#2020-014 ARCHITECTURE AND ENGINEERING SERVICES

CHESTNUT STREET MULTIMODAL STATION + SHARED SERVICES FACILITY / CITY OF OXFORD PASSENGER RAIL PLATFORM

BCRTA PROCUREMENT
3045 Moser Court
Hamilton, Ohio 45011

3:00 P.M. MONDAY, OCTOBER 19TH

Bowen+

Request for Proposals (RFP) Cover Page

Issue Date: September 1, 2020

Title: #2020-014 Architecture and Engineering Services for the Chestnut Street Multimodal Station & Shared Services Facility & City of Oxford Passenger Rail Platform

Issuing & Using Agency:

Multimodal Station & Shared Service Facility:	Passenger Rail Platform:
Butler County Regional Transit Authority Attn: Procurement 3045 Moser Court Hamilton, OH 45011	City of Oxford Attn: Michael Dreisbach 15 S. College Ave. Oxford, OH 45056

Proposals for Furnishing the Product(s)/ Service(s) Described Herein Will Be Received Until:
October 19, 2020 3:00 PM (EST)

All Inquiries for Information should be directed to address listed above or purchasing@butlercountyrta.com

IF PROPOSALS ARE MAILED OR HAND DELIVERED,

SEND DIRECTLY TO:

BCRTA Procurement, 3045 Moser Court., Hamilton, OH 45011

The Reference Number, Date and Time of proposal submission deadline, as reflected above, must clearly appear on the face of the returned proposal package.

In Compliance With This Request for Proposals And To All Terms, Conditions, and Requirements Imposed Therein and Hereby Incorporated By Reference, The Undersigned Offers And Agrees To Furnish The Goods/Services Described Herein In Accordance With The Attached Signed Proposal Or As Mutually Agreed Upon By Subsequent Negotiation.

Name and Address of Firm:

Richard L. Bowen + Associates, Inc.

2019 Center St, Suite 500

Cleveland, OH Zip Code: 44113

Telephone: (216) 491-9300

Fax Number: (216) 491-8053

Date: 10/16/2020

By: _____ (Signature in Ink)

Name: Allan Renzi, AIA

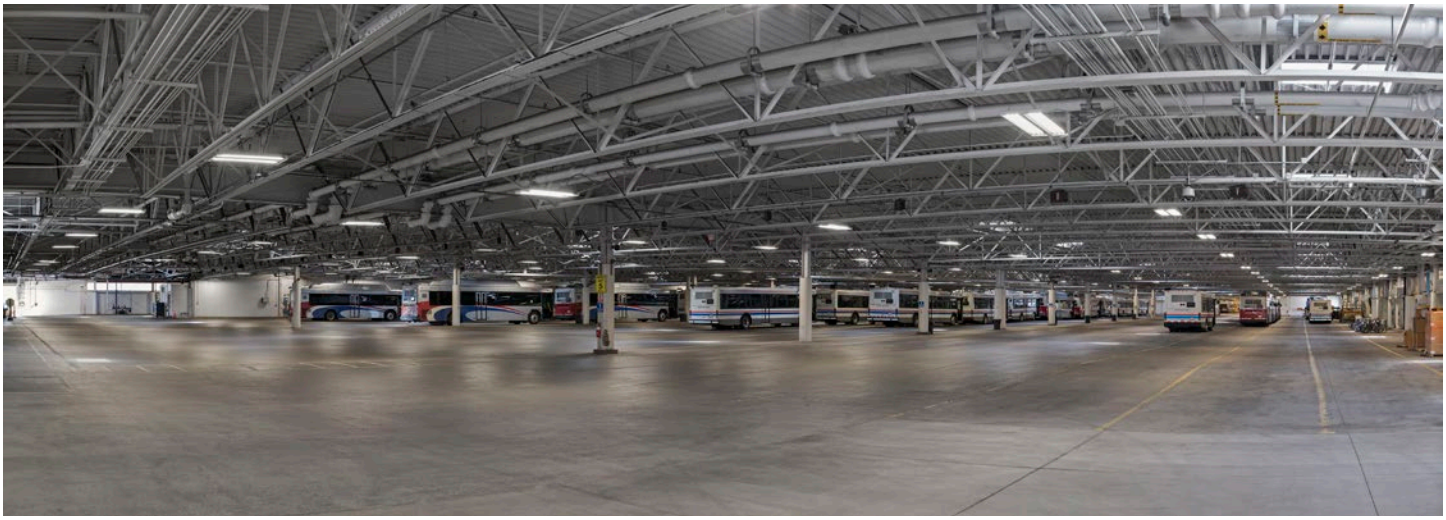
Title: President (Please Print)

FEI/FIN Number: 34-1156989

E-Mail Address:

email@rlba.com

DISADVANTAGED BUSINESS ENTERPRISE (DBE): ( ) YES (✓) NO



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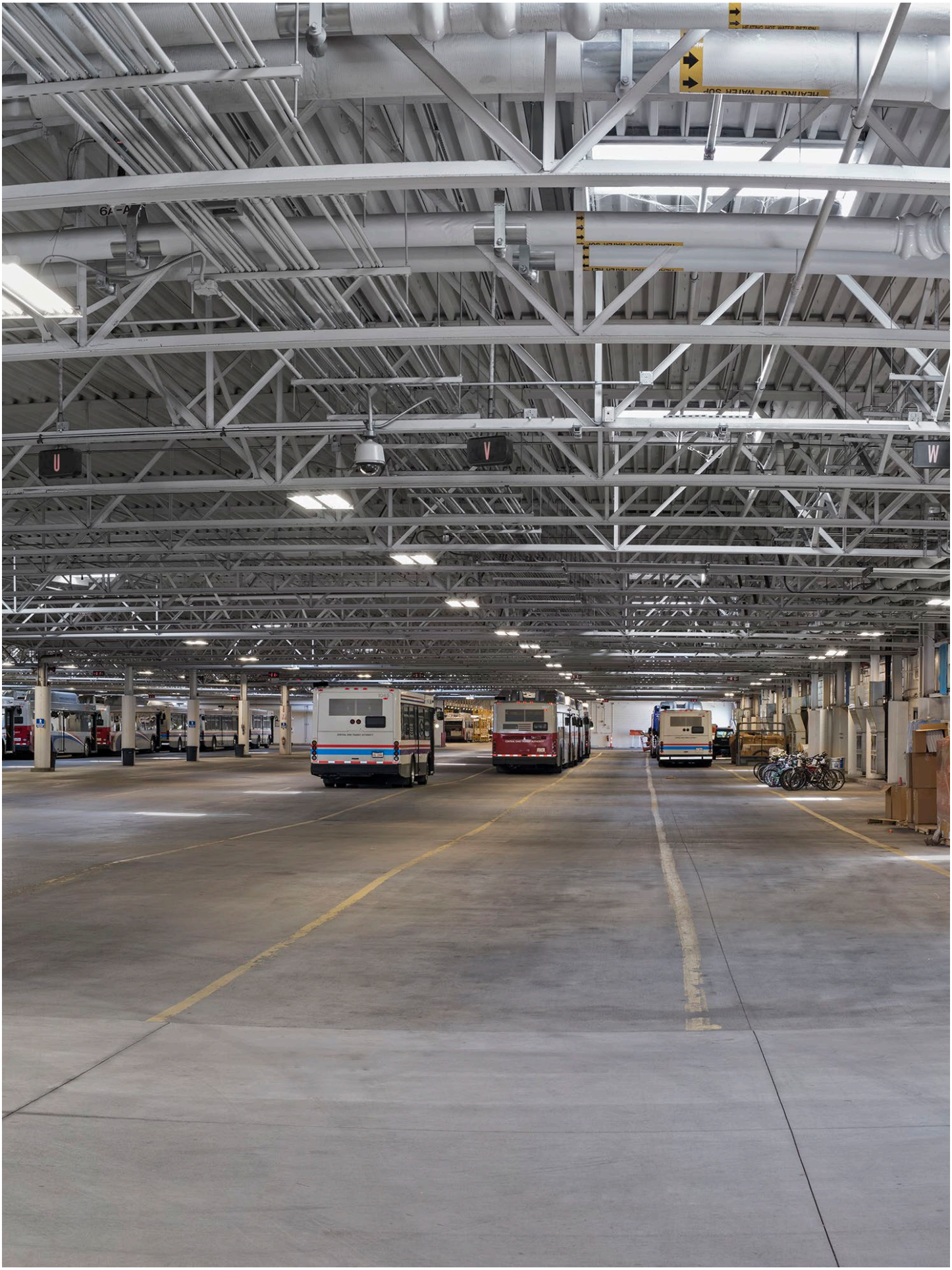
Pricing Proposal is included in a separate, sealed envelope.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1. QUALIFICATIONS + CAPABILITIES

As the pages in this Statement of Qualifications will show, the Bowen Team is ideally suited to meet the challenges of these projects. We not only have experience leading projects with similar scope, we are at the forefront of transportation design.

SELECTION CRITERIA

GENERAL EXPERIENCE

The Bowen Team has experience will all of the key project components, including rail platforms, multi-modal stations, and bus maintenance facilities.

We work tirelessly with the client throughout all project stages to ensure the project stays on schedule and within budget. Our partner NV5's estimates have a history of coming in within -1.8%. Our key references can attest to our ability to exceed project expectations.

CURRENT TRENDS

We pride ourselves on being thought leaders with respect to transit design. We understand and have implemented the latest fueling and maintenance systems and technologies and create facilities that bring transit authorities to the 21st Century and equip them for what's to come.

Lawhon Engineering, our Environmental partner, is expert in navigating NEPA reviews. Lawhon has teamed with Bowen on projects with many of Ohio's largest transit authorities.

PERFORMANCE HISTORY

Performance history for the past five years has been positive with any claim expenses being covered under the Firm's Professional Liability insurance policy.

KEY PERSONNEL + PROFESSIONAL DIVERSITY

The Bowen Team includes a diverse team of experts highly skilled in the scope required of this project. Our team includes:

- **Bowen:** Project management, architecture, interior design, structural engineering, construction administration
- **Urban Engineers:** MEPT Engineering, BCRTA fueling and equipment design, BCRTA enhanced construction services, Oxford rail platform engineering, Oxford rail civil engineering, CSX coordination
- **Bayer Becker:** Landscape architecture, BCRTA civil engineering, Oxford rail survey and topographical mapping.
- **Lawhon + Associates:** NEPA review and environmental engineering
- **Terracon:** Geotechnical engineering and construction testing
- **NV5:** Estimating and scheduling
- **ORColan:** Right of Way and Acquisition

SELECTION CRITERIA, CONT.

BEYOND THE MINIMUM

Elevating Transit Design

We try to elevate the design possibilities of transit and maintenance facilities—waiting areas, lobbies, and administrative spaces can and should feel welcoming, inviting, and current. Through innovative use of durable materials, we can craft stunning spaces that are easy to maintain.

Prime Firm Participation

As the prime firm in charge of project management, all architecture, interior design, structural engineering, and construction administration, Bowen will perform at least 50% of the work.

DBE Participation

Our team includes DBE-certified Lawhon + Associates, who will provide NEPA review and environmental engineering on both projects.

JURISDICTIONS

The Bowen Team has extensive experience navigating the complex permitting procedures that transit projects require. We have worked with numerous local, state, federal, transit, and rail authorities.

COMMUNICATION

We strongly believe that communication is the cornerstone of a successful project. Interactive design charrettes at the beginning of design help build consensus about project goals early in the process. We keep all stakeholders on the same page regular meetings (virtual and in-person), progress reports, and timely responses to emails and calls. Our project management software Newforma keeps a record of all communication and tracks actionable items like RFIs and submittal reviews. This program makes sharing information and files easy and sets up reminder to ensure that nothing “falls through the cracks.” Most importantly, the Bowen team has worked together on numerous projects. We all have a good working relationship and a proven track record of successful collaboration.

ON TIME

Everyone wants their projects to finish on time, but we understand that scheduling issues are particularly important to transit authorities. Sties typically have to remain operational during construction, and meeting deadlines is one of the best ways of limiting disruption. Federal funding often comes with time restrictions, so we need to hit key targets in order to be able to build the project at all. The Bowen team can facilitate a smooth process by meeting design deadlines and responding to contractors efficiently during construction. Our scheduling partner, NV5, understands the realities of construction and will make sure that the initial schedules are comprehensive and realistic.

BOWEN

Since 1959, Bowen has provided exceptional integrated architecture, planning and engineering. Bowen built its reputation through integrity, innovation, and a commitment to community. As an employee-owned company, we believe our exemplary service and relationships are the keys to success.

Bowen+

2019 Center St, Suite 500
Cleveland, Ohio 44113
216.491.9300
www.rlba.com

PRIMARY CONTACT
Ken Emling, AIA
Director | Public Architecture
kemling@rlba.com
216.377.3815

PROJECT FUNCTION
Prime Firm
Project Management
Architecture
Interior Design
Structural Engineering

FIRM HISTORY

Richard L. Bowen founded the company in 1959 and served as President until his retirement in 2019. In those 60 years Bowen grew to a nationally licensed firm with full service engineering and construction capabilities.

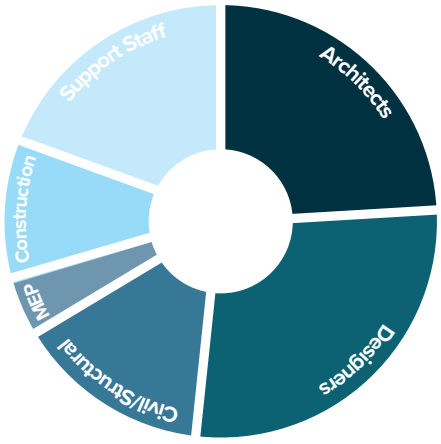
Today, Bowen is a 100% Employee-Owned company with Allan Renzi, AIA as President. Our projects are evenly split between public and private sectors, with specializations in transportation, public safety, commercial development, and retail programs.

FINANCIAL CONDITION

Bowen is profitable with growing sales and strong cash flow. Fiscal year 2020 is one of the most profitable years in the history of the Firm. Strong Management personnel and teamwork by Staff has contributed to the Firm's ongoing success.

EMPLOYEES BY DISCIPLINE:

Architects	13
Designers	15
Civil / Structural	8
MEP	2
Construction	6
Support Staff	10
TOTAL:	**56**



KENNETH J. EMLING, AIA, NCARB

Principal | Director of Public Architecture

EDUCATION

Bachelor of Architecture, Kent State University
Bachelor of Science in Architecture, Kent State University

REGISTRATIONS

Architect – Ohio
NCARB
AIA

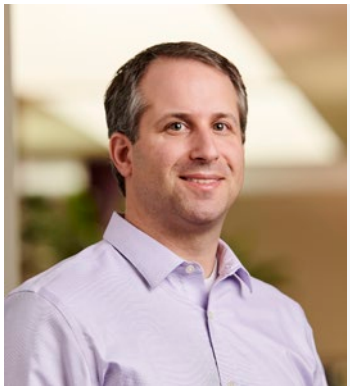
Ken has more than 25 years of experience, 23 of them with Bowen. His capabilities encompass a full range of architectural design and project management skills. He has directed the design and construction of a multitude of building types, including transportation centers, industrial facilities, office renovations, recreation centers, governmental buildings and correctional facilities.

TRANSPORTATION

- Laketran Headquarters Expansion, Painesville, Ohio
- SARTA Garage Expansion, Canton, Ohio
- COTA Fields Ave Maintenance Garage, CNG, and Electric Bus Infrastructure, Columbus, Ohio
- COTA McKinley Facility Assessment and Renovation,CNG Facility Design and Implementation, Columbus, Ohio
- PARTA CNG Fueling & Maintenance Renovations, Ravenna, Ohio
- COTA Spring Street Bus Station, Columbus, Ohio
- COTA Commons Street Terminal Renovations, Columbus, Ohio
- Lorain County Rail Platform, Elyria, Ohio
- SARTA Gateway Facility Renovation, Canton, Ohio
- GCRTA Clifton Boulevard Enhancement Program, Cleveland, Ohio
- GCRTA Triskett District Bus Facility Rehabilitation, Cleveland, Ohio
- GCRTA East 55th Street Rapid Station, Cleveland, Ohio
- GCRTA Bus Transit Centers (Multiple Cleveland Locations)
- Norfolk Southern Maintenance Yards, Welfare Stations, and Other Renovations, Multiple US Locations

KYLE HULEWAT, AIA

Director of Design



EDUCATION

Bachelor of Architecture, The Ohio State University
Masters of Architecture, University of Michigan

REGISTRATIONS

Registered Architect — Ohio
NCARB; AIA

Kyle has fifteen years of design experience with a portfolio that includes multi-family housing, office, municipal, and retail projects. Prior to joining Bowen, Kyle was co-founder of Metropolitan Architecture Practice, based in Detroit, Michigan. His approach is one of constant creating and experimentation, leading to award-winning designs in both public and private sectors. As Director of Design, Kyle oversees the entire team of designers to ensure cohesive and unified concepts and deliverables.

TRANSPORTATION

- COTA Fields Ave Garage Renovations, CNG, and Electric Bus Infrastructure, Columbus, Ohio
- COTA McKinley Avenue Facility Renovation, Columbus, Ohio
- COTA Downtown Transit Terminal Renovations, Columbus, Ohio
- PARTA CNG Bridge Documents, Kent, Ohio
- Cuyahoga County Flexjet Concourse I, Cleveland, Ohio

GOVERNMENTAL

- Sandusky Justice Center (Police and Courts), Sandusky, Ohio
- New City Kennel, Cleveland, Ohio
- Wooster Safety Service Center, Wooster, Ohio
- Global Center for Health Innovation Renovation Task Orders, Cleveland, Ohio
- GCDWR Office Garage Expansion Master Plan
- Rocky River Police Station, Rocky River, Ohio
- Northfield Civic Campus Master Plan, Village of Northfield, Ohio
- Portage County Municipal Courthouse, Kent, Ohio

JUSTIN BREVICK, RA

Senior Project Architect

EDUCATION

Bachelor of Architecture, Lawrence Technological Institute

REGISTRATIONS

Architect - Washington
NCARB

Justin has 10 years of experience in architecture and Revit. Energized by innovative solutions, he brings enthusiasm to technically complex environments and documentation. He's skilled in building information modeling (BIM) and manages digital projects fluidly, adapting to fast pace and large scale. As Project Architect he is involved in all phases and design, culminating in fully integrated Construction Documents. He then serves as on-site construction administrator.

TRANSPORTATION

- COTA McKinley Ave Renovations, Phase IV, Columbus, Ohio
- COTA Fields Ave CNG Fueling, Maintenance, and Electric Bus Infrastructure, Columbus, Ohio

GOVERNMENTAL

- Cuyahoga County Jail Programming and Master Plan, Cleveland, Ohio
- U Toledo / Ohio State Highway Patrol Combined Safety Service Center, Toledo, Ohio
- Glenville Recreation Center Roof, Cleveland, Ohio

OFFICE

- Sterling Talent Solutions, Regional Office, Bellevue, Washington
- TPCI, Headquarters Office, Bellevue, Washington;

INDUSTRIAL

- Denso Clearnroom Design-Build, Knoxville, Tennessee; Project Architect
- Brennan Industries Warehouse Expansion, Solon, Ohio; Project Architect
- Boeing, Factory Transformation, Everett, Washington; Intern Architect

TIMOTHY LARKE, AIA

Project Architect

EDUCATION

Master of Architecture, Kent State University Cleveland Urban Design Collaborative
Bachelor of Science, Kent State University College of Architecture and Environmental Design

REGISTRATIONS

Registered Architect: Ohio

Tim likes architecture because it presents an opportunity to impact lives through design. Tim came to Bowen with a focus on multi-family housing. Since joining us, he has used his commitment to community and well-being to support a variety and public and private project types.

TRANSPORTATION

- COTA McKinley Ave Maintenance Facility, Columbus, Ohio
- SARTA Facility Expansion & Sitework, Canton, Ohio

GOVERNMENTAL

- Cuyahoga County Central Booking Renovation, Cleveland, Ohio
- Cuyahoga County Convention Center Renovations, Cleveland Ohio

MULTI-FAMILY

- Franklin Apartments, Cleveland, Ohio
- Park East Apartments, Adaptive Reuse of Nursing Facility to Luxury Apartments, Beachwood, Ohio
- Ford Road Redevelopment, Cleveland, Ohio
- Cedar Redevelopment (Phases 1-3), Cleveland, Ohio*
- Phoenix Ridge, Atlanta, Georgia*
- Ivywood Apartments, Columbus, Ohio*
- Cleveland Single Family Homes (Glenville neighborhood), Cleveland, Ohio*
- Slavic Village Green Homes, Cleveland, Ohio*

INDUSTRIAL

- PLIDCO Facility Expansion, Ohio

SHANA HURST

Interior Designer

YEARS OF EXPERIENCE

1 at Bowen
3 in Industry

EDUCATION

Bachelor of Science in Architecture, Art Institute of Pittsburgh

Shana has been making interiors beautiful for the past six years. Her expertise in design and use of space makes her unmatched in the development of beautiful environments. As a interior designer she works alongside architects to create an immersive and cohesive environment.

TRANSPORTATION

- COTA Fields Avenue CNG Renovation and Electric Bus Infrastructure, Columbus, Ohio

OFFICE

- National Insurance Chain Claims Center, Various Location
- Bowen Headquarters, Cleveland, Ohio
- National Insurance Chain Conversion of Claims Centers to Offices, Multiple US Locations

GOVERNMENT

- Rocky River Police Station, Rocky River, Ohio
- Lorain County Jobs and Family Services Exterior Renovations, Elyria, Ohio

RETAIL

- Kohl's National Program, Renovations, Takeovers, and New Construction, Multiple US Locations
- Dollar General National Program, Multiple US Locations
- Global Center for Health Innovation Interior Renovations, Cleveland, Ohio

ACADEMIC

- University of Toledo / Ohio Highway Patrol Public Safety Center, Toledo, Ohio

REBECCA C. WERMAN, CCS

Specifications Writer

EDUCATION

Bachelor of Arts,
Kent State University

REGISTRATIONS

CSI Certified
Construction Specifier

Becky has over 30 years experience writing architecture specifications. She has worked on a number of projects in the academic, offices, government and transportation fields. With her extensive experience, she is a key team member on all of our projects.

TRANSPORTATION

- COTA McKinley Avenue Renovation, Columbus, Ohio
- COTA Transit Terminals, Columbus, Ohio
- SARTA Gateway Facility Expansion, Canton, Ohio
- GCRTA E. 55th Street Station, Cleveland, Ohio
- GCRTA Clifton Boulevard Enhancement, Cleveland, Ohio
- Cleveland Hopkins International Airport Main Terminal Restrooms Renovation
- Ohio Turnpike Commission Twin Service Plazas, Williams County, Ohio
- Ohio Turnpike Commission Twin Service Plazas, Mahoning County, Ohio
- Norfolk Southern Welfare and Parts Storage Building, Conway, Pennsylvania
- Norfolk Southern Rockport Yard Office, Cleveland, Ohio
- Norfolk Southern Inman Yard Meeting Hall, Atlanta, Georgia
- Medina County Transit Facility, Medina, Ohio
- CSX Railroad Building, North Bergen, New Jersey

GOVERNMENT

- Rocky River Police Station and Expansion, Rocky River, Ohio
- Wooster Safety Service Center, Wooster, Ohio
- New City Kennel, Cleveland, Ohio
- Third District Police Station, Cleveland, Ohio
- Portage County Municipal Court House, Kent, Ohio

NEERAJA PANDAV

Sustainability Designer

EDUCATION

Bachelor in Architecture, University of Pune, India

Master of Sustainable Design, University of Minnesota, Twin Cities

REGISTRATIONS

Associate AIA

Neeraja Joined Bowen in 2018. With a Masters in Sustainable Design, she has quickly become a leader in our continued efforts to create eco-friendly designs and achieve LEED Certifications. Her skills with drafting and design, and attention to detail, have made her an asset for projects in commercial and public sectors.

TRANSPORTATION

- COTA Fields Avenue Renovation, Columbus, Ohio
- COTA McKinley Ave Maintenance Renovations, Columbus, Ohio

GOVERNMENTAL

- Rocky River Police Station & Jail Renovations, Rocky River, Ohio
- University of Toledo/Ohio State Highway Patrol Joint Public Safety Center, Toledo, Ohio
- Ice Arena Renovations, North Olmsted, Ohio
- New City Kennel, Cleveland, Ohio
- Global Center for Health Innovation Renovations, Cleveland, Ohio

INDUSTRIAL

- New Industrial Building, Charlotte, North Carolina
- Brightfarms, Selinsburg, Pennsylvania

OFFICE

- National Insurance Chain Claims Center Conversions to Open Office, Multiple US Locations

NICHOLAS TINL, PE

Senior Structural Engineer

EDUCATION

Master of Science in Structural Engineering, Graduate Certificate in Nuclear Engineering, Bachelor of Science in Civil Engineering, The University of Akron

REGISTRATIONS

PE: OH, MA

Nick studied structural engineering to answer the question “how do they make buildings stand up?” With over ten years of experience, he continues to love making sure buildings are stable and safe and exploring the relationship between a building’s structure and its overall function. Nick is experienced with a variety of project types in public and private sectors, including industrial, retail, public safety, and transportation.

TRANSPORTATION

- COTA Fields Avenue Maintenance Garage, CNG, and Electric Bus Infrastructure, Columbus, Ohio
- COTA McKinley Avenue Maintenance Renovation, Phase 3C, Cleveland, Ohio
- Laketran Headquarters Expansion, Painesville, Ohio
- SARTA Facility Expansion & Sitework, Canton, Ohio

GOVERNMENTAL

- Cuyahoga County Central Booking Renovation, Cleveland, Ohio
- Ice Arena Renovation, North Olmsted, Ohio
- Recreation Center Sump Pump Replacement, North Olmsted, Ohio
- Allen County Juvenile Detention Center, Lima, Ohio
- Lake County Building and Grounds Maintenance Facility, Painesville, Ohio
- City of Lorain Vehicle Garage, Lorain, Ohio
- Multiple NASA structural retrofits of existing facilities, Cleveland, Ohio

URBAN ENGINEERS

Urban Engineers, Inc. (Urban) is an employee-owned multidisciplinary planning, environmental, design, construction services and program management consulting firm with a distinguished history of providing innovation, technical excellence, and on-time performance that exceeds their clients' expectations.

PRIMARY CONTACT
Rob Tuttle, PE
Project Coordinator
412.335.9975
rtuttle@urbanengineers.com.
One Williamsburg Place
Warrendale, PA 15086

PROJECT FUNCTION
MEPT Engineering
Fueling + Equipment
CSX Coordination
Oxford Rail Civil Engineering
Oxford Rail Station / Platform Structural Engineering

From its' founding in 1960 with seven employees, to the present with more than 450 employees in 15 offices, Urban is committed to using all its' resources to meet client's needs. The continued modernization and refinement of services Urban provides to clients has led to repeated selection by local, state and the federal government for complex and high-profile assignments throughout the United States. Urban's Project Coordinator, Robert Tuttle, PE will provide project support from Urban's Pittsburgh Regional Office.

Urban has been integrally involved in working with the FTA for over 30 years and has provided guidance to transit agencies and municipalities throughout the nation. Their first-hand knowledge of current federal regulations and requirements helps us to deliver clients' federally funded programs. The proven experience and ongoing working relationships Urban maintains with the FTA will provide "value added" insight to comply with all federal procurement procedures, regulations and guidance.

Through the combination of their understanding of FTA funding requirements, bus maintenance operations, engineering expertise and construction experience, they will provide sustainable, flexible, and adaptable solutions to meet the needs of the BCRTA, City of Oxford, Miami University and all other project stakeholders.

FINANCIAL CONDITIONS

Urban certifies that it has the financial capacity to provide the services on this project for the BCRTA. Urban Engineers, Inc. is a 100% ESOP owned 'S' Corporation. Annual revenues average approx. $75 million per year. Working capital for operations is provided by a $12.0 million line of credit. There are no current conditions that will impede their ability to complete the project.

ROBERT TUTTLE, PE

Urban Project Director, Construction PM, CSX Coordination

EDUCATION

BS, Architectural Engineering,
BS, Civil Engineering,
Drexel University

REGISTRATIONS

Ohio, Pennsylvania

Robert oversees Urban's National Freight Rail Group. In this role he manages Urban's contracts with freight rail clients and provides support to projects that require coordination with various Class I and Shortline Railroads. In addition to these responsibilities, Robert also oversees Urban's construction management personnel in the Midwest Region and has extensive experience in managing client's multi-phase development programs. His past work experience includes a variety of maintenance facilities including light and heavy-duty maintenance, administration, vehicle wash and fueling facilities. Mr. Tuttle's skills include project programming, basis-of-design development, risk assessments, funds control, and schedule analysis.

Mechanical Facilities, Allegheny Valley Railroad, Pittsburgh, PA
A new expedited maintenance facility and fueling facility.

Mechanical Facilities, Genesee & Wyoming; Missouri, Oregon and Texas
Multiple yard improvement projects. Projects included maintenance facilities, wash facilities and fueling stations.

Juniata Locomotive Shop Turntable Improvements, Norfolk Southern, Juniata, PA
The replacement of a turntable and rehabilitation of the existing concrete pit structure and approach tracks.

Moorman Yard Maintenance and Fueling Facilities, Norfolk Southern, Bellevue, OH
Moorman Yard Master Plan.

Philadelphia International Airport GSE Facility, American Airlines, Philadelphia, PA
The 56,000 Ground Services Equipment (GSE) facility includes office, repair, and maintenance areas.

JAMES BILELLA, PE

MEP Lead/Design PM

EDUCATION

BS, Electrical Engineering,
Drexel University

REGISTRATIONS

Ohio, Pennsylvania

James is Urban's General Manager of Facility Design. He has extensive experience managing mechanical, electrical, plumbing, and fire protection (MEP/ FP) engineering services projects. He is skilled in the management of multidisciplinary projects for the transportation industry. His background includes design, system and equipment selection, project field administration, specification writing, feasibility and conditions reports, and power and arc flash studies. He has managed large scale projects for such clients as Amtrak, CSX, Norfolk Southern, NJDOT, SJTA, SEPTA, MTA, and DCTA. His extensive experience with transportation-related facilities includes administrative buildings, operations centers, materials/equipment storage buildings, locomotive and bus maintenance facilities, vehicle maintenance facilities, train stations, transit centers, and employee welfare buildings.

Facility Master Plan, Long Beach Transit, Long Beach, CA
Development of a Facility Master Plan. The evaluation will cover infrastructure and programming needs, including service delivery, maintenance and operations, and administrative services.

Ardmore Transit Center, Lower Merion Township, Ardmore, PA
New $43 million transportation center, servicing Amtrak and SEPTA train lines and a bus station.

ADA Station Program, Amtrak, Johnstown, PA
ADA accessibility in conformance to the Accessibility Code 2006 Department of Transportation Accessibility Standards.

Task Order Agreement for Architectural & Engineering Services, Amtrak, Nationwide
Projects encompass facilities, structures, electric traction, communications, signals and track work.

New Equipment Maintenance Facility (EMF), DART, Irving, TX
The facility includes a control room/dispatch space, administrative offices, vehicle maintenance shop, warehouse storage facility, maintenance space, vehicle fueling island, train wash facility, and additional storage tracks.

DAVID PARMITER, PE

Mechanical Engineering

EDUCATION

BS, Architectural Engineering, Pennsylvania State University

REGISTRATIONS

PE: CA, CT, DC, DE, MA, MD, NJ, NY, PA, TX, VA

David Parmiter is an engineering professional with extensive experience in managing the development of mechanical, electrical, plumbing, and fire protection system designs with architects, facility directors, developers, and contractors, and includes the preparation of master plan studies for college campuses, engineering design of highrise buildings, hospitals, laboratories, correctional institutions, airports, transportation facilities, educational, industrial, commercial and residential projects, as well as developing engineering solutions for historic restorations.

Bus Wash System Replacement, FWTA, Fort Worth, TX
Replacement of the bus wash system for the Fort Worth Transportation Authority (FWTA)

Renovations and Improvements, Villanova Station, Radnor Township, Villanova, PA
Renovations and improvements to this historic regional rail station.

Saratoga Bus Maintenance Facility, CDTA, Saratoga Springs, NY
This project includes a satellite bus garage with administrative offices, dispatch and driver areas, maintenance bays, a fuel dispensing station, a bus wash unit and an indoor bus storage area for a 50 bus fleet.

Replacement of Dynamometer System at the Central Bus Maintenance Facility, The County of Westchester, Yonkers, NY
Design of a new dynamometer and brake tester for the Central Bus Maintenance Facility.

Elizabethtown Train Station Renovations, TranSystems, Inc., Elizabethtown, PA
Renovation of the one-story, 2,243 SF historic train station.

DAVID STEELE, PE, LEED AP

Amtrak Stations/Platform Structural Engineering

EDUCATION

BS, Civil Engineering, University of Delaware

REGISTRATIONS

PE: MD, NJ, NY, OH, PA, TX

David Steele has extensive experience in the coordination of projects from early planning stages through final design. As a Division Director for Urban, he leads the structural engineering for facilities and building systems, corporate-wide. He was a member of the Council of American Structural Engineers Guidelines Committee and was/is a member of the 2010, 2016 and 2022 Minimum Design Loads for Buildings and Other Structures national standard committee. David is an effective leader and uses his strong management skills to direct diverse teams of talented and dedicated individuals. His expertise includes: construction, value engineering, historic and adaptive reuse, constructability, code evaluations and existing condition studies.

Amtrak Transportation Center, Lorain County, Elyria, OH
Two new 600' platforms and canopy structures at the Historic Elyria Station.

Ardmore Transit Center, Lower Merion Township, Ardmore, PA
The station includes high & low level platforms; a pedestrian tunnel under the existing tracks; canopies and passenger shelters; and street level retail space.

Villanova Station Improvements, SEPTA, Philadelphia, PA
Improvements to a historical station, including new station canopies; high & low level platforms; a pedestrian tunnel under the existing tracks; and restoration of existing historical canopies.

Joint Operations Facility, Erie Metropolitan Transit Administration, Erie, PA
A 150,000 SF Bus Storage Facility and a 70,000 SF Bus Maintenance Facility.

Kirk Avenue Bus Maintenance and Storage Facility, Maryland Transit Administration,Baltimore, MD
A 200,000 square foot Bus Storage Facility and a 100,000 SF Bus Maintenance Facility.

BAYER BECKER

Bayer Becker grew from two entrepreneurs who saw a need in the marketplace and had the drive to build it from the ground up. Founded on strong values and a commitment to the client, you can find that same entrepreneurial spirit today in every level of the organization, from principal to technician.

PRIMARY CONTACT
Etta Reed, PE | Principal
ettareed@bayerbecker.com
513.336.6600
110 S. College Ave
Oxford, OH 45056

PROJECT FUNCTION
Landscape Architecture
BCRTA Multimodal Facility Civil Engineering
Oxford Rail Platform Site and Topographical Survey

Bayer Becker is an industry leader, providing innovative and practical solutions, for over 50 years.

They offer integrated professional design consulting services, including civil engineering, transportation engineering, land surveying, landscape architecture and planning. Their collaborative approach, extensive local network, and commitment to technology ensure that they are an advocate for their clients and are continuously designing for success.

Offices: 4 (Oxford OH, Mason OH, Cincinnati OH, Ft Mitchell KY)

Employees: 65

EXPERT CAPABILITIES

- Civil Engineering
- Land Surveying
- Geovisualization
- Transportation Engineering
- Landscape Architecture

FINANCIAL STATUS

Bayer Becker is in good financial standing and can provide contact information with their financial institutions to attest to this or provide a written letter of financial standing upon request.

ETTA M. REED, PE

Principal | VP Transportation Engineering

EDUCATION

Bachelor of Science, Civil Engineering, University of Cincinnati,

REGISTRATIONS

PE: Ohio, Kentucky, Indiana

Upon joining the firm in 1994, Etta developed the Transportation Engineering department. In 2000, she was named Principal and currently she serves as the Vice President of the Transportation Engineering Department and manages the Oxford, Ohio office. Etta's technical expertise extends beyond the transportation engineering field to include site design, utility design, municipal engineering, and land development. She has managed and designed projects ranging from 1 acre to 500 acres.

Over the span of her career, Ms. Reed has become extremely familiar with zoning code and regulations as they pertain to land development. Her involvement with various organizations and committees is an asset, helping her understand the need and basis for the regulations/plans and how they could impact or enhance land development.

Miami University Gateways | Oxford, OH
Improvements to US 27 and SR 73 for multi-modal transportation users.

Oxford Area Recreational Trail phase II | Oxford, OH
2 miles of multi-use trail connecting US 27 to SR 73, as well as parking lot improvements at DeWitt Cabin and Peffer Park.

Kramer Elementary | Oxford, OH
A $10.8 million elementary school reconstruction in the Talawanda School District. Etta's relationships with the school district and the City of Oxford were critical in permitting and keeping the project on the tight timeline.

The Verge | Oxford, OH
A residential housing facility located adjacent to the project site to the east on Chestnut Street.

Chestnut Street Signals | Oxford, OH
Design of the signal at S. Main St involved coordination with CSX for the design and installation of railroad pre-emption.

BRIAN R. JOHNSON, P.S.

Land Surveyor

EDUCATION

BS, Construction Management, Northern Kentucky University

Assoc. of Applied Science Civil Eng./Surveying, Cincinnati State Technical & Community College

REGISTRATIONS

PS: Ohio

Brian joined Bayer Becker in June 1994 as part of the Surveying Field Crew team. After 4 years of field experience, Brian became part of their office Surveying Department where he now serves as an Associate and Project Manager. As Survey Project Manager, he coordinates the field crews in addition to his other responsibilities which include ALTA surveys, Courthouse Research, Horizontal Road Layout, Right of Way Determination, Land Surveying, Easement Preparation, Boundary Resolution, Lot Splits/Combinations, Topographic Surveys, Legal Description, Rezoning Plats/Zoning Maps, Record Plats, Subdivision Layout, and Roadway Dedication Plats.

Through his work on these various projects and his field experience, Brian has gained valuable knowledge and insight into field and office uses of the survey data, which help him to provide a better project to the client.

Miami University Gateways | Oxford, OH
Improvements to US 27 and SR 73 for multi-modal transportation users.

Oxford Area Recreational Trail phase II | Oxford, OH
2 miles of multi-use trail connecting US 27 to SR 73, as well as parking lot improvements at DeWitt Cabin and Peffer Park.

Kramer Elementary | Oxford, OH
A $10.8 million elementary school reconstruction in the Talawanda School District.

Metroparks of Butler County River Center | Middletown, OH
A full service bicycle center along the Great Miami River Recreational Trail.

Former Talawanda High School | Oxford, OH
The proposed multi-modal station will be located in the northeast corner of this property.

JOHN E. CODY, P.L.A., LEED A.P.

Director of Landscape Architecture & Planning

EDUCATION

BS, Landscape Architecture
University of Kentucky
BA, Economics Centre
College

REGISTRATIONS

PLA: Ohio, Kentucky

John joined Bayer Becker in 2012, bringing over 13 years of design consulting, project and staff management experience. Shortly after joining the firm, John became an Associate and is part of the leadership team at Bayer Becker. He currently serves as the Director of Landscape Architecture and Planning for the company.

John's passion resides in bringing his client's vision to life. In order to be a good steward of the environment, design solutions must carefully consider and respond to the potential impacts upon nature. Successful projects balance the interaction between the built environment and natural systems. Finding this balance is a challenge that John embraces.

Metroparks of Butler County River Center | Middletown, OH
A full service bicycle center along the Great Miami River Recreational Trail.

Wright's Stop Plaza Multi-Modal Station | Dayton, OH
A multi-million dollar transfer station. The project converted Market St into a two-way bus station with a central island for patrons to conveniently access and transfer among bus lines that converge in downtown Dayton.

US 27 Street Tree Planting Plan | Oxford, OH
The implementation of a street tree planting plan along US 27 between Southpointe Parkway and Miami University's campus.

Riverfront Commons Multi-Modal Transport Center Study* | Covington, KY
The feasibility study for an urban transportation hub built around a 4 Park & Ride garage and multi-use trail along the Ohio River.

Oxford Community Arts Center Garden | Oxford, OH
The renovation of the City of Oxford Arts Center garden.

Miami University Edwards Parking Lot | Oxford, OH
Site improvements for the Edwards parking lot.

LAWHON + ASSOCIATES

Lawhon & Associates (L&A) provides full-service environmental and engineering consulting services to solve environmental issues for the public and private sector. The company was established in 1985 in Columbus, Ohio and owes its success to a continuing policy of providing sound environmental technical solutions through the personal direction of the principals and staff.

Lawhon & Associates, Inc

PRIMARY CONTACT
Susan S. Daniels, PE, AICP
614.481.8600 ext. 134
1441 King Avenue
Columbus OH 43212

PROJECT FUNCTION
NEPA Review
Environmental Engineering

Over the last 35 years, their services have grown to include hazardous building material consulting; environmental site investigations and remediation; ecological and wetland services; cultural and historic resource evaluations; environmental permitting; indoor environmental quality studies; and NEPA compliance. L&A is a women-owned business and licensed engineering company (#03-0125) in the State of Ohio, with offices in Columbus, Cleveland, Dayton and Cincinnati, Ohio. They maintain numerous local and state government DBE certifications and are an Ohio EDGE Certified firm.

L&A has experience completing environmental studies for transit agencies throughout Ohio. They understand what is required based upon the funding source and applicable regulations. They target their approach accordingly to provide cost-effective solutions.

L&A's relevant experience includes:

- **Cleveland Avenue Bus Rapid Transit (BRT), Central Ohio Transit Authority** – Documented Categorical Exclusion (DCE) and supporting studies, Phase II ESA, BUSTR Tier 1, and asbestos/lead surveys for impacted properties.
- **Garage Expansion, Stark Area Regional Transit Authority** – Categorical Exclusion Checklist, ecological survey, Phase I ESA, Section 4(f) documentation, and asbestos surveys.
- **Fields Avenue Garage Renovation, Central Ohio Transit Authority** – Categorical Exclusion Checklist, asbestos survey, and review of soils management plan to develop materials management plan notes.
- **Compressed Natural Gas Terminal, Portage Area Regional Transportation Authority** – Documented Categorical Exclusion (DCE), Section 106 coordination, and supporting studies

TREVOR BERGER, CP, LEED AP

Sr. Environmental Scientist

EDUCATION

B.S., Food, Agricultural and Biological Engineering, The Ohio State University

CERTIFICATIONS

VAP Certified Professional
LEED Accredited Professional
Asbestos Hazard Evaluation Specialist (OHES35890)
OSHA 40HR HAZWOPER

Trevor has over 21 years of consulting experience and leads L&A's environmental site assessment practice. His experience includes ODOT ESA Screenings, ASTM and VAP Phase I Environmental Site Assessments (ESA), Ohio EPA Voluntary Action Program Phase II Property Assessments, non-VAP Phase II projects, hazardous material storage facilities, Bureau of Underground Storage Tank Regulations closure requirements and state and federal EPA cleanup programs. Trevor has developed scopes, specifications and prepared written proposals for these investigations including evaluation of existing site conditions, determination of sampling locations and field procedures, laboratory analysis, hazardous material disposal and remedial actions. He is also responsible for the management of projects involving multiple environmental disciplines, hazardous materials consulting, ecological studies, cultural resource investigations and NEPA compliance. Mr. Berger is a VAP Certified Professional, LEED Accredited Professional and an Ohio Certified Asbestos Hazard Evaluation Specialist. He is also pre-qualified by the Ohio Department of Transportation in ESA Screening, Phase I ESA and Phase II ESA and ESA Remedial Design.

Fields Avenue CNG, Central Ohio Transit Authority (Franklin County, Ohio).
Reviewed the soils management plan, previous environmental reports, and previous sampling activities for the site to provide details for materials management plan notes for the renovation of the bus storage and maintenance facility to accommodate CNG buses and fueling.

Garage Expansion, Stark Area Regional Transit Authority (Stark County, Ohio).
Led the Phase I Environmental Site Assessment for expansion of the headquarters and garage for SARTA as part of the FTA Documented Categorical Exclusion.

BUT-Five Points Roundabout, Butler County Engineer (Butler County, Ohio).
Completed the Environmental Site Assessment studies.

JORDAN MEDERER

Practice Leader, Hazardous Building Material

EDUCATION

BA, Geography, 2007

CERTIFICATIONS

Ohio Asbestos Hazard Evaluation Specialist
Ohio Asbestos Hazard Abatement Specialist
Ohio Asbestos Project Designer
Ohio Lead Risk Assessor

Jordan has 11 years of consulting experience and manages the hazardous building materials department. He has experience in over 500 environmental projects such as AHERA surveys, Enhanced Environmental Hazard Assessments, asbestos building material surveys, NESHAP demolition and renovation surveys; and sample analysis using Phase Contrast Microscopy in accordance with NIOSH 7400. Jordan also has experience in lead based paint inspections, lead risk assessments, and lead abatement clearances under the HUD/EPA protocol. He has inspected and designed a variety of environmental projects, performed on-site monitoring and project oversight of asbestos and lead abatement, and conducted 2-hour asbestos awareness training seminars. Jordan is an Ohio Certified Asbestos Hazard Evaluation Specialist, Asbestos Hazard Abatement Specialist, Asbestos Hazard Project Designer and a Lead Risk Assessor.

Fields Avenue CNG, Central Ohio Transit Authority (Franklin County, Ohio).
Completed NESHAP survey (asbestos) for renovation of the bus storage and maintenance facility to accommodate CNG buses and fueling. Identified and sampled suspected asbestos-containing materials and defined for removal prior to renovation activities.

Cleveland Avenue Bus Rapid Transit, Central Ohio Transit Authority (Franklin and Delaware Counties, Ohio).
Led assessment for hazardous building materials at a former gasoline station and former car wash as part of the Northern Lights Park & Ride servicing the Cleveland Avenue BRT.

Armory Lead Remediation, Ohio Army National Guard (Statewide, Ohio).
Conducted a lead contamination assessment of 22 armories across the State, which determined that lead remained on building components to varying degrees in the former ranges at concentrations that exceeded OANG limits. Partnered with an Ohio licensed lead contractor to complete the required lead dust remediation/cleaning at each site.

Terracon is a 100 percent employee-owned consulting engineering firm providing quality services to clients. Since 1965, Terracon has evolved into a successful multi-discipline firm specializing in: Environmental, Facilities, Geotechnical, and Materials.

PRIMARY CONTACT
Brent Langlois, P.E.
brent.langlois@terracon.com
513.612.9086
611 Lunken Park Drive
Cincinnati OH 45226

In January 2007, H.C. Nutting joined Terracon Consultants, one of the nation's largest employee-owned engineering consulting firms. Over its history, Terracon has achieved significant expansion through both internal growth and acquisitions. Terracon has more than 5,000 employees providing environmental, facilities, geotechnical, and materials services from more than 150 offices nationwide. Additionally, they partner with their U.S. clients to serve their international needs. The firm's success is further evidenced by a current ranking of 22 in Engineering News-Record's 2020 listing of the Top 500 Design Firms, as compared to a ranking of 50 a decade ago. Terracon's growth is due to dedicated employees who are responsive to clients, provide quality services, and take advantage of opportunities in the marketplace.

Terracon provides services on thousands of projects each year. Their culture, systems, and structure enable us to excel at both small and large projects. By combining their national resources with specific local area expertise, they consistently overcome obstacles and deliver the results their clients expect.

Terracon serves a diverse portfolio of private and public clients. By being responsive, resourceful, and reliable, they strive to exceed their clients' expectations for service, solutions, quality, and speed of delivery. Based on a deep understanding of their clients' needs, Terracon's commitment is centered around these key objectives.

VISION

They continue to view their company as a vital and growing consulting firm of engineers and scientists, providing multiple related service lines to clients at local, regional, and national levels. All of their services are delivered on a timely basis with consistently high value and attention to client needs.

BRENT M. LANGLOIS, P.E.

Geotechnical Engineer

EDUCATION

BS, Civil Engineering, University of Florida

REGISTRATIONS

Professional Engineer: FL

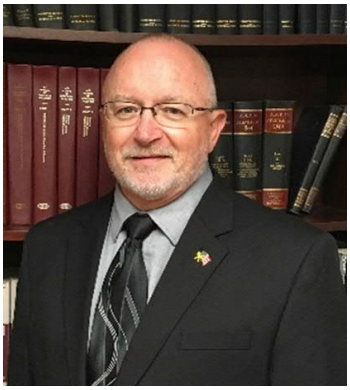
Brent has 9 years of experience in the practice of geotechnical engineering. He is involved in nearly every aspect of the geotechnical exploration programs he manages including project management, review of field data, laboratory soil classification, CAD, analysis and design, and report preparation. His experience as a geotechnical engineer includes analysis and design of shallow and deep foundations, embankment seepage and stability, retaining walls, and pavements. Brent is well versed with various industry-related software including FB-Deep, LPILE, SEEP-W, SLOPE-W, and GRLWEAP. He also has valuable knowledge in foundation load testing (Static and Statnamic), dynamic pile load testing (PDA), tip grouting of drilled shafts, and quality assurance (QA) testing of deep foundations including drilled shaft inspection device (MiniSID), Crosshole Sonic Logging (CSL), low strain integrity testing, Sonic Caliper logging of drilled shafts.

PROJECT EXPERIENCE

- Marine Way – Stuart, FL
- Palm Beach Tours and Transportation – West Palm Beach, FL
- Dora Lane Roadway – Cincinnati, OH
- SR127 and SR73 Roundabout (BUT-127-16.56) – Hamilton, OH
- SR128 Landslide (BUT-128-6.62) – Hamilton, OH
- SR28 and I-275 On-ramp Widening (CLE-28-1.76) – Milford, OH
- 58th Avenue Reclamation/Resurfacing, 26th to 57th Street - Vero Beach, FL
- Mast Arm Foundation, Indian River Boulevard, and 53rd Street Intersection – Vero Beach, FL

HAROLD WIDENER

Materials Consultant



EDUCATION

AAS Construction Management, Cincinnati Technical College

CERTIFICATIONS

Certified Non-Destructive Testing ASNT Level II

ICRI Concrete Slab Moisture Testing Technician

ACI Level 1 Concrete

Harold has 28 years of experience with Terracon Consultants, Inc., and 12 years of previous experience. Harold has significant experience in technician training for hydraulic and hardened concrete testing and compacted soil and footing excavation, equipment, and vehicle maintenance. His project management experience includes field report review and editing through Terracon CMELMS, deviation tracking and reporting, budget control and invoice preparation, proposal preparation, training and certification of personnel for radiation safety and operation of nuclear moisture density gauges, OSHA 10-hr construction safety training for field personnel, proposal preparation and supervision and evaluation of field personnel. Acts as Local Safety Coordinator responsible for facility audits, conducting monthly safety meetings live and via SKYPE, the performance of field audits for personnel and vehicles, and SMITH DRIVING SYSTEM trainer.

PROJECT EXPERIENCE

- CSX Locomotive Repair and Wheel Truing Shop, Cincinnati, Ohio
- Scott Street Parking Garage, Bluefield, WV
- Miami Trails, Miami Township, Clermont County, OH
- Queen City Square Tower, Cincinnati, OH
- Cincinnati Convention Center, Cincinnati, OH
- CECOS, Hazardous Waste Landfill, Williamsburg, OH

NV5

NV5 is a leading provider of professional and technical engineering and consulting solutions for public and private sector clients in the infrastructure, construction, real estate, and environmental markets.

PRIMARY CONTACT
Dan Sexton
216.239.1337
dan.sexton@nv5.com
30775 Bainbridge Road, Suite 180
Solon, OH 44139

PROJECT FUNCTION
Estimating
Scheduling

With a staff of more than 2,800 and 100+ offices nationwide and abroad, including an office in Solon, OH, NV5 is able to provide services supporting all aspects of a project's life cycle from conceptual or preliminary design through facility operations. Their Clients trust us to provide integrated consulting, and management solutions that enable success regardless of project size and complexity.

PROGRAM MANAGEMENT

The Program Management team in NV5's office in Solon, Ohio specializes in efficiently developing, planning, and executing small- to large-scale projects. With experience in many public and private project types, they work with each client to customize their services to best meet their needs. Their philosophy is based on a foundation of providing proactive leadership to the project team, while establishing a project culture of accountability, transparency and collaboration.

DISTINGUISHING CHARACTERISTICS

- They LISTEN first and will be an extension/partner of your team, executing this project in alignment with your philosophies, not NV5's own pre-set agenda
- Their project managers' "WHATEVER IT TAKES" mentality is contagious and invigorating
- They are proud and PASSIONATE about their complex relocation projects
- They focus on EFFICIENCY for ourselves and the entire team – this translates into cost savings for their Clients
- They are a STRONG TEAM, with a leader that leads by example
- Engineers and Contractors like working with us because they know NV5 is FIRM, BUT FAIR
- They treat every dollar as if it was their own, and recognize the IMPORTANCE OF TRANSPARENCY
- They have a great RELATIONSHIP with many clients throughout Ohio, founded in trust, and a proven track record

DAN SEXTON, LEED AP

Estimator

EDUCATION

B.S., Civil Engineering,
University of Hartford, CT

REGISTRATIONS

LEED AP

Dan is a Senior Estimator with 25 years of cost estimating and project management experience in a wide range of public and private market sectors, inclusive of transportation, municipal, office, retail, and mixed-use. Dan's strengths include development of accurate and thorough estimates, proactive and swift resolution of unanticipated project changes, clear communication and dissemination of pertinent project information with all affected parties, and maintaining effective relationships with all project team members. In 2019 he was responsible for pre-construction management and estimating of projects with a total value of $101 million, and delivered all with an aggregate average budget variance of -1.80%.

TRANSPORTATION

- SARTA Gateway Facility Expansion, Stark Area Regional Transit Authority, Canton, OH
- IDIQ Cost Consulting Services, Colorado Department of Transportation, Denver, CO

MUNICIPAL FACILITIES

- Geauga County Administration Building, Chardon, OH
- Facility Condition Assessments, City and County of Denver, Denver, CO
- North Olmsted Ice Arena Improvements,North Olmsted, OH
- Broadview Heights Recreation Center*, Broadview Heights, OH

SAFETY FORCE AND MILITARY FACILITIES

- Army Aviation Support Facility, Adjutant General's Department, North Canton, OH
- Brecksville Police Station*, Brecksville
- Brecksville, OH

**Project under previous employment*

BRIAN STEWART

Scheduling

EDUCATION

B.S., Civil Engineering,
University of Hartford, CT

REGISTRATIONS

LEED AP

Brian has more than 36 years of experience in the construction industry, providing CPM scheduling and updating, project management, Owner's representative, construction claims, and building diagnostics services. His experience includes educational facilities, healthcare facilities, office buildings, industrial plants, municipal facilities, manufacturing facilities, highways, bridges, and residential projects. In addition, Brian provides CPM scheduling seminars and in-house scheduling training. Brian has experience using a variety of project management and engineering software including Primavera P6, P3, Suretrak, Microsoft Project, Asta Powerproject, and Microsoft Office Suite.

TRANSPORTATION

- I-90 resurfacing ODOT, Burton Scot Corp.,Cleveland, OH
- Lake County SR-528 ODOT, Ronyak Paving, Lake County, OH

OFFICE/INDUSTRIAL

- Park East Office Building, Welty Construction, Beachwood, OH
- American Greetings Headquarters, Walsh Construction, Westlake, OH
- Wagner Awning Building, Welty Construction, Cleveland, OH

FACILITIES

- Loeb Stadium Renovations, Kettlehut Construction, Lafayette, IN
- AASF 1 HVAC Renovations, Adjutant General Department, North Canton, OH

OR COLAN ASSOCIATES

Founded by Mr. Owen Richard Colan in 1969, O. R. Colan Associates, LLC (ORC) specializes exclusively in land acquisition, relocation, and program management for land acquisition projects.

ORC REAL ESTATE SOLUTIONS FOR INFRASTRUCTURE

PRIMARY CONTACT
Anna Lee Durastanti
adurastanti@orcolan.com
513.247.0243
8790 Governor's Hill Drive, Suite 101
Cincinnati, OH 45249

PROJECT FUNCTION
Right-of-Way / Acquisition

They maintain a national staff of over 235 full-time right-of-way professionals (16 local staff members) and have grown their business to 33 offices in 23 states. ORC remains a family-owned, Woman-owned business. They are currently led by Mr. Colan's daughter, CEO Catherine Colan Muth.

ORC is recognized nationally in the field of right-of-way acquisition and relocation assistance for projects implemented under the provisions of the Uniform Relocation and Real Property Acquisition Policies Act of 1970; FTA Circulars 5010 and 5200; Title 49 Code of Federal Regulations Part 24; Housing & Community Development Act of 1974, and FAA Order 5100.37B, Land Acquisition and Relocation for Airport Development Projects.

EXPERIENCE WITH RAIL PROJECTS

Their clients include more than 20 transit agencies. Due to ORC's expertise in providing project management oversight on Federal Transit Administration (FTA)-sponsored projects, they were selected by many of the largest engineering firms to provide technical assistance with FTA-funded right-of-way functions as part of the Program Management Oversight Contracts (PMOC).

ORC's direct experience in providing turnkey land acquisition services that support critical transit initiatives includes the following:

- FRA: Monitoring and Technical Assistance – California High Speed Rail Authority;
- Union Pacific Railroad Land Acquisition Services: Chicago to St. Louis;
- 2nd Avenue Subway & East Side Access: New York Metropolitan Transportation Authority (MTA);
- Trans-Hudson Express: PANYNJ;
- Hudson-Bergen Light Rail Line: NJ Transit;
- Access to Region's Core (ARC) Tunnel: NJ Transit; PANYNJ
- Euclid Corridor Bus Rapid Transit and East Side Transit Center; E. 55th St. Red Line Station: Greater Cleveland Regional Transit Authority;

ANNA LEE DURASTANTI

Right of Way / Acquisitions

TRAINING

Ohio Department of Transportation
US Department of Transportation
National Highway Institute
FHWA
IRWA

REGISTRATIONS

Ohio State Licensed Realtor

Ms. Anna Lee Durastanti has been involved with acquisition and relocation services for public agencies for the last 27 years. As a former ODOT employee, she has significant experience with ODOT policies and procedures. As a lead ORC Project Manager, Ms. Durastanti has managed 140+ right-of-way acquisition/relocation projects, including those provided as project experience in this application. She also specializes in Relocation, and she has ample experience as a Negotiator. In this respect, Ms. Durastanti has reviewed approximately 300 consultant title, closing, negotiations, relocation files and performed relocation services for complex residential and businesses for ODOT and Local Public Agencies.

TRANSIT

- GCRTA - E. 55th St. Red Line Station Reconstruction, Cleveland, OH
- GCRTA - Euclid Corridor Project, Cleveland, OH

ROADWAY

- BUT SR177-0.64 Project (City of Hamilton)
- HAM South High Street Grade Separation (Butler County TID)
- HAM CR90-0.60 (Hamilton Engineers)
- HAM 75-3.85 (ODOT – D8)
- HAM 75-6.78 (ODOT – D8)
- HAM 75-7.72 (ODOT – D8)
- HAM 75-2.30 (ODOT – D8)
- HAM CR209-0.55 (City of Cincinnati)
- HAM Clough Pike Sidewalk Project (Anderson Township)
- HAM-12.60 (ODOT District 8)
- SCI 823-0.00 (ODOT District 9)
- CLA 327-0.55 (Clark County Engineer's Office)
- CLA 794-0.60 (Springfield, OH)

ORGANIZATIONAL CHART

KEN EMLING, AIA
PROJECT MANAGER

ARCHITECTURE & CONSTRUCTION ADMIN.

Kyle Hulewat, AIA
Director of Design

Justin Brevick, RA
Senior Project Architect

Timothy Larke
Project Architect

Shana Hurst
Interior Design

Neeraja Pandav, Assoc. AIA
Sustainability Designer

Rebecca Werman, CCS
Specifications Writer

Robert Tuttle, P.E.
Urban Project Director, Construction PM, CSX Coordination

Dan Sexton
Estimator

Brian Stewart
Scheduler

BUILDING + SYSTEMS ENGINEERING

Nicholas Tinl, P.E.
Structural Engineer

James Bilella, P.E.
MEP Lead/ Design PM

Alan Collins, P.E.
Civil Engineering

David Parmiter, P.E.
Mechanical Engineer

David Steele, P.E., LEED AP
Stations / Platform Design

SITE PLANNING & DESIGN

Etta M. Reed, PE
Civil /Transportation Engineer

Brian R. Johnson, P.S.
Survey

Timothy Snow, PE, LEED AP BD+C
Landscaping Architect

Brent M. Langlois, P.E.
Geotechnical Engineer

Harold Widener
Project Manager/Material Consultant

Trevor Berger, CP, LEED AP
Sr. Environmental Scientist

Jordan Mederer
Hazardous Building Material

Anna Lee Durastanti
Right of Way / Acquisitions

FIRM KEY

Bowen	**Terracon**
Urban Engineering	**NV5**
Bayer Becker	**OR Colan**
Lawhon + Associates	

2. RELATED EXPERIENCES + REFERENCES

COMPLETION
Unbuilt

COST
$9 Million (estimate)

OWNER
Lorain County Commissioners
Karen L. Davis
Facilities Director
440.329.5102

TEAM MEMBERS INVOLVED

Ken Emling
Kyle Hulewat
Lawhon
Urban Engineers

LORAIN COUNTY AMTRAK RAIL PLATFORM

Elyria, Ohio

The Lorain County Commissioners selected Bowen to design a new Amtrak Station at the recently renovated Lorain County Transportation and Community Center. The design includes three new elevator and stair towers, all of which will be connected together by a new glass-enclosed pedestrian bridge, which span over the existing Norfolk Southern tracks. The two northern-most elevator/stair towers are designed to lead passengers to two new 550' long passenger waiting and boarding platforms. When completed, the relocation of Amtrak services to the Lorain County Transportation and Community Center will restore the facility's original use as a train station and will provide a modern, convenient and comfortable station for Amtrak passengers as they arrive or depart from Lorain County.

LORAIN COUNTY RAIL PLATFORM

Continued

COMPLETION
Current

SIZE
Site 10.82 acres
Building 280,000 SF

COST
$40 million

OWNER
COTA (Central Ohio Transit Authority)
Joe Massey, Project Manager
masseyjt@cota.com

TEAM MEMBERS INVOLVED
Ken Emling
Kyle Hulewat
Justin Brevick
Tim Larke
Shana Hurst
Neeraja Pandav
Becky Werman
Lawhon

COTA FIELD AVE. RENOVATIONS, CNG AND ELECTRIC BUS INFRASTRUCTURE

Columbus, Ohio

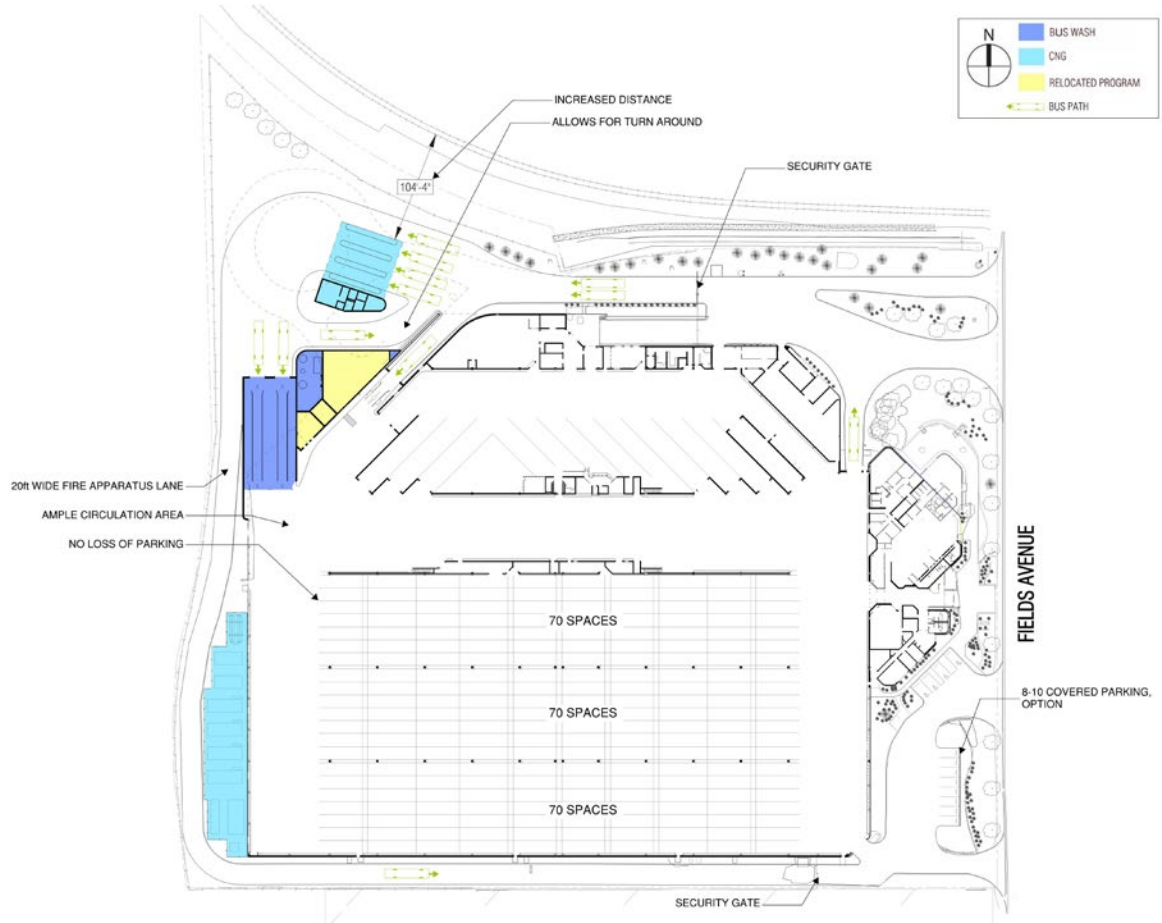
Central Ohio Transit Authority (COTA) made the decision several years ago to switch its fleet of buses from diesel fueled vehicles to vehicles that run on compressed natural gas (CNG). The Fields Avenue garage is the second facility to be converted from diesel to CNG fueling.

The primary components of CNG conversion are the CNG compressing plant, outdoor CNG fueling station, and renovation of the existing facility to be CNG compliant. The focus of CNG compliance is safety; spark-emitting elements are removed from the top 18 inches of interior space, a grid of gas detectors are installed in areas used by buses, walls and doors dividing adjacent spaces are renovated to provide an air tight seal, and the mechanical systems are designed to achieve a minimum of (4) air changes per hour and provide exhaust and ventilation when needed.

Unique to this project is the evaluation and implementation of battery electric buses (BEB) and charging stations. In the programming phase the Design Team worked with AEP, the power supplier, to determine that the existing infrastructure feeding Fields Avenue is sufficient to charge (10) buses nightly. Additional scope includes a fire apparatus lane looping the perimeter and a building addition designed around (2) new bus wash lanes.

COTA FIELD AVE. RENOVATIONS

Continued



COMPLETION
Current

PROJECT COST
$54.8 million

SIZE
422,483 SF

OWNER
COTA (Central Ohio Transit Authority)
Joe Massey, Project Manager
masseyjt@cota.com

TEAM MEMBERS INVOLVED
Ken Emling
Kyle Hulewat
Justin Brevick
Tim Larke
Shana Hurst
Neeraja Pandav
Becky Werman
Nicholas Tinl

COTA MCKINLEY MAINTENANCE GARAGE

Columbus, Ohio

This is the final phase of a nearly 10 year renovation to COTA's primary maintenance and training facility. In this phase we renovate the maintenance garage and administrative areas. Expanded areas include:

- New South Lobby
- A New Canopy that Shelters Service Vehicles
- New Store Room / Radio Room
- New 4,000 SF Storage Building
- Updated Maintenance Equipment
- Site Enhancements

COTA MCKINLEY MAINTENANCE GARAGE

Continued

COMPLETION
2016

PROJECT COST
$65 Million
Size
390,000 SF

OWNER
COTA (Central Ohio Transit Authority)
Joe Massey, Project Manager
masseyjt@cota.com

TEAM MEMBERS INVOLVED
Ken Emling
Kyle Hulewat
Becky Werman

COTA MCKINLEY AVE ADMINISTRATION + TRAINING ADDITION

Columbus, Ohio

Bowen led an intensive six-week team assessment of COTA's 390,000 SF McKinley Avenue Bus Maintenance and Storage Facility, located in Columbus, Ohio. The purpose of this complete facility assessment was to provide COTA with recommendations for renovations and improvements that would allow them to continue to function and operate out of this garage for the next thirty years. COTA then hired Bowen to implement the renovations. Early phases included the conversion of their diesel fueling stations into the largest CNG facility in Ohio and upgrades to their maintenance facilities.

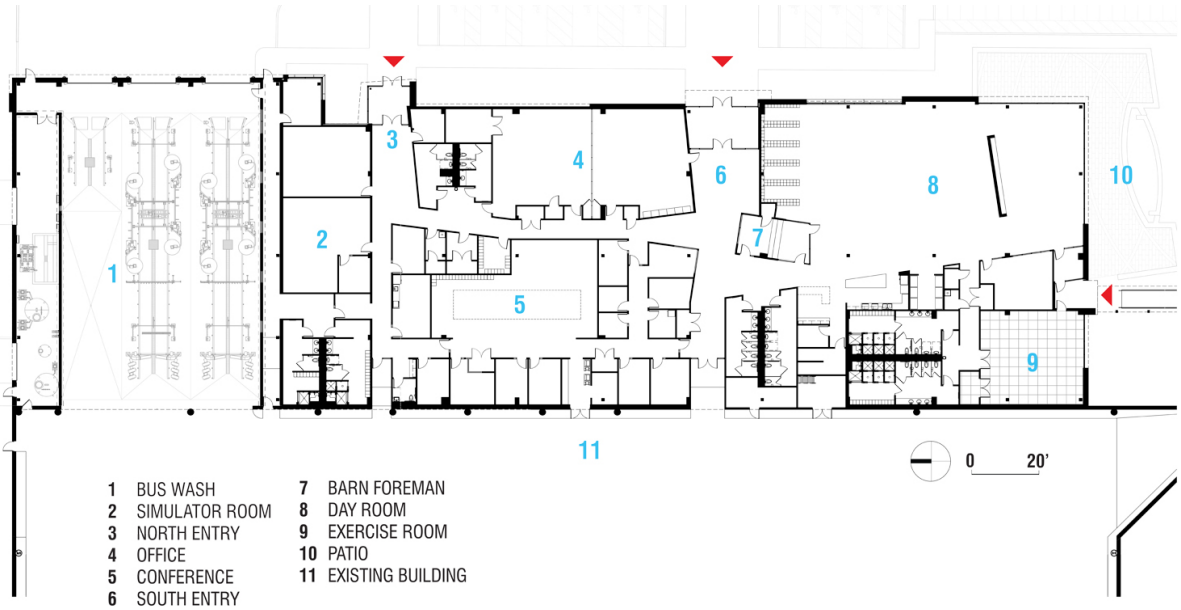
The Admin + Training Addition, which seeks LEED Silver certification, focuses on improving conditions for COTA employees. Driver amenities include a new day room with lockers, café tables, a kitchenette, lounge seating, and a game area, a outdoor patio, and an exercise room. Renovated office space for administrative staff features a large skylight which brings in ample natural light. A new public lobby uses natural light, clean lines, and bold incorporations of COTA's branding graphics to create a space that is comforting and inviting. The facility adds a new bus stop with a covered walkway to the south entry.

"We continue to be delighted by your creative concepts, quality design and engineering, and timely service.

– Timothy Smith, Director of Facilities,

COTA MCKINLEY AVE ADMIN + TRAINING ADDITION

Continued



1 BUS WASH
2 SIMULATOR ROOM
3 NORTH ENTRY
4 OFFICE
5 CONFERENCE
6 SOUTH ENTRY
7 BARN FOREMAN
8 DAY ROOM
9 EXERCISE ROOM
10 PATIO
11 EXISTING BUILDING

COMPLETION
2013

PROJECT COST
$32 Million

SIZE
390,000 sf Facility Upgrades
1,500 sf CNG Building
9,200 sf Fueling Canopy

OWNER
COTA (Central Ohio Transit Authority)
Joe Massey, Project Manager
masseyjt@cota.com

TEAM MEMBERS INVOLVED
Ken Emling
Becky Werman

COTA MCKINLEY CNG FACILITY

Columbus, Ohio

Bowen led this project to design and engineer a new CNG compressing plant and fueling station, all of which would be located at the eastern end of the McKinley Avenue Bus facility. This CNG plant and fueling station is currently the largest in the State of Ohio. It is designed for a mature fleet of 250 buses, each of which can be fueled in approximately 6 minutes. This required numerous facility upgrades in order to be code compliant.

This phase of the McKinley Avenue Renovation included the following:

- Addition of the exterior fueling islands that includes four fueling lanes and one bypass lane.
- Addition of a new CNG building for lineup office room, future cash room, utility room, storage room, rest room and Mechanical/Electrical rooms.
- Addition of a new CNG compressor plant.
- Addition of a new Generator.
- Reconfigured parking area.
- Upgraded mechanical systems as required by NFPA.
- Upgraded maintenance and bus storage areas to meet Class I Div II as required in the NFPA 30A Chapter 12 and Chapter 8.
- Reconfigured bus route and added/replaced all overhead doors.
- Cleaned and painted the roof of the maintenance and bus storage areas.
- Replaced all lighting in the maintenance and bus storage areas.

COTA CNG FACILITY WITH RENOVATIONS

Continued

COMPLETION
2015

TOTAL COST
$2 Million

OWNER
COTA (Central Ohio Transit Authority)
Joe Massey, Project Manager
masseyjt@cota.com

TEAM MEMBERS INVOLVED
Ken Emling
Kyle Hulewat
Becky Werman

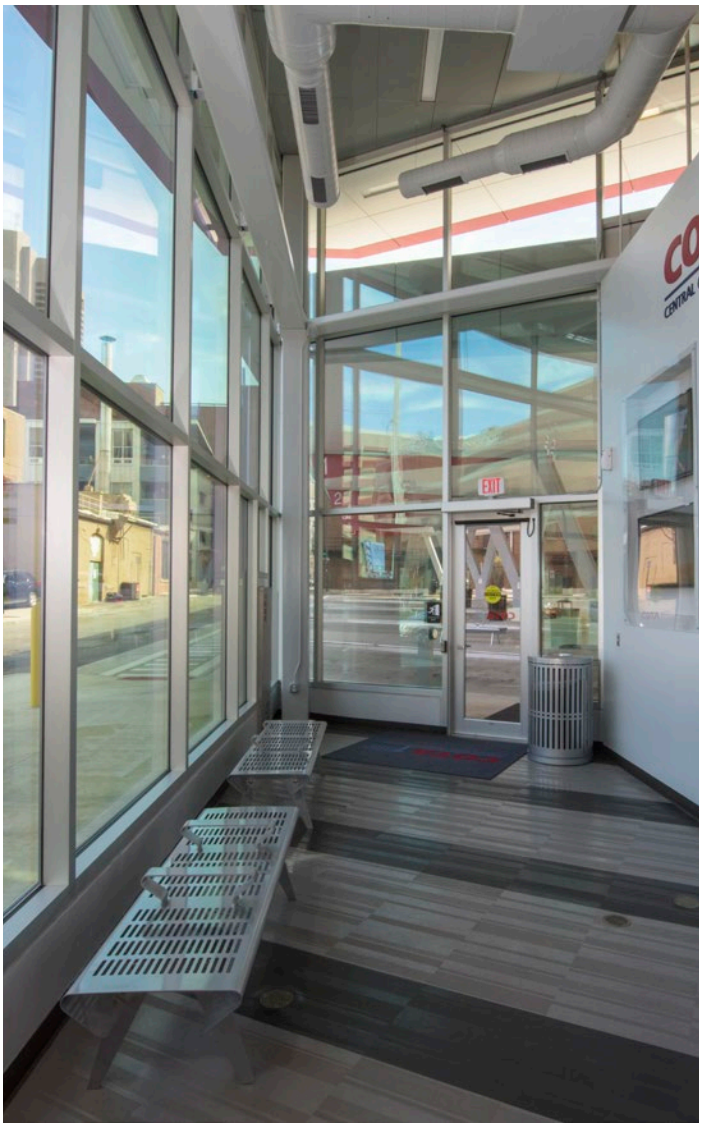
COTA SPRING STREET TERMINAL

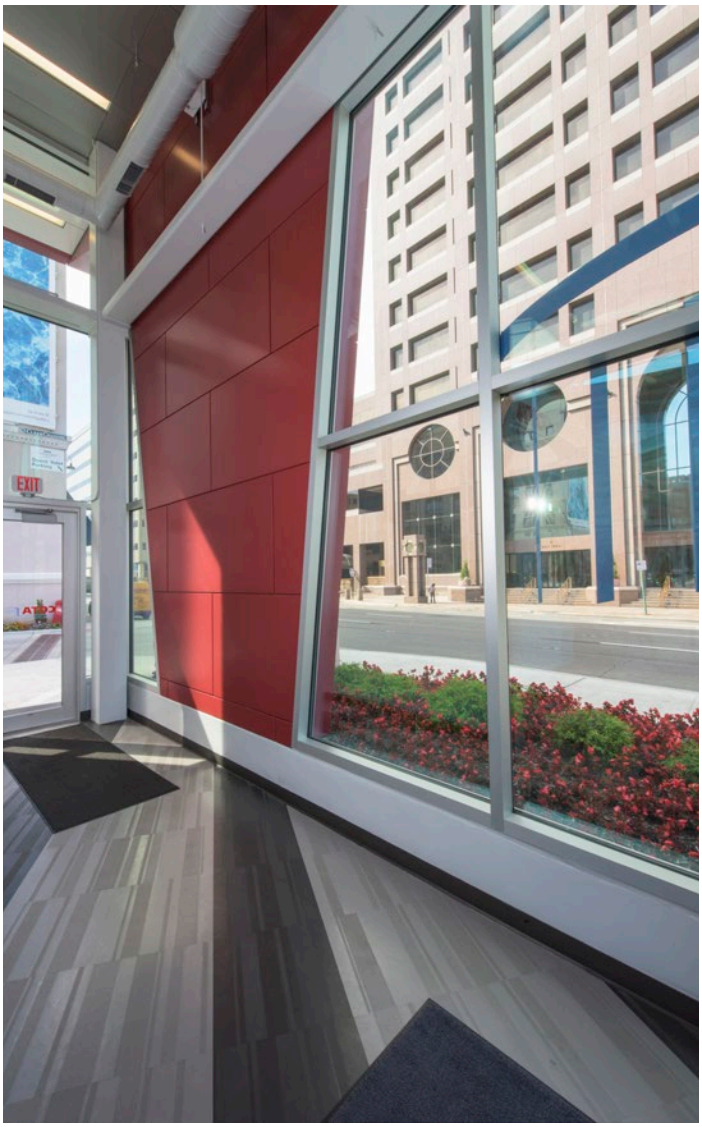
Columbus, Ohio

COTA had operated a bus terminal on this site since 1984, but this terminal had become old, outdated and non-compliant for the new CNG buses that COTA was now using. Bowen designed a brand new bus terminal, to replace the original structure. This new terminal includes a shelter building that has a glass-enclosed passenger waiting area, as well as a small area for drivers as well. The new terminal also includes a new, CNG compliant canopy that covers all five bus bays. The new facility utilized a dynamic, bold design in a way that maintained the function needed on this very tight site. Since its completion, ridership has increased and COTA has thus increased the number of buses that use this terminal on a daily basis.

COTA SPRING STREET TERMINAL

Continued





COMPLETION
2015

TOTAL COST
$3.5 Million

OWNER
COTA (Central Ohio Transit Authority)
Joe Massey, Project Manager
masseyjt@cota.com

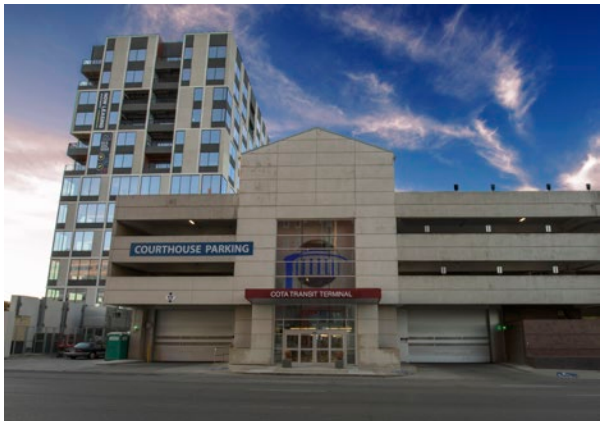
TEAM MEMBERS INVOLVED
Ken Emling
Kyle Hulewat
Becky Werman

COTA COMMONS BUS TRANSIT TERMINAL

Columbus, Ohio

This 41,000 SF downtown terminal was built in 1989 as a part of a larger parking garage facility. It is adjacent to the newly completed Columbus Commons Park, as well as many new residential buildings. Unfortunately, this original terminal had become outdated, with antiquated facilities and very poor lighting. Bowen led design for a major renovation of this facility.

The renovated terminal now includes new entrance features at both ends of the terminal, creating a more inviting aesthetic for passengers as they approach the facility. On the interior, all of the lighting was upgraded, a new security and I.T. building was constructed in the center of the terminal, all of the flooring was replaced, a new decorative ceiling was installed over the passenger areas and new large scale murals were hung along the side walls to add color and excitement. The Bowen team also renovated driver rest rooms and upgraded the building systems to allow CNG buses to enter into the terminal. Since its completion, ridership is up and now a local hospital utilizes the terminal as a main hub for its employees.



COTA COMMONS BUS TRANSIT TERMINAL

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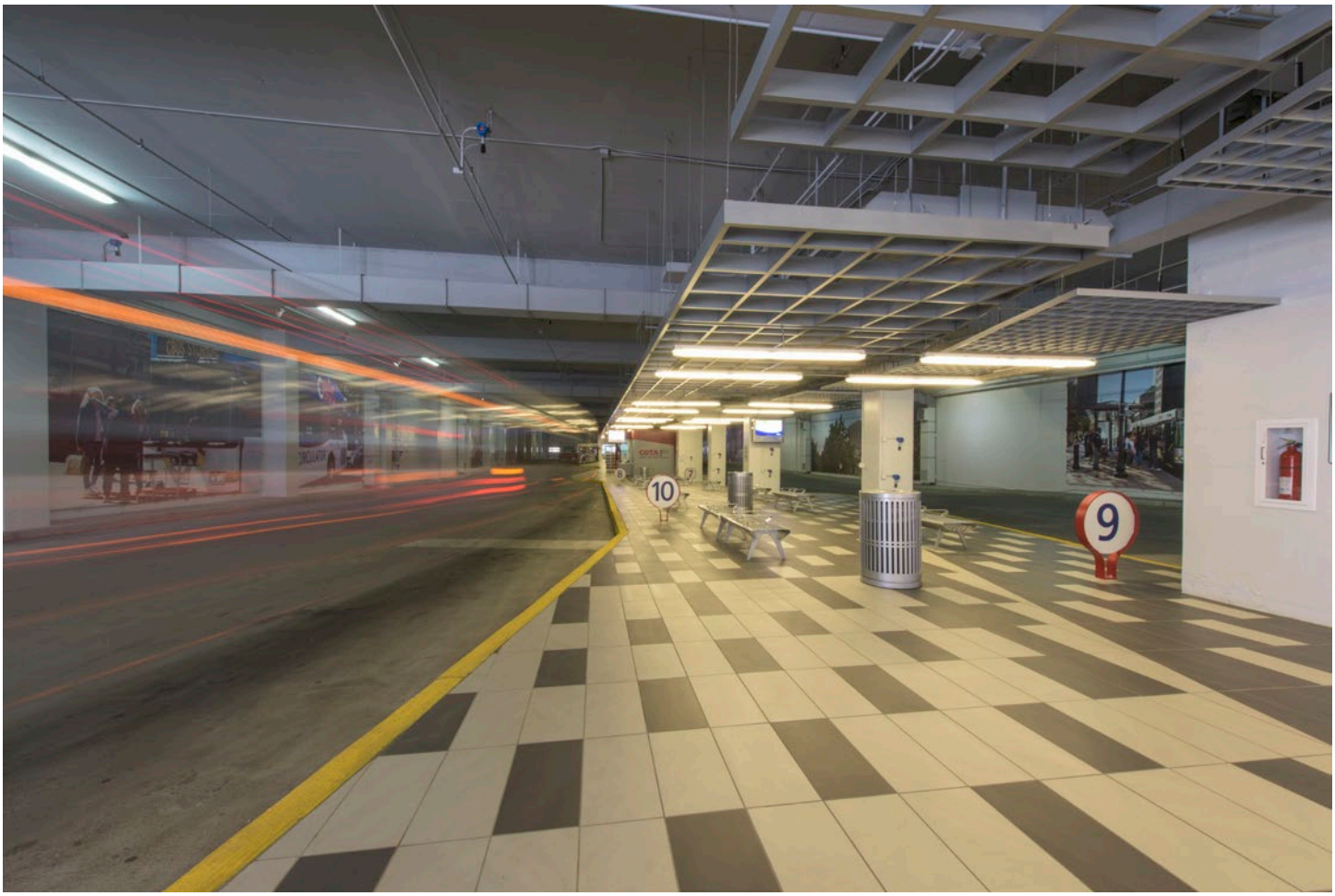
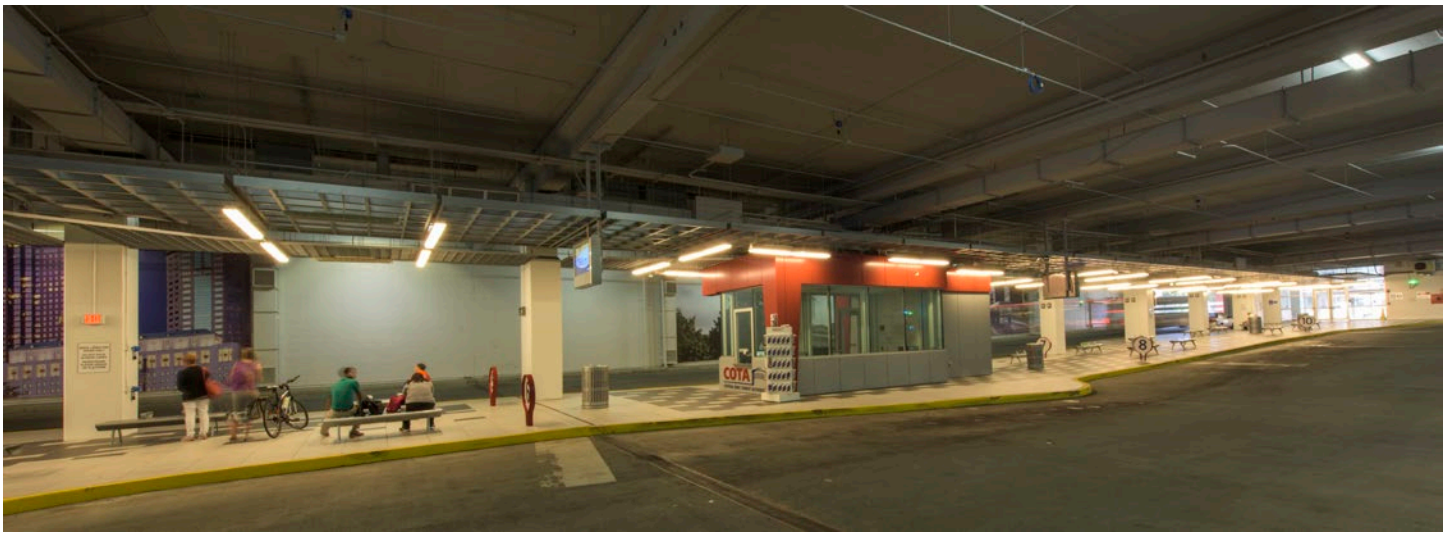




COMPLETION
2015

PROJECT SIZE
5 mile length of Boulevard
19 new Transit Shelters
100 SF per shelter

PROJECT COST
$8.3 Million

CLIENT
GCRTA (Greater Cleveland Regional Transit Authority)
Ms. Maribeth Feke
Director of Planning
216.566.5160

TEAM MEMBERS INVOLVED
Ken Emling
Becky Werman
Lawhon

GCRTA CLIFTON BLVD TRANSPORTATION ENHANCEMENT

Cleveland & Lakewood, Ohio

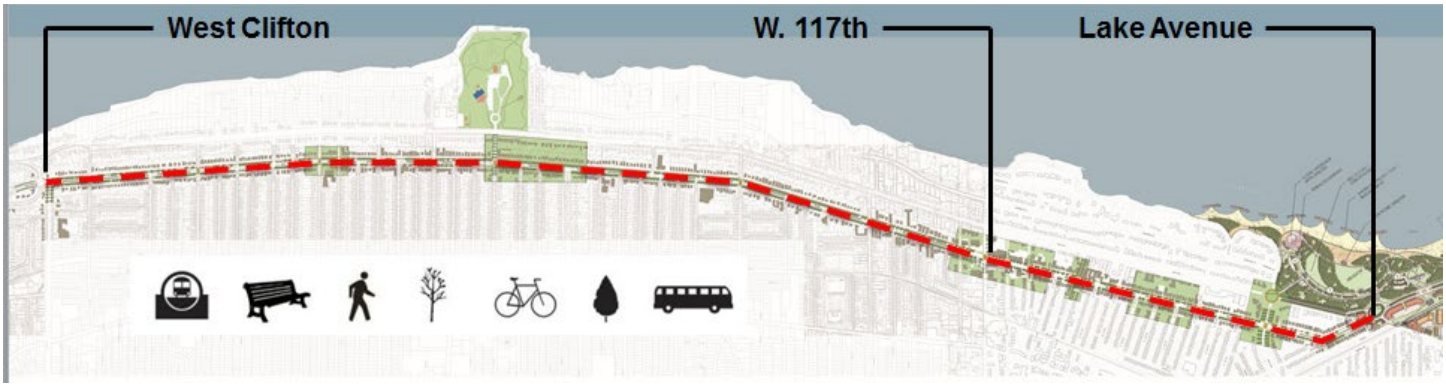
The Greater Cleveland Regional Transit Authority (GCRTA) hired Bowen to put together and oversee an expansive team of specialized engineers, surveyors, landscape architects and planners to design and implement a five-mile long transportation enhancement program. The four-lane boulevard was made more pedestrian and transit friendly by adding center-lane, tree-filled medians and by replacing the existing standard bus shelters with nineteen new, permanent stations built of brick.

Improvements also included the creation of the Cleveland State Line, a new Bus-Rapid Transit (BRT) line providing a direct link from the northwestern suburbs to downtown Cleveland. The Cleveland State Line is considered part of the Rapid Transit System and is enhanced to provide a capacity and efficiency comparable to a rail line at a fraction of the operating cost.

Bowen worked closely with the GCRTA, the City of Lakewood, the City of Cleveland, and community members to assure a smooth process and a finished project that will serve both cities for generations.

GCRTA CLIFTON BLVD TRANSPORTATION ENHANCEMENT

Continued



COMPLETION
2005

PROJECT SIZE
220,000 SF

PROJECT COST
$25 Million

CLIENT
GCRTA (Greater Cleveland Regional Transit Authority)
Ms. Maribeth Feke
Director of Planning
216.566.5160

TEAM MEMBERS INVOLVED
Ken Emling

GCRTA TRISKETT BUS MAINTENANCE FACILITY

Cleveland, Ohio

Bowen began the design of this complex maintenance garage with an in-depth planning and programming process. The final maintenance garage is 220,000 SF and houses more than 200 full-size buses. The garage is designed with three indoor bus service lanes, three diesel fueling stations, a cyclone vacuum system and a gantry-style bus washer.

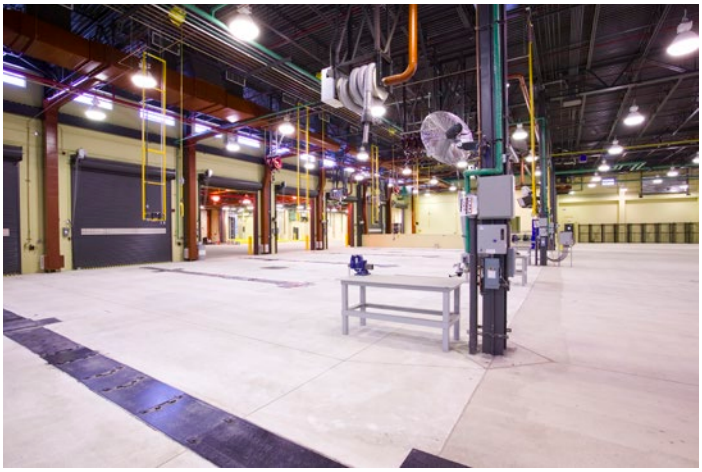
The vehicle maintenance area includes 14 bus lifts. Each service bay has overhead exhaust and lubrication equipment easily available to assist the mechanics as they perform repair work. The maintenance area also has a body shop bay and a chassis wash bay. Parts are stored in a secure parts storage room directly adjacent to the repair shop.

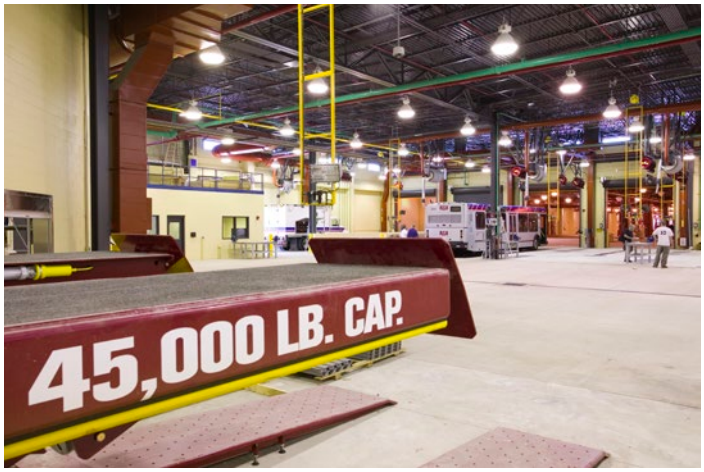
The south end of the garage houses the facilities maintenance shop. This area houses welding equipment, woodworking equipment, metal equipment and storage facilities to allow GCRTA's maintenance staff to keep this garage, as well as other nearby GCRTA properties operational. The second level directly over the vehicle maintenance shop houses the administrative offices of the garage as well as driver facilities, including a lounge, locker rooms
and showers.

> **I have worked with Ken Emling and Bowen on many projects, I wish he worked on all of my projects, it makes managing RTA's design project much easier and productive.**
>
> *– Maribeth Feke, Director, Programming and Planning*

GCRTA TRISKETT BUS MAINTENANCE FACILITY

Continued





COMPLETION
2011

SIZE
4,482 SF Building
800 FT platform
22 parking spaces

COST
$9.1 Million

CLIENT
GCRTA (Greater Cleveland Regional Transit Authority)
Ms. Maribeth Feke
Director of Planning
216.566.5160

TEAM MEMBERS INVOLVED
Ken Emling
OR Colan

GCRTA EAST 55TH STREET RAPID TRANSIT FACILITY

Cleveland, Ohio

The East 55th Street Rapid Transit Station is one of three stations on the RTA system that provides service to both the heavy rail and light rail trains. This station also serves the RTA Rail Headquarters, the Rail Maintenance Facility and the Transit Police Facility. Nearly all of the transit operators begin their routes out of this station.

The new station, at street level, occupies the site of a former used car lot. It was critical to the community that this station be bold, daring, colorful and striking, setting a tone for new construction in the area for the 21st Century.

GCRTA EAST 55TH STREET RAPID TRANSIT FACILITY

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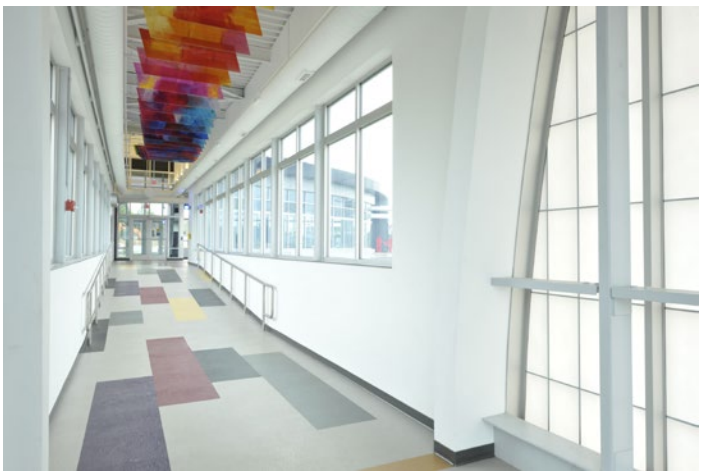

COMPLETION
1999

SIZE
Each station is approx. 1,800 SF

COST
$600,000 – 1.7 million

OWNER
GCRTA (Greater Cleveland Regional Transit Authority)
Ms. Maribeth Feke
Director of Planning
216.566.5160

TEAM MEMBERS INVOLVED
Ken Emling

GCRTA BUS TRANSIT CENTERS

Cuyahoga County, Ohio

From 1998-1999, Bowen designed five community transit centers for Greater Cleveland regional Transit Authority. The centers combine glass, steel, metal roofing and tile floors into modern, state-of-the-art transit centers. Each building has a public waiting area, as well as layover facilities for drivers along with unique public art installations.

Stations Designed:

- Euclid
- Southgate
- Westgate
- Randall Park
- North Olmsted

GCRTA BUS TRANSIT CENTERS

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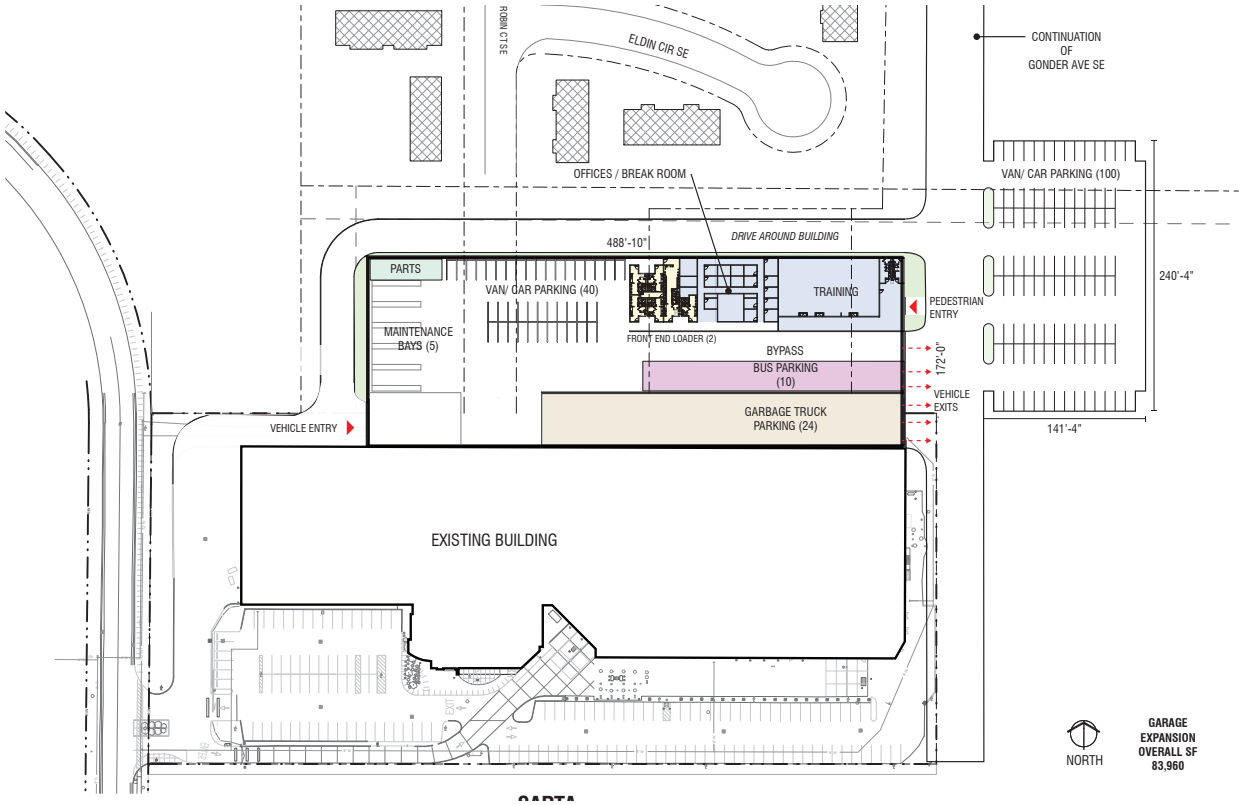

COMPLETE
Current

COST
$14 million, est.

CLIENT
Stark Area Regional Transit Authority
Charles Koppes,Purchasing Manager,
330.477.2782
ckoppes@sartaonline.com

TEAM MEMBERS INVOLVED
Ken Emling
Kyle Hulewat
Justin Brevick
Tim Larke
Shana Hurst
Lawhon

SARTA VEHICLE GARAGE EXPANSION

Canton, Ohio

The Stark Area Regional Transit Authority (SARTA) selected Bowen for an IDIQ contract in 2018. The primary initial tasks have been providing conceptual layouts for a 90,000+ SF new vehicle garage to be constructed directly to the north of their existing garage. This new garage will house City and County waste trucks, along with other vehicles. It will also house offices, locker rooms and restroom areas, as well as a 100 person training facility. The garage will include a vehicle wash bay, parts storage and 5 maintenance bays.

COMPLETION
2006

SIZE
127,635 SF

COST
$4.1 Million

CLIENT
Stark Area Regional Transit Authority
Charles Koppes,Purchasing Manager,
330.477.2782
ckoppes@sartaonline.com

TEAM MEMBERS INVOLVED
Ken Emling

SARTA HEADQUARTERS EXPANSION

Canton, Ohio

Bowen developed a plan to completely renovate this transit headquarters building, including administrative offices, bus and parts storage, and indoor fueling. Our plan called for changing out the existing facade for a new vertical wall to allow expansion of the second floor into the new space created by the wall. A key component of the renovated office wing was the relocation of the Board Room from the second floor down to the first floor, directly adjacent to the main lobby. The bus storage area was cleaned, new lighting was installed and new gas detection systems were provided. New storage areas were also constructed in an unused area of the garage, a new indoor two-truck storage facility was built, and the site was completely renovated.

SARTA had to remain entirely operational during the renovation work, so Bowen prepared detailed construction phasing plans. The phasing plans integrated additional use of outdoor fueling, auxiliary office space, and bus movement patterns. Bowen was on site extensively during the construction to ensure that the project was being built according to the plans and was on schedule.

PARTA CNG FUELING STATION

Kent, Ohio

COMPLETION
Phase 1: 2016
Phase 2: 2018

COST
$3 Million

OWNER
Portage Area Regional Transit Authority
Brian Trautman, Director of Operations & Maintenance
330.677.7055
btrautman@partaonline.org

TEAM MEMBERS INVOLVED
Ken Emling
Lawhon

This project, which brought the first CNG fueling station to Portage County, progressed over two phases:

Phase 1 - Bowen served as architect and engineer for the design-bid-build for renovations to portion of their existing maintenance garage to make the area code compliant for CNG buses.

Phase 2 - Bowen served as Criteria-AE for a new CNG fueling facility to fuel PARTA buses and public vehicles

For Phase 1. Bowen worked with PARTA and the local code officials to develop a set of plans that isolated a portion of the garage and implemented a specialized system of gas detection sensors and exhaust fans, allowing PARTA to use this portion of the garage to store and maintain the CNG buses. Phase 1 was completed in 2016.

For Phase 2, Bowen prepared the schematic plans and specifications that PARTA used to bid the project out to Design/Build teams. Bowen continued on as the Owner's representative throughout the final design and construction of the work.

COMPLETION
2017

COST
$21 million

SIZE
135,430 SF

OWNER
ABB
Joe Gioffre
614.202.2214
joe.gioffre@us.abb.com

TEAM MEMBERS INVOLVED
Ken Emling
Kyle Hulewat

ABB OFFICE + RESEARCH CENTER

Highland Hills, Ohio

Bowen led programming and conceptual design for a new 450-person regional office for ABB, a global leader in power and automation technologies. The relocation and new facilities reflects an in-depth programming process—involving input from 25 distinct departments—through which Bowen understood ABB's logistical needs and corporate culture. The design implements ABB's international, company-wide "Workplace 2020" initiative, which centers on new, activity-based working concepts, open work spaces, and collaborative environments. The new floor plan features a combination of workstations grouped by department, flex spaces, conference rooms, and labs.

Bowen worked with ABB to fit-out design options for renovation existing space and renovating at a new location before all partied determined new construction was the best option. Bowen created a schematic design package for both the exterior shell and the interior layouts and served as Owner's Representative during the Design-Build.

ABB OFFICE + RESEARCH CENTER

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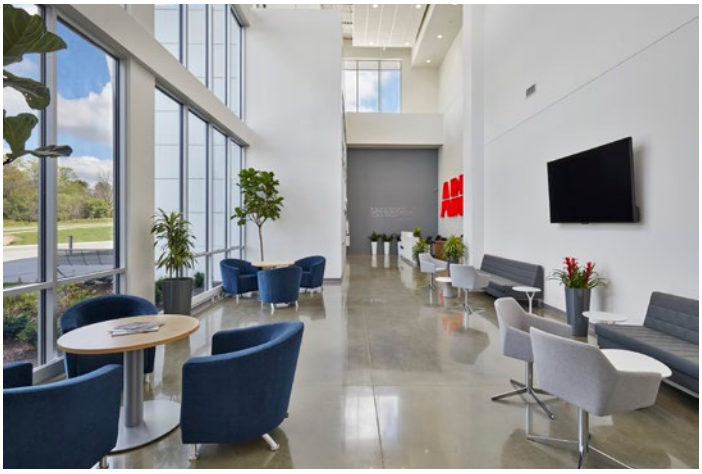

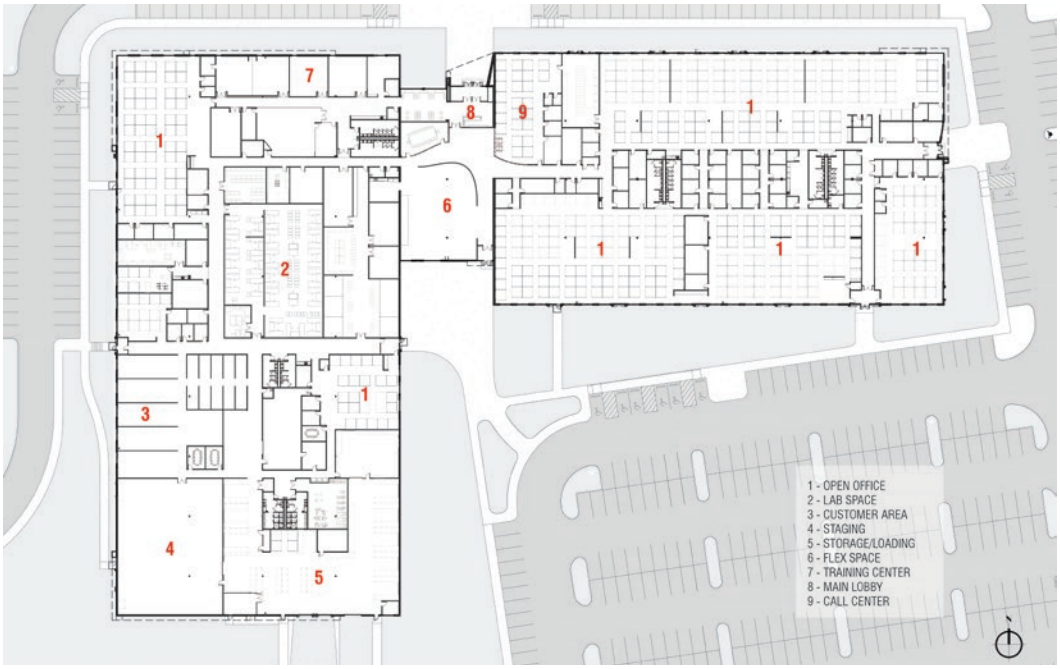

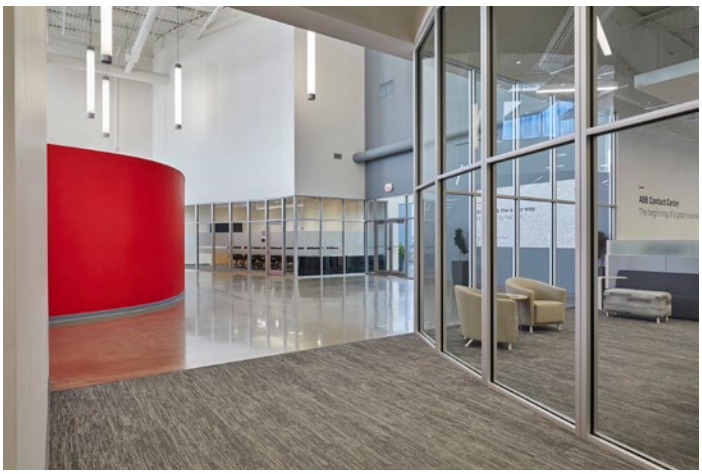

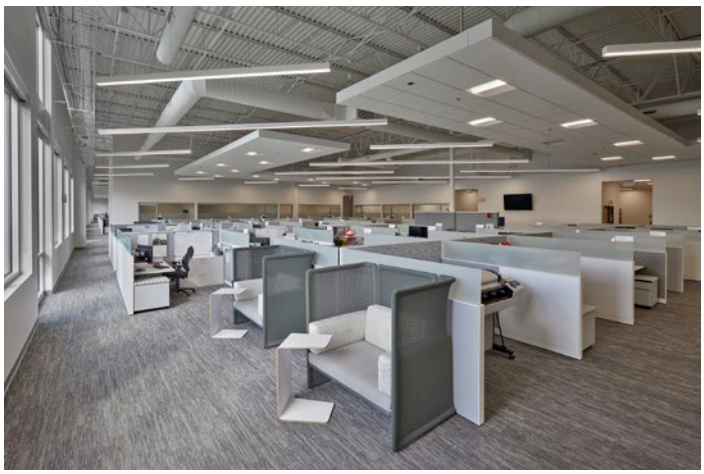

COMPLETION
Phase I: January 2020
Phase II: May 2020 (est.)

SIZE
Phase I: 14,000 SF
Phase II: 35,000 SF

COST
$5 million

OWNER
Brennan Industries
Rob A. Ward
Operations Controller
440.248.1880
RWard@brennaninc.com

TEAM MEMBERS INVOLVED
Kyle Hulewat
Justin Brevick

BRENNAN INDUSTRIES HEADQUARTERS

Solon, Ohio

Bowen led design for this transformative addition and renovation at the Brennan Industries Headquarters. Brennan wanted an expanded facility that could consolidate multiple satellite offices. The renovations are conducted in two phases:

- Phase I: 14,000 SF of office renovation and addition
- Phase II: 35,000 SF of warehouse renovation and addition

Bowen worked closely with Brennan during the programming phase to develop and build consensus around a modern, open office that reflects the recent evolution of Brennan's culture, brand, and values.

BRENNAN INDUSTRIES HEADQUARTERS

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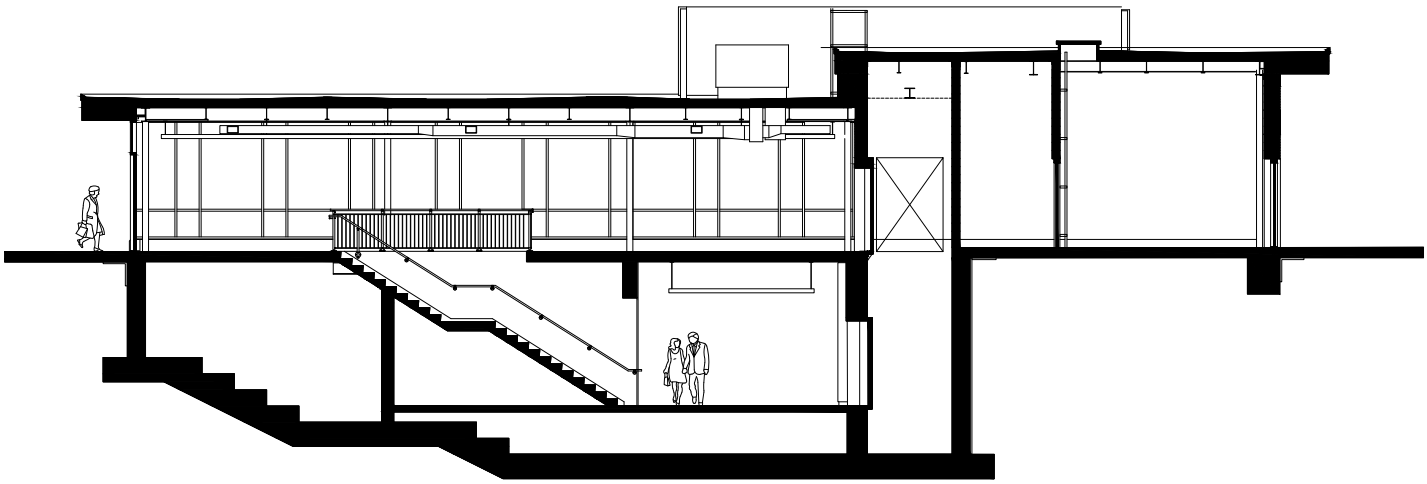


COMPLETION
Current

OWNER
Amtrak

TEAM MEMBERS INVOLVED
Kyle Hulewat
Justin Brevick
Rob Tuttle

AMTRAK PASSENGER PLATFORM ADA UPGRADES

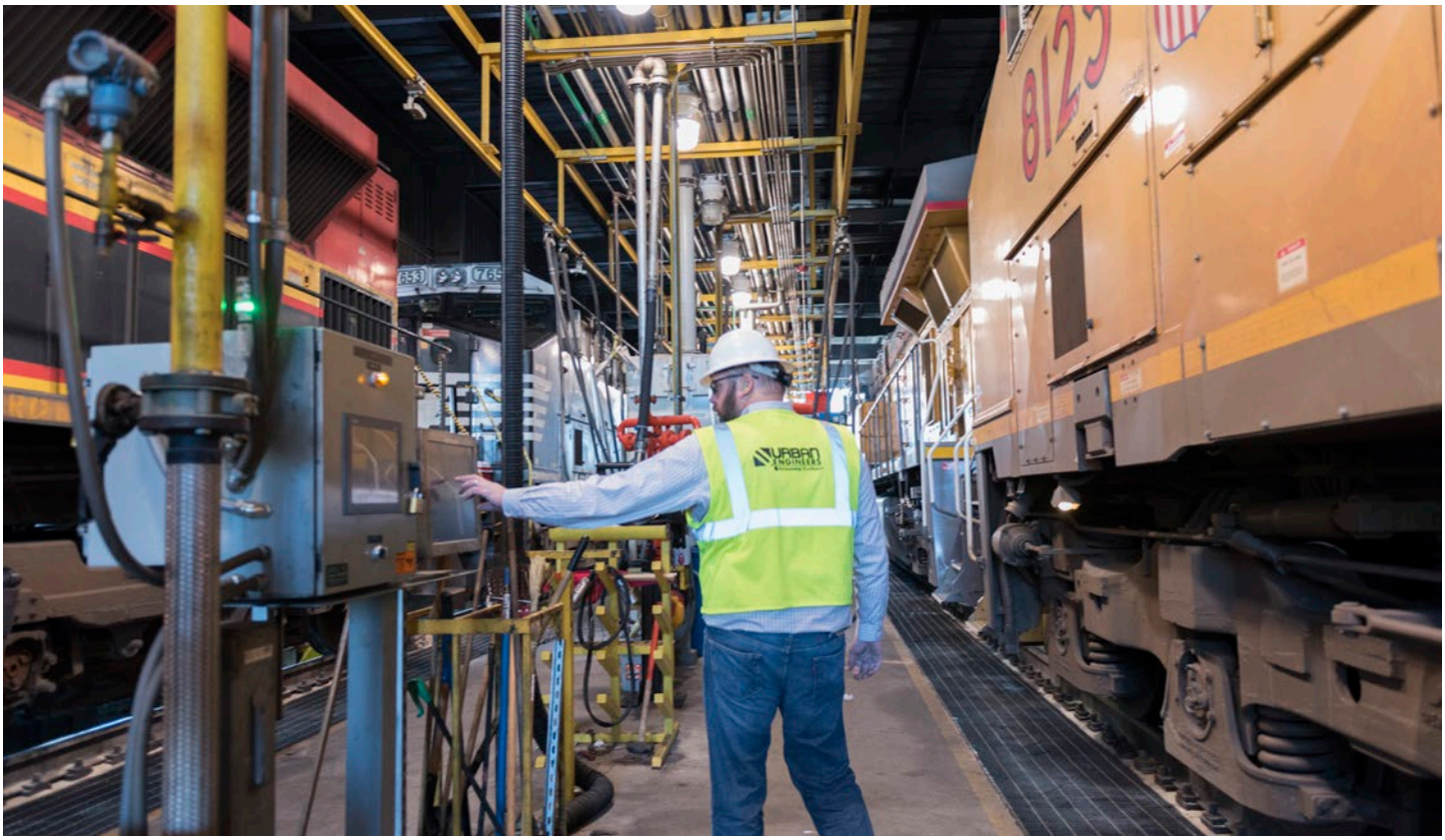
Johnstown, PA

Urban Engineers and Bowen have teamed up to renovate the Amtrak Station in Johnstown, PA to be fully ADA compliant. This work includes:

- Upgrading all doors
- Upgrading of restroom components
- Upgrading of signage
- Upgrading of the platform
- Upgrading of the elevator, stairs and headhouse
- Upgrading of the visitor parking lot

The project is at the 60% design level, with the completion date to be determined.

EXISTING HEADHOUSE



COMPLETION
Ongoing

COST
Various

OWNER
Norfolk Southern

TEAM MEMBERS INVOLVED

Ken Emling
James Bilella, PE
Alan Collins, PE
David Parmiter, PE
Robert Tuttle, PE

NORFOLK SOUTHERN NATIONAL PROGRAM

Multiple US Locations

Urban is the leading provider of engineering design services to Norfolk Southern, and Bowen has teamed as an architectural partner for most of these projects. Over the past 15 years, Urban has completed more than 200 tasks. Work includes upgrades to fueling facilities, turntables, transfer tables, car shops, administrative facilities, wheel truing buildings, locomotive shops, service and inspection facilities, wash buildings, foundries, bridges, crew and personnel facilities, yard and terminal infrastructure, and various other facilities and structures.

Key projects include:

- Bellevue Locomotive Wash Facility
- Buffalo Car & Locomotive Shop
- Chattanooga Welfare Facility
- Conway Locomotive Maintenance Building
- Conway Wheel Truing Building
- Croxton Overpass
- Elkhart Offices and Locker Rooms
- Enola Welfare Facilities
- Enola Storage Facility
- Harrisburg Mainline Fueling
- Inman Fuel and Repair Facility
- Kansas City Diesel Facility
- Lambert's Point Thaw Shed Modifications
- Moorman Fuel Distribution Improvements
- Moorman Locomotive Shop Expansion
- Moorman Fueling Facility
- North Kansas City Roundhouse Demo
- St. Louis Car Drop Table

COST
$500,000

OWNER
Amtrak

TEAM MEMBERS INVOLVED
James Bilella, PE

AMTRAK ADA PROGRAM - STATION IMPROVEMENTS

Winslow, AZ and La Junta, CO

Urban Engineers (Urban) is performing design and construction phase services at Winslow, AZ, and La Junta, CO, Stations for Amtrak's 2020 ADA Improvements Program. This is an ongoing program for station accessibility improvements including compliant paths of travel, platforms, architectural details, and other associated work to meet the requirements of the American's with Disabilities Act of 1990 (ADA).

Urban acts as Designer of Record for the work at both stations, including:

- New accessible station platforms.
- New accessible walkway to public right of way.
- New station signage.
- New platform lighting.
- Addressing other ADA non-compliant items inside and outside the station building.

Both stations are operated by Burlington Northern Santa Fe (BNSF).

COST
$18.5 Million

OWNER
Capital District Transportation Authority

TEAM MEMBERS INVOLVED
James Bilella, PE
David Parmiter, PE

SARATOGA BUS MAINTENANCE FACILITY

Saratoga Springs, NY

Urban served as engineering design consultant to QPK Design, the architect to the Capital District Transportation Authority (CDTA) for the Saratoga Bus Maintenance Facility located in the City of Saratoga Springs (Saratoga), New York. Although the need for this facility continues, the project funding was diverted and the project placed on indefinite hold by CDTA in 2014.

The CDTA received a Federal Transit Administration (FTA) grant to design and construct a new bus maintenance facility in Saratoga Springs, NY to facilitate their expanded service area. This new facility will serve as CDTA's satellite bus garage with administrative offices, dispatch and driver areas, maintenance bays, a fuel dispensing station, a bus wash unit, and an indoor bus storage area for a 50-bus fleet. The one-story facility is approximately 72,700 SF, located on a 13+/- acre parcel.

Urban provided mechanical/electrical/plumbing engineering, fire protection, site utility design, and cost estimating services for the design. Urban is also providing FTA liaison/compliance services to assist the grantee with compliance with Federal Transit Administration guidelines and requirements.

The design will be LEED-certified. Urban is designing the facility systems to comply with Executive Order 111, New York State, and FTA requirements for design of the bus maintenance facility. Urban has extensive experience and a close working relationship with the FTA and is knowledgeable of FTA requirements for grant applications and expectations.

COMPLETE
2014

COST
$1.2 million

OWNER
City of Poughkeepsie

TEAM MEMBERS INVOLVED
James Bilella, PE

POUGHKEEPSIE BUS TRANSIT HUB

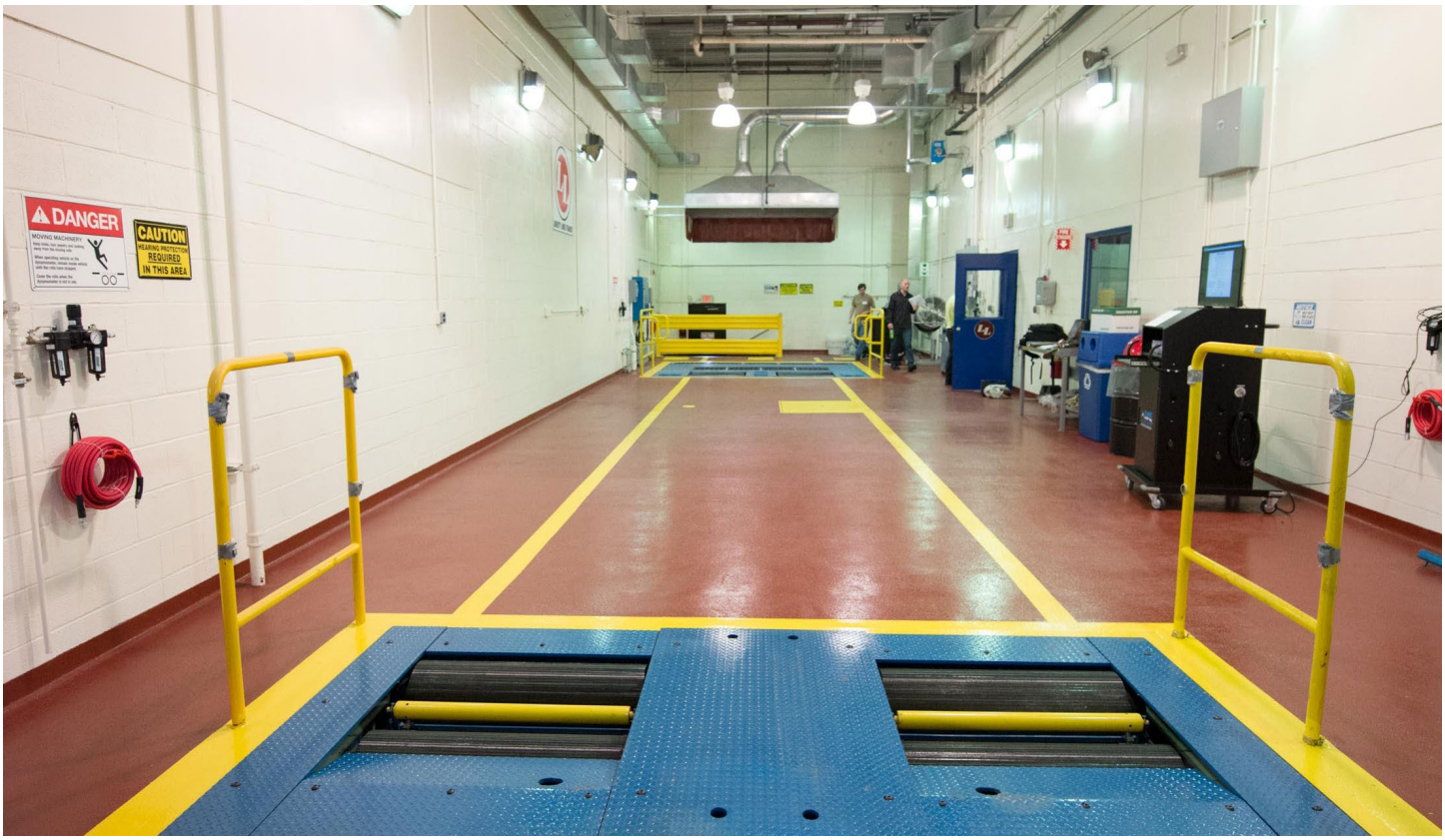
Poughkeepsie, NY

The award-winning bus transit hub in downtown Poughkeepsie, NY, was a much-needed addition to the Dutchess County transportation network. Funded by the Federal Transit Administration, the $1.2 million hub replaced an unsafe and congested curb side bus stop on Market Street.

As lead engineering design consultant, Urban provided plans for circulation, drainage, grading, pavement, shelters, and lighting in addition to project management, quality assurance, cost estimating, contract administration, and construction support services. The hub has capacity for seven buses to simultaneously load and unload passengers via a one-way loop. It features lighting, signage, security cameras, passenger shelters, bicycle access, landscaping, and other amenities. Transfers between buses and connections to the nearby rail station are safer and more convenient. The resulting enhanced mobility for students, business professionals, and local residents is spurring economic development in the city and county.

The goal was a design that would be embraced by local government and the public, while offering safe and more convenient bus transit connections. Working with the Mayor, City council, and public, they incorporated comments during design development.

The new transit hub was recognized with a 2015 Silver Engineering Excellence Award from the American Council of Engineering Companies of New York in the Transportation category.



COMPLETE
2013

COST
$1.12 million

CLIENT
County of Westchester

TEAM MEMBERS INVOLVED
James Bilella, PE
David Parmiter, PE

CENTRAL BUS MAINTENANCE FACILITY - DYNAMOMETER DESIGN

Yonkers, NY

Upgraded with equipment to provide advanced diagnostics, Westchester County's Central Bus Maintenance Facility will allow bus operator Liberty Lines to extend the service life of its fleet of more than 300 vehicles. The 24' x 72' facility houses a dynamometer to provide engine performance, road test, drivetrain, and emission tests, along with a brake tester.

To support the modern equipment, the facility required new foundations, structural reinforcement, new finishes, increased ventilation, electrical power upgrades, and additional worker protection measures. Urban served as design engineer of record for the project. They provided structural, civil, environmental, mechanical, electrical and plumbing/ fire protection engineering services.

Careful coordination of trades was required to fit the dynamometer, brake testing equipment, and specialized building systems within the small maintenance facility. The brake dynamometer simulates the vehicle for forward driving deceleration force and provides brake pressure for each brake drum. The result is performance data that allows operators to better diagnose engines, fine tune performance, and troubleshoot issues before they result in engine damage or failure.

Operating buses at highway speeds on the dynamometer and brake tester generates heat and exhaust that must be dissipated. Specialized HVAC and exhaust systems capture the engine exhaust and direct it away from the room and other work spaces.

REFERENCES

Ted Christian | Senior Project Manager
Miami University
Cole Services Building, Oxford, OH 45056
513.529.3196

TEAM MEMBERS INVOLVED

Etta M. Reed

Brian R. Johnson

MIAMI UNIVERSITY GATEWAYS

Oxford, Ohio

This project redefines the eastern and southern gateways into the Miami University campus and the City of Oxford, which incorporated improvements for multi-modal transportation users (vehicular, pedestrian, bicycle), roadway lighting, access, signal modifications, drainage, and landscape architecture.

Specifically, Bayer Becker provided surveying and civil and transportation engineering services for phase one of the project which included improvements to Patterson Ave and improvements to Oxford Trenton Road (SR 73). They performed a topographic survey of the project area using traditional surveying methods and a small unmanned aircraft system (sUAS). The sUAS was also utilized to capture orthophotos, point clouds, and still photos. Roadway plans, drainage design, traffic control, maintenance of traffic, signalization plans and details were prepared by Bayer Becker. Along Oxford Trenton Road (SR 73), a bike lane was added to each direction of travel.

Phase two consists of additional roadway and safety improvements as well as landscape architecture. Bayer Becker prepared a safety application for the E. High St project (ODOT project name BUT-27-15.70 to 16.25) which was ultimately awarded $1 million in funding by the ODOT. Design work for phase two included the consolidation of several mid-block crosswalks, the installation of high visibility crosswalks, the construction of a transit pull off area, transit and emergency vehicle pre-emption, and the conversion of a center two-way left turn lane on E. High St (US 27) to a raised landscaped median, except where dedicated left turn lanes are to remain at S. Campus Ave, University Ave, Talawanda Rd, and Patterson Ave (US 27).

REFERENCES

Shaunna Tafelski | Treasurer
Talawanda School District
131 W Chestnut St, Oxford, OH 45056
513.273.3109

TEAM MEMBERS INVOLVED

Etta M. Reed

Brian R. Johnson

KRAMER ELEMENTARY

Oxford, Ohio

The new Kramer Elementary, part of the next phase of the school district's Master Plan, now serves 650 students residing in the near city of Oxford, Ohio. The site work and completion of the substantial new building was on time and on budget. Bayer Becker provided the civil site design and land surveying services. Bayer Becker's innovative design solutions played a part in keeping this large undertaking on budget. To conserve costs, the design team was able to re-evaluate the drainage plan and eliminate the need for an entire retaining wall.

Various modes of transportation are utilized to transport students to Kramer Elementary School - pedestrian walking, bicycle, automobile and via a school bus. A critical component during site layout design was the safety and circulation of all modes of transportation. The site was designed with two access points - one for the delivery trucks and buses and the other for the pedestrians, bicyclists and passenger vehicles. Furthermore, the sidewalk provided is internal to the site from Sycamore St directly to the school, thus keeping the pedestrian and bicycle traffic separate from the vehicular traffic.

The new Kramer Elementary School building is the third new facility built in the district in recent years. The district operates five schools. Kramer Elementary is now LEED Silver Certified.

REFERENCES

Kevin Spector, AIA | Chief Creative Officer
SMP Design + Construction
4480 Lake Forest Dr
Cincinnati, OH 45242
513.445.8490

TEAM MEMBERS INVOLVED

John E. Cody
Brian R. Johnson

BUTLER COUNTY METROPARKS RIVER CENTER

Middletown, Ohio

Rivercenter is a full service bicycle center located along the Great Miami River Recreational Trail. Strategically located to take advantage of view of the Great Miami River, the facility houses administration offices, restrooms, educational facilities, parking lot, and green infrastructure for stormwater management.

Rivercenter serves as a trailhead for access to the regional trail and can support events that take place at the AK Steel Performance Pavilion located directly north of the site. The paving for the outdoor spaces includes meandering scoring lines that celebrate the importance of the river's influence upon the community. Rain chains direct storm water into a series of bioswales and rain gardens promoting sustainable solutions to managing storm water runoff. Bayer Becker provided surveying, civil engineering, and landscape architecture services for the project. They teamed with SMP Design + Construction and Schaefer Engineering on the project.

3. TECHNICAL PROPOSAL

A MESSAGE FROM THE PROJECT MANAGER

It isn't every day that such an intriguing, fascinating and complex transit project comes along. In fact, it is actually two great projects combined into one! As soon as I left the pre-proposal meeting, I called the president of our firm and told him that this project was made for us, and we had to win it! On behalf of the entire Bowen Team, we could not be more excited to submit our qualifications to be the architects and engineers for these projects! We have the experience and knowledge needed, and we will treat your project with the utmost of care.

Ken Emling, AIA | Director of Public Architecture

INTRODUCTION

PROJECT UNDERSTANDING

The Bowen Team understands that this project is in fact made of two separate scopes of work, completed under two contacts, with two different clients. One contract will create a new multi-modal passenger and maintenance facility for the Butler County Regional Transit Authority. The other contract, with the City of Oxford, will be the design of a passenger connector and platform for a new Oxford Amtrak rail stop. We understand that the purpose of combining these two contracts into one RFP is to ensure that the result will be a unified and cohesive transit design.

In this section we will describe our approach for meeting the intended scope of each of these projects separately. However, we first want to talk generally about our design and management processes.

DESIGN PROCESS OVERVIEW

Our time-proven design process is broken out into three primary phases. Each phase involves a close collaboration between the owner and the design team. Each phase is important, and each phase contains multiple checkpoints to keep the budget and schedule on track.

Investigate

- Assess the existing conditions
- Evaluate the mission, operations, and aesthetic preferences with the Owner
- Share the results of the findings in reports, programs, and diagrams.

Create

- Apply the findings from the Investigation phase
- Define the spaces based upon the usage requirements and goals
- Establish a visual language that supports the mission through concept plans, renderings, and virtual walkthroughs

Deliver

- Refine the design, reviewing and specifying each detail until there is a comprehensive set for documents suitable for bid and permit.
- Administer the construction process through regular site visits, reviews, and meetings
- Finish the project by ensuring that everything has been completed to the satisfaction of the original design intent. Quality is key

MANAGEMENT APPROACH

Project Management

Bowen has a proven management style that focuses on the client. We direct our team, on a daily basis, to work the project, solve the critical issues and keep the client informed at all times. We believe in meeting face to face with the client as often as possible to convey and share information. Of course, in the age of Covid-19, we have been utilizing virtual meetings more and more. Our philosophy also involves being on site often during the construction to ensure that the project is being built per the Contract Documents.

Schedule Control

Our recent experience in many projects very similar to this one gives us the relevant experience needed to understand the scope and to keep the project on schedule. We view our projects as team efforts, so we strive to ensure that all goals and deadlines are met throughout the design process.

Budget Control

We perform a cost estimate analysis at the end of each design phase. Only through this method can we ensure that the project is staying within budget. If for some reason we find that the project estimate is exceeding the budget, we will perform a value engineering analysis to determine why, and what methods might be employed to bring it back. We understand the importance of staying on budget for the project to continue to progress. We will collaborate with you throughout the entire design process to ensure that the design meets the budget.

Quality Control

The art of putting together a great set of Construction Documents is not easy. It takes the will and dedication of the entire Design Team from the very first meeting until the project goes out for bid. We understand that the last thing you want is to have a multitude of change orders during construction. Trust us when we say that we do not want that either. Our Quality Control process focuses on six principals that will lead to a positive outcome.

INTRODUCTION, CONT

Six Principles of a Successful Project:

Strong Leadership. A strong project manager must instill the requirement of great construction documents and great accuracy early on in the project, and continue to reinforce it throughout all design phases.

Team Meetings. During all the design phases, our team will hold a meeting/video conference call every week to discuss the project, the schedule, and coordinate any open issues. Having continual team communication is critical.

Documentation. We are firm believers in documenting everything, including minutes from every meeting, communicating through e-mails, etc. It is extremely important to document every design decision that is made so that we always have a reference to fall back upon, if needed. This helps to keep everyone accountable throughout the project.

Looking Ahead. We believe that in order to complete a project successfully, the management must be thinking two or three steps ahead of where the project currently is. Doing this avoids potential issues by cutting them off early if any are discovered.

Peer Reviews. At Bowen, we will have architects that are both associated, and not associated with the project review progress sets for quality control and constructability. We then share these comments with our Team and work out any coordination issues.

Listening. We will listen to you, throughout the entire process. At the end of the day, we want to make sure that we are providing the type and quality of service you deserve, and ultimately the project you are expecting.

BCRTA MULTIMODAL FACILITY

This project will provide such a great challenge to our design team, as it combines so many different uses and functions into one facility. The idea of 'Multimodal' truly means the interconnecting of various transit types. In this case it would be bus, car, bike, pedestrian and even rail.

Without simply repeating the list of uses as outlined on page 8 of the RFP, this project will include office space, public waiting areas and restrooms, bus parking and maintenance facilities, a fueling station, break areas, locker rooms and so much more! For such a complex program, it will take a design team that not only understands each type of use on its own, but also a team that can then take all of those functions and blend them cohesively into a facility that functions perfectly and looks amazing. That is why this is such an ideal project for the Bowen Team. We have the experience and design expertise needed to translate your program into reality.

GENERAL REQUIREMENTS

Communication is important to us and critical for a successful project. One way to streamline communication is by keeping our project team, led by Ken Emling, consistent over the life of the project. Our intention is to keep the core team designers, architects, and engineers involved through all phases. We understand any changes to the project team we propose in this submittal will be subject to approval of BCRTA. Ken Emling will represent the team as BCRTA's primary contact. He will implement Quality Control procedures and make sure the effort between all team members is unified and coordinated.

To make sure BCRTA is fully informed on the project status, we will submit monthly progress reports that summarize work done to date, look ahead to the next action items, and addresses any potential schedule or budget issues. We have done this on many transit projects in the past, from the GCRTA in Cleveland to COTA in Columbus. This exercise is not only good for you, the client, but for us as the design team as well. It gives the team an opportunity to reflect on what we have accomplished and look ahead to our next tasks as well. The Bowen Team prides itself on being open and transparent with our clients. We are all really one team working towards the same common goal.

PART ONE: PRELIMINARY ARCHITECTURAL CONCEPT DESIGN/ENGINEERING (10% COMPLETE CONCEPT).

Task 1: Program Study

After the kick-off meeting, the Bowen Team will conduct an on-site workshop, which will include group interviews to gain more knowledge as to your needs and requirements. This will require several meetings and an on-site walk-around. During this phase we will meet with key individuals to gain their input and understanding of the requirements for this Project. We will review your existing fleet, and the equipment you use to maintain it. In other words, we need to fully understand how you operate on a day to day basis. Only then can we begin to develop a design that will meet your current and future needs.

Working with the BCRTA, it will be our goal to define the functional, operational, programmatic, and financial goals of the project.

BCRTA MULTIMODAL FACILITY, CONT.

We will begin to define and finalize a list of programming spaces for the development of the new facility. This would be a detailed spreadsheet that identifies each space, its size, as well as its functional requirements. From this, we will develop a Program of Requirements. This Program will be the roadmap for the design of the building. It will consider all the required spaces, as well as circulation, to define the overall square footage of the building, as well as the required utilities and systems for each space. Bowen has a great deal of experience in this building type, so we have the knowledge and understanding to create a very detailed Program.

The Bowen Team will submit the Program to BCRTA for approval. The Bowen Team will not move forward with the next design phase until the program is approved by the City and other major stakeholders.

Task 2: Site Selection Alternative Study (if needed)
The Bowen Team has experience in assisting owners in selecting a site. If this became something that was needed or desired by the BCRTA, we would assist you in this area. We would do this in the following manner:

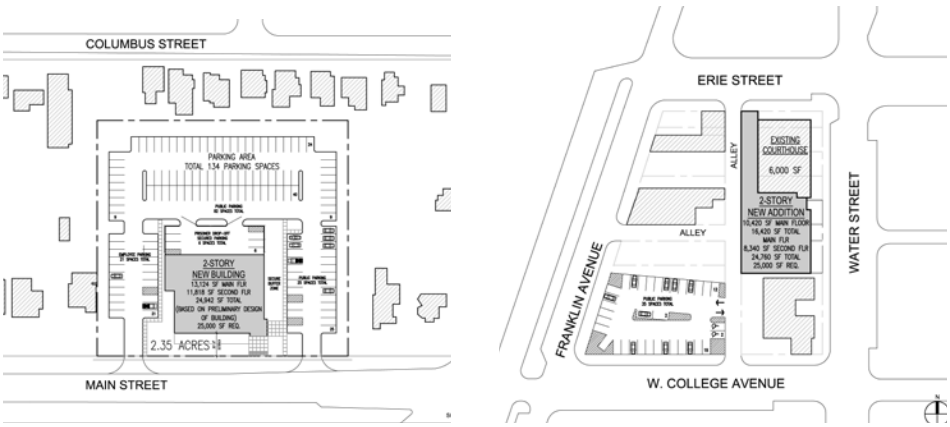
- evaluate each site on an individual basis, scoring them based upon a set of agreed upon criteria (location, access to utilities, grading, soil condition, etc.)
- Upon completion of the site evaluations, we would then prepare a spreadsheet to total up the scores and rank the sites based upon the various criteria.
- We would then see which site(s) scored the highest and required further study or evaluation.

Task 3: Preliminary Environmental Study
Once a site has been selected and determined available, a Phase 1 Environmental Site Assessment (ESA) of the site will be conducted to ascertain if any environmental fatal flaws exist at the site. If existing buildings and/or structures exist on the site, the Phase 1 ESA will include an investigation of hazardous materials, (i.e., asbestos, lead paint, PCP's, etc.). If the site is not environmentally fatally flawed, then other aspects of investigating the viability of site acquisition can advance.

Survey. It is our understanding that a topographic survey and underground utility location services are not required for Part One of the Project. However, should this information be desired, Bayer Becker can provide a scope and fee for these services.

Task 4: Concept Drawings (10% Design)
Building. This facility will be a truly unique design opportunity because it will bring together so many different elements to it, from public waiting spaces to office spaces to bus maintenance areas, it has it all. Our goal during this early phase is to dig deep into these elements, to truly understand them so that we can design an exceptional building around them.

We need to be thinking ahead to the most current trends and technologies available to us, while also thinking about how Covid-19 may impact designs moving forward (touchless technology, social distancing, etc.). The Bowen Team understands the latest trends in terms of office furniture, public facilities, on-time bus information sharing, bus maintenance, fueling, lighting, just to name a few.



SAMPLE SITE SELECTION STUDY

SITE ANALYSIS- RANK EACH CHARACTERISTIC ON A SCALE FROM 1-5 1= LOWEST, 5= HIGH					
	A	B1	B2	B3	B
SITE PLANNING					
Physical Characteristics					
Size of Site Utilized					
Shape of Site					
Topography					
Drainage					
Vehicle Traffic					
Parking					
Orientation					
Existing Building Demolition					
Surrounding Land Uses					
Site Expansion Availability					
Subtotal					
Site Infrastructure					
Storm Water					
Sanitary Sewer					
Electric Service					
Domestic Water					
Site Lighting					
Fire Hydrant					
Telephone/ Data Lines					
Walks/ Roads					
Off-Site Improvements					
Existing Utility Relocation					
Subtotal					
Availability					
Site Availability					
Acquisition Costs					
Subtotal					
Site Utilization					
Site Circulation					
Public Access					
Staff Access					
Fire Apparatus Circulation					
Vehicle Separation					
Secure Parking Provisions					
Prisoner Drop-off Provisions					
Construction Staging					
Visual Image					
Subtotal					

BCRTA MULTIMODAL FACILITY, CONT.

Site. Given that there will not be an increase in the impervious surface area of the site, it is assumed that detention will not be required; however, water quality will be required in accordance with the Ohio EPA requirements. During the preparation of the concept plan, Bayer Becker will evaluate various options for providing water quality such as rain gardens within the parking islands, pervious paving systems, etc.

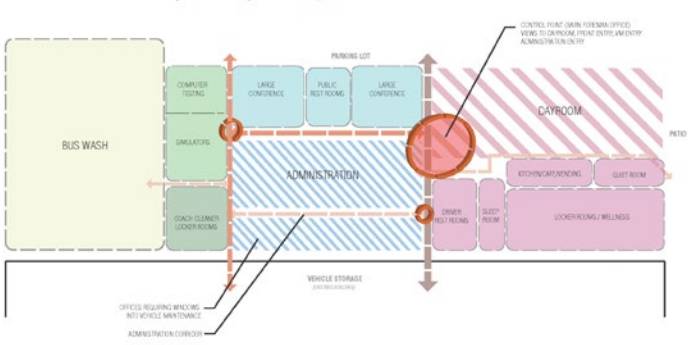
Adequate vehicular circulation and turning radii, internal and external to the site, are a must. Bayer Becker will work closely with the design team to perform Autoturn analysis of the various site concepts to insure that the final concept plan will accommodate all the anticipated design vehicles.

Transit trends with light maintenance equipment, fueling, and/or MEPT systems. The transit industry is constantly evolving to be more efficient and meet the needs of its passengers. Low emissions or zero emissions vehicles are trending as the future of transit agency vehicles. The conversion to Hydrogen Fuel Cell or electric bus fleet is a highly challenging endeavor for many agencies. Many maintenance facilities have been built to service diesel powered vehicles. These facilities will need to be renovated to meet these vehicles unique maintenance requirements. Additionally these vehicles require upgrades to the facility utility infrastructure. Urban understands these challenges and has been assisting transit agencies with planning and executing upgrades to their maintenance and multimodal facilities to meet the needs of the new vehicles. Urban will design with the future in mind. Urban will design the infrastructure and facilities to accommodate these fleet conversions with no to minimal rework of electrical, natural gas the building facilities improvements.

Operations and maintenance budgets are always tight. Providing MEP systems design that energy efficient and easy to maintain is Urban's primary focus for institutional facility owners such as transit agencies. While first costs (capital) costs are critical to control, O&M costs for MEP systems can be 10 times the first cost over the 50 year life of the building. Urban will perform total life cycle cost analysis on different systems and work with BCRTA to choose systems that meets its needs. Urban has designed alternative energy systems including solar, and wind energy. Additionally, Urban has designed natural gas fired micro turbine systems that provide hot water heat and electricity to facilities.

Concept Design Process. There are steps needed in order to take the information gathered during the Program Study and create a Concept Design that brings that study to life.

1. **Block Diagrams.** Based on the Program of Requirements, Bowen will create block diagrams that illustrate the relative space needs of each department or use, and the connections between them.
2. **Concept Plans.** We begin by developing the block diagrams into conceptual floor plans. We study adjacencies between areas. We further define spaces, breaking out public spaces, support spaces, and the access points each space requires. We shape corridors based on traffic flow, access to amenities, and view lines. We think about vehicle flow and we lay out the site. This is a critical part of the entire design process.
3. **Develop Architectural Vocabulary.** We investigate the architecture of the immediate surroundings in addition to other notable landmarks. We explore with BCRTA leadership the ways in which they want the new facility to match, enhance, or contrast with the local design. We think of the building's massing in relation to the size of the site, its street presence, and its approachability. We always consider the human scale as well. How will the new facility feel to the people that will be using it? Is it easy to understand and to navigate?
4. **Conceptual Renderings.** Using the latest modeling software, we make photorealistic renderings of your new space. These renderings offer a 360˚realization, incorporating potential fixtures, finishes, furniture, and lighting inspired by the findings of the design charrettes, interviews, and surveys. We can rotate and animate the models, creating a virtual tour of the headquarters. These state-of-the-art design tools will allow you to truly see first-hand how the facility will look and feel, both inside and out. This is an incredibly powerful tool that we use during design, that allow you to truly understand the concept.



COTA MCKINLEY AVE PROGRAM DIAGRAM

PART 2: PREPARATION NEPA DOCUMENTS IN ACCORDANCE WITH FEDERAL (FTA AND FRA) REGULATIONS AND ARCHITECTURAL DESIGN/ ENGINEERING (10%-30%).

Task 1: Preliminary Design Documents (30% Design)
After receiving approval from BCRTA for the Concept Design, the Bowen Team will begin Preliminary Design Documents. This phase is a critical piece to the overall success of the project, as this is where the conceptual plans and designs are truly developed. The Bowen Team will work closely with transit staff throughout this entire phase to ensure that the design is progressing in the right direction. The Bowen team will visit the site as needed to document all of the existing conditions to ensure that the background drawings that are used are as accurate as possible.

The 30% Design Submittal will include:

- A detailed Code review to ensure that all aspects of the project will follow all governing codes.
- A 30% site plan showing all the main components of the project. This site plan will also show bus, car, bike, pedestrian, and fire vehicle traffic flow into and around the facility.
- Architectural floor plans, elevations, sections, and other drawings as needed to describe the proposed design.
- Single-line structural, mechanical, plumbing, electrical and technology drawings to indicate the proposed building systems.
- Equipment list for all vehicle maintenance and fueling functions
- A preliminary cost estimate
- Quality assurance procedures
- Preliminary design of any off-site utility, traffic and street, and control devices

Sustainability. The Bowen Team will conduct an Eco-Charrette. This meeting will put forth all possible sustainable/green ideas and concepts so that the group can discuss and begin to make decisions on the design options that will be best suited for this site.

Our design will incorporate the latest tools for sustainability and energy efficiency. Our team will utilize design guidelines of Envision and LEED. The Bowen Team has 3 certified Envision Sustainability Professionals and over 40 LEED Accredited Professionals. We have employed these guidelines on dozens of projects.

Estimating. Our goal throughout the design phase of the project is to facilitate cost certainty and ensure that all budget information necessary for the project team to make informed decisions is both accurate and timely. We also emphasize 'value analysis' during the design process, and believe potential design refinements should be evaluated based on functional improvement first and cost effectiveness second. Our general approach to cost estimating and cost certainty is outlined below.

- Develop a baseline project cost estimate based on the 30% preliminary design documents, assumptions consistent with current project team understanding, and allowances applied to incalculable items.
- Ensure completeness of estimate and verify that there are no missing work scope items.
- Verify general conditions, project staffing, insurance, bonding, overhead and profit, etc., costs are in alignment with the project schedule and prescribed procurement requirements.
- Identify design elements, systems, and/or individual project components that may be improved through implementation of alternative solutions.
- Evaluate alternative solutions based on functional improvement and cost effectiveness.
- Refine and validate unit prices, with specific emphasis on items which are 'key cost drivers' (approximately 80% of the construction cost will be determined by 20% of the work scope items). Sources of unit price validation may include NV5 cost database, local vendors, RS Means, previous estimates, etc.
- Update project cost estimate based on current design documents (60%, 90%, and 100%).

Our proposed estimator's average budget variance for 2019 estimates was

-1.80%

BCRTA MULTIMODAL FACILITY, CONT.

Task 2: NEPA Compliance Process
NEPA review. Based upon a review of publicly available data for the vicinity of the selected multi-modal station site, no substantial issues are anticipated. There are no known historic or archaeological sites in that area. Regarding Section 4(f), Miami University is a public university, so the recreational fields would require coordination to document that they are not significant for public recreation. (Artz Park is located to the north and will not be impacted.) There are no known wetlands or streams, nor any endangered species habitat. It is not within a floodplain nor within a drinking water source protection area. The primary issue for environmental review will be the potential to encounter regulated materials. Existing databases indicates a former Leaking Underground Storage Tank (LUST) site with a No Further Action (NFA) finding at the Oxford City Garage. This task will involve documenting the review of existing data, such as summarized above, and providing appropriate mapping for FTA use in assigning a class of action under NEPA.

Geotechnical Engineering. Design and construction of functional, cost-effective structures requires a thorough understanding of local soil, rock, and groundwater conditions. Terracon has access to extensive subsurface data across the Tri-State area. Our experienced team of engineers, geologists, and technicians will apply innovative technologies to provide practical design recommendations. Terracon's geotechnical engineering approach for the proposed project includes the following:

- Review of project and available geotechnical data
- Review of project conceptual drawings and grading and drainage plans
- Perform archive boring search of historical borings performed by Terracon near the project site
- Review available published data such as USGS topographic maps, NRCS soil survey, USGS bedrock geology, and ODNR bedrock contours
- Using the knowledge gained from the above review process, Terracon will develop a subsurface exploration and laboratory testing program

Subsurface Exploration Procedures:

- Field mark the exploration locations (i.e. borings) using stakes and/or white paint.
- Call in a ticket through the Ohio Utility Protection Service (OUPS) to have underground utilities locate. Terracon can also assist the Owner with locating private underground utilities.
- Mobilize a drill rig to collect soil samples and perform insitu testing. Sampling is expected to be accomplished using a split barrel sampler in accordance with the Standard Penetration Test (SPT) as well as thin-walled sampling to collect undisturbed samples. We understand that 2 to 4 borings are anticipated for this project.
- Depending on the depth, the borings will be backfilled with auger cuttings, bentonite hole-plug, or neat cement grout
- Environmental sampling can also be performed during the subsurface exploration if the site is suspected to have environmental hazards. The drill rig and tooling can be decontaminated between borings/sampling to mitigate cross contamination.

Laboratory Testing:

- Physical property testing to classify recovered samples
- Strength testing to assist engineering analysis
- Chemical testing for corrosion potential

The subsurface exploration and laboratory test results are used to develop recommendations for various aspect of the project. Geotechnical recommendations for the proposed multimodal station and passenger rail platform are expected to address earthwork, foundations, retaining walls, modifications to existing railroad track bed.

Task 3: Interagency Coordination / Public Process
Bowen will conduct reviews of the 30% Design submittal with all key stakeholders. This is an opportunity to reconcile the budget and bring everyone up to speed with design intent. If necessary, we can participate in public meetings to make sure the entire community is on board with the project vision.

KEN EMLING LEADING A PUBLIC MEETING FOR THE GCRTA CLIFTON BLVD. ENHANCEMENT PROJECT. THIS PROJECT AFFECTED A BUSY THOROUGHFARE THROUGH TWO CITIES.

PART 3: FINAL DESIGN (30%-100%)

Task 1: Value Engineering
At this point the design is far enough along that we can develop a fairly detailed cost estimate. This is also the point where we may be forced to make some creative decisions regarding the budget. In an interactive Value Engineering Charrette we can look at the project expenses and see where the priorities are and where we have the opportunity to explore lower-cost options. We can also do a mini-program review to see if we can consolidate or share spaces to reduce square footage.

Task 2: Construction Bid Documentation (Overview)
After the 30% Preliminary Design Set has been thoroughly reviewed and approved, we begin to fully define the project, ultimately creating documents suitable for bidding, permitting and construction. We will create formal submissions at the 60%, 90%, and 100% Design stages. We will describe our process for each of those submissions below.

As we begin this process, we will also map out a construction phasing plan. We know that as things currently stand, $4.5 million in funding won't be available until FY2024. We will help prioritize the final design and construction sequencing and coordinate with available funding. The goal will be to map out the sequence so you have a functional and aesthetically pleasing site as early as possible, while being able to accommodate continued work with minimal disruption as funding becomes available. Our work at the COTA McKinley site has been phased over the course of 10 years, and the site has been active the entire time. We take pride in being able to design our work to be flexible.

Task 3: 60% Arch and Engineering Design
After receiving approval of the Preliminary Design Documents, the Bowen Team will work towards 60% Design. This phase is where the project shifts from a schematic nature to one that becomes fully defined. All the design and engineering disciplines are now fully engaged in preparing more definitive working documents. The Bowen Team will continue to work closely with BCRTA during this phase to ensure that the drawings reflect all the decisions that have been agreed upon by all parties.

COTA MCKINLEY AVE BIDDING DOCUMENTS

The 60% Submittal will include:

- Site plans
- Architectural plans
- MEPT plans
- Landscaping plans
- Signage package
- Structural calculations
- Updated Project Estimate
- Preliminary schedule
- Draft specifications

Task 4: 90% and 100% Complete Architectural
After receiving approval of the 60% Design Submittal, the Bowen Team will begin the Construction Document Phase. During this phase we will bring everything together into a comprehensive package that will be used for securing the permits and for competitively bidding the project. Our Team will work closely with BCRTA during this phase to ensure that a complete understanding and agreement has been established.

At the 90% submittal, the drawings and specs must be complete, with no remaining drawings yet to be started. The 90% submittal will include:

- Vicinity map
- Site plans including contours at one-foot intervals
- Architectural plans and sections
- Engineering plans
- Demolition plans
- Specifications
- Final cost estimate
- Utility agreements and plans
- "proposal forms by discipline, including quantities"
- Construction staging recommendations and temporary signage
- Summary of all criteria for FTA, state, etc reviews and permits
- Design calculations and diagrams
- Construction Phasing schedule
- Project plan and delivery of long-lead items

Task 5: Interagency Coordination
Bowen will continue to meet with BCRTA and City leadership as needed to obtain approvals. The Bowen team will continue to participate in public meetings or other engagement activities as necessary to make sure everyone is up to date with the project progress and excited about the potential of the new facility.

PART 4: CONSTRUCTION PHASE SERVICES

Task 1: Bid Phase Services – general contractor, publicly bid
At this point the project will go out for bids, and the Bowen Team will be busy handling items related to both the bidding process and the permitting of the project. Choosing the right contractors is critical for a successful project, so Bowen likes to be involved to make sure BCRTA gets a good selection of quality bids to choose from. Our role is to engage the bidders, clarify any questions bidders might have, and clearly communicate project updates. We want the bids to cover all the scopes of work fully and accurately.

During this Task the Bowen Team will:

- Prepare bid package
- Hold pre-bid conference
- Answer bidder questions
- Prepare addenda
- Hold public bid opening
- Review all bids received
- Perform due diligence to determine most responsible and responsive bid
- Prepare written recommendation
- Prepare a conformed set of bid documents that incorporates all addenda

Task 2: Construction Phase Services (Optional – Enhanced Construction Services)
The Bowen Team will remain actively involved during the Construction Phase to ensure that the project is built correctly and per the Contract Documents. We understand that our role as the Architects and Engineers does not end once the construction starts. Our Team has been involved in the construction of many large-scale transit projects in the recent past, so we know what it takes, and we understand our role in the construction process.

Respond to RFIs. During construction, the Bowen Team will respond to Requests for Information (RFIs) from the field and issue any necessary drawings or sketches as required. The more efficiently we can respond to questions in the field, the more likely we are to keep the project on schedule and within budget. We use the project management software Newforma to track RFIs to make sure they are answered quickly, and by the right person.

Enhanced Construction Management Services. In addition to the construction administration services provided by the design team, Urban will provide Enhanced Construction Services. With more than 30 years of continuous experience in the FTA's PMO program, Urban is one of the nation's most experienced PMO consulting firms. Urban has provided PMO services for more assignments, with a greater total dollar value (more than $50 billion) than any consulting firm in the nation. Our work includes more than 50 assignments located in all 10 of the FTA's regions. In addition to its PMO resume, Urban has significant experience providing construction management and inspection services on a wide variety of transit centers, maintenance facilities, wash facilities and vehicle fueling stations, including the City of Poughkeepsie Bus Transit Hub, and the FWTA Bush Wash System Replacement. In addition, Urban has provided construction oversight for multiple maintenance and fueling projects for Norfolk Southern, Amtrak, NJ Transit, and other rail clients.

COTA FIELDS AVE UNDER CONSTRUCTION

BCRTA MULTIMODAL FACILITY, CONT.

Construction Inspections and Testing. Proper selection, quality, workmanship, and performance of construction materials play a vital role in ensuring that today's infrastructure performs adequately over long time periods. We work with clients to minimize material replacements, reduce the likelihood of deterioration, avoid potential failures, and investigate and evaluate construction materials.

The CMT approach begins with a strong relationship and understanding of the project between the owner and contractor. Terracon will attend all pre-construction meetings to address questions and discuss the materials testing requirements of the project. This is imperative so that the contractor has an understanding of when our services are needed and can schedule our technicians in a timely fashion.

Our approach to providing Construction Materials Testing services is to assign qualified engineering technicians to perform the required inspection for your project. Field and laboratory testing and observation will be perfumed in accordance with the project plans and specifications, local industry standard specifications, and our experience. Our construction engineering and materials testing capabilities include the following:

- Development and implementation of quality control and assurance programs
- Field inspection, field testing, and laboratory testing of construction materials (i.e. soil, concrete, grout, masonry, steel, etc)
- Design and review of concrete and grout mixes
- Deep foundation testing and inspection
- Structural steel inspection and nondestructive testing
- Forensic investigation and evaluation of in-place construction materials
- Construction management

Documentation is critical to the success of any testing and inspection project. The quality of our testing and inspection work is only valuable if the field personnel keep proper documentation of their visual observations, direct measurements/tests, photographic documentation, field notes, and information is properly reviewed by a Professional Engineer, and the information is distributed to the Owner/Design/Construction team timely.

Terracon created its Construction Materials Engineering and Lab Management System (CMELMS) to comprehensively manage the massive volumes of data that will be created. This system allows the project team to easily track, manage and distribute field and laboratory reports in real time and quickly sort through the information to consult on critical issues. Technicians/Inspectors are scheduled, costs and budgets are tracked, and daily progress is communicated to keep owners and the design/construction team informed every step of the way.

If tests/inspections made indicate non-compliance with the contract documents or referenced specifications, we will promptly notify the contractor personnel so corrective action can be taken and documented. Failing tests or non-conformance items (deviations) are immediately relayed to the designated parties, and draft reports are available at the end of each day. The test results and inspection information are quickly entered into the system and formal reports are produced. Failing tests and project deviations are easily tracked in a tabular Project Deviation Log which is distributed to all appropriate parties when deviations are reported.

Change Order Preparation/Evaluation/Estimates. Our hope is to limit the number of change orders needed. However, the reality is that sometimes unexpected events or new conditions arise that require a change to the Contract Documents. When a situation occurs, we will:

- Evaluate the change order request to determine if it is legitimate
- If it is confirmed that there is a legitimate reason for a change, we will then work with the contractor to determine the best and most cost-effective course of action to take. We will also take into account how this would impact the schedule
- Our estimator will perform a detailed review of the proposed cost, and work with the contractor to adjust it down to the lowest possible number
- Finally, we will prepare a Bulletin that will define the modified scope of work needed to address the situation

Shop Drawing Review and Material Approvals. It is extremely important to review all of the submittals and shop drawings before any products are procured or installed to make sure they meet the specifications requirements. It is equally important that these reviews happen efficiently to prevent delays in the field. As with the RFIs, we use Newforma to manage shop drawing reviews. With Newforma, we can track submittals by spec section, distribute them to the right partners for review, track approvals and comments, and set up alerts to make sure nothing "falls through the cracks."

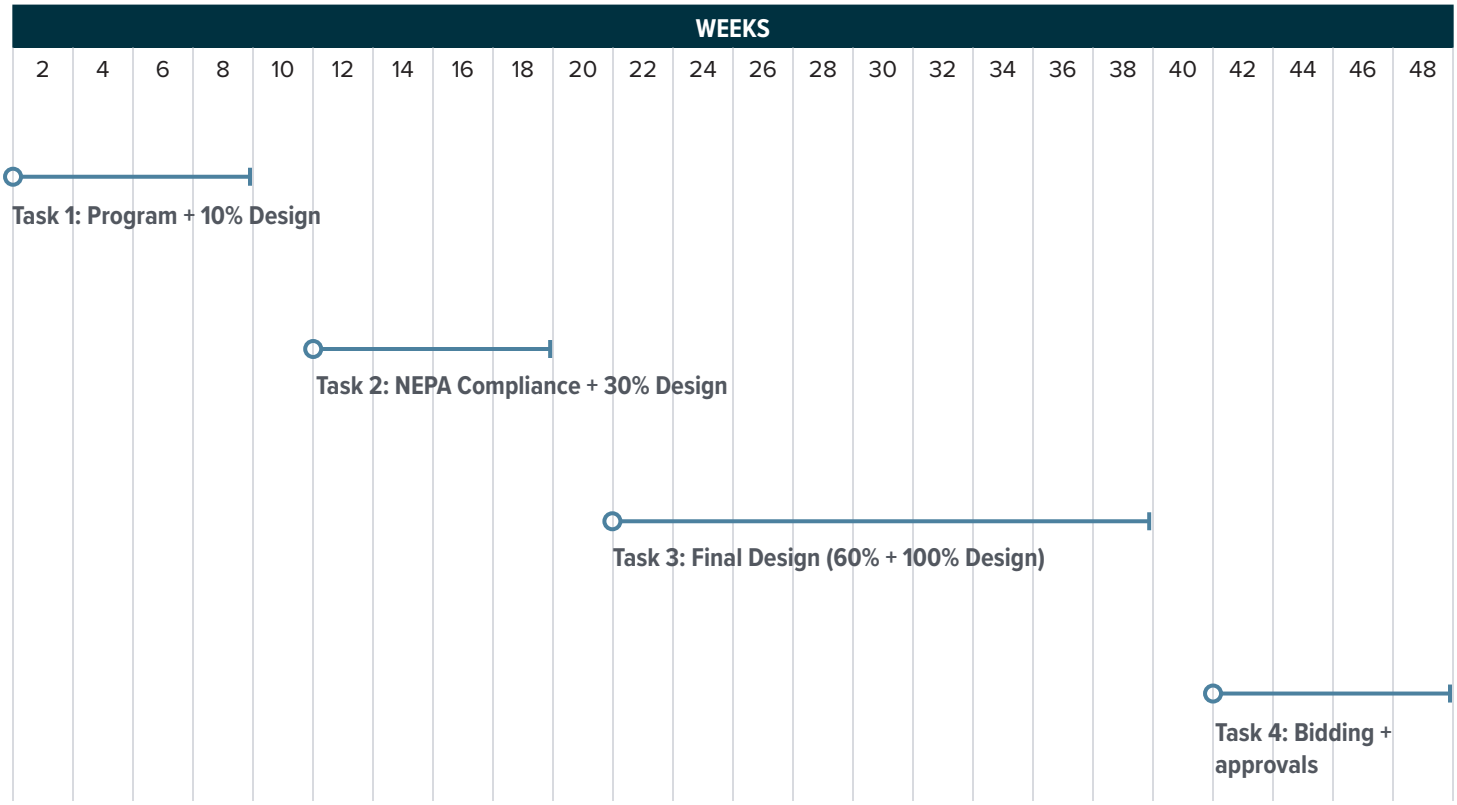
Task 3: Project Closeout
Upon the notice of Substantial Completion, the Bowen Team will perform a visual walk-through (Punch List) of entire work area to ensure compliance with the Contract Documents. The Bowen Team will issue a formal Punch List of all items found to be either incomplete or not acceptable.

Once the Contractors have completed all of the Punch List items, the Bowen Team will perform a final walk-through to confirm that all of the Work is complete.

Task 4: Warranty
The Bowen Team will prepare Record Drawings, based upon the as-builts received from the Contractors. The Record Drawings will be turned over to the BCRTA so that it will have an accurate record of what was built. The final deliverable will be a Project Manual that includes all relevant O&M Manuals and Warranty Certificates.

PRELIMINARY DESIGN SCHEDULE

The proposed preliminary schedule below assumes that the entire project will happen in one phase. We know that, because of the nature and conditions of transit funding, this project will likely be phased into multiple components. One of or primary tasks in early project phases will be to determine the best design and construction sequence. However, the schedule below is a useful illustration of the relative sizes of each design task, and supports the hours we've submitted in Attachments A (see separate sealed envelope) and D.



CITY OF OXFORD PASSENGER RAIL PLATFORM

This project involves the design and construction of a new Amtrak Railroad Passenger Station for the City of Oxford, directly adjacent to the BCRTA proposed Multimodal Transit Facility.

This is such a great opportunity to link one transit facility to another, providing the residents and students the ability to travel more easily to and from various locations right into the heart of Oxford and Miami University.

The new station is planned to be a single-sided platform, with a new public walkway connecting it to Chestnut Street, and then to the new Multimodal Transit Station. This location will be a new Amtrak stop, and will be served by existing CSX rail lines.

PROJECT CONTROL

At the beginning of the design process, we will establish geographical control points that will be used throughout the project. We will likely need to coordinate with CSX during of completion of this and other survey items.

RAILROAD COORDINATION

Urban has designed or is currently designing multiple rail stations and/or platform improvements for or in conjunction with Amtrak. Projects include Villanova Station located on Amtrak's Keystone Corridor, and ADA improvements at Amtrak facilities in Johnstown, PA, Winslow, AZ and La Junta, CO. Design phase services for Amtrak's station accessibility improvements program include compliant paths of travel to public ROW, station platforms including signage and lighting, and station building modifications.

Urban's designers are experienced in designing stations and platforms in accordance with local, municipal, state, and federal regulations including ADA requirements, as well as AREMA's Design Criteria for Railway Passenger Stations, Amtrak's Station Program and Planning Guidelines, and CSX Operating Guidelines.

In addition, Urban personnel understand the industry's emphasis on safety and maintenance of operations. Urban's certified Roadway Worker Protection (RWP) Trainers have taught CSX RWP courses for contractors and engineering firms. Our thorough knowledge of FRA RWP regulations will assist the City of Oxford, Amtrak, and CSX in providing safe working conditions for all parties involved in the project.

TOPOGRAPHIC & PROPERTY SURVEY

Bayer Becker is familiar with the project area, having surveyed the adjacent Verge multi-family residential development, as well as the previous Talawanda High School property. Utilizing the monumentation from the adjacent projects and in accordance with the City's requirements, they will perform the topographic and boundary survey of the project area. Prior to performing the field survey, Bayer Becker will coordinate with the City to send letters to the affected property owners, notifying them that they will be in the area.

UTILITIES

The Ohio Utility Protection Service (OUPS) limits their location of underground utilities to only those located within the public right of way, they will not mark utilities on private property. While site plans and records may be available from the Talawanda School District and CSX, given Bayer Becker's knowledge of the project site and experience on similar sites and with the railroad, we have included a fee to utilize the services of an Underground Utility Location Service. This additional marking will aid in avoiding surprises during construction. Way too often have they encountered underground facilities which are not shown on any records.

PRELIMINARY ENGINEERING

After we've determined some of the physical parameters of the project, we being creating the design, or preliminary engineering. Here we take the project parameters and Amtrak guidelines to create an elegant passenger station.

Construction limits schedule.

We will generate this physical document defining the geographical limits of work, We will use this document in our discussions with CSX regarding the Construction Right of Entry Agreements. Our proposed costs include ROE agreements for survey work. We presume the selected contractor will hold the agreement for construction.

Geotechnical Engineering.

Design and construction of functional, cost-effective structures requires a thorough understanding of local soil, rock, and groundwater conditions. Terracon has access to extensive subsurface data across the Tri-State area. Our experienced team of engineers, geologists, and technicians will apply innovative technologies to provide practical design recommendations. Terracon's geotechnical engineering approach for the proposed project includes the following:

- Review of project and available geotechnical data
- Review of project conceptual drawings and grading and drainage plans
- Perform archive boring search of historical borings performed by Terracon near the project site
- Review available published data such as USGS topographic maps, NRCS soil survey, USGS bedrock geology, and ODNR bedrock contours
- Using the knowledge gained from the above review process, Terracon will develop a subsurface exploration and laboratory testing program

Subsurface Exploration Procedures:

- Field mark the exploration locations (i.e. borings) using stakes and/or white paint.
- Call in a ticket through the Ohio Utility Protection Service (OUPS) to have underground utilities locate. Terracon can also assist the Owner with locating private underground utilities.
- Mobilize a drill rig to collect soil samples and perform insitu testing. Sampling is expected to be accomplished using a split barrel sampler in accordance with the Standard Penetration Test (SPT) as well as thin-walled sampling to collect undisturbed samples. We understand that 2 to 4 borings are anticipated for this project.
- Depending on the depth, the borings will be backfilled with auger cuttings, bentonite hole-plug, or neat cement grout
- Environmental sampling can also be performed during the subsurface exploration if the site is suspected to have environmental hazards. The drill rig and tooling can be decontaminated between borings/sampling to mitigate cross contamination.

Laboratory Testing:

- Physical property testing to classify recovered samples
- Strength testing to assist engineering analysis
- Chemical testing for corrosion potential

The subsurface exploration and laboratory test results are used to develop recommendations for various aspect of the project. Geotechnical recommendations for the proposed multimodal station and passenger rail platform are expected to address earthwork, foundations, retaining walls, modifications to existing railroad track bed.

Communications / Data

Providing lighting systems that ensure safety and security for Amtrak patrons is critical. Urban has significant experience in public transit facilities lighting design. We will design to IESNA/ANSI standards for light levels. Additionally we will specify vandal resistant light fixtures in accordance with any BCRTA and industry standards.

Urban has significant experience with the planning and design of passenger information systems and security system. CCTV, Public Address, Passenger information displays, and IT network infrastructure.

Landscaping

Urban and Bowen will coordinate directly with David Treleaven, the City's Environmental Specialist, to establish a plant palette that aligns with the preferred plant species identified in their ordinances and based upon previous projects located within Oxford. The plant palette will consist of native and adaptive species to minimize long term maintenance. The plant composition will focus on seasonal interest that leverages the use of color, texture and form to provide visual interest.

CITY OF OXFORD PASSENGER RAIL PLATFORM, CONT.

BASIS OF DESIGN REPORT (100% DESIGN)

After receiving approval of the Preliminary Engineering Submittal, the Bowen Team will begin the Basis of Design Report. During this phase we will bring everything together into a comprehensive package that will be used for securing the permits and for competitively bidding the project. Our Team will work closely with the City during this phase to ensure that a complete understanding and agreement has been established.

The Basis of Design Report will include:

- Indicate project assumptions and design criteria
- Survey and Geotech narratives
- Descriptions of alternatives evaluated for each key design element
- Complete design intent for all disciplines
- Zoning analysis
- Code review
- General overview of requirements
- Drawings and renderings
- Estimate
- Schedule

Estimating

Our goal throughout the design phase of the project is to facilitate cost certainty and ensure that all budget information necessary for the project team to make informed decisions is both accurate and timely. We also emphasize 'value analysis' during the design process, and believe potential design refinements should be evaluated based on functional improvement first and cost effectiveness second. Our general approach to cost estimating and cost certainty is outlined below.

- Develop a baseline project cost estimate based on the 30% preliminary design documents, assumptions consistent with current project team understanding, and allowances applied to incalculable items.
- Ensure completeness of estimate and verify that there are no missing work scope items.
- Verify general conditions, project staffing, insurance, bonding, overhead and profit, etc., costs are in alignment with the project schedule and prescribed procurement requirements.
- Identify design elements, systems, and/or individual project components that may be improved through implementation of alternative solutions.
- Evaluate alternative solutions based on functional improvement and cost effectiveness.
- Refine and validate unit prices, with specific emphasis on items which are 'key cost drivers' (approximately 80% of the construction cost will be determined by 20% of the work scope items). Sources of unit price validation may include NV5 cost database, local vendors, RS Means, previous estimates, etc.
- Update project cost estimate based on current design documents (60%, 90%, and 100%).

Scheduling

One of the key cornerstones of an effective Management Plan is the implementation of a rigid scheduling program. The longevity and popularity of Critical Path Method (CPM) Scheduling is a telling measure of its value during the design and construction process. NV5 promotes a cutting edge hybrid approach to project scheduling by combining traditional CPM Scheduling with the Lean/ Last Planner process. We are a strong proponent of Primavera P6 scheduling software and using the advanced features of the software including cost loading to track and control the schedule and budget.

Pre-Construction Phase Scheduling:

- During the early Pre-Construction Phase NV5 will work closely with the Architect, Owner and Stakeholders to develop a comprehensive Master Program Plan that will include critical tasks associated with the Project including detailed design and bidding components, and summary level construction, furniture, fixtures and equipment procurement, occupancy and Project closeout.
- The Master Project Plan schedule will be heavy on all pre-planning aspects with emphasis on the Pre-Construction Phase design process and will include subcontractor buyout, and establishing the Guaranteed Maximum Price for the Project.
- NV5 will routinely update and maintain the Master Program Plan for the duration of the Pre-Construction Phase and will provide reporting status depicting actual and anticipated progress along with proactive approaches to anticipated challenges and problems.

- NV5 will prepare the CPM Scheduling specification that will be included with each bid package. This CPM Scheduling specification will outline and define the CPM Scheduling program standards for construction and the scheduling requirements for each subcontractor.
- As the Pre-Construction design progresses, the construction component of the Master Program Plan will be refined to establish the basic construction work breakdown structure (WBS), the planned flow of the work, and key milestone tracking dates and durations.
- Subcontractors will bid their work to the dates established in the Master Program Plan.

NEPA REVIEW

This includes a preliminary analysis of the environmental impacts of the proposed project. Based upon a review of publicly available data for the vicinity of the likely station location, no substantial issues are anticipated. There are no known historic or archaeological sites in that area. Regarding Section 4(f), Miami University is a public university, so the recreational fields would require coordination to document that they are not significant for public recreation. (Artz Park is located to the north and will not be impacted.) There are no known wetlands or streams, nor any endangered species habitat. It is not within a floodplain nor within a drinking water source protection area. The primary issue for environmental review will be the potential to encounter regulated materials. Existing databases indicates a former Leaking Underground Storage Tank (LUST) site with a No Further Action (NFA) finding at the Oxford City Garage. This task will involve documenting the review of existing data, such as summarized above, and providing appropriate mapping for FTA use in assigning a class of action under NEPA.

BENEFIT COST ANALYSIS

Urban's Federal Railroad Administration (FRA) PMO experience includes the completion of a benefit-cost analysis (BCA) in accordance with the FRA's "Benefit Cost Analysis Guidance for Rail Projects". While working for FRA Region 6, Urban developed the BCA and alternatives analysis for the Texas Central High Speed Rail program from Dallas to Ft. Worth. Urban's analysis was key in justifying the benefit-cost ratio required to achieve federal support and progress the project to the next stage of development. Our knowledge of FRA methodology, terminology, indices,and the required quantitative and qualitative assessments will provide benefits to the City of Oxford, Amtrak, and other project stakeholders.

CONSTRUCTION MANAGEMENT

Urban's CM experience includes oversight of upgrades to Amtrak's Passenger Information Display Systems (PIDS) at New York Penn Station and Chicago Union Station as well as, ADA Station Improvements in Johnstown, PA, Winslow, AZ and La Junta, CO.

The PIDS provides train numbers and names, scheduled and estimated departure and arrival times, boarding status, boarding locations, and destination lists. The system is comprised of electronic (variable messaging) signs and audio components to provide passengers with train status in both visual and aural formats, in conformance with Americans with Disabilities (ADA) requirements. The existing PIDS had to remain fully functional throughout the project.

Our role involved monitoring work to verify that the new PIDS technology integrated with the standard construction elements in the station, such as conduits, wiring, and structural supports. We also coordinated work with Amtrak force account personnel responsible for electrical and data wiring, and connections to existing Amtrak equipment. AT&T provided the CAT6 cables and new switches. The construction contractor installed conduit and other infrastructure elements. Urban helped resolve issues related to the work by and among these separate entities.

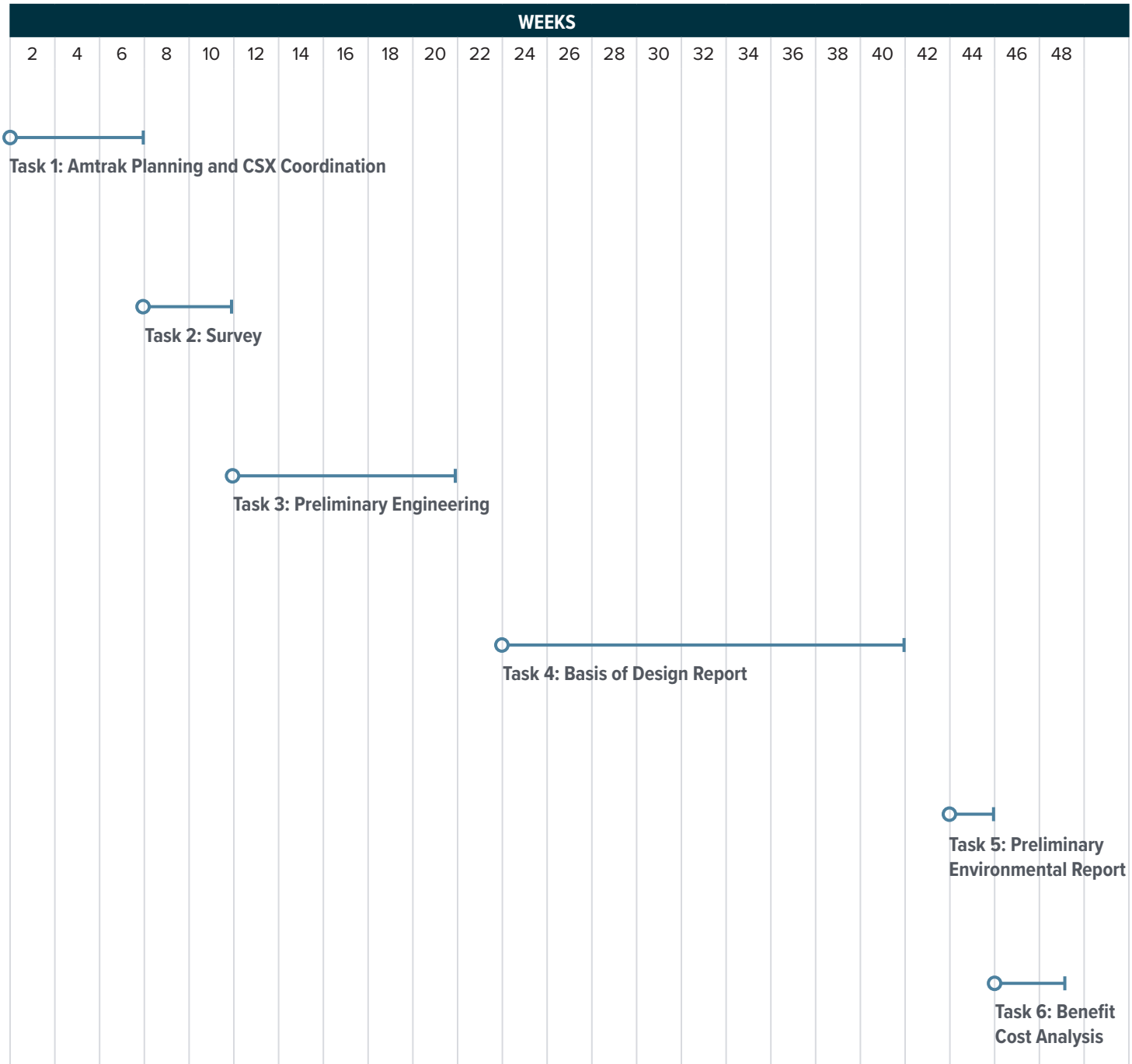
In addition, Urban worked with the designer and Commissioning Agent to deliver a quality system. Urban monitored safety during the project and reviewed the Site Specific Work Plans. In addition, Urban managed and maintained the document control and file sharing systems for the project on behalf of Amtrak.

Amtrak's platform in Johnstown and the platforms in Winslow and La Junta are operated by NS and BNSF respectively. This arrangement is similar to the agreement with CSX at the platform proposed for the City of Oxford, OH. Urban's experience with freight rail operators will provide Amtrak and the City of Oxford additional resources in coordination of the project.

CITY OF OXFORD PASSENGER RAIL PLATFORM, CONT.

PRELIMINARY DESIGN SCHEDULE

The preliminary design schedule below follows the tasks as laid out in Attachment A (found in a separate enclosed envelope). This schedule assumes two-week review periods after Preliminary Engineering and Basis of Design Report.



Butler County Regional Transit Authority

RFP 2020-014 Chestnut Fields A&E

Attachment D Scope Checklist

Proposers must complete the checklist and fill in their estimated hours in order to be considered responsive to the proposal.

Task	Submitted	Total Hours
1. Preliminary Architectural Concept Design/Engineering		
a. Program Study	**Y**	**212**
b. Site Selection Alternative Study (OPTIONAL)	**Y**	**168**
c. Preliminary Environmental Study	**Y**	**117**
d. Concept Drawings	**Y**	**225**
2. NEPA Compliance and Architectural Design/Engineering (10%-30%)		
a. NEPA Compliance	**Y**	**250**
b. Interagency Coordination/Public Process	**Y**	**300**
c. Architectural Design/Engineering (10%-30%)	**Y**	**890**
3. Final Architectural and Engineering Design (30%-100%)		
a. Value Engineering Charette	**Y**	**220**
b. Construction Bid Documentation	**Y**	**300**
c. 60% Architectural & Engineering Design	**Y**	**2580**
d. 90% and 100% Architectural & Engineering Design	**Y**	**1600**
e. Interagency Coordination	**Y**	**340**
4. Bid Phase Services		
a. General Contractor & Public Bid	**Y**	**220**
b. Construction Phase Services	**Y**	**1860**
c. Project Close-Out	**Y**	**200**
d. Warranty	**Y**	**120**

City of Oxford

RFP 2020-014 Chestnut Fields Amtrak A&E

Attachment D Scope Checklist

Proposers must complete the checklist and fill in their estimated hours in order to be considered responsive to the proposal.

Task	Submitted	Total Hours
1. Topographic and Property Survey	**Y**	**20**
2. Project Control	**Y**	**24**
3. Railroad Coordination	**Y**	**42**
4. Topographic Survey	**Y**	**20**
5. Property Survey	**Y**	**15**
6. Utilities	**Y**	**24**
7. Preliminary Engineering (30%)	**Y**	**525**
a. Platform, Shelter, Geotechnical Investigation and Design, Pedestrian Access, Signage, Electrical/Lighting, Communications/Data, and Landscaping		
8. Basis of Design (BOD) Report (100% Design)	**Y**	**1216**
9. NEPA Review	**Y**	**42**
10. Benefit Cost Analysis (BCA)	**Y**	**94**
11. Construction Management of Rail Platform	**Y**	**1512**
a. Bidding, contracting, and construction management		


1
BUS WASH 2
BYPASS
BUSES ONLY
ONE WAY
DO NOT BACK UP
STOP
POWERED BY COMPRESSED NATURAL GAS
1525
COTA
CENTRAL OHIO TRANSIT A

4. DBE PROGRAM

PART 2: DBE UNAVAILABILITY CERTIFICATION

_____ _____
(Affiant) *(Date)*

of _____
(Prime or General Bidder)

certify that prior to the bid opening date, I contacted the following DBE contractors to obtain a bid/proposal forservices/supplies necessary to be performed on RFP-2020-014.

Disadvantaged Service/Supplies

Date	Contractor *(Must be DBE)*	Item(s) Sought *(i.e., Unit Price, Material & Labor, Labor Only, etc.)*

NOT

Attach a detailed narrative of efforts made to involve disadvantaged contractors, subcontractors, & suppliers as suggested in Attachment J, Part 1.

APPLICABLE

To the best of my knowledge and belief, said disadvantaged contractor(s) was unavailable (exclusive of unavailability due to lack of agreement on price) for work on this project, or unable to prepare a bid/proposal for the following reasons:

Signature: _____
(Prime or General Contractor)

Date: _____

_____ was offered an opportunity
(DBE firm)s

participate on the above identified Legal Notice on _____ by _____
(date) *(Source)*

ATTACHMENT K - DBE CONTRACTOR COMMITMENT

PART 1: DBE UTILIZATION

The undersigned bidder/offeror has satisfied the requirements of the bid specification in the following manner (please check the appropriate space):

✓ The bidder/offeror is committed to a minimum of 0.29 % DBE utilization on this contract.

_____ The bidder/offeror (if unable to meet the DBE goal of ____%) is committed to a minimum of ____% DBE utilization on this contract a submits documentation demonstrating good faith efforts.

Name of bidder/offeror's firm: Richard L. Bowen + Associates, Inc.

State Registration No. _____

By X _____, PRESIDENT

(Signature / Title)

PART 2: DBE PARTICIPATION CONFIRMATION

Name of bidder/offeror's firm: Richard L. Bowen + Associates, Inc.

Address: 2019 Center St, Suite 500

City: Cleveland State: Ohio Zip: 44113

Name of DBE firm: Lawhon & Associates, Inc.

Address: 1441 King Avenue

City: Columbus State: OH Zip: 43212

Telephone: 614-481-8600

Description of work to be performed by DBE firm:

Environmental Services

The bidder/offeror is committed to utilizing the above-named DBE firm for the work described above. The estimated dollar value of this work is $ 10,928.

Affirmation

The above-named DBE firm affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By Susan S. Daniels, Principal

(Signature / Title)

If the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.

(Submit this page for each DBE subcontractor.)

ATTACHMENT L - EVIDENCE OF DBE CERTIFICATION

AFFIDAVIT OF DISADVANTAGED BUSINESS ENTERPRISE

State of Ohio

County of Franklin

I hereby declare and affirm that I am the Principal (Title)

and duly authorized representative of Lawhon & Associates, Inc. (Name of Company)

whose address is 1441 King Avenue, Columbus, OH 43212

I hereby declare and affirm that I am a disadvantaged business enterprise and can be found listed in the Ohio Unified Certification Program (UCP) as AWP Vendor ID: 061201002

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THE FOREGOING DOCUMENT ARE TRUE AND CORRECT, AND THAT I AM AUTHORIZED, ON BEHALF OF THE ABOVE FIRM, TO MAKE THIS AFFIDAVIT.

By: _____ (Affiant) 10/7/20 (Date)

On this 7 day of OCTOBER, 20 20, before me,

SUSAN DANIELS, known to me to be the person described in the foregoing affidavit acknowledged that he/she executed the same in the capacity therein stated and for the purpose therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____ (Notary Public)

My Commission Expires: _____ (SEAL)

NOTARIAL SEAL
STATE OF OHIO
MICHELE GLINSKY
NOTARY PUBLIC - OHIO
MY COMMISSION EXPIRES 09-15-24

5. ATTACHMENTS

ATTACHMENT A – SUMMARY OF PROPOSAL REQUIREMENTS

Failure to Submit Any of the Following Documents May Render Your Proposal Non-Responsive

Proposal Submission: Complete the following checklist indicating that the documents required for this proposal are enclosed.

- ✓ RFP Cover Page
- ✓ Table of Contents
- ✓ Qualifications & Capabilities
- ✓ References and Related Experience
- ✓ Technical Proposal – Multimodal Station & Shared Services Facility
- ✓ Technical Proposal – Passenger Rail Platform
- ✓ Attachment A – SUMMARY OF PROPOSAL REQUIREMENTS (this form)
- ✓ Attachment C – Receipt of Addenda
- ✓ Attachment D – Scope Checklist
- ✓ Attachment E – Certification of Lobbying Restrictions
- ✓ Attachment F – Certification of Government-Wide Debarment
- ✓ Attachment G – Personal Property Tax Affidavit
- ✓ Attachment J – DBE Good Faith Efforts
- ✓ Attachment K – DBE Contractor Commitment
- ✓ Attachment L – Evidence of DBE Certification
- ✓ Bureau of Worker's Compensation Certificate
- ✓ Employer Liability Insurance Certificate
- ✓ Commercial General Liability Insurance Certificate
- ✓ Commercial Auto Liability Insurance Certificate
- N/A Proposer's Warranty Information (as required)
- N/A Bid Bond (as required)
- ✓ Attachment B - Price Proposal Form (SEALED SEPARATELY)

Authorized Signature	*Title*
Allan Renzi, AIA	President
Signature Name Printed	*Title Printed*
Richard L. Bowen + Associates, Inc.	10/16/2020
Company Printed	*Date*

ATTACHMENT C – RECEIPT OF ADDENDA

The undersigned acknowledges receipt of the following addenda to the Documents.

(Give number and date of each. Please submit with NA if no addendums issued)

Addendum Number 1 Dated 09/24/2020

Addendum Number 2 Dated 10/12/2020

Addendum Number _____ Dated _____

Addendum Number _____ Dated _____

Addendum Number _____ Dated _____

Addendum Number _____ Dated _____

Addendum Number _____ Dated _____

Failure to acknowledge receipt of all addenda may cause the Proposal to be considered non-responsive to this Request for Proposal, which will require rejection of the Proposal.

X _____
Signature

Allan Renzi, AIA | President
Title

ATTACHMENT E – CERTIFICATION OF LOBBYING RESTRICTIONS

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature of Contractor's Authorized Official

Allan Renzi, AIA | President Name and Title of Contractor's Authorized Official

10/16/2020 Date

Firms that engage in lobbying must submit Standard Form LLL in addition to this certification

ATTACHMENT F – GOVERNMENT-WIDE DEBARMENT AND SUSPENSION

2 CFR part 180
2 CFR part 1200
2 CFR § 200.213
2 CFR part 200 Appendix II (I)
Executive Order 12549
Executive Order 12689

Debarment, Suspension, Ineligibility and Voluntary Exclusion
The Contractor shall comply and facilitate compliance with U.S. DOT regulations, "Non-procurement Suspension and Debarment," 2 C.F.R. part 1200, which adopts and supplements the U.S. Office of Management and Budget (U.S. OMB) "Guidelines to Agencies on Governmentwide Debarment and Suspension (Non-procurement)," 2 C.F.R. part 180. These provisions apply to each contract at any tier of $25,000 or more, and to each contract at any tier for a federally required audit (irrespective of the contract amount), and to each contract at any tier that must be approved by an FTA official irrespective of the contract amount. As such, the Contractor shall verify that its principals, affiliates, and subcontractors are eligible to participate in this federally funded contract and are not presently declared by any Federal department or agency to be:

a) Debarred from participation in any federally assisted Award;

b) Suspended from participation in any federally assisted Award;

c) Proposed for debarment from participation in any federally assisted Award;

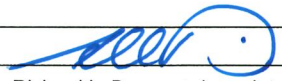
d) Declared ineligible to participate in any federally assisted Award;

e) Voluntarily excluded from participation in any federally assisted Award; or

f) Disqualified from participation in ay federally assisted Award.

By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:
The certification in this clause is a material representation of fact relied upon by the AGENCY. If it is later determined by the AGENCY that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to the AGENCY, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. part 180, subpart C, as supplemented by 2 C.F.R. part 1200, while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Date: 10/16/2020

Signature: X 

Company Name: Richard L. Bowen + Associates, Inc.

Title: Allan Renzi, AIA | President

ATTACHMENT G - PERSONAL PROPERTY TAX AFFIDAVIT

(O.R.C. 5719.042)

The person making a proposal shall submit to the BCRTA Executive Director a statement affirmed under oath that the person with whom the contract is to be made was not charged at the time the proposal was submitted with any delinquent personal property taxes on the general tax list of personal property of any county in which the taxing district has territory or that such person was charged with delinquent personal property taxes on any such tax list, in which case the statement shall also set forth the amount of such due and unpaid delinquent taxes and any due and unpaid penalties and interest thereon. If the statement indicates that the taxpayer was charged with any such taxes, a copy of the statement shall be transmitted by the Manager of Administration to the county treasurer within thirty (30) days of the date it is submitted.

STATE OF Ohio
COUNTY OF Cuyahoga

The undersigned being first duly sworn states that he/she is (check one):

□ the proposer OR ☑ the duly-authorized representative of the proposer

to whom a contract pursuant to Invitation for Proposal No. 2020-015 for LEGAL SERVICES was awarded; and further states that, at the time the proposers' proposal was submitted (check and complete as required):

☑ proposer was not charged with any delinquent personal property taxes on the general tax list of personal property of Cuyahoga, Ohio
(County, State)

□ proposer was charged with delinquent personal property taxes on the general tax list of personal property of as follows: _____
(County, State)

$ _____ in due and unpaid delinquent taxes

$ _____ in due and unpaid penalties and interest thereon

Name of Proposer: Allan Renzi, AIA
Authorized Signature: _____
Title: President
Company: Richard L. Bowen + Associates, Inc.
Address: 2019 Center St, Suite 500
City, State, Zip: Cleveland, OH 44113

Sworn to before me and subscribed in my presence this 16 day of

, October 2020.

NOTARIAL SEAL
STATE OF OHIO

TERESA A. LIVELY, NOTARY PUBLIC
RESIDENCE - CUYAHOGA COUNTY
#172061
STATEWIDE JURISDICTION, OHIO
COMMISSION EXP. MARCH 17, 2021

Teresa A. Lively

Bowen+

ARCHITECTURE – ENGINEERING – CONSTRUCTION

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