Chairperson's Greeting

Welcome to the 42nd Annual Engineering Excellence Awards, a celebration of the accomplishments of New Jersey's engineering profession and its contribution to our economy, health and safety, and quality of life. The purpose of this gathering is to honor the work of nearly thirty New Jersey consulting engineering firms and their clients, whose efforts have demonstrated superior skill and the highest degree of creativity.

Each year, a distinguished panel of judges selects the best engineering designs, plans and studies by New Jersey's engineering firms based on criteria such as innovation and originality, social and economic considerations, complexity, future value to the engineering profession, and success in meeting client needs. As with previous years, the projects being honored exhibit true excellence in our profession combined with a significant impact on the quality of life for all New Jerseyans.

Tonight, ACECNI will present its Grand Honor award to AmerCom Corporation for the U.S. Route 202 Over Passaic River Bridge Replacement project. The unique solution developed by AmerCom resulted in the complete replacement of this bridge connecting Somerset and Morris Counties in just seven days. If traditional construction techniques were used, it would have required over eight months for this replacement, resulting in severe traffic delays through the U.S. Route 202 corridor. Congratulations to the entire AmerCom team, to the New Jersey Department of Transportation, and to Joseph M. Sanzari, Inc. for this honor.

In addition to honoring the best engineering projects of the year, ACECNI presents several individual achievement awards. Congratulations to Ileana Ivanciu, recipient of this year's Member Recognition Award. This award is presented to a member who dedicates a unique level of passion and commitment to the American Council of Engineering Companies of New Jersey. As the Chair of ACECNI's Environment Committee, Ileana leads advocacy efforts on myriad environmental issues and serves as liaison between the consulting community and various regulatory agencies including the New Jersey Department of Environmental Protection. Ileana is
one of the true volunteer leaders of ACECNJ and the engineering profession. Her selfless commitment makes her a worthy recipient of this year’s Member Recognition Award.

ACECNJ’s Distinguished Service Award is presented each year to an individual who has made a significant contribution to our State and our profession. Jim Weinstein has had a distinguished career in public service, currently serving as Executive Director of NJ TRANSIT, the third largest transit agency in the nation and the largest statewide. Jim previously served as Commissioner of the New Jersey Department of Transportation and Chairman of the NJ TRANSIT Board of Directors. Jim is the epitome of grace under fire, whether addressing NJ TRANSIT’s mounting capital needs or restoring service in the aftermath of Superstorm Sandy. Jim’s dedicated service to the State of New Jersey makes him a clear choice for this year’s Distinguished Service Award.

Tonight we will also depart slightly from tradition and present a Special Recognition award to the New Jersey Department of Transportation for its service to New Jersey during and after Superstorm Sandy. Governor Christie singled out the NJDOT in his recent State of the State address, commending Department personnel for their dedication and determination. The best example of this may be the Department’s efforts to replace the Route 35 Bridge in Mantoloking. Within days of the storm a temporary road had been built to allow emergency vehicles onto the island; and today a permanent replacement is being constructed. As New Jerseyans, we are grateful for the selfless service and commitment of our fellow citizens at the NJDOT.

The firms and individuals we recognize tonight are a testament to the highest degree of professionalism, innovation, expertise and collaboration to solve the needs of the agencies and clients who serve the people of New Jersey and enhance their quality of life. I ask you to join me in celebrating their accomplishments and thanking them for their dedication to our profession and our State.
MENU

Hors d’oeuvres
Herbed Cheese with Walnut & Apricot Glaze
Smoked Salmon & Herbed Cream Cheese Canapés
Vegetable Egg Rolls, Plum Sauce
Pepper Jack Cheese & Tortilla Rolls
Jumbo Mushroom Caps with Crab & Artichoke
Spinach & Feta Cheese Pastry Triangles
Sesame Chicken, Coconut Peanut Dipping Sauce
Platter of Assorted Wisconsin and New York Domestic Cheeses, Flat Breads, Crackers & Fresh Fruit Garnish

First Course
Plum Tomato & Fresh Mozzarella served with Caramelized Onion Vinaigrette, Balsamic Vinaigrette Dressing

Entrée
Grilled Filet Mignon and Medallion of Salmon with Red Wine Butter Sauce
Chef’s Selection of Fresh Seasonal Vegetables and Potato Rolls and Butter
Vegetarian Option: Penne Pasta with Grilled Vegetables

Canyon Road Chardonnay
Canyon Road Merlot

Dessert
Apple Strudel with Raspberry & Vanilla Sauces
Fresh Roasted 100% Columbian Coffee, Decaffeinated Coffee & Tea

ACECNJ Executive Committee

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Lissette Miquel, PE
HAKS

Chairman-Elect
Sanjay Naik, PE
Naik Consulting

Vice-Chairman
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Boswell Engineering

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Thomas E. Howell, PE
Taylor, Wiseman & Taylor

Alternate National Director
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(including predecessor organizations)

New Jersey Association of Consulting Engineers
1958-59 Harry Terry 1963-64 David M. Greer
1959-61 John G. Reutter 1964-65 Lee T. Purcell, Sr.
1962-63 Frank W. Bohren

Consulting Engineers of New Jersey, Inc.
1958-59 Joe Rosenthal 1965-66 Bernard Steinke
1959-60 William C. Baumann 1966-67 Joe Layer
1960-61 David Wiseman 1967-68 Herbert Fox
1961-62 Clyde Fiske 1968-68 Harold Hamilton
1962-64 Abe Walton 1968-70 Louis Goldberg
1964-65 Harvey Winter

New Jersey Consulting Engineers Council
1966-67 Peter Homack 1968-69 Joseph S. Ward
1967-68 Gerald E. Speitel 1969-70 J. David Welch

Consulting Engineers Council of New Jersey
1970-71 William H. Bruce, Jr. 1987-88 Gordon L. Kirjasoff
1975-76 Robert C. Moore 1990-91 John P. Talarico
1979-80 James A. Stronsider 1994-95 Ronald A. Wiss
1982-83 Ralph F. Visco 1997-98 Dominic B. Carrino
1984-85 Clifford W. Johnson 1999-00 Donald Goldberg
1985-86 Minard H. Whitnall 2000-01 C. Douglas Cherry
1986-87 Paul B. Ostergaard 2001-02 Kevin Page
2002-03 Glenn Gerken

American Council of Engineering Companies of New Jersey
2003-04 Philip A. Falcone 2006-07 Thomas Howell

ACECNJ - Our Past, Present and Future

The American Council of Engineering Companies of New Jersey (ACECNJ) was established in 1958 as the New Jersey Association of Consulting Engineers with a mission to ensure that ethical professional standards worthy of independent Consulting Engineers and Land Surveyors are maintained; to advance the value of the Consulting Engineers and Land Surveyors to the public; and to educate the public regarding the work of these professions; to promote harmony, cooperation, and mutual understanding among Consulting Engineers and Land Surveyors; and to promote the professional and economic welfare of its members.

While ACECNJ's name has changed over time, its mission has not. That mission continues today, and ACECNJ continues to aggressively advocate for over 100 member firms that employ over 5,500 engineers, surveyors, architects, planners, scientists and support personnel throughout our State.

Member firms are truly representative of New Jersey's broader employer base, with sole proprietorships, large corporations, and every manner of firm between. Some firms have specialized practice areas, some offer a broad range of services. Some are New Jersey-based single location firms, others have offices around the globe. The one thing they all share is a commitment to advancing the engineering profession.

The American Council of Engineering Companies (ACEC) is the voice of America's engineering industry. Council members — numbering more than 5,000 firms representing more than 500,000 employees throughout the country — are engaged in a wide range of engineering works that propel the nation's economy, and enhance and safeguard America's quality of life. These works allow Americans to drink clean water, enjoy a healthy life, take advantage of new technologies, and travel safely and efficiently. The Council's mission is to contribute to America's prosperity and welfare by advancing the business interests of member firms.

ACEC's roots date back to 1909 when a small group of engineers in private practice established the American Institute of Consulting Engineers (AICE), the forerunner of ACEC. Today ACEC is a large federation of 51 state and regional councils representing the great breadth of America's engineering industry. ACEC member firms employ hundreds of thousands of engineers, architects, land surveyors, scientists, and other specialists, responsible for more than $200 billion of private and public works annually. Member firms range in size from a single registered professional engineer to corporations employing thousands of professionals.
Member Recognition Award
Ileana S. Ivanciu, PhD, PG

Ileana Ivanciu is a Vice President at Dewberry where she manages the environmental practice. For the last two decades, she has supported public and private clients with the design and implementation of environmental studies conducted as part of real property acquisition, development site selection, brownfields redevelopment, and transportation projects development and construction. She has been instrumental in moving to completion many critical infrastructure projects in New Jersey that faced complex environmental issues.

Dr. Ivanciu is an expert with federal, state, and local environmental regulations and guidance and proactively works with the consulting, client, and regulatory communities to shape regulations to the benefit of all parties. Her professional involvement includes the Transportation Research Board (TRB) where she has been a key member of several committees and is currently a leader on the Environmental Analysis Committee. For ACEC of New Jersey, she chairs the Environment Committee where she supports policy development and serves as a liaison between the consulting community and the New Jersey Department of Environmental Protection, among other agencies.

She holds doctorate, master’s, and bachelor’s degrees in Geology and is a registered Professional Geologist.

Distinguished Service Award
James Weinstein

James Weinstein is the Executive Director of NJ TRANSIT, the third largest transit agency in the nation and the largest statewide. Mr. Weinstein is responsible for the agency’s bus, light rail, and commuter rail network, which carried more than 270 million passenger trips in Fiscal Year 2009. Mr. Weinstein oversees the agency’s 10,500-plus employees, and capital and operating budgets totaling more than $3 billion annually.

Prior to being appointed Executive Director, Mr. Weinstein served as senior vice president of AECOM, a global transportation consulting and engineering firm, since 2002. In that capacity, he was responsible for the firm’s highway and bridge projects throughout the United States. Before joining the firm, he was senior vice president of Amtrak’s Northeast Corridor, the busiest passenger rail line in the nation.

Mr. Weinstein previously served as New Jersey Commissioner of Transportation and Chairman of the NJ TRANSIT Board of Directors from 1998 to 2002. During his tenure, NJ TRANSIT advanced work on system expansion projects including the Hudson-Bergen Light Rail, River Line, and the Newark Light Rail extension to Broad Street Station, as well as new stations such as Frank R. Lautenberg Station at Secaucus Junction, Union Station and Montclair State University Station at Little Falls. The agency also introduced new modern light rail vehicles on the Newark Light Rail system, completed the restoration of historic Hoboken Terminal's main waiting room and advanced the Montclair Connection, which enabled Midtown Direct service to begin on the Montclair-Boonton Line.

Mr. Weinstein formerly served as a Vice Chairman and member of the Board of Directors of the American Road and Transportation Builders Association, as well as on the advisory board of Rutgers University’s Voorhees Transportation Center, and boards of the Port Authority of New York and New Jersey, the Delaware River Port Authority and New Jersey’s toll agencies.

A lifelong resident of New Jersey, Mr. Weinstein holds a Bachelor of Arts degree in Philosophy from Seton Hall University and resides in Moorestown with his wife.
Previous Recipients of The Member Recognition Award:
1990 Frederick K. Mosher • 1991 Cliff ord W. Johnson, P.E.
1992 Frank H. Lehr, P.E. • 1993 Donald Goldberg, P.E.
2002 C. Douglass Cherry, P.E., P.L.S., P.P. • 2003 James D. Kelly, Esq., P.E.
2004 John E. Cassetta • 2005 Lissette Miquel, P.E. • 2006 Samir Mody, P.E.
2007 Patrice Malleus, P.E. • 2008 Thomas Howell, P.E.
2009 Bernard P. McNelis, PE • 2010 Sanjay Naik, P.E.

Previous Recipients of The Distinguished Service Award:
1985 William Simon • 1993 Hon. Nicholas R. Felice
1994 Hon. Garabed “Chuck” Haytian • 1995 Kenneth A. Afferon, P.E.
1996 Henry M. Rowan • 1997 Hon. Donald T. DiFrancesco
1997 Hon. Paul DiGaetano • 1998 Hon. Alex DeCroce
1999 Hon. J. William Van Dyke • 2000 Hon. John G. Kuna
2003 George R. Zoffinger • 2004 Colonel John B. O'Dowd
2005 Assemblyman John S. Wisniewski
2006 Richard Racynski • 2007 Christopher Christie, Esq.
2008 Anthony R. Coscia • 2009 George D. Warrington • 2010 Irene Krupp
2011 Richard T. Hammer

Previous Recipients of The Educator-of-The-Year Award
1995 Dr. Saul K. Fenster • 1996 Harold J. Raveche • 1997 David P. Billington
1998 Dr. William R. Spillers, P.E. • 1999 Professor Harold Deutschman
2000 Dr. John Grieco • 2001 Professor Robert Dresnack, P.E.
2002 Leslie Rose Brunell, Ph.D., P.E. • 2003 Henery P. Dobbelaar, Jr., P.E., P.P.
2005 Dr. Hanlie Nassif • 2007 Dr. Nabil Al-Omishi, P.E., M.A. SCE
2008 Bryan J. Pfister, Ph.D. • 2009 David A. Vaccari, Ph.D., P.E., DEE

Previous Recipients of The Journalist-of-The-Year Award:
2000 Jeffrey Page, The Record • 2001 Joe Adelizzi, Asbury Park Press
2004 Charles Pinyan, Media Recognition Award • 2005 Debra Rubin, ENR

ACECNJ Scholarship Sponsors

Each year, ACECNJ awards scholarships to undergraduate and graduate engineering students in New Jersey to promote the consulting engineering profession. With the generous support of consulting engineers, this fund fulfills ACECNJ's goal of nurturing future engineers. A sincere thank you to the following firms for their support of this year's scholarship program:

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We apologize for any omissions due to printing deadline.
ACECNJ Scholarship Winners

ACECNJ awards scholarships to students intending to become consulting engineers. Eligible applicants must be enrolled at one of New Jersey’s engineering schools: Princeton University, The College of New Jersey, Rutgers, The State University of New Jersey, Rowan University, Stevens Institute of Technology or New Jersey Institute of Technology. The applicant’s degree would have to be taken in one of the following fields of engineering/surveying which make up the primary practices of ACECNJ member firms: Mechanical Engineering; Electrical Engineering; Structural Engineering; Civil Engineering; Environmental Engineering; Chemical Engineering; Engineering Technology; or, Surveying.

ACECNJ is pleased to present the 2013 Scholarship recipients:

Mariya Goldman
Hoboken, NJ
Stevens Institute of Technology

Julia A. Baaklini
Wayne, NJ
The College of New Jersey

Andrea McFarland
Mullica Hill, NJ
Rowan University

Ronald A. Wiss Memorial Scholarship
Presentation: Isobel Wiss, Jacobs Engineering Group, Inc.
2013 Recipient: Ashraf Z. Ghareyeb
New Jersey Institute of Technology

Ron’s engineering career began when he joined Edwards and Kelcey, Inc. after graduating from the former Newark College of Engineering (now New Jersey Institute of Technology) in 1966. He joined the firm as a staff engineer and rose to become its CEO and Chairman. The engineering firm, which served transportation and telecommunications clients around the world, was acquired by Jacobs Engineering Group Inc. in 2007.

For three decades, Ron was deeply dedicated to advancing New Jersey’s most innovative transit and transportation projects. Among his many visible accomplishments are the NJ TRANSIT’s Newark-Elizabeth Rail Link, the Bergen County Transit Plan and NJ TRANSIT’s Frank R. Lautenberg Rail Station at Secaucus Junction.

Ron was an enthusiastic supporter of many organizations and professional associations. He served as president of the Consulting Engineers Council of N.J. from 1994 to 1995, receiving its prestigious Member Recognition Award in 1996. Ron had also served as chairman of the Meadowlands Chamber of Commerce and as director of the N.J. State Chamber of Commerce and was a member of the Advisory Committee of the Department of Civil and Environmental Engineering, New Jersey Institute of Technology. In 1996, he was named “Civil Engineer of the Year” by N.J. American Society of Civil Engineers (ASCE).

Ron Wiss was a visionary with a pioneering spirit, a consummate professional and business leader. In his personal life, he was a devoted husband to Isobel, his wife of 34 years, and a loving father to their two daughters, Audrey and Jeanine. His energy, enthusiasm, and deep commitment to fostering future generations of engineers will continue through the scholarship fund established in his name.
Bernard Langan Scholarship for Engineering Excellence
Presentation: George Kelley, Langan Engineering
2013 Recipient: Tyler J. Golz
New Jersey Institute of Technology

Bernie started his career in 1965 when he joined the firm of Woodward Clyde Associates as a Geotechnical Engineer. He previously had completed his academic education at the University of Detroit and Purdue University where he received BSCE and MSCE degrees specializing in Geotechnical Engineering.

While with Woodward Clyde, he worked on projects throughout the United States and became an Associate in the firm in the Clifton office. In 1969 he left Woodward Clyde to form Langan Engineering Associates, Inc. Under his leadership, the Langan firm grew from a small Geotechnical group of several people to the present day multi-discipline firm with over 450 people in 7 offices located in the eastern United States. In December 2004, he retired from the firm with plans to start a geotechnical specialty company.

Throughout his career, Bernie has mentored many young engineers and has consistently emphasized the value of a good technical education. His philosophy is that all engineering work produced by the firm must exhibit a high degree of technical excellence in combination with the type of practical experience that can only be gained by getting your hands and boots dirty and being involved in the construction process.

This scholarship has been created as a tribute to Bernie and to assist young people toward obtaining the foundation of their career - a strong technical education.

C. Douglas Cherry Scholarship
Presentation: Doug Cherry
2013 Recipient: Alina A. Duran
Stevens Institute of Technology

Cherry Weber & Associates has established a scholarship in the name of C. Douglas Cherry. This scholarship is awarded to a student in the field of engineering and someone who exemplifies Doug's commitment to community, profession and society.

To use Doug's own words, the recipient of the C. Douglas Cherry Scholarship should "be involved in his or her own community, be active in all facets of ones life, give back to ones college, community and profession. It's all about giving back."

Doug has endowed the Engineering Program at Lafayette College and for the last six years has sponsored a member of the Lafayette College football team. Lafayette College has honored Doug with the dedication of the C. Douglas Cherry room in the Pfeiffer Alumni Center. In addition, the college recently completed the 16th annual Doug Cherry Wrestling Tournament, named in his honor.

His professional and academic career has been supplemented for the last 15-years by a directorship on the Board of a prominent bank. He is also a director of the Phillipsburg Urban Enterprise Zone Committee and has served as chairman of the Phillipsburg Planning Board.

The recipient of the C. Douglas Cherry Scholarship should exemplify Doug's commitment to community, college, profession and society and be committed to "giving back."
2013 Engineering Excellence
Awards Committee

Nickitas Alexiades, PE, PP
URS Corporation

C. Douglas Cherry, PE, PLS, PP, FACEC
Cherry, Weber & Associates, P.C.

George Kelley, PE
Langan Engineering & Environmental Services, Inc.

Patrice Malleus, PE, MBA
Parsons Brinckerhoff

Lissette Miquel, PE
HAKS

Sanjay Naik, PE
Naik Consulting Group, PC

Russell Shallieu, Chairman
Hatch Mott MacDonald

2013 Engineering Excellence
Awards Judges

Robert V. Kiser, PE
Princeton Township Engineer

Honorable John F. Lettiere
Jack Lettiere Consulting, LLC

Chuck Pinyan
Engineering New Record

Honorable Vince Polistina
Polistina & Associates

Frank Renda, PE
FD Renda Engineering & Construction, Inc.

Dr. Steven Schreiner, Ph.D, PE
Dean, School of Engineering
The College of New Jersey
42nd Annual EEA Award Winners

The 2013 program honors the works of nearly 30 New Jersey consulting engineering firms, whose efforts demonstrate both superior skill and the highest degree of creativity. They exhibit true excellence in our profession and each of the projects being honored has had a significant impact on the quality of life for all New Jerseyans.

This Year's Award Winners:

GRAND HONOR AWARD
AmerCom Corporation
U.S. Route 202 over Passaic River Bridge Replacement

HONOR AWARD
Paulus, Sokoloski and Sartor
Saw Mill River Daylighting at Larkin Plaza

Michael Baker Jr., Inc.
Route 52 Causeway Replacement Project

Urban Engineers
Route 73/70 Marlton Circle Elimination

Langan
Franklin D. Roosevelt Four Freedoms Park

The RBA Group, Inc.
NJDOT Complete Streets Initiative

T.Y. Lin International Group
Advancing Highway Technology: Variable Message Signs (VMS)

Langan
Duke Farms

DISTINGUISHED AWARD
(Listed Alphabetically)

Arora and Associates, P.C.
NJ Route 73 Improvements - Maple Shade

Boswell Engineering
Court Street Bridge Reconstruction

Distinct Engineering Solutions, Inc.
Muck Handling System Noise Reduction

Gannett Fleming, Inc.
Amtrak Security Improvements

Hatch Mott MacDonald
Two Bridges Sewerage Authority UV Disinfection Facility

Hatch Mott MacDonald
Reconstruction of Paterson Hamburg Turnpike Bridge #032

KS Engineers
SEPTA-Positive Train Control Base Mapping

KS Engineers
The Parking Spot Off-Airport Northeast Region

Parsons Brinckerhoff
Interchange Reconstruction of Route 49 and 55

Pennoni Associates Inc.
Rehabilitation of the Columbian Building

Pennoni Associates Inc.
Mt. Clement Well & Water Booster Station Upgrade

Richard A. Alaimo Associates
Maple Avenue Wastewater Treatment Plant

Stantec
Route 206 over CSX Bridge Replacement

STV
Delaware Water Gap Bridge Rehabilitation

STV
DRJTBC System-Wide Scour Remediation Project

The Louis Berger Group, Inc.
NJTPA Interchange 6-9 Widening Program, Wetlands Mitigation

The Louis Berger Group, Inc.
Route 33 Bridge Over Rocky Brook, Emergency Repairs After Hurricane Sandy

The RBA Group, Inc.
Pacatinny Arsenal Facilities Reduction Program
AmerCom Corporation
Project: U.S. Route 202 Over Passaic River Bridge Replacement
Client: New Jersey Department of Transportation

AmerCom Corporation developed a unique design to replace this 73-foot long by 36-foot wide thru-girder bridge built in 1924 in its entirety, including demo of the existing bridge, construction of a new superstructure and substructure in less than 7 days. If traditional construction techniques were used, it would have required over 8 months for this replacement resulting in severe traffic delays through this critical corridor. To complicate matters, extensive environmental constraints surrounded the bridge including a historic district. The design allowed all work to be completed within the confines of the existing 36'-wide roadway with minimal environmental impacts while meeting historic district requirements. The techniques developed utilized precast components and construction techniques specifically designed by AmerCom for this project that would allow the bridge to be assembled similar to a Lego set. This also opened the project up to a wider range of contractors and manufacturers since all components were designed and included in the plans without the use of proprietary components resulting in a more competitive bid. Continuous construction commenced on Saturday, August 18th, 2012 and the bridge was successfully opened to traffic the following Saturday, August 25th. Aside from the design aspects, the one essential item that allowed this project to come together was a true partnership forged between designer, client and contractor. The client NJDOT, the contractor, Joseph M. Sanzari, Inc. and AmerCom made all decisions with their eyes on the goal working together to make this a successful project.

Paulus, Sokolowski and Sartor (PS&S)
Project: Saw Mill River Daylighting at Larkin Plaza
Client: City of Yonkers

In the mid-1920's, industrialization led to extensive pollution of the Saw Mill River within downtown Yonkers, New York. This prompted the Army Corps of Engineers, to build a massive flume to carry the River beneath Larkin Plaza in the center of the City. Eighty years later, as part of the City's overall revitalization program, the idea that the river could again become an asset became a reality. The City decided to restore this geographical resource by "daylighting" the river. That is, returning the river to its natural, open-air state, and making it the centerpiece of a public park.

PS&S, serving as the design engineer, faced many complex challenges including: A wide range of river flows from low to flood hazard level; Hudson River tidal influence; Riverine wildlife migration and habitat requirements; Degraded water quality; Potential release of environmental contaminants; Protect and preserve landmarks and utility infrastructure; Sustain vehicular and pedestrian patterns; Public access safety; Incorporate sound sustainable design practices.

PS&S' design created a beautiful urban park and public amenity, while improving water quality and controlling river flows and tidal influence with a complex, hydrological system. Public safety issues were satisfied and surrounding historic and community resources were preserved. Effective construction waste management was a prime contribution to the projects' sustainability goals.

The project transformed a hidden and near-forgotten natural resource into a valuable community asset with environmental, aesthetic and economic benefits. Larkin Plaza, formerly utilized primarily for parking space, has the potential for catalyzing social and economic growth for the City of Yonkers.
The Route 52 Causeway Replacement is approximately three miles long from Route 9 in Somers Point to West Avenue in Ocean City, New Jersey. The existing causeway was a four-lane, undivided highway with four structures that spanned over four channels and low-level embankments on three barrier islands. This multifaceted improvement project involved realignment and replacement of the existing causeway, replacement of moveable spans over navigable channels with high-level fixed bridges, roadway widening and drainage improvements, elimination of the Somers Point Circle and replacement with a signalized intersection, and the construction of a new Visitors Center. The project was constructed in two contracts and sequenced through several stages to minimize impact on the traveling public and to meet the goal of replacing the two deteriorated interior bridges as part of the first contract. Contract A ($145M) comprised the central one-mile portion of the roadway and bridges. Contract B ($255M) included the northern and southern portions of the project. The project involved innovative design elements such as pile supported embankments, link slab details, inverted T pier caps, and alternative design procurement. The site had varying and complex geotechnical subsurface conditions. The project limits almost entirely spanned over environmentally regulated areas, which are vital to endangered species. The project included complex scour modeling, intricate marine construction in accordance with multiple environmental seasonal restrictions, extensive coordination with NJDEP, SHPO, US Coast Guard, and US Army Corps, and an extensive Public Outreach Program. The project was executed on an aggressively accelerated design and construction schedule.

Positioned at the intersection of Routes 70 and 73, two critically important arterials in southern New Jersey, the Marlton Circle served as the foremost example of traffic circles remaining in place well beyond their usefulness. Burdened with one of the state’s highest accident rates and the need to process over 85,000 cars daily, the Circle became a symbol of driver frustration that increased as traffic volumes grew due to expansive regional growth.

The New Jersey Department of Transportation (NJDOT) expended a substantial effort trying to find a balanced solution that would gain community support. Determined to move forward and address a growing problem, NJDOT selected Urban Engineers (Urban) to manage a positive public outreach process, develop appropriate alternatives that met community needs, and advance a fiscally responsible project into construction that successfully reduced accidents and limited congestion.

NJDOT and Urban worked in partnership with the community throughout the project delivery process, from developing the preferred alternative through completing construction. As stated by NJDOT Commissioner James Simpson in his June 24, 2011 press release, “The foundation for the success of this project was built upon a true spirit of collaboration with local stakeholders that started years before shovels hit the ground.” Through the collective efforts of those involved, the delivery of this complex project finished on schedule, satisfied NJDOT goals and objectives, and provided a sustainable outcome that will benefit the traveling public and surrounding community.
Franklin D. Roosevelt, one of America's great presidents, wrote the Four Freedoms in 1941. Louis Kahn, one of America's great architects, memorialized his words in his vision of the Park in 1973. It fell to Langan in 2012 to design the technical solutions required to allow this monument to rise in New York's East River.

The 4-acre Park consists entirely of land created by filling of tidal waters. Langan designed surcharges to compress the soft organic layers and high capacity mini-pile caissons to support the massive columns of Kahn's “Room” which descends below the low tide. Kahn's broad rip-rap shorelines and seawalls were designed to handle hurricane-force storms and significant seismic events, but still maintained robust and aesthetically finished slopes. Even after hurricane Sandy, the park suffered no damage.

To support the Kahn program of transplanted trees and lawn, Langan designed a creative network for irrigation, under-drainage and aeration. Surface drainage was achieved entirely by open-textured pavements and concealed seawall ports. Langan employed advances in concrete technology to support the aesthetic program and self-consolidating concrete was specified for architectural-finished seawalls. Concrete for the broad entry steps was over-compensated for thermal induced stresses by shrinkage-reducing admixtures, so as to avoid expansion-contraction joints. A significant challenge was posed by Kahn's embankments of precise but sloping granite slabs. Rejecting conventional solutions, Langan designed an engineered soil base which met the required tolerances and yielded significant cost savings.

The Four Freedoms Park is truly an example of modern engineering and creates a lasting monument to freedom for future generations.
ACEC New Jersey

Honor Award

T.Y. Lin International Group
Project: Advancing Highway Technology: Variable Message Signs
Client: New Jersey Turnpike Authority

T.Y. Lin International (TYLI) worked closely with the New Jersey Turnpike Authority (the Authority) to coordinate this pilot project that included site specific design for the replacement of existing Emergency Speed Warning/Speed Limit (ESW/SL) signs with new innovative Variable Message Sign (VMS) at thirteen locations on the New Jersey Turnpike and Garden State Parkway. TYLI and the Authority worked hand in hand to infuse as much innovation into this project as possible to install the most cutting edge equipment and write the standards required to successfully complete a project of this importance including finalizing the ITS standard drawings and preparing supplemental specifications for the ITS work included in the contract.

These VMS locations were designed to serve as complete ITS nodes to allow for display of messages on any sign from a central location including full matrix VMS, Variable Speed Limit Sign (VSL), traffic detection system/pavement sensors, CCTV camera and radio antenna for wireless communication (WIMAX) system with NJTA's centralized control station. The installation of these advanced VMS required a high level of coordination and complexity due to the unique site conditions at each location. Frequent communication and coordination between TYLI, the Authority, and all supporting consultants was the key to completing this project on time and within budget. Since the installation of this first contract, the response has been extremely positive from the public and the agency and the NJTA is advancing installing VMS on the entire length of the Turnpike and Parkway.

ACEC New Jersey

Honor Award

Langan
Project: Duke Farms
Client: Duke Farms/ VITETTA Architects and Engineers

James B. Duke created many world-class things in his lifetime including the American Tobacco Company, Duke University, and Duke Farms, a sprawling estate with pristine ponds and exotic plantings, located in Hillsborough, NJ. But it was his daughter, Doris Duke, who set the vision for this property to serve as a model of environmental stewardship. Langan and the design team were tasked with taking her vision into reality on 2,800 acres surrounded by one of the most densely developed regions of the US.

The goal was not only to create a model of environmental stewardship but to make these concepts visible to the public as examples of sustainable technologies. Langan was charged with the design of infrastructure, land restoration and regeneration, vehicular and people movement systems, as well as the regulatory compliance and permitting of these improvements. Some of the important project elements include a geothermal heating and cooling system, a biological wastewater treatment system, a biological stormwater management system, a 640 KW ground-mounted solar array, an electric vehicle transportation system, and a 420-pot community garden.

Duke Farms has achieved a vision and will serve as a model of environmental stewardship for decades to come. The project achieved the LEED Gold and Platinum ratings by the US Green Building Council for two separate portions of the property. Duke Farms is now open to the public and free of charge. Guided trips and educational sessions are conducted so that industry and stakeholder groups can learn from the sustainable features.
Distinguished Award

Arora and Associates, P.C.
Project: NJ Route 73 Improvements - Maple Shade
Client: New Jersey Department of Transportation

New Jersey DOT improved safety and operations, and alleviated traffic congestion along a 1.37-
mile section of NJ Route 73 in Maple Shade Township, Burlington County, NJ. The improvements
to Route 73 included the following:

- Traffic flow was improved by widening the roadway, eliminating a center, grass median
  and providing new auxiliary lanes in both directions from Route 41 to County Route 537 (East Main
  Street).
- Accesses to several businesses were improved by the additional auxiliary lanes and driveways
  were improved throughout the project.
- Capacity was added to the Route 73 / Fox Meadow Drive / Fellowship Road signalized
  intersection by adding auxiliary lanes on Route 73 and adding turn lanes on Fox Meadow Drive
  and Fellowship Road.
- Safety and operations at the busy Route 73 and County Route 537 (CR 537) interchange were
  improved by two new traffic signals installed at the CR 537 ramps.
- County Avenue and Cedar Avenue intersections were removed to improve safety.
- The substandard weave at the Route 41 off ramp was removed by eliminating the direct
  connection from Fellowship Road to Route 73 Southbound.
- Traffic signage was improved by the addition of new “GO” signs on a new overhead sign structure
  and two new cantilever sign structures.
- Safety was improved by replacing the deteriorated superstructure of the CR 537 Bridge over Route 73.

Construction was accelerated to address concerns from Maple Shade business owners regarding
the required detour route during the superstructure replacement. The construction of this complex
project was completed on-time and under budget.

Environmental impacts were mitigated by reducing encroachments, compensating for unavoidable
encroachments by replanting in the riparian zone, and providing six manufactured treatment
devices to treat stormwater.

Twenty million dollars were saved while still meeting the project goals by adopting identified
Value Engineering solutions during design.

Distinguished Award

Boswell Engineering
Project: Court Street Bridge Reconstruction
Client: County of Bergen, New Jersey

The Dillard Memorial Bridge, commonly known as the Court Street Bridge, was
originally constructed in 1908. The 317-foot bridge spanning the Hackensack River
between the City of Hackensack and the Borough of Bogota was constructed as a
center bearing Warren through-truss swing span with two steel deck girders approach
spans on a concrete substructure. This swing bridge over this federally designated
navigable waterway is the most upstream bridge required by federal regulations to open
upon request. Due to the historic nature of the structure, the design of replacement
bridge was required to include identical configured trusses while incorporating re-

This replacement structure has fully modernized mechanical and electrical systems
for the swing span, wider traffic lanes to meet today’s standards, and the capacity to
carry 40-ton vehicles. The new bridge preserves many of the historic characters of the
original bridge by: re-using the original barrier gates; incorporating approximately
one third of the original truss members in the new construction; painting of the new
galvanized steel deck “flint gray” – the color when the bridge first opened in 1908.

Since this was a American Recovery and Reinvestment Act (ARRA) funded project
(ARRA funding $17.2 Million) it was administered by the NJDOT Bureau of Local
Aid which mandated that the Construction Engineering and Inspection services be
in conformance with FHWA guidelines and in compliance with the Bureau’s special
provisions for projects funded by the federal government under this program.
Distinguished Award

Distinct Engineering Solutions, Inc.
Project: Muck Handling System Noise Reduction
Client: Metropolitan Transportation Authority Capital Construction

The Metropolitan Transportation Authority incorporated New York City Noise Control Code requirements into construction contracts for the Second Avenue Subway Project. The successful bidder of the 72nd Street Station Cavern Mining contract, Schiavone Shea and Kiewit Joint Venture (SSK JV), retained Distinct Engineering Solutions, Inc. (DESI) to assure compliance.

SSK JV decided to erect a muck handling system to lift material from the caverns generated by rock excavation, loading the muck into specially fabricated bins of approximately 25 tons in capacity, lifting them to street level through the existing vertical shaft by use of a gantry crane, and storing the bins (12 to 16) in a rack system approximately 14' above street level. Muck from the bins would then be transferred into truck bodies parked underneath the rack system.

DESI recommended using an enclosure around the muck handling system to attenuate noise generated from blasting and muck handling. Since no data existed on the noise generated from such an operation, DESI performed studies to predict noise levels generated from muck transfer and evaluate the effectiveness of materials for construction of the enclosure. DESI also performed simulation modeling to predict noise attenuation and verification of the effectiveness of the Muck House subsequently erected in the field.

The enclosure not only mitigated noise and ensured compliance with NYC noise requirements, but SSK JV was able to work a third (overnight) shift saving considerable time and money in execution of the contract.

Gannett Fleming, Inc.
Project: Amtrak Security Improvements
Client: Amtrak

Gannett Fleming, as a subconsultant to G4S Technology, LLC, provided engineering services and construction management oversight for security services and equipment installation at 11 Amtrak locations in the Mid-Atlantic that collectively serve millions of people each year.

Work included the installation of 600 security cameras, electronic entry control, and physical access control elements such as bollards, fencing, and gating. The new camera surveillance systems use conventional, infrared, and thermal imaging technologies to monitor the safety and security of passengers, employees, equipment, and materials. Cameras are posted at platforms, crosswalks, and ticket vending machines, with live feeds sent directly to station managers, Amtrak police, or approved personnel. Certain cameras are equipped with high-tech analytic technologies so sophisticated they can zero in on an unattended briefcase and alert operators of suspicious activity.

These improvements were a result of Amtrak's desire to improve security, combat terrorism, and secure infrastructure. Funding for the work was available through the American Recovery and Reinvestment Act (ARRA). To ensure the work was completed within the schedule imposed by U.S. Congress as part of ARRA requirements, the team, which included more than 100 Gannett Fleming employees, used a design-build project delivery approach and completed the security installation within 11 months. Now, Amtrak is better equipped to monitor key rail infrastructure locations; riders are safer; and the project is a showcase example of how a large-scale security installation can be completed under a compressed schedule using a design-build approach.
In order to take advantage of funding available from the American Recovery and Reinvestment Act (ARRA), the Pequannock, Lincoln Park and Fairfield Sewerage Authority (Two Bridges) fast-tracked the design and permitting for the addition of Ultraviolet (UV) Disinfection facilities to its wastewater treatment plant. In a period of less than nine months, a conceptual plan was turned into a set of construction documents and all regulatory approvals were obtained to secure funding and solicit public bids. The Authority qualified for $3.34 Million in principal forgiveness from ARRA.

Previous studies had determined that UV disinfection in place of the existing chlorination/dechlorination disinfection system was the Authority’s best solution to a future NJPDES limitation for Chlorine Producing Oxidants (CPO), particularly for dichlorobromomethane (DCBM). The project includes UV equipment and associated effluent pumping for a peak flow of 25 million gallons per day (mgd). The UV equipment is a two-channel system with low pressure, self-cleaning amalgam lamps housed within a new pile-supported masonry building. Vertical turbine pumps, which will only be required during time periods (when the receiving stream, Pompton River, is above flood stage), were installed within the existing post-aeration tanks.

The project reduced maintenance to 1 day/month, reduced operational costs and eliminated chemicals. The new UV system was started up in June 2011 and was quickly proven to be consistently reliable over a wide range of flows when Hurricane Irene and Tropical Storm Lee produced significant flood stage flows in August and September 2011. With the new facilities, plant staff were able to successfully maintain operations during peak flows and restore normal operations quickly after the storms passed.

The Paterson-Hamburg Tumipke Bridge over the Pequannock River had significant operational and capacity deficiencies that urgently needed to be addressed. The existing through girder and floorbeam bridge was functionally obsolete and structurally deficient. The through girders extended above the roadway which greatly affected sight distance for drivers stopped at the adjacent “T” intersection. The structure exhibited advanced deterioration of the bridge deck, the bridge beams and the abutments. It was also load posted and was susceptible to scour from extreme stream flows. The bridge was located adjacent to the National Register of Historic Places eligible White’s Paper Mill – Lower Mill Historic Site, where “The Queen’s Own” toilet paper was manufactured in the late 1800’s and marketed to England’s Royal Family. Project goals included improving safety for the traveling public, addressing the deteriorated condition of the existing bridge and reducing the potential for scour at the bridge site, all in a context and environmentally sensitive manner while minimizing public inconvenience.

The existing superstructure was replaced with a new steel multi-girder superstructure. The roadway width was expanded to two 12-foot lanes with 4 foot (west) and 6 foot (east) shoulders providing a total of 34 feet curb to curb. An innovative flared corner was introduced on the bridge to accommodate an improved turning radius at the adjacent “T” intersection. The roadway widening, coupled with the flared corner has dramatically improved safety at the crossing. Steel sheeting was driven to protect the bridge foundations. The Contractor proposed an accelerated construction schedule with a full closure rather than the scheduled temporary bridge. The bridge was opened to traffic 6 months ahead of schedule; all construction was completed one month ahead of schedule and 13% under budget. The bridge also features architectural details such as paneled concrete encasement of the outside steel bridge beams and black powder coated steel bridge railings to complement the rural surroundings and the adjacent historic site. The Queen would be proud!
The firm provided base survey control, Low- and High-Altitude Aerial Photogrammetric Mapping centered along the track, and orthophotogrammetry of an 1,800-foot wide band along the mapping corridor. High Definition (HD), High-Rail Laser Scanning was obtained to produce detailed LIDAR images within the tunnels and at the airport stations capable of providing 1” = 20’ design plans. The project included SEPTA railroad facilities for approximately 130 right-of-way miles. Utilizing GPS in Static mode, three survey field crews located First Order Geodetic Monuments, and with the Continuously Operating Reference Stations (CORS), the firm established a systemwide horizontal and vertical GPS primary control network. Survey field personnel, using vehicle-mounted GPS units, navigated to and located and sketched approximately 430 photo picture points to control the mapping effort. Survey crews, utilizing total stations and GPS equipment, established horizontal and vertical control through the tunnels to control the High Definition (HD), High-Rail Laser Scanning and mapping effort. Their field traverses started from GPS control and ended on GPS control to guide this mapping effort. This mapping base will be utilized for the design of a systemwide Positive Train Control (PTC) monitoring system which will prevent train collisions by automatically activating the trains’ braking systems, thereby preventing trains from colliding.

What if you arrived at a long-term parking facility at the airport and found it in poor condition? Would you park your car there and go away with peace of mind? Confronted with the challenge of both maintaining their existing customer base and attracting new customers, The Parking Spot called the experts at KSE to solve their problems. In an effort to re-brand their existing off-airport parking lots at JFK, LaGuardia, Newark-Liberty, and Philadelphia, KSE completely redesigned and rebuilt six parking lots to improve the security and quality of service to their customers. Each facility was renovated or reconstructed, with office facilities upgraded with the latest high-tech revenue control equipment. Several parking lots were reconfigured to improve parking efficiency and accommodate more patrons. New entry and exit plazas were designed to protect the customers, and video arches were installed to take snapshots of the vehicles as they entered and exited. Each entry/exit lane was equipped with new access revenue control equipment. Awnings were added as a staging point for vehicles to be placed while waiting for owners to return and retrieve their vehicles. New lighting was installed to accommodate future CCTV cameras to provide additional security for the patrons. The result was a dramatic improvement in sales and customer referrals at each facility.
Distinguished Award

Parsons Brinckerhoff
Project: Interchange Reconstruction of Route 49 and 55
Client: New Jersey Department of Transportation

The work associated with this project combined mobility improvements with safety enhancements for individuals who live and work in the community of Millville and those that travel through it. Congestion on the interchange will ease for tourists utilizing Routes 49 and 55 to travel to shore points. Residents frustrated by the gridlock as a result of the influx of tourists appreciate the new traffic signal installed at one of the major residential developments. Roadway and intersection improvements have made access to and from Millville’s industrial park easier for large commercial vehicles. Drainage improvements were made that didn’t involve any right-of-way acquisition. And, safety was improved for pedestrians including children walking on a sidewalk that was reconstructed and extended to the elementary school, and which boasts crosswalks and ADA features such as curb ramps, pedestrian push buttons and pedestrian countdown heads.

The outreach effort undertaken by NJDOT was very effective in ultimately providing a project that satisfied the traffic need and also addressed community concerns. Project elements were refined based on input received from the public. NJDOT set an example of how outreach can influence design and result in a project that is welcomed by the community.

The Columbian Building was a facility in need of rehabilitation. One of the key structures in Newark’s “Four Corners” historic district, it is located in the city’s traditional center for commerce and business. The existing structure was a rundown five-story mercantile loft with timber floor framing and brick masonry bearing walls. Pennoni Associates was hired to provide structural design services to rehabilitate the building into a mixed-use facility that includes a restaurant and residential units. Structural renovations included documenting and implementing the necessary structural repairs, the installation of new lateral strengthening, and the addition of a new sixth floor and high roof structure. Due to significant modifications to the existing exterior brick masonry load bearing walls, it was determined that additional steel framing was required to re-support the existing gravity floor framing, as well as provide lateral stability for the existing structure. Vertical X-bracing was installed to provide the longitudinal lateral stability that was compromised by the introduction of the punched openings. The steel columns and vertical X-bracing continued to the basement where they were supported by a cast-in-place concrete shear wall. The restaurant fit-out required several modifications to the existing structure to accommodate the open-space layout required for dining. This was accommodated by installing new long span lintels that consisted of structural steel channels, which were bolted on each side of the existing brick masonry bearing wall, and spanned between new HSS steel columns. This renovated building is now in line with the city’s interest in revitalizing community.
Distinguished Award

Prononi Associates Inc.
Project: Mt. Clement Well & Water Booster Station Upgrade
Client: Pine Hill Municipal Utilities Authority

Water is essential for all dimensions of life. In an effort to keep the taps flowing in Pine Hill, the borough contracted Prononi Associates to rehabilitate the Mt. Clement well pumping system and design a new booster pump station. The well was in need of an upgrade. It originally utilized a 180,000 gallon-per-day vertical turbine pump that had frequent mechanical issues due to well alignment and out of date controls. The facility also had a leaky roof, which made it unsafe for public workers. Prononi replaced the pump with a 180 HP 700 gallons-per-minute submersible pump and new pump controllers that allowed it to be monitored remotely to assure proper operation in case of a power failure. An important aspect of the upgrade was to secure electrical power via installation of a new underground service and installation of an automatic transfer switch and automatic louver for operation of the emergency generator.

Prononi conducted a study to provide a professional engineering opinion on the most efficient method of distributing supplied water from an interconnection in the mid-pressure zone to the upper-pressure zone of the Pine Hill Borough Municipal Utilities Authority water distribution system. It was determined that a booster station would provide the capability to transfer potable water to the zone with the greatest demand, allowing the authority to meet contractual obligations with New Jersey American Water Company. Prononi was responsible for the permitting, design and development of contract documents, site survey, and provided construction management services for the project.

Richard A. Alaimo Associates
Project: Maple Avenue Wastewater Treatment Plant
Client: Mount Holly Municipal Utilities Authority

In December 2010, the Maple Avenue Wastewater Treatment Plant (WWTP) was first commissioned for the Mount Holly Municipal Utilities Authority (MHUMA). Following an appropriate start-up period for acclimation of the biological processes, this plant has consistently processed a much higher quality effluent than design requirements dictate. This new plant was designed to supplement and replace certain functions at the aging Rancocas WWTP and to reduce the Authority's overall wastewater treatment operational and maintenance costs.

The Maple Avenue WWTP was designed to treat an average daily flow of 3.0 MGD and peak daily flow of 5.0 MGD utilizing anoxic and aerobic biological treatment processes to reduce the biochemical oxygen demand (BOD), total suspended solids (TSS) and ammonia nitrogen (NH3). The treatment process includes flow metering, screening, grit removal, grease removal, aeration or anoxic treatment, and final settling. Effluent from the Maple Avenue WWTP is pumped to the Rancocas Plant where it is filtered, disinfected with chlorine, aerated and discharged to the North Branch of the Rancocas Creek.

To offset operational concerns, a state-of-the-art SCADA system was provided that enables remote monitoring and control, and negated an increase in the MHUMA's operating staff. Energy and process efficiencies are the primary source of operational savings that are being realized by the MHUMA.

Richard A. Alaimo Associates has served as Consulting Engineer to the MHUMA since 1967. Our multi-disciplined project team provided Planning, Design, Permitting, and Construction Phase Services to this $27.7 million construction project. Continuous operations were maintained throughout construction and a cooperative team approach amongst the Owner, Engineer and Contractor enabled timely completion of the overall project and commissioning of the Maple Avenue WWTP three (3) months ahead of schedule.
Distinguished Award

Stantec
Project: Route 206 Over CSX Bridge Replacement
Client: New Jersey Department of Transportation

The new Route 206 bridge over CSX railroad improves safety by eliminating the severe roadway curvature and reconfiguring a multi-leg un-signalized intersection with a traditional "T" signalized intersection, and enhances aesthetics by replicating bridges built in the early part of the century along this historic railroad corridor. The new steel girder bridge is on a new, smoother highway alignment that is compliant with current design standards and includes full width shoulders. Public access is encouraged with sidewalks, crosswalks and pedestrian signals. During construction traffic was maintained on site with no detours.

The existing bridge was located over a historic rail corridor and adjacent to an abandoned railroad station with historic elements that were replicated in the context sensitive design of the new bridge. These include brick band and decorative scoring on the bridge parapet and decorative fence panels to replicate the wrought iron railings on the existing bridge. The innovative choice of simple materials makes this a beautiful, cost-effective success, an example for the profession and a positive feature for the traveling public and community.

Stantec's design looks to the future. The bridge accommodates additional tracks for reactivated passenger service, and the roadways provide a walkable community with access to the future train station. Coordination with a developer and adjustments to the roadway alignment will minimize impacts to wetlands on private property. These results - providing for enhanced safety, complying with SHPO commitments, planning for the future - were accomplished with cost-effective solutions and traffic maintenance on both Route 206 and County Route 607 during construction, well exceeding the client's expectations.

STV
Project: Delaware Water Gap Bridge Rehabilitation
Client: Delaware River Joint Toll Bridge Commission

The Delaware Water Gap Toll Bridge consists of two 2,465-foot spans that carry Interstate 80 over a section of the Delaware River, connecting Hardwick Township, New Jersey and Delaware Water Gap, Pennsylvania. In 2008, the Delaware River Joint Toll Bridge Commission (DRJTBC) undertook an effort to address signs of deterioration on the bridge's steel assemblies that link the bridge deck to the piers anchored in the river.

The bridge needed bearing replacement, deck joint repair, blast cleaning and painting, substructure repairs, drainage replacement, service road reconstruction, under deck lighting replacement, and installation of a loop detection system.

STV provided construction management and construction inspection services for the $16.6 million rehabilitation project. STV's cost management strategy allowed the work to be completed and inspected at less than the proposed cost, resulting in a $700,000 savings to the contract in the construction.

A new method called live load jacking was used to quickly and efficiently replace the bridge's 248 bearings while maintaining traffic flow. The use of this new technology saved thousands of dollars and sped up the construction process so that the project was complete and the new seismic bearings were installed before the area felt the effects of an earthquake in West Virginia. If the old method of bearing replacement had been used, the bearing replacements would likely have still been incomplete and the bridge could have suffered extensive damage.

The project was completed a full two weeks early to accommodate a holiday event held annually for the community.
The Delaware River Joint Toll Bridge Commission (DRJTBC) owns and operates 20 toll and toll-supported bridges along a 140-mile stretch of the Delaware River from Trenton, NJ to Milford, PA. Major floods in 2004, 2005, and 2006 caused extensive scour damage to these bridges. Scour, the wearing away of river-bottom rocks and sediments around bridge piers and abutments, is the leading cause of bridge collapses in the United States.

In the summer of 2010, the DRJTBC initiated its Substructure Repair and Scour Remediation Project to rehabilitate the damaged bridges. STV provided services to repair and assess scour damage. The firm completed in-depth inspections, provided a scour vulnerability assessment, and made recommendations for repairs, countermeasures, and remediation. Additionally, STV provided plans for substructure repairs to concrete and stone masonry foundations. The firm was responsible for conceptual, preliminary, and final design; post-design and bid services; and construction administration.

The scope and variety of the project was a challenge. Remediation for each bridge required a different approach depending on age (each bridge was between 30 and 200 years old), original construction method, foundation system, and river bottom terrain at each site. Most of the work had to be completed in the river in depths ranging from 2 to 14 feet and in conditions that included two hurricanes. Additionally, each bridge required a combination of permits from multiple state, historic, and environmental agencies.

The project was completed ahead of schedule and 10% under budget without interference to river traffic or vehicular bridge traffic.

Spanning three central New Jersey counties, the 36-mile long New Jersey Turnpike Interchange 6 to 9 Widening Program represents a $2.5 billion capital investment for the NJ Turnpike Authority (NJTA) to relieve chronic congestion between Interchanges 6 to 8A through the addition of approximately 170 new lane miles of roadway and the construction of a new toll plaza at Interchange 8. The project was permitted in April 2009 and construction is slated to end in 2014. A critical step in obtaining environmental permits and maintaining the construction schedule was to demonstrate to regulatory authorities that the project would meet a critical compliance step of providing wetland mitigation concurrent with construction impacts to wetlands. For a project of this magnitude, it was not a simple task.

LBG assisted NJTA in the identification of wetland mitigation opportunities and coordinated the mitigation process with regulatory agencies. LBG completed four complex mitigation designs simultaneously for wetland mitigation sites, including three vernal pools to offset impacts to these critical habitats. LBG also maximized the mitigation value of each site by using the entire site to provide mitigation for riparian zones and reforestation requirements, resulting in a significant cost savings to the project. The initiation of the wetland mitigation activities was critical to NJTA in meeting permit obligations, starting construction on time, and meeting the Authority's goal of minimizing the lag between construction impacts and realizing the offset of those impacts through compensatory mitigation. The entire project process has advanced a very positive public image of engineering excellence.
Distinguished Award

The Louis Berger Group, Inc.
Project: Route 33 Bridge Over Rocky Brook, Emergency Repair After Hurricane Sandy
Client: New Jersey Department of Transportation

The impact of Hurricane Irene on the historic Route 33 Bridge over Rocky Brook in Hightstown, New Jersey resulted in the bridge ranking second place on Governor Christie's list of priority infrastructure repairs. NJDOT's goal was to restore vehicular and pedestrian traffic quickly, safely and cost effectively. The repair/reconstruction was accomplished in a manner consistent with the historic aesthetics of both the bridge and Borough, not adversely impact the Flood Hazard Area of Rocky Brook while also complying with today's construction standards.

Within hours of its engagement by NJDOT, The Louis Berger Group, Inc. (LBG) conducted and delivered a detailed inspection of the safety of the historic bridge and surrounding road/drainage system. Within 24 hours, LBG presented the NJDOT with a formal safety assessment and detailed temporary traffic control plans that safely opened the road and bridge to the public. LBG's rapid response resulted in the successful completion of what is normally a 12-month project in only 8 weeks. This design included new, but historically appropriate bridge parapets, railings and sidewalks, as well as pedestrian pathway restoration. LBG coordinated closely with local officials, NJDEP, SHPO, NJDOT and utility companies; conducted subsurface utility test pits and pavement borings; obtained emergency and follow-up environmental permits. LBG's work demonstrated clearly to the public that when applied correctly, engineering creativity can quickly and inexpensively solve transportation problems that result from storms. Overall, LBG was able to accomplish the project without major disruption to pedestrian/vehicular traffic or to surrounding residents and businesses.

The RBA Group, Inc.
Project: Picatinny Arsenal Facilities Reduction Program
Client: U.S. Department of the Army, Picatinny Arsenal

Designed by The RBA Group, the website “Exploring Picatinny's History in Buildings and Landscapes: The Arsenal’s Historic Districts” hosted by the Department of the Army at http://www.pica.army.mil/ead/cultural/picatinnyhistoricdistricts/ represents a unique cultural resources mitigation. The Army's Facilities Reduction Program impacts historically significant structures and complexes of large-scale equipment. The website presents the installation's historic districts to the general public and documents the facilities that will need to be demolished in an interactive, multi-media format. Elegant design and exciting content provide a rich visitor experience, with the role of Picatinny in the development of armaments and rocketry vividly portrayed. At the same time, the site provides an efficient and thorough accounting of infrastructure within the districts that can serve as a planning tool for years to come. The design provides a model for the more efficient negotiation of environmental issues and regulations as government facilities seek to dispose of excess building inventory. Easily navigable layers of information cover each district, from illustrated overviews to topical tabs with a more detailed look at historical highlights; building inventory pages serving as an easy-to-use reference for all structures; links to more information for those slated for demolition; and individual building pages with descriptive information, historical accounts of the structures, professional photo-documentation, and original building plans with pan-and-zoom functions. Audio clips from interviews with current and former Picatinny workers add an engaging human dimension - whether discussing the significance of the X-15 research aircraft or the day-to-day process of testing small arms.
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UPCOMING EVENTS

June 5, 2013
WORKING WITH COUNTY & MUNICIPAL GOVERNMENTS
Discuss opportunities with prominent county and local officials
Forsgate Country Club

May 21, 2013
DESIGN SUMMIT
Programs represented by engineering firms, NJDOT and FHWA
Trenton Marriott

September 10, 2013
DOING BUSINESS WITH THE PORT AUTHORITY OF NY & NJ
Hear directly from PANYNJ's Senior Engineering Team
Location TBD

November 7, 2013
DOING BUSINESS WITH THE DELAWARE RIVER AUTHORIES
Senior officials from various bi-state organizations
Trenton Marriott
ACEC New Jersey

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We apologize for any omissions due to printing deadline.

ACEC New Jersey

**SPECIAL RECOGNITION**

**NEW JERSEY DEPARTMENT OF TRANSPORTATION**

“While there are dozens of other examples of the never quit attitude of this Administration and our citizens, there is none better than the miracle of Route 35 in Mantoloking. At the Mantoloking Bridge, Route 35 had been completely washed away by Sandy—I stood at the spot where the Atlantic Ocean flowed into the bay where Route 35 once carried thousands of cars a day to vacations down the shore. Within days, Commissioner Jim Simpson, the Department of Transportation and our private sector partners had a temporary road built to allow emergency vehicles onto the island. Now, merely 10 weeks after our state’s worst storm, you see a permanent Rt. 35 already being rebuilt. That’s what an effective government can do. That’s what a determined people can do. That is how and where we will lead New Jersey in the months and years ahead.”

New Jersey Governor Chris Christie  
State of the State Address  
Tuesday, January 8, 2013

Hurricane Sandy’s impact on the United States is still being calculated. The storm affected 24 states including the entire eastern seaboard from Florida to Maine. On Monday October 29, 2013 Sandy moved ashore in Brigantine, just north of Atlantic City. By the time it had passed, New Jersey had sustained unprecedented losses. Over two million households lost power, 346,000 homes were damaged or destroyed, and 37 people were killed. Storm surge and flooding affected a large swath of the state.

The best example of the public sector response during and after the storm may be the New Jersey Department of Transportation. The Department was one of the busiest agencies during and after Sandy - removing over 4,400 truckloads of debris from state and local roads, and cleaning another 4,300 truckloads of sand to restore and replenish our beaches. Governor Christie’s words above regarding the miracle of the Route 35 bridge speak to the Department’s selfless commitment to our State.

Tonight we honor the Department of Transportation for helping to bring New Jersey back. We are grateful for the selfless service and commitment of the Department’s dedicated professionals. Tonight’s recognition is our way of saying thank you.
42nd Engineering Excellence Awards Banquet

WEDNESDAY, MARCH 13, 2013

Forsgate Country Club
Jamesburg, NJ