lighting of the piers, coupled with the highway lighting already incorporated for the bridge deck driving surface, creates minimal lighting of the concrete-beam superstructure, thus appropriately connecting the superstructure lighting with the rhythmic substructure pier lighting scheme. While lighting existed on the bridge columns, the lighting was upgraded for greater visibility and more dramatic effect. H.I.D. floodlights now illuminate the outside faces of the concrete columns, with a combination of metal halide and high-pressure sodium lighting. Due to its location on the river, this lighted colonnade will be visible for several miles upstream.

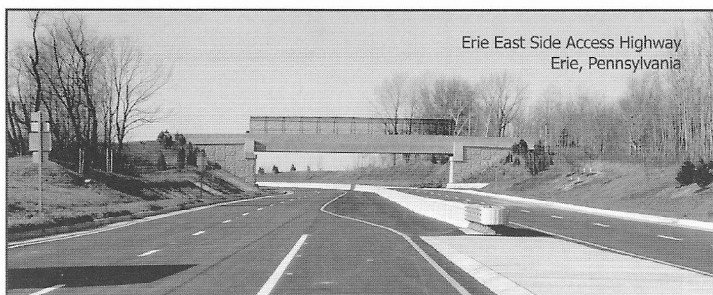
While the design was underway, the JTA and FDOT put together a grant package that provided the necessary funding for the project. The project was advertised for bids in the early spring of 2004, and in May 2004 a contract was awarded to Miller Electric Company of Jacksonville. On June 1, 2004 the first cable was pulled on the Main Street Bridge. The contractor found the installation of 691 luminaires and nearly 6.5 miles of electrical cable on the three bridges to be a challenge. However, even with disruptions in the construction schedule created by several hurricanes and the visit of presidential candidates, the project was completed on time and with less than a \$3,000 overrun of the original \$3,000,000 budget. As with all projects that seek to blend infrastructure and aesthetic appeal, the real value of this project will be measured in the significant aesthetic appeal created for and shared by our community for years to come. ■



*Hart Bridge*



*Fuller Warren Bridge*



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## North Carolina Unveils New 511, Road, Traffic Information Service

The Federal Highway Administration reports that North Carolina drivers will now be able to get up-to-the minute information statewide about local road and traffic conditions by simply dialing 511. The Federal Communications Commission nationally designated the 511 phone number for this purpose in the year 2000.

Federal Highway Administrator Mary Peters says the new 511 system will allow callers to gather the latest information about traffic jams, road construction, and alternative routes in and around the state, in addition to providing the latest train and ferry information.

The U.S. Department of Transportation provided a grant to help North Carolina develop its 511 service and is encouraging all 50 states to establish similar networks. Twenty-one 511 systems are currently operating in other regions of the U.S. In some areas, as much as 97% of the drivers who use 511 say they've changed their travel routes because of the information provided.

The first 511 system began in the Cincinnati metropolitan area in 2001. With the new 511 service available in North Carolina, more than 56 million travelers in the U.S. now have access to 511 information. By

the end of 2005, half the population is expected to have availability to the travel information service.

Furthering this effort is a coalition formed by the American Association of State Highway and Transportation Officials, the American Public Transportation Association, and the Intelligent Transportation Society of America. In an agreement executed earlier this year, the organizations are committing their long-term support toward integrating traffic and transit information for the traveling public on a nationwide basis.

The 511 Deployment Coalition is currently working on several initiatives, including a push to get more metropolitan areas to deploy a 511 system, either from startup or by converting existing travel service phone lines to 511.

More information about 511 travel systems is available online at [www.fhwa.dot.gov/trafficinfo/index.htm](http://www.fhwa.dot.gov/trafficinfo/index.htm).

*Reprinted with permission from NSPE-PEG. Original document from Engineering Times, October 2004. <http://www.nspe.org/pracdiv/50-04511service.asp>*

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*"Conference" continued from p. 1*

One of the highlights of the Conference will be Friday night's visit to the Senator John Heinz Pittsburgh Regional History Center which, in cooperation with the Smithsonian Institution, offers an ever-changing, dynamic view of Western Pennsylvania. One of the special aspects of the History Center is the brand new Western Pennsylvania Sports Museum with exhibits featuring some of Western Pennsylvania's outstanding athletes and athletic events, including Franco Harris, Arnold Palmer, Mario Lemieux, Roberto Clemente, Willie Stargel, and the Steelers' four Super Bowl victories. A variety of food and drink stations will be available throughout the multi-story museum. Bus transportation to and from the event will be provided. Guests who want to stay after the event to enjoy some of the area's night spots can return to the hotel by Port Authority's regularly scheduled buses or by their own private vehicle.

Saturday is GOLF DAY! Golf Chairman Bill Gross has arranged for 144 golfers to play on the beautiful Birdsfoot Golf Course, just a 30 minute drive from the hotel. (Visit their web site at [www.Birdsfoot.com](http://www.Birdsfoot.com).) To keep the fun rolling, the format of the game will be "Texas Scramble" where each member of the foursome plays his/her own ball from the location of the foursome's best drive. Sponsorships for various holes are still available. Check the conference web site [www.ashe2005.org](http://www.ashe2005.org) for details.

Since only 144 registrants will be able to play golf on Saturday, the Guest Tour committee has assembled another exciting array of guest tours including: the Rivers of Steel National Heritage Tour and visits to the Carnegie Museum of Art and Carnegie Natural History Museum.

Recognizing that some people might like to explore downtown Pittsburgh on their own, public transportation via the Port Authority's Light Rail System is available. One of the big attractions in Pittsburgh every June is the annual Three Rivers Arts Festival that opens on June 3rd with over 100 artists and craftsmen from across the country whose wares are available for sale in Gateway Center at the base of Pittsburgh's Golden Triangle.

Everyone will want to get back to the hotel in time to get ready for the big cocktail party and banquet at the hotel. The banquet will feature the installation of the ASHE National Board of Directors and remarks by outgoing National President Rodney Pello and incoming National President Ronald Purvis.

Then to end the evening on a mellow note, Pittsburgh's own The Internationally Famous Vogues will perform some of their more than twenty Top 20 songs including such familiar favorites as:

- Turn Around Look at Me
- My Special Angel, and
- No Not Much

Alas, everything comes to an end Sunday morning. Colleagues will bid farewell to each other, promising to keep in touch until they meet again in Williamsburg at the 2006 Conference.

Thinking about bringing your family with you to the Conference? We've negotiated with the hotel to offer the same discounted room rate for ASHE families who might want to spend a couple of days before or after the Conference exploring some of Pittsburgh's other sights. There's always lots to do. For example, you could take in Sunday afternoon's Pittsburgh Pirates game at PNC Park or visit one of the world's premier amusement parks - Kennywood - just a few miles from the hotel or maybe visit the newly renovated Children's Museum with its vast array of hands-on exhibits.

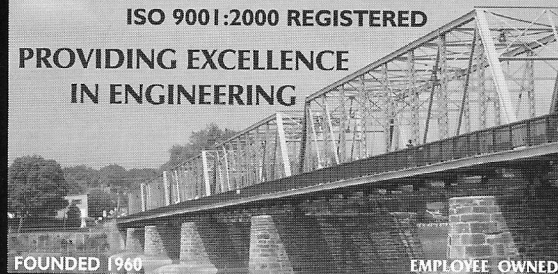
A word of warning however. Pittsburgh is playing host to the Senior Olympics starting the same weekend as our Conference. Between 12,000 and 14,000 participants are expected over a 3-week period, so hotel space will be at a premium. We urge you to make your reservations as soon as possible by visiting the special hotel reservation web site at [www.starwoodmeeting.com/book/ASHE](http://www.starwoodmeeting.com/book/ASHE).

It's a fact. We love our city and all 600 members of ASHE's Pittsburgh Section are looking forward to sharing it with you in June during what promises to be an exciting, educational and fun-filled weekend! ■

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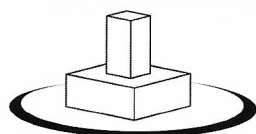
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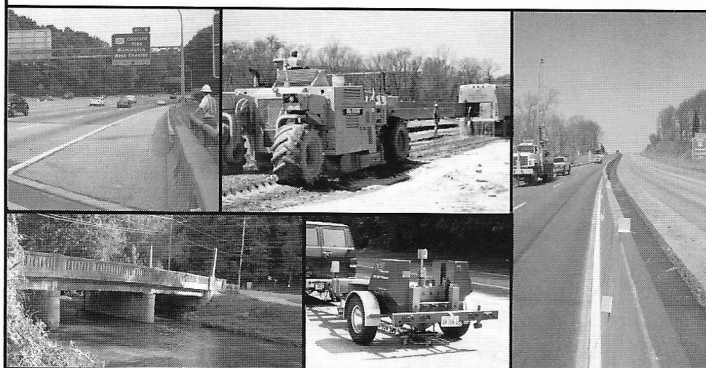
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# Conflict Resolution Part II

## Using Robert's Rules of Order Revised (RROR)

Douglas C. Gilman, P.E. VDOT State Pavement Management Engineer

In my previous article ([www.highwayengineers.org/scanner032504h.html](http://www.highwayengineers.org/scanner032504h.html)), I discussed a method called the analytical hierarchy process as a way of assisting with complex decision-making. There are many methodologies for obtaining group consensus and thereby resolving conflict. From the title of this article, you can see that I am offering a procedural method by suggesting the use of Robert's Rules of Order Revised (RROR).

The primary objective of RROR is best reflected when considering the following quote from Henry Martyn Robert made in 1915: "The object of Rules of Order is to assist an assembly to accomplish in the best possible manner the work for which it was designed." This is basically achieved by having the issues properly addressed and thoroughly debated, such that a meeting is both constructive and democratic.

Upon initial review of RROR, there is a perception of formality, which may seem somewhat unwarranted. Based upon my experiences in facilitation of transportation professionals, these formalities are extremely helpful. The RROR can serve as a foundation upon which "ground-rules" are established and everyone involved will begin to understand what to expect such that negotiations can continue and decisions can be made. The

trick is to have a facilitator who is well versed in the rules application, consistent, not vested in the outcome of the meeting, and who can objectively identify and address pertinent issues. Sounds simple enough, but facilitation is truly an art rather than a science.

In my experiences of performing project scope constructability reviews, it was helpful to have developed a group charter. This charter defined the purpose of the review, and more explicitly, it defined the procedures to be followed. Then, individual personality characteristics of the group only help to make for lively discussions.

The end result of applying RROR should always be either to "agree" or "agree to disagree" and then move on. In this environment a collaborative approach to guidance will result in a product that synthesizes participant input, creates a sense of mutual respect, relieves apprehension because opinions are documented, and achieves quality that could not be derived independently.

To begin your use of RROR go to [www.constitution.org/rror/rror-00.htm](http://www.constitution.org/rror/rror-00.htm), [www.rulesonline.com/](http://www.rulesonline.com/), or [www.robertsrules.org/](http://www.robertsrules.org/) ■

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*"Relief" continued from p. 5*

used in developing the 2025 design year traffic volumes from the regional model. The model was changed to reflect the capacity-adding improvements currently being made to the Crosstown Expressway (a parallel roadway north of the study area.) Changes to the socioeconomic data (ZDATA) within the surrounding traffic analysis zones (TAZ) were not necessary. The 1999 base year model was validated by comparing the existing traffic counts to the model results. The model did not require any adjustments (refinements) because the traffic assignment level of accuracy required by the FDOT was met. Results from the 2025 LRTP model were adjusted to obtain design hour traffic volumes using the calculated K30 and D30 factors.

Under the projected 2025 future conditions, a six-lane corridor is required to adequately accommodate the projected traffic. However, Causeway Boulevard between US 41 and US 301 is defined as a constrained facility due to physical and/or environmental issues. Therefore, the roadway is limited to a four-lane divided section.

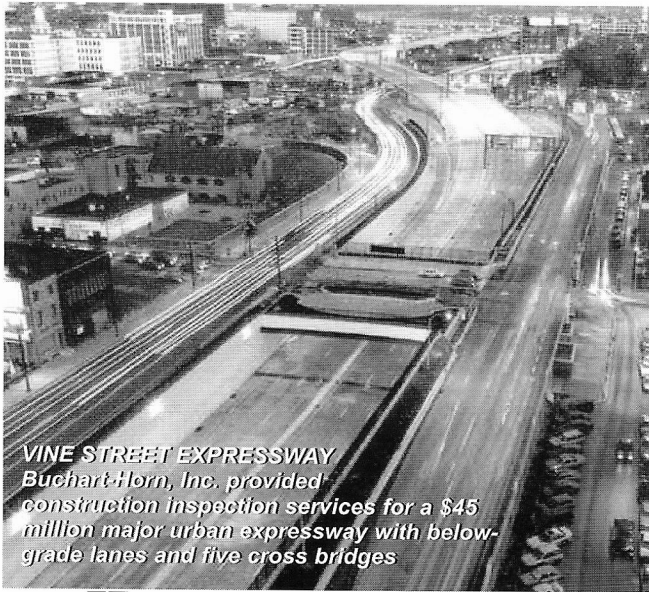
From the capacity analysis of the projected traffic volumes, necessary improvements such as additional through and auxiliary lanes along with their appropriate dimensions were determined for

the studied intersections. Most of the improvements proposed are made within the existing right-of-way in an effort to minimize the project cost and maximize traffic operation efficiency.

With the amount of future traffic anticipated for the intersection of Causeway Boulevard and US 41, the FDOT is planning for a grade-separation at this location. Using CORSIM, GCA analyzed seven alternatives for grade-separation. The alternatives were simulated and evaluated based on their estimated construction cost and operational efficiency. The operational criteria include delay caused by the heavy critical volumes and the railroad crossings both east and south of the subject intersection. The critical movements at the subject location are the northbound to westbound left-turns during the morning peak periods and the eastbound to southbound right-turns during the evening rush hours. The construction cost criteria is mainly based on the amount of right-of-way needed by each grade-separated model. The results of the grade-separated analysis will be used in developing a Bridge Feasibility Study that will be prepared by others.

For more information pertaining to this project, please contact Rob Fulp at (813) 831-8870 or [rfulp@graycalhoun.com](mailto:rfulp@graycalhoun.com). ■

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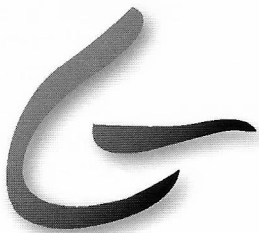
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##### **Position Description:**

- Assist project engineers in highway drainage design.
- Perform hydraulic and hydrology calculations.
- Assist in preparing permit applications.

##### **Minimum Requirements:**

- Education: BSCE
- Years Experience: 2 - 5 years
- License/Requirements: EI Required
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- Assist project engineers in highway drainage design.
- Perform hydraulic and hydrology calculations.
- Assist in preparing permit applications.

##### **Minimum Requirements:**

- Education: BSCE
- Years Experience: 4 - 8 years
- License/Requirements: Florida PE
- Highway drainage design experience required.
- Working knowledge of design criteria and regulations for Florida Department of Transportation and local regulatory agencies required.
- Permitting, storm water management analysis, and storm sewer modeling experience required.

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- License/Requirements: Florida PE
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- Working knowledge of design criteria and regulations for Florida Department of Transportation and local regulatory agencies required.
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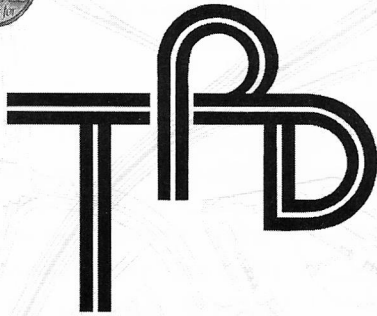
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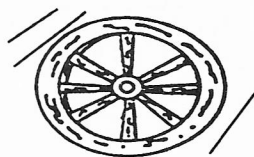
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## As the Wheel Turns



**Brehan E. McBride, P.E.**, has been named Young Engineer of the Year by the American Society of Civil Engineers (ASCE) Central Pennsylvania Section. ASCE is a professional association whose mission is to develop leadership, advance technology, advocate lifelong learning, and promote the civil engineering profession.

McBride was presented with this award in recognition of her academic and occupational achievements, professional and educational excellence, engineering and technical accomplishments, and citizenship. McBride is currently the ASCE Central Pennsylvania Section Younger Members Committee president and Webpage Committee chair. She headed the redesign of a more user-friendly Web site for the Section's members and the public.

McBride is a civil engineer with Gannett Fleming, an international planning, design, and construction management firm. She has been with the firm for five years, working on projects for the Pennsylvania Department of Transportation as a highway designer and project engineer.

McBride holds a bachelor of science in civil engineering from Bucknell University and is a registered professional engineer in Pennsylvania.

In addition to her ASCE involvement, McBride is a member of the American Society of Highway Engineers and the National Civil Engineering Honor Society Chi Epsilon. She has volunteered time at career fairs, science and math camps, and the Engineering Explorers program to teach students about the civil engineering profession.

The South Jersey Transportation Authority is proud to announce that **Kathleen C. Aufschneider, P.E.** has been named as one of the 2004 Women of Influence by NJBIZ. Kathi is a member of ASHE Southern New Jersey Section.

The 25 winners were selected based on factors such as professional accomplishments as a leader in a particular field, employment growth, challenges overcome, attainment of special goals, innovation and determination.

We attribute her win to many factors, including her dedication to the transportation profession, and to bringing first-class transportation choices to the residents of New Jersey. Her work to improve the Atlantic City International Airport and the Atlantic City Expressway has had a significant impact on the region's economy.

Kathi has served as Director of Engineering and Chief Engineer for the South Jersey Transportation Authority since 1997. As such, Ms. Aufschneider is responsible for planning, design, and construction of all capital improvements on the Atlantic City Expressway and at the Atlantic City International Airport. Her experience includes roadway, airfield, passenger terminal, parking, and building projects as well as intelligent transportation systems. Currently underway are construction of an aircraft taxiway, aircraft apron, terminal expansion, overhead pedestrian bridge, Express E-Zpass facility, 20-

mile roadway widening, traveler information system, a major new toll plaza, and two parking facilities.

Ms. Aufschneider is a Professional Engineer and Planner with 28 years of experience in transportation policy, planning and engineering. A veteran of the NJ Department of Transportation, Ms. Aufschneider holds a BS in Civil Engineering and an MS in Transportation Planning and Engineering from the Polytechnic Institute of New York and is a Certified Public Manager.



**Ronald C. Moore, Jr.** has been promoted to Associate Vice President for Pennoni Associates Inc., an Engineering News Record Top 150 consulting engineering firm headquartered in Philadelphia. Mr. Moore currently serves as the Office Principal for the Absecon, New Jersey office and as Pennoni's Regional Transportation Manager in the State of New Jersey. He also directs Pennoni's Intelligent Transportation System (ITS) Initiatives.

"It is with great pleasure that we recognize Ron for his excellent service and contributions to the firm," stated Nelson Shaffer, COO. "We are excited to have Ron representing Pennoni Associates as an Associate Vice President, and are looking forward to his future with the firm."

Mr. Moore has over 13 years of experience in traffic engineering, transportation engineering, ITS and construction. His areas of expertise include municipal traffic engineering, ITS, closed loop systems, traffic signal design, interchange and intersection design, corridor analysis, parking analysis, site development applications, traffic impact studies, and computer analysis. Mr. Moore is very familiar with DOT specifications and has provided training to DOT personnel on various traffic and ITS topics. He has also provided public testimony as a traffic expert throughout New Jersey and Pennsylvania.

With a Bachelor of Civil Engineering Degree from the University of Delaware, Mr. Moore began his employment with Pennoni's Philadelphia office in June 1991 as a Resident Engineer. He is a certified E.I.T. and is a member of the American Society of Civil Engineers, the Institute of Transportation Engineers and the American Society of Highway Engineers. Mr. Moore resides in Mullica Hill, New Jersey with his wife Paige and his children, six-year-old triplets.

SAI Consulting Engineers, Inc. is pleased to announce several management appointments in their Pittsburgh headquarters and the opening of a new branch office near Harrisburg, PA.

**Donald V. Gennuso, P.E.**, a former ASHE president, has been appointed Chief Executive Officer of SAI Consulting Engineers, Inc. Mr. Gennuso has 40 years in the transportation industry, including 26 years with SAI, and earned a Bachelor of Science in Civil Engineering from Carnegie Mellon University. Mr. Gennuso is also a Registered Land Surveyor.

*"Wheel" continued p. 21*



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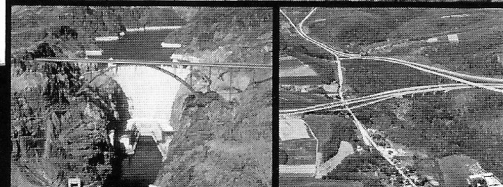
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"Wheel" continued from p. 19

**Victor E. Bertolina, P.E.**, was promoted to President of SAI Consulting Engineers, Inc. Mr. Bertolina has 32 years of experience in transportation, including 25 years at SAI, and earned a Bachelor of Science in Civil Engineering from the University of Pittsburgh.

**Robert T. Balkovec, P.E.**, a former ASHE president, was named as Vice President - Engineering. Mr. Balkovec has 35 years of experience in transportation, including 25 years at SAI, and earned a Bachelor of Science in Civil Engineering from Carnegie Mellon University.

**Glenn D. Stickel, P.E.**, was promoted to Vice President - Project Development and has also been named as a Principal in the firm. Mr. Stickel, who has over 24 years of experience in the transportation industry, including 22 years with SAI, served as a project manager since 1990. He received a Bachelor of Science in Civil Engineering from West Virginia University and a Master of Science in Civil Engineering from the University of Pittsburgh. Mr. Stickel is a member

of the ASHE Pittsburgh Section, where he is currently serving as Registration Committee Chair for the 2005 National Conference and the Association for Bridge Construction and Design.

**James J. Lombardi, P.E.**, will continue his role as Vice President - Construction. Mr. Lombardi has over 32 years of diversified experience relating to highway and construction engineering, including 23 years with SAI, and earned a Bachelor of Science in Civil Engineering from the University of Pittsburgh.

SAI's Harrisburg-area office, located in Lemoyne, PA, opened in July 2004 and is managed by **Thomas Brado, P.E.** Mr. Brado was a 35-year veteran of PennDOT District 12-0 until his retirement in April 2004.

The strength of this new management structure ensures the continuation of SAI's commitment to its clients to provide high-quality service and deliver projects on time and within budget. ■

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- Link your company to the ASHE website. E-mail your company name, logo, and url address to [jennifer@wannerassoc.com](mailto:jennifer@wannerassoc.com). Your company will appear for one year on the Consultants, Contractors and Suppliers page.

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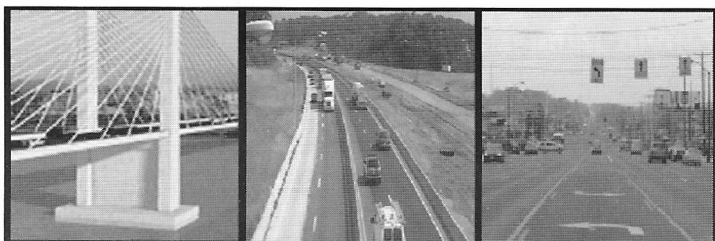
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- 17% are State D.O.T. Employees
- 64% are Engineering Consultants
- 9% are Contractors
- 10% are Related Professions
- 50% of the membership have a professional status

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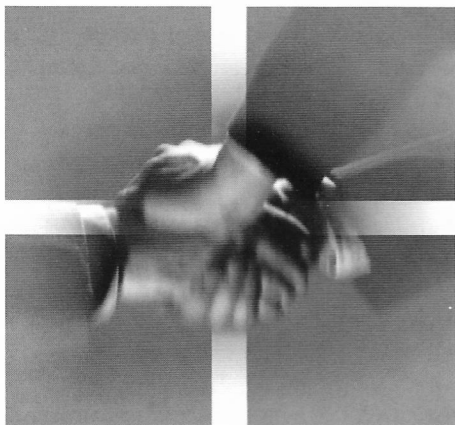
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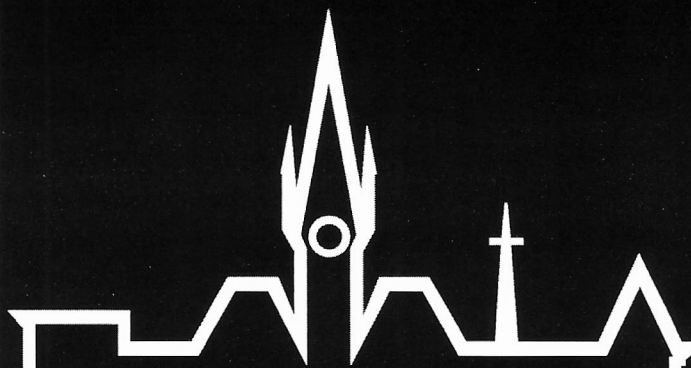
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## ASHE Logo Modified

The ASHE logo has been modified to provide a cleaner, updated image and to make it available in electronic formats for reproduction.

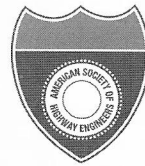
All Section Secretaries will receive a CD with the new logo in several formats. Formats include .bmp, .jpg and .tif. The logo has several configurations:

- ASHE shield
- ASHE shield with ASHE to the right side
- ASHE Shield with ASHE to the side and the Section name under the ASHE.

Also on the CD will be a suggested letterhead layout.

National officers urge Section secretaries to eliminate the old logo and begin using the updated versions.

If there are any questions or if you need another format, contact Sandy Ivory at (814)696-7430 - work, (814)674-8152 – home, or [sivory@keller.nb.net](mailto:sivory@keller.nb.net).



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