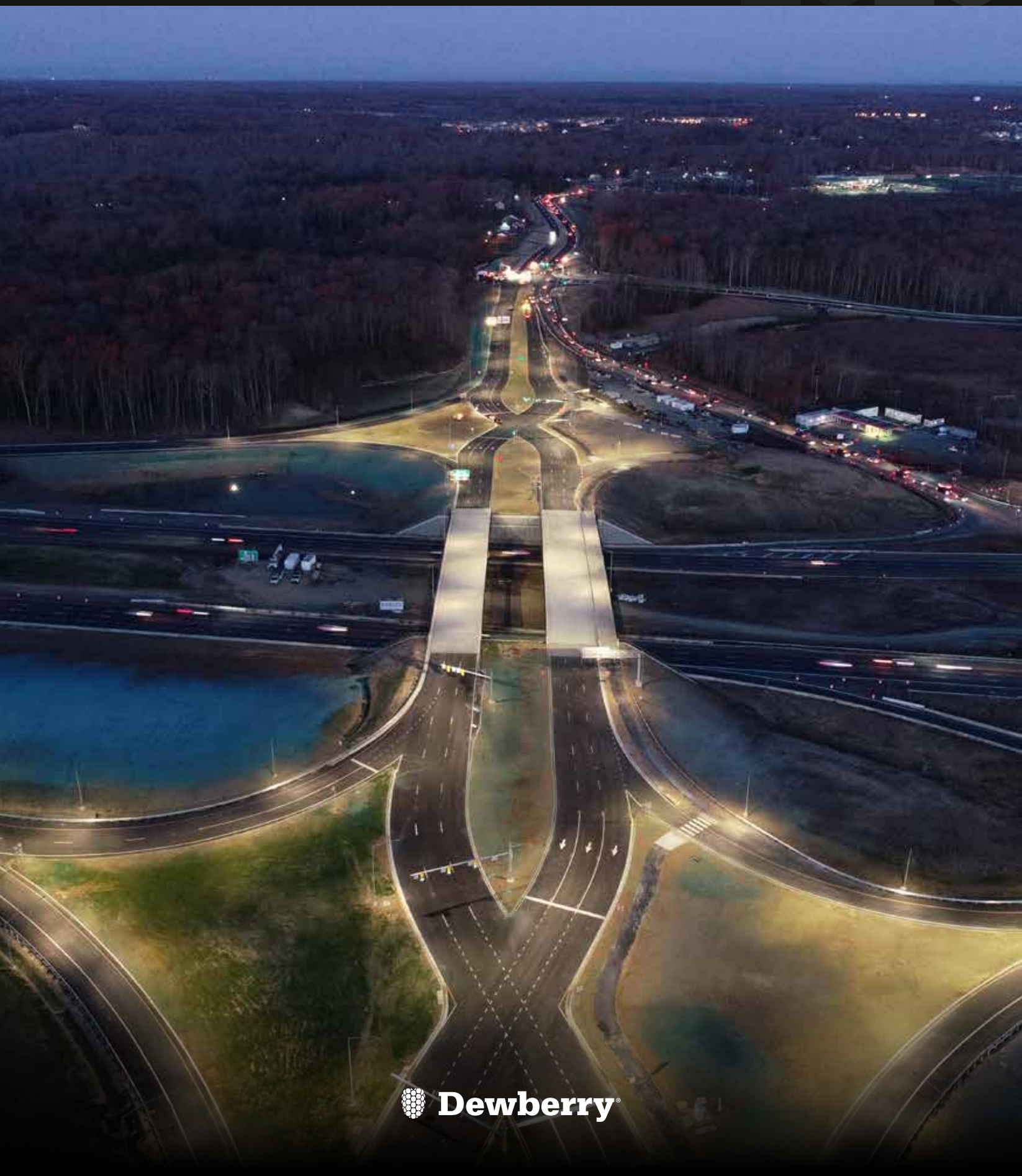
DIMENSIONS®

ANNUAL REVIEW 2020

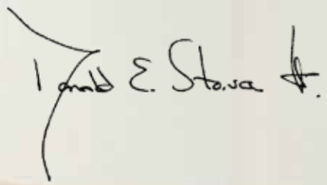


Dewberry®

OUR COMMITMENT

Dewberry's strategic plan outlines goals in five key areas: growth, leadership, talent, operations, and portfolio balance. As we look back at the year 2020, it is clear that leadership and talent took center stage, making our targeted objectives and strategies for success in those areas all the more important. Although we have been in business for nearly 65 years, with the industry insights and seasoned perspective that decades of experience offer, the past year certainly challenged us to innovate and collaborate in new and unexpected ways. I congratulate our strong leadership team and resourceful staff with embracing transformative and constructive approaches to doing business and continuing to support our clients despite this unusual business climate.

Developing leadership and a robust and talented team of professionals is paramount to any firm's success, but it doesn't happen without a focused plan and follow-through. Through recruiting, mentoring, training, retention, knowledge-building, technological resources, and measures to encourage employee empowerment, we continue to build an exceptional staff that is fully prepared to carry out our vision by creating value for clients. Going forward, our deep commitment to diversity and inclusion will further enhance our "Dewberry at Work" culture and ability to meet our clients' needs. The standards of ethics, value creation, and integrity that "Dewberry at Work" reflects are what built and sustained this enterprise, and they will carry us forward in the future. I, for one, welcome the challenges the new year will bring, knowing our professionals will continue to respond with ingenuity, resolve, and a shared sense of purpose to create stronger communities and a better quality of life for all.



DONALD E. STONE, JR.
Chief Executive Officer

DIMENSIONS® ANNUAL REVIEW 2020

DIMENSIONS® is published by Dewberry for the clients, associates, and employees of Dewberry.

Contact Molly Johnson with comments at media@dewberry.com

ON THE COVER
I-95 at VA 630 Diverging Diamond Interchange, Stafford County, VA

PICTURED ABOVE
Capitol Crossing, Washington, D.C.

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IN THIS ISSUE

OUR MISSION
Dewberry is a nationwide firm of planning, design, and construction professionals. We create responsible and innovative solutions for those who own, operate, and maintain natural and built environments. We value lasting relationships, achieving our clients' visions, and celebrating in their success.

OUR VISION
CREATE VALUE FOR OUR CLIENTS.
IMPROVE OUR COMMUNITIES.
EMPOWER OUR EMPLOYEES.
EXPAND OUR REACH.

THE KEY TO CRISIS MANAGEMENT

PREPARATION, TEAMWORK, AND COMMUNICATION

Maintaining an updated crisis management plan with a reliable team behind it is critical to keeping business operations running smoothly

For many companies, this year has been one of uncertainty, adaptation, and resilience, and this has proven to be no different for Dewberry. From a global pandemic to the 30 named storms, with 12 that made landfall on the East and Gulf Coasts, to the wildfires that ravaged the West, if there was ever a year to have a crisis management team activate and take a hard look at workplace protocols, 2020 was it.

In 2019, Dewberry's crisis management team started reviewing and updating its crisis management plan, crisis communications plan, and business continuity plan, to ensure the plans were up-to-date and reflected current operational norms. Within the plans were critical documents such as crisis management checklists and a pandemic standard operating procedure (SOP) that needed vetting.

"Partnering with our in-house integrated resilience team, we were planning to run multiple table-top scenario exercises in early spring when we started to learn more about COVID-19," says Lisa Roger, chief information officer. "We then shifted gears to supporting employees' ability to work remotely, allowing us to enact our protocols in real-time."

The need for supply chain management and crisis communications has been paramount to keeping the firm operational. Thanks to the crisis management team, supplies like laptops, personal protective equipment, and hand sanitizer were quickly ready to be mobilized. Redundancy in the firm's communication systems also made the transition seamless, ensuring that things shifted, but operations never stopped.

Chief Communications Officer Molly Johnson says, "We are grateful for the continuous support from the employees in our IT, human resources, logistics, and communications departments who continue to support these efforts and the success of our crisis management plan."

Representing IT, health and safety, logistics, communications, ethics and compliance, and human resources; Lisa Roger, Brett Tressler, Wayne Burnley, Molly Johnson, and Dave Francis are core members of the crisis management team.

NET ZERO DESIGN

COUNTRYSIDE MUNICIPAL COMPLEX SETS A NEW STANDARD

When city administrators first began planning a new municipal complex for Countryside, Illinois, they envisioned a state-of-the-art building that would serve as a combined city hall and police department headquarters, replacing an outdated, 1960s-era facility. They sought to build a distinctive civic building that would be welcoming to the public, in a high-profile location along historic Route 66 that is easily accessible to the community. With encouragement from Mayor Sean McDermott, the planning team also identified sustainability as a key goal, proposing that the building demonstrate the city's leadership in energy-efficiency and the conservation of natural resources.

The new Countryside Municipal Complex, designed by Dewberry and completed in 2020, achieved all of those goals and more. The 34,500-square-foot building is producing as much energy annually as it uses, making it the first Net Zero designed government building in the state of Illinois and only the second Net Zero police station in the country.

"We all have a responsibility to protect our environment and mitigate the impact of climate change," Mayor Sean McDermott stated at the dedication for the Countryside Municipal Complex. The building is the first Net Zero designed government facility in Illinois, and has frequently been toured by educational groups and other municipalities.

ENERGY MODELING PROVES KEY

Although not originally intended as a Net Zero building, energy modeling early in the design process pointed to several measures that would heighten the building's sustainability profile. Strategies included a carefully tested thermal envelope with continuous insulation and high-performance glazing, a geothermal mechanical system, locally sourced materials, a low-impact site design, daylight harvesting, and LED lighting.

Other important features included the installation of 638 solar panels on the roof and above parking stalls that generate enough electricity to power the building, a green roof with native plants that reduce stormwater runoff, and a 198-foot monopole telecommunications tower that generates revenue for the city. A $1 million grant from the Illinois Clean Energy Community Foundation supported the addition of the photovoltaic array, a step that ultimately transformed the project from energy efficient to energy neutral.

AN EMPHASIS ON SECURITY, TRAINING, AND PUBLIC OUTREACH

The design team achieved the high level of sustainability, also earning LEED® Gold certification, while embracing the region's traditional prairie-style architecture. Interpretive signage and displays in the lobby describe the sustainable features, enabling students and other visitors to learn about the building's eco-friendly measures.

The three-story complex was also designed to optimize security, flexibility, and community use. Spaces include city council chambers; administrative offices; the police headquarters and secure detainment areas; and multipurpose spaces for police training, community meetings, and shelter during weather emergencies. "We are thrilled with our new municipal complex and have seen the benefits of the design for our staff and community," says Mayor McDermott. "It not only works well functionally, but it is a beautiful addition to the city."

INNOVATIVE INTERCHANGE AIDS TRAFFIC FLOW

Diverging diamond interchange minimizes construction footprint

The Commonwealth of Virginia recently opened its fifth diverging diamond interchange (DDI), located at I-95 and Route 630 (Courthouse Road) in Stafford County. Also known as a "double crossover" interchange, the DDI crosses traffic to the opposite side of the road to enable vehicles to move directly onto interchange ramps and eliminate conflict points associated with conventional left turns. Drivers cross over to the left side of the road via a signalized intersection, allowing left turn movements to proceed unrestricted.

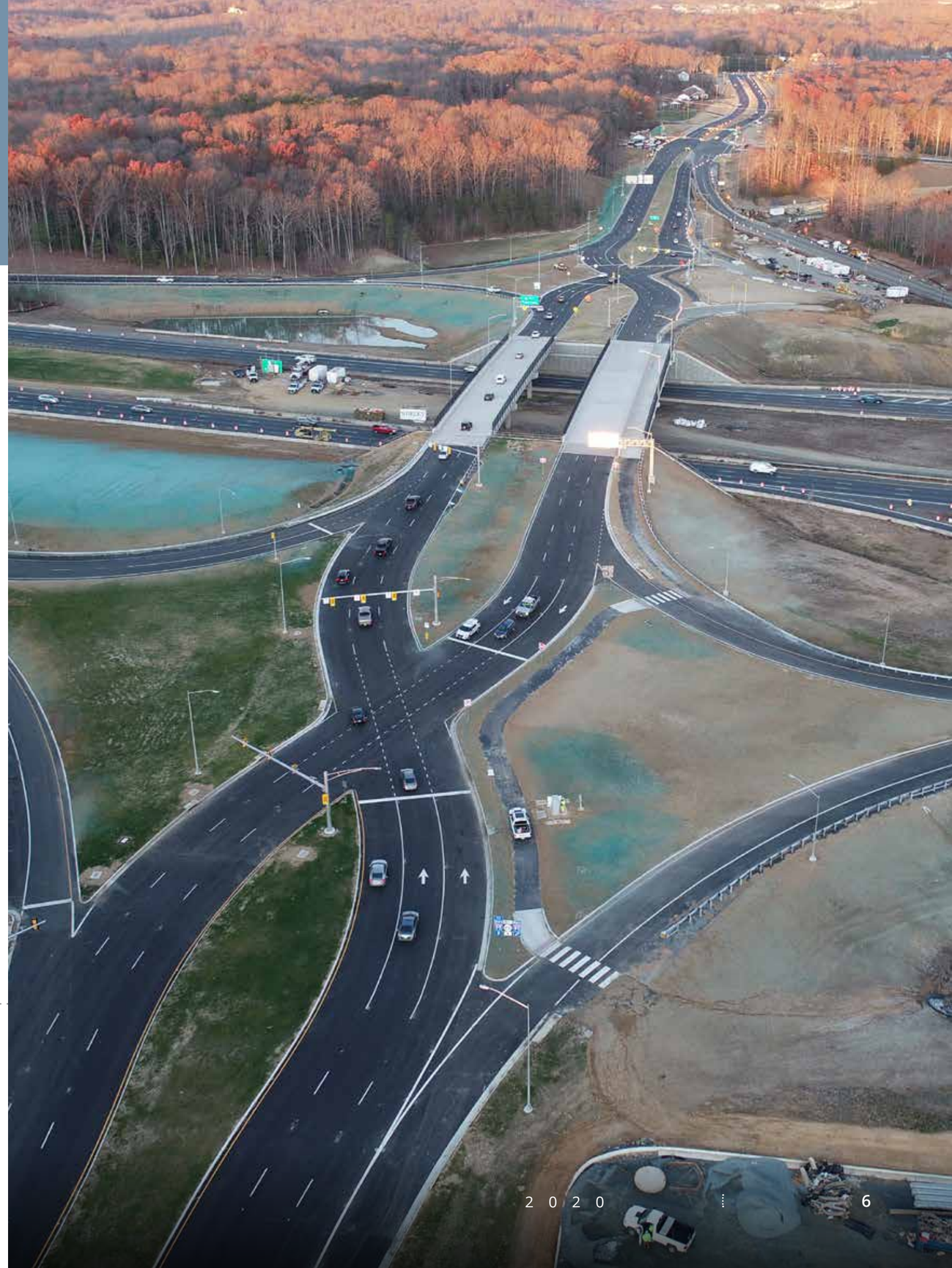
A STREAMLINED SOLUTION

During the planning phase, the Virginia Department of Transportation (VDOT) determined that the DDI configuration would be able to handle traffic projections while requiring less right-of-way and reducing the overall project footprint. Dewberry designed the replacement of the existing diamond interchange that ran under I-95 by realigning Route 630 approximately 800 feet to the south and configuring the new interchange with an overpass of I-95. The project encompassed two and a half miles of roadway widening and reconstruction and included a park and ride lot with more than 1,000 spaces, bus shelters, motorcycle spaces, slug line accommodations, bus drop-offs, and pick-up accommodations.

MULTIMEDIA PUBLIC OUTREACH

Public engagement proved critical to resolving community concerns about the unconventional interchange. Dewberry worked closely with VDOT to create a multifaceted educational campaign, including public meetings and the display of renderings and animated fly-throughs. A 50-foot directional mat positioned on the floor of a local high school enabled visitors to walk along the interchange to understand the configuration. VDOT also incorporated training for the interchange into the high school's driver education program, and the team created two movie trailers that were showcased at local theaters to familiarize the public with the interchange.

The DDI is part of a $195 million improvement program aimed at reducing congestion along Courthouse Road. According to VDOT, the interchange represents a "major milestone" in improving travel in the rapidly growing Stafford County area.



VDOT's latest DDI has enhanced traffic flow at a busy intersection in Stafford County
Approximately 100 DDIs have been built across the U.S. in the past dozen years.

CAPITOL CROSSING

ONE OF WASHINGTON, D.C.'S LARGEST ACTIVE DEVELOPMENT PROJECTS

Providing an economical and simplified approach to one of the region's newest infrastructure projects

Capitol Crossing offers flexible space in energy-efficient buildings for retail, office, or residential tenants.

One of the largest construction sites in Washington, D.C., Capitol Crossing spans three city blocks—a north block, a center block and a south block—and connects the historic Capitol Hill and East End neighborhoods. The Capitol Crossing development includes five mixed-use buildings that will be used for office space, apartments, and retail once the project is complete. Currently, two of the five buildings are finished and have begun welcoming tenants into the state-of-the-art space.

OVERCOMING UNUSUAL DESIGN CHALLENGES

The first building to be completed was 200 Massachusetts Avenue, the first of two in the north block. Dewberry designed the mechanical, electrical, and plumbing (MEP) systems for the 12-story structure. The building was commended for design innovations resulting in part from its location and the challenges that the site provided, requiring construction directly over I-395. Designing a mechanical system over an active highway required thoughtful consideration and out-of-the-box thinking. For example, in the south block building, an economical and simplified approach was chosen that included reducing the number of initially proposed air handling units and thereby reducing infrastructure cost.

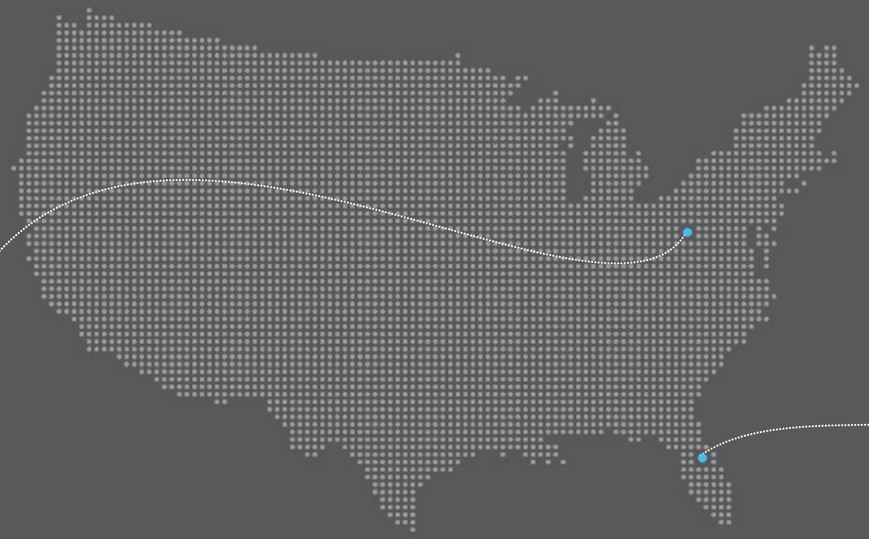
Once complete, the iconic 12-story buildings will connect the historic Capitol Hill and East End neighborhoods, physically separated in the 1950s by the interstate thoroughfare.

ENERGY-EFFICIENT AND SUSTAINABLE DESIGNS

Dewberry's heating, ventilation, and air-conditioning (HVAC) design resulted in 15 points for energy optimization toward the LEED® Platinum certification as the design demonstrated a 32.5% savings in energy over the American Society of Heating, Refrigerating and Air-Conditioning Engineers' (ASHRAE) baseline code minimum requirements. HVAC enhancements include a high-efficiency, low temperature, wide temperature-differential chilled water system with energy/heat recovery dedicated outdoor air systems (DOAS) units; low temperature air handling units; and series fan terminals that significantly reduce re-heat. In addition to the two million square feet of office, retail, and residential space that Capitol Crossing is providing to the Washington, D.C., region, it will also offer a 1,150-space parking garage, 100 electric vehicle charging stations, and green roof space. The sustainable design approach to this complex network of buildings has led to 200 Massachusetts Avenue at Capitol Crossing receiving the 2020 Community Leader Award for Innovative Design, New Construction-Commercial by the U.S. Green Building Council (USGBC) National Capital Region chapter.

Because of the success of the designs within the limits of some exceptionally challenging infrastructure, Dewberry will continue to provide MEP services for the Capitol Crossing development. Presently, the firm is designing systems for two restaurants located within the 200 Massachusetts Avenue building.

2020 IN REVIEW NOTABLE PROJECTS



500KV TRANSMISSION LINE REBUILD

Mt. Storm, WV

We provided site/civil design and survey for 17 miles of access roads for a large energy provider's rebuild of a 500kV transmission line. The existing roads were built 60 years ago in rigorous terrain and were too steep and narrow for construction access. The tower construction and transmission line installation required road improvements and large graded pads for cranes, pulling/tensioning equipment, and material storage.

MERIDIAN PARK

Orlando, FL

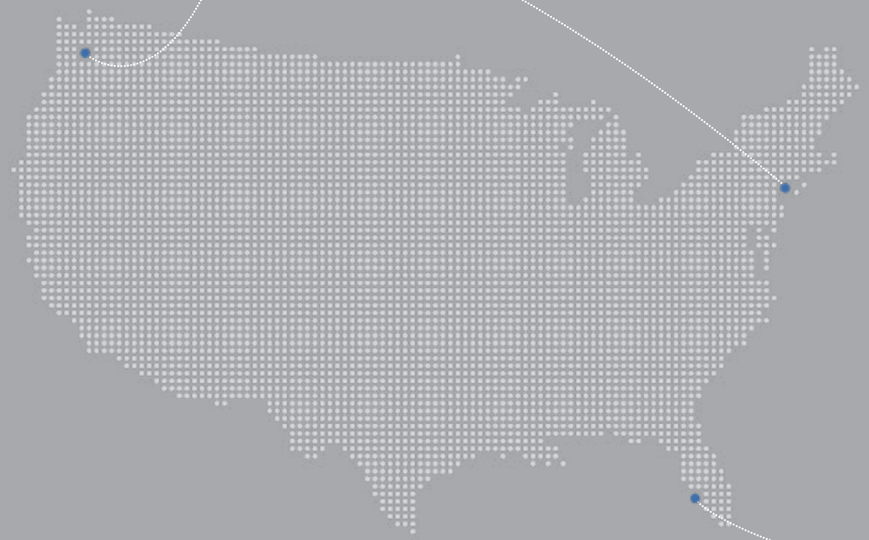
The opportunity to plan a community for more than 16,000 residents does not happen often. From the start of the project to the first completed home, our team collaborated to deliver site/civil engineering, planning, and surveying services. Additionally, we provided daily, direct communication and management necessary to identify and conserve resources, prioritize deliverables, deliver quality, and meet our client's deadlines.

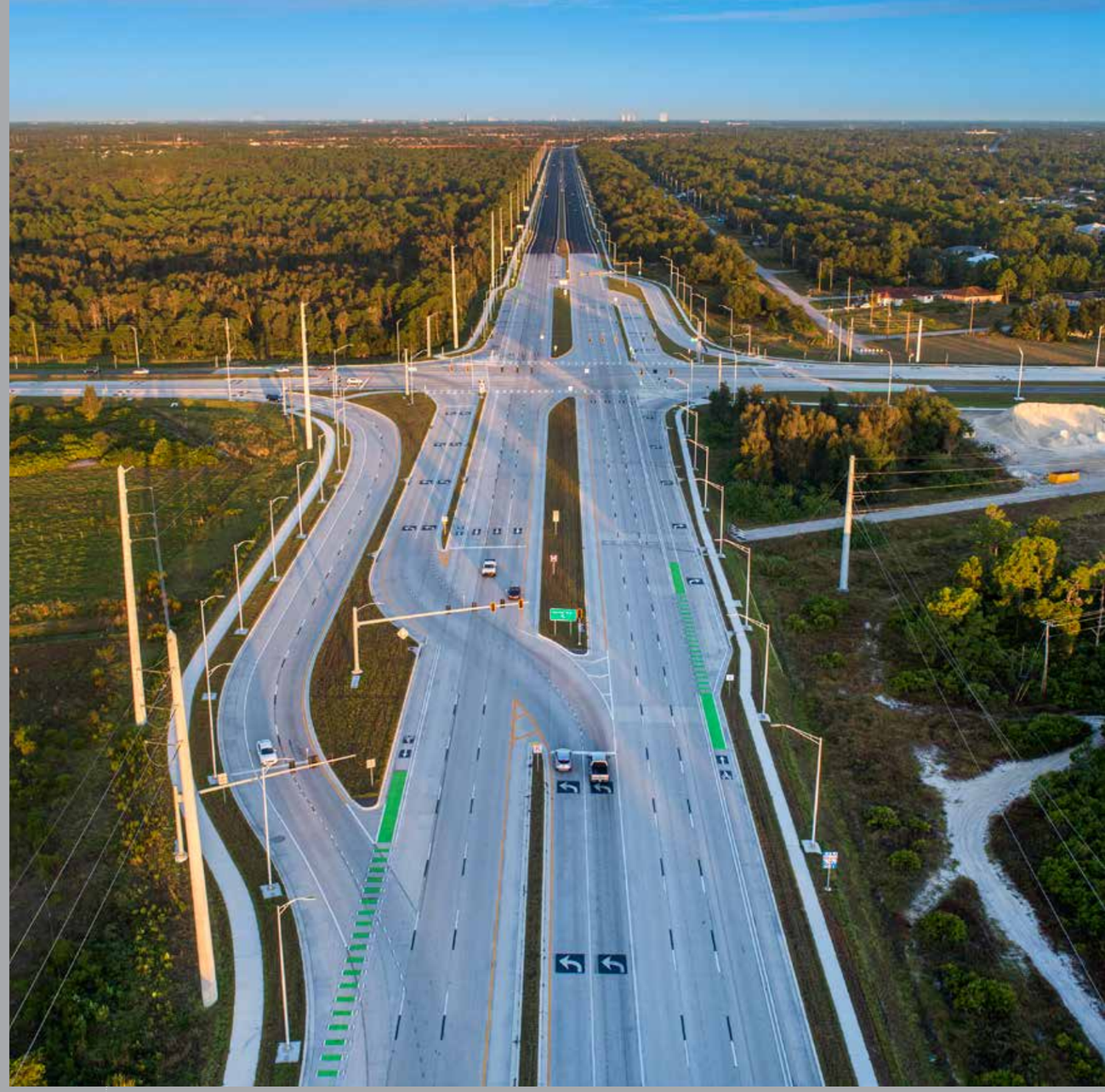
NOTABLE PROJECTS

FEMA SUPPLY CHAIN ANALYSIS

Seattle, WA, and New York, NY

We worked with members of the Supply Chain Analysis Network in Seattle, New York City, and other metropolitan areas across the country to assess COVID-19 impacts on the food and grocery supply chains, such as identifying levels of supply and demand by geographic area, including food processing, distribution and retail capabilities. We monitored overall traffic volumes in these metropolitan areas to see if freight traffic was flowing efficiently and monitor the resilience of the grocery supply chain at the onset of the pandemic.



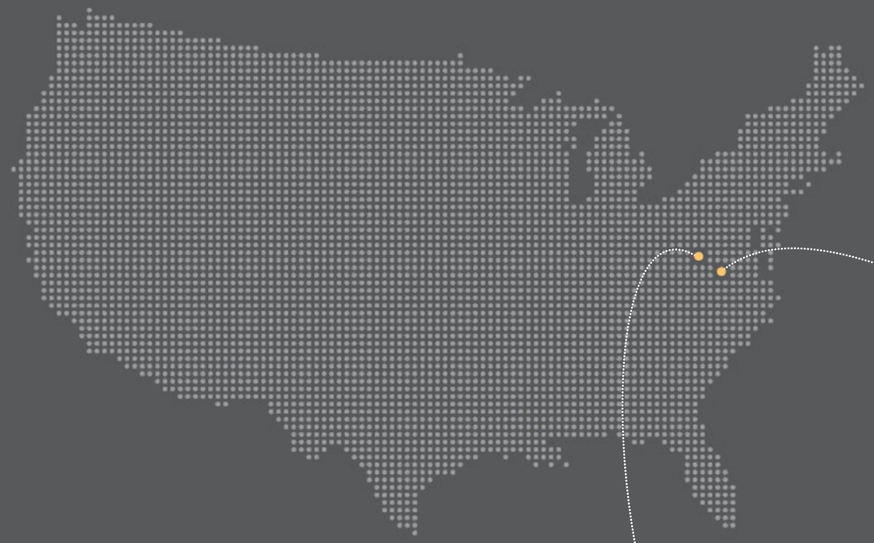


STATE ROAD 82 (IMMOKALEE ROAD) CONTINUOUS FLOW INTERSECTION

Lee County, FL

Due to State Road 82 experiencing high traffic volumes, congestion, and elevated accident rates, the Florida Department of Transportation made it a priority to add capacity, improve safety, and reduce intersection delays. Our solution included widening the existing roadway to a divided six lanes for a five-mile segment and designing a continuous flow interchange at the State Road 82 and Daniels Parkway/Gunnery Road intersection to improve traffic flow.

NOTABLE PROJECTS



JAMES MONROE BUILDING ASSET MANAGEMENT

Richmond, VA

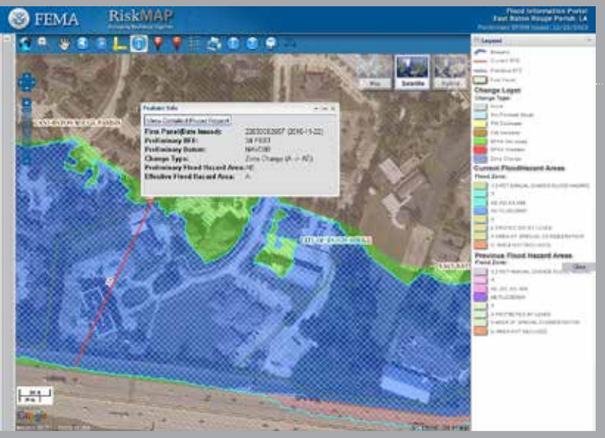
After years of limited maintenance, the Virginia Department of General Services was facing the challenge of reinvesting in critical infrastructure or constructing a new building. We provided a mechanical, electrical, plumbing, and structural engineering condition assessment of the 25-story, 503,000-square-foot office building. Services included onsite field surveys to identify the current condition and prioritize planned improvements to address deficiencies. In addition, we provided an annual capital planning expenditure projection for the next 40 years.

UNIVERSITY OF VIRGINIA'S BRANDON AVENUE/GREEN STREET UTILITY INFRASTRUCTURE PROJECT

Charlottesville, VA

We master planned, designed, and oversaw construction of major services and utilities for the University of Virginia's new 10-acre development along Brandon Avenue. Included in the design was a district heating plant that generated and distributed low temperature hot water to approximately 600,000 square feet of existing and future building space.

NOTABLE PROJECTS



NATIONAL PROBABILISTIC FLOOD RISK ASSESSMENT

Nationwide

The National Flood Insurance Program (NFIP) is redesigning its risk rating methodology to better assess properties' unique flood risk. FEMA is pairing cutting-edge insurance industry technology with its mapping data to establish a new risk-informed rating approach. Existing NFIP mapping methods were augmented to deliver more comprehensive risk information. We proposed, tested, and implemented a probabilistic approach to produce structure-level risk data that includes an expanded range of scenarios.

NORTHERN ILLINOIS UNIVERSITY HOLMES STUDENT CENTER RENOVATION

Dekalb, IL

The team developed a long-range plan, facility condition assessment, and concept development that would address student recruitment and retention by creating a social and intellectual crossroads that will drive revitalization of the campus core. This Phase I improvement adds large expanses of glass for increased outdoor views, a central circulation path, and updates to several areas to add social and cultural context needed to apply technical skills learned in the classroom.

NOTABLE PROJECTS

SANTA RITA WATER RECLAMATION FACILITY

Durango, CO

We planned and designed the expansion and upgrade to meet the increasing regulatory demands and anticipated growth of the surrounding community. The upgraded facility was designed to mitigate various visual and odor impacts. Additionally, the plant is exceeding the designed performance, which will allow the city to postpone future treatment-related upgrades 10 years.

SWEETGREEN

California

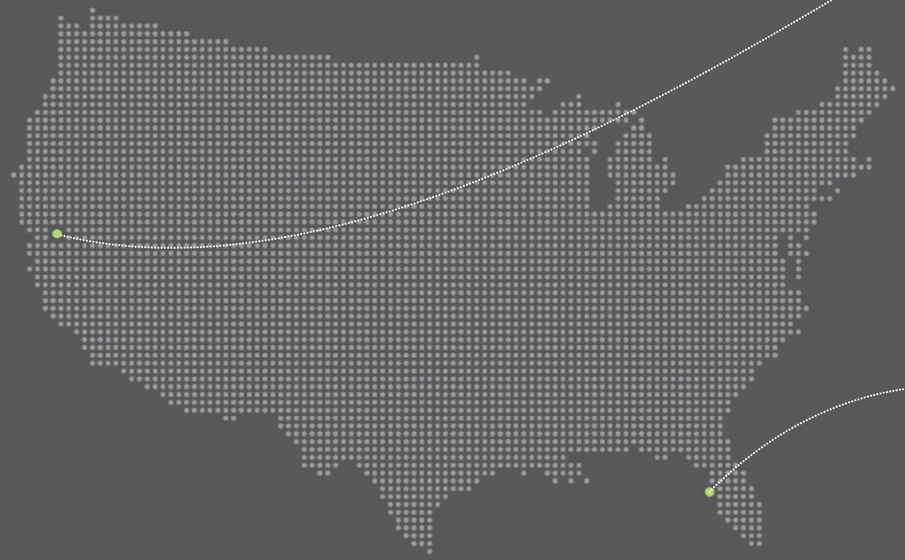
We have partnered with Sweetgreen to support its architectural needs by collaborating on more than 20 different locations nationwide. We are working on projects through the entire life cycle and helping to influence—through design—how the physical space supports new and evolving consumer needs and expectations, changes in the restaurant landscape, and new technologies to support post-pandemic dining.

REHABILITATION OF BLOOMFIELD AVENUE BRIDGE OVER NJ TRANSIT

Montclair, NJ

To restore the structural integrity of a circa-1911 bridge while maintaining railroad operations, vehicular and pedestrian traffic, and critical utility service, we used a strongback girder to allow staged construction, specified Inverset™ prefabricated superstructure units for long-term performance, and achieved the accelerated construction schedule.

NOTABLE PROJECTS



STATE ROAD 120/UNION ROAD INTERCHANGE

Manteca, CA

We provided construction management services on California's first diverging diamond interchange. The upgraded interchange carries travelers more efficiently on and off the freeway to destinations north and south along Union Road. The project features new signalized intersections and highway lighting ramp metering, as well as a Class I pedestrian trail across State Route 120 freeway fully separated from traffic.

VENICE PUBLIC SAFETY FACILITY

Venice, FL

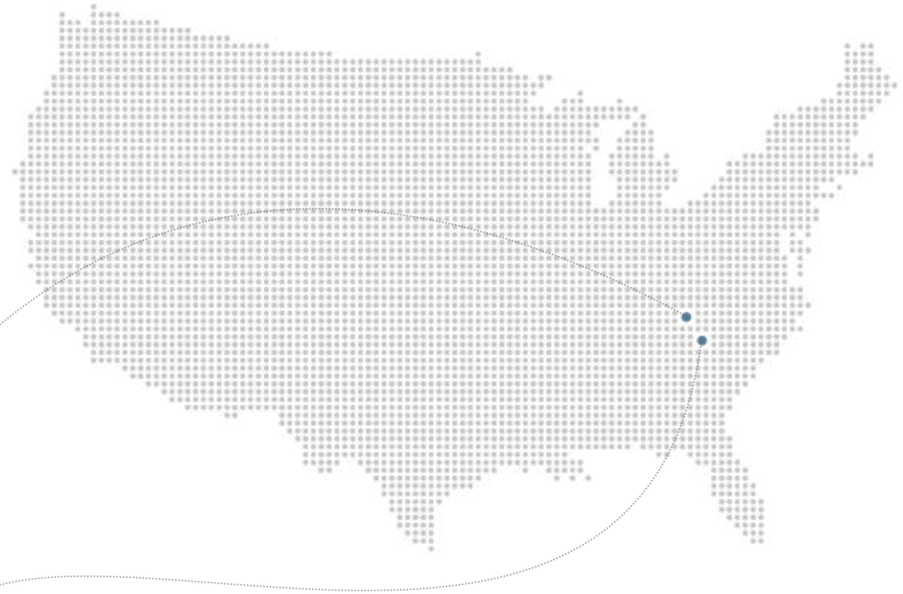
We provided architecture, structural and civil design, permitting, and construction administration services for the development of the City of Venice Public Safety facility. The hurricane-hardened public safety command center features a variety of spaces for the community and staff, including labs and secure storage. The facility's design works in harmony with the city's stringent design guidelines and promotes resilience.

NOTABLE PROJECTS

NOVANT HEALTH FORSYTH MEDICAL CENTER HVAC INFRASTRUCTURE UPGRADES

Winston-Salem, NC

The Forsyth campus was aging and in need of a major infrastructure investment. We provided mechanical, electrical, and plumbing infrastructure system upgrades and replacements throughout, added a new critical care tower and a chiller generator plant, and facilitated major interior renovations within the facility.



DUKE UNIVERSITY KARSH ALUMNI AND VISITORS CENTER MECHANICAL, ELECTRICAL,AND PLUMBING ENGINEERING UPGRADES

Durham, NC

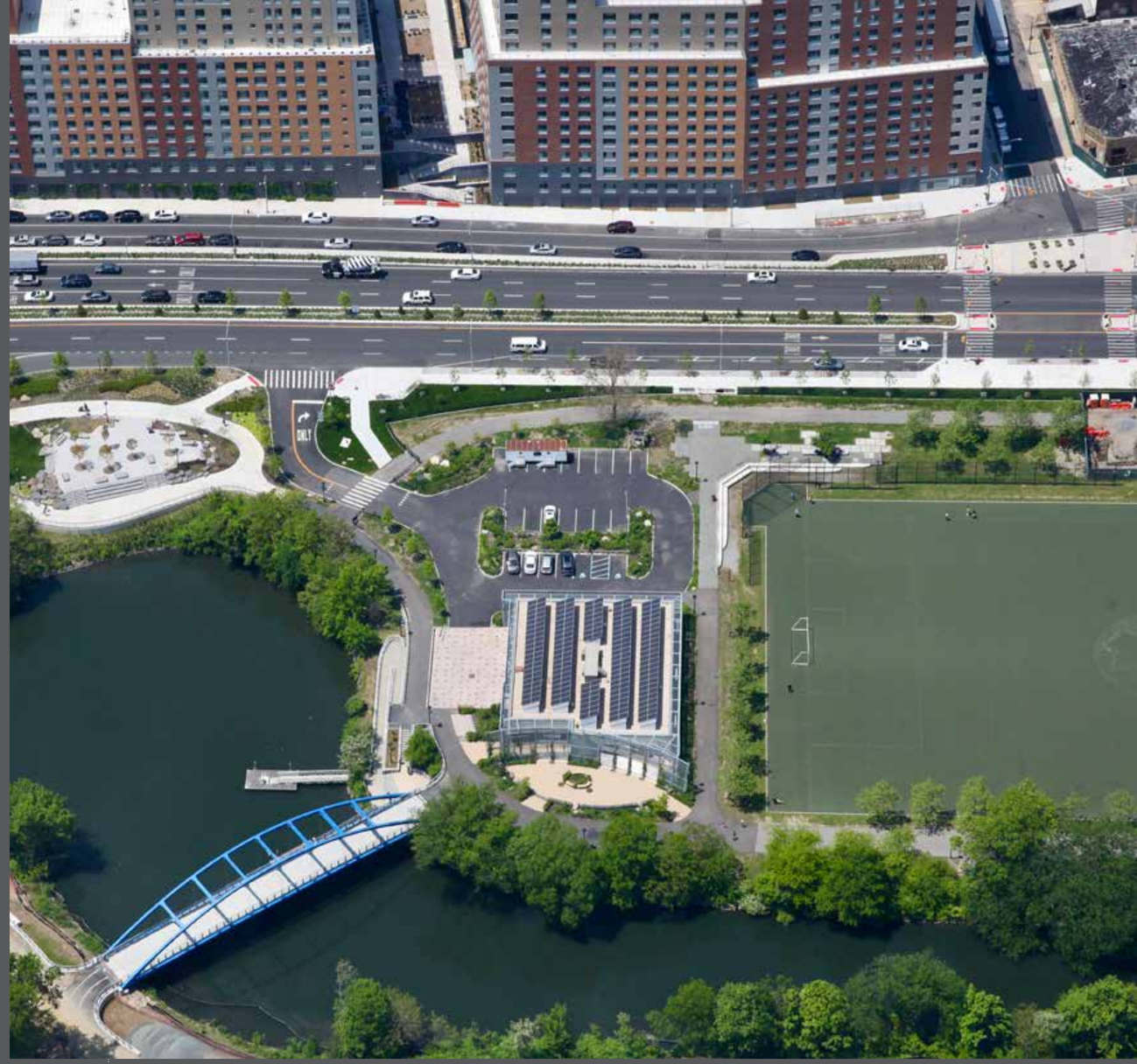
We were challenged to develop a modern facility that both reflected the university's history and featured the flexibility to operate as a visitors center and a large-scale event space. The design team was able to conceal the facility's HVAC systems and minimize their space impact, thus maintaining a unique experience for visitors while providing total thermal comfort.

NOTABLE PROJECTS

WASTEWATER TREATMENT PLANT EMERGENCY RESPONSE

North Carolina

We performed bench tests on 12 treatment options and implemented a full-scale temporary treatment solution. This prevented the pharmaceutical facility from being shut down after an upset occurred at the facility's onsite biological pretreatment system due to a breakthrough in chemical intermediates. The impacts of the upset were observed at the municipality's wastewater treatment plant and its receiving stream.

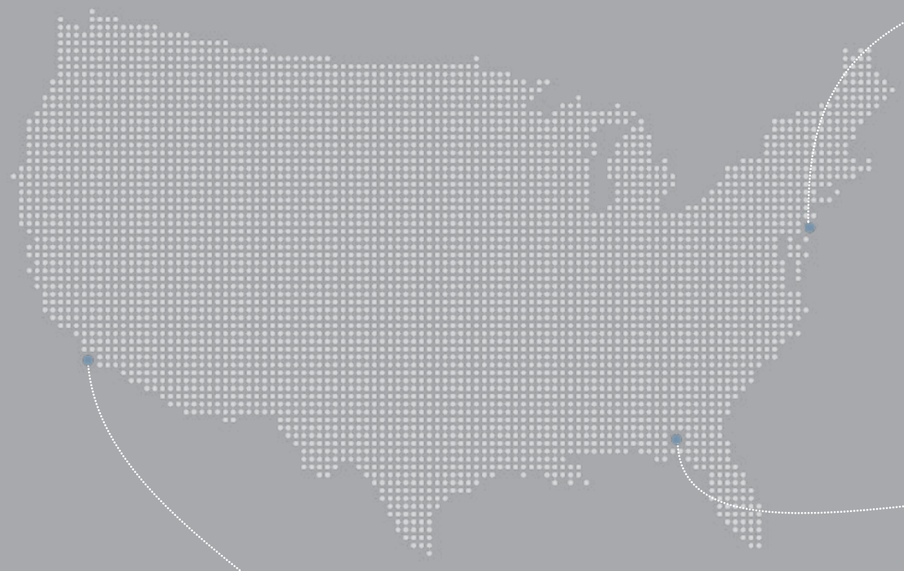


ARTHUR SHERIDAN ENHANCEMENT PROJECT

Bronx County, NY

In order to create a residential-friendly roadway system, we added signal-controlled intersections and crosswalks to improve and restore pedestrian and bicyclist connections to the Bronx River waterfront and adjacent communities, improve the streetscape, reduce vehicular speed, and ease traffic congestion on the Westchester Avenue exit ramp from Sheridan Boulevard.

NOTABLE PROJECTS



SHARK RIVER CHANNEL AND SPUR DREDGING

Neptune, NJ

After Superstorm Sandy caused a sediment increase in the Shark River channel and spur, we provided resilience and environmental services to improve the navigable channels with minimal impact on the community and local environment. We completed the design for the hydraulic dredging of nearly 70,000 cubic yards of sediment from 1.6 miles of the channel.

NAVAL FACILITIES ENGINEERING COMMAND STATEWIDE WASTEWATER SCADA INSTALLATIONS

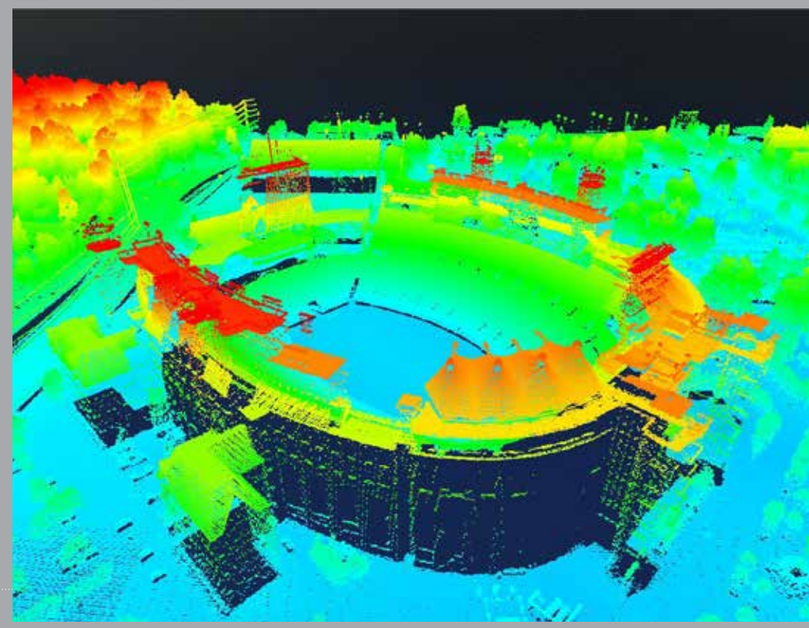
San Diego, CA

We provided engineering services for instrumentation and controls systems upgrade and replacement for the conversion of the existing Supervisory Control and Data Acquisition (SCADA) system at four major naval installations in the San Diego area. The design provided for integration into the existing Naval Facilities Engineering Command (NAVFAC) Southwest system, which monitors industrial and oily waste (IW/OW) treatment stations. This work helps IW/OW's ability to maintain critical operations.

LEON COUNTY LIDAR, AERIAL IMAGERY, AND PLANIMETRIC MAPPING

Leon County, FL

To help Leon County implement community development initiatives due to its rapid growth, we worked to produce over 800 square miles of topographic lidar at U.S. Geological Survey (USGS) Quality Level 0, which represents the highest requirements for accuracy and data resolution. This is the first countywide Quality Level 0 lidar dataset produced in the U.S. and is helping solve the county's most critical development challenges.



2020 RECOGNITION FOR OUR COMMUNITIES AND PROJECTS

CORPORATE

★ **Dewberry,**
Capability Maturity Model Integration Level 3 Appraisal, CMMI Institute

★ **Dewberry,**
Outstanding Enterprise Achievement in Lidar Award, International Lidar Mapping Forum and *Lidar Magazine*

COMMUNITY FACILITIES

PICTURED BELOW
San Juan Federal Office Building

Broadview Public Library
Broadview, Illinois

★ **Merit Award,** American Library Association (ALA)

Glen Ellyn Police Headquarters
Glen Ellyn, Illinois

★ **Silver Award,** Law Enforcement Design Awards

San Juan Federal Office Building
San Juan, Puerto Rico

★ **2020 Best Project Award,** Government/Public Building, *Engineering News-Record (ENR) Southeast*

★ **Gold Award,** Category B: Building/Technology Systems, American Council of Engineering Companies (ACEC) New York

ENERGY

Houston Methodist Clear Lake Central Utility Plant Houston, Texas

★ **Best Project Award,** *ENR Texas and Louisiana*

University of Virginia 35kV Routing Study and Design
Charlottesville, Virginia

★ **Merit Award,** ACEC

EDUCATION

University of Illinois at Chicago Engineering Innovation Building
Chicago, Illinois

★ **Design Excellence Citation,** *American School & University*

University of Virginia's Brandon Avenue/Green Street Utility Infrastructure Project
Charlottesville, Virginia

★ **2020 Best Project Award,** Landscape/Urban Development Category, *ENR MidAtlantic*

REAL ESTATE AND COMMERCIAL DEVELOPMENT

Capitol Crossing
200 Massachusetts Avenue, Washington, D.C.

★ **2020 Community Leader Award for Innovative Design,** New Construction-Commercial, U.S. Green Building Council

Nautica Waterfront District Development Cleveland, Ohio

★ **2020 Design Excellence Award Winner,** Unbuilt Category, AIA Eastern Oklahoma

RISK, RESPONSE, AND RECOVERY

Sea Level Wise
Virginia Beach, Virginia

★ **Resilient Virginia Community of the Year,** City of Virginia Beach, American Planning Association (APA) Virginia

TRANSPORTATION

PICTURED RIGHT
Wyandanch Station

Arthur Sheridan Enhancement Project Bronx, New York

- ★ **Highway/Bridge Award of Merit,** *ENR New York*
- ★ **Platinum Award,** Transportation Category, ACEC NY

Hunts Point Interstate Access Improvement Project
Hunts Point Peninsula, New York

- ★ **Platinum Award,** Studies, Research, and Consulting Engineering Services Category, ACEC NY

Long Island Rail Road Hill Rail Station Queens, New York

- ★ **Platinum Award,** Category H: Transportation, ACEC NY

Rehabilitation of Bloomfield Avenue (CR 506) Bridge Over NJ Transit Montclair, New Jersey

- ★ **Honorable Mention,** Project of the Year, American Society of Civil Engineers North Jersey Branch

Route 606 Bridge Replacement Over I-95 Spotsylvania, Virginia

- ★ **Merit Award,** Design-Build Institute of America (DBIA) Mid-Atlantic

Route 606 Loudoun County Parkway/Old Ox Road Widening and Reconstruction Project
Loudoun County, Virginia

- ★ **Merit Award,** ACEC Virginia

State Road 82 (Immokalee Road) Continuous Flow Intersection
Lee County, Florida

- ★ **2020 Grand Award Winner for Engineering Excellence,** ACEC Florida
- ★ **2020 National Project of the Year,** Over $20 Million Category, American Society of Highway Engineers (ASHE)
- ★ **2020 Operations Excellence Award-Medium Category,** Southern Association of State Highway and Transportation Officials (SASHTO)

US 50/Western Placerville Interchanges, Phase 2
Placerville, California

- ★ **2020 Project of the Year,** Transportation - Interchange Category $2 Million to $10 Million Division, American Public Works Association (APWA) Sacramento Chapter

Wyandanch and Pinelawn Stations Track and System Installations for the New Second Track on the Main Line Ronkonkoma Branch Phase II
Babylon, New York

- ★ **Diamond Award,** Transportation Category, ACEC NY

WATER

Colsman Tunnel Rehabilitation Project Southgate Water and Sanitation Districts, Colorado

- ★ **2020 Best Project,** Specialty Construction, *ENR Mountain States*
- ★ **H2O Award,** Colorado Contractors Association

Green Infrastructure in Jamaica Bay Tributary Areas
Jamaica Bay, New York

- ★ **Platinum Award,** Category F: Waste and Storm Water, ACEC NY

Loudoun Water Raw Water Transmission Main
Loudoun County, Virginia

- ★ **Honor Award,** ACEC Virginia

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THIRD EDITION DEM USERS MANUAL SUPPORTS GEOSPATIAL EDUCATION

Drawing on geospatial thought leadership from across the industry, the third edition of the Digital Elevation Model (DEM) Users Manual, co-published by the American Society for Photogrammetry and Remote Sensing (ASPRS) and Dewberry, is now available through the ASPRS website.

The DEM Users Manual offers a guide to 3D elevation technologies and is framed around the structure of the U.S. Geological Survey's 3D Elevation Program (3DEP). The manual addresses DEM technology standards, guidelines, and specifications, the National Elevation Dataset; photogrammetry; IfSAR; airborne topographic lidar; lidar data processing; airborne lidar bathymetry; sonar; enabling technologies; quality assessment of elevation data; and user applications, requirements, and benefits.

Dewberry Co-Editor and Senior Vice President Amar Nayegandhi, CP, CMPS, GISP, says, "This manual sets the framework by which future geospatial and technology experts are trained." Dewberry Associate Vice President and Co-Editor Dave Maune, Ph.D., PSM, PS, GS, CP, CFM, adds, "Three goals drove the content for the third edition of this manual: first, the development of high-accuracy, affordable elevation technologies for the betterment of society; second, the development and update of DEM technology standards, guidelines and specifications; and third, the implementation of a nationwide program, such as today's 3D Elevation Program (3DEP), to produce and maintain standardized high-quality DEMs used by all."

In addition to Nayegandhi and Maune, three other Dewberry geospatial and technology experts contributed to the manual, including Jennifer Novac, GISP; Joshua Novac, GISP; and Larry Sugarbaker.