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FINDING **ADDED VALUE** FOR OUR CLIENTS

Today, more than ever, value matters for our clients. Across both the public and private sectors, budgets are tighter and resources are thinner, which means our clients are seeking partners that can deliver projects faster and with more economy, efficiency and flexibility.

At STV, we are cognizant of the current trends driving the industry, but remain forward-thinking and proactive regarding challenges clients and stakeholders may encounter years down the road. By taking this added-value approach, we are not only looking to meet the requirements of the task at hand, but also trying to find ways to exceed them, creating an even better product than what was first envisioned.

STV's planners, architects, engineers, construction managers and environmental scientists strive to provide added value to all of the projects and initiatives we support – whether it be a brand new transportation system in a rapidly growing city, or the rehabilitation of an existing building into a model of sustainability. Our expert team seeks solutions that not only aspire to save time and money for the client, but also foster greater operational efficiency and environmental sensitivity geared to last decades beyond when a ribbon is cut on opening day.



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DESIGNED TO OPERATE

Looking at Transportation Systems
from an Operations and Maintenance Perspective

“The key is to focus on the long-range future of the system and to develop design concepts that provide others with reasonable and affordable opportunities to add capacity in the future.”

—JOSEPH NORTH
Transportation & Infrastructure Division

With an increasing number of entities competing for a dwindling amount of public funding, today’s passenger transportation systems need to be planned and designed with efficiency and foresight. Flexibility for future expansion is paramount. So is having a sound maintenance plan in place that keeps passengers moving around-the-clock, while providing maintenance teams with productive work windows. And this all must be accomplished in a way that’s cost-conscious yet delivers a quality product for the community.

STV has a long track record of success developing and managing new transportation systems and extensions around North America, including Metrolink in southern California, the Houston METRORail and Dallas Area Rapid Transit light rail systems in Texas, the Hudson-Bergen light rail in New Jersey and AirTrain JFK light rail in New York City. But in recent years, the firm’s planning and

design philosophy has evolved in a way that’s even more proactive. STV’s transportation leaders are practicing and preaching a methodology dubbed “design to operate/maintain” that strives to create a more efficient operational experience for transit agencies, starting in the earliest phases of design.

“Design to operate/maintain brings a lot of value to our clients,” said Joseph North, STV vice president of planning with the Transportation & Infrastructure Division. “Using this methodology, we can work together with transit operators to create a system that reduces travel times for commuters, increases fleet efficiency and ultimately attracts higher ridership for agencies.”

North would know first-hand how this approach bucks decades of traditional design and program management techniques implemented throughout the transportation industry. Prior to joining the private sector in late 1996 as



Preliminary concept of Lebreton Station

a management consultant, North spent decades working in the public sector as a senior operations manager in New Jersey, New York City and St. Louis.

“I’ve found that client expectations for passenger rail projects have evolved over time,” North said. “At first, most projects had rather modest goals for the operational aspects of their systems and project teams were focused more on scope, schedule and budget issues. Now, building on these past experiences, focus is being turned to ideas such as future throughput and core capacity, reducing or controlling the cost of service delivery, and life-cycle maintenance costs for keeping the system safe and reliable. By taking a design to operate/maintain approach early in a project, we’re able to help the project team implement a new

STV is applying its design to operate/maintain philosophy to the \$2.1 billion Ottawa Light Rail Transit Project, which will augment existing mass transportation options in the city with 12.5 kilometers of new light rail.

transportation system in a way that doesn’t adversely affect the budget.”

Design to Operate/Maintain In Motion
North and his team recently applied the design to operate/maintain philosophy to the procurement of the \$2.1 billion design-build-finance-maintain Ottawa Light Rail Transit Project for the City of Ottawa. In joint venture with Morrison Hershfield Limited, URS Canada Inc., and Jacobs Associates Canada Corp.,

STV provided preliminary engineering and is currently performing project management services for this initiative, which calls for 12.5 kilometers of new light rail to be constructed over the next five years – the single largest public works project ever executed by the City of Ottawa.

Last December, the design-build-finance-maintain team was approved by the Ottawa City Council. As a P3 (public-private partnership) project, additional funding from the private sector was secured to help move the new transportation system closer to construction.

Ottawa, which already has a bus rapid transit system in place, serves as the capital for the Government of Canada

and is home to the Parliament, the Senate and the Supreme Court. It is also one of the world’s top five regions for research and development. As a result, employment is expected to increase by 30 percent in the city by 2031, placing

considerable demands on the existing transportation system.

One area where potential operational efficiencies were found was in the system’s station design. The project team developed a 30-year capacity analysis that illustrated how extremely high a.m. peak ridership, compared with lower ridership in the p.m. peak, was driving station platforms and train lengths to unprecedented lengths for light rail.

“To enhance operational efficiency and to help control capital costs, we proposed designing the signal and power systems to accommodate more frequent service during the a.m. peak period, which would then allow the City to operate with shorter trains and station platforms,” North said.

This suggestion alone saved the client millions of dollars in capital construction and tunneling costs for underground stations. It is also projected to improve operating characteristics, lower future maintenance costs and minimize construction-related impacts to adjacent properties. For future growth, and to accommodate potential long-range system expansion, the project team determined that all underground station caverns would be bored out to a length that would meet ridership demands beyond the 30-year forecast, while above-ground station designs would preserve space needed for potential expansion.

In similar fashion, STV has worked with the Charlotte Area Transit System (CATS) to find operational efficiencies for the agency’s Northeast Blue Line

STV worked with the Charlotte Area Transit System to find operational efficiencies for the agency’s Northeast Blue Line Extension project.

Extension (BLE) light rail project. The firm provided transportation planning, environmental investigations and documentation, preliminary engineering, and final design services for the 9.3-mile extension. STV also performed project management support services for the design and construction of the original CATS Blue Line, which opened in 2007.

In contrast to some of the firm’s recommendations for the City of Ottawa, STV’s ridership projection analysis

in Charlotte found that the light rail system needed to upgrade from two-car train sets to three-car train sets to meet the required capacity in the future.

“Accordingly, the BLE will be constructed to accommodate three-car trains,” said Mario Semmler, P.E., a senior transportation engineer and project

manager who’s been instrumental in the development of the design-to-operate/maintain methodology.

Because the existing Blue Line’s traction power network and station platform lengths did not support three-car train sets, STV recommended placing additional substations between existing ones and identified station improvements to make the three-car plan feasible throughout the entire light rail system. CATS was able to

secure a federal TIGER grant for the suggested improvements and advanced the work into the design phase.

A Proactive Maintenance Plan

One of the more costly aspects of running a transit system is the daily maintenance of vehicles, tracks, power systems, stations and other critical infrastructure. Because the bulk of the world’s transportation systems are operating for at least 20 hours a day, agencies have a limited window to maintain them without impacting service.

In Ottawa, STV and its joint venture partners used a design to operate/maintain approach to develop a forward-thinking maintenance plan that strives to keep the light rail system in a state of good repair without affecting service levels. The proposed plan would take sections of one of the tracks offline three hours before the end of service on a nightly basis so maintenance can be performed, providing a longer, more productive window of time for workers. The transit system would still be able to operate late-night service at 15-minute

intervals through the use of strategically relocated track crossovers.

Similar to the strategy deployed in Ottawa, in Charlotte the design team determined the optimal placement of crossovers on the Northeast extension of the BLE in order to reliably sustain a high level of service during single-track operations for maintenance needs and other system issues.

“It is important to consider the amount of value that is added to a transportation system with a proactive maintenance plan,” North said. “You’re saving commuters and the client time and money because a well-maintained transportation system is less likely to experience service outages and disruptions that have a ripple effect on the whole line’s operations.”

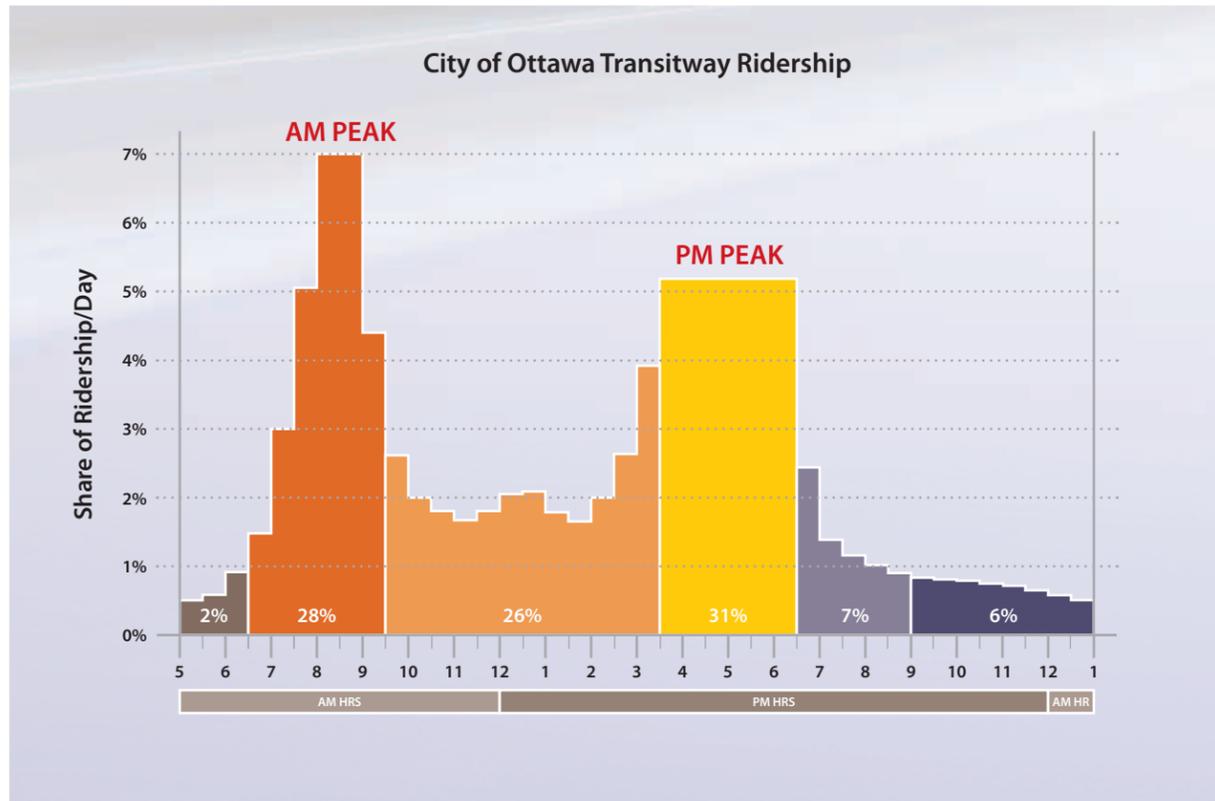
An Effective and Expandable Business Strategy

North’s hope is that the Ottawa and Charlotte light rail projects will serve as models for the design to operate/maintain methodology for the rest of the transportation industry. Taking a more proactive view of

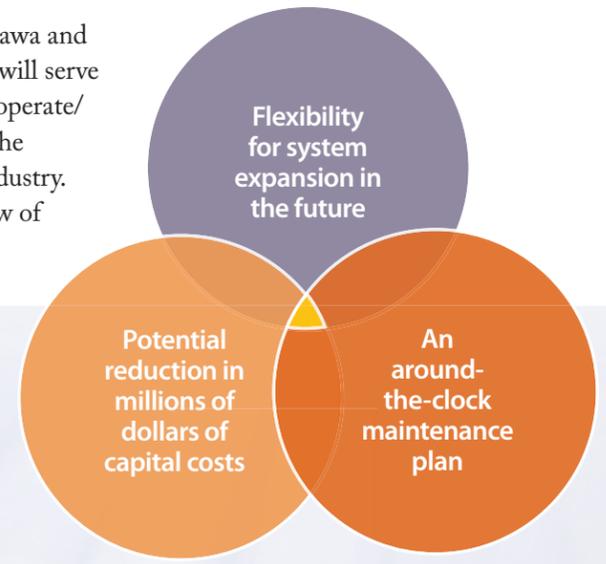
not just how a transportation system will operate on its opening day, but also years into the future, can potentially make a significant difference.

“By taking this approach, as consultants, we’re essentially using the operator’s point of view as we design a project,” North said. “Our goal for the design to operate/maintain approach is to achieve an end result that meets the needs of everyone involved with the project – from the client and its stakeholders to the commuters who will ultimately use the system. We have an excellent opportunity to bring added value to our clients once we start to view operations and maintenance issues from their perspective. This differentiates us in our markets and helps us win new work and expand existing work. It’s a win-win for both us and our clients.” ■

Ridership analysis showed the system’s peak demand occurred during a very short window of time in the a.m. and p.m.



The project team found demand and an efficient maintenance plan could be met with shorter platforms and strategically placed crossovers for track alignments.



TRAVELING

LIGHTLY

STV's Highway Design Practice Reduces Size, Scope and Construction Time

The desire to reduce costs and construction time has driven more state and federal clients toward using design-build as the delivery method of choice for major roadway improvement projects, especially in regions undergoing exponential population growth like the southeastern United States.

In recent years, STV has been selected as the designer-of-record for a number of major highway projects in the Southeast. A key to the firm's success has been its well-crafted design-build philosophy, which targets inefficiencies and turns them around. Solutions may include cutting back on right-of-way acquisitions and wetlands mitigation, using fewer construction materials like concrete and barrow, and keeping the construction process as streamlined as possible by learning and understanding the tendencies of our build partners.

"When we're designing a roadway, we're always looking to find the most efficient way to construct it, especially for a design-build project," said Richard Capps, P.E., senior vice president of STV's southeastern transportation division. "We want to reduce construction time while saving costs for the contractor. We've managed to do this in a couple of unique scenarios."

Shrinking the Scope

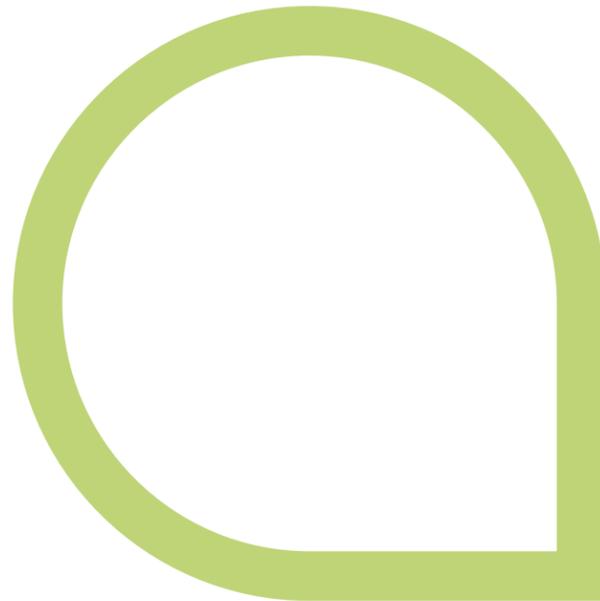
For two design-build roadway projects currently under construction, STV's engineers proposed alternative designs geared toward shrinking the overall size and scope of these roadway initiatives. These solutions are expected to save the client time and money.

Outside the Eglin Air Force Base (AFB) in Florida, the projected

traffic increase brought about by the relocation of the U.S. Army's 7th Special Forces Group necessitated the redesign of the intersection of State Route (SR) 85 and West McWhorter Avenue. As the designer-of-record for this design-build project, STV is providing overall design management and engineering support during the construction of the grade-separated interchange on behalf of the Eastern Federal Lands Highway Division of



Photo: Shutterstock



The "turbine" interchange currently under construction in Charlotte uses fewer construction materials than the original "four stack" design concept.

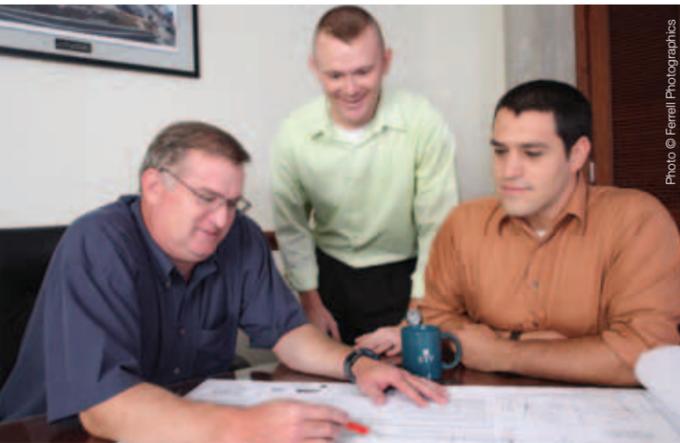


Photo © Ferrell Photographics

the Federal Highway Administration.

The original proposal called for a diamond interchange, a common roadway junction used when a grade-separated highway passes over a minor road. After analyzing various reconfigurations of the diamond interchange,

STV found the more efficient solution was a partial cloverleaf design, effectively reducing the proposed construction area from 67 acres to 47 acres.

This new design avoids the wetlands in the project's northeast quadrant, ultimately saving time and money that would have gone toward assessments, permitting and mitigation if this area had been affected.

Additionally, because of the roadway's proximity and relationship to the Eglin AFB, the project area is located over a former bombing range. Before construction could commence, the project team would have to review the

area maps to confirm the area had been cleared of unexploded ordnances. By reducing the project's footprint, the project team had a smaller area to review, which lowered the need to clear the area, helping to accelerate the construction schedule by nearly six months.

"In any design-build project, there's always a balancing act to hit upon the right combination of cost and time savings," said Tony Melton, P.E., director of transportation in STV's Orlando office. "We believe we found a number of advantages with our partial cloverleaf design. Any time you can shave six months off a construction schedule while maintaining existing traffic and staying out of nearby wetlands, you have a project design that's worth exploring."

In similar fashion, STV was selected to design North Carolina's first-ever "turbine interchange" for the I-85/I-485 interchange. The design-build project will complete the final link in North Carolina's Outer Loop connecting I-77, NC 16, NC 115 and U.S. 74. Currently under construction, the project was named the top roadway/bridge

initiative in the United States by *Roads and Bridges Magazine* in 2012.

Originally planned as a modified clover in 1989, the interchange was redesigned to four levels in order to eliminate two low-speed loops. However, the "stack" design included a number of high-level, long-span bridges that would be difficult to construct and required an off-site detour for interstate traffic. Within the same footprint, STV's alternative turbine interchange is a two-level design with semi-directional ramps, using smaller, single-span bridges, smaller columns and flatter roadway profiles. The new design will be less disruptive to traffic and use fewer construction materials, including the elimination of more than two million yards of borrow-fill material that would have been required for the stack design.

"The smaller-span bridges and roadway geometry are helping to keep the construction schedule accelerated," said Jeff Gagne, P.E., DBIA, STV vice president and North Carolina transportation business unit manager. "It's also a benefit to motorists using the current roadway because it's less disruptive."

Thinking Like a Contractor

Another critical component of STV's design-build philosophy is the firm's understanding of construction techniques and practices.

"Since the 1980s we've been building relationships with a number of contractors in the Southeast and during that time we've learned about what kind of equipment they have and how they conduct their business," Gagne said. "Because of those relationships, when we develop a road or a bridge, we can often incorporate those experiences into our design."

These experiences can have a far-reaching impact on STV's design strategy. For example, if STV is teaming with a build partner that only has access to a 200-ton crane, the firm could propose a roadway structure with smaller elements to accommodate this construction equipment, rather than propose sweeping long-span bridges that could necessitate the added cost of renting and shipping a larger 300-ton crane to the job site.

"It allows us to be aware of and anticipate any potential challenges that may arise during construction and develop solutions right away," said Mark Robbins, P.E., who leads STV's Southeast construction services group.

Such awareness was applied during the design of the SR 85 interchange in Florida. By selecting a two quadrant partial cloverleaf design rather than a four quadrant diamond interchange, STV's engineers helped to simplify the construction process for the contractor.

"Moving all that construction equipment around four quadrants would increase the construction schedule and could impact traffic on the nearby roadway," Capps said. "Our understanding of the construction process helped us to factor those elements in when we developed the half cloverleaf for SR 85, and the result is a design that saves time and money." ■

STV employees have developed long-standing relationships with contractors throughout the United States because of the firm's unique design philosophy. Pictured (from left to right): Mark Robbins, Tony Laws and Christopher Guido.

Modernizing Data and Communications Infrastructure for the Pennsylvania Turnpike Commission

The Pennsylvania Turnpike Commission (PTC) is currently in the midst of a large-scale upgrade of its information technology infrastructure, including the construction of a brand new state-of-the-art tier 3 data center and traffic operations center. With its multidisciplinary background, STV has played a critical, supportive role in finding cost savings for the client while keeping the project scope and construction schedule of this major initiative on-task and moving forward. STV was contracted by the PTC to provide agent construction management services for the renovation of a

104,500-square-foot warehouse into a consolidated data operations facility for the commission. The three-phase project included the construction of the data and traffic operations centers, which are now completed and operational, and the expansion of parking and other site upgrades outside the new facility.

Starting with the project's first phase, the construction of the data center, STV's project team negotiated a number of proposed changes with the prime contractors that provided cost savings to the PTC.

"We were very diligent when we reviewed proposed change orders. Based upon the STV team's experience, we were able to provide significant cost savings for our client," said Stephen Cheney, P.E., LEED® AP, senior project manager.

Additionally, STV's prior experience working with the PTC on roadway and bridge projects served the firm well throughout the construction process. STV's familiarity with PTC's provisions and guidelines for new construction projects kept the process streamlined through each stage of construction.



Photo © Ferrell Photography

"The PTC primarily builds horizontal structures like roadways and bridges, unlike some other STV clients, such as the Pennsylvania Department of General Services, with significant portfolios of vertical facilities," Cheney said. "Our experience with this

project type proved valuable to the PTC and the data and traffic control centers." ■



Photo © Ferrell Photography



Photo © Halcyon Architectural Photography

Portions of the building are adjacent to the popular New York City High Line.

WORLD SCHOOL CHAMPIONS

STV Provides Design and Construction Management for Landmark Private School

The task of converting a 200,000-square-foot warehouse in New York City into a brand-new, state-of-the-art private school in time for a strict September 2012 opening required engineering innovation and a construction management team that employed well-organized purchasing, logistics, and cost management techniques. STV demonstrated the full value of its breadth of services by providing both design and construction services for Avenues: The World School in the Chelsea neighborhood of Manhattan.

“There were a lot of challenges and not a lot of time, given the hard deadline,” said Samir Eid, P.E., vice president and director of capital improvement programs and construction administration. “Because we provided both engineering design and construction management services, we were able to overcome these challenges and accomplish this project seamlessly.”

Avenues: The World School in New York City is the first in a series of exclusive private pre-K-12 schools planned by Avenues World Holdings

LLC for major metropolitan cities across the globe. The school will serve the ever-increasing demand for more private school seats in New York City, where the population of children under the age of five has increased by 32 percent the past five years, while the amount of available space in private/independent institutions has risen far less.

STV was contracted to provide structural, mechanical, electrical, plumbing and environmental engineering and construction management services for the project.

The building – originally designed by renowned architect Cass Gilbert – features an open, loft-like environment with state-of-the-art science and art laboratories, a cafeteria, two kitchens, a library and an athletic and fitness center that was constructed on the roof of the building. A two-story gymnasium intersects the northern third of the building. The school also abuts the popular High Line – a historic freight rail structure preserved and repurposed as an elevated public park – which needed to be integrated into the design and construction plan.

The engineering design – which was fast-tracked and accomplished in four months using Revit® building information modeling software – incorporated a number of unique techniques, especially on the structural side. The new program of the building called for a grand stairwell and elevator lobbies in the central portion and top-to-bottom stairwells in three of the school’s four corners. Additionally, to accommodate a two-story gymnasium at the top of the structure, half of the roof needed to be “raised” a story. As a result of these and many other programmatic changes, seven columns were completely removed and the building’s “core” was reconstructed to support this new configuration. Large areas of the concrete floors’ slabs were removed for the gymnasium and visual connections, and the remaining ones were reinforced with heavy structural steel members where needed.

“We basically cut out the entire center of the building and rebuilt it,” said Chris Cerino, STV’s structural discipline leader in New York. “For a design of this complexity, it was especially handy

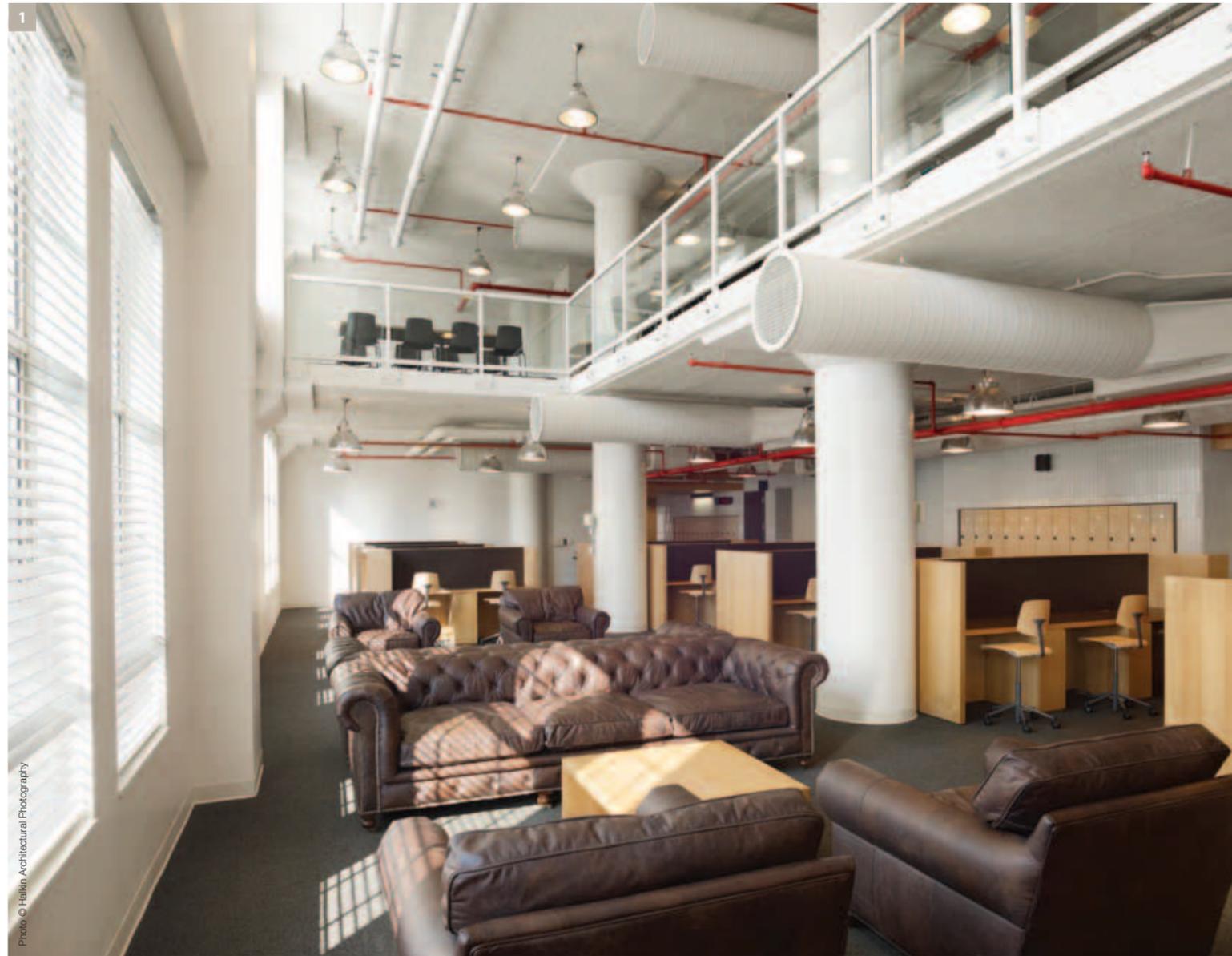
A warehouse located in a historic district of Manhattan has been transformed into the World School.



having our firm leading the construction management component as it kept communication more streamlined when additional challenges arose.”

On the environmental side, the firm provided engineering services focused on the removal of a 10,000-gallon fuel oil underground storage tank (UST) at the site. This included the preparation of a Spill and UST Closure Report to delineate impacts from a prior release of fuel oil at the building.

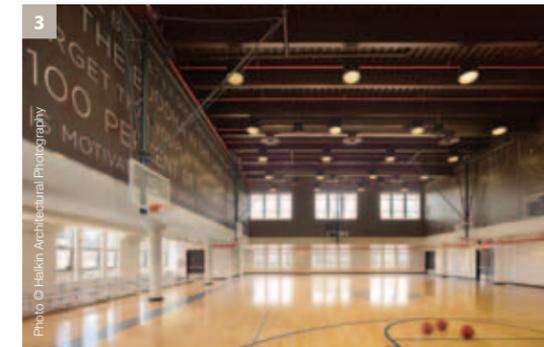
The firm developed a remedial action plan, approved by the New York State Department of Environmental Conservation (NYSDEC), to remove impacted soil and petroleum product from the subsurface. STV worked closely with the New York City Office of Environmental Remediation’s e-designation program, which is designed to ensure that the provisions set forth during rezoning actions are implemented to avoid significant adverse impacts to human health or the environment through exposure to potentially hazardous materials. STV also managed the pre-renovation asbestos, lead-based paint and polychlorinated biphenyls surveys and designed the asbestos and lead abatement specifications for removal.



STV’s construction management team worked closely with the designers to pre-purchase all major mechanical/electrical/plumbing equipment and other long lead items, split up the structural steel and other contracts, and worked extended shifts and weekends to bring the project in on time.

“We directly administered 54 subcontracts, rented storage space and tented portions of the roof in the winter to meet a delivery date that could not be missed,” said Joseph Cenzoprano, senior project manager for the construction team. On the budget side, parsing the project into smaller contracts, though complex from an administration standpoint, did result in savings for the client.

The firm also needed to expertly and efficiently coordinate with a number of stakeholders through each phase of construction. Because of the building’s historic façade, STV’s construction management team needed to make sure the renovated exterior remained true to Gilbert’s original aesthetic. With one of the school’s cafeterias overlooking the High Line park, the construction



- 1 Avenues: The World School has an open, loft-style feel.
- 2 STV’s engineers provided design services for the building, including redesigning the building’s structural “core” to accommodate stairwells in three corners of the facility.
- 3 STV’s construction team managed a complex renovation of the building, including the raising of the school’s roof to accommodate a two-story gymnasium.

PROVIDING A BOOST FOR BOEING

STV's Construction Managers Keep the Assembly Line Moving During Renovation

At Boeing's H-47 Focused Factory Conversion project in Ridley Park, PA, STV's Construction Management Division was faced with a daunting task—overseeing the massive, \$130 million renovation of a key manufacturing site in a timely and cost-effective manner, without adversely impacting the facility's production of aircraft.

This included performing the work while customer demand and the delivery rate of the famed Chinook H-47 helicopter actually increased. The Chinook H-47 helicopter, first deployed in 1962 in Vietnam, is currently being used in U.S. military operations in the Middle East and throughout the world.

“Boeing undertook this extensive upgrade of its facility because of the increased demand for its versatile and unique aircraft,” said Andrew Munter, senior project manager for STV. “As a result, despite the requirement for a renovated and re-tooled facility, the uninterrupted production of aircraft commitment was achieved. The project team had



some major logistical and scheduling challenges that needed to be overcome in order to accomplish this phase of the initiative.”

The Ridley Park complex features several contiguous historical buildings that house much of the production and support functions for the Chinook program. The primary facility is the number one building, which, at 200,000-square-feet and nearly 85 years old, houses the final assembly lines and a central transportation aisle for loading aircraft sections and components to the line. The attached support building has been repurposed and now houses a flight hangar, manufacturing bay and executive administrative offices.

One of the key challenges during construction was that the main assembly line could not be shut down or relocated at any point in time, which would have caused a disruption to aircraft deliveries. STV's construction management team developed a phased approach that allowed construction and manufacturing to move forward on parallel paths. Notably, renovations in the primary building were divided into four phases, each approximately six to eight months in duration. On a similar scale, the support building was strategically planned to include three integrated phases to coordinate with the overall delivery milestones of the main structure.

With the construction work broken down into so many individual components, it was essential that the renovations transition seamlessly from one phase to the next. As soon as a reconditioned portion of the factory was ready for occupancy and all indoor air-quality testing had taken place, the vast network of personnel, parts, tools and equipment needed for each assembly line portion was quickly moved into place over a weekend or holiday so as not to impact site staff and Boeing's production schedule.

For example, during the second phase of the primary building's renovation, STV needed to coordinate construction around the erection of new tooling docks in the same space where helicopter components were being delivered to the phase-one completed production area. To reach its scheduling milestones, STV staff worked multiple shifts during the week, including 12 consecutive weekends to obtain the outcomes projected on the critical path objectives for each building.

An important segment of the overall Boeing factory improvement plan was the decision to repaint the factory's concrete floors using high-performance urethane epoxy paint to achieve the ultimate architectural vision for upgraded working conditions. This, along with the new air rotation units for conditioned air, tempered glass vision walls for day lighting capabilities, and advanced lighting upgrades, has not only led to an improved working environment, it has also allowed the project to qualify for LEED® (Leadership in Energy and Environmental Design) certification.

In addition to supporting Boeing's aggressive construction schedule without impacting factory production, STV was instrumental in the hiring of an independent cost estimator for the project to review the change-order process and to keep costs from inadvertently escalating.

"With a renovation project this complex, the program is constantly evolving," said Robert McAllister, associate and project manager in STV's Construction

STV's construction management team developed a phased approach for renovations that did not adversely impact the facility's production of aircraft.

Management Division. "We weighed the benefits of bringing in an independent cost estimator to assist us with change orders and found it was a more cost-effective solution over the life span of the project."

As a result of STV's critical support of these factory renovations, along with a number of other Boeing initiatives over the years, the firm was recently selected to bid on and perform project controls as well as program and construction management services, on a task order basis, at a variety of Boeing locations across the United States. These prospective capital projects come under the Boeing Enterprise multi-year national supplier management contract for critical construction initiatives.

Meanwhile, STV will continue to play a major role in the remainder of the five-year capital improvement plan, with a project completion of all construction activities in the 2014 to 2015 time frame. ■

Photo: Shutterstock

"With a renovation project this complex, the program is constantly evolving."

—ROBERT MCALLISTER
STV Associate and Project Manager,
Construction Management Division



Photo © RVOIII Photography



Photo © RVOIII Photography

Increased demand for the Chinook H-47 helicopter necessitated renovations at Boeing's Ridley Park, PA, complex.



Sustainable Design Branches Out *Beyond* LEED

Photo: Shutterstock

Sustainable design continues to evolve and make dramatic strides in the 15 years since the United States Green Building Council launched its Leadership in Environmental and Energy Design (LEED®) program in 1998. Many of today's clients are moving beyond getting their buildings LEED® certified. They're looking to achieve first-of-a-kind projects that showcase an innovative approach to energy efficiency. These clients are implementing bold, broad-based initiatives, like "net-zero" campuses, where energy is produced at the same rate as it's consumed.

STV and its team of planners, engineers, architects and construction managers continue to assist clients in these transitions toward a more sustainable future meeting the evolution head on by supporting both new and renovated facilities that boast long-term benefits and cost savings for building owners and communities.

Currently, STV is providing a range of design services for two long-term clients, the U.S. Army Corps of Engineers (USACE) and the Massachusetts Bay Transportation Authority (MBTA), assisting these agencies in landmark sustainable initiatives. ►

Striving for Net Zero at Historic West Point

In 2011, as part of a broader effort by the U.S. military to consume less energy, officials from the USACE announced their intentions for the United States Military Academy (USMA) at West Point, NY, to become a net-zero installation by 2020. STV – which has a storied history of supporting new and improved facilities at the historic West Point campus – is supporting the client’s pursuit of these goals by providing design services for two USMA facilities.



The proposed \$192 million, 287,000-square-foot, six-story barracks building is one of the largest projects currently being designed for the USACE. In joint venture with URS Corporation, STV is providing advanced architectural and

structural design, as well as intermediate mechanical, electrical and plumbing design that will be used to prepare documentation to procure future design-build services for the facility.

“This facility is expected to incorporate sustainability features that go above and beyond what we’ve historically seen at West Point,” said Shiroy Ranji, AIA, STV senior project manager.

Sustainable features include solar hot water panels on the facility’s roof; a rainwater harvesting system; a grey-water recycling system; radiant floor slabs to be used for heating and cooling; low-flow toilet fixtures; and LED lighting. The building’s four pavilions will be linked by a “lightwell” in order to bring ample daylight into the facility.

Other energy-efficient solutions include high “R-values” – a measure of thermal resistance – for the building’s walls and roofs; triple-glazed, low-emittance, blast-resistant windows; and a proposed

STV designed renovations at the USMA Science Building that will transform the facility into a state-of-the-art educational facility.

central chiller plant to provide cooling to adjacent buildings on campus.

Meanwhile, in other sustainable design initiatives for the campus, the USMA Preparatory School recently received a high honor when it was certified as LEED® Gold. STV provided full

architectural-engineering design for the 256,000-square-foot, \$103 million design-build project, teaming with J. Kokolakis Contracting, Inc. In joint venture with URS, STV performed

architectural and engineering design services for the second phase of renovations at the USMA Science Center, located inside Bartlett Hall.

This building is a historic Gothic Revival building constructed of rock-faced granite with limestone decoration and has been a campus fixture for nearly 100 years.

The \$105.3 million renovations to the 217,300-square-foot space are being spread over four years to allow

the USMA to continue using the building during construction. Proposed sustainable design elements include new HVAC, plumbing, laboratory gases, electrical and related systems that are designed to be energy efficient and cost effective. Thermal wall and roof construction are part of the LEED® Silver criteria as well. Occupancy sensors in the laboratories will reduce energy consumption during unoccupied hours.

“By being creative in our design and seeking out new technologies we are able to address the client’s requests, and still meet our energy-savings goal,” said John Nadon, LEED® Green Associate, a mechanical designer on the project. “STV has brought together its nationwide expertise to meet the client’s vision.”



A cross-section of the new USMA barracks building shows the proposed lightwell (center) that will bring more natural light into the facility.



Rendering of the new barracks facility at the USMA in West Point, NY.



The Intermodal Center at the Hingham Shipyard

The Massachusetts Bay Transportation Authority's (MBTA) proposed \$5.3 million, 8,400-square-foot Intermodal Center at the Hingham Shipyard was designed to meet LEED® Silver standards. Through design development, the client became so engaged and enthusiastic, they decided to strive for higher certification and, with STV's support, incorporated operation and innovative strategies to achieve LEED® Gold design standards.

STV's life costs analyses for this project compared baseline materials, upfront costs, and the building's life expectancy to illustrate the long-term savings if sustainable design elements and green materials were used.

One of the biggest proposed sustainable features at the facility is the green roof, which uses a four-inch shale base soil with vegetation that will thrive in the shipyard's environment. Selecting the proper vegetation that would be hearty and drought-tolerant was a concern.



Going LEED for Lockheed

The question "how do you integrate sustainable LEED® (Leadership in Energy and Environmental Design) elements into a facility that has no windows or restrooms?" may sound like the set-up to a joke overheard at the local engineers club, but it's actually a challenge STV had to overcome for Lockheed Martin Space Systems Company.

STV's life costs analyses for this project compared baseline materials, upfront costs, and the building's life expectancy to illustrate the long-term savings if sustainable design elements and green materials were used.



Photos courtesy of the Massachusetts Bay Transportation Authority



The Hingham Intermodal Center features many sustainable "firsts" for the client.



Three sides of the transfer hall at the intermodal facility at Hingham Shipyard will feature a fully-glazed curtain wall to allow natural daylight to reach deep into the interior of the building. Exterior sunshades in front of the glazing both minimize the amount of heat gain during the summer months, while allowing its benefits to be realized during the winter months.

"That's free energy and light. The natural daylight alone can reduce the amount of artificial lighting, resulting in a smaller heat load from the light fixtures in the space. The reduced heat load may also translate into smaller HVAC equipment, possibly saving money which could then be used toward another sustainable design strategy," Sternat said. ■

"We had to work with the client to develop a scheme that worked well for them as far as maintenance and the coastal environment," said Kristine Gorman, project manager and architectural designer at STV. "The vegetation had to be able to withstand the salt water and wind at the site location, and we had to be consistent with the Coastal Zone Management policies."

By protecting the roof surface from wind shear and stormwater wear-and-tear, the green roof is expected to extend the life of the finished roof from 25 years to 40 years or more.

"This project gives the MBTA a lot of 'firsts,' including its first green roof and first geothermal system," Gorman said. "It shows that the MBTA is a forward-thinking agency in terms of sustainable design."

The HVAC system at the shipyard will use a ground-source heat pump and a geothermal system, both of which will heat and cool the building more efficiently. Fluid will be moved through a closed system that goes 400 feet below the ground.

As part of Lockheed Martin's growing focus on sustainable design for new construction projects, the nationally-renowned aerospace, defense and advanced technology company sought LEED® certification for a 19,000-square-foot high-bay addition to its 348,000-square-foot Product Team Building in Newtown, PA. The addition houses a new satellite antenna testing facility and also includes an antenna range and staging area for items brought into the building. STV provided design services for the Product Team Building in 1997 and was selected to provide design and construction management services for the LEED®-certified addition.

"There were no toilets, no windows and no offices, just a control room and what were

essentially several big metal boxes within one very large metal box," said Steven Rothenberger, AIA, LEED® AP BD+C, STV project manager. "But we were up for the challenge."

Despite these limitations, STV actually did one better – designing and overseeing the construction of a LEED® Silver Certified facility, a level higher than what Lockheed Martin requested.

The high air-turnover rate required to meet the space cleanliness mandates provided a unique challenge since varying the airflow to reduce energy consumption was not an option for this project. By incorporating face-and-bypass concepts – which only heats/cool a portion of the

air – into the design of the HVAC systems, substantial reductions in both heating and cooling energy were realized. This design is expected to create long-term energy cost savings for the client. Additionally, the siting of the facility, pollutant source-control methods, and the use of building materials with high recycled content contributed to the LEED® Silver rating.

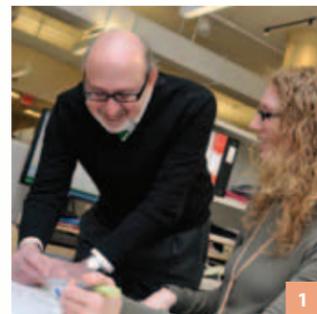
"The STV team had some sleepless nights trying to develop some LEED® solutions for this kind of facility, but not only did we overcome those challenges, we gave Lockheed Martin an even better product than they were expecting," Rothenberger said. "Our design team did an outstanding job, a sentiment echoed by our Lockheed counterparts." ■

NO RETURN POLICY

CORRECTIONAL FACILITIES THAT SUPPORT RECIDIVISM REDUCTION



5



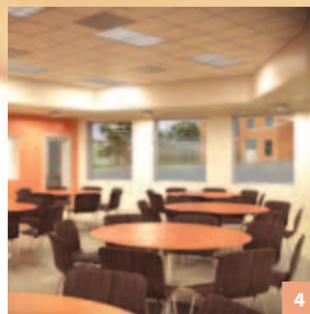
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4

- 1 David Ziskind (left) has been an advocate of recidivism reduction through design for decades. Here, he's working with STV designer Rebecca Weidler (right).
- 2 Design of the District of Columbia Correctional Treatment Facility focused on substance abuse and mental health treatment programs.
- 3 The Iowa Department of Corrections asked STV to rethink the prison building type from the ground up.
- 4 The Iowa Correctional Institution for Women will focus on recidivism reduction through a wide assortment of programs and treatment facilities.
- 5 The Iowa program consists of the renovation of six buildings and the construction of four new ones.

Reducing recidivism—the rate at which previously incarcerated offenders return to prison—has been a high priority for STV’s correctional facility design practice for decades. The firm has earned national recognition for its correctional design philosophy, which includes incorporating resources and facilities that assist states with recidivism reduction.

A recent study by the Pew Center on the States, a public policy think tank, demonstrated the potential value added for clients of recidivism reduction strategies. According

to the study, states would save more than \$635 million in averted prison costs in one year alone if they managed to reduce their recidivism rates by just 10 percent.

“We create spaces for programs that support recidivism reduction,” said David Ziskind, FAIA, NCARB, LEED® AP, STV senior vice president and chief architect in the Buildings & Facilities Division. “Within the facility, there are places for treatment programs, education therapy programs, community reintegration and many other programs.”

Currently, STV’s unique correctional design philosophy is on display at the expansion of the Iowa Correctional Institution for Women in Mitchellville, IA. Additionally, there are other facilities the firm has designed that have established its track record in supporting the reduction of recidivism.

In 1992, STV provided full architectural services for the new 832-bed District of Columbia Correctional Treatment Facility in Washington, D.C., with a focus on substance abuse and mental

health treatment programs. Based on a therapeutic community behavioral model, it combined the features of a medium security facility with interior spaces designed to provide a therapeutic atmosphere. After five years, the recidivism rate at the D.C. facility declined from 80 percent to 20 percent for those discharged through this program.

One of the key factors in putting offenders on a successful path is careful planning for release. “Beginning at the time of prison admission, such pre-release preparation can yield positive results in the crucial first months after an offender returns to the community when he or she is at greatest risk of returning to prison,” the Pew report said. “The process should begin with a thorough screening and assessment at intake to identify potentially urgent needs, such as substance abuse treatment and mental health services. The assessment should guide a case management plan during incarceration that uses evidence-based programming tailored to each offender’s criminal risk factors.”

Careful planning for release is an important element in STV’s Iowa design. The Iowa Department of Corrections asked STV to rethink the prison building type from the ground up and develop a 21st century facility that would integrate gender-, health- and age-responsive programming into the fabric of design, making it among the first women’s facilities in the country to incorporate this approach. The state’s goal is to reduce its three-year recidivism rate from 27 percent to 17 percent over the next decade.

Through the incorporation of a wide array of programs and services, as well as designing a more normative setting for offenders that will ease their transition back into their home communities, STV is helping the client meet its goals. The project comprises the renovation of six buildings and the construction of four new ones. The 888-bed facility will

include medium/minimum as well as maximum security housing.

A new 105,266-square-foot medical/mental health building will be located adjacent to the new entrance building and the visiting area.

“We’ve created four different areas based on a medical model: acute care, a step-down unit, a general population unit and a specialty population unit,” Ziskind said. “We will also have an assisted living unit for 36 offenders. Within that unit there are two hospice suites. It’s a comprehensive medical model focused on the special needs of women at risk. I think it’s really going to have a major effect on recidivism.”

The mental health unit, subdivided into small groupings of 16 to 32 residents, will have counseling rooms, a multipurpose room and psychologists’ spaces, all within the unit. Traditionally, psychologists would be located in the infirmary, away from the people who need them the most, Ziskind said.

The buildings that support academic and vocational education will be located at the heart of the campus. There will be educational programs at the high school and college levels as well as vocational training programs. There will also be a major industry program.

“A minimum security live-out building for residents working in the community will be expanded to provide space for 32 additional residents. Having beds on the outside of the secure perimeter helps with the “transition back out into the community,” Ziskind said. “Iowa is looking to face the recidivism issue by addressing the mental health situation through minimum live-out housing, working in the community, and providing education as well as a major industry program. It’s looking at the big picture.” ■



- ◀ The Academic Joint-Use Facility at City College of San Francisco performed at a higher energy efficiency than originally projected.
- 1 Millbrae Station is the largest intermodal terminal in the U.S. west of the Mississippi River.
- 2 The Richmond Intermodal Station is part of a larger transit-oriented development in the city.
- 3 The Indian Valley Academic Complex at College of Marin is the first new building designed as part of the school's campus reinvention.
- 4 The Long Beach Transit Mall features eight bus shelters located in the heart of the city's transit district.



NEW ACQUISITION A BOOST FOR

STV IN CALIFORNIA

With its recent acquisition of Oakland-based ARCHITECTURE/vbn (VBN), STV has enhanced its presence on the West Coast by bringing in a firm with more than 50 years of experience serving education, transportation, government and commercial clients in California.

“VBN’s talented employees share our commitment to excellence,” said Dominick M. Servedio, P.E., STV executive chairman. “We have known this firm for many years, and have always been impressed with their portfolio of work. I am excited to welcome VBN into STV’s family.”

Founded in 1958, VBN has had extensive experience in the design of transportation facilities and is a registered green business. The firm’s work encompasses large- and small-scale projects, including a number of transportation facilities supporting commuter rail, light rail, rapid-transit and bus.

“STV and VBN have been working together to seamlessly integrate our corporate cultures,” said Milo E. Riverso, Ph.D., P.E., CEO and president of STV. “This is a great match. VBN’s excellent skill set strengthens STV’s services, so we can better serve our existing clients in the western region.”

VBN has supported the planning and design for a number of significant facilities throughout the West Coast including Millbrae Station, the largest intermodal terminal in the United States west of the Mississippi, which services Bay Area Rapid Transit (BART) and

Caltrain in suburban northern San Mateo County; the Kirsch Center for Environmental Studies at DeAnza College in Cupertino, CA, the first community college building in the nation to achieve LEED® (Leadership in Energy and Environmental Design) Platinum Certification which was designed in association with another firm; and Long Beach Transit Mall, a series of eight bus station shelters in Long Beach, CA’s, major transit center.

The firm has also provided planning and design services for the Richmond Intermodal Station in Richmond, CA, a key part of the city’s revitalization efforts; and the LEED® Gold certified Academic Joint-Use Facility at City College of San Francisco and Indian Valley Academic Complex at College of Marin in Marin, CA.

“This acquisition brings VBN’s excellent reputation in our market areas in Northern California to STV,” said

Eli Naor, AIA, one of the principals at VBN, who has joined STV as a vice president and head of the Transportation & Infrastructure Division’s California Facilities group. “We will utilize our know-how and innovative skills to help STV further succeed in California and enhance its national presence.”

Prior to the acquisition, STV and VBN were quite familiar with each other. For the 16-mile BART extension project from Fremont to San Jose, VBN was responsible for planning and design for the six stations, while STV performed design services for maintenance facilities and infrastructure along the line. Both firms are also key players in the massive California High-Speed Train (HST) project – albeit in different areas of the state. STV is providing planning and design services for the Orange County to Los Angeles section in Southern California, while VBN performed the same services for a number of stations located within the Central Valley Region,

including a station in Fresno, which is expected to be the first facility to be constructed, thereby serving as a prototype for the rest of the system. Once completed, the HST will be the first, truly dedicated high-speed rail system in the United States.

On the education side, VBN has a strong portfolio of master planning and development work, especially in the niche market of community colleges, thereby giving STV the opportunity to more deeply penetrate this growing market in the higher education sector.

“We spent a number of years creating a strategy that would help us identify the clients we are currently working with,” said Rob Barthelman, AIA, LEED® AP, education group leader at VBN who leads STV’s West Coast education market. “For community colleges, it meant developing value outside of traditional architecture, delivering an innovative planning approach.” ■

WHAT'S NEW AT STV

Photo: Shutterstock

▶ PROJECTS MAKE GRAND DEBUTS

Over the past few months, a number of first-of-a-kind or historic projects supported by STV made their long-awaited debuts to the public.

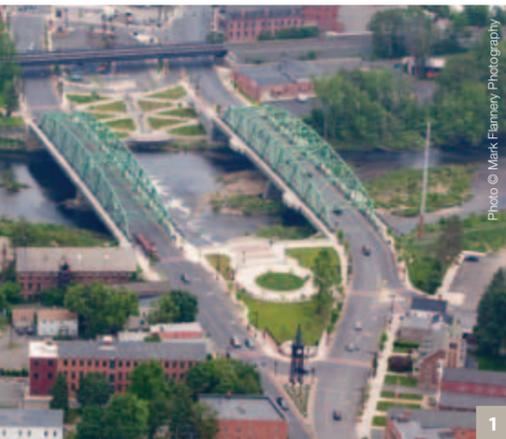


Photo © Mark Flannery Photography

1

In New Jersey, the ALP-45DP, also known as a dual-powered locomotive, recently made its inaugural run for NJ TRANSIT. STV provided design, inspection, and test engineering support services for this vehicle, which is the first locomotive in the United States to be powered by the overhead catenary or by its twin-diesel engines. Additionally, the new locomotives offer better acceleration and lower exhaust emissions than NJ TRANSIT's current diesel equipment.



2

Demonstrating its geographic reach, in a unique collaboration, STV is supporting the procurement of these same vehicles for Agence Métropolitaine de Transport in Montreal, making it one of the few dual-property projects of its kind in North America. The locomotives are being manufactured by Bombardier in Kassel, Germany.



Photo © NJ TRANSIT

3

In Virginia, near the site of one of the final battles between the Union and Confederate armies during the Civil War, STV provided design services that transformed a nearly 100-year-old abandoned railroad bridge into a reconstructed rails-to-trails pedestrian/

bicycle/hiking/equestrian pathway. The renovation of the historic High Bridge in Farmville, VA, called for the replacement of nearly 1,000 wood railroad ties and the widening of the bridge span for pedestrian traffic. STV also designed three structural overlooks, offering visitors a place to stop and enjoy the panoramic views from the bridge and learn more about the bridge's Civil War history through interpretive signs and programs.

Another bridge project that aimed to improve the overall quality of life of a community, the Great River Bridge in Westfield, MA, recently opened to much fanfare from state and city officials. As the primary north-south artery over the Westfield River, the Great River Bridge, a camelback truss bridge that first opened in 1939, has been the site of traffic congestion on State Route 10/U.S. Route 202 for years. STV provided planning, structural and civil engineering and construction engineering support services to the City of Westfield and MassHighway for the existing bridge, the sister bridge, a 280-foot CSX Transportation rail viaduct, 5,000-feet of urban roadway reconstruction and new public riverfront parks and associated parking facilities. The finished project was heralded as a new gateway at a dedication ceremony in June.

- 1 Great River Bridge Replacement Project in Westfield, MA
- 2 High Bridge Rehabilitation in Farmville, VA
- 3 ALP-45DP Locomotive in New Jersey

▶ TOP EMPLOYEES

STV prides itself on being able to attract, nurture and retain the best talent in the design and construction industry. Recently, three STV employees were all recognized for being "tops" in their respective fields.



Chris Cerino, P.E.



Christine Flaherty, CCM, LEED® AP



Tyler Bonstead

TOP
UNDER
40

Chris Cerino, P.E., a senior associate and structural discipline leader in the Buildings & Facilities Division, was named to *Engineers News-Record-New York's (ENR NY)* Top 20 Under 40 list, and *Consulting-Specifying Engineer's* 40 Under 40 list. The Top 20 Under 40 honor is an annual feature in *ENR NY's* regional magazine that highlights 20 New York-, New Jersey- or Connecticut-based individuals under the age of 40 who represent the best-of-the-best in the construction and design fields. Nominees were judged on achievement of/or progress toward industry certifications, including professional licensure or LEED® AP; community service; industry involvement; and contributions to creating landmark regional projects.

The *Consulting-Specifying Engineer* list recognizes 40 building industry professionals aged 40 and younger who stand out in all aspects of their lives. Candidates were nominated by a professional colleague or mentor and judged based on commitment to excellence in their academic, professional and personal lives and community involvement.

Prior to joining STV, Cerino served as structural engineer on many distinctive buildings, including the Norman Foster-designed, 709-foot-tall Shangri-La Hotel in New York City and the podium façade for the Cosmopolitan Casino in Las Vegas. For STV, he played a key role in the structural design of Avenues: The World School, a brand-new private school designed and built within an old warehouse in New York City's trendy Chelsea neighborhood (for more about this project, see page 10).

Christine Flaherty, CCM, LEED® AP, vice president and director of business development in the Construction Management Division, was also selected for *ENR NY's* Top 20 Under 40 list. Flaherty leads business planning efforts for her division, and most notably took on a project leadership role in addition to her business development role with the New York City School Construction Authority Mentor Program to help win the 2010-11 contract. During her tenure at STV, the Construction Management Division has grown exponentially, more than doubling its revenues and taking on several assignments with construction values exceeding \$1 billion.

Tyler Bonstead, an associate and national transportation planning manager from the Los Angeles office, was selected as one of *Mass Transit* magazine's Top 40 Under 40 outstanding individuals who are making a name in the public transit industry. All nominees were judged on the factors of job commitment, industry involvement and contribution, achievement in his or her position and innovation in his or her field. Bonstead is currently leading the planning and outreach for the 30-mile Los Angeles to Anaheim segment of the proposed California High-Speed Train project as well as the Perris Valley Line extension of Southern California's Metrolink commuter rail system. Additionally, Bonstead is spearheading plans to connect Los Angeles International Airport (LAX) to public transportation. ■

► AWARD-WINNING PROJECTS

STV is continually being recognized for its influential presence in the planning, design, environmental and construction management industries. Following are some of the latest initiatives to be heralded for the enduring mark they have left on the communities the firm services:

The New York Landmarks Conservancy honored the STV/Tishman Construction/AECOM tri-venture construction management team with its Chairman's Award for the firms' support of phase one of the Moynihan Station project, a new rail facility that will be constructed within the landmark Farley Post Office in New York City. The \$270 million project will double the length and width of Penn Station's western concourse on the West Side of Manhattan, extending it southward to encompass NJ TRANSIT and Amtrak tracks.

"It is a tremendous honor for STV to be a part of the construction management team for the Moynihan Station," said STV president and chief executive officer Milo E. Rivero, Ph.D., P.E., who accepted the award at the ceremony. "As a New York City firm whose roots go back to 1912, STV is deeply committed to the growth and development of the city. We fully appreciate how important the Moynihan Station is for travelers, the city and the metropolitan area as a whole."

The conservancy has been at the forefront of the campaign for Moynihan Station since the late Sen. Daniel Moynihan first proposed the project in 1993. In its history, STV has received three Lucy G. Moses Awards – the conservancy's highest honor for outstanding preservation efforts – for restoring Roosevelt House at Hunter College, the Coney Island Parachute Jump Tower, and Curtis High School on Staten Island.

The National Design-Build Awards Competition awarded the recently completed United States Military Academy Preparatory School at West Point, NY, a Merit Award. The project was showcased at the 2012 Design-Build Conference & Expo in November in New Orleans. STV provided full architectural-engineering design services for the 260,000-square-foot, \$103 million design-build project, teaming with J. Kokolakis



◀ The U.S. Military Academy Preparatory School design-build project in West Point, NY

Contracting, Inc. The new school consists of three linked buildings: a barracks, an academic building and an indoor athletic facility. It recently achieved LEED® (Leadership in Energy and Environmental Design) Gold certification.

The firm has a rich history with the prestigious campus. STV planned and designed the Jefferson Hall Library and Learning Center, which was the campus' first new building in more than 30 years when it opened in 2008. The firm is also currently working on the rehabilitation of West Point's Science Building into a state-of-the-art laboratory and learning space.

"Maybe the greatest honor we can hope for is that the buildings we are working on now are as revered in 50 years as the buildings West Point has at present," said Price Jepsen, AIA, LEED® AP, STV project manager.

The McHenry Row mixed-use development was honored with several awards, including Best Mixed-Use Urban project, at the recent Maryland National Association of Industrial and Office Properties Awards of Excellence Gala. STV provided surveying, master planning, civil engineering, landscape design services and construction administration

services for the project. McHenry Row also won awards for Best Retail and Most Creative Financial Transaction at the gala.

McHenry Row is a nine-acre site that was originally the location of the Chesapeake Paperboard Company, which manufactured recycled-content paperboard. After the paperboard company closed, the industrial site was tagged for redevelopment and rezoned.

STV prepared and processed a business planned unit development, which allows for flexibility with zoning bulk regulations, through the Baltimore City Council. The firm presented and received approval for the master plan from Baltimore City's Urban Design and Architectural Review Panel.

The project included the demolition of vacant industrial buildings to make way for 110,000 square feet of retail space, 60,000 square feet of office space, 250 apartments on the site and two parking structures. Construction on the development in the Locust Point neighborhood in Baltimore City was completed earlier this year. Two buildings in the development were LEED®-certified: the Harris Teeter grocery store was certified LEED® Silver and the office building was certified LEED® Gold. ■



◀ Exterior of the future Moynihan Station in New York



◀ McHenry Row mixed-use development in Baltimore

▶ STV GIVES BACK

STV's employees understand that to truly give back to the communities they serve, they need to nurture and develop future generations of industry talent.

That's why many STV employees are involved with mentorship programs that aid young engineers, architects, construction managers and corporate support staff both within the company and outside.

In a traditionally male-dominated profession, Kristine Gorman, a project manager and architectural designer in STV's Boston office, was unable to find many female mentors to connect with for professional guidance when she was younger. That's why through the Boston Chapter of Women's Transportation Seminar (WTS) and the U.S. Department of Transportation (USDOT), Gorman has volunteered her time to mentor high school sophomore Ruth Densamo.

"The big idea is to provide her with someone to bounce some ideas off of and to make myself available to her," said Gorman, an active member of WTS-Boston. "Whether she becomes an engineer or not, I'm here to expose her to new things and to encourage her to remain passionate about her interests."

Gorman and Densamo are participants in the federally funded Transportation YOU program, which was launched in 2010 as a joint initiative of WTS International and USDOT. The program targets young women ages 13 to 18 with a special emphasis on science, technology, engineering and math. The program is designed to introduce these women to careers in transportation and is open to all WTS chapters.

The duo applied for the program with help from Cambridge School Volunteers, a non-profit that matches mentors with students in the Cambridge public school system in Massachusetts. Gorman is also a volunteer at Cambridge Rindge and Latin School where she helps prepare students for the circuit lab portion of the Science Olympiad National Program. Gorman and Densamo were two of 50 women selected to attend the Transportation YOU summit in Washington, D.C. There, the pair met Ray LaHood, U.S. Secretary of Transportation and an avid supporter of Transportation YOU. The summit also included meet-and-greets with other federal officials and transportation advocates, and a number of tours of transportation facilities such as the Potomac TRACON, which controls approaches and departures in the airspace surrounding many of the

major airports in Maryland, Virginia and Washington, D.C., and Washington Metropolitan Area Transit Authority operations control center.

In the New York office, STV hosted two high school interns as part of the New York State Department of Education Career & Technical Education (CTE) Summer Scholars Program. The CTE program recruits from a number of New York City's strongest career and technical education programs in pre-engineering and information technology. CTE then matches these students with host organizations like STV based on their skills and interests as well as the needs of the host company.

Christina Adeyemi and Mohammed Zilon, both entering their senior year this fall at City Polytechnic High School in Brooklyn, have been paired with Robert Fields, LEED® AP, BD+C, an engineering specialist in our environmental group, and Alan Marchan, P.E., project manager in our Transportation & Infrastructure Division.

Adeyemi used her computer science background to create models of current STV job sites through the ArcGIS mapping and analysis software. Zilon, a computer engineering student, has been helping New York's Information Technology Department with some hardware and software requests.

"It's the first time I've ever worked with software like this," Adeyemi said. "STV was new to me, but this has been a very interesting experience." ■



CTE Mentors Alan Marchan and Robert Fields (back row from left to right) with high school interns Christina Adeyemi and Mohammed Zilon (front row from left to right).

▶ STV CELEBRATED FOR ITS CENTURY OF SUCCESS

STV's executive chairman, Dominick M. Servedio, P.E., has earned one of New York City's most prestigious awards for his decades of leadership in the design and construction industry and for the firm's longevity in reaching its 100th-year anniversary in 2012.

Servedio received the 82nd annual Richard A. Cook Gold Medal Award from the Hundred Year Association of New York. The award is given to remarkable leaders and contributors

to New York City's history and culture. Past recipients include Robert Moses, E. Virgil Conway and Ray Kelly; former mayors Fiorello LaGuardia and Rudy Giuliani; and entertainers Oscar Hammerstein, Richard Rodgers and Tony Randall.

"I am honored to accept this award on behalf of our company, which has such a rich history especially here in New York," Servedio said. "While we have 1,700 employees nationwide,

600 dedicated individuals are right here in New York City, so our roots and continued commitment to the area run deep."

Established in 1927, the Hundred Year Association of New York is a non-profit organization whose mission is to preserve the history and to promote the heritage of public and private organizations that have been in existence for a century or more. ■



▶ NEW PERSONNEL

STV recently made a number of key hires to enhance the firm's overall leadership and vision across a number of industry areas.



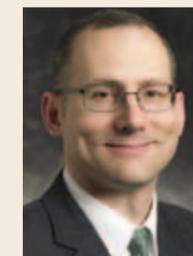
James Kolb has joined STV as a vice president and New England territory manager in the Construction Management Division. Based in the firm's main Boston

office, Kolb has taken the lead in growing STV's project and program management practice throughout the New England market, with a specific eye towards the institutional, commercial, life science and healthcare markets. He has more than 25 years of experience in the construction management industry, holding a number of executive level positions at other construction firms. Kolb is also an active member of a number of construction industry trade groups, currently serving as chairman of the board of directors of the Massachusetts Building Congress and a member of the National Association of Industrial and Office Properties.



William A. Sorrentino Jr., P.E., PMP, DBIA, has joined STV as a vice president in the Buildings & Facilities Division and heads the firm's brand-new

full-service office in Norfolk, VA. Sorrentino is responsible for leading the division's operations in that region, and further expanding STV's presence in the state, municipal and federal sectors. Norfolk is best-known for its connections to the U.S. military, being home to the world's largest naval base, but is also linked to neighboring cities, including Virginia Beach, through an extensive network of interstate highways, bridges, tunnels and other transportation infrastructure. Prior to joining STV, Sorrentino was the chief operating officer and deputy district engineer for the U.S. Army Corps of Engineers, Norfolk District.



Michael J. Petrisko has joined STV as vice president, chief information officer, and head of the firm's Information Technology (IT) Department.

Based in the Douglassville, PA, office, Petrisko is responsible for the overall operations of STV's IT Department. He has more than 25 years of experience in information services, primarily in the engineering and construction industries. Prior to joining STV, Petrisko was the chief information officer at a major construction management company where he was responsible for the restructuring of the firm's global IT organization. He was also previously responsible for the realignment of the IT organization at a large architectural/engineering firm, setting new standards for the group to meet the needs of the firm's business unit. ■

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