TrammellCrowCompany

January 15, 2013

Loudoun County, Virginia
Procurement Division, MSC 41C
ATTN: Donald R. Legg, CPPO
1 Harrison Street, SE, 4th Floor
Leesburg, VA 20175

Dear Mr. Legg:

We are pleased to present this proposal from TC606, LLC (the Offeror) in response to the QQ-01768, Loudoun County Solicitation for Conceptual Proposal ("SCP"). The approach that we present accomplishes the goals set out in the SCP and reflected in the Preliminary Engineering plans for the Dulles Transit Rail Extension Project while furthering important Loudoun County objectives such as concentrating future development at Metro stations, encouraging mass transit ridership, increasing the County's revenues from commercial development and creating a more environmentally and economically sustainable community. Since it is uncertain whether the MWAA property at 606 can be used for private sector development and realizing that the resolution of this issue may take some time, our proposal is based upon the SCP as written, and our response is priced per those documents. We have also shown a modified version of the Preliminary Engineering scenario that provides for a slightly greater number of spaces than requested in the SCP, the kiss and ride and bus facilities and a large public plaza at the "touch down" building that also incorporates retail and service amenities for rail and bus passengers.

The team that we have assembled brings an exceptional level of experience and expertise for this project. **Trammell Crow Company** is one of the leading public/private partnership developers in the United States. Their expertise in working with local jurisdictions will be invaluable as this is to be a wholly private undertaking as outlined in the SCP. Route606, LLC is headed by **H. Christopher Antigone** who has decades of experience in the real estate industry and has ownership interests in major real estate holdings adjacent to the subject property. Their vision of how the Metro station and the commuter parking garage can be most effective in leveraging private investment is of great value. **Davis Carter Scott**, masterplanner of the Reston Station project and architect of the Metro garage and facilities on that project, has over 45 years of experience in Northern Virginia in general and Loudoun County in particular. Because of the complexities of the project two civil engineering firms, both with outstanding expertise, are included on the team, **Urban Engineering and Burgess and Niple**. **Clark Construction** is

1055 Thomas Jefferson Street NW, Suite 600, Washington DC 20007 Main 202-337-1025 Fax 202-337-7364

one of the largest general contractors in the United States and has built numerous similar projects. The team members who will oversee the operational aspects of the garage, **Walker Parking** (design) and **Standard Parking** (operator), are leaders in their respective fields. **BB&T Capital Markets**, a company with a wealth of experience in similar efforts and substantial assets will underwrite the project. Additional assets for the team include **ECS** performing geotechnical work and the firms of **Williams Mullen** and **Foley & Lardner** acting as legal advisors. Additional team members, such as MEP and structural engineers, of equal stature will be added at the appropriate time.

As can be seen from the detailed information provided herein, the group that has been assembled for this effort is formidable both in terms of its experience and commitment to delivering the state of the art garage that Loudoun County is seeking through this SCP. We very much look forward to working with you and the other stakeholders to bring this vital project to fruition. We want to be selected for this work and are appreciative or your consideration.

Please call upon me with any questions or requests for additional information.

Very truly yours,

B. Campbell Smith
Principal
Trammell Crow Company

Loudoun County, Virginia

Department of Management and Financial Services
Division of Procurement, MSC #41C
1 Harrison Street, SE, 4th Floor
Leesburg, Virginia 20175

December 20, 2012

NOTICE TO OFFERORS

ADDENDUM NO. 1

QQ-01768

The following changes and/or additions shall be made to the original Solicitation for Conceptual Proposals No. QQ-01768, Loudoun County Parking Facilities. Please acknowledge receipt of this addendum by signing and returning with your proposal.

The following are questions and answers from the pre-proposal conference held on December 12, 2012.

1. It appears there has been a Phase 1 environmental study performed on each of the proffered sites. Will any further environmental studies be required?

A. If the offerors propose a different location or vary from the existing base case locations, additional environmental studies may be required. As stated in the Solicitation for Conceptual Proposals (SCP), conceptual proposals that deviate from the stand-alone parking facilities (excluding parking lots) contemplated in the 100% Preliminary Engineering Plan shall demonstrate an understanding and appreciation for the time lines and regulatory processes required for amending the FEIS.

2. What will the process for proposal evaluation and selection consist of?

A. Please see Section 1.5 of the SCP for the process that will be followed. The evaluation criteria is contained in Section 9.0 and offerors should refer also refer to Sections 3.0 and 4.0 for the Project Scope and General Procedures and Requirements.

3. What role does the Metropolitan Washington Airport Authority (MWAA) play on the Route 606 site?

A. As stated in the SCP, the December 2011 Memorandum of Agreement sets forth the following responsibilities for MWAA to make the land available at the Route 606 station site as follows:

> MWAA shall, to the extent permitted by law, provide to Loudoun, at no cost, such real property rights to land that are leased by MWAA from the federal government as are reasonably necessary for the

construction, location, and operation of, and vehicular access to and from, the parking facility that is to be constructed to serve the Route 606 Station.

Subsequent to the issuance of the SCP, the County has requested that MWAA commence with the preparation of a separate agreement to make the land available and to move forward in an expedient manner to accommodate the County's procurement process.

4. As it relates to the schedule, would there be any additional legislative processes that would have to be taken into consideration assuming the garages are sited at the current locations?

A. The extent of additional legislative approvals beyond what is required by the "base case" locations is dependent on the scope of conceptual proposals submitted. For example, commuter parking facilities are subject to special exception approval within the outer core of the PD-TRC zoning district, similarly if conceptual proposals identify potential parking locations within the inner core of the PD-TRC zoning district, zoning ordinance amendments may be necessary. The submitted proposals, while conceptual in nature need to address any legislative approvals anticipated as part of any alternative approaches to providing parking facilities.

5. Can an offeror propose on only one location?

A. Yes, an offeror may propose on only one location or any combination of the three.

6. Can the County better define what they are looking for with the concept proposal submission?

A. The County has identified its requirements as they exist today. The County is open to other alternatives/options that may be proposed and will consider for further review those that best meet the County's current requirements. It is the responsibility of the offerors to provide conceptual proposals that best meet the requirements of the SCP and any alternatives they feel may enhance the final product.

In addition, Proposer's need to take note of the following information and to consider and provide the following financial information in developing the conceptual financial plan: a) the financial plan will include garage design and construction, parking technology equipment, daily garage operations, short- and long-term garage maintenance; b) provide daily parking rates for conceptual financial plan including initial and out-year maximum parking rates; c) specify the minimum number of years of the concession lease term; d) provide the percentage of parking revenue to be retained by the Concessionaire and the percentage of parking revenue and percentage of revenue generated from income produced from ancillary revenue-producing garage activities to be provided to Loudoun County by the Concessionaire.

7. How will the conceptual proposals evolve into a final design?

A. As per Section 1.5 of the SCP, those firms who are shortlisted will be required to provide a detailed proposal.

8. Why were service facilities excluded? Will surface parking be considered?
A. Service facilities were never part of the Loudoun County Station garage facilities.

B. The Project Objectives Section 1.3 of the SCP states that a successful project shall satisfy the following objective: "Parking facilities shall mean a multi-level garage or covered structure (parking facilities, for the purpose of this SCP, specifically excludes parking lots) capable of containing the sufficient number of parking spaces set forth herein."

9. How will the rates and operations of the garages be determined? Will the offeror have any input into this? Will Metro be involved in setting the rates?
A. The Memorandum of Agreement between the Funding Partners, WMATA and the USDOT was drafted with the concept of local control over parking standards and fees. There is no intent for these garages, if facilitated by Loudoun County actions, to be limited in any way by current or future WMATA fee policies or design standards. Potential rate issues would be subject to any franchise or concession agreement that would result from this SCP process.

10. Will a qualifications only package be considered non-responsive?
A. The County is seeking responses that meet all the requirements of the SCP. Any proposal that does not address all the requirements may be considered non-responsive.

11. Can multiple proposals be submitted?
A. Yes

12. Will there be multiple awards?
A. It is very possible there will be multiple awards.

13. Is there a minimum standard for the level of service as it relates to the operations of the garages and a level of standard for the design sustainability?
A. The County encourages the imaginative and effective use of the proposed parking facilities that utilize high design standards and provide direct access to the metrorail station(s) locations. The proposed parking facilities should reflect state-of-the art parking design practices and principles in all, but not limited to the following categories:

- Project Delivery
- Site Requirements
- Site Constraints
- Concept Design
- Circulation and Ramping
- Access Design
- Parking Geometrics
- Parking Layout Efficiency
- Vehicular Entry / Exit Lanes
- Pedestrian Requirements
- Accessible Parking Requirements
- Safety and Security
- Lighting
- Signage and Wayfinding

- Drainage
- Open or Enclosed Parking Structures
- Structural Systems
- Durability Design
- Other Considerations

The County anticipates that the garages will be operated with Metro system-compatible fare/payment infrastructure to provide convenience to the garage users and promote access to the Metrorail system.

The Project shall be developed and operated in accordance with applicable regulatory approvals and laws, AASHTO standards and industry best practices, and consistency with County Policies and Ordinances.

14. When would the County make the decision to not move forward with this project?

A. The County must make a determination on whether to proceed with the project prior to July 1, 2014.

15. Does Metro or Dulles Airport have any say in the selection?

A. No. This is a County project.

16. Are offerors to assume that the roads to provide access to the sites will be in place?

A. The road networks adjacent to the parking facility sites in the Loudoun Station project and the Moorefield Station project are governed by the proffers associated with those approvals and are appended to the SCP for more information. The County will use their best efforts to ensure that a suitable road network leading to the Route 772 garages is in place in order to allow for construction and operation of the garages. The road network adjacent to the Route 606 station is essentially existing Route 789/Lockridge Road and is not addressed in current proffered conditions. Alternative proposals for any of the three locations should address alternative road access issues.

17. Availability of Proffered Sites

The County will use its best efforts to make the proffered land sites available for construction in accordance with a development timeline that allows for the garages to be operational upon commencement of revenue service operations.

18. Please go to the County web site www.loudoun.gov/procurement to download copies of the MWAA garage interface drawings that have been loaded to the site.

Prepared By: _____ Date: 12/20/12

Acknowledged By: _____ Date: 1/14/13

Loudoun County, Virginia

Department of Management and Financial Services
Division of Procurement, MSC #41C
1 Harrison Street, SE, 4th Floor
Leesburg, Virginia 20175

January 11, 2013

NOTICE TO OFFERORS

ADDENDUM NO. 2

QQ-01768

The following changes and/or additions shall be made to the original Solicitation for Conceptual Proposal No. QQ-01768, Loudoun County Parking Facilities. Please acknowledge receipt of this addendum by signing and returning with your proposal.

1. Page 1, first paragraph shall be removed. State Corporation Commission (SCC) information is not required with the initial submission of conceptual proposals. Proof of SCC registration will be required of those firms selected for the Detailed Proposal Submission phase.

Prepared By: s/Donald R. Legg, CPPB Date: 1/11/13

Acknowledged By: [illegible] Date: 1/14/13

LOUNDOUN COUNTY QQ-01768
EXECUTIVE SUMMARY
Route 606 Metrorail Station Site

TC606, LLC has assembled a stellar team with proven track records to develop a project which includes a commuter parking garage at the future Route 606 Metrorail Station in collaboration with Loudoun County to meet its requirements. The members of **TC606, LLC** are **Trammell Crow Company** ("TCC") and **Route 606, LLC** (an affiliate of H. Christopher Antigone). Trammell Crow Company is the Managing Member and shall execute all agreements required to deliver the project on behalf of the limited liability company, and shall take the lead role in negotiating, financing, and delivering the scope of the work.

The team that has been assembled for this effort include some of the most experienced and knowledgeable firms in the region and nation: Clark Construction; Davis Carter Scott, masterplanners and designers of the 2500 space Metro garage at Reston Station; Urban Engineering; Burgess & Niple; BB&T Capital Markets; Gorove/Slade; Walker Parking Consultants; Standard Parking; and others. All have proven ability to deliver high quality, well designed projects. This group also has the financial strength and resources to deliver the project in a timely and cost effective manner.

Subject to the right for commercial development to occur on federally owned and MWAA leased property in the vicinity of the Route 606 rail station and the intent and desire of MWAA and Loudoun County therefor, as shown on the attached Conceptual Design Plan, this proposal builds upon the scheme developed as part of the Preliminary Engineering exercise. Minor modifications to the commuter garage design result in a more efficient layout which incorporates the kiss and ride and 26,000 square feet of retail and consumer services space. Bus operations are immediately adjacent to the garage. This reconfiguration allows for the construction of three office buildings totaling 480,000 square feet. Additional retail areas face this plaza on the east adjacent to the commuter garage and on the west in an office building resulting in a total of 50,000 square feet of retail or consumer services space. The construction of the garage can move forward independently without the construction of any commercial space.

The construction of the garage and any ancillary facilities is proposed as a wholly private venture. Our team will not seek any government support beyond the necessary agreements between Loudoun County and MWAA to allow a concession for the use of this property.

With the assistance of the Public Finance Group from BB&T Capital Markets, the Team has reviewed a variety of approaches for financing the Project. The PPTA framework allows the County to consider a broad array of alternatives, including structures relying upon 100% private financing and alternatives which feature varying degrees of public participation. The objective of the Team is to present herein an overview of the benefits and challenges to several of the financing models available, and to work closely with the County in the identification of the optimal structure given the County's objectives and constraints for the completion of the Project. Within that section of the proposal, we outline the most relevant of these options to the Project, and how we anticipate we will work with the County over the coming months to identify the expected outcomes for each.

The most likely development scenario will be a private concession agreement which has been increasingly used to finance infrastructure projects. Virginia has become a leader in the use of this model for transportation projects. The recently opened 495 Express Lanes represents the first full private transportation project in the Commonwealth, and toll projects to improve I-95 in northern Virginia and the Downtown and Midtown Tunnels in Hampton Roads also reached financial close in 2012 using a private development model. These projects have demonstrated the willingness of the private sector to undertake major project development efforts to build public use infrastructure and the ability to assemble the funding necessary to complete these projects.

Loudoun County will realize numerous benefits from the construction of this project including:

Benefits from this project will devolve to several parties.

- First, establishing a transportation hub at this location will enable commuters seeking to take advantage of the benefits of the Silver Line
- Persons arriving on the Silver Line will likewise have access to a wide variety of options to access the airport and other parts of Loudoun County also enhancing other transit providers operations.
- Loudoun County and its residents benefit by having a major piece of its transportation infrastructure constructed at no cost or risk to the County.
- Encouragement and facilitation of additional private sector development. This will contribute to Loudoun's long term economic development and further the County's goal of increasing its non-residential tax base.
- Furthering of the Dulles area's continuing evolution in to one of the premiere "aerotropolises" enhancing Loudoun's and the region's economic growth as well as encouraging increased utilization of MWAA's facilities.
- Reduction in the demand for expansion of costly roadway infrastructure as well as diminish environmental pollution and degradation.

In addition, as many as 200 workers will be employed during the construction of the project.

Communication will be important throughout this effort. We believe fully in the necessity of an open and collaborative process, especially in the case of public/private partnership efforts such as this. The development team will work with the County, MWAA, WMATA and other stakeholders to establish a mutually agreeable process of public outreach and information sharing. This would be in addition to the meetings and public hearings related to the entitlement process.

This SCP response will reduce the cost of the Project to users of the Dulles Toll Road, many of who are Loudoun County residents, and to Loudoun County taxpayers. The project will add an "arrival experience" at the Route 606 station making the rail experience a more pleasant and less stressful one.

To the extent that a retail component is included, it will make the shopping experience more convenient.

This proposal has a 2190 space commuter garage which slightly exceeds the number listed in the SCP. The kiss and ride facility is incorporated into the garage giving the added benefit of this function being under roof. The bus functions occur on the long axis of the garage adding to the functionality and convenience of this portion of the project. The touch down building is located at the southern end of a large public plaza that could be used for civic events and which is fronted by small shops which could house retail or restaurant uses as well as consumer serving uses such as banks and drycleaners. If parking demand proves to be sufficiently high, additional parking could be accommodated on the south side of SR 267.

Volume I – Materials Requested in Section 4.5.4 of RFP
Table of Contents

LOUNDOUN COUNTY QQ-01768
RFP RESPONSE FORM
Route 606 Metrorail Station Site

1. QUALIFICATIONS AND EXPERIENCE

a. Identify the legal structure of the firm or consortium of firms making the proposal. Identify the organizational structure for the project, the management approach and how each partner and major subcontractor in the structure fits into the overall team. Also identify the senior principal who will execute the Interim Agreement on behalf of the firm or consortium.

TC606, LLC has assembled a stellar team with proven track records to develop a project which includes a commuter parking garage at the future Route 606 Metrorail Station in collaboration with Loudoun County to meet its requirements. The members of **TC606, LLC** are Trammell Crow Company ("TCC") and Route 606, LLC (an affiliate of H. Christopher Antigone). Trammell Crow Company is the Managing Member and shall execute all agreements required to deliver the project on behalf of the limited liability company, and shall take the lead role in negotiating, financing, and delivering the scope of the work.

TCC is an independently-operated but wholly-owned subsidiary of CBRE Group, Inc. (NYSE: CBG), a Fortune 500 and S&P 500 company headquartered in Los Angeles and CBRE is the world's largest commercial real estate services firm.

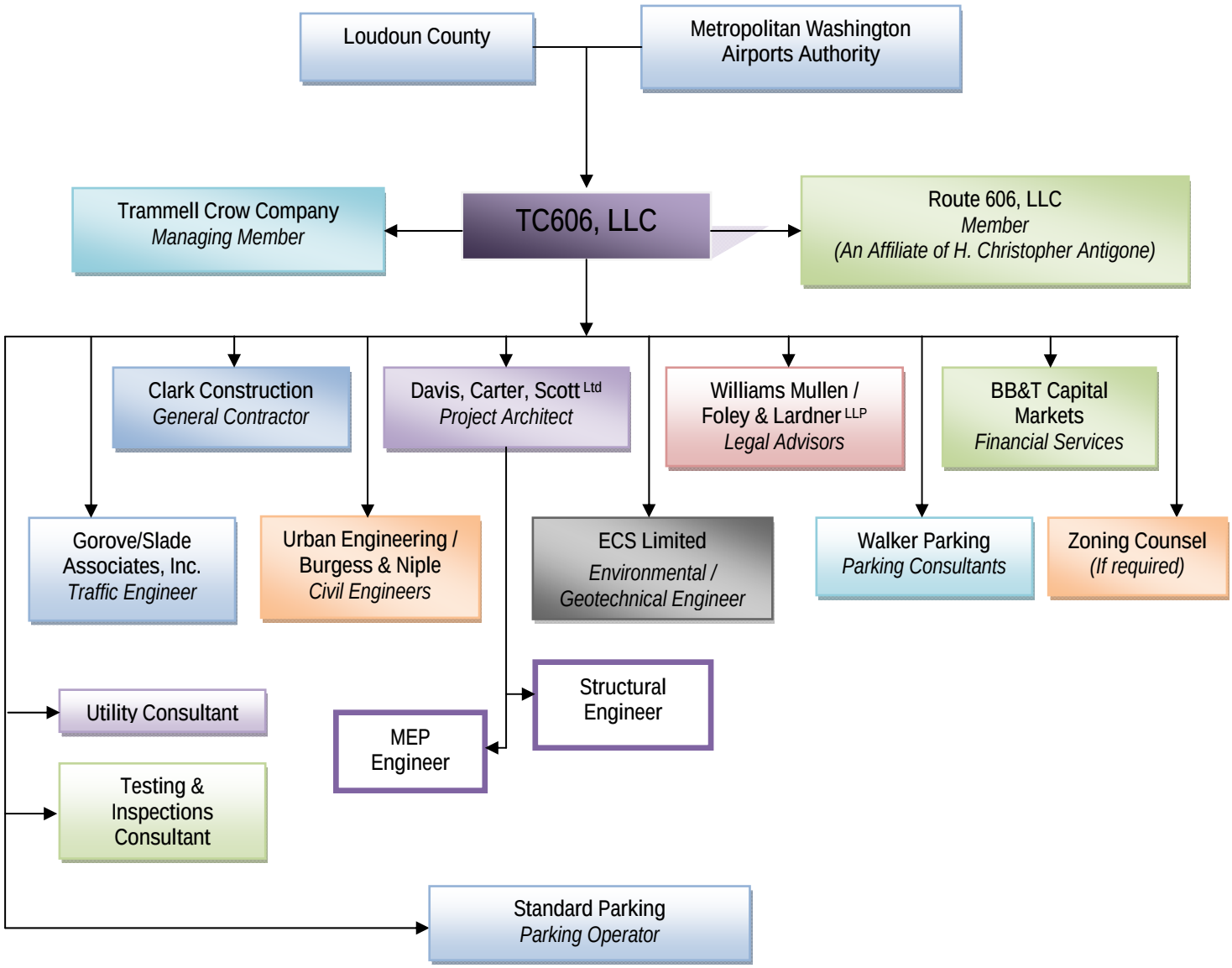
All contractor and consultant contracts will be held by TCC, and the **PRINCIPAL AUTHORIZED** to execute the Interim Agreement on behalf of TCC will be **CAMPBELL SMITH**, a principal of Trammell Crow Company in Washington, DC.

Identification of Firms who are part of the proposed Team:

TEAM ROLE	FIRM
Ownership	**TC606, LLC** - a Virginia Limited Liability Company the members of which are TCC and Route 606, LLC. TCC is Managing Member - Virginia State Corporation Commission number F134369-0
Development Manager	Trammell Crow Company – d/b/a DC MidAtlantic Development V, Inc.
Financial Services	BB&T Capital Markets
General Contractor	Clark Construction Group, LLC
Architect / Land Planning	Davis, Carter, Scott Ltd
Legal Consulting	Williams Mullen and Foley & Lardner, LLP
Civil Engineer(s)	Burgess & Niple and Urban Engineering
Traffic Engineer	Gorove Slade Associates
Parking Operator	Standard Parking
Parking Consultant	Walker Parking Consultants
Environmental/Geotechnical Engineer	ECS Mid-Atlantic, LLC

Organizational chart follows this page.

ORGANIZATIONAL STRUCTURE
For TC606, LLC Team:



The above organizational chart illustrates our proposed structure of this PPTA. **TCC** will be the Managing Member, with Clark Construction as the Builder and Davis Carter Scott as the Designer, supported by the consultants TC606, LLC believes brings the highest level of expertise to the team to deliver the best product.

At this time, the design-build team members will be contracted by TC606, LLC, including the subsequent parking operator, Standard Parking.

b. Describe the experience of the firm or consortium of firms making the proposal, the key principals and project managers involved in the proposed project including experience with projects of comparable size and complexity, including prior experience bringing similar projects to completion on budget and in compliance with design, land use, service and other standards. Describe the length of time in business, business experience, public sector experience and other engagements of the firm or consortium of firms. Include the identity of any firms that will provide design, construction and completion guarantees and warranties and a description of such warranties and guarantees.

Route 606, LLC – Member

Route 606, LLC is headed by Chris Antigone, a local entrepreneur and land owner with more than 40 years of experience in real estate, including land development, homebuilding, brokerage and investment.

Trammell Crow Company Overview – Managing Member

Trammell Crow Company, founded in 1948, is one of the nation's oldest and largest developers and investors in real estate. The company has developed or acquired over 525 million square feet of buildings with a value exceeding $55 billion. TCC professionals are deeply involved in their communities, understand the complexities of their local and state economies, and have strong relationships with brokers, architects, contractors and community leaders, in addition to local and state government officials. These qualifications are prerequisites to developing successful projects. TCC provides development services in all major US cities through 15 offices around the United States and Canada, and can provide global project management services through its parent company, CBRE's, global footprint.

TCC MidAtlantic Development Team Overview

The **TCC MidAtlantic Development Business Unit** ("TCMD") has thrived since its inception in 1976. TCMD is consistently ranked as one of the top five developers in the Washington, DC region and has successfully developed projects of all types in the District of Columbia, Virginia, and Maryland. TCMD specializes in all aspects of real estate development including: deal structuring, financial engineering, site acquisition, entitlements, project finance, design and engineering coordination, construction bidding and management, tenant finish coordination, project closeout and, when appropriate, project leasing and disposition. TCMD is known for its expertise across all product types and jurisdictions, its long-term relationships with investors and users of real estate, and its focus on building high-quality projects that have a positive impact on the surrounding community.

Since 1990, TCMD has locally completed over 17 million square feet of projects representing in excess of $3.2 billion in project value. Notable projects include Market Square (1.3 million sf), Patriots Plaza (982,000 sf), The Columbia Residences (306,000 sf), Calvary Baptist Church/Portrait Building (207,000 sf), Dulles Station (185,000 SF), The Collection and Support Center for the Smithsonian Institution (333,000 sf), Arboretum II (322,000 sf) and Sentinel Square I (413,000 sf).

TCMD is also known for the loyalty, tenure, and experience of its local development personnel. The proposed TCMD project team for this project has a combined tenure with TCC of over 100 years. We have included the resumes for key personnel in the Appendix.

CB Richard Ellis Overview

TCC is an independently operated subsidiary of CBRE Group, Inc. (NYSE: CBG), a Fortune 500 and S&P 500 company headquartered in Los Angeles. CBRE is the world's largest commercial real estate services firm with

a global presence. With over 34,000 employees operating in over 50 countries, the company serves real estate owners, investors and occupiers worldwide.

In late 2006, CBRE merged with TCC, enhancing the depth, breadth and quality of services the firm offers to its clients. CBRE offers strategic advice and execution for property sales and leasing; corporate services; property, facilities and project management; mortgage banking; appraisal and valuation; development services; investment management; and research and consulting. Whether it is a local, national or global assignment, CBRE applies insight, experience, intelligence and resources to help clients make informed real estate decisions.

In 2011, CBRE completed sales and lease transactions with a total value exceeding $159.0 billion, covering 48,500 lease transactions valued at $66.5 billion and 14,700 property sales transactions valued at $92.5 billion. CBRE also has an international property and corporate facilities management portfolio that totals more than 3.2 billion square feet, including affiliate company portfolios. The firm has $94.1 billion in investment assets under management and $4.9 billion of active development projects in process. In addition, CBRE completed $22.4 billion in loan originations (includes loan sale advisory), $118.0 billion in loan servicing (reflects loans serviced by GEMSA, a joint venture between Debt & Equity Financing and GE Capital Real Estate) and 115,825 valuation and advisory assignments last year. Finally, the firm performed project management contracts valued at $18.5 billion.

Locally, CBRE is the leading provider of office leasing and facility management services.

Financial Strength

TCC is one of the most financially sound developers in the country. The Company's long history of developing successful real estate projects has enabled it to form strong relationships with leading national and international debt and equity financial partners. TCC also has its own discretionary funds, which it uses to make equity contributions to its projects. Finally, TCC has direct access to its parent company, CBRE's balance sheet and substantial financial resources.

Historically, TCC has undertaken development projects both as an owner and on a fee basis for other owners and users of real estate. Both types of business are extremely important to TCC's business model. TCC treats both types of projects with the same approach: We make every decision in a project as if we were the owner, regardless of whether we are truly an equity participant or a fee developer. In every project, we act as a fiduciary to our partners, and this is a primary reason why TCC has done repeat business with so many investor and user clients over the years. Some of our longest-standing partners include Principal Financial Group, ING/Clarion, MetLife, JP Morgan, Bentall Kennedy, USAA, Crow Holdings, and the Carlyle Group.

In addition to having forged relationships with numerous equity sources, TCC has strong relationships with many leading debt sources, including multi-national, national, regional and local commercial banks, insurance and life companies, and investment banks. In today's difficult capital markets atmosphere, lenders are increasingly looking for construction guarantees from borrowers that are backstopped by an entity with considerable net worth. With the backing and support of CBRE, TCC has been, and will continue to be, able to provide one of the strongest construction completion guarantees in the industry.

Below, we have provided references from some of our partners on recent projects completed in the Washington, DC region. We have included references from both our investor clients and user clients, to give you an idea of the consistency with which TCC approaches each project.

Trammell Crow Company References

Client Name, Address	Contact	Recent Experience
Crow Holdings 3819 Maple Ave, Dallas, TX 75219 214-661-8113	Carlos Rainwater Director crainwater@crowholdings.com	Sentinel Square, a multiphase speculative office project.
The Carlyle Group 1001 Pennsylvania Av, NW, Ste 220S Washington, DC 20004-2505 Tel: 202-729-5460	Michael Gershenson michael.gershenson@carlyle.com	Gateway Grand, a luxury high-rise condominium project
Smithsonian Institution 600 Maryland Av, SW, Ste 500 MRC 511 P.O. Box 37012 Washington, DC 20013 Tel: 202-633-6546	Jud McIntire, AIA Project Manager mcintj@si.edu	Construction of The Smithsonian Institution's Collections and Support Center.
The Boeing Company 1215 S Clark St, Ste 600, MC 95-83.6 Arlington, VA 22202-4317 Tel: 703-414-6494	Charles Ernst Director, WDC Site Services charles.ernst@boeing.com	TCC served as Owner's Rep in Boeing's Arlington consolidation and is third-party developer for a 162,000 sf build-to-suit in Maryland

Relevant Project Experience

This project will benefit from the broad-based development experience that TCC has gained as one of the most prolific developers in the MidAtlantic region over the last three decades. Since 1990, TCC has built over 17 million square feet of projects across all product types in the MidAtlantic.

To showcase our experience, we have included our largest and most complex office, residential, and mixed-use projects to demonstrate that we have the resources and capabilities to handle the most demanding development projects. Next, we have shown a few of the over 5.7 million square feet of projects that we have built in Virginia, to illustrate our deep experience in the region where the project will be located. Additional case studies and photographs of these projects can be found in the Appendix.

- 500 E Pratt Street
- 1625 Eye Street, NW
- Market Square
- Patriots Plaza
- Sentinel Square
- Shirlington
- Columbia Residences
- The Gateway Grand
- The Portrait Building
- VCU Engineering and Business School

Clark Construction Group, LLC – General Contractor

Ranked as the second largest domestic general contractor by Engineering News Record (2011), **Clark Construction Group, LLC** (Clark) is headquartered in Bethesda, Maryland with offices strategically located throughout the United States to meet the needs of our clients, and employs approximately 3,800 people. Its total revenues in 2011 stood over $4.2 billion, and the firm enjoys the distinction of being the largest privately-held general contractor in the country.

Backed by strong capabilities in Preconstruction, Estimating, Scheduling, Purchasing, Risk Management, and Safety, our client base is a blend of private and public owners, including many city, state, and federal agencies. Clark is a diversified contractor, and is able to safely meet the needs of public and private clients on a variety of project types, including the new construction and renovation of hotels, multi-family residential housing,

office buildings, healthcare facilities, roadways, airports, water treatment plants, sports facilities, convention centers, performing arts and entertainment venues, educational facilities, laboratories, rail stations, correctional institutions, manufacturing plants, and all manner of infrastructure.

Clark's projects have been successfully completed for both public and private clients under a variety of project delivery methods, including general contracting, construction management, and design-build, and have completed six public private partnerships to date.

Clark and Trammell Crow Company have collaborated together for 17 years on eight projects completed or currently under construction in the Greater Washington, DC Metropolitan area. In addition, Clark continues to build on the 30 year relationship with Davis Carter Scott working together on 27 projects. The relations that are created serve as an example of the success and quality that result from solid working relationships.

Clark has a long history working in and around WMATA facilities. In addition to the numerous projects completed adjacent to metro structures, Clark has worked on station projects such as Morgan Boulevard Station, Largo Town Center Station, Navy Yard Metro Entrance, Branch Avenue Storage Yard, Mount Vernon Square Station Modifications, Brent Wood Shop Expansion, Ballston MU Access Improvements, and Rosslyn Station Access Improvements.

In recent years, Clark has built 37 projects in Loudoun county and approximately 35-million-square-feet of structured parking resulting in over 150,000 parking spaces throughout the Greater Washington, DC Metropolitan area. These parking structures utilize a variety of structural types including precast concrete, cast-in-place concrete, and post-tensioned concrete. We have provided a representative sampling of Clark's relevant experience in the Appendix.

Davis, Carter, Scott Ltd – Architect / Land Planning

Davis Carter Scott ("DCS"), founded in 1968, is a full-service master planning, architecture and interior architecture firm, located in McLean, VA. The depth of our firm's resources include an EXPERIENCED PROFESSIONAL TEAM of architects, designers and construction administration staff with a proven history of land planning, garage design experience and with the permitting process in Loudoun County, and is currently working on several projects in and around the new Metrorail stations – Reston Station and Loudoun Station.

Douglas N. Carter, AIA, President and Founding Principal of Davis Carter Scott, will have overall responsibility for the project, as Principal-in-Charge. He will be actively involved to ensure that design is consistent, responsive and appropriate for the project scope and budget. He will commit all necessary resources to bring the project to a successful completion.

Hiro Nirmalani, Project Director, has worked with Doug Carter and the firm since the firm's inception in 1968. Trusted and most experience, Mr. Nirmalani is currently managing the Reston Station project. He will be supported by **Ihab Sakla**, who is the Project Manager on the same project. These two key managers will ensure an efficient and sturdy product. Their Project Designer is **Jasna Bijelic**, Senior Designer at the firm with over 28 years of experience. Her portfolio includes municipal projects, such as airports and bus terminals. She will be working closely with Project Coordinator, **Ramy Ali**. Their credentials / resumes are provided in the Appendix at the end of the response.

In addition to Reston Station and Loudoun Station, Davis Carter Scott has worked with Loudoun County almost 20 years ago, on the first PPEA for the County's Government Center at 1 Harrison Street, SE, as well as on other smaller projects through term / on-call contracts. Aside from DCS municipal experience, the firm has a large portfolio of work in master planning and building design for the private and non-profit sector, including Prison Fellowship and Howard Hughes at Janelia Farm. A list of garage design experience and select project examples have been included in the Appendix for review.

Trammell Crow Company, Clark and Davis Carter Scott have collaborated on numerous projects in the Washington, DC Metropolitan region and each project serves as an example of the success and quality that result from this solid working relationship. The experience and mission of our companies complement one another, and, in addition, foster the timely, successful completion of each of our collaborative efforts, from project concept through construction. Our established relationship and mutual respect that exists between our respective organizations will serve to enhance our ability to achieve all of the goals of the Loudoun County Parking Garage project, while working in a collaborative environment.

c. Provide the names, prior experience, addresses, telephone numbers and email addresses of persons within the firm or consortium of firms who will be directly involved in the project or who may be contacted for further information.

Resumes of key team members showing prior experience have been included in the Appendix. The table below lists the key contacts from each firm directly involved in the project.

Firm	Contact(s)
Trammell Crow Company 1055 Thomas Jefferson Street NW, Suite 600 Washington, DC 20007	Campbell Smith, Principal D 202.295.3367 | C 202.384.4517 | F 202.337.7364 csmith6@trammellcrow.com Raymond E. Goins, Senior Vice President D 202.295.3818 | O 202.337.1025 | F 202.337.7364 rgoins@trammellcrow.com
Route 606, LLC 1880 Howard Avenue, Suite 303 Vienna, VA 22182	H. Christopher Antigone, Managing Member (o) 703-790-5160 | (c) 202-821-2699 Chris.antigone@antigonecompanies.com
Clark Construction Group, LLC 7500 Old Georgetown Road Bethesda, MD 20814	William I. Magruder, Senior Vice President D 301.272.7442 bill.magruder@clarkconstruction.com Michael A. Alto, Senior Vice President D 301.272.6907 mike.alto@clarkconstruction.com
Davis, Carter, Scott Ltd 1676 International Drive, Suite 500 McLean, VA 22102	Douglas N. Carter, AIA, President O 703.556.9275 dcarter@dcsdesign.com
BB&T Capital Markets Riverfront Plaza, West Tower, 901 East Byrd Street, Suite 260, Richmond, VA 23219	Sean Eikert, CFA O 804.649.3932 | C 804.543.9472 | F 804.649.3964 | sekiert@bbandtcm.com
Foley & Lardner, LLP 3000 K Street, NW, Suite 600 Washington, DC 20007	David Ralston, Jr., Partner O 202 295 4097 Dralston@foley.com
Williams Mullen Williams Mullen Center 200 South 10th Street, Ste 1600 Richmond, VA 23219	Charles E. Wall, Partner O 804 420 6498 | F 804 420 6507 cwall@williamsmullen.com
Urban Engineering 7712 Little River Tnpk, Annandale, VA 22203	Eric Siegel, PE, Principal O 703 642 8080 | F 703 642 8251 esiegel@urban-ltd.com

Firm	Contact(s)
Burgess & Niple 4160 Pleasant Valley Road, Chantilly, VA 20151	Art Woods, PE, Principal O 703 631 9630 Art.woods@burgessniple.com
Gorove Slade Associates 3914 Centreville Road Chantilly, VA 20151	Chris Tacinelli O 703 787 9595 Chris.tacinelli@goroveslade.com
Standard Parking 1225 Eye Street, NW, Suite C-100 Washington, DC 20005	John Madden O 202.496.4200 x 128 jmadden@standardparking.com
Walker Parking Consultants 565 East Swedesford Road, Suite 300 Wayne, PA 19087	Mike Hacke O 610.995.0260 Mike.Hacke@walkerparking.com
ECS Mid-Atlantic, LLC 14026 Thunderbolt Place, Suite 100 Chantilly, VA 20151	Andrew Shontz, PG O 703-471-8400 AShontz@ecslimited.com

Additional Firm Bios are located on page 1 of the Appendix.

d. Provide the current or most recently audited financial statement for the firm or consortium of firm and each partner with an equity interest of twenty percent or greater.

TCC is an independently operated subsidiary of CBRE Group, Inc. (NYSE: CBG), a Fortune 500 and S&P 500 company. CBRE is the world's largest commercial real estate services firm. As a publically traded company, the company's 10K is publicly available and has been included in *Volume II: Financial Statements and Reports*. The 10K has all financial information and list of officers requested. In 2011, CBRE's full year revenue was $5.9 billion and it had a normalized EBITDA of $802.6 million. The current market cap of CBRE is approximately $6.61 billion dollars, and TCC uses the CBRE's balance sheet to procure debt and financing.

Route 606, LLC is a newly-formed entity and currently has no financial statements.

e. Identify any persons known to the proposer who would be obligated to disqualify themselves from participation in any transaction arising from or in connection to the project pursuant to the Virginia State and Local Government Conflict of Interest Act.

No TCC or Route 606, LLC employees, partners, and members would be obligated to disqualify themselves from participation in any transaction arising from or in connection to the project pursuant to the Virginia State and Local Government Conflict of Interest Act.

2. PROJECT CHARACTERISTICS

a. Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so the type and intent of the project, the location and the communities that may be affected are clearly identified.

The budget, schedules and project financing options described in Section 3 are all based on the Route 606 100% PE drawings per the SCP.

Subject to the right for commercial development to occur on federally owned and MWAA leased property in the vicinity of the Route 606 rail station and the intent and desire of MWAA and Loudoun County therefore, as shown on the attached Conceptual Design Plan, this proposal builds upon the scheme developed as part of the Preliminary Engineering exercise. Minor modifications to the commuter garage design result in a more efficient layout which incorporates the kiss and ride and 26,000 square feet of retail and consumer services space. It is intended that the garage will incorporate the state of the art features listed in the SCP. Bus operations are immediately adjacent to the garage. The design of the garage will incorporate, at a minimum, all of the state-of-the-art features listed in the SCP. This reconfiguration allows for the construction of three office buildings totaling 480,000 square feet. These buildings are independently parked and can provide overflow parking for major events such as 4th of July or Presidential inaugurations which result in high transit ridership on what are generally off peak days. Passengers arriving or departing the station will arrive at an elegant public plaza which could host civic events and which also serves as an area for potential expansion of the commuter garage should that become warranted in the future. Additional retail areas face this plaza on the east adjacent to the commuter garage and on the west in an office building resulting in a total of 50,000 square feet of retail or consumer services space.

This proposal leverages the presence of the Metro station and the commuter garage to create a mixed use environment. As experience has shown in stations such as New Carrollton, a parking garage immediately adjacent to the station supported solely by surface parking and without amenities contributes very little in terms of economic viability to the host community. The fact that such stations are largely abandoned during the day may, in fact, discourage transit ridership on the part of some users. The office buildings contained in this proposal will not only contribute to Loudoun's tax base but will also provide "eyes on the street" during off-peak hours. The approximately 2,400 workers that can be expected to occupy these buildings will also help to support the amenity base. This makes it much more likely that the sandwich shops, dry cleaners and similar uses which make transit ridership even more convenient and desirable, will be sustainable businesses.

Establishing a vibrant, mixed use, transit oriented development core at this location will create a catalyst for the development of adjacent privately owned properties into which it will integrate. Depending upon market conditions, this should accelerate Loudoun County's vision for the Silver Line Metro stations becoming a catalyst for increased economic development and the concomitant increase in the tax base.

b. Identify and fully describe any work to be performed by the county or any other public entity.

At this time we do not anticipate that any additional work will be required from the County or any other Public Entity other than a parking demand study that has the benefit of boarding information and the necessary final documentation between MWAA, WMATA, Loudoun County and the federal government allowing use of the land by a private entity including length of term, any restrictions on use or operations and other deal points.

c. Include a list of all federal state and local permits and approvals required for the project and a schedule for obtaining such permits and approvals.

According to our current understanding, because the project is situated on federally owned land, it will not be subject to Loudoun County reviews. Given the site is located on Dulles International Airport, it may be subject to review by the Federal Aviation Administration. It is unclear, whether MWAA and the federal government may wish to nevertheless subject the project to Loudoun County reviews. If so, it is assumed the Loudoun County process would generally follow the County's usual protocols, with which the development team is highly familiar.

The schedule for these activities and permits is included in the overall project schedule discussion contained in (f.) below.

d. Identify any anticipated adverse social, economic, environmental and transportation impact of the project measured against the County's comprehensive land use plan and applicable ordinances and design standards. Specify the strategies or actions to mitigate known impacts of the project.

No adverse social, economic, environmental or transportation impacts are anticipated as a result of this project.

e. Identify the projected positive social, economic, environmental and transportation impact of the project measured against the County's comprehensive land use plan and applicable ordinances and design standards.

This project is expected to have significant positive social, economic, environmental and transportation impacts for Loudoun County. The provision of convenient commuter parking adjacent to the Route 606 Metro Station along with the related bus and kiss and ride facilities will encourage ridership on the Silver Line resulting in decreased pollution from automobiles, lower levels of traffic congestion and less demand for expensive expansions of street and highway infrastructure. Additionally, because this site has the potential to attract commercial development either on the site or on adjacent properties, Loudoun County will further its goal of expanding its non-residential tax base. The project will achieve a high level of design as befits a site that is, in many ways, a gateway location for the County. Increased development adjacent to Dulles will further the area's evolution as an "aerotropolis", a development type that is increasingly being seen as a major economic development driver.

f. Identify the proposed schedule for the work on the project, including sufficient time for the County's review and the estimated time for completion. The schedule shall also include development, design, construction, building commissioning, and occupancy. Any visual timeline schedules may be placed on 11x17-sized paper and folded into the submission proposal.

See attached schedule from Clark Construction at the end of this section. With approximately nine month construction schedule, there is more than sufficient time for Loudoun County to choose a developer by mid 2014 and for the Offeror to deliver the project by 2018.

g. Propose allocation of risk and liability, and assurances for timely completion of the project.

As the general contractor on the project, Clark would have a fixed price contract with the Owner/Developer with financial penalties for late completion of the project. In addition, Offeror shall be responsible for the assumption of full risk and liability for all appropriate aspects of the project.

h. State assumptions related to ownership, legal liability, law enforcement and operation of the project and the existence of any restrictions on the County's use of the project.

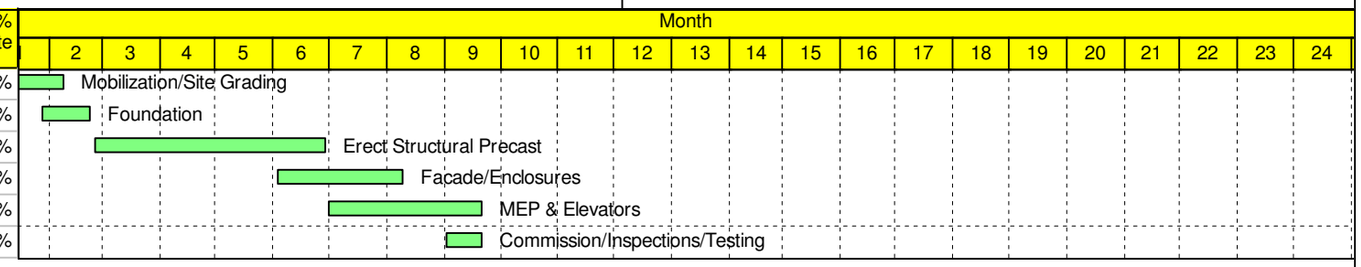
The Offeror would be responsible for all aspects of the design, financing, delivery, operations and maintenance of the facility once a Comprehensive Agreement was fully negotiated and signed. There would be no restrictions to the County's use of the facility.

i. Provide information relative to phased openings of the proposed project.

The garage and related infrastructure will be completed in a single phase inclusive of site work and ancillary facilities and will be completed prior to the opening of Silver Line rail facilities to the general public. If it is determined that private development will be allowed on the site, this portion of the work shall be subject to a phasing plan to be developed dependent upon the nature of that determination and market demand.

Route 606 Station - Parking Garage | 606 | 14-Jan-13 16:12

Activity ID	Activity Name	Original Duration	Remaining Duration	Activity % Complete
100000	Mobilization/Site Grading	20	20	0%
100010	Foundation	20	20	0%
100020	Erect Structural Precast	90	90	0%
100030	Facade/Enclosures	50	50	0%
100040	MEP & Elevators	60	60	0%
100050	Commission/Inspections/Testing	15	15	0%



CLARK CONSTRUCTION

3. PROJECT FINANCING

a. Provide a preliminary estimate and estimating methodology of the cost of the work by phase, segment or both.

The base line price is based upon the Preliminary Engineering plans as provided by Loudoun County and as modified in the accompanying plans. Estimating methodologies are consistent with industry best practices and as regularly used by Clark, one of the largest construction companies in the United States. The budget is attached at the end of this section.

b. Submit a plan for the development, financing and operation of the project showing the anticipated schedule on which funds will be required. Describe the anticipated costs of and proposed sources and uses of such funds, including any anticipated debt service costs. The operational plan should include appropriate staffing levels and associated costs based upon the County's adopted operational standards.

Finance Plan

With the assistance of the Public Finance Group from BB&T Capital Markets the Team has reviewed a variety of approaches for financing the Project. The PPTA framework allows the County to consider a broad array of alternatives, including structures relying upon 100% private financing to alternatives which feature varying degrees of public participation. The objective of the Team is to present herein an overview of the benefits and challenges to several of the financing models available, and to work closely with the County in the identification of the optimal structure given the County's objectives and constraints for the completion of the Project. Within this section, we outline the most relevant of these options to the Project, and how we anticipate we will work with the County over the coming months to identify the expected outcomes for each.

Private Concession Development

There has been a proliferation of infrastructure projects financed through private concession agreements in recent years, and Virginia has become a leader in the use of this model for transportation projects. The recently opened 495 Express Lanes represents the first full private transportation project in the Commonwealth, and toll projects to improve I-95 in northern Virginia and the Downtown and Midtown Tunnels in Hampton Roads also reached financial close in 2012 using a private development model. These projects have demonstrated the willingness of the private sector to undertake major project development efforts to build public use infrastructure and the ability to assemble the funding necessary to complete these projects.

While the use of a private concession contract to develop new parking structures has not previously been accomplished in Virginia (or elsewhere to our knowledge), there are examples of existing public parking facilities being transferred to private control through such a model. Although additional study is required, the Team believes the revenue potential for the parking facility at the Route 606 Station is sufficiently robust that a private concession contract is viable, and we are willing to both advance this approach with the County [as well as negotiate as a potential concession partner] to undertake the project.

A critical future step in the development of the Project as a private concession will be the development of a detailed financial feasibility analysis and a determination of the amount of private funding that would be available to the project. While the DESMAN report was adequate for an initial feasibility assessment, the reliance upon the 2004 Environmental Impact Statement for projections of daily ridership on the Silver Line is not sufficient to secure funding for the Project. The team would work with the County to commission a demand survey to establish a more rigorous estimate of both Loudoun transit demand and parking demand.

Additionally, it will be necessary to determine (through dialogue with the U.S. Department of Transportation) whether the Project will be eligible for an allocation of Private Activity Bonds ("PABs") from the Department. Private Activity Bonds are tax-exempt bonds that provide (in the current market and generally over their history) a lower cost of funds than a traditional, taxable debt offering. In order to determine whether a private concession developer would be eligible for an allocation of Private Activity Bonds, it will be necessary for USDOT to agree that the parking structures are considered part of the Dulles Metrorail Project. Dulles Metrorail has received Title 23 funds, and the garages are not likely to qualify for private activity bond allocation if not viewed as a part of the rail project. A similar determination would be necessary for the parking facilities to qualify for a TIFIA loan, which is a variation on this project financing alternative further discussed below.

For the purpose of the illustration below, we have assumed the ability to issue PABs. Due to the lower cost of tax-exempt debt financing and the familiarity of municipal bond investors with non-recourse debt supported by parking fees, this determination is important to the viability of the private concession approach. A conventional taxable project financing in either the bond market or through a bank lender will likely require a higher interest expense, as well as the possibility of additional security (e.g., pledge of real estate) to secure financing.

Based on the assumptions provided by the County in its solicitation, augmented by the capital requirements for the Project developed by the Team and the additional financing assumptions provided by BB&T Capital Markets, a preliminary financing model for the project has been developed. Key assumptions include:

Private Equity Contribution of 15% **-** One advantage of the private concession option is the inclusion of private equity in the capital structure, taking a claim on cash flow that is subordinate to debt service and thus providing a "first loss" position that insulates bond investors. Bond investors assume the private equity investor has evaluated the risk of revenue generation in a thorough manner. We have assumed the equity investment will be equal to 15% of project costs, although the range of potential equity investment is determined by a number of factors and could be anywhere from 10% to 30%. The minimum concession term is estimated at 30 years. A longer concession term would increase the appeal of the garage investment to an equity investor.

Minimum Return on Equity – A key area of negotiation between the County and the private concessionaire will be the allowable return on the private equity investment. This is typically a function of risk to the investor's capital – the greater the risk, the greater the targeted return. As an initial assumption we have used minimum targeted Return on Equity of 12%

Revenue Sharing with County – The County in its solicitation has expressed an interest in receiving payments from the Project. The Private Concession could be structured to allow excess cash flow (after all Project operating, renewal, and debt service obligations have been met and the targeted ROE achieved) to be shared with the County. As an example, 50% of excess cash flow once 12% ROE has been achieved could be payable to the County, and this percentage could increase further once a higher ROE is attained (e.g., County receives 80% of cash flow above 20% ROE).

"BBB" Ratings for Private Activity Bonds – In order to achieve an interest rate for PABs that makes the private concession cost-effective, an investment-grade rating would be targeted. The rating for the PABs would be a function of the demand study, the percentage of capital contributed in the form of equity, and other factors.

Each of the assumptions described above would be impacted by the competing interests of achieving a project which is highly successful financially while encouraging maximum ridership of the Silver Line through low user charges.

Based only on the assumptions described above, currently available information and the expertise of the Team, the table below provides an illustration of the financial performance of a private concession model:

Daily Parking Rate	$10	$8	$6
Debt Funding	$29,580,000	$29,580,000	$29,580,000
Equity Funding	$5,220,000	$5,220,000	$5,220,000
Debt Service Coverage	1.92	1.46	0.99
Return on Equity (30yrs)	37.09%	18.34%	-0.40%
County Revenue Share (30yrs)	$19,646,534	$0.00	$0.00

Considerations for use of private concession model

Advantages:

- Substantial transfer of development risk and administrative burden of project from County to private entity
- Profit motive of owner/equity investor is aligned with the interests of lenders
- Potential for service enhancements that contribute to revenue optimization

Drawbacks:

- County cedes rate-setting authority to private entity
- Higher cost of capital and return on investment required by owner/equity investor is likely to produce higher parking rates than public financing model

We are cognizant of the discussion at the pre-proposal conference and in Addendum #1 wherein it was stated that Loudoun County would not participate financially in this project either through the issuance of bonds, assumption of some form of Moral Obligation or other mechanisms. However Section1.3 of the RFP asks for the outlines of how public participation could be applied to this project. In order to be fully responsive to the RFP, we have included the following section.

Public Ownership With Non-Recourse Financing

The County would have the opportunity to exercise greater control over the future rate-setting at the Project if it were to pursue a more traditional governmental ownership structure. Recognizing the County's interest in avoiding any impact on the County's General Fund, credit ratings and overall financial condition, a non-recourse financing under a Trust Indenture that limits sources of debt repayment to the Project is worthy of evaluation. Such a financing would require a detailed demand study and financial feasibility analysis similar to that required for a private concession development, in this case in order to achieve investment-grade credit ratings and attract municipal bond investors.

The non-recourse Public Development model produces the following results based upon currently available information and assumptions:

Daily Parking Rate	$10	$8	$6
Debt Funding	$35,560,000	$35,560,000	$35,560,000
Equity Funding	$0	$0	$0
Debt Service Coverage	1.68	1.27	0.87
Cash Flow After Debt Service (30yrs)	$49,085,069	$19,727,615	($9,629,839)

Considerations For Use Of Non-Recourse Public Financing

Advantages:

- No financial participation by the County
- Possibility of 100% debt financing

- Parking rates may be set to provide adequate cash flow without need to satisfy profit motive of private developer.
- Greater public (County) control over future parking rates, subject to satisfaction of parking rate covenant established to secure financing

Drawbacks:

- Greater County (or other public body) participation required in development and financing
- Higher cost of capital than public financing with County financial support

Public Ownership With County Financial Support

The financing which would provide the lowest overall cost of financing, and therefore would be likely to produce the lowest future parking rates or the maximum cash flow to the County, would be a public ownership and financing structure which would include some form of financial support from the County. Such financial support could take a variety of forms, including:

1. County agreement to appropriate annual debt service requirement – This degree of commitment, which has been used by Fairfax County for the construction of parking structures related to Phase I of the Dulles Metrorail Project and has been used by the County in the past for other public infrastructure projects, would achieve the highest credit ratings (likely "Aa2/AA+") discussed herein because the creditworthiness of the financing would be directly tied to the County's General Obligation credit ratings. Of course, the County would be fully at risk for the financial performance of the project – to benefit financially from strong operating performance but also be liable for all cash flow shortfalls. Debt of this nature may be counted as tax-supported debt by the rating agencies, at least until such time as the Project has achieved a history of meeting its obligations from Project revenue

2. Establishment of a Service District to provide direct or contingent financial support – in this structure the County would agree to levy taxes or fees within a specified area that benefits (in the form of higher property values, greater business traffic, etc.) from the Project in order to supplement Project revenues.

3. "Moral Obligation" pledge, in which the County would agree to provide funds from non-Project sources in the event that Project cash flows were insufficient to meet all operating and debt service requirements.

Subject to the specific structure of the County financial support, this financing model may allow for the elimination of a funded debt service reserve fund and capitalized interest during construction, each of which would contribute to a significant reduction in the amount of financing required for the Project. For the purposes of the demonstrative analysis herein, we have assumed a structure which achieves credit ratings in the "A" category, although a stronger credit profile may be achieved.

Potential financial performance of a County-supported model is detailed below:

Daily Parking Rate	**$10**	**$8**	**$6**
Debt Funding	$29,875,000	$29,875,000	$29,875,000
Equity Funding	$0	$0	$0
Debt Service Coverage	2.18	1.65	1.12
Return on Equity (30yrs)	N/A	N/A	N/A
Cash Flow After Debt Service (30yrs)	$65,585,069	$36,227,615	$6,870,161

Considerations for use of non-recourse public financing

Advantages:

- Lowest Cost of Financing
- Parking rates may be set to provide adequate cash flow without need to satisfy profit motive of private developer, and may be set below break-even should the County determine that such an approach furthers the County's overall goals for Metrorail Extension.

Drawbacks:

- Possible impact on County debt ratios and finances, subject to specific structure of support.

c. Include a list and discussion of assumptions underlying all major elements of the plan.

The financial assumptions are based on the scope of the work as presented in the SCP and priced by Clark Construction for the hard cost of the project. The team then used normal and customary fees to estimate the soft costs and financing fees depending on the option as discussed in 3.b.

d. Identify the proposed risk factors and methods for dealing with these factors. Describe methods and remedies associated with any financial default.

Risks and associated costs are discussed in 3.b. Options for curing defaults are dependent upon the financing alternative selected. The risk would be solely upon the Offeror, its lender, insurance carrier, equity partner and/or bond holder for the completion of the work.

e. Identify any local, state or federal resources that the proposer contemplates requesting for the project along with an anticipated schedule of resource requirements. Describe the total commitment, if any, expected from governmental sources and the timing of any anticipated commitment, both one-time and on-going. Include any tax and fee exemptions (i.e. plan review fees, permit fees, utility fees, etc.) that the private entity contemplates requesting or receiving for the project.

We do not anticipate the use of any governmental resources, whether local, state or federal at this time nor any waivers or exceptions from normal and usual review fees, permit fees or utility fees.

f. Identify the need, if any, for the County to provide either its general obligation or moral obligation backing. The underlying assumptions should address this need and/or state that he credit would be via a "Service Agreement", for example. Any debt issuance should be expected to receive an investment grade rating from a nationally recognized statistical rating agency. If the natural rating is not investment grade, the County may require the use of credit enhancements.

As per the County's statements, we are not anticipating nor requesting County financial participation in the project. However, in order to be responsive to Section 1.3 of the RFP we have included a discussion of these options in 3.b above.

g. Outline what impact, if any, a drop in interest rates would have on the ultimate annual project cost. Indicate if there is a method to refinance for cost savings or does the firm only receive benefit of this potential?

This is not applicable since the project will not receive funding from Loudoun County. The benefit will go to the firm only unless there is some profit sharing arrangement with the County at which point the proceeds would be allocated on a prorated basis.

h. Outline the financial penalties, if any, that would result should the County wish to terminate a project early or restructure the cash flows for some reason of its own choosing. The firm should be specific on this point.

Once an Interim or Comprehensive Agreement has been signed, the Offeror should be indemnified for expenses incurred.

i. Provide a breakout of the fees to any underwriting firm(s) and the type of obligation the firm(s) are using with a financing component. Be specific as the tax-exempt, taxable, floating rate, fixed rate, etc.

These fees would be as normal and customary per industry standards and as provided by BB&T Capital Markets. These fees will be negotiated to the benefit of the project and will provide the amount once fully negotiated.

Project : Route 606 Station Garage
Job # : 11-12670
Concept Construction Budget
Date : January 14, 2013

Above Grade Precast Parking Garage

Budget Parameter	Unit	Quantity	Unit Cost	Amount	$/sf
Sitework				Exclude	
Building Earthwork	cy	20,000	15.00	300,000	0.45
Support of Excavation	ls			Exclude	
Structure					
Deep Foundations				Exclude	
Spread Footings	cy	2,000	375.00	750,000	1.12
Foundation Wall	sf	9,117	30.00	273,510	0.41
Slab On Grade	sf	110,900	8.00	887,200	1.33
Elevated slab - floors structural precast	sf	556,500	22.00	12,243,000	18.34
Elevated slab - roof structural precast	sf	1,800	22.00	39,600	0.06
Concrete stairs	ls			w/ precast	
Exterior Skin					
Precast Spandrels	ls			w/ precast	
Curtainwall at Stairwells and Elevators	sf	6,513	65.00	423,365	0.63
Aluminum Doors Level 1	ea	4	3,500.00	14,000	0.02
Architectural Precast Element at stair/elev towers	ea	2	50,000.00	100,000	0.15
Roofing & Waterproofing	sf				
Hot Fluid Applied Roofing (Stair & Elev. Overruns)	sf	1,800	12.00	21,600	0.03
Waterproof Foundation Wall	sf	9,117	6.00	54,702	0.08
Precast Caulking	sf	556,500	1.00	556,500	0.83
General Finishes	sf				0.00
Garage Finish (HM Doors, Misc Metals, Signage, Striping)	sf	667,400	1.75	1,167,950	1.75
Paint	ls			Exclude	
Special Equipment	ls			Exclude	
Parking Equipment	ls			Exclude	
Elevators	stop	12	35,000	420,000	0.63
Mechanical Systems	sf				
HVAC Open Air	sf	667,400	0.10	66,740	0.10
Plumbing	sf	667,400	2.00	1,334,800	2.00
Fire Sprinkler Standpipe	sf	667,400	0.15	100,110	0.15
Electrical systems	sf	667,400	3.50	2,335,900	3.50
Insurance	%			316,335	0.47
General Conditions & Fee	%			2,140,531	3.21
				~~23,545,842~~	
Total Budget - current pricing		667,400 sf	$35.28	$23,545,000	
		1,965 spaces	$11,982 /space		
Parking Efficiency		340 sf/space			

4. PROJECT BENEFIT AND COMPATIBILITY

a. Identify who will benefit from the project, how they will benefit and how the project will benefit the County and the overall community.

Benefits from this project will devolve to several parties.

- First, establishing a transportation hub at this location will enable commuters seeking to take advantage of the benefits of the Silver Line, whether they arrive by bus, auto, taxi or bicycle with a convenient and safe entrée into the Metro system. This will encourage increased transit ridership with positive impacts to WMATA's revenue stream.
- Persons arriving on the Silver Line will likewise have access to a wide variety of options to access the airport and other parts of Loudoun County also enhancing other transit providers operations.
- Loudoun County and its residents benefits by having a major piece of its transportation infrastructure constructed at no cost or risk to the County.
- Additional private sector development is inevitable either on this specific site or on adjacent, privately owned properties. This will contribute to Loudoun's long term economic development and further the County's goal of increasing its non-residential tax base.
- This additional development will also contribute to the Dulles area's continuing evolution in to one of the premiere "aerotropolises" furthering Loudoun's and the region's economic growth as well as encouraging increased utilization of MWAA's facilities.
- Encouraging the use of mass transit for at least part of a commuter's journey will reduce the demand for expansion of costly roadway infrastructure as well as diminish environmental pollution and degradation.

Transit oriented, mixed use development has proven to be a major factor in **creating sustainable development**. The combination of the transit hub and attendant commercial development will contribute greatly to this.

We estimate that **at least 200 workers** who are local residents, including home office support personnel, will be employed at various times during the construction process. Jobs will range from highly skilled workers (carpenters, plumbers, etc.) to unskilled laborers. Many of these professional positions on the project will also be staffed by local residents. Based on past projects, we anticipate that approximately 90% of the labor on the project will be skilled labor and approximately 10% of the labor on the project will be unskilled labor.

One added benefit to the local economy that would result from Clark's selection on this Project would be the implementation of **Clark's Strategic Partnership Program** for local businesses. Three years ago, in response to the lack of training and development programs for small businesses in the construction industry, Clark developed the "Local, Small, and Disadvantaged Business Enterprise (LSDBE) Strategic Partnership Program." The Program is designed to supplement the capabilities of local, small and/or disadvantaged businesses in the Metropolitan area. It is structured in an interactive format, with a focus on providing core construction management and business skills to its participants. Courses are taught by local industry experts and include classroom learning, team projects, as well as presentations by the students. Clark is the only general contracting firm in the Mid-Atlantic Region to sponsor such a program, and the impact on the companies that participate is profound.

Each year, 40 – 45 participants representing 20 – 30 different trades/scopes of work take part in the program. Their participation in the program supports their long-term business growth and will improve their performance on local projects.

The Strategic Partnership Program creates a learning environment in which employees and subcontractors participate in high-quality educational experiences, both in technical training and personal development that enable them to meet their professional aspirations. Most of the technical training focuses on construction industry subjects, and management and leadership training focus on how it can be applied in the construction industry. This service is provided at no additional cost to the participating companies.

b. Identify any anticipated public support or opposition, as well as any anticipated government support or opposition (including that in any affected jurisdiction), for the project.

Opposition may arise to commercial development on federal land on the grounds that it will compete with development on private land. Because of the public benefits to be derived from the project, as stated in 2.e and 4.a, above, no opposition from either public or private entities or persons is anticipated. Because of the positive impacts of the project and the tacit sponsorship of Loudoun County, support from the County, MWAA, WMATA, the Virginia Department of Transportation (VDOT) is expected as well as from private or non-profit organizations that encourage economic development and sustainable development.

c. Explain the strategy and plans, including the anticipated timeline that will be carried out to involve and inform the general public, business community, and governmental agencies in areas affected by the project.

We believe fully in the necessity of an open and collaborative process especially in the case of public/private partnership efforts such as this. The development team will work with the County, MWAA, WMATA and other stakeholders to establish a mutually agreeable process of public outreach and information sharing. This would be in addition to the meetings and public hearings related to the entitlement process.

We anticipate that there will be multiple tiers of stakeholders and the outreach efforts should be tailored to the needs of each. Tier 1 stakeholders are those that have decision making authority over the project and will need to have the highest level of information and interaction. Specific techniques or strategies that would be effective include establishing a working group consisting of representatives of each stakeholder. This group would meet on a regular basis in order to identify and resolve any issues which may arise. Each member would also serve as an information conduit back to their respective organizations. Periodically, as needed, the development team would give presentations to the governing boards of each of the Tier 1 stakeholders.

Tier 2 includes those immediately impacted by the project or its outcomes but which will not be the primary decision makers. Outreach to these persons will occur on a periodic basis, as necessary and could take the form of presentations, electronic newsletter or such other techniques as may seem reasonable. Tier 3 includes persons or organizations with an interest in the project but who will only be tangentially impacted by the project such as the general citizenry. Outreach to this group could take the form of periodic public meetings organized around milestone dates, establishment of a project website, use of blogs or other social media and using webcams to track progress as construction begins.

In addition, the development team would designate a principal point of contact. Backup for this person would be provided so that there would be no disruptions in communications due to travel, vacations, illness or other reasons.

d. Describe any anticipated significant benefits to the community and the County, including anticipated benefits to the economic, social, environmental, transportation, etc., condition of the County and whether the project is critical to attracting or maintaining competitive industries and businesses in the County.

Please refer to 2.e and 4.a above.

5. ANY ADDITIONAL INFORMATION AS THE COUNTY MAY REQUEST

A. Ability to finance, develop, design and construct Class-"A" commercial or municipal parking structure.

1. Describe how the project meets the County's need. Describe for the proposed facilities, the spaces designated for parking. Describe the civic, cultural and recreational amenities unique to each facility, and the parking, security and site infrastructure to support the proposed land uses.

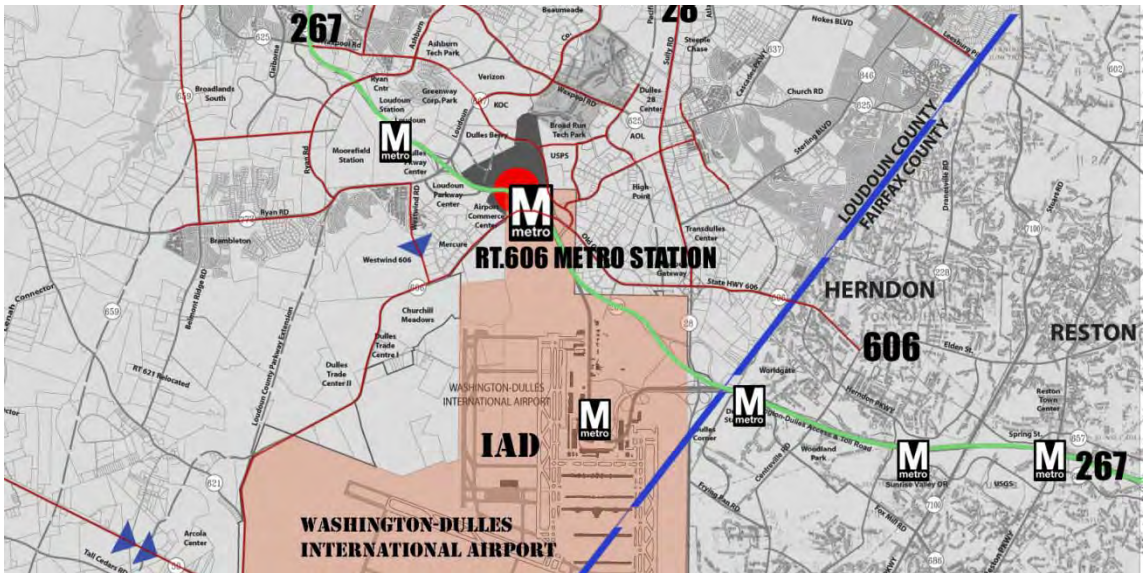
The project will remove the cost of the Route 606 garage from the DRTE Project and thereby reduce the cost of the Project to users of the Dulles Toll Road, many of who are Loudoun County residents, and to Loudoun County taxpayers. The project will add an "arrival experience" at the Route 606 station making the rail experience a more pleasant and less stressful one.

To the extent that a retail component is included, it will make the shopping experience more convenient.

This proposal has a 2190 space commuter garage which slightly exceeds the number listed in the RFP. The kiss and ride facility is incorporated into the garage giving the added benefit of this function being under roof. The bus functions occur on the long axis of the garage adding to the functionality and convenience of this portion of the project. The touch down building is located at the southern end of a large public plaza that could be used for civic events and which is fronted by small shops which could house retail or restaurant uses as well as consumer serving uses such as banks and drycleaners. If parking demand proves to be sufficiently high, this plaza could provide expansion space for the garage in the future. The incorporation of office uses into the development will create a heightened level of activity during non-peak transit hours which will enhance the security of the entire area. The site infrastructure builds upon existing roadways and is adequate for the development.

B. The location of the private entity's proposed property within the primary area of consideration.

1. Submit a vicinity map that clearly identifies the private entity's proposed property.



C. The attributes and constraints of the private entity's property.

1. Submit a site plan that clearly identifies the property limits of the private entity's property and the total acreage of the property. Identify and fully describe the conceptual plan that supports the initial site and facility construction program, as well as meet the County's future expansion needs. Include the proposed and future buildings, and the associated parking, al required buffers, landscaping, stormwater facilities, roadways, and utility rights of way for both the proposed and future facilities.

See Attached Site Plan at the end of this section.

2. Identify and fully describe the location, size and relationship of the buildable acreage as well as any non-buildable areas that are constrained by environmental, regulatory or other factors.

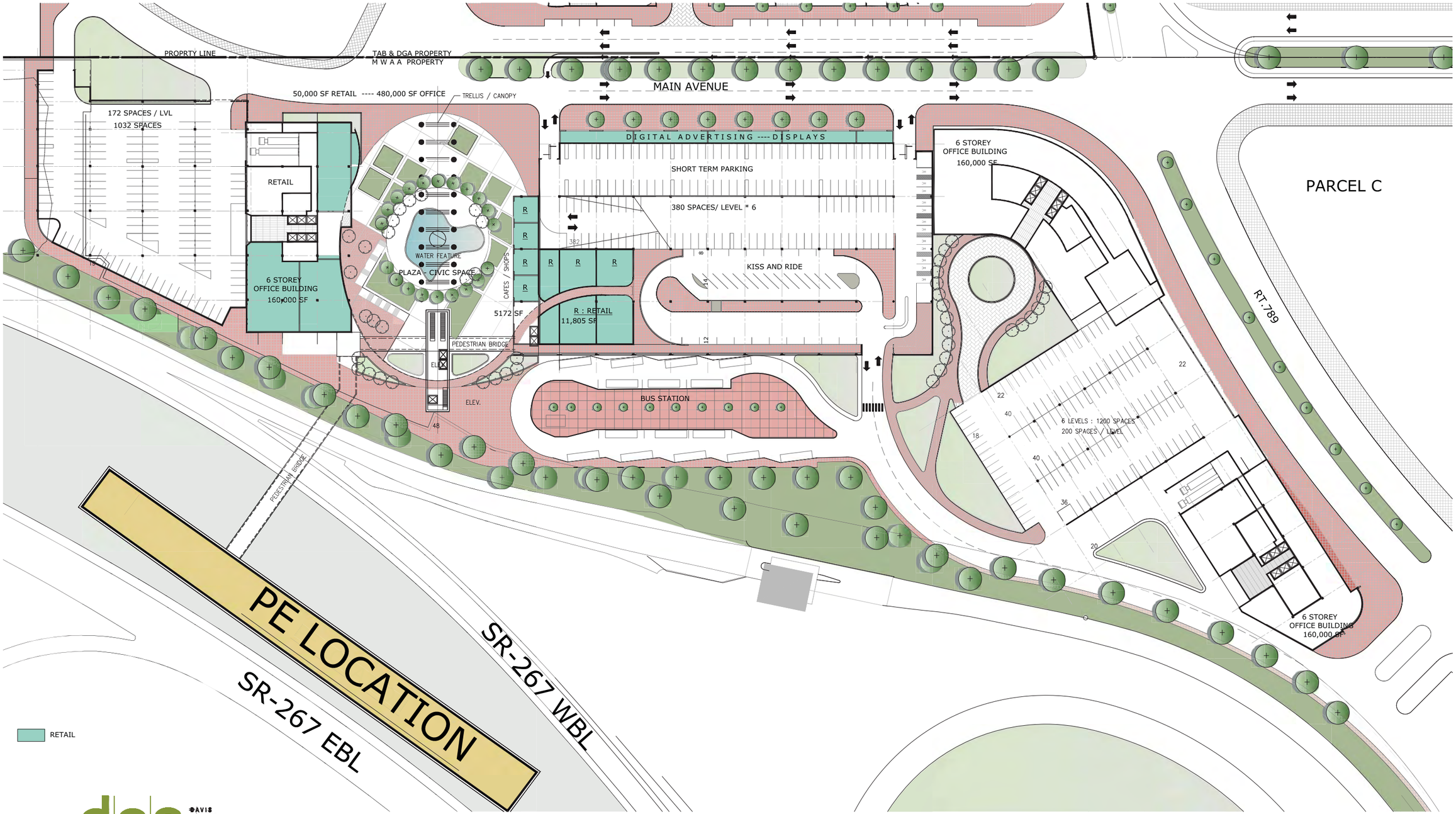
The site is as shown on the document appendices in the SCP for the Route 606 site. No additional properties are included in this submission.

3. Identify and fully describe the existing utilities in the area of the private entity's property including electricity, natural gas, public water and sewer, telephone, and fiber optic telecommunication services. Include the name of the utility provider, the relationship and proximity of each utility service to the property line and the available capacity of each utility service. State assumptions related to any off-site utility extensions or improvements needed for the project.

Electricity will be provided by Virginia Dominion Virginia Power (DVP). Sanitary sewer would need to be extended 1700 feet to the west from an existing DC WASA manhole. Water will be esxtended from the existing 16 inch water line in Lockridge Road and fire protection from the existing Loudoun County 16 inch water line that parallels the Route 267 entrance ramp. Telephone and communications provided by Shentel. It is uncertain whether natural gas is available on the site.

4. Identify and fully describe the anticipated ingress and egress routes from the private entity's property for the project and state assumptions related to any off-site road network improvements needed for the project.

Ingress and egress shall be as shown the Preliminary Engineering concept plan.



DAVIS CARTER SCOTT

DESIGN

ROUTE 606 STATION
TC 606, LLC

N

SCALE : 1 : 200

01.15.2013

Appendix Additional Firm Bios

BB&T Capital Markets | Public Finance Group. BB&T Capital Markets ("BB&TCM") is the investment banking division of BB&T Securities, LLC, the broker-dealer subsidiary of BB&T Corporation. BB&TCM provides government entities, non-profits, corporations, and investors access to capital markets by providing underwriting, sales and trading, advisory/specialty financing, and transaction services. BB&TCM provides priority coverage to participants in the municipal bond market within our footprint, and staffs 63 dedicated Municipal Finance Professionals, with extensive experience structuring various transportation-related financings, general obligation transactions, and certificates of participation/ installment purchase financings. Furthermore, in order to continue to satisfy the increasingly complex needs of the issuers that the firm serves, BB&TCM has evolved to become of the largest regional distributors of bonds, with 67 associates dedicated to Fixed-Income Institutional Sales and 21 Municipal Underwriting and Trading specialists. In addition, BB&TCM maintains a dedicated Municipal Research and Analytics Group to support the innovative activities of its Public Finance operations. BB&TCM's Municipal Strategies Group provides comprehensive services and products for investors and issuers to enhance investment returns, minimize borrowing costs, and more effectively manage assets and liabilities. The Municipal Strategies Group has provided innovative solutions in different interest rate markets to help issuers maximize opportunities with new and existing debt.

The professionals that would be actively engaged in the development and financing of the Project, Sean Ekiert and Jay Conrad, have been actively involved in the financing of parking and other transportation-related facilities in Virginia and the mid-Atlantic for many years.

$40,000,000 Maryland Transportation Authority
Lease Revenue Bonds Metrorail Parking Projects, Series 2004

In his capacity as the primary day-to-day Financial Advisor to the Maryland Transportation Authority, Mr. Ekiert served as the primary advisor for the issuance of Parking Facility Revenue Bonds by the MdTA. This financing – which financed three new parking facilities to be located at Metrorail Stations in Prince George's County, Maryland – utilized a public ownership and support model, with critical roles in the financing plan for numerous parties, including:

- *The Maryland Transportation Authority*, which served as the issuer for the Bonds and would lease the parking facilities pursuant to a series of Ground Leases;
- *The Washington Metropolitan Area Transit Authority*, which would construct and operate the facilities and make payments to MdTA (from revenues provided by a parking surcharge fee) to repay the bonds pursuant to a series of Facilities Lease Agreements;
- *Prince George's County, Maryland,* which agreed to make appropriations to restore the Debt Service Reserve Fund to its required level in the event of a withdrawal from the DSRF to meet the debt service obligations on the bonds; and
- *Commercial entities* developing commercial space at one of the WMATA stations, which would have priority access to certain areas of one of the parking facilities.

Chesapeake Transportation System
$152,722,520 Transportation System Senior Toll Road Revenue Bonds, Series 2012A&B
$151,893,495 Virginia Transportation Infrastructure Bank Loan

In 2012 the City of Chesapeake completed the financing a new toll road and bridge, the Dominion Boulevard Project, to be operated by the City of Chesapeake as part of toll road system that includes the existing Chesapeake Expressway. As Financial Advisor to the City of Chesapeake, BB&T Capital Markets was instrumental in securing the first-ever loan from the Virginia Transportation Infrastructure Bank created as part of Governor McDonnell's 2011 transportation funding plan.

Overview

Williams Mullen's Public-Private Partnership (P3) Team counsels and represents both business and governmental entities seeking public-private partnering arrangements. In addition, we routinely assist equity participants and lenders, as well as design-builders and project operators. This broad experience enables Team members to comprehend and reconcile the differing objectives and perspectives of the various stakeholders.

The firm's core group of P3 attorneys and professionals are skilled in crafting and implementing creative, comprehensive solutions to match public- and private-sector goals, limitations and risk tolerances. Drawing upon the broad resources of the firm's government relations, construction, public finance, economic development, real estate and tax practice groups, the Team offers a cross-disciplinary approach tailored to fit the needs of each public-private project.

The Team's experience with such projects ranges from water systems to highways, and from luxury hotels to sustainable energy. Contractual arrangements have involved design-build, construction management, and design-bid-build approaches, partnered with a wide variety of financing mechanisms and tax incentives. From the development of sophisticated capital, mezzanine and debt structures, to privatization, to project operations and maintenance, our P3 Team helps clients realize and execute on opportunities where public policy objectives are served by private sector business goals and expertise.

Williams Mullen P3 Team's proficiencies include:

- Evaluating, planning and counseling on P3 opportunities
- Assessing federal, state and local government objectives and priorities
- Formulating and executing legislative strategies
- Structuring and executing financial and concession relationships
- Advocating procurement and teaming arrangements
- Achieving environmental compliance
- Developing methodologies to accelerate project delivery

Our multi-disciplinary approach encompasses all components of a P3 project, including:

- Strategic planning and government outreach
- Federal and state tax issues involved in financial and concession agreements
- Infrastructure design and construction
- Real estate development, right-of-way acquisition and utility relocation
- Land use and zoning
- Public finance, including federal tax laws, regulations, and rulings, as well as matters relating to state and local debt

Overview (continued)

Our experience crafting successful partnerships covers all sectors including:

- Roadways, bridges and toll facilities
- Ports and terminals
- Commuter rail
- Water, wastewater and solid waste systems
- Alternative energy
- Public office buildings, conference centers, parking garages and operations centers
- Hotels, resorts, and private conference centers
- Primary, secondary and higher education
- Correctional facilities

Office Locations
Annandale, Virginia
Chantilly, Virginia
Winchester, Virgina
Wilmington, North Carolina

Comprehensive Services
Land Planning

Land Development

Landscape Architecture

Surveying, Mapping & Platting

Rezoning

Feasibility Studies

Hydrology and Hydraulics Analysis

Flood Plain Analysis

Stormwater Management

Best Management Practices

Erosion and Sediment Control

Utility Design, Relocations & Adjustments

Urban and Rural Roadway Design

Interchange and Intersection Design

Public Involvement

Low Impact Design (LID)

Capital Improvement Projects

Services
Urban provides comprehensive civil engineering, transportation engineering, land planning, landscape architecture and surveying services to both private and public sector clients throughout the Washington, D.C. metropolitan area. Our primary strength lies in our employees' exceptional abilities and dedication to provide the highest quality service and performance to our clients.

Past and Present
Since Urban's inception in 1967, the firm has grown to more than 100 employees in four offices (three in Virginia and one in North Carolina). Our company structure allows each client to receive the personal attention of a Principal/Associate through every step of the project. Through diverse experience, teamwork and professionalism, Urban identifies, understands and satisfies the needs of our clients. Urban uses state-of-the-art technology including AutoCAD 2007 to work on each project. We strive to stay ahead of changes that could potentially impact our business and take the initiative to capitalize on new opportunities as they arise.

Client Approach
Urban has a comprehensive understanding of and sensitivity to our clients' issues and concerns. We take both a personal and interest in the success of every project. We stress communication, teamwork and attention to detail, and manage our workload to insure that our clients have personal involvement with the same team members throughout the project. We also have extensive knowledge of local government agencies and the ability to coordinate our work with other consultants.

Urban's Headquarters

Firm Overview

Experience in Parking Structures

Alcatel Parking Garage

Burgess & Niple (B&N) provides surveying, environmental, and site civil support engineering for government and private infrastructure projects. This expertise has been provided to municipal, state, and federal government clients since 1912. Our work in Northern Virginia – including extensive project experience in Loudoun County – dates back to 1974.

Our engineers, surveyors, environmental scientists, and geotechnical staff have been involved in the design and renovation of numerous multi-level parking garages, surface parking, and transportation facilities. This experience includes the full range of site civil services such as conceptual planning and feasibility studies, structural evaluations, environmental and geotechnical services, land surveying, and construction-related services.

A representative listing of B&N's parking structure projects includes:

- **New Parking Garage, University of Maryland – College Park**
  Five-story, 400,000-square-foot parking garage
- **Campus Commons Class A Office/Parking, Reston, Virginia**
  Detached three-level, 900-space parking garage
- **Glenmont Metro Station, Silver Spring, Maryland**
  Upgrades to interior walls and escalator tunnel
- **WSSC Headquarters, Laurel, Maryland**
  Three-level, cast-in-place concrete parking structure
- **Alcatel Headquarters Building, Fairfax County, Virginia**
  Six-level, 320,000-square-foot facility with five-level, 700-space parking garage
- **Wharf District Parking Structure, Morgantown, West Virginia**
  314-vehicle precast concrete parking facility with 4 and one-half levels
- **12th Avenue Parking Facility and Walkway, Columbus, Ohio**
  Parking garage with stair tower and pedestrian bridge connected to Ohio State University Medical Complex
- **Parking Garage Renovation, Parkersburg, West Virginia**
  Structural evaluation/life safety review of 4-story garage at St. Joseph's Hospital
- **Kingstowne Office Building/Parking Garage, Fairfax County, Virginia**
  Construction of an 8-story structure and parking garage
- **Commonwealth Centre at Westfields, Chantilly, Virginia**
  101-acre commercial development with two parking garages
- **Parcel 35 at Westfields, Chantilly, Virginia**
  Commercial development that includes five parking garages

Firm Overview

Parking Garage #5, University of Maryland

Design-Build Experience

Burgess & Niple (B&N) has extensive experience in site civil engineering for various Design-Build projects throughout the United States. B&N's Design-Build experience encompasses roadways, parking structures, bridges, water treatment and supply, utilities, communications, and buildings. B&N provides design, survey, QA/QC, permitting, geotechnical engineering, and other services for these projects.

Representative B&N Design-Build projects include:

- **Parking Garage #5, University of Maryland, College Park, MD**
  Site surveys and civil design for new structured parking facility

- **JNCO Family Housing, Fort Meade, Maryland**
  Engineering design to renovate 251 Junior Non-Commissioned Officer (JNCO) family housing units

- **Family Housing, Fort Detrick, Maryland**
  Site surveys, geotechnical engineering, planning, and civil design for new base housing

- **Emergency Services Center, Fort Meade, Maryland**
  Site surveys, geotechnical investigations, and site design for a 24,000-square-foot facility

- **Quantico Student Quarters, MCB Quantico, Virginia**
  Site civil design, surveys, and geotechnical engineering for design-build project

- **Family Housing, Phases I and II, Bolling Air Force Base, Maryland**
  Site surveys and civil engineering support for demolition of existing housing and construction of new base housing

- **New Golf Course Maintenance Facility, Aberdeen Proving Grounds, Maryland**
  Site surveys, a geotechnical investigation, and final engineering design for construction of a maintenance facility

- **Site Design for Replacement Housing, Andrews Air Force Base, Maryland**
  Topographic surveys of existing as-built site conditions and engineering services including site grading, utility design plans, and stormwater management

- **New Family Housing at Midway Park, Camp LeJeune, North Carolina**
  Site design services for development of new family housing

- **Army Modularity Complex, Fort Bragg, North Carolina**
  Master planning, environmental permitting, site design, landscaping, and exterior elevation and design

- **Fort Benning Child Development Center, Georgia**
  Roadway widening, drainage, utilities, fencing, curb and gutter, and two new 4-lane bridges

Firm Overview

Introduction

B&N Dulles Office
4160 Pleasant Valley Road
Chantilly, Virginia 20151

Burgess & Niple (B&N) has provided civil engineering services to public and private clients for more than 100 years, beginning in 1912. Currently, we have nearly 400 employees in offices throughout the United States. B&N's Mid-Atlantic Region consists of approximately 80 employees in five offices in Virginia and Maryland. Led by experienced staff in our Chantilly office, we will work closely with the development team to serve as site civil engineer for the Loudoun County parking facility project.

Our civil engineering experience in Virginia includes hundreds of public infrastructure and private site development projects in the last 35 years. We have practiced in Loudoun County since 1974. B&N has completed site development engineering and construction-related services for public infrastructure, parking structures, public safety and emergency response facilities, mixed-use and commercial projects, libraries, schools, government buildings, and other projects. Our municipal infrastructure portfolio includes design of roadways, sidewalks, and trails; athletic fields; water main, stormwater management, and sanitary sewer systems; government buildings and parking structures; and bridges.

B&N successfully manages site development contracts for government clients that require a wide range of professional services and specialties. We are skilled in processing plans for approvals through local agencies, Department of Environmental Quality (DEQ), Virginia Department of Transportation (VDOT), Virginia Department of Conservation and Recreation, Virginia USBC, VOSHA, Virginia Department of Health (VDH), and others.

Services

General Civil Engineering

Structural Engineering
Testing and Inspections
Transportation Engineering
Construction Services
Sanitary Sewer and Water Systems Engineering

Geotechnical Engineering

Contract Drilling
Subsurface Investigations
Drainfield Evaluations
Seismic Testing
Foundation Design

Construction Contract Administration

Project Coordination and Documentation
Scheduling
Cost Estimating
Contract Document Preparation
Construction Procurement
Quality Surveillance

Surveying

Route Location
GPS
Boundary
Topographic and Construction Stakeout
Bridge Situation Plans
Plat Preparation
ALTA/ACSM Land Title

Environmental Services

Wetland Delineation Studies
Environmental Site Assessments
Water Resources

Transportation Engineering

Transportation Planning
Road and Highway Design
Bridge Design
Bridge Inspections
Airport Facilities
Rail and Transit Facilities
Streetscaping
Traffic Engineering

Commissioning Services

Energy Audits and Retrofits
Water Efficiency Audits and Retrofits
Energy Star Building Ratings
LEED and Green Building Evaluation
Renewable Energy Technologies
Energy Management System Design (Solar, Geothermal, and Wind)
Utility Rate Analysis
Energy Modeling

Gorove/Slade Associates, Inc.

Transportation Planners and Engineers

1140 Connecticut Ave NW
Suite 600
Washington, DC 20036
202-296-8625

3914 Centreville Road
Suite 330
Chantilly, VA 20151
703-787-9595

7001 Heritage Village Plaza
Suite 220
Gainesville, VA 20155
571-248-0992

Services

- Traffic Studies
- Traffic System Planning & Design
- Transportation Demand Management
- Parking Planning & Design
- Traffic Signals and Traffic Control Plans
- Transportation Master Plans
- Multi-modal Planning and Design
- Site Access and Circulation Planning

History and Overview

Established in 1979, Gorove/Slade Associates, Inc. provides professional engineering and planning consulting services addressing traffic, transportation, and parking matters. Our strategic planning, research and technical services cover a variety of transportation topics including transportation systems, pedestrian and bicycle networks, master planning, major thoroughfare and roadway planning, traffic signal systems, and parking facilities.

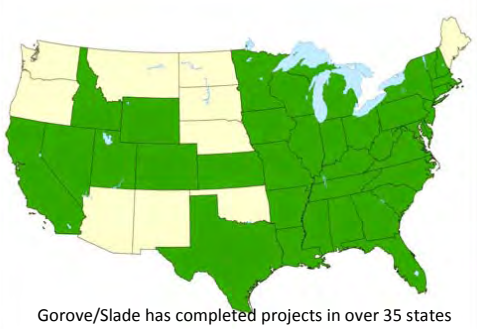
Our clients include landowners, public agencies, universities, operating divisions of large organizations, as well as engineering and architectural firms. In all its work, the firm is committed to providing client service of the highest quality and prides itself on its comprehensive and innovative approach to meeting client needs.

We are knowledgeable on the functionality of facilities that serve pedestrians, bicyclists, transit, and motor vehicle traffic and are conducive to our clients' objectives for creative and efficient places. We identify opportunities to enhance the environmental aspects of client's plans by making good, safe and attractive linkages to all travel modes, reducing the need and cost of parking, and identifying programs that encourage people to walk, bike, and use alternatives to the private automobile.

Gorove/Slade's professional staff of Professional Engineers (P.E.) and American Institute of Certified Planners (AICP) stays current in national trends and contributes to the broader transportation planning and engineering professions. Active participation in associations including the Society for College and University Planning, the Institute of Transportation Engineers, the Urban Land Institute, and the American Planning Association ensures that we comprehend national best practices and apply them to our projects.

Gorove/Slade employees operate out of three offices, one in the District of Columbia and the other two in northern Virginia. We are registered as a Small, Local Business Enterprise by the District of Columbia.

Collective experience is brought to bear through a team selected specifically for each project. Every project is assigned a Principal-in-Charge, a Project Manager, and technical and administrative support as needed – our pledge that each project team is both full service and cost effective. Working together in project teams allows Gorove/Slade to provide responsive, comprehensive, professional service tailored specifically to the demands of each project.



Gorove/Slade has completed projects in over 35 states

Traffic/Transportation Planning Studies

Gorove/Slade conducts a wide variety of Traffic/Transportation Studies for its private and public sector clients as part of their own planning or regulatory filing processes.

Generally, for these studies Gorove/Slade:

a. collects and analyzes existing condition information related to the transportation and/or traffic characteristics of a project area
b. identifies current problems if any
c. forecasts future transportation/traffic demand on the area, based on background volume changes plus any demand changes caused specifically by the project under study
d. identifies future problems if any
e. develops solutions to mitigate those problems
f. makes recommendations as to a preferred solution

Studies include most types outlined in the *Transportation Planning Handbook* published by the Institute of Transportation Engineers (ITE), to include:

- Urban Area Transportation Studies
- Corridor Studies
- Central Area and Major Activity Center Studies
- Traffic Access and Traffic Impact Studies
- Traffic and Travel Volume Studies
- Capacity Studies
- Modal Studies: Parking, Transit, Pedestrian, Bicycle

Traffic System Planning & Design

Gorove/Slade provides project planning services from inception through implementation and operation. Pre-implementation tasks involve site assessments to determine the infrastructure requirements that are the basis for project costs and an assessment of the feasibility to implement the needed infrastructure. If a project is determined feasible, Gorove/Slade is prepared to work with public agencies to delineate the features of the traffic, transportation, and parking systems and to provide public testimony as required. Gorove/Slade typically continues through project planning, providing input to the project architects and construction managers. Services include:

- Roadway cross section planning
- Roadway striping planning and design
- Traffic regulatory sign design
- Circulation planning
- Traffic operations planning for event days
- Signing planning for special events
- Medical emergency facility access and design
- Hospital front door- patient drop-off/pick-up design
- Service access design
- Development of traffic control plans for on-campus construction projects

Transportation Demand Management

Transportation Demand Management (TDM) seeks to reduce the costs of congestion, pollution, delays, and the construction of infrastructure by providing commuters with alternatives to driving alone thereby reducing traffic and parking demand. Gorove/Slade evaluates, develops, implements and monitors TDM programs on behalf of major employers such as federal agencies, college campuses, and large corporations. Gorove/Slade takes an asset management approach to evaluating how clients' resources can be invested most efficiently, and then measures the effectiveness of the programs, evaluates and adjusts them.

Parking Planning & Design

Gorove/Slade has conducted various types of parking studies and design ranging from surface lot design for retail and office developments to functional parking garage layout and design to shared parking studies for complementary uses. We have extensive experience with municipalities and economic development organizations on the analysis of the adequacy of parking and access serving urban and suburban commercial districts.

Gorove/Slade provides comprehensive inventories and demand surveys, forecasts of future need, analysis of street circulation, signing and wayfinding systems, and other traffic related parking issues. Gorove/Slade has conducted shared parking studies for multi-use developments that combine and examine peak characteristics of various land uses and identify the necessary parking needs. Staff often provides expert testimony related to parking ordinances and policies and provide advice to governmental agencies.

Services include:

- Parking needs analysis
- Parking system planning
- Parking garage planning
- Parking field design

Traffic Signals & Traffic Control Plans

Gorove/Slade has developed hundreds of traffic signal designs with a variety of design applications, working with unique requirements of multiple agencies on behalf of private and public sector clients. Gorove/Slade designs and evaluates signal timings for isolated intersections, arterial coordination, preemption and other state-of-the-art technologies. Our projects involve traditional intersections, pre-emptive emergency station equipment and equipment incorporated into structures such as parking facilities and bridges.

Gorove/Slade optimizes progression in one and two directions on arterial streets and urban grid networks. Our signal design capabilities include specification of modern equipment such as magnetic loop vehicle detection (actuated) systems as well as the more traditional fixed-time traffic signals. Gorove/Slade optimizes the systems using computer analysis software such as Synchro, SimTraffic and CORSIM.

Master Plans

Gorove/Slade provides full-scale transportation master planning services for individual jurisdictions, corridors, small areas, large campus settings and individual sites. Transportation master planning includes a traditional analytic framework of long range forecasting of trip generation and distribution, mode split and assignment. Gorove/Slade blends quantitative and qualitative aspects as well, dealing with access management, inter-parcel access, roadway and public transportation functionality, development guidelines, and funding arrangements. Services include travel mode surveys and analyses of mode choice modification implications

Multi-Modal Planning and Design

Gorove/Slade integrates sidewalks, trails, bike lanes and bikeways, ADA Accessibility Guidelines and security applications into transportation infrastructure, traffic operations, master planning and site planning. Gorove/Slade has been developing and testing a more comprehensive 'mobility audit' approach which includes bicycle and pedestrian movements as well as other key urban users related to public transportation, enterprise, government and security.

Gorove/Slade has demonstrated the ability to move pedestrians in multimodal settings, addressing pedestrian/vehicle conflicts with passive and active solutions. Federal emphasis and availability of funding has accelerated pedestrian and bicycle planning, design and project implementation, and multiple projects are showing up in Capital Improvement Programs.

Gorove/Slade's transit planning and operation practice focuses on the connection between the transportation system and the land uses being served. Gorove/Slade is experienced in the preparation of traffic engineering and planning studies for land developments related to Metro rail stations in D.C. and surrounding communities. Our transit planning and operations experience also includes rail station area planning, station design, station rehabilitation, transit route planning, and transit resources management. We are often teamed with other professionals for these studies. Services include:

- Bicycle route planning
- Design of bicycle accommodations within roadways
- Pedestrian interface/traffic design (crosswalks and traffic calming)
- Bus accommodations features (bus stops, roadway features)

Site Access and Circulation Planning

Gorove/Slade provides site access and circulation planning services from project inception through implementation and operation. Gorove/Slade blends quantitative and qualitative aspects of transportation, planning and designing access management, inter-parcel access, internal roadway functionality, and development guidelines.

Pre-implementation tasks involve site assessments to determine the infrastructure requirements that are the basis for project costs and an assessment of the feasibility to implement the needed infrastructure. Site driveway and alley access is determined during the planning phases, and Gorove/Slade works with project owners and architects to determine the most viable options to coordinate with the off-site transportation network.

Gorove/Slade works with public agencies to delineate the features of the traffic, transportation, and parking systems and to provide public testimony as required.

Services include:

- Driveway and alley planning and design
- Service and loading design and planning
- Traffic control system design
- Interaction with transportation agencies
- Traffic regulatory sign design

FIRM OVERVIEW

ECS is a geotechnical engineering, environmental consulting, construction materials testing and inspections, and facilities engineering firm headquartered in Chantilly, Virginia, with more than 45 offices and testing facilities. An employee-owned Subchapter S Corporation whose principal owners are engineers, geologists, and scientists, ECS employs over 1,000 personnel and is ranked 107 in *Engineering News-Record's* Top 500 Design Firms (ENR, April 2012).

Chantilly Office Overview

The Chantilly office of ECS has over 24 years of experience building in Loudoun County's complex geologic conditions. The challenges of shallow rock, expansive soils, and sinkhole-prone karst geology have all been met many times for Loudoun County projects where ECS was retained as the Geotechnical Engineer of Record. To address Loudoun's unique geologic needs, ECS employs various geophysical techniques and traditional subsurface exploration methods (borings and test pits) to characterize subsurface conditions.

Geotechnical Engineering

At ECS, we know that what is below the surface can be as crucial and complex as the structure it supports. Subsurface conditions can dramatically affect your project's design, budget and schedule. In order to reduce the risks associated with unknown subsurface conditions, ECS will develop a geotechnical evaluation program in support of your project. Our goal is to provide geotechnical design and construction recommendations to guide clients and the project team to successful project completion. ECS recommendations are based on subsurface investigations coupled with our engineering expertise and experience.

Our team approach to geotechnical engineering extends beyond simply providing engineering data and leaving our clients on their own to figure out the next steps. ECS makes project recommendations and educates our clients about the risks and benefits of the engineering recommendations we make. This enables our customers to make informed project decisions. As one of the ECS core service lines, our professional staff listens to clients and understands project requirements, so that we may assist in planning, designing and constructing a variety of projects ranging from single- and multi-family residential facilities, high-rise office buildings, educational facilities, industrial warehouses, dams and power plants. We have over 100 geotechnical engineers and geologists available for assignment in the Mid-Atlantic region and we have four accredited laboratories within 25 miles of Loudoun County that can perform tests in accordance with ASTM, AASHTO, and state procedures per the appropriate laboratory accreditation program.

Environmental Services

The environmental services group performs several types of environmental studies and assessments. ECS' experience with due diligence requirements and knowledge of federal, state and local regulations helps clients manage environmental conditions encountered on project sites.

- **Phase I Environmental Site Assessments (ESA)** – An initial environmental study that is performed to investigate the environmental history of a property. Users of Phase I ESAs generally are interested in obtaining liability protection by performing the proper due-diligence prior to acquisition. A Phase I ESA involves historical and regulatory records reviews, site reconnaissance and interviews in an effort to determine if environmental conditions exist that are a concern for

the property. In general, Phase I ESAs do not include physical sampling and analysis of potentially impacted media.

- **Phase II, Soil and Groundwater Exploration and Sampling** – An investigation that includes site specific sampling and analysis of soils, groundwater, air, building materials, etc. in an effort to identify the presence of environmental impacts. In general, the Scope of Work for a Phase II ESA is based upon findings of a Phase I ESA. However, they can be performed without the completion of the initial Phase I ESA generally in cases where a there is a known or suspected environmental condition. A Phase II investigation provides a report containing findings and recommendations for either a more detailed investigation or in some cases recommendations for remediation.
- **Phase III, Remedial Design and Feasibility Studies** – A study to determine the nature and extent of contamination and its impact on the site. Often times these studies include a detailed discussion of current or future (proposed) site use and the related risks (risk assessment). The reports identify preliminary alternatives for cost-effective cleanup alternatives, and include the development of engineering drawings and specifications for site cleanup.
- **Underground Storage Tank Services -** ECS provides investigation, removal and closure services related to Underground Storage Tanks (USTs). ECS personnel have performed thousands of UST removal and closure projects in accordance with Environmental Protection Agency (EPA), state and local regulations. When ECS encounters impacts as a result of UST, we work with our clients to evaluate practical solutions for remediation and corrective action to satisfy all of the stakeholders.
- **Wetland Delineation and Permitting** - ECS provides wetland services to assist our clients with practical approaches to wetland area management and/or mitigation. These services include delineation, jurisdictional determination, avoidance, on and off site mitigation among other things to afford our clients the ability to effectively manage issues associated with various wetland environments.

Credentials and Qualifications

Standard Parking Corporation (NASDAQ:STAN)

Standard Parking Corporation (NASDAQ: STAN) is the leading national provider of parking facility management, ground transportation and other ancillary services. Including Central Parking Corporation, our wholly-owned subsidiary, we have approximately 25,000 employees and manage more than 4,300 facilities with more than 2.2 million parking spaces in hundreds of cities across North America. The operations include parking-related and shuttle bus operations serving more than 75 airports. USA Parking System, a wholly-owned subsidiary of Central Parking, is one of the premier valet operators in the nation with more four and five diamond luxury properties, including hotels and resorts, than any other valet competitor.

SP Plus®

We market and offer our end-market specific services under our SP Plus® brand. The professionals dedicated to each of our SP Plus® markets and service lines possess subject matter expertise that enables them to meet the specific demands of their clients. Our roster of SP Plus® divisions includes:

Markets

SP Plus® Airport Services
SP Plus® Event Services
SP Plus® Gameday
SP Plus® Healthcare Services
SP Plus® Hotel Services
SP Plus® Municipal Services
SP Plus® Office Services
SP Plus® Residential Services
SP Plus® Retail Services
SP Plus® University Services

Services

SP Plus® Maintenance
SP Plus® Security Services
SP Plus® Transportation

Value-Added Services and Programs

Standard Parking applies innovation and creativity to set the industry standard in parking amenities and customer service programs, revenue control, financial reporting, expense containment, employee professionalism and pro-active management. We maximize facility profitability while at the same time make the parking experience a first-class, enjoyable one for the parking patrons.

Amenities and Customer Service

We stand out from the competition through the customer service and amenity programs we offer, which include:

- Books-To-Go® CD Lending Library—Monthly parkers borrow, free of charge, popular audio titles.
- Films-To-Go® DVD Lending Library—Monthly parkers borrow, free of charge, popular movies.
- SPare℠ Emergency Care Services—Flat-fee auto care services via toll-free number.
- SPokes℠ Bicycle Rental Program
- CarCare Services—Drop-off service for car repairs.
- Courtesy Umbrellas
- Complimentary Vehicle Assistance Services—Tire inflation, tire change, battery jump start, windshield cleaning.
- Customer Appreciation Day Promotions

Facility Aesthetics

We take an intense pride in the unsurpassed cleanliness of our parking facilities, which results from our adherence to rigorous housekeeping, inspection and maintenance standards. Our in-house sign production facility creates facility signage that contains clean, crisp and unambiguous visual instructions and pathway markers. We help customers navigate multi-level parking facilities with our internationally-recognized musical theme floor reminder system, which plays a different song on each parking level, consistent with a common theme selected for that facility.

Revenue Generation

From in-person sales calls to direct mail and web-based marketing programs – supported by promotional coupons, flyers and other promotional materials – we drive revenues into your facilities. We constantly survey rates at competing parking facilities so that we can create optimized pricing schedules. Our monthly parker management and billing system – MPM Plus™ – provides comprehensive enforcement of the parking-related provisions of multi-year commercial tenant leases.

Using Technology to Drive Profits

Our revenue boosters include our proprietary Pay Park & Go automated parking system, which converts underutilized locations into revenue generators with no on-site labor. Proprietary Click and Park® technology enables people to reserve and purchase parking online, in advance, both for sporting and special events as well as in a wide array of other commercial parking environments. T-Recs® system software automatically reconciles bank deposits and immediately notifies us of any discrepancy.

An automated "procure-to-pay" cycle – from product selection, requisitioning, approval and ordering to delivery, receipt and financial settlement – enables our procurement professionals to focus on purchasing strategies that directly benefit our clients. Our Internet-based workforce management system minimizes labor costs with automated labor scheduling and analysis. Time-

proven cash and revenue control procedures accurately identify actual daily transactions and sales and also protect and safeguard parking revenues.

Employee Quality

Through careful hiring and conscientious training, we field a team that mirrors and magnifies our clients' commitment to excellence. The award-winning training programs of Standard University[SM] prepare our employees to succeed, and our recognition and rewards programs motivate them to excel. We require all of our employees to be neatly uniformed and well-groomed at all times. Our hiring and pre-screening process helps us retain qualified employees for the long-term.

Financial Reporting and Controls

Our proprietary, online Client View[SM] system offers clients the flexibility and convenience to access and download their monthly financials and detailed back-up reports. As a public company subject to the Securities Exchange Act of 1934 and the Sarbanes-Oxley Act, we adhere to rigorous accounting, internal control and reporting standards that don't apply to non-public companies. Every year since going public in 2004, our internal controls over financial reporting have been found to be effective and without material weakness, a conclusion supported by our independent auditor's unqualified opinion.

Sustainability

Standard Parking's mission is to maximize client value through excellence in management services and the application of creativity and innovation, integrated with a commitment to being a responsible corporate citizen. Given our commitment to green initiatives, our clients can be confident that the parking experience we provide will be aligned with a clients' philosophy of acting in our customers' – and our planet's – best interests.

Risk Management

An in-house Risk Management Department exclusively focuses on comprehensive risk protection, safety and loss control inspections and training, and claims management. Our insurance provides liberal protection with a $100 million casualty umbrella limit. Our casualty carriers are rated A.M. Best A+ 15.

Superior People, Superior Performance

Standard Parking, with a premier line of products, technologies and services, offers clients an approach to parking facility management that not only make the parking experience more enjoyable, but also convey a sense of the client's sensitivity to and appreciation for the needs of its parking customers. In doing so, we believe our unique programs serve to enhance the value of the parking properties themselves.

1. QUALIFICATIONS AND EXPERIENCE

A. FIRM EXPERIENCE

COMPANY PROFILE

Walker Parking Consultants is a global consulting and design firm providing innovative solutions for a wide range of parking and transportation issues. Founded in 1965, the firm has over 220 employees and is the worldwide leader in the parking field offering a full range of parking consulting, design, engineering and restoration services.

Walker is focused on delivering the best project for the clients by listening to their concerns, researching and developing industry leading standards for their benefit and providing quality and implementable solutions to their problems. We do it right the first time! As a testament to our abilities, 90% of our projects are from repeat clients.

Serving a broad spectrum of markets including healthcare, education, government, aviation, residential, retail and commercial developments, entertainment, hospitality and athletics allows our staff to collaborate with a wide array of clients in order to develop best practices for their specific parking and traffic issues and help unlock the potential of their projects.

Walker prides itself in the ability to self perform with a full complement of experienced personnel including planners, economists, sociologists, architects, structural, mechanical, electrical engineers, graphics designers, operational and management consultants, material specialists, program and project managers.

What truly differentiates Walker from other firms? It's our philosophy of staff empowerment and their ability to rapidly diagnose a problem and arrive at an appropriate solution without delay. It's the firm's singular focus on parking and the desire to continually improve in all aspects of our work. It's our dedication to developing designs that are LEED complimentary through the use of recycled or locally produced materials, energy efficient lighting systems, photovoltaic panels and access controls that minimize vehicular queuing and thereby reduce carbon emissions. It's the fact that we monitor construction change orders and on Walker designed facilities they are 75% below industry average.

The simple fact is that by retaining Walker to be your consultant, designer or engineer you can be assured you will receive great value, a substantial return on investment and the peace of mind knowing you've retained the very best.

WHY WALKER?

Full Service A/E Firm

Walker provides parking studies, traffic analyses along with architectural, structural, mechanical, electrical, plumbing, and restoration design services for parking structures. As a "one stop" design firm, we understand how all the components fit together for a successful parking project. Coordination between the design disciplines is greatly simplified. This has proven to be a great advantage over Walker's competition as the number of construction change orders and RFI's is greatly reduced due to the simplified and more direct coordination.

Local Experience

Located in Wayne, Pennsylvania, Walker has been serving the Mid Atlantic Region since 1982.

Depth of Bench

Over 220 people in fourteen offices across the country provide professional services on parking related projects. Having been in business for nearly fifty years and provided professional services for over 12,000 parking projects, we have the staff and experience that can address any design issue or construction concern.

Industry Leaders

As the nation's largest parking consultant, our firm is the leader in the industry and develops standards used by the parking industry. Our staff has recognized experts in every facet of the parking consulting services such as functional design, lighting, security, structural design, restoration etc. Senior staff author articles, make presentations and develop standards, for example, we wrote the section on parking geometrics for "Architectural Graphic Standards" 10th edition.

Experienced Project Management

The success of your project will depend upon a wide variety of factors. No factor is more important than the people that will work on the project. The team assembled for your project is carefully selected to provide the specialized consulting, architectural and engineering services needed to properly evaluate your parking structure, design long lasting solutions, and properly manage the project. Walker's Project Managers bring their technical expertise, their ability to communicate, their ability to listen, and their ability to manage to your project.

Level of Service

Walker developed the Level of Service (LOS) concept model for parking structure design. It is very similar to how our traffic engineers identify the capacity of streets and intersections, LOS A is smooth and free flowing, LOS F is gridlock. We have developed parking geometrics, ramp slopes, walking distance, light level, ceiling clearance, traffic queues at entry/exit etc. design criteria based on LOS A to LOS D. LOS A is used for high turnover parking, or where comfort and user friendliness is required. LOS D is used for parking that is constrained by the site, budget or other conditions that warrant the minimally acceptable design solution. LOS B & C are intermediate levels of service. This is a very helpful tool to communicate with owners, code officials and the design team to understand the implications of design decisions and to understand how the team is to design the project.

We Wrote the Book

Five members of our staff authored the book "Parking Structures: Planning, Design, Construction, Maintenance and Repair" published by Kluwer Academic Publishers, now in its 3rd edition. Many industry experts consider this book the single best source of information on parking facilities.

WMATA & VRE EXPERIENCE

NAME	CITY	STATE	YEAR
College Park Metro Station	College Park	MD	2007
Dunn-Loring/Merrifield Station	Vienna	VA	
Forest Glen Metro Site	Bethesda	MD	2005
Franconia Springfield Metro Expansion	Springfield	VA	2002
Franconia Springfield Metro Station	Springfield	VA	2004
Grosvenor Metro Station Garage	Bethesda	MD	2000
Huntington Metro Station	Alexandria	VA	2001
New Carrollton Metro Station	New Carrollton	MD	2001
Rhode Island Avenue Metro	Washington	DC	2007
Rhode Island Avenue Station	Washington DC	DC	2010
Rhode Island Metro	Washington	DC	2012
Rhode Island Metro Station	Washington	DC	2005
Shady Grove Metro Station	Rockville	MD	1996
Shady Grove Metro Station Parking Structure	Rockville	MD	2003
Twinbrook Commons	Rockville	MD	2009
Vienna Metro Commuter Rail Station	Fairfax	VA	2002
Wiehle Avenue Metro Station	Fairfax County	VA	2012
WMATA Lighting Owner's Rep Services	Washington	DC	2012
WMATA Rhode Island Avenue Metro Garage	Washington	DC	2011
WMATA West Falls Church	Fairfax County	VA	2003
Burke Center Station – VRE	Burke	VA	2008
Broad Run Station – VRE	Prince William County	VA	2011

WHAT WE OFFER TO OUR CLIENTS…

PLANNING

Supply/Demand
Parking Alternatives
Site Analysis
Traffic Engineering
Parking and Transportation Master Planning
Wayfinding/Pedestrian Travel
Airport Landside Planning
Shared Parking Analysis

FINANCIAL

Preliminary Market Analysis
Preliminary Financial Analysis
Market and Financial Analysis
Financing Alternatives

OPERATIONS

Parking Operations
- Revenue Control Systems Analysis
- Facility Management
- Personnel
- Customer Relations
- Revenue/Expense Overview
- Management Oversight Plan
- Standard Operating Procedures Manual

Compliance Audits
Due Diligence Studies
Operator Selection and Negotiations
New Business Assistance
Organization Analysis

SYSTEMS

Lighting
Security
Signage
Functional Design
Parking Access & Revenue Control Equipment
ADA
Access and Circulation Design
Durability Engineering

DESIGN

Prime Design
Architecture
Structural Engineering
Electrical Engineering
Mechanical Engineering

RESTORATION

Structural Investigations
Seismic Retrofit
Condition Appraisals
Due Diligence
Construction Documents
Multi-Ramp Program
Capital Improvement Plan
Corrosion Protection
Upgrades

ALWAYS STAYING AHEAD OF THE CURVE

ANN ARBOR
734.663.1070

BOSTON
617.350.5040

CHARLOTTE
704.887.4960

CHICAGO
312.633.4260

DENVER
303.694.6622

ELGIN (HQ)
847.697.2640

HOUSTON
281.280.0068

INDIANAPOLIS
317.842.6890

KALAMAZOO
269.381.6080

LOS ANGELES
213.488.4911

MINNEAPOLIS
952.595.9116

NEW YORK
212.288.2501

PHILADELPHIA
610.995.0260

SAN FRANCISCO
415.644.0630

TAMPA
813.888.5800

www.walkerparking.com
800.860.1579
ask.us@walkerparking.com

C. ORGANIZATIONAL SUPPORT AND EXPERIENCE

DESCRIPTION OF FIRM

Walker Parking Consultants is a Michigan Corporation founded in 1965 in Kalamazoo, Michigan. We have grown in an international multi-disciplined parking consulting firm with full planning, consulting, and engineering, capabilities. With 14 offices in the United States, Walker is recognized as the nation's leading parking consultant, specializing in parking planning, new structure design, and the restoration of multi0level parking structures. Our clients include federal, regional, state, county, and local government agencies, colleges and universities, healthcare institutions, developers, airports, architects, retailers, and others.

YEARS IN BUSINESS AND UNDER CURRENT MANAGEMENT

Walker was organized in 1965 in Kalamazoo, Michigan. Our firm was known as Carl Walker & Associates, Inc. from 1965-1982. Walker Parking Consultants was established in 1982 for a total to present, 30 years.

D. WALKER CONTACT INFORMATION

Our Philadelphia office will be the office of record for your project.

Walker Parking Consultants
565 East Swedesford Road, Suite 300
Wayne, PA 19087
www.walkerparking.com

610.995.0260
610.995.0261 (Fax)

PRINCIPAL-IN-CHARGE/AUTHORIZED TO COMMIT

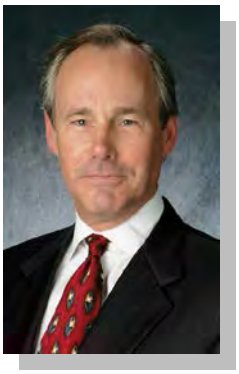
Mr. William C. Reiter, P.E.
Managing Principal/ Executive Vice President
Walker Parking Consultants
Bill.Reiter@walkerparking.com

PROJECT MANAGER

Mr. Damian J. Larkin, P.E., LEED AP
Project Manager
Walker Parking Consultants
Damian.Larkin@walkerparking.com

Appendix
Resumes

T. Christopher Roth
President, Development
& Investment Group
Eastern United States



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croth@trammellcrow.com

DEVELOPMENTS

- **Market Square**
  1.3 million sf mixed-use office building and 210 condominiums
- **The Columbia Residences**
  225 luxury condominiums, 22,000 sf of retail
- **1625 Eye Street, NW**
  400,000 sf Class A office building
- **Patriots Plaza**
  985,376 sf Class A office buildings
- **Sentinel Square**
  412,661 sf Class A office building
- **The Gateway Grand**
  488,000 sf - 196 luxury condominiums, 6-story garage
- **Shirlington Village**
  159 luxury condominiums

BIOGRAPHY

As President of Trammell Crow Company's Eastern U.S. Group, Mr. Roth oversees all Development & Investment business in the Eastern United States and the Greater Toronto Area in Canada.

Mr. Roth provides leadership and supervision to the TCC team in the strategic planning, financing, development and operations of commercial properties. Utilizing his extensive experience and key relationships he assists the TCC teams working with their clients to evaluate issues, identify solutions and develop action plans to maximize the value of the client's resources.

Mr. Roth began his career with Trammell Crow Company in 1979. He was a partner in the Houston office prior to his relocation to Washington, DC in 1984 to manage the Washington office building division of TCC. In 2002, he was named President of TCC's Development and Investment Group and assumed responsibility for development operations in the Eastern United States.

Throughout his tenure at TCC, Mr. Roth has been directly responsible for the development, project management, and leasing of over 7,000,000 square feet of office space, including the $240 million Market Square, a mixed use project in Washington, DC, and the successful joint venture with the American Psychological Association at 750 First Street, NE.

EXPERIENCE

Trammell Crow Company – Washington, DC – 1984 to Present
President, Eastern Operations 2002-Present
Regional President, 1996 to 2002
Managing Director 1991-1996
Divisional Partner, 1984-1991

Trammell Crow Company – Houston, TX – 1979 to 1984
Partner, 1982 to 1984
Leasing Agent, 1979 to 1982

EDUCATION & CREDENTIALS

Darden Graduate School, University of Virginia, MBA, 1976
Wharton School of Finance, University of Pennsylvania, BS, 1974
Washington, DC Licensed Real Estate Salesperson

PROFESSIONAL AFFILIATIONS/COMMUNITY INVOLVEMENT

Member, TCC Executive Committee
Past Director, The Washington Center
Past Director, District of Columbia Building Industry Association
Urban Land Institute
Federal City Council
Greater Washington Board of Trade

B. Campbell Smith
Principal

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F: (202) 337-7364
csmith6@trammellcrow.com

DEVELOPMENTS

- **Old Town Village Fairfax**
  192,000 sf office, retail and public-use development
- **Dulles Station**
  185,000 sf Class A office building
- **Milestone Business Park**
  322,876 sf Class A office buildings
- **1219 First Street**
  270 unit luxury apartments
- **Avion Business Park**
  180 acre office park
- **Century Technology Campus**
  2.4 million sf mixed-use campus

BIOGRAPHY

Mr. Smith is responsible for sourcing new deals and managing projects through the entire development process, including initial concept planning, design, financing, construction, leasing, and disposition. Mr. Smith has experience across a range of product types including office, multi-family and retail.

Mr. Smith's strong background in finance and acquisitions, combined with his attention to detail and disciplined approach to project management, helps ensure that the client's interests are protected throughout the development process. Over the last ten years, Mr. Smith has managed the development of several high profile, successful projects including: Dulles Station, a 540,000 sf multi-phase office project in Herndon, VA; Milestone Business Park, a 320,000 sf office park in Germantown, MD; and Old Town Village Fairfax, a 200,000 sf mixed-use town center in Fairfax, VA.

Mr. Smith currently manages development projects totaling over 3 million sf, including: 1219 First Street, a 270 unit luxury apartment project in Alexandria, VA; Century Technology Campus, a 2.4 million sf mixed-use project in Germantown, MD; and Avion Business Park, a 180 acre office park in Chantilly, VA.

EXPERIENCE

Trammell Crow Company – Washington, DC – 2005 to Present
Principal, 2010-Present
Vice President, 2006 to 2009
Development Manager, 2005 to 2006

Trammell Crow Company – Corporate Development – 2002 to 2004
Senior Associate

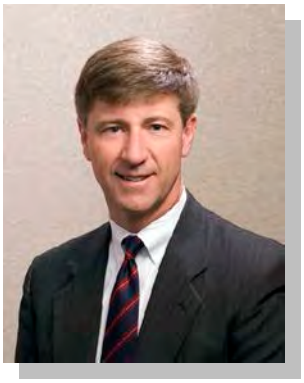
EDUCATION & CREDENTIALS

Graduate School of Business, Stanford University, MBA, 2002
Duke University, Bachelor of Arts summa cum laude, Economics and History, 1995

PROFESSIONAL AFFILIATIONS/COMMUNITY INVOLVEMENT

Member, NAIOP, Northern Virginia Chapter
Member, NAIOP, Maryland/DC Chapter
Member, Urban Land Institute
Member, The Real Estate Group

Raymond Goins
Senior Development Manager



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F: (202) 337-7364
rgoins@trammellcrow.com

DEVELOPMENTS

- **Virginia Commonwealth University**
  453,000 sf School of Engineering West & East Halls, School of Business Snead Hall, and Health & Life Science Engineering Building
- **Arboretum**
  322,718 sf suburban office building
- **Janelia Farm**
  210,000 sf campus development
- **Avion Business Park**
  180 acre office park
- **Dulles Tech I & II**
  118,000 sf industrial/data centers
- **Giesecke & Devrient**
  134,000 sf office build-to-suit manufacturing facility

BIOGRAPHY

Mr. Goins has over 26 years of real estate development experience with Trammell Crow Company. Mr. Goins oversees all aspects of major development assignments to include managing, coordinating and administering projects from initial concept planning and due diligence to construction, leasing and disposition, and has been responsible for delivering and managing over 5 million sf of construction and 500 acres of land development. Strong communication and reporting skills ensure Mr. Goins' ability to facilitate a high level of customer interaction.

In his development and construction management roles, he has successfully delivered several build-to-suit projects including: Virginia Commonwealth University, a 276,000 sf Engineering and Business School in Richmond, Virginia; Janelia Farm, a 220,000 sf office complex for Baan, USA in Loudoun County, Virginia (n/k/a the Howard Hughes Medical Institute Campus); Hook Drugs, a 500,000 sf distribution facility in Indianapolis, Indiana; Avion, a 102,000 sf headquarters for GTSI in Chantilly, Virginia; Loudoun Tech Center, a 135,000 sf US headquarters for Giesecke & Devrient in Sterling, Virginia.

Mr. Goins has successfully delivered several full-building user projects including: The Arboretum, a 322,718 sf office complex for BAE Systems in Reston, Virginia; Sunset Hills I & II, a 140,000 sf, office retrofit and SCIF for Lockheed Martin in Reston, Virginia; High Ridge, a 217,585 sf office retrofit and data center for BTG in Fairfax, Virginia; and Dulles International Park, a 120,000 sf data center for Qwest Communications in Loudoun County, Virginia.

Mr. Goins delivered the initial design and budgets for an $80 million renovation of the Virginia School for the Deaf and the Blind in Staunton, VA.

EXPERIENCE

Trammell Crow Company – MidAtlantic – 1986 to Present
Senior Development Manager, 2002 to Present
Senior Vice President 1998-2002
Vice President 1994-1998
Construction Manager, 1986-1994

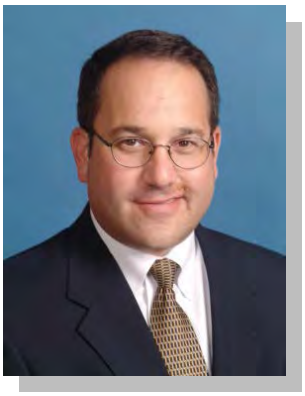
EDUCATION & CREDENTIALS

The Citadel, Bachelor of Science, Civil Engineering, 1986

PROFESSIONAL AFFILIATIONS/COMMUNITY INVOLVEMENT

CCIM Candidate

Spencer Brott
Managing Director



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sbrott@trammellcrow.com

DEVELOPMENTS

- **The Gateway Grand**
  488,000 sf - 196 luxury condominiums, 6-story garage
- **The Columbia Residences**
  225 luxury condominiums, 22,000 sf of retail
- **The Portrait, Greene and Calvary Baptist Church Buildings**
  195,000 sf urban office and retail, 60,500 sf restoration development
- **Market Square**
  1.3 million sf mixed-use office building and 210 condominiums
- **Shirlington Village**
  159 luxury condominiums
- **Avion Lakeside I**
  175,000 sf office building

BIOGRAPHY

Mr. Brott supervises the selection and coordination of the design team and general contractor, contract negotiations, approval and permit process, construction activities and project closeout of Trammell Crow Company's construction operations. He oversees a staff of construction professionals throughout the MidAtlantic region.

He is responsible for monitoring the adherence of procedures and policies regarding internal controls, negotiating and managing the preparation of accurate and timely contracts between TCC and clients and the analysis and interpretation of complex documents.

Mr. Brott's experience in managing the design and building of over 9 million square feet of base building and tenant improvements is vital in his business development role. On a corporate level, Mr. Brott often serves as a consultant to other Trammell Crow Company offices throughout the US for their construction activities.

EXPERIENCE

Trammell Crow Company – Washington, DC – 1988 to Present
Managing Director, 2011 to Present
Principal, 2002 to 2011
Senior Vice President, 1997 to 2002
Vice President, 1993 to 1997
Construction Manager, 1988 to 1993

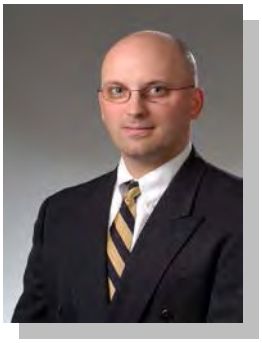
EDUCATION & CREDENTIALS

University of Maryland at College Park
Graduate Study Civil Engineering, 1985 (1 year of study)
Syracuse University, BS, Management, 1984

PROFESSIONAL AFFILIATIONS/COMMUNITY INVOLVEMENT

Member, Society of American Military Engineers
Team Leader, TCC Sustainable Development Task Force
The Partnership for Achieving Construction Excellence (PACE)

Matthew D. Maio, AIA
Senior Vice President



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mmaio@trammellcrow.com

BIOGRAPHY

Mr. Maio provides construction expertise in the planning, programming, design and execution of client facilities to include site improvements, base building construction, occupied renovations and new tenant improvements. Mr. Maio is responsible for managing Trammell Crow Company developments in Richmond and the Virginia Tidewater Region. He manages and leads the construction management staff in the market and ensures thorough staff understanding and implementation of operations, policies and procedures.

Additional duties include managing design consultants, general contractors, developing project budgets, schedules and design criteria to meet project requirements. Mr. Maio is experienced in all phases of construction management. Mr. Maio carefully monitors projects to ensure they are completed on schedule and within budget.

DEVELOPMENTS

- **Milestone Business Park, Bldg. V Digital Receiver Technology BTS**
  162,285 sf Class A office with 459 space above-grade garage
- **Riverside Heath/Hampton Surgery Center**
  85,000 sf medical office building
- **Forest Medical Plaza**
  95,000 sf medical office building
- **Capitol Square-Finance Building**
  107,000 sf office building renovation/restoration/expansion
- **The Portrait, Greene and Calvary Baptist Church Buildings**
  195,000 sf urban office and retail, 60,500 sf restoration with 125 below grade parking spaces
- **Ballston Gateway**
  151,000 sf office building with 278 below grade parking spaces
- **Netway at Loudon Tech Center**
  131,893 sf office building

EXPERIENCE

Trammell Crow Company – MidAtlantic – 1998 to Present
Senior Vice President, 2007 to Present
Vice President, 2001 to 2007
Construction Manager, 1998-2001

The Clark Construction Group, Inc. – Bethesda, MD – 1995 to 1998
Project Engineer, 1997 to 1998
Estimator, 1995 to 1997

Karl E. Kohler Associates – Vienna, VA –1991 to 1995
Architect & Project Manager

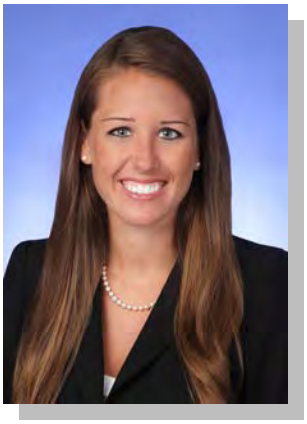
EDUCATION & CREDENTIALS

Virginia Polytechnic Institute and State University, Bachelor of Architecture
Virginia Registered Architect

PROFESSIONAL AFFILIATIONS/COMMUNITY INVOLVEMENT

Member of the American Institute of Architects
Third Presbyterian Church Trustee
Volunteer, Churchhill Activities and Tutoring

Megan Sanders
Development Associate



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msanders@trammellcrow.com

DEVELOPMENTS

- **Fort Meade Technology Center**
  1.7 million sf of Class A office buildings
- **Franklin Center**
  200,573 Class A office building
- **Aviation Business Park**
  Three Class-A office buildings, 120,957 sf business park
- **Montpellier III**
  243,000 sf Class A office building

BIOGRAPHY

Ms. Sanders is a Development Associate with the MidAtlantic Development & Investment Group of Trammell Crow Company. With over six years of real estate experience, her responsibilities include development management, feasibility and market analysis, financial analysis, design, entitlement, construction, leasing and closeout of Trammell Crow Company development projects.

EXPERIENCE

Trammell Crow Company – Washington, DC – 2005 to Present
Development Associate

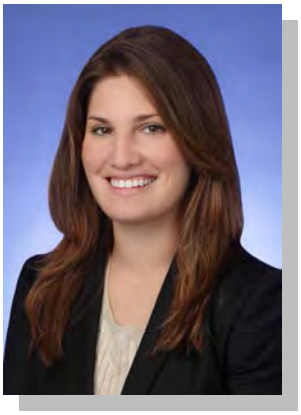
EDUCATION & CREDENTIALS

University of Maryland, Bachelor of Arts, High Honors

PROFESSIONAL AFFILIATIONS/COMMUNITY INVOLVEMENT

LEED® Accredited Professional
CCIM Candidate
Member, Maryland NAIOP
Member, MD/DC NAIOP
Member, Urban Land Institute
Member, BWI Partnership
Member, Ft. Meade Alliance

Jessica Wolford
Construction Manager



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DEVELOPMENTS

- **The Shops at Dakota Crossing**
  428,400 sf shopping center
- **Sentinel Square II**
  278,817 sf high security office building with 4-level below-grade parking garage
- **Patriots Plaza II**
  Tenant Improvements for FBI
  180,000 sf

BIOGRAPHY

Jessica Wolford serves as a Construction Manager for Trammell Crow Company, who manages the construction of new buildings and tenant improvements.

Wolford joined TCC in 2011 and previously worked in various construction positions with the Clark Construction Group. She has over eight years of practical experience in process improvement, project management, change order management, field management, document management and requisition management. Her responsibilities include overseeing the architects and engineers; bidding and negotiating contracts to General Contractors; coordinating the submission and approval for building permits; supervising the project budget, schedule and quality of work; advising landlord and client of impeding concerns; processing change orders, invoicing and close-outs.

She is a team leader in industry technology and software such as LASTISTA, AutoCAD, BIM, and Primavera/Suretrak.

EXPERIENCE

Trammell Crow Company – Washington, DC – 2011 to Present
Construction Manager

Clark Construction Group – Bethesda, MD – 2004 to 2011
Assistant Superintendent/Project Manager, 2010-2011
Assistant Superintendent, 2008-2010
Project Engineer, 2006 to 2008
Office Engineer Intern, Fall 2004

EDUCATION & CREDENTIALS

Pennsylvania State University, BS, Civil Engineering-Structural Design, 2005

PROFESSIONAL AFFILIATIONS/COMMUNITY INVOLVEMENT

Member, DCBIA
Member, Washington Building Congress
Member, USGBC National Capital Regional Chapter
Member, ABC

Heather Seich
Marketing Specialist

BIOGRAPHY

Ms. Seich is responsible for working with our corporate marketing team in designing, creating, and delivering marketing programs to support the growth and expansion of Trammell Crow Company services. She oversees the consistency of internal and external; marketing, including the submissions of awards and trade show events.

She coordinates proposals and investment packages, including layout and editing. She specializes in the production and assembling of complex government proposals.

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hseich@trammellcrow.com

Projects

- **Sentinel Square I & II**
  700,000 rsf, 3 level garage, completed in April 2010 & November 2013, LEED® Gold
- **Patriots Plaza I-III**
  985,000 rsf, 5 level garage, completed in August 2007 & October 2009, LEED® Silver EB&OM (I) & LEED® Gold (II & III)
- **777 Sixth Street**
  180,00 rsf, 11,000 sf retail, completed in July 2007
- **Portrait Building**
  195,000 rsf, 5 level garage, completed in June 2005,

EXPERIENCE

Trammell Crow Company – Washington, DC – 2003 to Present
Marketing Specialist, 2011-Present
Marketing Coordinator, 2007-2011
Development Assistant, 2003-2007

Mode Weekly – Harrisburg, PA – 2002-2003
Advertising Coordinator, 2002-2003
Freelance, 2001

Quality Builders Warranty Corporation – Harrisburg, PA – 2001-2002
Public Relations Executive

Clear Channel Communications – Harrisburg, PA – 2000 to 2001
WHP/WLYH-TV, Special Projects Assistant, 2000-2001
Clear Channel Radio, Road Crew, 2000
WHP/WLYH-TV, Intern, 2000

EDUCATION & CREDENTIALS

Shippensburg University, BS, Communications/Journalism, 2000
Dale Carnegie Training, Sales Advantage Course, 2002
Notary Public, District of Columbia

PROFESSIONAL AFFILIATIONS/COMMUNITY INVOLVEMENT

Member, Northern Virginia NAIOP
Member, CREW DC
Member, CREW DC Special Events Committee
Team Manager, Washington Area Women's Soccer League Division II Team

Bethany A. Stewart
Construction Management Assistant

BIOGRAPHY

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bastewart@trammellcrow.com

PROJECTS

- **Patriots Plaza I**
  321,498 sf
- **Patriots Plaza II**
  380,089 sf
- **Milestone IV**
  160,000 sf
- **Milestone V**
  171,000 sf
- **Sentinel Square I**
  412,661 sf
- **Sentinel Square II**
  278,817 sf
- **1219 First Street**
  224,025 sf
- **The Shops at Dakota Crossing**
  430,000 sf
- **400 6th Street**
  341,963 sf

Ms. Stewart provides administrative and accounting support to the construction management team at Trammell Crow Company for all ongoing development projects and pursuits.

Ms. Stewart maintains project management files and coordinates accounting and draw processes of 2.7 million SF for nine development projects totaling $922 million in value. Ms. Stewart assists with contract preparation, correspondence and periodic reporting. On a monthly basis she travels to inspect condominium units at the Gateway Grand and prepares monthly reports for maintenance required.

Ms. Stewart is proficient Microsoft Excel, Outlook, Work, Project and PowerPoint.

EXPERIENCE

Trammell Crow Company – Washington, DC – 2011 to Present
Construction Management Assistant

EDUCATION & CREDENTIALS

Saint Mary's College, Notre Dame IN, 2012
B.A. in Communication Studies
Minor in Sociology and Women's Studies

PROFESSIONAL RESUMES

Sean E. Ekiert, CFA *o: 804.649.3932*
Managing Director, BB&T Capital Markets *c: 804.543.9472*
Richmond, Virginia *sekiert@bbandtcm.com*

During his 15-year career Mr. Ekiert has served a broad spectrum of municipal, non-profit and private clients in the mid-Atlantic region in the capacity of Underwriter, Investment Banker or Financial Advisor, This practice has included executing complex financial strategies for some of the most sophisticated issuers in the region. Mr. Ekiert graduated Cum Laude from the University of Richmond with a Bachelor of Science in Business Administration and is FINRA registered as a Municipal Principal, General Securities Representative and Investment Advisor, and has earned the Chartered Financial Analyst designation from the CFA Institute.

Some of the clients Mr. Ekiert has served, many on issues related to transportation, include the following:

- City of Chesapeake Transportation System
- Chesapeake Bay Bridge & Tunnel District
- Metropolitan Washington Airports Authority
- Maryland Transportation Authority
- Richmond Metropolitan Authority
- Virginia Resources Authority
- City of Norfolk
- Loudoun County
- City of Richmond
- Henrico County
- City of Winston-Salem
- Virginia Public Building Authority

Jay Conrad *o: 804.649.3935*
Senior Vice President, BB&T Capital Markets *c: 804.334.3843*
Richmond, Virginia *jconrad@bbandtcm.com*

All of Mr. Conrad's 25 years of experience have been spent assisting Virginia municipal clients in the structuring and distribution of Virginia tax-exempt and taxable securities. This experience includes some of the largest issuers in the Commonwealth as well as some of the smallest. Mr. Conrad also serves as the Financial Advisor to Henrico County and the Virginia Public School Authority, and in this capacity since 2008 has supervised 27 Virginia bond transactions totaling over $2.1 billion.

Mr. Conrad includes the following among his many clients served:

- City of Winchester
- Hanover County
- City of Manassas
- City or Roanoke
- City of Newport News
- Virginia Housing Development Authority
- Isle of Wight County
- Wise County
- Henrico County
- Virginia Tech

BILL MAGRUDER | Senior Vice President

QUALIFICATIONS

- B.S., Business Administration, Susquehanna University
- President, National Association of Industrial and Office Properties (NAIOP), 2009 - 2012
- Active Board Member, Board of Trade
- OSHA 10-Hour Trained
- 44 Years of Construction Experience
- 37 Years with Clark Construction

Selected Project Experience

SENTINEL SQUARE I - 90 K STREET, NE | Washington, DC
Clark provided preconstruction and construction phase services for this new 12-story, 542,000 GSF, Class A office building with three levels of below-grade parking accommodating 317 vehicles. The façade is a combination of pre-cast concrete and glazing systems, with the glazing system primarily comprised of ribbon windows with feature area elements of vertical curtain wall. Inside, a two-story lobby showcases Jerusalem Gold marble from Israel, louvered millwork panels, and metal panel column covers. A shared courtyard and landscaping, including granite tree planters, flower beds, decorative metal railings, and an irrigation system, unifies this building with the three additional buildings being developed. The project is LEED Gold certified.

SENTINEL SQUARE II - 1050 1ST STREET, NE | Washington, DC
Clark is providing general contracting services for the construction of this 412,000 GSF, 12-level office building with four levels of below-grade parking. The cast-in-place concrete structure will feature a blast-resistant precast façade with ribbon windows and the facility's lobby will include louvered millwork and limestone from Jerusalem. Sentinel Square II is designed to achieve LEED certification.

CALVARY BAPTIST CHURCH- PORTRAIT AND GREENE BUILDINGS | Washington, DC
Clark provided preconstruction and construction phase services for the new construction/renovation assignment totaling 227,000 GSF and encompassing multiple owners and three unique components, including: (1) the Portrait Building; an eight-story, 135,000 SF Class A office building with four levels of underground parking, as well as 20,000 SF of ground-level retail space, and the restoration of the church's adjacent Woodward Building, completely renovated with a new stage, new mechanical system, library, classrooms and a modern kitchen; (2) the Greene Building; a 32,000 GSF office building that includes an existing façade from the original building, dating back to 1929. The façade is retained in place and tied into the new concrete supporting structure; and (3) the restoration of the historic Sanctuary Building (circa. 1866), including the installation of a detailed replica of the 60-foot, 5½-ton steeple.

AVION LAKESIDE | Chantilly, Virginia
Located in Avion Business Park, a 188-acre business community conveniently located in the center of the high-tech Dulles Corridor, this project includes a four-story, 172,000 SF office building featuring a structural steel frame with an exterior of chestnut brown brick with pre-cast accents, topped by a standing seam copper roof. Grey reflective glass windows provide abundant sunlight and views of the complex's six-acre lake, as well as nearby mountains and forests. A handsome two-story lobby features high-end finishes, including

marble flooring with granite inlay, wood paneling and glass. The project also included road infrastructure, extensive site improvements and landscaping. In addition to numerous natural amenities, the park features a full-service fitness center complimented by nearly three miles of jogging trails with incorporated fitness stations. An on-site cafeteria serves both breakfast and lunch.

COMMERCE EXECUTIVE VI | Reston, Virginia
Construction of a six-story, 146,000 SF speculative office building featuring one below-grade level, as well as a separate 150,000 SF parking garage with 448 spaces. In addition to the office space, the building features a two-story stone and wood panel clad lobby completed by Clark, as well as ground-floor retail space. The building is a concrete structure clad with granite aggregate precast matching the neighboring buildings. A five-story curtain wall faces a main thoroughfare, with the remaining elevations consisting of alternating glass and precast bands with a ribbon window system. The parking garage is made of poured-in-place concrete with pre-cast spandrels matching the office building.

PATUXENT CROSSING III | Washington, DC
This three story, 100,000 SF office building features a brick skin with intermittent cast stone and accent brick. Punch and curtain wall windows also highlight the exterior. The building has a two story lobby featuring a barrel-vaulted ceiling with a glass and stainless steel hand railing on the mezzanine level overlooking the first floor. The lobby also contains stone flooring, interior glass, stone wainscot and a coffered ceiling with light troffers. The project was successfully completed on a fast-track, nine month schedule.

DULLES TOWN CENTER | Dulles, Virginia
A regional shopping mall with over 1.4 million GSF with four major anchor stores (Hecht's, Sears, J.C. Penny's, Lord & Taylor), four mini anchors, a multiplex theater, an entertainment center, numerous quality restaurants and food court. The mall's facade is oversized brick wainscot with a beige exterior insulated finish system and punch windows. Inside, a mixture of ceramic tile and granite is featured, with ornamental railings and light fixtures throughout. Multiple skylights were incorporated into the design to allow natural light to flood the building.

Additional Project Experience

- Fairlakes One Office Building
- 400 6th Street, SW
- McMillan Reservoir
- Mazza Gallerie

MIKE ALTO | Vice President, Officer-In-Charge

QUALIFICATIONS

- B.S., Civil Engineering, Virginia Polytechnic Institute and State University
- OSHA 10-Hour Trained
- 27 Years of Construction Experience
- 27 Years with Clark Construction

Selected Project Experience

SENTINEL SQUARE I - 90 K STREET, NE | Washington, DC
Clark provided preconstruction and construction phase services for this new 12-story, 542,000 GSF, Class A office building with three levels of below-grade parking accommodating 317 vehicles. The façade is a combination of pre-cast concrete and glazing systems, with the glazing system primarily comprised of ribbon windows with feature area elements of vertical curtain wall. Inside, a two-story lobby showcases Jerusalem Gold marble from Israel, louvered millwork panels, and metal panel column covers. A shared courtyard and landscaping, including granite tree planters, flower beds, decorative metal railings, and an irrigation system, unifies this building with the three additional buildings being developed. The project is LEED Gold certified.

GEORGE MASON UNIVERSITY - LONG AND KIMMY NGUYEN ENGINEERING BUILDING | Fairfax, Virginia
Clark provided design-build services for this 180,000 GSF, five-story structure located on George Mason's Fairfax campus. The new engineering, academics and research building includes classrooms, office space, a lecture hall, server rooms, dry labs, and a four-story atrium (80,000 SF of academic space and 80,000 SF of research space). An additional 20,000 SF of private space creates a collaborative research environment between the University and the private sector. Clark was also responsible for infrastructure upgrades to the Central Utility Plant in support of the new construction, which increased chilled water capacity by 1,400 tons with provisions for an additional 2,800 tons. The project achieved LEED Silver certification and was delivered three months ahead of schedule.

MARY ELLEN HENDERSON MIDDLE SCHOOL | Falls Church, Virginia
As part of a Public-Private Partnership team selected to develop, design, construct and finance the first such project awarded in Virginia to build an educational facility, Clark delivered this 136,000 GSF facility featuring technologically advanced, flexible-learning environments. In addition to classrooms, a cafeteria/auditorium, gymnasium, art lab, library, science and computer rooms and media production area are included in the program.

CATO INSTITUTE HEADQUARTERS EXPANSION AND RENOVATION | Chantilly, Virginia
Clark provided preconstruction and construction phase services for the renovation and expansion of the Cato Institute's existing six-story headquarters building, which remained occupied and fully operational. The project added 35,000 SF of office space by expanding the south end of the building and adding a new seventh floor and roof level. The scope of work also created an additional 6,000 SF of parking, and encompasses the fit out of the new addition, as well as the phased renovation of approximately 75,000 SF of the existing Cato building office space, which comprises office and administrative areas, auditoriums, a policy center, and libraries.

MISSION RIDGE AT WESTFIELDS | Chantilly, Virginia

Clark provided general contracting services for the construction of Mission Ridge at Westfields, two five-story, 150,000 GSF core and shell office buildings. The buildings feature a precast and ribbon window facade with a three-story vertical fin supporting the entrance canopies. Terrazzo flooring, wood veneer, and decorative metal ceilings highlight the main lobbies. The project also included the development of a 17-acre site primarily utilized for on-site parking. Mission Ridge was designed and constructed to meet Unified Facilities Criteria, including setback requirements, columns designed to resist progressive collapse, and a hardened facade with blast-resistant windows. The project also achieved LEED Silver certification.

CARROLL SQUARE | Washington, DC

Clark provided general contracting services for this 265,000 GSF, ten-story core and shell office building with ground floor and plaza level retail space, four below grade parking levels, and an associated site incorporating four existing townhouses, two facades to be retained in-place and restored and one replicated historic facade. Garage space consists of 4 levels below grade, 25,000 GSF to accommodate 305 cars.

575 7TH STREET, NW | Chantilly, Virginia

Preconstruction and construction phase services for this 624,000 GSF project consisting of three distinct yet interrelated components including: (1) architectural and structural renovation/restoration of the historic former Hecht's building, which is adjoined to the south by (2) a new nine-story structure that incorporates four historic facades, and connects to the east to (3) a new 11-story tower fronting F Street. The two new concrete structures joined the existing eight-story Hecht's Building, and utilized an atrium topped off with an impressive skylight to unite the three elements. The project also includes a 146,000 SF, three-level, below-grade parking garage with 700 spaces.

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BRIAN DYLUS | Vice President, Project Executive

QUALIFICATIONS

- B.S., Construction Engineering and Management, Purdue University
- OSHA 10-Hour Trained
- 26 years construction experience
- 22 years with Clark

Selected Project Experience

JOHN MARSHALL II OFFICE | McLean, Virginia
Clark provided preconstruction and general contracting services for the construction of this 10-story, 220,000 SF precast and curtain wall office building, which served as part of Booz-Allen & Hamilton's McLean campus. The project also included construction of a two-story, 16,000 SF structural steel, glass-enclosed central services building and a new 330,000 SF parking facility. The central services building contains the main reception area, an auditorium, and several meeting rooms. This structure connects to the main building and the new garage via enclosed walkways. The buildings feature a tan precast facade with bronze ribbon windows.

FRANKLIN PLAZA - 1200 K STREET, NW | Washington, DC
Clark provided general contracting services for the construction of this 12-story, 480,000 SF office building with five levels of below grade parking.

VILLAGE AT SHIRLINGTON - PHASE III | Arlington, Virginia
Clark provided general contracting services for this six-story, 90,000 SF office building and a 105,000 SF above-grade parking structure. It was the third phase of the Village at Shirlington, phase one also was built by Clark.

2400 M STREET | Washington, DC
Clark provided preconstruction and general contracting services for the construction of this 10-story, 341-unit apartment building, with three stories of below-grade parking. Amenities include a courtyard, fitness center with locker rooms and a rooftop swimming pool and running track. The high-end residential building includes street-level retail with a landscaped courtyard located in the middle of the building.

915 E STREET – THE ARTISAN | Washington, DC
New construction of a $29.5 million, 228,000 GSF condominium building and historic facade restoration in the Penn Quarter of downtown Washington, D.C, with two levels of below grade parking and first floor retail and restaurant space.

ARLINGTON GATEWAY | Arlington, Virginia

Arlington Gateway is a 21-story, 413-unit residential apartment building situated on a 3.78 acre site with three-levels of below-grade parking. There property has a total of 455 parking spaces and a pedestrian plaza at the top level. The lobby features stone floors, hardwood finishes and 4 high-speed elevators. Among the amenities offered to tenants are a library, theater, business center, meeting room, party room, workout room and a rooftop open air swimming pool. The foundation for this project consists of steel reinforced concrete with a brick veneer facade and EIFS on the top floors. Clark Foundations drove steel bearing piles for this project. Clark Concrete has poured 33,500 cubic yards on this project, which includes numerous structural

THE METROPOLITAN | Bethesda, Maryland

This project includes a 12-story, 308-unit apartment building, a three-story office building and 15,000 SF of retail space. The Metropolitan was built over a five-level below-grade parking garage. Both buildings feature an intricate brick facade. Amenities include marble-floored lobbies with vaulted ceilings and custom lighting, a rooftop pool and fitness center, daycare center and a landscaped plaza with pathways and playground. A plaza with a water fountain were also included in the design. An octagonal building for future restaurant and retail space will anchor the corner of Old Georgetown Road and Edgemore Lane.

Additional Project Experience

- Fairlakes One Office Building
- Fairlakes Two Office Building
- Northern Virginia Building Industry Association Building at Fairlakes

CHRIS LILLIS, LEED AP | Project Manager

QUALIFICATIONS

- Graduate Studies, Geotechnical and Civil Engineering, University of Massachusetts at Amherst
- B.S., Civil Engineering, University of New Hampshire
- LEED Accredited Professional
- OSHA 10-Hour Trained
- 4 Years of Construction Experience
- 4 Years with Clark Construction

Selected Project Experience

SENTINEL SQUARE I - 90 K STREET, NE | Washington, DC

Clark provided preconstruction and construction phase services for this new 12-story, 542,000 GSF, Class A office building with three levels of below-grade parking accommodating 317 vehicles. The façade is a combination of pre-cast concrete and glazing systems, with the glazing system primarily comprised of ribbon windows with feature area elements of vertical curtain wall. Inside, a two-story lobby showcases Jerusalem Gold marble from Israel, louvered millwork panels, and metal panel column covers. A shared courtyard and landscaping, including granite tree planters, flower beds, decorative metal railings, and an irrigation system, unifies this building with the three additional buildings being developed. The project is LEED Gold certified.

SENTINEL SQUARE II - 1050 1ST STREET, NE | Washington, DC

Clark is providing general contracting services for the construction of this 412,000 GSF, 12-level office building with four levels of below-grade parking. The cast-in-place concrete structure will feature a blast-resistant precast façade with ribbon windows and the facility's lobby will include louvered millwork and limestone from Jerusalem. Sentinel Square II is designed to achieve LEED certification.

900 MASSACHUSETTS AVENUE - MT. VERNON PLACE UNITED METHODIST CHURCH | Washington, DC

Clark provided general contracting services for 900 Massachusetts Ave. - Mt. Vernon Place United Methodist Church, which involved the complete restoration of the exterior masonry and the completer renovation of the interior. The 20,000 GSF church, built in 1917, has four above-grade levels and one basement level. Clark was responsible for the installation of temporary MEP systems until completion of the 901 K office building (a new 376,000 GSF structure also being constructed by Clark), which services the church's MEP systems. The renovation also included an upgraded Auditorium, a completely renovated Sanctuary with larger Chancel area and restored historic millwork, a new elevator servicing all floors, a new wheelchair lift, and numerous new rooms added to accommodate the church's membership and ministries. Additionally, the church received a new slate roof as well as enhanced and restored site work and landscaping packages.

MIKE HAMMER | Superintendent

QUALIFICATIONS

- B.A., Government, Georgetown University
- CCHEST Satety Trained Supervisor
- OSHA 10-Hour Trained
- 9 Years of Construction Experience
- 9 Years with Clark Construction

Selected Project Experience

SENTINEL SQUARE I - 90 K STREET, NE | Washington, DC
Clark provided preconstruction and construction phase services for this new 12-story, 542,000 GSF, Class A office building with three levels of below-grade parking accommodating 317 vehicles. The façade is a combination of pre-cast concrete and glazing systems, with the glazing system primarily comprised of ribbon windows with feature area elements of vertical curtain wall. Inside, a two-story lobby showcases Jerusalem Gold marble from Israel, louvered millwork panels, and metal panel column covers. A shared courtyard and landscaping, including granite tree planters, flower beds, decorative metal railings, and an irrigation system, unifies this building with the three additional buildings being developed. The project is LEED Gold certified.

SENTINEL SQUARE II - 1050 1ST STREET, NE | Washington, DC
Clark is providing general contracting services for the construction of this 412,000 GSF, 12-level office building with four levels of below-grade parking. The cast-in-place concrete structure will feature a blast-resistant precast façade with ribbon windows and the facility's lobby will include louvered millwork and limestone from Jerusalem. Sentinel Square II is designed to achieve LEED certification.

CALVARY BAPTIST CHURCH- PORTRAIT AND GREENE BUILDINGS | Washington, DC
Clark provided preconstruction and construction phase services for the new construction/renovation assignment totaling 227,000 GSF and encompassing multiple owners and three unique components, including: (1) the Portrait Building; an eight-story, 135,000 SF Class A office building with four levels of underground parking, as well as 20,000 SF of ground-level retail space, and the restoration of the church's adjacent Woodward Building, completely renovated with a new stage, new mechanical system, library, classrooms and a modern kitchen; (2) the Greene Building; a 32,000 GSF office building that includes an existing façade from the original building, dating back to 1929. The façade is retained in place and tied into the new concrete supporting structure; and (3) the restoration of the historic Sanctuary Building (circa. 1866), including the installation of a detailed replica of the 60-foot, 5½-ton steeple.

CATO INSTITUTE HEADQUARTERS EXPANSION AND RENOVATION | Washington, DC
Clark provided preconstruction and construction phase services for the renovation and expansion of the Cato Institute's existing six-story headquarters building, which remained occupied and fully operational. The project added 35,000 SF of office space by expanding the south end of the building and adding a new seventh floor and roof level. The scope of work also created an additional 6,000 SF of parking, and encompasses the fit out of the new addition, as well as the phased renovation of approximately 75,000 SF of the existing Cato building office space, which comprises office and administrative areas, auditoriums, a policy center, and libraries.

NATIONALS PARK | Washington, DC

Clark provided design-build services for Nationals Park, a 1.1 million GSF ballpark that serves as home to the Washington Nationals, and has the distinction of being the first major league baseball stadium in the United States to achieve LEED certification (LEED Silver). The structure is cast-in-place concrete on the service and main concourse levels, with a steel frame structure beginning above the main concourse level and continuing up through the club, suite, and upper concourse levels. The stadium is covered by a steel and metal deck sunshade canopy. With seating for more than 41,546 fans, the ballpark also includes 79 suites on three levels and amenities ranging from concession stands and restaurants to retail shops and family-oriented entertainment areas. Also included within the scope of the project is the design-build delivery of two parking structures totaling 488,000 GSF and offering 1,240 spaces. The garages are separated by a plaza, which serves as the north entrance into the Ballpark. Clark served as the managing joint venture firm alongside Hunt Construction Group and Smoot Construction Company.

1875 PENNSYLVANIA AVENUE, NW | Washington, DC

Preconstruction and construction phase services for a new 364,000 GSF, 13-story office building with five stories below-grade, including two office floors and three levels of parking. The project is the central building in a three-building complex on the site. Clark demolished the existing Federal Bar buildings on the site before ultimately linking the new structure to two existing buildings on either side to create 524,000 SF of contiguous office space. A poured-in-place post-tensioned concrete frame supports an elegant glass curtain wall and precast exterior, while a dramatic, 150-foot atrium serves as the focal point of the lobby, which features a sloped fountain connecting to shallow fountain pools. Another dramatic feature is three bridges, completely suspended from one side, which provide access to the neighboring building on the west side.

INTERNATIONAL MONETARY FUND HEADQUARTERS 2 | Washington, DC

Preconstruction and construction phase services for the new construction of this 12-story, 975,000 GSF headquarters facility featuring an atrium, a 450-seat meeting facility, a training facility for the IMF Institute, a two-story public restaurant at the corner of 20th Street and Pennsylvania Avenue, a retail component at the corner of 19th Street and Pennsylvania Avenue and three-levels of below-grade parking. Located adjacent to the IMF's former headquarters at 700 19th Street, the new facility has created a more efficient physical plant – consolidating a number of operations that were once spread throughout the District of Columbia. The project also entailed the complete, 12-story tenant build-out.

resume

Douglas N. Carter, AIA

Principal-in-Charge

BACKGROUND AND PROJECT RESPONSIBILITIES

A founding principal of Davis, Carter, Scott, Doug Carter has a wealth of knowledge and expertise in all aspects of architectural planning and design. With over 49 years of experience, he has developed and designed projects for Fortune 500 corporations, institutional, governmental and retail clients, hospitals and health care facilities throughout Europe and across the United States.

Mr. Carter is renowned for his abilities to create and conceptualize a design that reflects the client's vision as well as the practical requirements and objectives. His work has been featured in Architectural Record, Building Design, Design and Construction, Urban Design Institute Publications, Newsweek and Time, as well as numerous local business publications.

Under his leadership, Davis, Carter Scott has received over 100 local, national and international design awards, including: the Walter Taylor AIA and AASA Award, the National Energy Conservation/ Owens-Corning National Award and the Northern Virginia Chapter AIA Citation for Energy in Architecture Award for Terraset Elementary School in Reston, Virginia. Mr. Carter is also the recipient of the 1998 Northern Virginia AIA Award of Honor.

Mr. Carter will have overall responsibility for the project. He will be actively involved to ensure that design is consistent, responsive and appropriate for the project scope and budget. He will commit all necessary resources to bring the project to a successful completion.

EDUCATION / AFFILIATIONS

Diploma in Architecture
Leeds School of Architecture and Town Planning, Leeds, England

Registered Architect
Commonwealth of Virginia, Delaware, Maryland, the District of Columbia, Connecticut, Florida, Missouri, Arizona, Georgia, Illinois, Massachusetts, New Jersey, New York, Indiana, West Virginia, Texas, North Carolina, Michigan, South Carolina, and Rhode Island

REGISTRATIONS / AFFILIATIONS

Member
American Institute of Architects

Member
National Council of Architectural Registration Boards

Member of :
- National Association of Industrial and Office Parks (NAIOP)
- Lambda Alpha International

Board Member of:
- Fairfax County Public School Education Foundation
- Washington Airports Task Force

Design Review Board Member for:
- Reston Industrial/Commercial
- Reston Town Center
- Westfields Park

RELEVANT EXPERIENCE

MASTER PLANNING EXPERIENCE

Arrowbrook Centre
Herndon, Virginia
2.7 million SF master plan; of which 1 million SF is zoned for residential at Centreville Road / DAAR

Belmont Bay Town Development
Belmont Bay, Virginia
800 mixed residential units; adult living apartments, 9 condominiums with new marina-related town center

The Broadwaters at Potomac
Stafford County, Virginia
2,000 acre mixed-use site featuring 2.25 Million SF office space, 500,000 SF retail space and residential living units for 13,000 people

Brookfield Plaza
Springfield, Virginia
12 acre mixed-use plan

Capital Gateway
Washington, D.C.
10 acres mixed use development with 120,000 SF retail, 300-unit residential and 1.1 million SF office space

Casey East
Gaithersburg, Maryland
1,000,050 SF mixed use development featuring seven 5-8 story buildings with 886,000 SF of office space, 77,800 SF of retail, 87,100 SF restaurant space, 528 condominiums, and 800 single family town homes

Crosstrails Master plan Concept
Loudoun County, Virginia
170 Acre Headquarters and Bio-Research center. The development will also include a satellite research campus for George Mason University, a Hotel, 40 single family homes and 30 multi family buildings in order to provide 200 dwelling units

Department of Mental Health Mental Retardation / Substance Abuse Services
Commonwealth of Virginia
Annual Open-end Contract

Dulles Discovery
Fairfax County, Virginia
2,178,000 SF master plan of which 1.7 million SF offices with 330 DUs for The Peterson Companies

* denotes experience prior to joining Davis Carter Scott

resume

Douglas N. Carter, AIA

Principal-in-Charge

RELEVANT EXPERIENCE

Eastern State Hospital
Williamsburg, Virginia
528 acre land use analysis, adaptive re-use and master plan of existing facilities to create a new mixed-use development

Fannie Mae /Freddie Mac Site
McLean, Virginia
Density & Redevelopment Study

The Gateway at King & Beauregard
Alexandria, Virginia
750,000 SF building with residential, office and parking. Project features 400 rental units over a grocery store

George Mason University Gateway Site
Fairfax, Virginia
200,000 SF master plan

Gilbert's Corner
Loudoun County, Virginia
Conceptual study for a new wellness center

Hampton Roads
Hampton, Virginia
38 Acre mixed-use site which includes Office Space, Retail Space, Hotel, Theater and Residential

Hoffman Center
Alexandria, Virginia
6-million SF mixed-use complex

The City of Hopewell Downtown Master plan
Hopewell, Virginia
1,000,000 SF Re-development and Master plan

Human Genome Sciences
Gaithersburg, Maryland
1 million SF biotech lab / office space

Irvington Center
Rockville, MD
1,000,000 SF master plan

Isaac Newton Square
Reston, Virginia
1.5 million SF mixed-use master plan

Kawar Master plan
Loudoun County, Virginia
4.5 million SF master plan

Kemensah Heights
Kuala Lumpur, Malaysia
Master plan of 300-acre development of small communities, each approx 1M to 1.5M SF in size

Kingstowne Office Center
Alexandria, Virginia
1,000,000 SF Four building corporate campus adjacent to the Kingstowne Metro

Kingstowne Town Center
Fairfax County, Virginia
2.33 million SF master plan

Koons Redevelopment Plan
Tyson's Corner, Virginia
Design Study

Langkawi Island Resorts
Langkawi, Malaysia
Master plan of 6 sustainable resorts

Longlea Conference & Study Center
Culpeper, Virginia
850 acre master plan

Loudoun Station
Loudoun County, Virginia
1.2 million SF master plan for mixed-use complex with office, residential and retail for Comstock Homes

Marymount University
Arlington, Virginia
250 unit dormitory facility with attached educational facilities including laboratories. Space also includes a 250-seat theatre above structured parking for 350.

Merrifield Town Center
Merrifield, Virginia
2,000,000 SF Master planning for mixed-use development including:
800,000 SF residential, 80,000 SF office, retail, and 150 room hotel

Monument Corporate Center
Gaithersburg, Maryland
1.1 million SF master plan
National Gateway at Potomac Yard
Arlington, Virginia -

Block B - 471,000 SF residential building with ground floor retail and 6 levels above and below-grade parking

Block C - 1.2 million SF of 4 office buildings with heights between 9 and 11 stories as well as ground floor retail and 3-4 levels of below-grade parking

Block D East - 410,000 SF, 357 unit residential building

Block D West - 403,000 SF, 358 unit residential building with ground floor retail

Block E - 396,000 SF office space, 21,000 SF retail space, and 44,000 SF fitness space with four levels below-grade parking

Tysons Central / NV Commercial
McLean, Virginia
1,300,000 SF LEED Certified mixed-use project with office, retail, hotel, residential, parking and public urban plazas

Parkland Town Center
Montgomery County, Maryland
3.5 million SF master plan for mixed-use complex

Parcel 39
Fairfax County, Virginia
Corporate campus master plan for six buildings - two 120,000 SF buildings and four 90,000 SF buildings

Quince Orchard Park
Gaithersburg, Maryland
120 acres Master plan and architectural services for a mixed-use development
5,500 SF clubhouse, 1.2 million SF office space, 650 DUs

Park Place
Annapolis, Maryland
1.2 million SF mixed use development/town center with offices, hotels, and condominiums

Ranson New Town
Ranson, West Virginia
New mixed use development that will include:
3,150,000 SF of Office Space
750,000 SF of Retail Space
275,000 SF of Hotel
16,042 Residential Units

Rock Site Development
Dulles, Virginia
2 Million SF Mixed-use development which will feature residential, office, retail and hotel components. The project will be located at a planned Dulles Metro station and includes structured parking for 2,000 cars

Tysons West Redevelopment
McLean, Virginia
Tysons West Redevelopment will provide office, residential, hotel, structured parking and retail space around a planned metro station on Route 7

Waterview at Woodland Park
Herndon, Virginia
590,000 SF build-to-suit headquarters

resume

Douglas N. Carter, AIA
Principal-in-Charge

RELEVANT EXPERIENCE

Watkins Mill
Gaithersburg, Maryland
125 acre site including 936,000 SF of office space, 260,000 SF of retail and restaurant space, including a cinema, 480 single family homes and town homes, 590 condominium units, and a 2,400 space 5-level open parking garage

Wells Fargo Center
Norfolk, Virginia
264,372 SF of Office space, 349,500 SF Residential space, 83,000 SF Retail space, and 2,472 Car parking garage all located within a single city block

Wiehle Avenue Master plan
Reston, Virginia
979,100 SF master plan including 6 office buildings, 100,000 SF of retail, 460 units of residential totaling 500,000 SF, Metro access, and 6,500 parking spaces (2,300 of them dedicated solely to Metro)

Western State Hospital
Staunton, Virginia
310-acre master plan for DMHMRSAS

Weston Town Center
Weston, North Carolina
Master plan and design of mixed-use project including over 1,500 residential units (condominiums, apartments, townhouses), 150,000 SF of retail space and a 225-room hotel

Woodland Park
Herndon, Virginia
7.4 million SF master plan

Worldgate Center
Herndon, Virginia
2.8 million SF Mixed-use complex master plan and architecture

HOSPITALITY / RETAIL EXPERIENCE

Corporate Park Marriott Suites
Fairfax, Virginia
184,000 SF 252-room All Suites Hotel

Kamp Washington Shopping Center
Fairfax, Virginia
138,000 SF retail renovation

Malaga Hotel Concept
Malaga, Spain
Site and conceptual study for a destination mixed-use resort on the coast of Spain

Marriott Hotel at M & 22nd Sts, NW
Washington, D.C.
Renovation and Addition of 36,900 SF to extricate 2 floors of 28 guest rooms and street-level retail space

Marriott Mill Road Residence Inn
Alexandria, Virginia
12-story, 180-room hotel with a swimming pool and three levels of below grade parking garage

Marriott All-Suites Hotel
Fairfax, Virginia
254-room hotel

Marriott Courtyard
Annapolis, Maryland
149 room hotel

Marriott Courtyard
Manassas, Virginia
149 room hotel

Marriott Residence Inn
Alexandria, Virginia
257,000 SF 240 room hotel with 185 parking space garage

Marriott Suites Washington Dulles
Herndon, Virginia
252-room hotel at Worldgate Center

Music World
Location TBD
Conceptual study for an entertainment venue

Northpoint Village Center
Reston, Virginia
158,000 SF retail center

On the Border at The Spectrum
Reston, Virginia
7,700 SF restaurant

Quince Orchard Park
Gaithersburg, Maryland
5,500 SF clubhouse

The Shops at Eisenhower East
Alexandria, Virginia
30,000 SF of retail and restaurant space

The Spectrum at Reston Town Center
Reston, Virginia
280,000 SF retail center

Target
Reston, Virginia
128,000 SF exterior facade design of retail store

Village Commons
Reston, Virginia
35,000 SF restaurant and design of hotel exterior facade

Warrenton Village Safeway
Warrenton, Virginia
63,000 renovation to facade

WesTech Village Corner
Silver Spring, Maryland
41,700 SF Restaurant Park with four 5,000 SF restaurants, two 7,500 SF retail centers, and a 5,000 SF bank

Westin Annapolis at Park Place
Annapolis, Maryland
184,000 SF four-star hotel with 225 rooms

Westin at Reston Heights
Reston, Virginia
175,000 SF four-star hotel with 170 rooms

GOVERNMENT EXPERIENCE

Fairfax County B-2 Building
Fairfax County, Virginia
250,000 SF office building

Loudoun County Circuit Court
Loudoun County, Virginia
30,000 SF renovation

Loudoun County Government Center
Leesburg, Virginia
158,000 SF

Northern Virginia Juvenile
Detention Home
Alexandria, Virginia
46,000 SF addition and renovation

Social Security Administration
Baltimore, Maryland
800,000 SF renovation

South County Government Center
Fairfax County, Virginia
158,000 SF office building

U.S. Mint
Washington, D.C.
Programming/design for new Headquarters

resume

Douglas N. Carter, AIA
Principal-in-Charge

RELEVANT EXPERIENCE

CORPORATE EXPERIENCE

77 K Street
Washington, D.C.
344,000 SF, 11-story office building with three levels of below grade parking. LEED CS Silver Certified

400 First Street, N.W.
Washington, D.C.
Design study

901 New York Avenue
Washington, D.C.
530,000 SF, 11 story office building and public space

1101 K Street, N.W.
Washington, D.C.
430,000 SF

1111 20th Street, N.W.
The Vanguard Building
Washington, D.C.
177,000 SF renovation

1121 Vermont Ave, N.W.
Washington, D.C.
Design study

1301 L Street, N.W.
Washington, D.C.
260,000 SF office building

1600 International Drive
McLean, Virginia
100,000 SF office building

1660 International Drive
McLean, Virginia

1800 K Street, N.W.
Washington, D.C.
Design study

1812 North Moore Street
Arlington, Virginia
600,000 SF office building LEED CS Platinum

8280 Greensboro Drive
McLean, Virginia
200,000 SF office building

8300 Greensboro Drive
McLean, Virginia
Lobby renovation

American Association for the
Advancement of Science (AAAS)
Washington, D.C.
250,000 SF build-to-suit headquarters

American Federation of Information
Processing Societies (AFIPS)
Reston, Virginia
25,000 SF office building

Amisys Managed Care Systems
Rockville, Maryland
85,000 SF renovation

Arboretum / Reston Section 912
Reston, Virginia
100,000 SF corporate headquarters

Association of the U.S. Army
Arlington, Virginia
75,000 SF renovation and addition

Ballston Point
Arlington, Virginia
260,000 SF office building including three levels of underground parking, ground floor retail space, and pedestrian connection to the heart of Ballston

Legal & General Insurance Company
Urbana, Maryland
120,000 SF headquarters building

Blackwell Office Building
Warrenton, Virginia
120,000 SF new office building

Booz, Allen & Hamilton
McLean, Virginia
232,000 SF build-to-suit headquarters

Booz, Allen & Hamilton
McLean, Virginia
12,000 SF central services building

Braddock Place
Alexandria, Virginia
200,000 SF office building

British Aerospace
Loudoun County, Virginia
Simulation facility

Broadlands
Broadlands, Virginia
600,000 SF office complex

BYK Gardner
Columbia, Maryland
17,000 SF offices / manufacturing facility

Cameron Pond Office Park
Reston, Virginia
350,000 SF

Campus Point
Reston, Virginia
180,000 SF office building / data center

Campus West
Reston, Virginia
120,000 SF

Capital Plaza
Washington, D.C.
660,000 SF office building with below grade parking. Designed for LEED CS Platinum Certification

Cascades Executive Center
Advanced Technology Headquarters
Reston, Virginia
360,000 SF

Center for Naval Analyses Corporation
at Mark Center
Alexandria, Virginia
214,000 SF

CFA Institute Headquarters
Charlottesville, Virginia
115,000 SF LEED™ Silver Built to Suit office building

Columbia Energy Group
Dulles, Virginia
150,000 SF

Computer Associates at Woodland Park
Herndon, Virginia
235,000 SF

COMSAT
Bethesda, Maryland
177,500 headquarters

The Cultural Mission for the
Royal Embassy of Saudi Arabia
Fairfax, Virginia
78,000 SF building replacement, designed for LEED CS Silver certification

Datatel Corporation
Fairfax, Virginia
71,000 SF office building

Dominion One at Jefferson Park
Falls Church, Virginia
416,000 SF office complex

resume

Hiro Nirmalani

Project Director

BACKGROUND AND PROJECT RESPONSIBILITIES

Hiro Nirmalani, Project Director, has over 40 years of experience in architectural design, construction supervision, and project management. He is recognized as an expert in building codes and technical issues related to building design and construction. He also establishes and updates technical standards for the firm.

Mr. Nirmalani was project director for the award-winning project at the Washington Hospital Center, the fifth floor addition to an existing building. He led the project team for the Marriott Suites Washington Dulles hotel, which won an Award of Distinction from the National Association of Indus¬trial & Office Parks (NAIOP). The Fair Lakes I and II office building complex, for which he was project manager, was awarded a Distinguished Design Award from the Northern Virginia Community Appearance Alliance.

Mr. Nirmalani will be your Project Director, using his architectural and management expertise to oversee project performance, as well as coordinate the project team. As your day-to-day contact, he also will be responsible for project staffing and scheduling, cost control, and quality assurance.

EDUCATION / AFFILIATIONS

Washington Drafting School
Washington, D.C.

Commercial Art/Fine Art
College of Art, Bombay, India

RELEVANT EXPERIENCE

PARKING GARAGES

Jefferson Park / American Red Cross
Falls Church, Virginia
Addition of three levels to an existing American Red Cross parking garage

Reston Corporate Center
Reston, Virginia
236,800 SF 4-story parking garage (773 spaces) for 2 existing office buildings

Reston Gateway
Reston, Virginia
284,700 SF 6-story parking garage (887 spaces) for two adjacent office buildings

Reston Overlook
Reston, Virginia
331,000 SF 4-story parking garage for 1,044 cars to accommodate two office buildings

Reston Sunrise East
Reston, Virginia
2-story parking garage for 116 cars

CORPORATE EXPERIENCE

55 M Street Office Building
Washington, D.C.
275,000 SF LEED CS Gold Office Building with 3-levels of below-grade parking garage for 154 cars

901 New York Avenue
Washington, DC
530,000 SF 11-story office building with 4 levels of below-grade parking garage for 473 cars

1101 K Street, NW
Washington, D.C.
275,000 SF office building with 2 levels of below-grade parking for 169 cars

Reston Overlook Office Building
Reston, Virginia
320,000 SF build-to-suit headquarters for TRW

Datatel Corporation
Fairfax, Virginia
71,000 SF office building

Fairgate at Ballston
Arlington, Virginia
335,000 SF office building

Fair Lakes I & II
Hazel/Peterson Headquarters
Fair Lakes Office Park
Fairfax, Virginia
334,000 SF office buildings

Farm Credit Administration
McLean, Virginia
150,000 SF headquarters

Dominion One & Two @ Jefferson Park
Falls Church, Virginia
450,000 SF office complex with 3 levels of below-grade parking for 719 cars

King Street Metro Place
Alexandria, Virginia
150,000 SF Phase I with 3 levels of below-grade parking garage

Litton TASC at Westfields
Fairfax County, Virginia
250,000 SF build-to-suit headquarters

Litton TASC III at Westfields
Fairfax County, Virginia
80,000 SF office building

Northridge II at Woodland Park
Herndon, Virginia
133,000 SF office building

One Fair Oaks
Fairfax, Virginia
240,000 SF office building

Park Place Office Building
Annapolis, Maryland
240,000 SF office building and garage, as part of a new mixed use development

Reston Gateway
Reston, Virginia
280,000 SF two office buildings

* denotes experience prior to joining Davis Carter Scott

resume

Hiro Nirmalani

Project Director

RELEVANT EXPERIENCE

Reston Station Office Building
Reston, Virginia
516,500 SF of office on 1.3 million SF mixed-use site being developed around a planned metro station, supported by a 4,800 space garage; designed for LEED NC Silver certification

Reston Sunrise
Reston, Virginia
81,000 SF office building, phase II over 3 levels of parking garage for 203 spaces

Satellite Business Systems
McLean, Virginia
Network communications control center and education, demonstration and testing center

Tysons McLean III
McLean, Virginia
130,000 SF office building

Two Reston Overlook
Reston, Virginia
130,000 SF office building

Virginia Square Plaza
Arlington, Virginia
160,000 SF office building with 3 levels of parking below-grade

Worldgate I and II at Worldgate Center
Herndon, Virginia
180,000 SF office buildings, each with structured parking

EDUCATIONAL EXPERIENCE

Arlington Mill School and Community Center
Arlington, Virginia
26,000 SF renovation

Cherry Run Elementary School
Fairfax, Virginia
60,000 SF

Langston Hughes Intermediate School
Reston, Virginia
112,000 SF

Rocky Run Intermediate School
Chantilly, Virginia
112,000 SF

Spring Hill Elementary School
McLean, Virginia
80,000 SF renovation

GOVERNMENT EXPERIENCE

Fairfax County Adult Detention Center
Fairfax, Virginia
65,000 SF

Frederick County Adult Detention Center
Frederick County, Maryland
Less secure shelter addition/renovation

Prince William Adult
Detention Center
Prince William County, Virginia
60,000 SF

Social Security Administration
Baltimore, Maryland
800,000 SF renovation

RESIDENTIAL EXPERIENCE

First +M
Washington, D.C.
558,911 SF apartment building with 468 rental units and ground floor retail

Park Place Condominiums
Annapolis, Maryland
200 unit condominium complex in a new mixed use development

HOSPITALITY EXPERIENCE

Marriott Suites Washington Dulles
at Worldgate Centre
Herndon, Virginia
254-room hotel

Westin at Park Place
Annapolis, Maryland
184,000 SF hotel with 225 rooms

RETAIL EXPERIENCE

North Point Village Center
Reston, Virginia
158,000 SF retail center

Park Place Shops
Annapolis, Maryland
50,000 SF retail component in a new mixed use development

Worldgate Centre
Herndon, Virginia
2.8 million SF mixed-use complex
master plan and architecture

HEALTHCARE EXPERIENCE

Clifton Springs Hospital and Clinic
Clifton Springs, New York
110,000 SF, 120-bed hospital

Fairfax Hospital
Fairfax, Virginia
20,000 SF ambulatory care center

Greater Southeast Community Hospi¬tal
Washington, D.C.
Medical office building

Medlantic Manor
(Visiting Nurses Association)
Washington, D.C.
30,000 SF office building

Park Ridge Hospital
Greece, New York
110,000 SF, 120-bed hospital

St. John's Mercy Medical Center
St. Louis, Missouri
7-story building renovation to 75 medical office suites

St. Mary's Hospital
Richmond, Virginia
130,000 SF medical office building

Washington Hospital Center
Washington, D.C.
40,000 SF addition

resume

Jasna Bijelic

Senior Project Designer / Associate

BACKGROUND AND PROJECT RESPONSIBILITIES

Jasna Bijelic, Senior Project Designer has over 22 years of architectural design experience. She has extensive expertise in the master planning, conceptual and schematic design, and design development of a wide variety of projects, including residential buildings, office buildings, airport facilities and mixed-use projects.

In order to ensure client satisfaction, Ms. Bijelic works closely with the client to design a project that meets the client's objectives and is within budget. She responds quickly to resolve design issues and changes that may arise during any stage of a project. Clients range from large corporations and aviation facility authorities to small developers and property owners.

Ms. Bijelic will work with the design team to create the schematic design concept based on the client's project objectives. She will lead the team through design development and ensure the integrity of the design is upheld in the construction documents.

EDUCATION / AFFILIATIONS

Diploma of Architecture, 1979
Faculty of Architecture
University of Zagreb (Croatia)

Registered Architect (Croatia)
Member, Croatian Association of Architects
1982

Accredited Professional
USGBC LEED™ BD + C

* denotes experience prior to joining Davis Carter Scott

RELEVANT EXPERIENCE

MIXED-USE EXPERIENCE

Weston Development
Cary, North Carolina
Master planning and design of mixed-use project located at Town of Cary, NC, Including over 1,500 residential units (condominiums, apartments, townhouses), 150,000 SF of retail space and a 225-room hotel

Arlington Mill Community Center
Arlington, Virginia
270,000 SF mixed-use development will provide a 3 level community center with street front retail along Columbia Pike and is designed for LEED New Construction (NC) Silver certification. The project also includes 190 mixed-income housing units above and behind the community center.

MASTER PLANNING EXPERIENCE

City of Hopewell Downtown Master Plan
Hopewell, Virginia
Downtown Revitalization Master plan for redevelopment which includes 377 dwelling units at the waterfront, 44 town homes, 178 additional dwelling units and a 150-room hotel. Winner of the Virginia Downtown Development Assoc. Award of Excellence

Dulles Discovery
Fairfax County, Virginia
2,178,000 SF master plan of which 1.7 million SF offices with 330 DUs for The Peterson Companies

Fairbrook Business Park
Fairfax, Virginia
525,000 SF master plan and design of three office buildings over above-grade parking garage

Garrett Development – Route 606
Stafford County, Virginia
Master plan for mixed use development Including: 810,000 SF office space; 860,000 SF industrial park; and 100,000 SF Retail Space

Loudoun Station
Loudoun County, Virginia
1.2 million SF master plan for mixed-use complex with office, residential and retail for Comstock Homes

Merrifield Town Center
Merrifield, Virginia
2,000,000 SF Master planning for mixed-use development including: 800,000 SF residential; 80,000 SF office and retail; 150 room hotel

Mount Vernon Place
Washington, D.C.
1.5 million SF building complex; including 5 office buildings, 1 condominium building, 1 apartment building, and a George Washington University graduate housing building

Parcel 23 at Westfields
Fairfax County, Virginia
1.2 million SF mixed-use development including retail, offices, a hotel and garden apartment

Park Potomac
Gaithersburg, Maryland
A mixed-use complex including 150 townhomes, 450 multi-family units, 850,000 SF of office including hotel and 175,000 SF of retail featuring a Harris Teeter grocery store

Rock's Site Development
Dulles, Virginia
1.61 Million SF Mixed-use development which will feature residential, office, retail and hotel components. The project will be located at a planned Dulles Metro station and includes structured parking for 460 cars

Wells Fargo Center
Norfolk, Virginia
297,741 SF of Office space, 349,500 SF Residential space, 83,000 SF Retail space, 2,472 Car parking garage and space for a future 147,000 SF Symphony Hall all located within a single block, designed for LEED NC Silver certification

RESIDENTIAL EXPERIENCE

301 Broad Street Apartments
Falls Church, Virginia
234-unit apartment building above a Harris Teeter grocery store and 2-levels of below-grade parking

440 K Street
Washington, D.C.
222,000 SF with 234 apartment units, 38,000 SF Garage and approx. 9,450 SF of ground floor retail

8400 Wisconsin Avenue
Bethesda, Maryland
225 unit high-end condominium building with structured parking

resume

Jasna Bijelic

Senior Project Designer / Associate

RELEVANT EXPERIENCE

Eleven Condominiums
Washington, D.C.
101,000 SF, 9 – story, 116 dwelling unit building with an above grade, two-level parking garage

The Byron
Falls Church, Virginia
170,000 SF Master planning services for a mixed use project with six floors of condominium (90 units) with ground level retail space and second floor office space

Vantage Condominiums
Merrifield, Virginia
270 dwelling unit residential building with 205,000 SF of retail and office space and 1,000 parking spaces

CORPORATE EXPERIENCE

Computer Associates at Woodland Park
Herndon, Virginia
235,000 SF build-to suit headquarters

Fairbrook Business Park
Fairfax, Virginia
525,000 SF master plan and design of three office buildings over above-grade parking garage

Hoffman Center
Alexandria, Virginia
6-million SF mixed-use complex

Human Genome Sciences
Rockville, Maryland
1.2 million SF headquarters. Phase I consisted of 650,000 SF in three buildings with a Separate parking garage

Legal & General America (aka
Banner Life Insurance Company)
Urbana, Maryland
120,000 SF headquarters building
NAIOP MD/DC Chapter's Award of Excellence for Best Suburban Office 1-4 stories

Mill Road
Alexandria, Virginia
203,000 SF office with a 3 level below grade parking garage

Parcel 39 at Westfields
Fairfax County, Virginia
First of 6 buildings planned: two 120,000 SF buildings and four 90,000 SF buildings

Park Potomac Building "E"
Gaithersburg, Maryland
182,000 SF office with ground floor retail and 2 levels of below grade parking.

National Gateway at Potomac Yard – Block E
Arlington, Virginia
396,000 SF office space, 21,000 SF retail space, and 44,000 SF fitness space with four levels below-grade parking. Achieved LEED CS Gold pre-certification

Pentagon Federal Credit Union
Alexandria, Virginia
75,000 SF Office space and
110,000 SF parking garage in 7-story building with one below grade

Prison Fellowship
Lansdowne, Virginia
147,000 SF master plan including:
65,000 SF office building
16,000 SF training center
8,000 SF hospitality center
58,000 SF Phase II office building

The Preserve Office Building
Herndon, Virginia
372,000 SF office complex including three office buildings

Red Run Corporate Center
Owings Mills, Maryland
100,000 SF office building

Reston Tower
Reston, Virginia
360,000 SF master plan including two office buildings and parking garage

Sunset III
Reston, Virginia
175,000 SF office space

Spar Aerospace*
Markham, Ontario, Canada
$30 million technical facility for the development of the Canadian Space Station project

Vienna Metro
Vienna, Virginia
320,000 SF office building and parking garage

Watkins Mill Office Building C3
Gaithersburg, Maryland
150,000 SF, 6-story office building with ground level retail. The project is designed for LEED CS Silver Certification

HOSPITALITY EXPERIENCE

"Mlini"*
Dubrovnik, Croatia
Mixed-use project including: apartment units, recreational facilities and retail space

Town Place Suites – Marriott Hotels
Springfield, Virginia
88,525 SF master plan

Marriott Residence Inn
Springfield, Virginia
160 rooms in six stories with structured parking

Marriott Mill Road Residence Inn
Alexandria, Virginia
180 rooms in fifteen stories with 4-levels of below grade parking

AVIATION EXPERIENCE

Ataturk International Airport*
Istanbul, Turkey
Design for proposed $150 million build-operate-transfer facility

Lester B. Pearson International
Airport Terminal 3*
Toronto, Canada
29-gate terminal, including a 10-gate satellite terminal, 500-room hotel and 100,000 SF retail space

Prague Ruzyne International Airport*
Czech Republic
250,000 SF expansion of international terminal building and renovation of existing facility

Melbourne International Airport*
Melbourne, Australia
Master plan with conceptual design for development of existing Tullamarine Airport

Oshawa Municipal Airport*
Ontario, Canada
Master planning for the North Field and design for new terminal

Piarco International Airport*
Trindad & Tobago
Design for $80 million terminal
Zadar International Airport*
Croatia
Full renovation and expansion

resume

Ihab L. Sakla

Project Manager

BACKGROUND AND PROJECT RESPONSIBILITIES

With proven experience of 20 years in the design industry, Mr. Ihab Sakla brings to the firm his deep knowledge of design techniques, principles, tools and instruments to produce precise technical plans, blueprints, drawings, and models. He not only understands materials, methods and , he knows the principles and processes involved in business and organizational planning, coordination, and execution. This includes strategic planning, resource allocation, manpower modeling, leadership techniques, and production methods.

Mr. Sakla is proficient with AutoCAD 2006 & Architectural Desktop 2005 and Photoshop. He also has developed a skill in designing websites using Joomla, Microsoft Office and many other software. He speaks, writes and reads Arabic as well as he does the English language.

For your project, Mr. Sakla will be your Project Manager. As such, he will assist the Project Director, providing a secondary point of contact for the client. He will coordinate the project team and resources from programming and design through construction administration, to meet the project's objectives. Additionally, he will perform code compliance during schematic design, as well as oversee the production of all technical aspects of the project whilst ensuring that Davis Carter Scott's quality control management procedures and standards for drawings are met.

EDUCATION / AFFILIATIONS

Bachelor of Science in Architecture, 1989
Ain Shams University, Egypt

* denotes experience prior to joining Davis Carter Scott

RELEVANT EXPERIENCE

PARKING STRUCTURE EXPERIENCE

Arrowbrook Parking Structure A
Herndon, Virginia
558,459 SF garage

Arrowbrook Parking Structure D
Herndon, Virginia
426,725 SF garage with 9,624 SF of retail

Reston Station
Reston, Virginia
4,800 space garage structure supporting a 516,500 SF of office on 1.3 million SF mixed-use site being developed around a planned metro station; designed for LEED NC Silver certification

CORPORATE OFFICE EXPERIENCE

Arrowbrook Building A4
Herndon, Virginia
184,000 SF of office building with 1,500 SF of retail

Arrowbrook Building A6
Herndon, Virginia
238,000 SF office building with 5,500 SF of retail

Cairo Office Towers*
Cairo, Egypt
600,000 SF, 7-storied office building - new construction ($30M)

National Harbor*
Washington, D.C.
500,000 SF, 7 storied office building - new construction ($100M)

Al-Bat-ha Office Building*
Al-Bat-ha Group, Sharjah
45,000 SF, 3 stories new construction

Khatib & Alami Office Building*
Khatib & Alami, Sharjah
40,000 SF, 7 stories new construction

RESIDENTIAL EXPERIENCE

Arrowbrook Building D1
Herndon, Virginia
136,306 SF residential building with 25,899 SF of retail

Arrowbrook Building D2
Herndon, Virginia
142,806 SF residential building with 18,309 SF of retail

Arrowbrook Building D4
Herndon, Virginia
189,898 SF of residential with 50,226 SF of retail

Block 16 High Rise Condominiums*
Reston, Virginia
960,000 SF new construction ($175M)

Winthrop House Residences*
Bethesda, Maryland
490,000 SF, 19-storied new construction ($85M)

Architect, Al-Thani Residential Tower*
Al-Thani Group, Dubai
280,000 SF, 42-storied new construction

Al-Bat-ha Labor Accommodation*
AlBat-ha Group, Sharjah
50,000 SF, 3-storied new construction

Banyas Residential Towers*
Banyas Group, Dubai
800,000 SF, 41-storied new construction

Al-Rostomani Residential Building*
Al-Rostomani Group, Sharjah
40,000 SF, 5-storied new construction

HOSPITALITY / RETAIL EXPERIENCE

Arrowbrook Building A5
Herndon, Virginia
35,000 SF of retail

Arrowbrook Building D3
Herndon, Virginia
16,942 SF of retail

EDUCATIONAL FACILITY EXPERIENCE

Gantner Elementary School*
Elmwood Park Public Schools, New Jersey
50,000 SF, 2-storied Additions & Alterations ($8M)

resume

Ihab L. Sakla

Project Manager

RELEVANT EXPERIENCE

Pennsbury High School*
Pennsbury Board of Education
Pennsbury, Pennsylvania
500,000 SF, 2 storied Additions & Alterations
($50M)

Clearview Middle School*
Clearview Regional High School District, New Jersey
200,000 SF, 2-storied Additions & Alterations
($23M)

Northern Burlington Middle School*
Northern Burlington Regional Schools, NJ
250,000-SF, 2-storied New School ($35M)

Mansfield Elementary School*
Mansfield Board of Education
Mansfield, New Jersey
150,000-SF, 2 storied New School ($20M)

Hopewell Elementary School*
Hopewell Valley School District
Hopewell, New Jersey
160,000 SF, 2-storied New School ($20M)

Absegami High School*
Greater Egg Harbor, New Jersey
300,000 SF, 2-storied Additions & Alterations
($35M)

AIRPORT FACILITY EXPERIENCE

Al-Fujiera Airport*
United Arab Emirates
50,000 SF, 20-story Addition

LIBRARY EXPERIENCE

Mary Jacobs Memorial Library
Rocky Hill Township, New Jersey
30,000-SF, 2-storied Additions & Alterations
($3M)

resume

Rami El Sheikh Ali, Associate AIA

Project Coordinator

BACKGROUND AND PROJECT RESPONSIBILITIES

Mr. Rami Ali brings over 13 years of architectural design experience with an extensive portfolio in markets such as corporate offices, institutional facilities, municipal amenities, airports, retail, hotels, restaurants and multifamily housing. He has worked both in Lebanon and United States. Mr. Ali is also proficient in AutoCAD, Architectural Desktop, Adobe Photoshop, 3D Studio, MS Office and Sketch Up.

For your project, Mr. Ali will be your Project Coordinator, working closely with the design and production team under the guidance of the Project Director. He will be involved in master planning, conceptual design, design development, code review, compilation of project specifications, and preparation of presentation and construction documents by translating the design concept, using his knowledge of standard practices of construction and fabrication methodologies, into construction documents. He will assist in coordinating consulting engineering drawings.

EDUCATION / AFFILIATIONS

Bachelor in Architecture, 1995
Beirut Arab University - Faculty of Architecture

Associate Member
American Institute of Architects

Member
Lebanese Institute of Architects

AWARDS

Wadi El Buhair Development, 2010
Bahrain Royal Family Master Plan

Vienna Presbytrian Church, 2006
AIA Award

Museum of Modern Art Competition
University of Alexandria, Egypt
Ranked 1st of 126

First Prize Winner, 2000
Sheikh Mohammed Ghanem Al Chamma Prize

First Prize Winner, 1999 & 2000
Jammal Abdel Nasser Prize

RELEVANT EXPERIENCE

MUNICIPAL FACILITIES EXPERIENCE

Nokesville Fire Station
Nokesville, Virginia
20,000 SF

Yorkshire Volunteer Fire Station
Manassas, Virginia
20,000 SF

RENOVATION EXPERIENCE

1101 Wilson Boulevard
Arlington, Virginia
Renovation of the facade and lobby in a 24-story, 330,000 SF Class A office building

MASTER PLANNING EXPERIENCE

Route 606 International City
Ashburn, Virginia
1.4 Million SF mixed-use development with office buildings, residential, retail and entertainment

Wadi Al Buhair Residential Development
Bahrain
180 HA residential villa's community with 700 villas and supporting parks, schools and government services

Monument Corporate Center
Gaithersburg, Maryland
Mixed-use office development with two office buildings, hotel and parking garage

CORPORATE OFFICE EXPERIENCE

1812 North Moore Street
Arlington, Virginia
600,000 SF LEED™ Platinum office building with six levels of above and below-grade parking and 8,000 SF of ground floor retail

Aramco Services
Washington, D.C.
5,000 SF interior office space planning

Ariana Office Condominiums
Chantilly, Virginia
50,000 SF new construction

EMSI Companies
Manassas, Virginia
70,000 SF new construction of headquarters
17,000 SF interior office space planning

GHT Limited
Arlington, Virginia
12,000 SF interior office expansion

Monument Corporate Center Phase I
Gaithersburg, Maryland
200,000 SF, six-story office building in a 1,000,000 SF Masterplan Corporate Campus

Monument View Office
Arlington, Virginia
8 story, 350,000 SF LEED™ Gold office building with three levels of below grade parking and 3,500 SF of ground floor retail

National Science Teachers' Association
Arlington, Virginia
65,000 SF, 6- story office building with below-grade parking. LEED NC Platinum

RETAIL EXPERIENCE

Hallmark Retail Stores
Maryland and Virginia
Design of eight stores in various locations

Dunkin Donuts
Virginia
6,000 SF franchise location

Sherazi Shopping Center
Woodbridge, Virginia
20,000 SF

Ariana & Hammond Shopping Center
Chantilly, Virginia
30,000 SF

HOSPITALITY EXPERIENCE

Ariana & Hammond Conference Center
Chantilly, Virginia

Days Inn Hotel
Manassas, Virginia
60-room short stay facility

* denotes experience prior to joining Davis Carter Scott

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David T. Ralston Jr.

PARTNER

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David T. Ralston, Jr. is a partner in the Washington, D.C. office of Foley & Lardner LLP where his practice focuses on government contract litigation and counseling; rail and air transportation; national and homeland security. He chairs Foley's Government & Public Policy Practice.

Mr. Ralston has handled virtually all aspects of government contracts, including bid and small business size protests, claims, defective pricing, intellectual property, qui tam litigation, and Cost Accounting Standards matters. He has successfully brought and defended dozens of bid protests, has defended government contractors against fraud and bribery charges, including coordinating corporate investigations, voluntary disclosures to the Justice and Defense Departments, and represented firms in debarment/suspension proceedings at numerous federal agencies. Mr. Ralston frequently lectures and writes on government contracts matters. He is the lead author of "The Foley & Lardner Guide to Federal Procurement Protests (second edition)," available in the Intelligence section on Foley.com and published as part of "Inside The Minds: The Impact of Recent Changes in Government Contracts," *Aspatore Books*, 2011.

In rail transportation, Mr. Ralston represents a leading Class I railroad, a major commuter rail carrier and shortline railroads on federal regulatory, legislative and compliance matters. In aviation, he has represented and advised a number of major U.S. airports on federal regulatory and grant assurance requirements, particularly in the security arena, and serves as vice-chair of the Federal Bar Association's Transportation and Transportation Security Law Committee.

Mr. Ralston has been Peer Review Rated as AV® Preeminent™, the highest performance rating in Martindale-Hubbell's peer review rating system. In 2011 and 2012, he was named one of America's Leading Lawyers in the area of government contacts by

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David T. Ralston Jr.

Chambers USA, and in 2010 *Legal 500* cited him for his knowledge of government contracts issues and client availability.

In recent years, besides bid protests, Mr. Ralston has been particularly active in contracts claims resolution, and matters concerning US domestic content laws, such as the Buy American Act, the Berry Amendment, the Trade Agreements Act, and international trade areas. He has also been active in matters where government contracts and intellectual property issues intersect, having led multi-year litigation opposing Department of Defense efforts to compete with the private sector in publishing military standards and specifications over the Internet. In 2011, he presented to European procurement leaders at the EU Parliament in Brussels on US perspectives concerning innovation in government procurement during the ScienceIBusiness Policy Bridge conference *Power of the Purse: Can Europe use procurement power to stimulate innovation?*

Virginia Governors George Allen and James Gilmore appointed Mr. Ralston to the board of the Metropolitan Washington Airports Authority. He was elected as chairman of the board from 1997-2000, and has served as vice-chairman and chair of several committees. In 2010, Governor Robert McDonnell appointed him to the board of trustees of the Southern Growth Policies Board, a non-partisan public policy think tank focused on advancing effective economic development policies in 13 Southern states.

From 1980 to 1984, Mr. Ralston served on active duty with the U.S. Army as a prosecutor and appellate attorney, handling over 100 courts-martial, including more than 30 contested cases. From 1984 to 1994, he served as a military judge in the U.S. Army Reserves.

A law graduate of Georgetown University (J.D., 1979, *cum laude*), Mr. Ralston received his B.S.F.S. degree from Georgetown University – School of Foreign Service (1976). He is a graduate of the Army War College National Security Seminar (2007).

Mr. Ralston is admitted to the bars of the District of Columbia, Virginia and New York, and served from 2008-2011 on the Litigation Section Committee of the D.C. Bar. He is the chair of the Federal Circuit Bar Association's Government Contracts Committee and the Federal Bar Association's Transportation and Transportation Security Law Committee. He is admitted to practice before the U.S. Courts of Appeal for the Armed Forces, the Federal, Fourth, Sixth and District of Columbia Circuits. He is also admitted before the U.S. District Courts for the Eastern District of Virginia, the District of Columbia, the District of Maryland, and the U.S. Court of Federal Claims.

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David Y. Bannard is a partner with Foley & Lardner LLP, where he is a member of the firm's Finance & Financial Institutions, Public Finance Services, Health Care Finance & Restructuring, and Real Estate Practices. He is also a leader of the firm's Public/Private Partnership Practice and a member of the Health Care and Senior Living Industry Teams.

Mr. Bannard focuses his practice on representing airports in a wide variety of matters, including public/private partnerships, leasing, financing, rate-setting and concessions agreements, as well as general public finance matters. Mr. Bannard is an experienced bond lawyer, having served as bond counsel and counsel to borrowers and underwriters, as well as in-house issuer's counsel, in many transactions.

- Representing an airport in the development by a private party of a new unit terminal.
- Representing an airport in the proposed lease of its landside facilities to a private third party.
- Serving on the local counsel team representing a bidder for a privatized toll road concession.
- Serving as counsel to a public seaport for a privatized container terminal development project.
- Serving as in-house counsel for the negotiation, permitting, financing, development, construction and leasing of Terminal A at Logan Airport, the Logan Airport Hilton Hotel, two terminal improvement projects for US Airways, the Logan Airport fuel farm, and a Marriott Renaissance Hotel

Mr. Bannard has also served as regulatory counsel to airports and private parties around the country, including providing advice on matters relating to compliance with the FAA's pilot airport privatization program, federal grant assurances, the FAA's revenue use and rates and charges policies, and state and federal relocation requirements.

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David Y. Bannard

Mr. Bannard has been involved in the development of airport facilities, including negotiation of term sheets and development agreements, obtaining necessary permits, negotiating leases and closing financings, and providing counsel through the construction phase of large projects. Mr. Bannard has provided counsel with respect to contracting and leasing for many types of airport concessions, including food and beverage, rental cars, and advertising, and the development of form RFPs and contracts.

Prior to joining Foley, Mr. Bannard served as the deputy chief legal counsel of the Massachusetts Port Authority, where he oversaw all transactional legal matters. At Massport, Mr. Bannard was also charged with legal oversight of the Authority's financial matters. He also has extensive experience in inter-governmental negotiation, serving as the legal liaison from Massport to the Central Artery/Tunnel project (the "Big Dig") for over 7 years, and negotiating payment in lieu of tax agreements with the different municipalities.

Mr. Bannard speaks regularly at seminars on aviation finance and legal matters, including the Legal Issues Seminar of the Airports Council International, the Bond Attorneys' Workshop, and the American Association of Aviation Executives' conferences.

Mr. Bannard received his J.D. from Boston College Law School (*cum laude*, 1988), where he was an editor and member of the *Boston College Law Review*. He holds a master's degree in music from Northwestern University and a bachelor's degree, in music education from Indiana University School of Music.

Mr. Bannard is admitted to practice in Massachusetts. He is a member of the American Bar Association and National Association of Bond Lawyers. He is a member of the Board of the World Business Partners of Airport Council International – North America. He was awarded the Volunteer Lawyers Project Pro Bono Award and is vice president of the board of Habitat for Humanity North Central Massachusetts, Inc.

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Irwin P. Raij

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Irwin P. Raij is a partner with Foley & Lardner LLP and co-chair of the Sports Industry Team. He is also a member of the Government & Public Policy, Real Estate and Finance & Financial Institutions Practices. He maintains offices in New York, Miami and Washington, D.C.

Mr. Raij is a consensus builder with experience successfully negotiating complex public private partnerships.

Mr. Raij has extensive experience in the sports industry, where he has represented and counseled a number of clients (including a professional sports league, professional sports teams, owners and acquirers of professional sports teams). He advises sports clients in connection with a variety of new stadium development projects, construction agreements, new and interim lease agreements, acquisition of professional sports franchises, strategic counsel, commercial matters, including licensing arrangements, promotional and advertising agreements, ticketing arrangements, merchandising agreements, stadium service agreements, and radio broadcast agreements. In connection with these matters, Mr. Raij has worked closely with professional sports leagues.

His representative experience in the sports industry includes the following:

» State of New York – Hired by Governor Andrew Cuomo to represent the State of New York in efforts to keep the Buffalo Bills in Buffalo and to determine the appropriate redevelopment of the Bills' stadium which is more than 40 years old.

» Los Angeles Dodgers – Led the team that represented Guggenheim Baseball Management (headed by Mark Walter, Earvin "Magic" Johnson and Stan Kasten, the former president of the Atlanta Braves and Washington Nationals, among others) in the acquisition of the Los Angeles Dodgers, the single largest transaction ever for a professional sports franchise.

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Irwin P. Raij

- Major League Baseball (MLB)
  - Oakland A's Ballpark Committee – Appointed by MLB Commissioner, Bud Selig, to serve on a three person committee to determine feasibility of developing a new stadium for the Oakland A's in Northern California.
  - Miami Marlins Ballpark – Acted as MLB's counsel in its successful efforts to facilitate the negotiation and approval of a new stadium for the Miami Marlins.
  - Montreal Expos/Washington Nationals – Represented MLB in the relocation of the Montreal Expos, now the Washington Nationals, to Washington, D.C. This work included negotiating and drafting interim lease agreement, the baseball stadium agreement for the new ballpark, the new stadium lease, the construction administration agreement and following the relocation to Washington, the legal work related to the team's operation.
- Texas Rangers – Represented Rangers Baseball Express (the investment group led by Chuck Greenberg and Nolan Ryan) in its acquisition of the Texas Rangers, a long and complex transaction that culminated in the sale of the club through a Chapter 11 bankruptcy auction.
- Miami Dolphins – Provides legal and strategic counsel related to potential development and improvements at and around SunLife Stadium.
- Washington Nationals – Following the sale of the Team by MLB to the Lerner family, represented the Team in all matters related to the construction of the new (over $600M) ballpark, including the implementation of the construction administration agreement and issues related to the transition to the new ballpark. Mr. Raij continues to provide counsel to the team.
- Sacramento Kings – Served as member of the Sacramento First Task Force, a 12-member team comprised of professional consultants, to assist the City with evaluating options for a new entertainment and sports complex in Sacramento.

Mr. Raij also has significant experience in matters involving economic development, housing, campaign finance and government ethics.

Before joining Foley, Mr. Raij served as assistant counsel to the Gore/Lieberman presidential campaign, with responsibility for compliance with Federal Election Commission regulations, drafting committee contracts and leases, conducting research and providing other legal guidance. Mr. Raij previously served as an attorney in the White House Office of Counsel to the President and later as associate counsel in the White House Office of Counsel to the Vice President. Mr. Raij assisted in the defense of the vice president and the administration in congressional and Department of Justice investigations.

Mr. Raij began his career as an attorney advisor for the Department of Housing & Urban Development, and returned to this Department to serve as special assistant in the office of the general counsel and as acting managing attorney for the FOIA Department.

In 2011, Mr. Raij was named to the *Sports Business Journal/Daily* Forty Under 40 list and was also recognized by the *Washingtonian* in their list of Washington's Best Lawyers. His other recognitions include:

- Recognized by the *Legal 500* for work in sports law in 2010
- Named a 2009 Young Guns Top Washington Lawyer by the *Washington Business Journal*
- Named the 2008 Young Alumnus of the Year by the Washington University School of Law

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Irwin P. Raij

- *Washington Lawyer* magazine highlighted Mr. Raij's work on the Washington Nationals deal in the cover story of its November issue in 2007
- Recipient of the 2004 American Marshall Memorial Fellowship
- Named a 2003 finalist by the *South Florida Business Journal* as an "Up and Comer" in South Florida's legal community
- 2001 recipient of the "Spotlight of Achievers" award from the Latin Auxiliary of the Jewish Home of Miami

Mr. Raij co-authored the article, "How a Stadium, Surrounding Area Can Boost a Team's Revenue," that appeared in the June 6, 2011 edition of the *SportsBusiness Journal*. His recent speaking engagements include:

- 2011 Penn Institute for Urban Research Roundtable on Anchor Institutions, "Ballparks as Urban Anchors," December 2011
- Minor League Baseball Bob Freitas Business Seminar, "Stadium Finance and Ancillary Development: Understanding Your Surroundings and the Impact on the Fan Experience and Revenue Streams," December 2011
- University of Maryland School of Law Symposium, "Intersection of Sports and Business in Today's Legal Arena," October 2011
- National Sports Law Institute of Marquette University Law School Fall 2009 Conference," The Evolution of Sports Law and Business From the 20th to the 21st Century"
- National Sports Law Institute of Marquette University Law School Fall 2008 Conference" Professional Sports: Current Issues and Their Future Implications"

Mr. Raij is a past president of the University of Miami D.C. Alumni Association, served on the National Alumni Association Board of the University of Miami, and is a member of Iron Arrow. In 2010, he was appointed to the Washington D.C. Jewish Community Center board of directors and is a member of The Jewish Federation of North America's National Young Leadership Cabinet. Mr. Raij has been active in the Greater Washington Jewish Federation, including chairing a mission to Moscow in 2009, and in June 2011 he was appointed to their board of directors. He also serves on the board of directors of Amigos for Kids®, a Florida nonprofit.

Mr. Raij grew up in Miami-Dade County and remains a member of the Cuban Hebrew Congregation.

Mr. Raij received his J.D. from Washington University School of Law in St. Louis, Mo. and a B.B.A. from the University of Miami. He is admitted to practice in the District of Columbia, Florida, and New York.

Charles E. Wall
Partner
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PRACTICE AREAS
> Public-Private Partnerships
> Economic Development
> Business and Corporate
> Construction

Chuck Wall chairs Williams Mullen's Public-Private Partnership Team, and he assists both private and public sector clients in complex public-private partnerships. He focuses his practice on partnering proposals and the crafting of resulting agreements governed by enabling state legislation. Mr. Wall works with governmental entities and commercial enterprises to identify and evaluate partnering opportunities and create mutually-advantageous relationships where warranted. He is particularly skilled in building on the common ground between government policy goals and business objectives to create successful partnerships. Mr. Wall's experience spans highway developments, construction projects and joint ventures, and involves securing financing, interacting with government and business officials, and negotiating on behalf of his clients.

Mr. Wall served as lead counsel to the developer in negotiating two of the active P3 projects undertaken by the Virginia Department of Transportation (VDOT). He counseled and represented a leading coal producer in negotiating an innovative P3 agreement with VDOT in 2008 for an initial phase of the $2.6 billion Coalfields Expressway. Mr. Wall also served as lead counsel in negotiating and creating a $339 million P3 comprehensive agreement with VDOT for the development, design and construction of a 36-mile Route 58 corridor from Hillsville to Stuart.

Mr. Wall counseled one of Virginia's transportation district commissions in its development of new transit operations, maintenance and administrative facilities. He provided leadership and assistance to the commission throughout the course of this P3 endeavor, including the proposal receipt and evaluation processes. Mr. Wall served as principal architect and negotiator of an interim agreement as well as the resulting partnership agreement put in place in June

Chuck Wall (continued)

2009. In addition, Mr. Wall has counseled and represented dozens of private entities in submitting P3 proposals and crafting numerous partnering agreements. Examples include one of the first local P3 projects undertaken in Virginia: the Warren County School Board's $70 million comprehensive agreement for the design, financing and construction of two new high schools.

Mr. Wall has a well-respected reputation for P3 transportation projects, and he has developed a deep understanding of the substantial risks and rewards that public-private partnerships can present a public body and its private partner. The Virginia General Assembly appointed Mr. Wall to serve on the committees responsible for the initial drafting of and subsequent revisions to the Commonwealth's model P3 guidelines. Because of his leading-edge involvement with P3 infrastructure projects, Mr. Wall is in high demand as a speaker on these topics. He has lectured extensively on P3 subjects before legislative bodies, government officials, trade and professional associations, and fellow attorneys.

Martindale Hubbell has rated Mr. Wall an AV attorney, its highest rating available. He has been listed in *Virginia Business* magazine's "The Legal Elite" since 2004 and in 1999, *Inside Business* magazine named Mr. Wall to the "Top Forty Under 40."

Mr. Wall received his law degree in 1989 from the University of Richmond School of Law, where he was a member of the *University of Richmond Law Review*. He graduated from the College of William and Mary in 1986 with a bachelor of business administration degree in management.

Eric S. Siegel, P.E.
Principal

Education: Bachelor of Science, Civil Engineering, University of Maryland, 1987

Professional Registrations (Beginning 1992):

Virginia PE 023416
Maryland PE 28085
Washington, D.C. PE 900706
North Carolina PE 031749
Delaware PE 14548
Alabama PE 29843
West Virginia PE 15383

Experience:

Mr. Siegel has over 24 years of design and management experience in all facets of complex and environmentally sensitive land development projects. His overall responsibilities include co-managing the firm with three current principals, marketing and securing engineering services with an elite client list, and managing the design of projects through construction. Mr. Siegel contributes to all areas of land development design to include land planning, grading, road design, stormwater management (SWM) design utilizing rational method, TR-20, and TR-55, water quality design or best management practices (BMP) design, floodplain studies, hydraulic water analysis utilizing Watercad and Kypipes, watermain design, sanitary sewer design, storm drainage design, erosion and sediment control design, private utility relocation, writing technical specifications, pavement design, and construction management.

In addition to all of his management and design capabilities, he is most noted for his experience in planning and designing high density mixed use office, residential, and retail developments such as Reston Town Center, Dulles Town Center, Brambleton Town Center, and Columbia Town Center to name a few. He was also the main planner and designer for many campus and secure office tenants such as GSA, Oracle, TRW, Microsoft, Accenture, Titan, and BAE Systems. Mr. Siegel is involved from early planning through all aspects of the jurisdictional legislative process to include rezonings, special exceptions, site plans, and public improvement plans. He works very closely with agency engineers, planning staff, citizen groups, and elected officials. His clients include General Growth Properties, Boston Properties, Trizec, Lerner Enterprises, Tritec, Atlantic Realty Companies, Stafford County, Fairfax County Public Schools, Kettler, OTO, Buchannan Partners, Diamond Properties, The Peterson Companies, Brambleton Group, The Van Metre Companies, and Comstock Homes to name a few. Mr. Siegel has been involved in developing over 20,000 residential units and 20,000,000 GSF of commercial uses.

To compliment and utilize his extensive engineering experience, Mr. Siegel also provides services as an expert witness in all facets of land development civil engineering legal matters with recent cases related to land condemnation for roadway right of way acquisition, utility easement acquisition, and damages as the result of major storm and sanitary outfall construction. He offers expert testimony, development of exhibits to support the case, and review and opinions related to the case.

Project Experience includes:

Reston Town Center – Fairfax County, Virginia
Principal responsible for the preparation of zoning plans, site plans, and public improvement plans to develop a 5 million GSF mixed use office/retail/residential Town Center on ± 84 acres. This includes all aspects of design for major infrastructure and processing the plans through approval and overseeing construction.

Arcola Center – Loudoun County, Virginia
Principal responsible for the preparation of the site plans and zoning plans for a major commercial center with over 648,000 s.f. of retail and 3100 parking spaces. Subsequent phases purpose an additional 411,000 s.f. of office and warehouse space, retail, commercial lodging, a public recreation area and 2255 parking spaces. Urban's services also included erosion and sediment control plans, fire lane plans, easement plats, construction stakeouts and as-built drawings.

Stafford Area Plan Study – Stafford County, Virginia
Principal responsible for management and deliverables associated with Stafford County's Master Redevelopment Plan (MRP) efforts. The MRP, prepared under the direction of Stafford County's Economic Development Office, includes 4 distinct planning areas: Boswell's Corner, Courthouse, Falmouth Village, and Southern Gateway. Within each redevelopment area, Urban is assessing the existing stormwater measures, public water supply, and public sanitary service that are available while making future recommendations for improvements to these systems to ensure their adequacy when these areas redevelop.

Kincora – Loudoun County, Virginia
Urban is the lead engineering firm providing zoning and site plan services for a 7.6 million S.F. mixed use development of office, retail, minor league baseball stadium, performing arts center, hotels, high density residential, and institutional use on 400 acres. The project is a vertical mixed use development with extensive public improvements, wetlands mitigation, environmentally sensitive design, infrastructure, and transportation improvements. The project includes the extension of a 24" Loudoun water transmission water line and a 16" gray water distribution line from the Goose Creek Plant to Dulles Town Center.

Loudoun Station – Loudoun County, Virginia
Planned development – Transit related center located at the future last stop for rail on the Dulles Greenway. It is a 43 acre site rezoned in 2006 to allow 3.8 million S.F. of mixed use office, retail, hotel and residential adjacent to a bus rapid transit drop-off and a rail station. The project includes extensive urban public improvements to roads and utilities. Site plans have been prepared for all infrastructure and the first 500,000 S.F. of development. This project included the design and construction of major sanitary sewer outfall (± 7800 lf) trunk sewer from the property to the Broad Run Interceptor. This outfall was designed to accommodate multiple property owners.

Ryan G. David, P.E.
Associate

Education: Bachelor of Science, Civil Engineering,
Virginia Polytechnic Institute and State University, 1998

Professional Registrations (Beginning 2003):

Virginia PE 038229	Alabama PE 30924
North Carolina PE 031733	LEED-AP
South Carolina PE 25406	NCEES 37024 – NCEES Records

Experience:
Mr. David has extensive experience in the management and design of environmentally sensitive civil engineering projects. Specific areas of expertise include site and land planning, storm water management, erosion and sediment control design, best management practices (BMP's), low impact design, site grading, storm drainage, sanitary design, geometric layout, floodplain analysis/studies, reservoir routing, highway design, utility location and relocation, and construction management. He has been responsible for the design, management, and coordination through appropriate agencies of numerous complex commercial and residential sites. Such projects include the design of several office, retail and residential projects throughout Virginia/DC Area. Mr. David has been involved in developing over 8,000 residential units; 5,000,000 GSF of commercial uses and many miles of water, sewer and roads. In addition to the over 13 years of planning and design Mr. David is well versed in the areas of client management, project management, and coordination with key government review agencies; receiving accolades for his attention to detail, overall response time and communication style. Mr. David excels in organizing and maintaining top tier teams specific to each project.

Project Experience includes:
Dulles Discovery Phase 1 – Fairfax County, Virginia
380,000 sq. ft. six-story class A office building with 1300 space surface parking lot. The design involves coordination with future phases of a secure site with over 1 million square feet of office space. Project includes a wet pond design to provide water quality and stormwater detention for a multiphase build out, major onsite utilities, and specific secure site design requirements to meet GSA tenant needs. Site plan and construction drawings approved on time. Building achieved LEED certification.

Reston Section 913 - Fairfax County, Virginia
Project Manager for this 135,000 square foot class A office project with over 450 parking spaces and a 3 story parking structure. His responsibilities for this project included the site grading, drainage design, utility design, landscape plan and erosion & sediment control. He prepared the project for County approval, preformed zoning tabulations, secured project permits, and developed construction documents and specifications.

Loudoun Station – Loudoun County, Virginia
Planned Development and Utilities– Transit related center located at the future last stop for rail on the Dulles Greenway. It is a 43 acre site rezoned in 2006 to allow 1.3 million S.F. of office, retail, hotel and 1,500 multifamily residential apartment/condominium units adjacent to a bus rapid transit drop-off and a rail station. The project includes extensive urban public improvements to roads and utilities. Site plans have been prepared for all infrastructure and the first 500,000 S.F. of development. The project included a 7,450 linear foot sanitary sewer outfall from the initial conceptual alignment analysis to final design and construction administration. The sewer outfall involved multiple property owners; coordination with multiple existing and future developments; environmental concerns.

Orbital Sciences Headquarters - Loudoun County Virginia.
Project Manager for the site design of a 175,000 square foot office building with over 650 parking spaces and recreational area. Responsibilities included site grading, landscape and lighting plans, signage, utility design, and erosion and sediment control. He prepared the project for County approval, preformed zoning tabulations, secured project permits, and developed construction documents and specifications.

Arthur Woods, PE

B&N Principal

Mr. Woods joined Burgess & Niple in 1980. A Vice President and an Owner, Mr. Woods serves as Dulles District Director in B&N's Mid-Atlantic Region headquarters office. He has 30 years of experience managing design teams for transportation, land development, and public infrastructure projects. He has managed B&N's transportation design practice for clients such as VDOT for more than 25 years. Currently, Mr. Woods is serving on the Route 28 District Tax Advisory Board.

Representative project experience includes:

- Commonwealth Centre, Fairfax County, Virginia – Serving as Project Officer for design and construction of a 101-acre commercial development consisting of two parking garages, six office buildings, two hotels, two retail buildings, and surface parking. The entire development is designed to achieve LEED Silver Certification.
- VDOT, Capital Beltway HOT Lanes, Fairfax County, Virginia – As Project Officer, managed geotechnical and surveying task managers for this 14-mile highway widening and interchange improvements. Also responsible for oversight of geotechnical and survey field work.
- Dulles Metro Rail System, Fairfax County, Virginia – As Project QA/QC Manager, provided input for review of drilling operations and reports for the new rail station extending from Washington, D.C. to Dulles Airport.
- W&OD Bridge over Broad Street, Falls Church, Virginia – Project Manager for structural design, geotechnical, and construction services for a 20-foot-wide, three-span pedestrian bridge.
- Van Dorn-Landmark Area Transportation Plan, City of Alexandria, Virginia – As officer-in-charge, responsible for QA/QC for traffic study and planning to review multimodal transportation alternatives in an urban area.
- Route 15 Bypass, Town of Leesburg, Virginia – Managed engineering services for dualization of the bypass, including survey, geotechnical, and environmental engineering.
- VDOT, Route 882, Franklin Park Access Road, Loudoun County, Virginia – Managed design of an access road into a new park. Included adding right- and left-turn lanes to Business Route 7, between Round Hill and Purcellville.
- Open-Ended Geotechnical Engineering Services, Loudoun County, Virginia – Project Officer for an on-call contract for geotechnical engineering and construction inspections. Capital improvement projects included a sheriff's station, homeless shelter, and community and public safety centers.
- Civil Engineering Services Contract, Loudoun County, Virginia – Serving as Project Officer for a task-ordered contract that involves multidisciplinary engineering services for capital improvement projects.
- VDOT, Route 28, Commuter Parking Lot, Fauquier County, Virginia – Project Manager for design improvements to the park-and-ride lot. Maximized space for parking with required number of spaces for the handicapped, site grading, drainage design, and lighting and landscaping plans.

John P. Gaston, PE
Project Manager – Civil Engineering

Mr. Gaston joined Burgess & Niple in 1998. As Civil Engineering Director at B&N, he provides site civil engineering services for private and public sector clients in the mid-Atlantic region. His technical expertise includes design of mixed use, commercial, and transit-oriented development projects in Loudoun and Fairfax Counties. His design expertise includes water, sanitary sewer, and storm drainage systems; roadways and parking facilities; site grading and layout; and erosion and sediment control plans. He has served as Project Manager and Lead Civil Engineer for many projects in Loudoun County, including facilities designed to LEED standards.

Representative project experience includes:

- Commonwealth Centre at Westfields, Chantilly, Virginia – Project Manager responsible for a 101-acre commercial development consisting of office buildings, hotels, retail buildings, parking garages, stormwater management facilities, superelevated loop roadways, and utilities. Provided construction administration for the overall site plan. This design utilized LEED-based criteria.
- Alcatel Headquarters and Parking Structure, Fairfax County, Virginia – Served as Civil Engineer for a six-level, 320,000-square-foot facility on a 27-acre site, which included design of a five-level parking structure for 700 vehicle spaces.
- Glenbrook 8 at Westfields, Chantilly, Virginia – Served as Lead Project Engineer for development of a 30,000-square-foot building with a 113-space parking facility on a 2.59-acre site. Engineering services included sizing and selecting the storm drainage structure per VDOT standards, generating computations for storm drainage structure, utilities layout, grading of parking lot area, vehicular flow study, analysis of fire truck access per Fairfax County codes, analysis of parking lot accessibility per ADA requirements, and design of pedestrian access and right-turn lane.
- Westport Corporation Headquarters, Ashburn, Virginia – Deputy Project Manager for a 70,000-square-foot building submitted to Loudoun County under the Leadership in Energy & Environmental Design (LEED) program. Services included design of a stormwater facility; sizing and selecting storm drainage; computations for the storm drainage system; horizontal control for storm, sanitary, and water lines; grading of the parking area; and analyzing fire truck circulation and parking lot accessibility.
- Campus Commons, Reston, Virginia – Project Engineer responsible for responding to review agency and contractor comments for a large Class A office building and detached parking structure.
- Parcel 35 at Westfields, Chantilly, Virginia – As Project Manager, provided oversight of planning and engineering services for a commercial development consisting of five multi-story office buildings and five parking garages.
- Newbridge Networks, Chantilly, Virginia – As Project Engineer, provided planning and engineering for a commercial development consisting of a new parking garage, surface parking area, and a 320,000-square-foot building on a 27-acre site.

Richard E. Ziems, LS

Project Surveyor

Mr. Ziems joined Burgess & Niple in 1976. As Survey Section Director, he schedules survey field parties, serves as client liaison, and performs QA/QC review for field and office surveying tasks. His expertise encompasses boundary, topographic, commercial, and highway surveys for public-sector and private clients. He manages surveying and mapping tasks for design-build, municipal, state, and federal transportation and utility infrastructure projects.

Representative project experience includes:

- Capital Beltway HOT Lanes, Fairfax County, Virginia – Served as Project Survey Manager for 14 miles of interstate highway design. Managed aerial mapping with photo control utilizing GPS and project control with 11 major bridge surveys. Due to the high volume of traffic on the interstate, performed surveys at non-peak traffic flow hours.
- Parcel 35 at Westfields, Chantilly, Virginia – As Survey Task Manager, responsible for oversight of surveying tasks for this 40-acre commercial development consisting of an office building complex, visitor center, surface parking, and two parking garages.
- 495 Express Lanes, VDOT, Northern Virginia – Project Manager responsible for topographic base mapping to support design of the 495 Express Lanes, a 12.1-mile highway design improvement project. Responsibilities included establishing a primary project horizontal and vertical control network using static and kinematic Global Positioning System (GPS) surveys. Also established aerial photogrammetric low-level helicopter mapping photography for the horizontal and vertical control network.
- Commonwealth Centre, Fairfax County, Virginia – Project Surveyor for 101-acre commercial development project with two parking garages. Oversaw as-built surveying related to parking, pavement, and construction design.
- VDOT, I-66 HOV Lanes, Fairfax County, Virginia – Staked centerline and conducted surveys for sound barrier walls for an 8-mile portion of I-66 from Route 50 to the I-495 Capital Beltway.
- VDOT, Utility Stakeout and Location Surveys, Northern Virginia District, 1987-2004 – Managed field work and data compilation for hundreds of assignments under a renewed contract. Surveys were conducted throughout Northern Virginia for roadway design and improvement projects. Managed compilation of horizontal and vertical survey data for more than 300 projects involving right-of-way, easement, condemnation, update, bridge situation, and route location surveys.
- VDOT, Route 733, Lime Kiln Road, Loudoun County, Virginia – Survey Task Manager for the upgrade of a two-lane, rural road that runs adjacent to Goose Creek. Project involved upgrade of a gravel roadway to a paved roadway.
- Route 267, Dulles Toll Road, Fairfax County, Virginia – Completed route location and 13 bridge situation surveys.

Michael Sun, PE
Geotechnical Engineer

Mr. Sun is Geotechnical Engineering Services Manager for the Mid-Atlantic region at Burgess & Niple. He manages geotechnical engineering tasks related to design and construction projects for public and private clients. Mr. Sun's responsibilities include oversight of subsurface explorations, shallow and deep foundations analyses, retaining wall design, slope stability analysis, and pavement design. Additional geotechnical project assignments include investigations for bridges and highways, recreational facilities, schools, trails, dam design and remediation, buildings, airports, and residential developments. He also develops programs for geophysical testing, instrumentation, and ground improvement.

Representative project experience includes:

- Dulles Metro Rail System, Fairfax County, Virginia – As Geotechnical Task Manager, provided oversight of drilling operations for this new rail station extending the public rail system from Washington, D.C. to Dulles International Airport.
- Kingstowne Office Building/Parking Garage, Fairfax County, Virginia – As Geotechnical Manager, oversaw geotechnical and special testing inspection services for construction of an 8-story commercial structure and parking garage.
- Route 287 Bridge over North Fork Catoctin Creek, Loudoun County, Virginia – Geotechnical Project Manager for VDOT project that consisted of a concrete deck replacement and bridge widening to provide shoulders and improve sight distances for Route 287. Responsibilities included subsurface investigation, bridge foundation analysis and recommendations, report preparation, and consultation with civil and structural designers.
- Stoneleigh at Westfields, Fairfax County, Virginia – Project Manager and Engineer-of-Record for geotechnical and construction testing and inspection services for a 224,000-square-foot office building encompassing two five-story precast buildings and a parking garage.
- VDOT, Soil Surveys and Foundation Exploration Services, Statewide, Virginia Performed geotechnical investigations, designed foundation and roadway systems, and made recommendations for various road and bridge design projects throughout the Commonwealth of Virginia.
- Geotechnical Engineering and Soil Scientists Services Contract, Loudoun County, Virginia – Project Manager responsible for geotechnical investigations, field observation, and construction testing and inspections for several County improvement projects. Tasks included a sheriff's station, a homeless shelter, a community center, a landfill facility, a public safety center, a local park, and a fire station.
- 495 Express Lanes, VDOT, Fairfax County, Virginia – As Geotechnical Team Leader, oversaw soil test borings, pavement corings, rock corings, and material samplings as part of the subsurface exploration for this 14-mile highway widening and interchange improvements. Also responsible for coordinating on-site geotechnical field support supervision with B&N geologist or a staff engineer.

Chan Tin, PE

Construction/Laboratory Services Manager

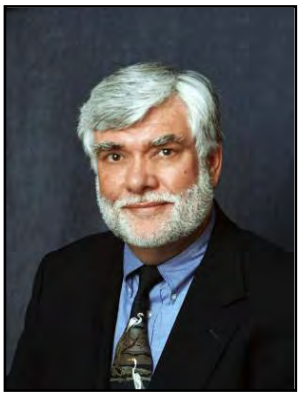
Mr. Tin is the Construction and Laboratory Services Manager at Burgess & Niple. He has 15 years of experience overseeing testing and inspection services for local, state, and federal governments. His technical expertise includes comprehensive testing of engineering and environmental samples, utilizing ASTM, AASHTO, and VDOT methodology. Mr. Tin manages field inspections of soil, steel reinforcement, and concrete; conducts tests required to classify soil samples; develops maintenance management programs; and oversees special inspections activities.

Representative project experience includes:

- Commonwealth Centre at Westfields, Chantilly, Virginia – As Senior Geotechnical Engineer, provided subsurface investigation and geotechnical analysis for a 101-acre commercial development, including multi-story office buildings and parking garages. Geotechnical services included foundation and embankment design recommendations. Inspection services included observation of concrete, reinforcement placement, steel erection, and backfill operations; and laboratory testing of soils, concrete, and fireproofing.
- Dulles Greenway Widening, Loudoun County, Virginia – Project Engineer responsible for construction observation and testing of soils and structural concrete during construction. Verified that bearing pressures for pier and sign footings met designed bearing pressures prior to concrete placement.
- Herndon Monroe Park and Ride, Herndon, Virginia – Staff Engineer responsible for construction observation and testing of soils, structural concrete, concrete reinforcement, precast connections, grout, paint thickness, and paving during the construction of this multi-story parking garage. The project consisted of a precast-concrete structure with approximately 1,775 parking spaces; bus canopies; and ramps to the Dulles Toll Road.
- Stoneleigh at Westfields, Chantilly, Virginia – Senior Geotechnical Engineer responsible for providing geotechnical recommendations for 224,000 square feet of office space encompassing two five-story precast buildings and a parking garage. In addition, served as Special Inspection Engineer-of-Record responsible for deep foundation installation (caisson) construction; and precast, concrete, and soil testing during the construction phase.
- Route 28 Improvements, Fairfax and Loudoun Counties, Virginia – Senior Geotechnical Engineer responsible for coordination of construction observation and testing services for the new Barnsfield Road, Waxpool Road, and Old Ox Road interchanges. Also responsible for verifying bearing pressures for pier footings and mechanically stabilized earth walls during construction. The project included the upgrade of six intersections, including Route 606, Route 625, and Sterling Boulevard in Loudoun County, and Barnsfield Road, Westfields Boulevard, and McLearen Road in Fairfax County.
- 495 Express Lanes, VDOT, Fairfax County, Virginia – As Laboratory Manager, provided oversight and QA/QC of soil test borings, pavement corings, rock corings, and materials sampling for this design-build highway widening project.

Lauritz P. Comninake, PE, LEED AP, CxA

Commissioning Agent



Mr. Comninaki joined Burgess & Niple in 2005. Mr. Comninaki provides mechanical engineering and commissioning support to architectural renovation and design projects for government and private clients. His expertise includes replacement and addition of HVAC systems, air handling units, steam boilers, and screw chillers. Mr. Comninaki also provides fundamental commissioning services for HVAC, lighting, and other building features. He has worked on a broad variety of projects, including institutional, municipal, multi- and single-family residential developments, military facilities and housing, university dormitories, hospitals, and community centers.

Representative project experience includes:

- PPD Laboratory Renovation, Richmond, Virginia – Served as Commissioning Agent as part of the design-build team for this fast-track laboratory renovation. Design and construction activities were completed in 6 months. The mechanical systems consisted of a variable-flow, chilled-water system with dedicated outside units, and dedicated blower coils with complete system redundancy for operations with strict humidity, temperature, and pressure controls. Completed CxA requirements, including fundamental commission documentation, organizing project requirements, reviewing design documents, and coordinating with designers.
- Chesapeake City Schools, Chesapeake, Virginia – Provided commissioning services for HVAC systems for six primary, middle, and high school facilities. Services performed included rooftop VAV systems, dual duct VAV systems, constant volume rooftop units, water source heat pump stations, exhaust systems, unit headers, and digital control systems.
- Administration Building, Patuxent Research Refuge, U.S. Fish and Wildlife Services, Laurel, Maryland – Mechanical Engineer and Commissioning Authority for a new 36,000-square-foot administration building that provides office and work space, conference rooms, and other functions. Completed design phase of work to include technical review of plans for conformance with owner requirements, constructibility, and service. The facility is designed to achieve LEED Gold Certification.
- West Virginia Air National Guard Renovations Building 119 Martinsburg West Virginia – Lead Mechanical and Plumbing Engineer for major renovation of 28,000 square foot hanger to base civil engineering group operations facility. System included VAV air handling systems, air cooled chiller, high efficiency gas boilers and ventilation for vehicle parking.
- U.S. Coast Guard ID/IQ Term Contract, Nationwide – Mechanical Engineer providing review and recommendation for the renovation and design of mechanical systems for various facilities.
- HVAC Renovation, Bobbitt Mid-Rise Apartment Building, Norfolk Redevelopment and Housing Authority, Norfolk, Virginia – As Mechanical Engineer, responsible for replacement of existing dual-temperature fan coil system with water-to-air heat pump system.

Thomas A. Bolte, PE

Bridge Designer

Mr. Bolte joined Burgess & Niple in 1981, and has 30 years of bridge and structural engineering design experience. He is Director of B&N's Bridge Group, and is responsible for the Bridge Inspection and Bridge Design Sections. His experience includes project management of bridge and transportation projects, design and analysis of bridges and other structures, and review of bridge plans. Mr. Bolte led a team of more than 15 engineers in a decade-long project involving the review of preliminary and detailed construction plans for more than 1,700 bridge replacement and rehabilitation projects.

Representative project experience includes:

Project Management – Served as Project Manager on a variety of bridge and transportation projects, including:

- WAY/MED-71 Freeway Widening, Ohio Department of Transportation – New design and rehabilitation of 26 bridges
- Avery-Muirfield Drive, City of Dublin, Ohio – Award-winning anchored girder design
- Corridor D, (11 Bridges) West Virginia Department of Transportation
- U.S. Grant (Cable-stayed) Bridge, Portsmouth, Ohio
- Emerald Parkway Scioto River Bridge (Haunched Girder), City of Dublin, Ohio

Bridge Plan Review – Led a team of engineers on a project spanning more than a decade and involving the review of plans for more than 1,700 bridge replacement and rehabilitation projects. Designs were prepared by more than 100 different consulting firms. Preliminary designs were reviewed for selection of structure types, foundation adequacy, and hydraulic adequacy for stream crossing bridges. Reviews also were performed of the final construction plans. Coordination of review comments by federal, state, and local agencies was provided.

Structural Design – Performed structural design for a variety of projects, including:

- Sidley Precast (more than 20 projects involving design of precast/prestressed building and parking garage components)
- Blaw Knox Overhead Crane and Building Analysis
- Youngstown State University Parking Garage Renovation
- Kenton County, Kentucky Administration and Jail Building Expansion

Bridge Design and Rehabilitation – Performed structural design and plan preparation duties for bridges on various transportation projects. Representative projects include:

- FRA-665-1403, 880-foot-long steel girder bridge
- FRA-670-2008, 410-foot-long curved steel beam bridge
- FRA-670-2036L, 92-foot-long single-span girder bridge
- MUS-16-0347, 240-foot-long concrete slab bridge
- FRA-670-2026, 115-foot-long single-span girder bridge
- LAW-243-0577, 25-foot-long concrete slab bridge
- FRA-270-1003, 20-foot-long concrete slab bridge

ANDREW R. SHONTZ, PG

Principal Geologist

EDUCATION

Bachelor of Science, 1998
Geology
James Madison University

REGISTRATIONS

Professional Geologist: VA, NC

MEMBERSHIPS

Association of Environmental and Engineering Geologists

Northern Virginia Building Industry Association

Mr. Shontz responsibilities include providing senior review of proposals, subsurface exploration drilling, and senior review of geotechnical engineering reports for residential buildings, commercial and industrial buildings, high-rise buildings with multiple below-grade levels, and residential land development projects.

PROJECT EXPERIENCE

Potomac Station, Loudoun County, VA - This project consisted of the construction of roadways, extensions, and improvements to 50-acres of undeveloped land for the construction of a 22,575-square-foot office building, a 34,800-square-foot parking garage, and a 130,000-square-foot retail center. Provided subsurface drainage, geologic information, and special site features information, performed field exploration, evaluated the on-site soil characteristics, provided estimated bearing ratio values for design of asphalt concrete pavements, and provided recommendations for lateral earth pressures.

ACC Data Centers 4, 5, and 6, Ashburn, VA - This project consisted of the construction of three data centers, which will include various loading dock facilities, offices, associated chiller rooms, storage facilities, various stormwater management ponds, and at-grade roadways, parking areas and associated utility infrastructure. In addition to the proposed buildings, two stormwater management ponds will be completed as part of this development. Provided geotechnical engineering and value engineering services, performed a subsurface exploration, provided value engineering of the existing geotechnical report during the design phase, conducted blast vibration monitoring due to concerns regarding the potential effects of blasting activities on the surrounding structures, and provided construction observation and materials testing services.

Brambleton Town Center, Loudoun County, VA - The Brambleton Town Center Phase IIA portion involved over 150,000 square feet of commercial/retail space which includes two parking garages and a 16 screen theater. Mr. Shontz managed geotechnical engineering consultation and construction materials testing for the development. ECS used In-Situ Seismic Refraction Testing for mapping rock and excavation unknowns as the most efficient method of determining soil and rock characteristics.

National Rural Utilities, Cooperative Finance Corporation, Sterling, VA - This project involved the design and construction of a three-story, 120,000-square-foot, LEED-certified corporate headquarter office building. The project also consisted of an extension to the existing Century Boulevard, and a private roadway (Cooperative Way) including a Conspan® bridge structure. Century Boulevard extends approximately 860 feet to the northwest from its intersection with existing Atlantic Boulevard. Directed an ASTM E 1527 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, a subsurface exploration and geotechnical engineering analysis including field subsurface exploration, laboratory testing, and review of available geologic and/or geotechnical data.

R. DREW THOMAS, PG

Senior Geologist

EDUCATION
Bachelor of Science, 1992
Geology
Radford University

REGISTRATIONS
Professional Geologist: VA

CERTIFICATIONS
OSHA: 29 CFR 1910.120, HAZWOPER, 40-Hour, Supervisors Training, 8-Hour
Radiation Safety Officer Training
49 CFR/IATA Hazmat Training
IGSHPA: Ground Source Heat Pump Installer

Mr. Thomas has almost two decades of varied geosciences experience within Loudoun County which has allowed him to become intimately familiar with its complex geologic conditions. Mr. Thomas has provided the design of deep foundations (augered and driven piles, drilled shafts, and micro-piles), shallow foundations (spread footing and mat foundations), retaining walls, foundation underpinning, ground improvement, roadways, and dams. Mr. Thomas is a long-standing member of the Loudoun County Board of Supervisors Facility Standards Manual Public Review Committee (FSM-PRC). In addition to his normal duties with the FSM-PRC, Mr. Thomas has worked closely with County staff to revise Chapter 6 of the FSM to include the Limestone Overlay District requirements and to clarify the overall Chapter requirements.

Selma Estates, Historic Development, Leesburg, VA - This project consists of the development of an existing 930-acre site with hamlet and conservancy lots, a community center, offsite water treatment facility, SMW/BMP facilities and associated roadways and utility infrastructure. Mr. Thomas managed multiple subsurface explorations and geotechnical engineering analyses that included soil borings and geophysical analysis in the form of electrical resistivity (ER). Made recommendations for subgrade preparation, fill placement, blasting/rock excavation, building foundations (including micropiles) and floor slabs, pavements, utility installation, and storm-water management pond design.

One Loudoun, Loudoun County, VA – This 358-acre, mixed-use development will have residential structures, retail space, a community center and amphitheater, a new ballpark, and will be home to the World Trade Center - Dulles Airport. Mr. Thomas is the Project Manager directing multiple subsurface explorations and geotechnical engineering analyses to provide geotechnical design recommendations in advance of construction that included subgrade preparation, fill placement, blasting/rock excavation, building foundations and floor slabs, pavements, and utility installation.

Basic Ordering Agreement for Utility Design Services for Public Entities in Loudoun and Prince William Counties, VA - Principal-in-Charge responsible for overseeing nine geotechnical engineering investigations for various utility projects throughout Prince William and Loudoun County. Mr. Thomas conducted field investigations at all sites and drilled soil test borings accordingly. A geotechnical engineering report was provided to client for each project and included recommendations regarding pipe design, foundations, subgrades, lateral earth pressures, subdrainage, rock excavation, earthwork, and microtunneling techniques.

AVINASH M. SAREEN, PWS, ISA-CA

Senior Environmental Scientist

EDUCATION

Bachelor of Science, 2002, Biology with an Ecology Concentration, Chemistry Minor, Virginia Polytechnic Institute& State University

Master of Science Candidate, Applied Ecology and Conservation Biology, Frostburg State University, Frostburg, Maryland

CERTIFICATIONS

Professional Wetland Scientist

ISA: Certified Arborist

Certified Ecologist

Member, American Society of Mammalogists

Member, Society of Wetland Scientists

Member, Association of State Wetland Managers

:mber, Virginia Association of :tland Professionals

:mber, International Society of ›oriculture – Mid-Atlantic Chapter

Member, Ecological Society of America

Mr. Thomas has almost two decades of varied geosciences experience within Loudoun County which has allowed him to become intimately familiar with its complex geologic conditions. Mr. Thomas has provided the design of deep foundations (augered and driven piles, drilled shafts, and micro-piles), shallow foundations (spread footing and mat foundations), retaining walls, foundation underpinning, ground improvement, roadways, and dams. Mr. Thomas is a long-standing member of the Loudoun County Board of Supervisors Facility Standards Manual Public Review Committee (FSM-PRC). In addition to his normal duties with the FSM-PRC, Mr. Thomas has worked closely with County staff to revise Chapter 6 of the FSM to include the Limestone Overlay District requirements and to clarify the overall Chapter requirements.

Selma Estates, Historic Development, Leesburg, VA - This project consists of the development of an existing 930-acre site with hamlet and conservancy lots, a community center, offsite water treatment facility, SMW/BMP facilities and associated roadways and utility infrastructure. Mr. Thomas managed multiple subsurface explorations and geotechnical engineering analyses that included soil borings and geophysical analysis in the form of electrical resistivity (ER). Made recommendations for subgrade preparation, fill placement, blasting/rock excavation, building foundations (including micropiles) and floor slabs, pavements, utility installation, and storm-water management pond design.

One Loudoun, Loudoun County, VA – This 358-acre, mixed-use development will have residential structures, retail space, a community center and amphitheater, a new ballpark, and will be home to the World Trade Center - Dulles Airport. Mr. Thomas is the Project Manager directing multiple subsurface explorations and geotechnical engineering analyses to provide geotechnical design recommendations in advance of construction that included subgrade preparation, fill placement, blasting/rock excavation, building foundations and floor slabs, pavements, and utility installation.

Basic Ordering Agreement for Utility Design Services for Public Entities in Loudoun and Prince William Counties, VA - Principal-in-Charge responsible for overseeing nine geotechnical engineering investigations for various utility projects throughout Prince William and Loudoun County. Mr. Thomas conducted field investigations at all sites and drilled soil test borings accordingly. A geotechnical engineering report was provided to client for each project and included recommendations regarding pipe design, foundations, subgrades, lateral earth pressures, subdrainage, rock excavation, earthwork, and microtunneling techniques.

Christopher Tacinelli, P.E.

President and Principal

Mr. Tacinelli is the President of Gorove/Slade Associates, Inc. and a Principal-in-Charge of the firm's Virginia-based professional practice. In this capacity he is responsible for managing all of the day-to-day operations related to practice management, financial operations, marketing and human resources. Mr. Tacinelli provides consulting services and oversees projects in the DC metropolitan area with a focus on projects in Northern Virginia. He has led numerous consulting assignments in the disciplines of both traffic engineering and transportation planning and has provided expert testimony. He serves on a number of Board Technical Advisory Committees, has been published in trade magazines and has been a speaker at annual trade conferences.

Education

Bachelor of Science, Civil Engineering, Syracuse University

Professional Registrations

Licensed Professional Engineer - Virginia #034182, West Virginia #16140, Maryland #30964

Professional Associations

Institute of Transportation Engineers (ITE), Lambda Alpha International (LAI) Honorary Land Economics Society, National Association of Industrial and Office Properties (NAIOP), Northern Virginia Building Industry Association (NVBIA), International Council of Shopping Centers (ICSC), Northern Virginia Transportation Authority TAC Member, Northern Virginia Transportation Alliance (Board Member)

Publications

"Evaluating SUV's Impact on Parking Operations," *Parking Today*, May 2001

"Bartering can drive projects through road requirements", *Washington Business Journal*, September 14, 2001, co-authored with Louis Slade

Speaker, "Parking and Maneuverability of Today's Vehicles." ITE Annual International Convention, Nashville, Tennessee, August 2000

"The Size of Vehicles Today, Parking and Maneuverability" ITE Annual Meeting Compendium of Technical Papers, Nashville, Tennessee 2000

Representative Experience

TRANSPORTATION STUDIES

Completed numerous traffic impact studies including site reconnaissance to determine access opportunities and constraints, and reports summarizing findings of traffic mitigation, progression and level of service analysis. Assignments have included virtually all real estate product types. Recent engagements include:

> **Mixed Use Development**: Crystal City, Arlington, VA; Crosstrail, Loudoun County, VA; Arcola Center, Loudoun County, VA; Kincora, Loudoun County, VA; Springfield Town Center, Springfield, VA; Dulles World Center, Dulles, VA; Reston Station, Reston, VA, Merrifield Mixed Use, Merrifield, VA; Capital One Headquarters Site, McLean, VA, Mitre Corporation

Headquarters Site, McLean, VA; Monument View, Arlington, VA; Loudoun Center, Loudoun County, VA; Fox Gate Town Center, Loudoun County, VA; Dulles Discovery, Dulles, VA;

Residential Development: Villages of Meadowbrook, Leesburg, VA; Oaklawn at Stratford, Leesburg, VA; Broadlands, Lansdowne, Ashburn, Belmont Ridge Road Area; Villages at Twin Rivers, Warren County, VA, Belmont Chase, Loudoun County, VA, Kennedy Warren Apartments, Washington, D.C.; Evergreen Mills; Loudoun County, VA, South Riding, Loudoun County, VA;

Office/Industrial Development: Dulles Trade Center, Dulles, VA; Patriot Ridge, Springfield, VA; AOL campus, Loudoun County, VA; Orbital campus, Dulles North Corporate Park; Sunset Business Park, Herndon, VA; Plaza America, Reston, VA; Skyline, Arlington, VA, 1700 K Street, Washington, DC;

Retail: Spectrum, Reston, VA; Skyline Shopping Plaza, Fairfax County, VA; Leesburg Premium Outlets, Leesburg, VA; Shops at Arcola, Loudoun County, VA; Ashbrook Village Center; Oyster Bay, Long Island, NY; Paramus Park Mall, Paramus, NJ; Cherry Hill Mall, Cherry Hill, NJ; Westlawn Shopping Plaza, Fairfax County, VA;

Medical Facilities: Broadlands Hospital, Loudoun County, VA; Alexandria Hospital, Alexandria, VA, Reston Hospital Center, Reston, VA

Federal Government Facilities: United States Patent and Trademark Office (PTO), Alexandria, Virginia;

ON-CALL/IDIQ PROJECTS

Leads or led the firm's engagements under the following on-call / indefinite delivery, indefinite quantity contracts. Individual projects include transportation studies and traffic signal planning and design.

Loudoun County Public Schools On-Call Engineering; Arlington Public Schools On-Call Civil Engineering; Loudoun County Traffic Engineering On-Call Services; Town of Leesburg On-Call Traffic Engineering Services; Arlington County Traffic Signal Design and Planning On-Call; City of Fairfax Traffic Signal System Upgrade; City of Alexandria Area wide Transportation Planning; Fairfax County On-Call Transportation Planning Support Services; Prince William County On-Call Transportation Planning Support Services.

OPERATIONAL ANALYSIS/DESIGN STUDIES

Completed a number of design oriented studies in the areas of both operational analysis and preliminary design/design review. Analysis and design involved the following:

Simulation Analysis: This work involved traffic simulation analysis of corridors and interchanges using micro simulation software.

Parking Planning and Design: Design work involved the planning and functional analysis of above ground and below ground parking structures in terms of functional layout, vertical circulation, and access point design and revenue control equipment assessment.

Site Access and Circulation Planning: Site access planning involves the assessment of site access points with recommendations for the number of points, their layout and their traffic control elements.

Loading Design and Analysis: This work involved the layout and/or assessment of loading facilities on site to serve single or multi building dock designs.

Tushar A. Awar, P.E., PTOE

Project Manager

Mr. Awar possesses significant transportation engineering and planning experience in both the public and private sectors. His experience includes traffic impact studies, parking studies, circulation planning, queuing analyses, traffic simulation, roadway signing and striping planning, maintenance of traffic plan design, and traffic signal design. Projects Mr. Awar has been involved with include schools, residential developments, universities, small and large commercial facilities, mixed-use developments, and transit-oriented developments.

Education

Master of Science in Civil Engineering, Concentration: Advanced Transportation Systems, Virginia Polytechnic Institute and State University (Virginia Tech)

Bachelor of Science in Civil Engineering, *Maharashtra Institute of Technology, Pune, India*

Professional Registrations and Certifications

Professional Engineer: District of Columbia #PE904553, Virginia #044718;
Certified Professional Traffic Operations Engineer

Professional Associations

Institute of Transportation Engineers (ITE)

Workload

Mr. Awar is currently the Project Manager for the firm's work with the Loudoun County (VA) Public School. He has the capacity to begin work on the 4th High School and Replacement Middle School immediately.

Representative Experience

TRANSPORTATION STUDIES

Mr. Awar has prepared and managed a number of traffic studies for residential, retail, office and mixed use projects, ranging from small-scale projects to large town centers. His focus has been on the preparation of traffic studies to meet the guidelines provided by Virginia Department of Transportation (VDOT) (Chapter 527) and the localities. Mr. Awar, throughout the entitlement process, provides assistance with other aspects involved with the site planning, such as outlining transportation phasing, proffer writing, cost-estimating, and preparing travel demand management (TDM) goals.

- **Mixed Use:** Dulles World Center, Loudoun County, VA; Crosstrail Mixed Use, Loudoun County, VA; Kincora Mixed Use, Loudoun County, VA; Fox Gate Town Center, Loudoun County, VA; Arcoloa Center, Loudoun County, VA; Barber and Ross, Leesburg, VA; Falls Church City Center, Falls Church, VA; Parkway Village, Prince William County, VA; Oaklawn, Leesburg, VA; Hayes Property Mixed Use, Jefferson County, WV; Riverview Village, Prince William County, VA; Vistas at Lake Manassas, Prince William County, VA.

- **Primary and Secondary Schools:** J Michael Lunsford Middle School (MS-5), John Champe High School (HS-7), Moorefield Station Elementary School (ES-16), Grant Perkins/Dulles South Area Elementary School (ES-21), NCC/Lansdowne High School (HS-8), Discovery Elementary School (ES-22), Trailside Middle School (MS-6), Frederick Douglass Elementary School and Tuscarora High School

- **Retail:** Fort Evans Uniwest, Leesburg, VA; Pender Village, Fairfax County, VA; Avonlea Plaza, Loudoun County, VA ; Route 50 CVS Pharmacy, Loudoun County, VA; and Lee and Harrison Shopping Center Traffic Assessment, Arlington, VA.

- **Residential:** The Villages at Twin Rivers, Warren County, VA; Potomac View Condominiums, Loudoun County, VA; Towns at Belmont Ridge, Loudoun County, VA; Belmont Overlook, Loudoun County, VA; Rock Hill Crossing, Loudoun County, VA; Annadale Senior Adult Housing Development, Orange County, VA; Meadowbrook By-Right Development, Town of Leesburg, VA; Briarfield, Loudoun County, VA; Yardley Development, Loudoun County, VA; Kennedy Property, Loudoun County, VA; and Brandy Station TIA, Culpeper County, VA.

- **Office/Industrial:** MITRE Development Fairfax County, VA; Towers Crescent, Fairfax County, VA; Aerospace Office Development, Fairfax County, VA; Loudoun Parkway Center, Loudoun County, VA; Messier Site, Loudoun County, VA; Battle view Parkway Office Development, Prince William County, VA.

- **Medical Centers:** Broadlands Hospital, Loudoun County, VA

PARKING PLANNING AND DESIGN

Mr. Awar has prepared a number of parking studies, which evaluate shared parking and parking management principles. These studies take into account the demand for parking for the proposed uses and evaluate the demand fluctuations based on the time of the day corresponding to other uses on the site.

Sample Projects: Loudoun Parkway Center, Loudoun County VA; University Center, Loudoun County VA; Dulles World Center, Loudoun County VA; Crosstrail, Loudoun County VA.

TRAFFIC OPERATIONS AND SIMULATION ANALYSIS

Mr. Awar has extensive experience with projects that involve detailed micro-simulation analysis. These projects typically involve corridor analysis with the use of micro-simulation tools such as: Simtraffic, CORSIM, VISSIM. Along with the calibration of the network, Mr. Awar is well versed with optimizing signalized corridors, replicating free flowing highway conditions, testing various scenarios for the transportation network, and extracting and presenting the measures of effectiveness (MOE's) related to the micro-simulation analysis.

Sample Projects: City of Fairfax - Signal Timing Study; Route 28 Analysis – Orbital Campus, Ashburn Village Boulevard/Route 7 Interchange Analysis, Route 28 Analysis – Dulles World Center, Lee Highway Corridor Widening – Simulation Study.

TRAFFIC SIGNALS AND TRAFFIC CONTROL PLANS

Mr. Awar has experience in reviewing maintenance of traffic plans for proposed developments in Washington DC and Virginia. The plans are required to be implemented during construction work that affects pedestrian or vehicular travel pattern.

Sample Projects: Safeway Redevelopment, 1855 Wisconsin Avenue, N.W., DC; Bread for the City, 7th Street N.W., DC.

B. KEY STAFF EXPERIENCE

KEY PERSONNEL – ROLES

Bill Reiter will act as Principal-in-Charge providing full project oversight assuring that Loudoun County's requirements are met along with assuring that Walker Quality Standards are adhered to. Additionally, Bill will be in attendance at key project meetings.

Damian Larkin will serve as Project Manager for this engagement. He will lead the day-to-day coordination efforts of the project team and you, the client, and will attend all project meetings. He will also provide technical input throughout the project, as well as be responsible for making sure that the budget and schedule requirements are met throughout the project. He will establish a quality plan and implement the project plan including project budget, staffing requirements, and schedule. In addition to his extensive experience designing parking structures, Damian has worked with multiple projects in the Northern Virginia Area. His knowledge and experience with local conditions and expectations will prove invaluable to you as you progress through your project.

Bill Reiter is the Managing Principal in Walker Parking Consultants' Philadelphia office. He is responsible for the staffing and administration of all projects in the Philadelphia office. In addition, Bill oversees operations in Walker's Boston, New York and Tampa offices. Bill has extensive experience in functional design, structural engineering and restoration of parking facilities. He has participated in over 200 parking structure projects.

Prior to joining Walker Parking Consultants in 1987, Bill was employed by R. A. Gress & Associates, Frazer, Pennsylvania, a consulting firm specializing in steel and masonry design. Prior to joining R.A. Gress, he was employed by Bechtel Power Corporation and United Engineers for a total of six years as a Structural Engineer in the power industry.

Education:

Bachelor of Science, Civil Engineering, Villanova University, Villanova, Pennsylvania, 1979

Master of Science, Structural Engineering, Villanova University, Villanova, Pennsylvania, 1984

Registrations:

Licensed Civil Engineer in the District of Columbia and the Commonwealth of Massachusetts
Licensed Professional Engineer in the Commonwealth of Pennsylvania, Commonwealth of Virginia, State of Maryland, State of Michigan, and State of New York

Representative Projects:

Burke Center Station
Springfield, VA
Principal-in-Charge
Functional/Signage Design/Consulting of a 1,292 space 5-level precast parking structure for the Virginia Railway Express
Project completion: 2008

Reston Station/Wiehle Avenue Parking Garage
Reston, VA
Principal-in-Charge
Field Representative Services associated with the 2,300 space parking structure
Project completion: 2012

Franconia Springfield Metro Station
Springfield, VA
Principal-in-Charge
Prime design of 1,050 space precast concrete horizontal expansion to existing parking structure utilizing design-build project delivery system
Project completion: 2003

Vienna Metro Commuter Rail Station
Vienna, VA
Project Manager
Site feasibility study, functional design/consulting, structural/mechanical engineering for 2,285 space 6-level precast concrete parking structure.
Project completion: 2001

WMATA College Park Metro Station
College Park, MD
Principal-in-charge
Functional design/consulting and structural engineering for 1,338 space parking structure.
Project completion: 2007

Wolfe & Sophia Street Parking Garage
City of Fredericksburg
Fredericksburg, VA
Principal-in-Charge
Functional/PARCS/Lighting Design/Consulting and Structural Engineering for a 296 space 4-level precast concrete parking structure under a design-build project delivery system
Project completion: 2005

Damian Larkin is a Project Manager at Walker Parking Consultants' Philadelphia office. Damian joined the Philadelphia office in July of 2000. He has experience in parking consulting services and in the design of post-tensioned (unbonded and bonded), cast-in-place concrete structures, precast structures, foundation design and construction administration and observation. Damian plays an integral part in providing Walker's quality assurance to our clients.

Prior to joining Walker, Damian was an Engineer for Goodkind & O'Dea Engineering, located in Mt. Laurel, NJ. With Goodkind & O'Dea, Damian was a structural engineer involved in bridge and culvert design and appraisal as well as cellular site design and construction. Damian also has experience as a Construction Inspector for The Pennsylvania Department of Transportation.

Education:

Bachelor of Science, Civil Engineering, Lehigh University, Bethlehem, Pennsylvania, May1998

Professional Affiliations:

American Concrete Institute

Registrations:

Licensed Professional Engineer in the Commonwealths of Pennsylvania, PE-062450
Licensed Professional Engineer in State of Virginia, #0402039998

Representative Projects:

Burke Center Station
Virginia Railway Express
Springfield, VA
Project Manager/Project Engineer
Functional/Signage
Design/Consulting of a 1,292 space 5-level precast parking structure
Project completion: 2006

Franconia Springfield Metro Station
Springfield, VA
Project Engineer
Prime design of 1,050 space precast concrete horizontal expansion to existing parking structure utilizing design-build project delivery system.
Project completion: 2004

Reston Station/Wiehle Avenu Parking Garage
Reston, VA
Project Manager
Field Representative Services associated with the 2,300 space parking structure
Project Completion: 2012

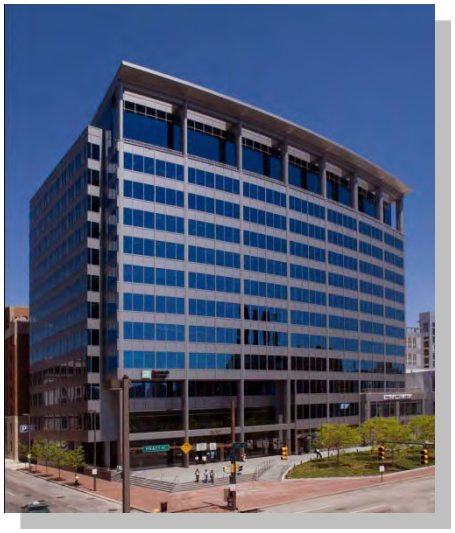
Freemason & Boush Streets Garage
City of Norfolk
Norfolk, VA
Assistant PM/Structural Engineer
Functional design/parking consulting, structural engineering of 612 space 7-level precast concrete parking structure.
Project completion: 2005

Liberty Crossing 2
McLean, VA
Project Manager
Functional design/consulting, structural and MEP engineering for 1,600 space parking structure.
Project completion: 2008

Wolfe & Sophia Street Parking Garage
City of Fredericksburg
Fredericksburg, VA
Project Manager
Functional/PARCS/Lighting
Design/Consulting and Structural Engineering for a 296 space 4-level precast concrete parking structure under a design-build project delivery system
Project completion: 2005

Appendix Experience

500 E Pratt Street
Baltimore, Maryland



CASE STUDY

CHALLENGE

Trammell Crow Company negotiated the rights to develop an underutilized parcel on Pratt Street facing the National Aquarium on Baltimore's Inner Harbor. TCC then was challenged to design, finance and construct a 279,000 sf 14-story trophy office tower in a market that had not seen a new office building constructed in 10 years.

SUMMARY

Located in the heart of the Central Business District bordering Baltimore's famed Inner Harbor, 500 East Pratt is prominent in the City's skyline and one of the City's trophy office buildings.

The $50 million, 279,000 square foot speculative tower is part of a master development called Lockwood Place which includes an 110,000 square foot multi-story retail center and a 900 car parking garage.

The property was developed by Trammell Crow Company through a ground lease with Baltimore City Community College and financed by the Multi-Employer Property Trust (MEPT) through their advisor Kennedy Real Estate Associates Counsel (KAREC). With no pre-leasing, the speculative building achieved 80% occupancy 8 months after shell completion and is now fully occupied with a variety of Fortune 500 and local financial companies as well as a major law firm.

RESULTS

The building was designed to maximize its prominent location along the Pratt Street corridor, across the street from the National Aquarium. Floor to ceiling glass is carried through all four sides of the building with a 30' structural glass lobby entrance fronting the Inner Harbor. The building features spectacular harbor views, a

QUICK FACTS	
Location:	Baltimore, MD
Type:	Speculative Trophy Office
Size:	279,000 sf
Const Comp:	Summer 2004
Architect:	Cope Linder Architects
Client:	Multi-Employer

2006 Maryland NAIOP Award Winner:
Best Interior –Public/Common Area Best Office High Rise

Virginia Commonwealth University School of Engineering East Hall & School of Business Snead Hall
Richmond, Virginia

QUICK FACTS	
Location:	Richmond, VA
Type:	Higher Education
Size:	276,000 sf
Project Start:	November 2005
Const Comp:	January 2008
Architect:	Moseley Architects, Hillier Architecture, Payette Associates, Smith +McClane Architects
Contractor:	Gilbane

CASE STUDY

SUMMARY

TCC was retained for this project by Virginia Commonwealth University (VCU) after successfully developing the $44,000,000 School of Engineering's West Hall.

The vision by the University was to construct a shared facility that would allow students to grow in their respective fields while learning to share innovative research advancements with business-minded entrepreneurs. The building façade had to be innovative and adaptive to its historic surroundings and compliments the extension of the University toward the City of Richmond's central business district by extending Monroe Park.

RESULTS

The Engineering and Business school was a collaborative effort to construct a 276,000 square foot build-to-suit with a total budget of $86,000,000. It was delivered on time for classes to commence and under budget. The facility includes two different structures; a concrete frame to accommodate the specific vibration needs on the Engineering School, and a steel structure on the remaining facility to take advantage of a more cost effective structural system thereby reducing the overall building cost.

TCC managed and coordinated four different architectural firms in a facility that includes classrooms, research and development laboratories, lecture halls, case study rooms, multi-media teaching facilities and a café. A realistic, simulated trading floor was constructed to for the Business School to allow business students to gain a better understanding of life on the stock market floor.

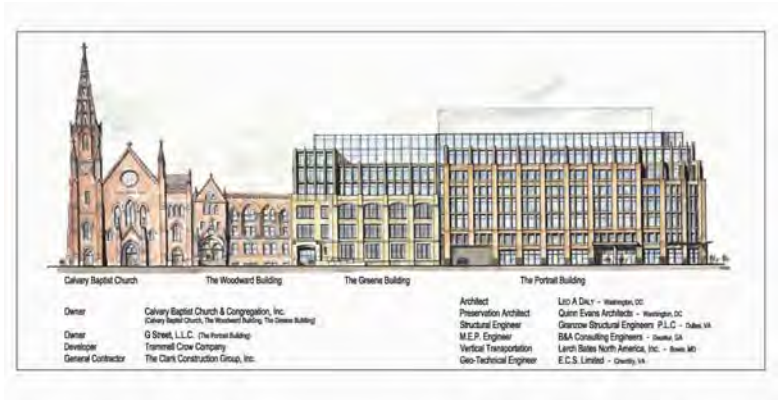
The Portrait Building
Washington, DC

QUICK FACTS	
Location:	Washington, DC
Type:	Office
Size:	195,087 sf
Project Start:	January 2003
Const Comp:	June 2005
Architect:	Leo A Daly
Contractor:	Clark Construction

CASE STUDY

CHALLENGE
Calvary Baptist Church was seeking an opportunity to sell its 130,000 sf unused density for a new office development that would incorporate 35,000 sf of new programming space for the Church, provide 23 parking spaces and provide resources to renovate the remaining Church property and restore the Church's steeple. Due to the historic component of the project, Trammell Crow Company worked closely with the Historic Preservation Review Board to ensure that the design of the building would preserve and reflect the historic aesthetic of the original church site and surrounding properties.

RESULTS
Trammell Crow Company led the development and design team to meet the complex design requirements of the Church while also meeting the requirements for an efficient first-class office building. Trammell Crow Company also worked closely with city officials and the Historic Preservation Review Board throughout the process. The interrelated character of the Church and the new office building in their design and final uses led to extremely complicated construction and ownership issues. The site is located in both the Downtown Historic District and the Chinatown District. Negotiations with both entities were extensive as they have approval rights over the exterior design. The project delivered on time.



The Gateway Grand
Ocean City, Maryland

QUICK FACTS	
Location:	Ocean City, MD
Type:	Mixed-Use
Size:	196 Luxury Condominiums
	4,600 sf Retail
Project Start:	February 2004
Const Comp:	July 2008
Architect:	Becker Morgan
Contractor:	Bovis Lend Lease

CASE STUDY

STRATEGY
The Gateway Grand is Ocean City's premiere luxury condominium residence. This 16-story, designed by a nearby architecture firm, 488,000 square foot landmark building, was thoughtfully planned to take full advantage of the project's expansive 250 linear feet of direct ocean frontage.

Trammell Crow Company worked diligently with the Town of Ocean City officials and the City Fire Marshall to ensure that the construction was completed impeccably and to city code.

RESULTS
Soaring 208 feet above the beach, The Gateway Grand is without a doubt the most impressive and newest addition to the Coastal Highway skyline. The low height of the adjacent building coupled with the shallow depth of the barrier island at the project's location yield stunning views of the ocean, the bay, and of Ocean City in its entirety from practically every floor.

The project in its entirety encompasses 4.8 acres of land between 49th and 47th street, and is comprised of luxury condominium residences, a five-story detached structured parking garage, a 4,642 square foot freestanding restaurant, and a surface parking lot.

The amount of shared services and amenities offered in The Gateway Grand far exceed that of any other building in Ocean City. From the expansive, resort-style, 4,000 sf lobby with soaring ceilings, to multiple owners' rooms, to the fitness center, Kids' Club, indoor storage lockers, indoor pool and outdoor pool, The Gateway Grand unquestionably provides the most comprehensive product offering in the Ocean City market. The building has an extensive security system including 24-hour monitored security cameras, a secure lobby, 24-hour property management staffing. One of the most distinctive features of the amenities packaged offered to The Gateway Grand residents is the first, truly full-service luxury concierge package ever offered in Ocean City. The Gateway Grand concierge has been on site from the first day the building opened and offers move-in assistance to every resident. Trammell Crow Company selected locally based The Mark Fritschle Group as sales agents for the luxury condominium units.

The Gateway Grand delivered in July 2008.

The Columbia Residences
Washington, DC

QUICK FACTS	
Location:	Washington, DC
Type:	Mixed-Use
Size:	225 Luxury Condominiums
	22,000 sf Retail
Project Start:	February 2004
Const Comp:	February 2006
Architect:	Shalom Baranes Associates
Contractor:	Bovis Lend Lease

The Columbia Hospital for Women, 1915

CASE STUDY

OVERVIEW

The Columbia is a 225-unit luxury condominium (400,000 sf). Formerly The Columbia Hospital for Women, the development includes a mixture of adaptive re-use and new construction. The center portion of the hospital, constructed in 1915, was restored and two wings of new construction were added along 24th and 25th Streets with approximately 22,000 sf of retail space, of which, Trader Joe's occupies 11,000 sf.

CHALLENGE

From 1915 through early 2002, more than 275,000 babies were born at the Columbia Hospital for Women in the heart of Washington, D.C.'s West End. In May 2002, however, the financially insolvent institution closed its doors and needed to sell the property as quickly as possible. Bids to purchase were due just two months later. Potential buyers thus had little time to study the condition of the property, development constraints, and the market feasibility of redevelopment.

In spite of these constraints, a development team of Trammell Crow Company through High Street Residential, its wholly owned subsidiary, recognized the potential of the well-located, attractive site that faces Pennsylvania Avenue just a mile from the White House and in close proximity to Georgetown and DuPont Circle. The developer purchased the property in September 2002 for a record purchase price for residential property at the time. Three months later, the District of Columbia's Historic Preservation Review Board (HPRB) declared the entire site a historic landmark, a designation that had a significant impact on its development potential and on oversight of the redevelopment effort.

STRATEGY

Completed in January 2007, the Columbia Residences is a 225-unit, 395,000-square-foot luxury condominium building that includes both adaptive use of the historic hospital structure and new construction. The development team, which also included architect Shalom Baranes Associates, worked diligently with neighborhood associations and HPRB to arrive at a thoughtful redevelopment solution.

This involved restoring the original hospital structure, demolishing the non-historic remainder of the building, adding two L-shaped wings along the building's east and west sides, and adding three levels of below-grade parking. The new wings, each of which contains at its base approximately 11,000 square feet of street-level retail space, were designed to protect the sight lines of the original building and to complement its unusual Mediterranean architecture. An innovative brick firing process was used to replicate the irregular patina of the historic structure's bricks, enabling the additions to match the existing brick facade. Copper-colored aluminum and extensive glass differentiate the new wings from the original building.

Because the entire site—not just the building—was declared a historic landmark, the hospital's main entrance, circular drive, and green space also had to be preserved. Many other development challenges presented themselves. The design, featuring 78 different unit types, added to the cost and difficulty of construction. Maintaining access to the historic building as well as its structural integrity during the excavation of the parking garage required extensive shoring and the construction of a temporary bridge over the excavation. There was a private covenant on the land that limited its development to 100,000 square feet, which is less than that permitted by zoning; the development team, with support from the neighborhood, negotiated an amendment that increased the allowable density in exchange for agreeing to provide neighborhood-serving retail space; this, in turn, required the site to be rezoned for retail use.

RESULTS

The TCC/High Street Team worked diligently with local neighborhood groups, the District of Columbia Office of Planning, and the Historic Preservation Review Board to arrive at a thoughtful redevelopment solution. The design includes demolition of most of the non-original portions (post 1915) of the building and the restoration of the original building's architectural features that were removed during the hospital's expansion. The design included the addition of a penthouse level belvedere that was removed in 1950 and the restoration of the sunrooms at the end of the Y shaped residences which flank the elegant entryway.

Clearly the project has overcome all of these challenges. The redevelopment yielded a return greater than 20 percent, the condominiums quickly sold out and resale activity has been strong. The delivery of The Columbia Residences clearly demonstrated the team's experience with mixed-use redevelopment, a commitment to high quality planning and design, an ability to form and manage top-quality development teams, experience in complex development approval requirements in a city with strong historic characteristics, redevelopment and experience in marketing residential units at a local, regional, and national level with a third-party marketing firm.

Market Square
Washington, DC

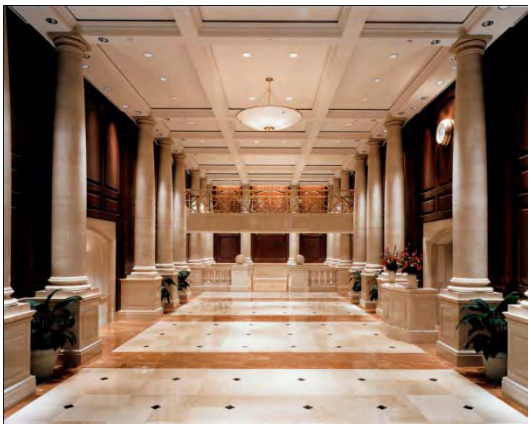
CASE STUDY

SUMMARY

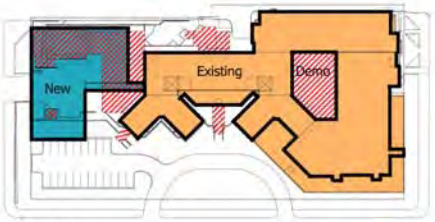
Market Square is the result of a design competition held by the Pennsylvania Avenue Development Corporation ("PADC") in 1985. The project was financed with a combination of debt and equity totaling $242 million. PADC required that the project include 210 residential housing units on the top floors of each tower in a previously non-residential area, which added to the challenge of the project. The development delivered in 1990 on time and on budget, leased to 98% by 1992, with virtually all condominium units sold by 1994. It was awarded the Urban Land Institute 1992 Project of the Year for its financial performance, execution and architecture.

Market Square is home of the U.S. Navy Memorial, which provides visitors, Market Square residents and their guests, retail customers, combined with those on an "arts walk" from the Smithsonian museums to the National Portrait Gallery an urban energy along Pennsylvania Avenue.

QUICK FACTS	
Location:	Washington, DC
Type:	TOD / Mixed-Use
Size:	1,300,000 sf
Project Start:	November 1987
Const Comp:	July 1990
Architect:	Hartman-Cox
Contractor:	H.C. Beck

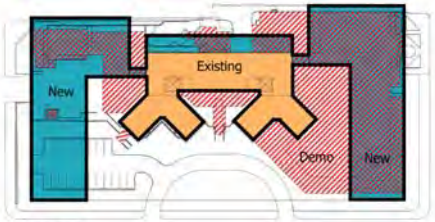


SCHEME 1



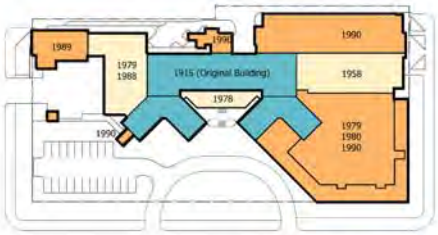
SCHEME 2

SCHEME 3

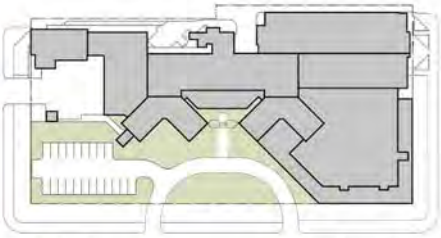


SCHEME 4

Key:
- Existing / Renovate
- Demolition
- New Construction



Existing Hospital Configuration
(Dates of Construction)

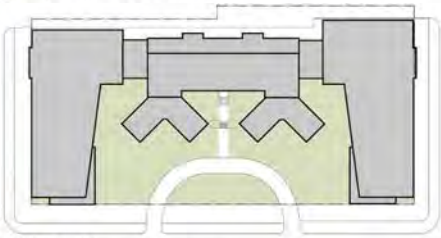


Total Lot Area: 99,879 sf
- Existing Percentage of Lot Occupancy: 57% (56,450sf)
- Existing Percentage of Open Space: 16% (16,057sf)
- Existing Percentage of Hard Surface: 27% (27,172sf)

Existing Open Space Diagram

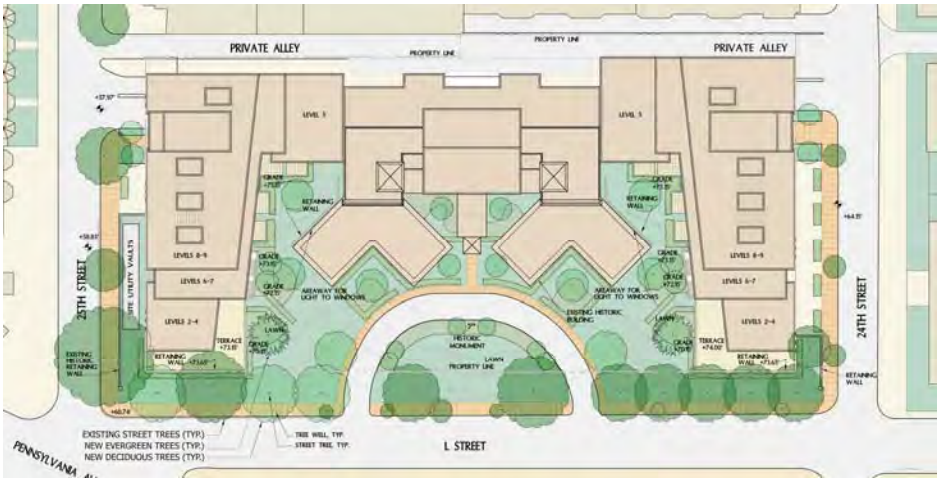
- New Residential Footprint
- Existing Hospital Additions to Be Removed

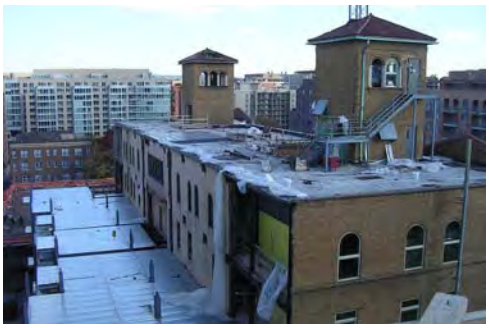
Proposed Residential Scheme

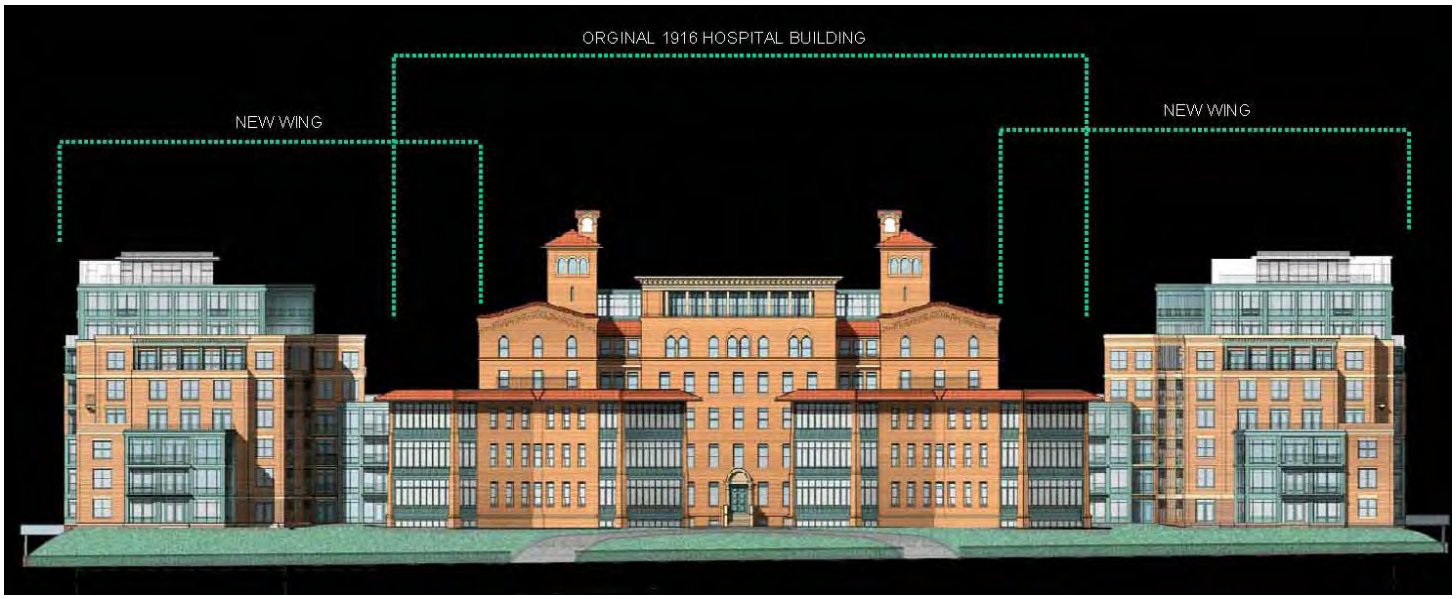


Total Lot Area: 99,879 sf
- Proposed Percentage of Lot Occupancy: 57% (56,520sf)
- Proposed Percentage of Open Space: 32% (32,270sf)
- Proposed Percentage of Hard Surface: 11% (11,089sf)

Proposed Open Space Diagram






ORGINAL 1916 HOSPITAL BUILDING
NEW WING
NEW WING

Shirlington Village Condominiums
Arlington, Virginia

QUICK FACTS	
Location:	Arlington, VA
Type:	Residential
Units:	159 Luxury Condominiums
Project Start:	September 2004
Const Comp:	September 2006
Architect:	SK & I
Contractor:	Harvey-Cleary Builders
Services:	Development & Construction

CASE STUDY

CHALLENGE

Seeing a growing need for high density residences 'inside the beltway' in Northern Virginia, Trammell Crow Company ("TCC") began negotiations with Federal Realty Investment Trust ("FRIT") for the purchase of a development site within the Phase 2 expansion of The Village of Shirlington master development. The challenge faced by Trammell Crow Company was to position the site as a profitable condominium location.

STRATEGY

The development site under consideration was originally planned as part of larger apartment complex. Trammell Crow Company's strategy was to uncouple 159 apartment units and position these as condominium residences. This strategy would require negotiation and co-operation with the master developer, FRIT; the adjacent apartment developer, Bozzuto Development Company; and the County of Arlington.

RESULTS

After negotiating a purchase agreement with FRIT, Trammell Crow Company redesigned the project as a condominium and successfully obtained a revised site plan approval from Arlington County. As a result of the redesign, the building's efficiency increased, the number of parking spaces increased, and unit sizes were brought into range that is highly desirable by condominium purchasers.

The first three floors contain 36 loft style units with high ceilings and exposed duct work, exposed concrete ceilings, and hardwood floors in living spaces. Floors 4 through 11 consist of 123 typical flat style units. These units have nine foot ceilings and more typical finishes of a first class condominium building. The penthouse level has tremendous views of Washington, DC. The project delivered in 2006 with all units sold during presales.

Sentinel Square I
Washington, DC

QUICK FACTS	
Location:	Washington, DC
Type:	Office
Size:	412,661sf
Project Start:	June 2008
Const Comp:	April 2010
Architect:	SmithGroup
Structural Engineer:	Haynes Whaley Associates
MEP:	B&A Consulting Engineers
Civil Engineer:	Jacobs Edwards and Kelcey

CASE STUDY

CHALLENGE
Trammell Crow Company's challenge was to design an office building which would appeal equally to the private sector and public sector tenant. From the moment Trammell Crow Company ("TCC") started its search for land in the burgeoning NoMa neighborhood, it set a goal to find the parcel of land which would best allow it to replicate the "speculative, high-security, Class-A office" concept it had pioneered with its Patriots Plaza project in SW. When TCC had the opportunity to purchase the subject site, they knew they had succeeded. This parcel will offer 1.3 million square foot development to be built in four phases.

STRATEGY
Phase I of Sentinel Square, designed by SmithGroup, is a 413,000 sf, 12-story building consisting of individually glazed units, curtainwall, precast concrete, stainless steel metal panels, and black granite. Inside, a two-story lobby will boast Jerusalem Gold granite from Israel, louvered millwork panels and metal panel column covers. Sentinel Square Phase I has three below-grade levels with 319 parking spaces. A shared courtyard and landscaping, including granite tree planters, flower beds, decorative metal railings, and an irrigation system, will unify this building with the three additional buildings to be developed on the site.

In order to achieve LEED® certification from the U.S. Green Building Council, the Sentinel Square project team will employ numerous sustainable construction methods. Demolished asphalt, concrete, and brick knee walls will be recycled, and excess concrete and masonry waste will be taken to a sorting and recycling facility after the support of excavation is complete.

RESULTS
As designed, Sentinel Square has a high level of appeal to the GSA as it presents an opportunity for GSA to consolidate occupying entities into fully government occupied leased facilities, thereby providing security, technologic and operating efficiencies not otherwise available in the current roster of leased facilities. The project is just under 75% leased to the US Customs and Border Protection, US Parole Commission, Veterans Affairs and Equal Employment Opportunity Commission.

Patriots Plaza I, II & III
Washington, DC

QUICK FACTS	
Location:	Washington, DC
Type:	Office
Size:	985,376 sf
Project Start:	Dec. 2002 (I) Aug. 2007 (II & III)
Const Comp:	May 2005 (I) Oct. 2009 (II & III)
Architect:	Gensler
Structural Engineer:	Haynes Whaley Associates
MEP:	B&A Consutling Engineers
Civil Engineer:	Jacobs Edwards and Kelcey.

CASE STUDY

CHALLENGE
Trammell Crow Company ("TCC') directed the acquisition, planning, capitalization, development, construction of base building and tenant improvements and lease-up of this three-phase office project ultimately containing a little less than 1 million square feet in the Southwest Washington DC submarket. The significant Federal presence within the Southwest, along with the heightened security needs of today's government agencies, led TCC to design a first class project that incorporates ISC "Level III+" security features into a speculative development including: progressive collapse avoidance; hardened facade and glazing; defensible setbacks (30' min.); an expendable entryway; critical room hardening and separate shuttle elevators to the parking garage which run on the outside face of the structure.

STRATEGY
In conjunction with Gensler, TCC selected a site design that included 3 separate and distinct buildings which could act independent of one another or be combined into a single building. Tenants can add additional "soft" security measures to allow the building to be operated as a Level IV facility, as is the case with the project's first phase. Phase I, a 280,001 square foot, twelve-story building delivered in May of 2005 and is currently 100% leased to GSA on behalf of the Federal Bureau of Investigation, Surface Transportation Board, Federal Emergency Management Agency, the Office of the Comptroller of the Currency and Health and Human Services. Phase II is 84% leased to Federal Bureau of Investigation and Health and Human Services' Assistant Secretary of Response and Preparedness. Phase III is 95% leased to Health and Human Services and the US Department of Agriculture, this 330,000 sf lease represents the largest deal in 2009 within the District of Columbia.

Phase II and III delivered in late 2009. In addition to meeting the security standards listed above, Phases II & III are certified LEED Gold. Phase I is LEED Silver for EB: O&M.

RESULTS
As a result of Trammell Crow Company's understanding of the most current governmental needs, ability to execute on all phases of the design and construction and to offer a Class-A product at rents which are below congressionally mandated maximums, the project has been a success for GSA, Trammell Crow Company and its capital investors.

Milestone V
Germantown, MD

CASE STUDY

CHALLENGE

Through an existing relationship with Boeing Corporation, TCC learned of an upcoming requirement for Digital Receiver Technology ("DRT"), a Boeing subsidiary that develops wireless surveillance and tracking equipment for the federal government and law enforcement agencies. DRT was looking for a new facility to house both its manufacturing operations and office headquarters. TCC saw an opportunity to build a new facility for DRT at Milestone Business Park, an office park that TCC develops on behalf of Bentall Kennedy and MEPT. The procurement process was extremely competitive, as TCC was competing with 8 other sites, many of which had a significantly lower land basis than Milestone.

STRATEGY

TCC worked with the design team to create Milestone V, a unique facility that houses both the manufacturing and office needs of DRT. The 162,000 square foot facility features four stories of Class-A office space above a 54,000 square foot first floor manufacturing facility and a 479 space parking garage. TCC took the project through a complex site plan amendment process, which involved nine months of close collaboration with staff and officials from Montgomery County and the State of Maryland. TCC was also able to make Milestone V more cost competitive with the other potential sites by negotiating $1.7 million in tax credits from Montgomery County. Ultimately, it was Boeing's confidence in TCC's delivery and financing capabilities that led them to award the build-to-suit to Milestone V instead of the lower-cost alternatives.

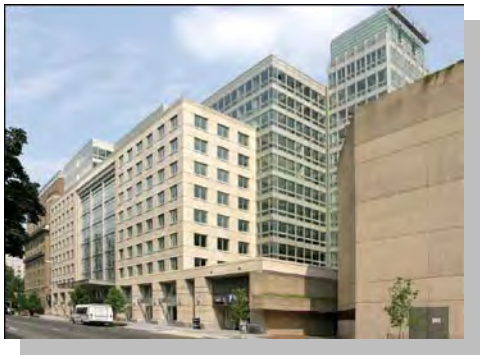
RESULTS

TCC was awarded the build-to-suit in September, 2010, and the lease with Boeing was executed in June 2011. Construction began on the new five-story, 162,000 sf office and manufacturing shortly thereafter and is expected to deliver in October 2012. The project has been designed to meet the evolving manufacturing and office needs of DRT, which expects to grow its employee base from 400 to over 600 within the next five years.

The transaction represents a big win, not only for Milestone Business Park, but also for Montgomery County. Milestone V is one of only two office build-to-suits to break ground in Montgomery County in the last two years. MEPT's investment of $46.1 million in this project will have a multiplier effect in the community and result in a total estimated economic impact of more than $72 million in the Washington area. In addition, the project allows Montgomery County to retain over 400 high-paying jobs, which could have relocated to Frederick County.

QUICK FACTS	
Location:	Germantown, MD
Type:	Class A Office
Size:	162,000 sf
Project Start:	July 2011
Const Comp:	October 2012
Architect:	Morgan Gick McBeath & Assoc.
Contractor:	Buch Construction
Equity Partner:	Kennedy Associates Real Estate Counsel
Sustainability:	pursuing LEED® Silver

1625 Eye Street, NW
Washington, DC



QUICK FACTS	
Location:	Washington, DC
Type:	Class A Office
Size:	400,000 sf
Const Comp:	2003
Architect:	Gensler
Contractor:	EE Reed
Client:	ULLICO

CASE STUDY

SUMMARY

Located in the heart of the Central Business District of Washington, DC, 1625 Eye Street was conceived in 2000 as the headquarters for the Union Labor Life Insurance Company (ULLICO). ULLICO's goal was to occupy a building of the highest quality that would reflect its stature as a significant financial institution. The 12 story building, a mix of contemporary architecture with classic internal features, is an elegant addition to the neighborhood immediately surrounding the White House. The building's façade consists of Indiana limestone and glass. A special design feature is an illuminated, 160-foot tower with lighting that can change colors that is visible throughout the central portion of the city. The building contains a dramatic nine story lobby composed of marble, glass and wood that is brilliantly lit by custom designed, suspended fixtures.

Trammell Crow Company led the development team and managed the construction of the project, acting as general contractor in a joint venture with another firm.

RESULTS

The building was completed in late 2003, within the schedule and budget approved by ULLICO. As market dynamics shifted for ULLICO during the construction period, ULLICO was not in need of the entire building and needed to lease the space instead. The majority of the available space was leased immediately by a prominent law firm paying the District's highest rents at the time.

ULLICO decided to capitalize on the value that was created through Trammell Crow Company's efforts by selling the property in

BB&T Capital Markets | Public Finance Group. BB&T Capital Markets ("BB&TCM") is the investment banking division of BB&T Securities, LLC, the broker-dealer subsidiary of BB&T Corporation. BB&TCM provides government entities, non-profits, corporations, and investors access to capital markets by providing underwriting, sales and trading, advisory/specialty financing, and transaction services. BB&TCM provides priority coverage to participants in the municipal bond market within our footprint, and staffs 63 dedicated Municipal Finance Professionals, with extensive experience structuring various transportation-related financings, general obligation transactions, and certificates of participation/ installment purchase financings. Furthermore, in order to continue to satisfy the increasingly complex needs of the issuers that the firm serves, BB&TCM has evolved to become of the largest regional distributors of bonds, with 67 associates dedicated to Fixed-Income Institutional Sales and 21 Municipal Underwriting and Trading specialists. In addition, BB&TCM maintains a dedicated Municipal Research and Analytics Group to support the innovative activities of its Public Finance operations. BB&TCM's Municipal Strategies Group provides comprehensive services and products for investors and issuers to enhance investment returns, minimize borrowing costs, and more effectively manage assets and liabilities. The Municipal Strategies Group has provided innovative solutions in different interest rate markets to help issuers maximize opportunities with new and existing debt.

The professionals that would be actively engaged in the development and financing of the Project, Sean Ekiert and Jay Conrad, have been actively involved in the financing of parking and other transportation-related facilities in Virginia and the mid-Atlantic for many years.

$40,000,000 Maryland Transportation Authority
Lease Revenue Bonds Metrorail Parking Projects, Series 2004

In his capacity as the primary day-to-day Financial Advisor to the Maryland Transportation Authority, Mr. Ekiert served as the primary advisor for the issuance of Parking Facility Revenue Bonds by the MdTA. This financing – which financed three new parking facilities to be located at Metrorail Stations in Prince George's County, Maryland – utilized a public ownership and support model, with critical roles in the financing plan for numerous parties, including:

- *The Maryland Transportation Authority*, which served as the issuer for the Bonds and would lease the parking facilities pursuant to a series of Ground Leases;
- *The Washington Metropolitan Area Transit Authority*, which would construct and operate the facilities and make payments to MdTA (from revenues provided by a parking surcharge fee) to repay the bonds pursuant to a series of Facilities Lease Agreements;
- *Prince George's County, Maryland,* which agreed to make appropriations to restore the Debt Service Reserve Fund to its required level in the event of a withdrawal from the DSRF to meet the debt service obligations on the bonds; and
- *Commercial entities* developing commercial space at one of the WMATA stations, which would have priority access to certain areas of one of the parking facilities.

Chesapeake Transportation System
$152,722,520 Transportation System Senior Toll Road Revenue Bonds, Series 2012A&B
$151,893,495 Virginia Transportation Infrastructure Bank Loan

In 2012 the City of Chesapeake completed the financing a new toll road and bridge, the Dominion Boulevard Project, to be operated by the City of Chesapeake as part of toll road system that includes the existing Chesapeake Expressway. As Financial Advisor to the City of Chesapeake, BB&T Capital Markets was instrumental in securing the first-ever loan from the Virginia Transportation Infrastructure Bank created as part of Governor McDonnell's 2011 transportation funding plan.

1.b. Describe the experience of the firm or consortium of firms making the proposal, the key principals and project managers involved in the proposed project including experience with projects of comparable size and complexity, including prior experience bringing similar projects to completion on budget and in compliance with design, land use, service and other standards. Describe the length of time in business, business experience, public sector experience and other engagements of the firm or consortium of firms. Include the identity of any firms that will provide design, construction and completion guarantees and warranties and a description of such warranties and guarantees.

Ranked as the second largest domestic general contractor by Engineering News Record (2011), Clark Construction Group, LLC (Clark) is headquartered in Bethesda, Maryland with offices strategically located throughout the United States to meet the needs of our clients, and employs approximately 3,800 people. Its total revenues in 2011 stood over $4.2 billion, and the firm enjoys the distinction of being the largest privately-held general contractor in the country. Backed by strong capabilities in Preconstruction, Estimating, Scheduling, Purchasing, Risk Management, and Safety, our client base is a blend of private and public owners, including many city, state, and federal agencies. Clark is a diversified contractor, and is able to safely meet the needs of public and private clients on a variety of project types, including the new construction and renovation of hotels, multi-family residential housing, office buildings, healthcare facilities, roadways, airports, water treatment plants, sports facilities, convention centers, performing arts and entertainment venues, educational facilities, laboratories, rail stations, correctional institutions, manufacturing plants, and all manner of infrastructure. Clark's projects have been successfully completed for both public and private clients under a variety of project delivery methods, including general contracting, construction management, and design-build, and have completed six public private partnerships to date.

Clark and Trammell Crow have collaborated together for 17 years on eight projects completed or currently under construction in the Greater Washington, DC Metropolitan area. In addition, Clark continues to build on the 30 year relationship with Davis Carter Scott working together on 27 projects. The relations that are created serve as an example of the success and quality that result from solid working relationships.

Clark has a long history working in and around WMATA facilities. In addition to the numerous projects completed adjacent to metro structures, Clark has worked on station projects such as Morgan Boulevard Station, Largo Town Center Station, Navy Yard Metro Entrance, Branch Avenue Storage Yard, Mount Vernon Square Station Modifications, Brent Wood Shop Expansion, Ballston MU Access Improvements, and Rosslyn Station Access Improvements.

In recent years, Clark has built 37 projects in Loudoun county and approximately 35-million-square-feet of structured parking resulting in over 150,000 parking spaces throughout the Greater Washington, DC Metropolitan area. These parking structures utilize a variety of structural types including precast concrete, cast-in-place concrete, and post-tensioned concrete. We have provided a representative sampling of Clark's relevant experience.

NGA Campus East
Fort Belvoir, Virginia

Clark, as the managing joint venture partner, provided general contracting services for the construction of a complete new campus to the Engineering Proving Grounds at Fort Belvoir in Northern Virginia. The $1.4 billion contract encompassed the construction of 3.9 million GSF of development over 130 acres at Virginia's Fort Belvoir. The project includes construction of office and support spaces totaling more than two-million square feet, a 5,200-space parking garage (1.58 million SF), technology center, central utility plant, visitor control center (VCC), infrastructure support, and site work including over two miles of roadwork and 10 miles of site utilities, a four-lane 450' long bridge over Accotink Creek. All structures achieved LEED Gold certification, surpassing the goal of LEED Silver.

Walter Reed National Military Medical Center (WRNMMC)
Bethesda, Maryland

Clark, serving as the managing joint venture partner, recently completed the new Walter Reed National Military Medical Center (WRNMMC), which cares for our nation's most critically wounded warriors, our veterans, and their families. Clark was responsible for the design and construction of the new $860 million WRNMMC complex includes a mix of new outpatient (Building A) and inpatient (Building B), as well as extensive renovations and upgrades to the existing hospital facilities and central utility plant (CUP), site utilities and infrastructure, all while maintaining ongoing operations and allowing the continued treatment of our most critically wounded soldiers. In addition, the project encompassed a 334,705 SF, eight-level patient parking garage accommodating 944 cars, and a ten-level, 385,683 multi-use parking structure offering 1,206 spaces, and new guard houses for the military base pedestrian and vehicle access points.

The Johns Hopkins Hospital (JHH) – South of Orleans Parking Garage
Baltimore, Maryland

New construction of a multi-use facility including a 2,200-space parking structure and loading dock, as well as a construction of a 20,000 SF kitchen and power plant, a 53,000 SF underground storage and distribution center, and a utility/service tunnel located on the urban campus of The Johns Hopkins University in Baltimore City. The project also included the construction of a pedestrian bridge connecting the garage to the Hospital's medical building.

DOD/BRAC 133 at Mark Center (Washington Headquarters Services)
Alexandria, Virginia

Design-build project awarded by the U.S. Army Corps of Engineers that encompasses the new construction of two office towers (1.8 million GSF), two parking garages (1.2 million GSF) accommodating 3,900 vehicles, a visitor's center, a transportation center, a remote inspection facility, a remote delivery facility, and extensive site work on a 16-acre campus in Alexandria, VA. All structures were designed and constructed for LEED Gold certification.

U.S. Coast Guard Headquarters
Washington, DC

Clark is providing design-build services for the construction of the new headquarters building for the U.S. Coast Guard (USCG). The new facility is the first stage of consolidation for the Department of Homeland Security and consists of five major components: the 11-story, 1,200,000 SF headquarters building housing 3,860 employees, two seven-story parking garages accommodating 2,000 vehicles, a separate central utility plant (CUP), site improvements, and the National Operations Center (NOC).

Liberty Crossing Phase II – Parking Garage
McLean, Virginia

Clark served as the general contractor for three blast-resistant structures totaling 893,000 GSF: (1) a six-story, 390,000 GSF main office building featuring a pedestrian bridge on the second level connecting the new construction to an adjacent/occupied building; (2) a 1,600-space, 497,000 GSF cast-in-place parking garage that utilized a bonded post-tensioned design selected for its blast resistant characteristics; and, (3) a 6,000 GSF Access Control Center (ACC) serving as a visitor's center/security facility and featuring forced-entry ballistic resistant windows.

Baltimore/Washington International Thurgood Marshall Airport Central Garage
Baltimore, Maryland

Clark provided General Contracting Services for the fast track construction of a three-million-gross-square-foot structured stand-alone, cast-in-place concrete parking garage at BWI Airport. The new garage provides 8,400 parking spaces to one of the nation's busiest airports and utilizes a centralized revenue control system. The garage tripled the number of spaces close to the airport terminal and includes an automated Smart Park system to direct motorists to available spaces.

Union Station Parking Garage
Washington, DC

Clark provided general contracting services for the construction of this five-level garage expansion project that added 1,000-spaces, totaling approximately 321,000 SF. The Structure was built over active Amtrak & Marc trains, as well as railroad platform for WMATA's Metro tunnel. The project features an architecturally significant exterior façade on H Street, a parking access and revenue control system, and a new functional layout for the garage's bus and rental car operations. The project also included the restoration of the existing parking structure.

Clark and Trammell Crow Company have collaborated on numerous projects in the Washington, DC Metropolitan region and each project serves as an example of the success and quality that result from this solid working relationship. The experience and mission of our companies complement one another, and, in addition, foster the timely, successful completion of each of our collaborative efforts, from project concept through construction. Our established relationship and mutual respect that exists between our respective organizations will serve to enhance our ability to achieve all of the goals of the Loudoun County Parking Garage project, while working in a collaborative environment.

Sentinel Square I - 90 K Street, NE
Washington, DC

Preconstruction and construction phase services for this new 12-story, 542,000 GSF, Class A office building with three levels of below-grade parking accommodating 317 vehicles. The façade is a combination of pre-cast concrete and glazing systems, with the glazing system primarily comprised of ribbon windows with feature area elements of vertical curtain wall. Inside, a two-story lobby showcases Jerusalem Gold marble from Israel, louvered millwork panels, and metal panel column covers. A shared courtyard and landscaping, including granite tree planters, flower beds, decorative metal railings, and an irrigation system, unifies this building with the three additional buildings being developed. The project is LEED Gold certified.

Sentinel Square II - 1050 1st Street, NE
Washington, DC

Clark is providing general contracting services for the construction of this 412,000 GSF, 12-level office building with four levels of below-grade parking. The cast-in-place concrete structure will feature a blast-resistant precast façade with ribbon windows and the facility's lobby will include louvered millwork and limestone from Jerusalem. Sentinel Square II is designed to achieve LEED certification.

Portrait and Greene Buildings / Calvary Baptist Church Restoration
Washington, DC

Preconstruction and construction phase services for the new construction/renovation assignment totaling 227,000 GSF and encompassing multiple owners and three unique components, including: (1) the Portrait Building; an eight-story, 135,000 SF Class A office building with four levels of underground parking, as well as 20,000 SF of ground-level retail space, and the restoration of the church's adjacent Woodward Building, completely renovated with a new stage, new mechanical system, library, classrooms and a modern kitchen; (2) the Greene Building; a 32,000 GSF office building that includes an existing façade from the original building, dating back to 1929. The façade is retained in place and tied into the new concrete supporting structure; and (3) the restoration of the historic Sanctuary Building (circa. 1866), including the installation of a detailed replica of the 60-foot, 5½-ton steeple.

Avion Lakeside
Chantilly, Virginia

Located in Avion Business Park, a 188-acre business community conveniently located in the center of the high-tech Dulles Corridor, this project includes a 4-story, 172,000 SF office building featuring a structural steel frame with an exterior of chestnut brown brick with pre-cast accents, topped by a standing seam copper roof. Grey reflective glass windows provide abundant sunlight and views of the complex's six- acre lake, as well as nearby mountains and forests. A handsome two-story lobby features high-end finishes, including marble flooring with granite inlay, wood paneling and glass. The project also included road infrastructure, extensive site improvements and landscaping. In addition to numerous natural amenities, the park features a full-service fitness center complimented by nearly three miles of jogging trails with incorporated fitness stations. An on-site cafeteria serves both breakfast and lunch.

Commerce Executive VI
Reston, Virginia

Construction of a six-story, 146,000 SF office building featuring one below-grade level, as well as a separate 150,000 SF parking garage with 448 spaces. In addition to the office space, the building features a two-story stone and wood panel clad lobby completed by Clark, as well as ground- floor retail space. The building is a concrete structure clad with granite aggregate precast matching the neighboring buildings. A five-story curtain wall faces a main thoroughfare, with the remaining elevations consisting of alternating glass and precast bands with a ribbon window system. The parking garage is made of poured-in-place concrete with pre-cast spandrels matching the office building.

Patuxent Crossing III
Washington, DC

This three story, 100,000 SF office building features a brick skin with intermittent cast stone and accent brick. Punch and curtain wall windows also highlight the exterior. The building has a two story lobby featuring a barrel-vaulted ceiling with a glass and stainless steel hand railing on the mezzanine level overlooking the first floor. The lobby also contains stone flooring, interior glass, stone wainscot and a coffered ceiling with light troffers. The project was successfully completed on a fast-track, nine month schedule.

parking garage commissions

STAND-ALONE PARKING STRUCTURES

2 Washingtonian Center
Gaithersburg, Maryland
1,125 space parking structure to accommodate 270,000 SF office building

Aquia Town Center Parking Garage
Aquia, Virginia
216,000 SF, 1,250-car parking structure with Coakley & Williams

Arrowbrook Parking Structure A
Herndon, Virginia
558,459 SF garage

Arrowbrook Parking Structure D
Herndon, Virginia
426,725 SF garage with 9,624 SF of retail

The Colonies of Arlington Apartments
Arlington, Virginia
3-level parking structure for a new 16,000 SF clubhouse in residential development

Fair Lakes 7
Fairfax, Virginia
608-car parking structure for a built-to-suit 150,000 SF headquarters

Human Genome Sciences
Gaithersburg, Maryland
4-level parking garage for a 900,800 SF Biotech headquarters

Jefferson Park / American Red Cross
Falls Church, Virginia
Addition of three levels to an existing American Red Cross parking garage

Loudoun County Government Center
Leesburg, Virginia
4-level parking garage

Northrop Grumman / TASC
Chantilly, Virginia
4-level parking garage for a built-to-suit campus complex

Kaiser Permanente Parking Garage
McLean, Virginia
144,338 SF 8-level design/build parking garage for new facility in Tysons

Oracle Systems Corporation
Reston, Virginia
1,508-space parking structure to accommodate 250,000 SF built-to-suit headquarters building

Oracle Systems Corporation
Reston, Virginia
492-space, 3-level addition to existing parking structure, totaling capacity for 2,000 cars at two-building built-to-suit campus headquarters

Reston Corporate Center
Reston, Virginia
236,800 SF 4-story parking garage (773 spaces) for 2 existing office buildings

Reston Gateway
Reston, Virginia
284,700 SF 6-story parking garage (887 spaces) for two adjacent office buildings

Reston Overlook
Reston, Virginia
331,000 SF 4-story parking garage for 1,044 cars to accommodate two office buildings

Reston Sunrise East
Reston, Virginia
2-story parking garage for 116 cars

Wachovia Center
Norfolk, Virginia
2,472 Car parking garage for use by a 264,372 SF office building, 349,500 SF multifamily housing development, 83,000 SF Retail, 147,000 SF Symphony Hall, and a 100,000 SF Hotel, all located within a single block

OFFICE BUILDING OVER BELOW-GRADE PARKING GARAGES

77 K Street, N.W.
Washington, D.C.
344,000 SF, 11-story office building with 3 levels of below grade parking

1101 K Street, NW
Washington, D.C.
430,000 SF office building with 3 levels of below-grade parking for 169 spaces

1100 13th Street, NW
Washington, D.C.
285,000 SF, 12-story office building with 3 levels of below grade parking

1111 Eleventh Street, NW
Washington, D.C.
102,000 SF 9-story residential tower with 97units and 4 levels of below grade parking.

901 New York Avenue
Washington, D.C.
530,000 SF, 11 story office building and public space with 4 level of below-grade parking for 473 cars

1812 North Moore Street
Arlington, Virginia
600,000 SF 30-40 story office building with six levels of above and below-grade parking and 8,000 SF of ground floor retail

8400 Wisconsin Avenue
Bethesda, Maryland
201 unit high-end condominium building with 3 levels of below grade parking

Arlington Mill Community Center
Arlington, Virginia
280,000 SF mixed-use building consisting of 200 condominiums and a 80,000 SF community center with 600 underground parking spaces

parking garage commissions

Ballston Point
Arlington, Virginia
260,000 SF office building including 3 levels of underground parking, ground floor retail space, and pedestrian connection to the heart of Ballston

Braddock Metro Plaza
Alexandria, Virginia
125,000 SF, 9-story, 122 unit condominium building with 3 levels of below-grade parking

The Byron
Falls Church, Virginia
90 unit condominium building 9,000 SF office space and retail 97,000 SF parking garage for 235

Capitol Cab Condominiums
Washington, D.C.
105,000 SF condominium building with 112 units on six floors with one level of below grade parking

Dominion One at Jefferson Park
Falls Church, Virginia
416,000 SF office complex with 3-levels of below-grade parking garage for 719 cars

Hawthorn Condominiums
Arlington, Virginia
230,000 SF, 9-story, 135 unit condominium with 7,000 SF retail on ground floor and two levels of parking

King Street Metro Place
Alexandria, Virginia
389,000 SF, three-phase office building complex with a 70,000 SF parking garage

Madrigal Lofts
Washington, D.C.
229,766 SF condominiums with 260 loft style units with exposed duct work with three level of below grade parking

Mill Road Office Building and Hotel
Alexandria, Virginia
440,000 SF office space and a 180-room Marriott Residence Inn hotel and 3 levels of below grade parking

National Gateway at Potomac Yard – Block B
Arlington, Virginia
471,000 SF residential building with ground floor retail and 6 levels above and below-grade parking

National Gateway at Potomac Yard - Block C
Arlington, Virginia
1.2 million SF of 4 office buildings with heights between 9 and 11 stories as well as ground floor retail and 3-4 levels of below-grade parking

National Gateway at Potomac Yard – Block D East
Arlington, Virginia
410,00 SF, 357 unit residential building with 3 levels of below grade parking

National Gateway at Potomac Yard – Block D West
Arlington, Virginia
403,000 SF, 358 unit residential building with ground floor retail with 3 levels of below grade parking

National Gateway at Potomac Yard – Block E
Arlington, Virginia
396,000 SF office space, 21,000 SF retail space, and 44,000 SF fitness space with four levels below-grade parking

National Gateway at Potomac Yard – The Eclipse
Arlington, Virginia
512,000 SF Basebuilding Services for 465 unit 11 story condominium project which incorporated extensive ground floor retail space, and includes a 50,000 SF grocery store

The Palatine Condominiums
Arlington, Virginia
262 unit condominium complex
5 levels of underground parking

Union Center Plaza
Washington, D.C
Base Building Architecture for 276,000 square foot office building with 3 levels of underground parking

Vantage Condominiums
Merrifield, Virginia
270 dwelling unit residential building with 105,000 SF of retail space and 1,000 parking spaces below grade

OFFICE BUILDING OVER ABOVE-GRADE PARKING GARAGES

Center for Naval Analyses Corporation
Alexandria, Virginia
Eight-story, 214,000 SF built-to-suit office building over a three-story garage

Dulles Corner Phase II
Herndon, Virginia
220,000 SF office building with an attached 3-level parking garage

Dulles Gateway Center
Herndon, Virginia
640,000 SF office development with a 4-level parking garage

Dulles Technology Center
Fairfax County, Virginia
405,000 SF master plan for a 5-building office campus and 3-level parking garage

Institute for Defense Analyses at Mark Center
Alexandria, Virginia
230,000 SF design of headquarters building over 5 levels of parking garage

Marriott Residence Inn
Old Town Alexandria, Virginia
257,000 square foot, 240-room hotel with 185-space parking garage

parking garage commissions

One and Two Potomac Yard
Arlington, Virginia
654,000 SF "Green" building mainly serving the EPA consolidation; LEED™ Gold certified. 6 levels of parking total 3 levels of below grade

Park Place
Annapolis, Maryland
1.2 million SF mixed use development/ town center with offices, hotels, and condominiums with two levels of parking below the entire site

Pentagon Federal Credit Union
Alexandria, Virginia
75,000 SF office building with 110,000 SF parking garage above and below grade

Reston International Center Office Building
Reston, Virginia
190,000 SF mixed-use facility including office and retail space with 300,000 SF of parking

Reston Square
Reston, Virginia
950,000 SF mixed-use building complex featuring office, 5-level garage, and a 175-room Westin Suites Hotel

Reston Station Transit Center

Reston, Virginia

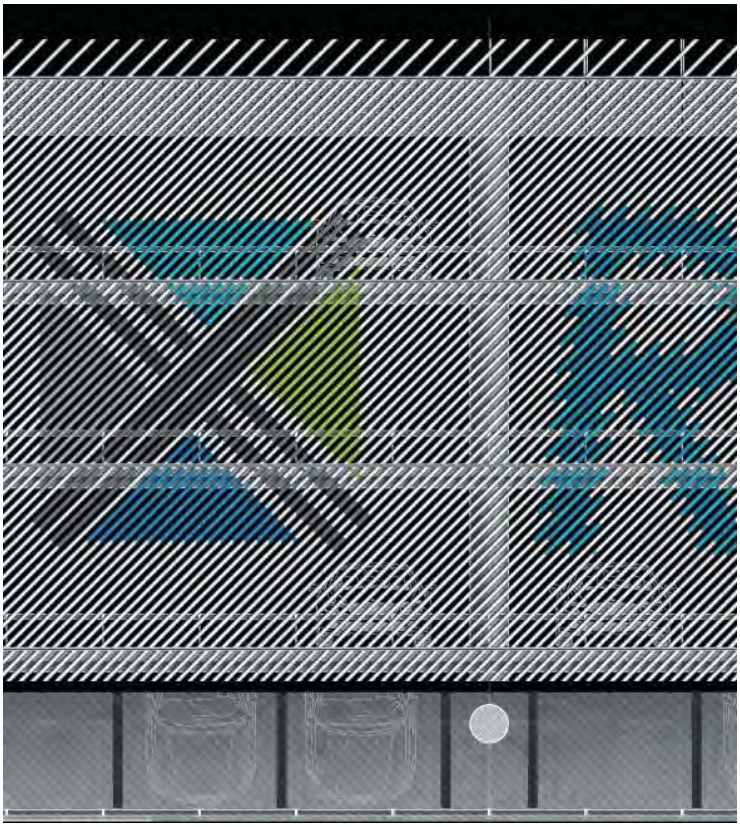
Gross Area:
1.3 Million SF
7 Levels, 2,800 Spaces

Services:
Master Planning
Architecture
Construction Administration

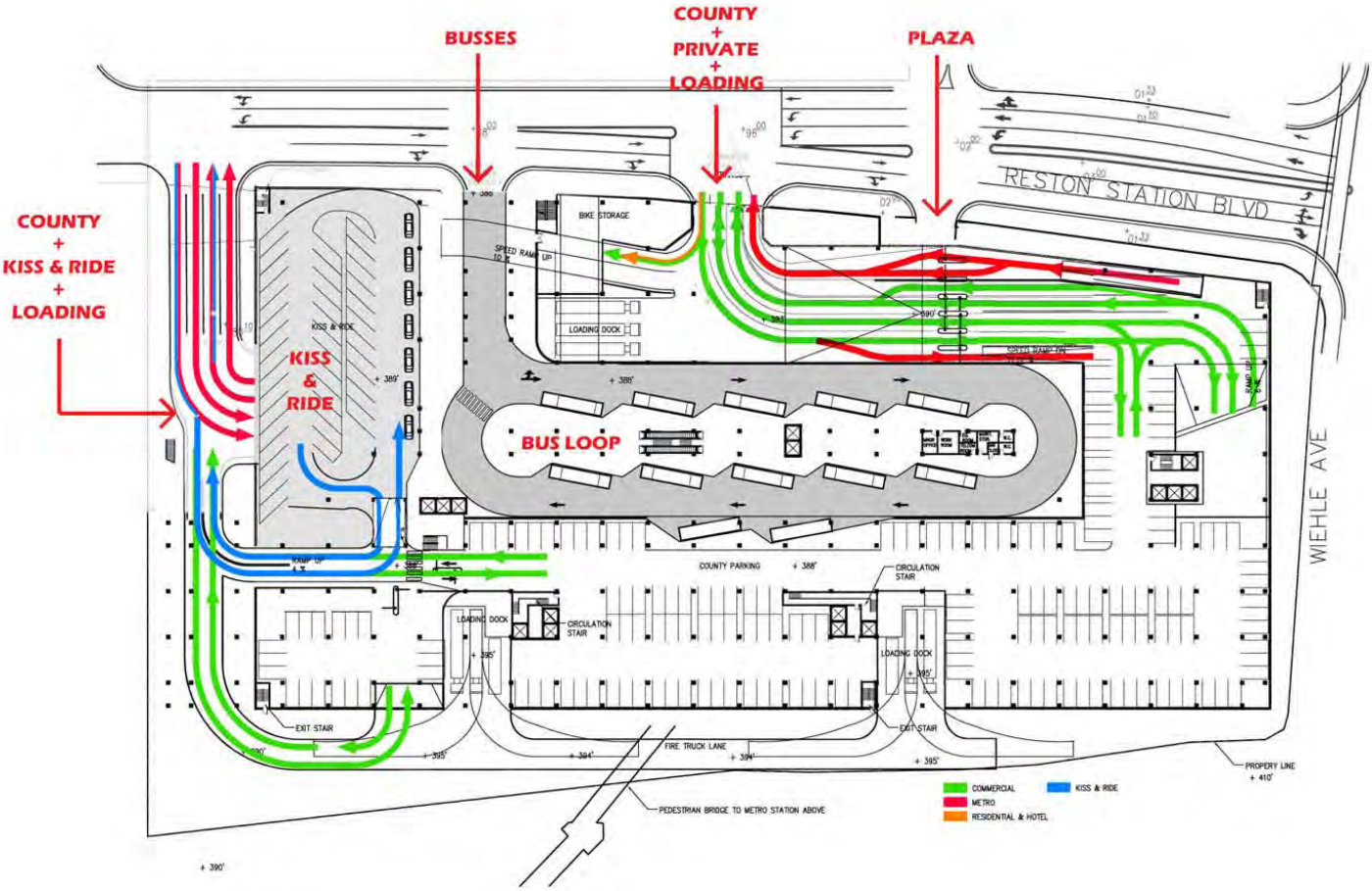
Project Description:
Reston Station is a first-class transit-oriented development, honoring the amenity-rich, pedestrian-friendly environment that Reston Town Center was founded upon. The project features a **seven-level transit center** which will provide **will provide 2,800 spaces, parking for 12 buses and a kiss and ride lane with parking for an additional 45 cars.** The garage also serves as a pedestal for the mixed-use program above, allowing buses and cars easy access to bring commuters to Reston Station's Metro Station while creating walk-able, amenity-rich environment in the civic plaza above. Special Attention is being paid to garage screening and venting due to the high visibility of the project along the toll road.

Reston Station has set a new paradigm for transit-oriented development in the Metropolitan Washington Region and beyond. Much like the transformative nature Reston Town Center had on the idea of what a planned community could be, Reston Station changes the perception of how Public/Private entities can work together to achieve a balanced mix of uses in a dense urban environment. Sustainability serves as the foundation for the planning effort and the prominent location calls for the best in architectural design and construction materials given its high visibility from major roadways including the Dulles Toll Road, Wiehle Avenue and Sunset Hills Road.

Reston Station is being delivered on a fast track schedule and is slated for completion on the Metro station's grand opening late 2013.



Garage Screening



GARAGE G2 LEVEL

Wells Fargo Center Parking Garage

Norfolk, Virginia

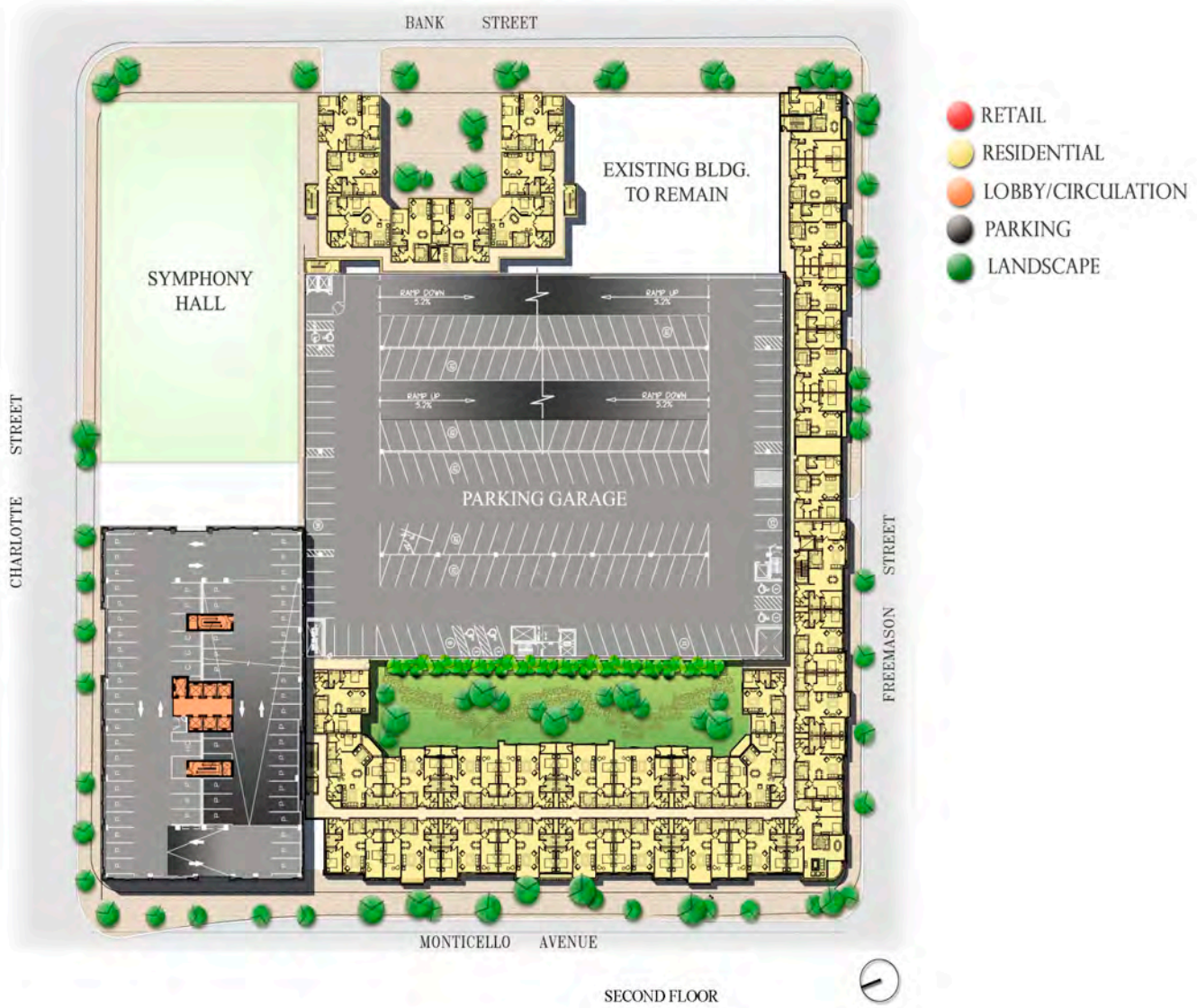
Gross Area:
City Garage - 8 Levels, 1,372 Spaces
Wells Fargo Center Garage - 10 Levels, 488 spaces.

Services:
Master Planning
Architecture

Project Description:
This **8 level, 532,154 square foot enclosed garage** is a pre-cast structure with architectural pre-cast exterior skin. **The garage features a double helix ramp system and has a capacity of 1,372 parking spaces**.

The project also included an adjacent 10 story parking structure with 488 spaces for the Wells Fargo Center Office Building.

An existing parking garage owned by the City of Norfolk was demolished in order to create the mixed-use office, low-rise residential, retail and parking development. The new parking, which would also be **owned by the city,** will serve office and residential tenants as well as the public attending events at the Scope Arena and Chrysler Hall. The **project required steady communication and coordination between the Developer and the City**, as well as the joining office, retail, residential and parking components. The project's proximity to the water also created coastal site design issues such as high water tables and hurricane winds.



SECOND FLOOR

Oracle Parking Garages

Reston, Virginia

Gross Area:
2,000 Space Parking Garage (Phase 1)
492 Space Parking Garage (Phase 2)
Office Space totaling 410,000 SF

Services:
Master Planning
Architecture
Construction Administration

Project Description:
Davis, Carter, Scott was selected to design Oracle's regional headquarters in Reston, Virginia. Oracle had developed a strategic plan to meet its long-term facility needs and selected a campus-like site that would accommodate future growth. DCS developed the master plan for the 22-acre site that would grow to three additional buildings. Oracle would eventually develop 410,000 SF with the option build an additional 340,000 SF with an adjacent garage to support up to 3,500 employees. Oracle sold and additional a portion of the site for future residential. It was required that the master plan and building be designed in accordance with the exacting design guidelines imposed by the Reston Design Review Board for the Reston Town Center area.

The Phase I Garage was built during the second phase of the Office building. The garage design mirrors the architecture of the office buildings in detail and materials that echo a Jeffersonian style. This approach is in response to Oracle's desire to present both a conservative image to its governmental clients and a more modern image, associated with Oracle's leading edge core business, to the general public. The precast garage accommodates 2,000 cars on three labove grade levels that step down with the topography of the site.

Phase II of the parking garage provided an additional 492 space by extending 2 stories of the parking structure. The addition came 3 years after the first phase. The Garage was fully operational during construction thanks to careful planning and coordination by Davis Carter Scott.


BUMP


B
SUNSET HILLS ROAD
PHASE II
8 STORIES
PROPOSED
PHASE III
8 STORIES
PROPOSED
PHASE III
GARAGE NO. 2
6 LEVELS
1,006 SPACES
PHASE I
8 STORIES
GARAGE NO. 1
5 LEVELS
525 SPACES
RESTON PARKWAY
DULLES AIRPORT ACCESS HIGHWAY

Kaiser Permanente Parking Garage

McLean, Virginia

Gross Area:
144,338 SF of Parking

Services:
Architect of Record
Construction Administration

Description:
Davis Carter Scott served as Architect of Record for this**144,338 SF 8-level open parking garage** located in a tight infill site in McLean, Virginia. The design uses a long span precast tees and spandrel panels on cast-in-place base. A**n efficient, switch-back design with enclosed elevator and stair towers allowed the garage to fit into a very tight site** adjacent to a newly renovated medical office building for Kaiser Permanente. The project was delivered via Design/Build and the **close coordination** of the design and construction teams during the schematic design phase **allowed a significant cost and schedule savings.**


Staff Parking

Loudoun County Government Center

Leesburg, Virginia

Gross Area:
158,000 SF
418 Space Garage

Services:
Master Planning
Architecture, Interior Architecture
Construction Administration

Project Description:
The 158,000 SF Loudoun Government Center is located in historic Leesburg, requiring the building to be designed to complement the surrounding historic district as well as meet the space and technological needs of the expanding county government. The county mandated that the project be completed within a 12-month time frame.

The building's size, large massing, required parking structure (418 spaces) presented design challenges in a neighborhood of centuries old homes and buildings. The building exterior was architecturally detailed to integrate into the historic architecture in the area. The building and site were designed to provide a sense of accessibility. The arched windows and handrails at the first level are designed to help manage the scale of the facility. A multi-textured brick was used to create a softness to the structure, and a detailed cornice provides character to the facade.

A central plaza was designed between the front of the building and the parking garage. The plaza concept fits within the historic context of the area as public buildings have traditionally offered open-air spaces. In addition, the plaza serves as an overland storm water relief system. The site plan accommodated the County's request that expansion capacity of 112,000 SF be available for future expansion.

The building lobby is patterned with terrazzo fl oors and etched glass storefronts. The Board of Supervisors' meeting room has state-of-the-art acoustical design and audiovisual system. State-of-the-art, energy-efficient building operating systems were installed. The building envelope materials (walls, roof and glass) were selected to reduce energy consumption.

P3 Transportation Experience

Williams Mullen's P3 team brings its extensive knowledge, skills and experience from both the private and public sides of P3 transportation projects to its representations. Our ability to understand the issues from the governmental perspective benefits our private clients as together we evaluate opportunities, plan projects and allocate risk in a manner most beneficial to the client.

TRANSPORTATION SECTOR: HIGHWAY AND INFRASTRUCTURE DEVELOPMENT

Our attorneys have counseled clients and crafted multiple partnering agreements to develop a wide variety of transportation infrastructure. Our significant experience with projects developed pursuant to the Virginia Public-Private Transportation Act of 1995 ("PPTA") has helped establish us as a leader in this arena. The firm serves as lead counsel to the developer in two of the active PPTA projects undertaken by the Virginia Department of Transportation ("VDOT"): the Coalfields Expressway and Route 58. In addition, Williams Mullen lawyers were heavily involved in two of VDOT's three completed PPTA projects, the Pocahontas Parkway (as counsel to the Pocahontas Parkway Association and the developer) and Route 288 (helping to secure funding through the General Assembly).

Pocahontas Parkway

Williams Mullen team members acted as general counsel to the Pocahontas Parkway Association (the "Association"), a non-stock, non-profit corporation formed to finance, construct and operate the Pocahontas Parkway, an 8.8-mile toll road and elevated bridge crossing over the James River southeast of Richmond, all under the PPTA. The Pocahontas Parkway was the first PPTA project completed in the Commonwealth. Williams Mullen worked closely with VDOT and the private developer/contractor of the project, as well as with other involved state and local government entities. In addition, our attorneys worked with the Association in the negotiation and execution of a complete privatization of the road through a sale of all assets of the Association to a private operator, which continues to operate the Pocahontas Parkway.

Coalfields Expressway

In another of its P3 road projects, Williams Mullen counseled and represented a coal producer in negotiating and establishing an "out-of-the-box" PPTA agreement with VDOT. This forward-thinking arrangement synergizes surface mining with road building to advance the design and construction of the $2.6 billion, four-lane Coalfields Expressway. The company recently completed construction of two miles of rough-grade roadbed at a single-phase savings to VDOT of over $90 million. This tremendous savings arises from sophisticated risk allocations premised upon the private entity's coordination of highway development as part of an active mining operation. Williams Mullen continues to be involved in furthering development of this critical highway project.

P3 Transportation Experience (continued)

Route 58

Williams Mullen attorneys served as counsel to the development team in proposing, negotiating and finalizing a $339 million Comprehensive Agreement with VDOT for the development, design and construction of a 36-mile Route 58 corridor from Hillsville to Stuart, Va., pursuant to the PPTA. Completion of the second phase of this 36-mile P3 project occurred Fall 2011, and development of the $120 million third phase is presently underway. The Route 58 corridor from Hillsville to Stuart is the last remaining section to complete the widening of Route 58 from Virginia Beach to I-77.

TRANSPORTATION SECTOR: FINANCE

Williams Mullen team members possess a wealth of broad-based experience with P3 concession and financial arrangements for transportation projects. Whether your potential municipal client is contemplating additional availability payment structures, concessions, or other financing arrangements, our extensive and wide-ranging experience will enable you to negotiate successfully through any financing scenario.

For example, Williams Mullen was instrumental in the formation and bond financing of the Pocahontas Parkway Association (PPA), which was a non-profit corporation formed under the provisions of Revenue Ruling 63-20 to issue tax-exempt debt for the construction of the Pocahontas Parkway Toll Road and Bridge in Henrico County, Va. As counsel to the PPA, Williams Mullen attorneys led PPA through the steps of organization, contract negotiations and issuance of PPA's tax-exempt bonds totaling approximately $377 million. The bonds were publicly sold in multiple series to finance, together with state grants and other sources of funding, the Commonwealth's first public-private toll road under the PPTA.

In the course of representing the PPA as issuer of the tax-exempt bonds, Williams Mullen attorneys worked closely with bond counsel, underwriter's counsel and the Virginia Attorney General's Office to ensure PPA compliance with IRS rulings and procedures for establishing the tax-exempt nature of the interest on bonds of a private, non-profit corporation such as the PPA. In the course of this representation, Williams Mullen attorneys became intimately familiar with the tax laws and rulings upon which the exemption of the interest on the PPA's bonds was based through extensive document drafting and analysis of tax rulings, state non-profit corporation laws and other rules and guidance critical to the establishment of the tax-exempt bond issuance program.

TRANSPORTATION SECTOR: DESIGN-BUILD

Williams Mullen P3 team members fully appreciate the unique challenges presented when contractors are engaged by state DOTs and municipalities on a design-build basis, particularly those present throughout the contract development/negotiation and project delivery processes. Experience in evaluating the risk allocations on both sides and harmonizing the private- and public-side benefits and protections are central to achievement of a successful design-build project.

P3 Transportation Experience (continued)

The Williams Mullen P3 team has extensive experience in structuring, drafting and negotiating design-build contracts for infrastructure facilities. From highways to schools to utility structures and beyond, our attorneys have been on the leading edge of crafting design-build arrangements in the public arena. Many of the above-mentioned representations involved a design-build approach, including the Coalfields Expressway and Route 58 projects. Other design-build representations in the transportation sector include:

> Counsel to the design-builder in negotiating and finalizing a $52 million P3 agreement with Prince William County, Va. for the design and construction of improvements to the James Madison Highway (Route 15) pursuant to the PPTA.

> Procurement and contract counsel to one of Virginia's transportation district commissions in the design-build procurement of regional operations, maintenance and headquarters facilities.

TRANSPORTATION SECTOR: PORTS

Williams Mullen attorneys have extensive experience with port-related projects. Williams Mullen worked with the Virginia Port Authority ("VPA") and the Commonwealth of Virginia's Office of the Attorney General to negotiate and document the complex leasing of the APM Terminals container terminal located in Portsmouth, Va. for a 20-year period and to acquire all of its operating assets and ship line contracts. The deal was valued in excess of $1 billion. Our attorneys successfully addressed a variety of political and business challenges, ranging from broad issues like the structure of the transaction to minute but costly items such as the acquisition of additional equipment. Williams Mullen lawyers worked on real estate, maritime, tax, bond, environmental, intellectual property and labor issues involving the terminal, the most technologically advanced and modern ocean terminal in the Americas. The deal is hailed as the first of its kind, whereby a private terminal owner leased its underutilized facility to a port authority, rather than the traditional model of port authorities leasing to terminal operators.

Williams Mullen attorneys also served as lead counsel for VPA, closing $800 million in port facilities financings from 2003 to the present.

TRANSPORTATION SECTOR: RAIL

Williams Mullen attorneys have represented railroad companies for more than half a century. We have observed firsthand the evolution of the industry from its heavily regulated, pre-Staggers Rail Act condition to the current competitive atmosphere with its demands for capital to expand and modernize. Because of our extensive experience in representing the industry, we understand many of its challenges and are well-prepared to help address them effectively.

Railroad real estate law is a core competency of the Williams Mullen Railroad Team. Our attorneys have a comprehensive understanding of the myriad ways that railroads acquire and hold title to rights of way. We have advised our railroad clients on issues relating to eminent domain, utility crossings, encroachments, abandonments and the quality of railroad titles.

P3 Transportation Experience (continued)

Our attorneys have negotiated and drafted contracts for the sale or joint use of railroad rights of way with government agencies, including Departments of Transportation and mass transit authorities. We have negotiated and drafted numerous private and public crossing, spur track and lease agreements. In addition, our attorneys have litigated numerous cases declaring and securing the railroads' unique real property interests against private parties, local governments, and in the rare case, other railroads. Also, we have closed the refinancing of railroad lines, including rolling stock.

EXPERIENCE SPANS ALL SECTORS

Williams Mullen P3 team members have served as primary counsel in a wide variety of other non-transportation P3 projects, including the development of power facilities, water systems, wastewater systems, solid waste management facilities, schools, correctional facilities, office buildings, parking garages and athletic complexes, among others.

Infrastructure Experience in Other Sectors

Our team members have served or are serving as the lead counsel in many of the most notable infrastructure P3 evaluations and procurements in North America. Examples include:

- Atlanta, Ga.: Served as the chief counsel responsible for identifying and assisting the City in making policy decisions relative to the procurement approach and policies, drafted the pertinent contracts and assisted in the negotiations. This was and remains the largest water system privatization ever conducted and completed in the United States.
- Puerto Rico: Served as chief counsel to the Commonwealth responsible for the procurement, contract drafting and negotiation of the P3 for the Commonwealth's water and wastewater facilities. This was and remains the largest water and wastewater P3 arrangement to occur in the Western Hemisphere involving over 200 facilities.
- New Orleans, La.: Served as chief counsel to the Sewerage and Water Board of the City of New Orleans responsible for retaining all consultants, conducting the evaluation of whether the City's water and wastewater system was a good candidate for privatization and for the procurement, and drafting and negotiating the contracts. Ultimately, the arrangement was not executed due to City election issues and political issues.
- Milwaukee, Wis.: Served as the chief counsel to the Milwaukee Metropolitan Sewerage District, the seventh largest wastewater system in the country, responsible for the planning, procurement, contract drafting and negotiation of the P3.
- Portsmouth, Va.: Served as lead counsel in the procurement for the privatization through sale and operation of Southeastern Public Service Authority's ("SPSA") waste-to-energy facilities in Portsmouth. In addition to reviewing and evaluating conceptual and detailed-stage proposals, Williams Mullen structured and prepared a comprehensive agreement and conducted extensive negotiations with the offerors participating in the procurement. Williams Mullen's services on behalf of SPSA have included significant interaction and collaboration with the Authority's executive management, general counsel and financial advisors.

Location
Merrifield, Virginia

Site
+/- 15 acres

WMATA Contact
Tariq Bushnaq, P.E.
Ph: 202-962-2043

Client
Trammelll Crow Residential

Client Contact
Chad DuBeau
Ph: 301-255-6011
chaddubeau@tcrresidential.com

Dates
Initial Layout: 2003
Zoning: 2005
Site Design: 2008

Budget
Within original design budget

Project Overview

This project consists of a high density mixed-use redevelopment of the existing Dunn Loring Metro Station near Merrifield, Virginia. The project provides multifamily, retail and structured parking buildings in place of the existing surface parking lot serving the station. The site plan design is currently approved and with the Fairfax County Bonding Branch awaiting funding and permitting.

Substantial transportation improvements are provided for both onsite users and for the general public access to the metro. Eight new bus stops and shelters are included with a covered walkway leading pedestrians to the metro. Fifty new bicycle parking facilities are to be installed. Pedestrian sidewalks and multiple crosswalks are provided throughout the property. At the perimeter of the property, both Gallows Road and Prosperity Avenue are widened to provide additional through lane and turn lane capacities. An eight feet wide trail is provided along the full lengths of the project's Gallows Road and Prosperity Avenue frontages.

Of particular importance to this development, is the WMATA requirement to maintain the existing quantity of parking spaces in operation throughout the construction process. This required extensive coordination with WMATA and detailed construction phasing plans that will relocate parking spaces, bus stops and pedestrian routes throughout the construction duration. Additionally, Urban worked with WMATA staff and the Client to provide extensive zone of influence analysis for the proposed improvements.

Urban has been involved since the initial layout phases, including the integral preliminary roadway design for the internal low-speed street that defined the layout and development program for the site; and throughout the zoning and site design process.

Dulles Discovery

Secure Government Office Park

Location
Fairfax County, Virginia

Services Provided
Landscape Architecture, Civil Engineering, and Survey

Public Collaborations
United States Government
Fairfax County:

- Urban Forestry,
- DPWES
- Zoning Committee
- VDOT
- Water and Sanitary Authority

Client
The Peterson Companies

Contact
Pete Dunn
The Peterson Companies
12500 Fair Lakes Circle, Suite 400
Fairfax, VA 22033
703.631.7573

Project Overview
Urban provided complete Civil Engineering and Landscape Architectural design services beginning with the initial site layouts developed with the rezoning. Our ongoing involvement included site plan approval, schematic design, preparation of construction documents and construction administration. The development was designed as a three phase process. Through the first two phases, the office park included a total of 850,000 GSF of office in two separate buildings and 2,798 surface parking spaces. The project includes a 26,000 GSF central plant, 7,000 GSF security building, and 1.6 acre wet pond for SWM/BMP and extensive site security improvements.

Plant material specified throughout the site was predominantly native and drought tolerant. This helped the design team to meet the goals of the project and achieve LEED certification for three separate buildings on the campus. The landscaping at the ACC incorporated a dry stream bed with a densely planted linear bed that maintained clear areas adjacent to the building and incorporated security barriers seamlessly. Additionally, the site includes the first two LEED Gold certified buildings in Fairfax County.

Location
Herndon, Virginia

Client
Crimson Partners, Carmden/
Summit Properties, WRIT, JPI
And OTO Development

Contact
Christopher Lukawski
Crimson Partners
Master Developer
455 Spring Park Pl, Ste 100
Herndon, Virginia 20171
703-834-9700

Services Provided
Civil Engineering, Landscape Architecture and Survey

Public Collaborations
VDOT, Fairfax County, WMATA and DCR

Project Overview

Dulles Station is a 63 acre urban development located adjacent to a future Silver Line Metro station. Urban ltd. designed the streetscape, courtyards, and outdoor amenity areas for two midrise residential buildings within this development. Recreation opportunities include an outdoor pool, picnic and grilling areas, a bocce court, horseshoe pit, water features, and lawn areas. The streetscape design was done in accordance with the Dulles Station design guidelines, and street tree pit details included structural soil to provide for better tree growth in this urban condition.

Both buildings have been designed to achieve LEED certification from the LEED for Home Multifamily pilot program. Landscape elements that contributed to the certification included limited use of sod, native plant material, high efficiency irrigation, and the capture of roof runoff in rain barrels.

Loudoun Station – Phase 1 Buildings

Location
Ashburn, Virginia

Client
Comstock Loudoun Station, LLC

Contact
Larry Bergner
Ph: 703.230.1284
lbergner@comstockcompanies.com

Dates
Initial Layout: 2004
Zoning: 2005-2006
Site Plan: 2007-2008

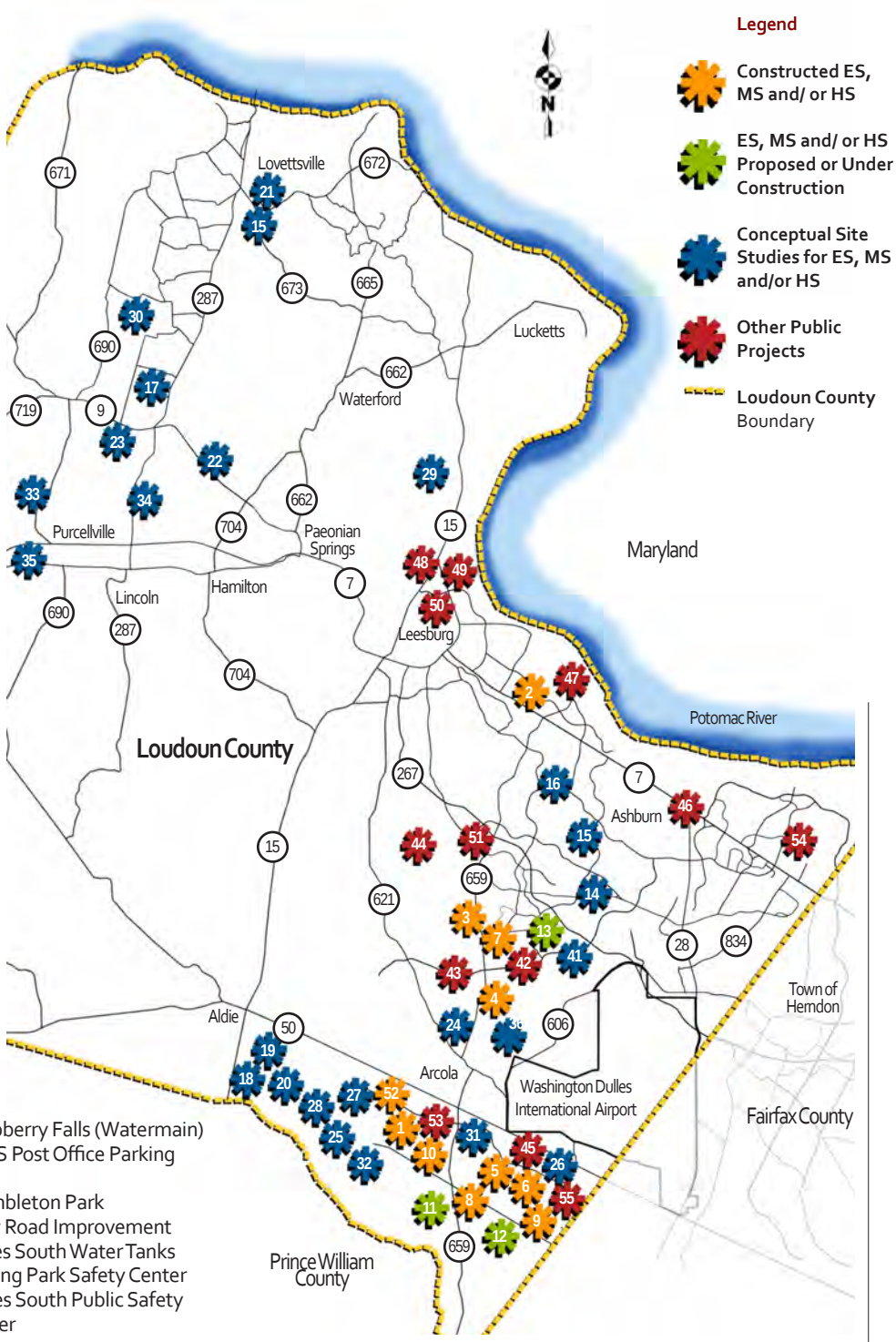
Project Overview

Urban has assisted the Comstock Companies on this project for nearly a decade. Loudoun Station was the first transit oriented development to be zoned in Loudoun County. The full build-out will feature 1,200 residential units, 250,000 gsf of retail/restaurant uses, and over 1.3 million gsf of office space, civic uses, and a hotel. Located adjacent to a future planned Metro stop, Loudoun Station has prominent visibility from the Dulles Greenway. Urban has provided the following services for this project: land planning, zoning and land entitlements, comprehensive sign plans, landscape architecture, civil engineering, land survey, and plats. Urban played a key role in the development of this project by coordinating the project with the County planning staff and the MWAA so that the future Metro station will have adequate parking, park and ride facilities and circulation.

The Phase 1 design of the Loudoun Station site incorporated the 390 multi-family residential dwelling units along with a combination of commercial and retail services encompassing approximately 128,000 gsf of building footprint on the site. In addition, office-use buildings were also included in the center's inner core development with roughly 73,000 gsf of space with an aesthetic incorporation of almost 8 acres of parks, civic and open space. The Phase 1 residential development of Loudoun Station is a HUD funded project.

Municipal Projects

1 Arcola ES
2 Belmont Ridge MS
3 Briar Woods HS
4 Creighton's Corner ES
5 Freedom HS
6 Hutchinson Farm ES
7 Legacy ES
8 Liberty ES
9 Little River ES
10 Mercer MS
11 ES-20
12 MS-5
13 ES-16
14 Farmwell Rd.
15 Miller Parcel
16 Newton - Lee
17 Wheatlands
18 Braddock Rd. Site 1
19 Braddock Rd. Site 2
20 Braddock Rd. Site 3
21 Schoene Parcel
22 Waterford Creek
23 Charles Town Pike
24 Brambleton Sites
25 Crerar Parcel
26 East Gate
27 Stone Ridge
28 Westport
29 Selma Estates
30 Morrisonville Rd.
31 Tall Cedars Parkway
32 Kirkpatrick West
33 Bless Farm Parcel
34 Loveland Farm
35 Purcellville West
36 Stone Hill MS
37 Alternative Site A
38 Alternative Site B
39 Alternative Site C
40 Alternative Site D
41 ES-17
42 Brambleton Red Dot Project 1 (Watermain)
43 Brambleton Red Dot Project 2 (Watermain)
44 Goose Creek Red Dot Project (Watermain)
45 Dulles South Multi-purpose Center
46 Kincora Safety Center
47 Loudoun Water Misc.
48 Raspberry Falls (Watermain)
49 Raspberry Falls (Watermain)
50 USPS Post Office Parking Lot
51 Brambleton Park
52 HS-7 Road Improvement
53 Dulles South Water Tanks
54 Sterling Park Safety Center
55 Dulles South Public Safety Center



Capital Area Readiness Center

Secure Data Storage Center

Location
Berkeley County, West Virginia

Services Provided
Landscape Architecture, Civil Engineering, and Survey

Public Collaborations
Veteran's Administration
Berkeley County
Department of Public Works

Client
Veteran's Administration

Contact
Jason Whiteman
HITT Contracting
2704 Dorr Avenue
Fairfax, VA 22031
Ph: 703.846.9087
jwhiteman@hitt-gc.com

Project Overview
Urban provided Civil engineering and Landscape Architectural services for this secure data storage facility located in the Veteran's Administration Martinsburg, WV Medial Center. The building was fast-tracked as a design build project with strong coordination between all members of the design team, the VA and the contractor. Urban's landscape architects worked closely with the civil engineer on the site grading to preserve several large existing trees. Native trees, shrubs, and grasses were chosen for the stormwater bio-retention areas to reduce maintenance and provide wildlife habitat. Urban also designed the high security fencing that surrounds the site in accordance with the Veteran's Administration specifications and coordinated with the architect and electrical engineer on keycard and voice communication boxes for the vehicular and pedestrian gates.

Illustrative rendering of the landscape plan.

Location
Fairfax County, Virginia

Client
COPT

Year of Completion
Ongoing

Services Provided
Planning, Site & Feasibility Studies, Civil Engineering, Landscape Architecture, Land Surveying, and Re-Zoning / Zoning Modifications

Project Overview

Patriot Ridge is comprised of four office buildings and one hotel, consisting of 842,000 gross square feet on approximately 11 acres.

Urban's responsibilities with Patriot Ridge include: site studies and requirement determinations, rezoning, field surveys, feasibility studies, site evaluations, parking lots and facilities, site layout and grading, utility studies and designs, water and sanitary sewer infrastructure layout and design, hydrology and hydraulics design, boundary plats, erosion and sediment control, regulations compliance, construction specifications, etc.

Urban designed and prepared construction plans for all site improvements, which included an underground SWM facility, 20,000 gallon cistern, and Road improvements to Backlick Road.

Reston Station

Mixed-Use

Location
Fairfax County, Virginia

Client
Comstock Partners, LC
(Joint Development with Fairfax County)

Year of Completion
Ongoing

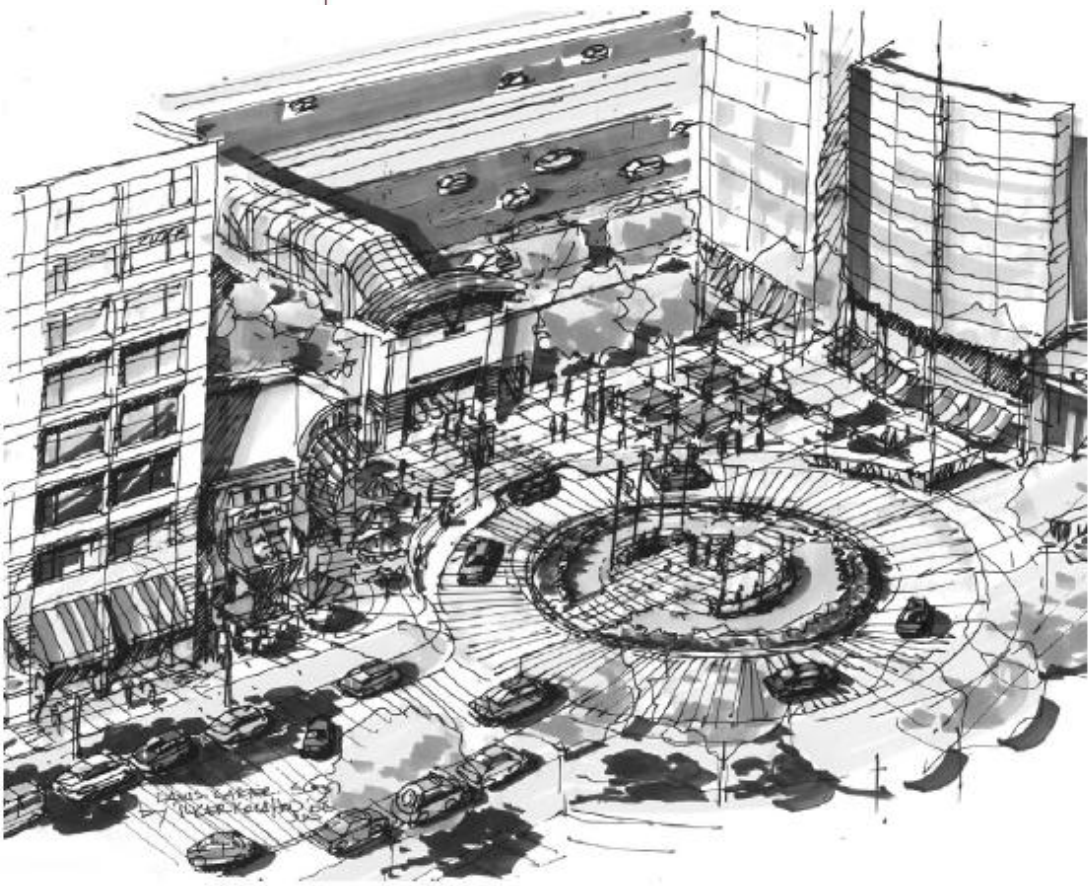
Services Provided
Planning, Site & Feasibility Studies, Civil Engineering, Landscape Architecture, Land Surveying, and Re-Zoning / Zoning Modifications

Project Overview

Reston Station will be a vibrant mixed-use Transit Oriented Development adjacent to the forthcoming Metro Station near Wiehle Avenue in Reston, VA. The project will feature a 2,300 space commuter parking garage, transit facilities and up to 1.3 million square feet of residential, office, hotel, and retail uses.

Urban's responsibilities with the Reston Station / Wiehle Metro include: land planning, zoning land entitlements, comprehensive sign plans, landscape architecture, civil engineering, land survey and plats.

Urban assisted in the coordination of key aspects for this project with Fairfax County staff, VDOT staff and MWAA staff; including provisions for adequate parking, park and ride facilities, circulation, and pedestrian connectivity to the Metro platform.



Location
Fairfax County, Virginia

Client
The Ardent Company

Contact
Jeff Snow
805 15th Street, NW
Suite 502
Washington, DC 20005
202-223-2993

Year of Completion
To be completed 2013

Services Provided
Civil Engineering, Land Surveying, Planning, Stormwater Management Study, Feasibility Study

Project Overview

Gunston Commerce Center is a government warehouse center of over 22 acres at the intersection of Furnace Road (Route 611) and Mordor Drive in Fairfax County. The development provides 102,000 SF of warehouse and an additional 12,000 SF of office use within one building footprint. The site is currently under construction and is expected to be complete early 2013.

Urban's responsibilities with for the Gunston Commerce Center include: site studies and requirement determinations, field surveys, feasibility studies, site evaluations, site layout and grading, parking facilities, utility studies and surveys, water and sanitary sewer infrastructure layout and design, retaining walls, hydrology and hydraulics design, boundary plats, utility as-builts, erosion and sediment control, regulations compliance, construction specifications, etc.

Additionally, Urban was responsible for detailed coordination with the Client and the Department of State development teams needed to organize the secure site within existing site constraints. Extensive coordination was also required with the Fairfax County Park Authority to address environmental concerns of the sites proximity to park land.

Urban deliverables began with preliminary layout and continued with the project through final construction plans.

The Scioto Downtown Pedestrian/ Bikeway Bridge

Columbus, Ohio

Project Description and Scope

To create a pedestrian bridge spanning the Scioto River in downtown Columbus, B&N served on the project team to envision and design a bridge within a park.

The Scioto Downtown Pedestrian Bridge is intended to enhance the downtown riverfront park system, drive neighborhood development, and provide urban connectivity.

Goals of the project include:

- Creating a responsive, exciting, iconic linkage across the river
- Connecting the Arena District and Scioto Peninsula/Franklinton
- Developing an economic catalyst to transform underutilized space
- Encouraging walking and cycling downtown
- Acknowledging the unique culture of the city
- Enhancing other riverfront developments
- Building a simple, elegant, and affordable bridge

B&N served as the lead bridge engineers for the project. Additional services provided by B&N include environmental, geotechnical engineering, surveying, and bikeway and site design.

The Scioto Downtown Pedestrian/Bikeway Bridge received a 2011 Merit Award from the Ohio Chapter American Society of Landscape Architects in the Design: Not Constructed category.

12th Avenue Parking Facility and Walkway

Columbus, Ohio

Project Description and Scope

Ohio State University needed a parking garage connected to the Medical Center complex. Burgess & Niple (B&N) provided structural design of precast/ prestressed concrete members for R.W. Sidley, Inc. and the University Architect's Office. Site constraints such as a 10-foot storm sewer, which ran under the site, dictated much of the garage's structural design, including location of movement frames. The garage has a stair tower and pedestrian bridge over West 12th Avenue into the medical complex and supports a greenhouse on the top floor.

The new Stanley Aronoff Laboratory of Biological Sciences designed by B&N was constructed adjacent to the parking garage. The $20.5 million biology research laboratory ties into the garage for convenient access and egress.

Alcatel Headquarters and Parking Structure

Fairfax County, Virginia

Project Description and Scope

Burgess & Niple (B&N) served as site civil engineer for a six-level, 320,000-square-foot facility on a 27-acre site that was designed to serve as the client's headquarters building in Northern Virginia. The scope of work entailed engineering, surveying, geotechnical, and environmental services.

Development of the site included design of a five-level parking structure that contains 700 vehicle spaces. Ultimately, the parking structure will provide 1,400 vehicle spaces. B&N was responsible for boundary, topographic, and construction surveys; site planning; engineering design; and landscape architecture.

Commonwealth Centre at Westfields
Fairfax County, Virginia

Project Description and Scope

Burgess & Niple (B&N) is providing multidisciplinary engineering services for the design and construction of a 101-acre commercial development consisting of six office buildings, two hotels, two retail buildings, two parking garages, and surface parking. B&N incorporated Low Impact Design (LID) features into the project, including open space preservation, a bioretention facility, engineered grass swales, a rain garden, and a reservoir pond to store rainwater for irrigation.

The entire development is designed to achieve LEED Silver Certification. A campus-wide LEED approach was used to attain LEED credits, which allows projects within a multibuilding setting sharing amenities or common design features the ability to share applicable credits earned toward LEED certification. Additionally, the Commonwealth II Building received LEED Platinum Certification – the highest possible level of certification.

B&N provided site civil design for the development, including water supply system, sanitary sewer, storm drainage, SWM/BMP facilities, superelevated loop road, and two main intersections for development access. In addition, B&N engineers conducted an intensive adequate outfall analysis to meet Fairfax County's complex outfall requirements. The site plan was processed through Fairfax County Department of Public Works for site permitting under the Engineers and Surveyors Institute expedited review program.

Services provided by B&N included:

- civil engineering
- geotechnical engineering
- environmental permitting
- wetland delineation
- surveying and construction stakeout
- testing and inspections
- construction administration

ECs Project work with Clark within Loudoun County

Dulles Pedestrian Tunnel Grout Tubes - GPR
Village At Leesburg -
Potomac Station
Market Square at Potomac Station - Phase I Bank Site
Dulles Main Terminal-East and West Baggage Basements
Potomac Station Apartments
Ashburn Village
Lake Side Office Park
Waterside Office Park
Potomac Station Commercial Parcels B-1A and B-2A
Loudoun Megacenter
Potomac Station Wetlands Permit
Camden Westwind Crossings
University Commerce Center

Traffic/Transportation Planning Studies

Gorove/Slade conducts a wide variety of Traffic/Transportation Studies for its private and public sector clients as part of their own planning or regulatory filing processes.

Generally, for these studies Gorove/Slade:

a. collects and analyzes existing condition information related to the transportation and/or traffic characteristics of a project area
b. identifies current problems if any
c. forecasts future transportation/traffic demand on the area, based on background volume changes plus any demand changes caused specifically by the project under study
d. identifies future problems if any
e. develops solutions to mitigate those problems
f. makes recommendations as to a preferred solution

Studies include most types outlined in the *Transportation Planning Handbook* published by the Institute of Transportation Engineers (ITE), to include:

- Urban Area Transportation Studies
- Corridor Studies
- Central Area and Major Activity Center Studies
- Traffic Access and Traffic Impact Studies
- Traffic and Travel Volume Studies
- Capacity Studies
- Modal Studies: Parking, Transit, Pedestrian, Bicycle

Traffic System Planning & Design

Gorove/Slade provides project planning services from inception through implementation and operation. Pre-implementation tasks involve site assessments to determine the infrastructure requirements that are the basis for project costs and an assessment of the feasibility to implement the needed infrastructure. If a project is determined feasible, Gorove/Slade is prepared to work with public agencies to delineate the features of the traffic, transportation, and parking systems and to provide public testimony as required. Gorove/Slade typically continues through project planning, providing input to the project architects and construction managers. Services include:

- Roadway cross section planning
- Roadway striping planning and design
- Traffic regulatory sign design
- Circulation planning
- Traffic operations planning for event days
- Signing planning for special events
- Medical emergency facility access and design
- Hospital front door- patient drop-off/pick-up design
- Service access design
- Development of traffic control plans for on-campus construction projects

Transportation Demand Management

Transportation Demand Management (TDM) seeks to reduce the costs of congestion, pollution, delays, and the construction of infrastructure by providing commuters with alternatives to driving alone thereby reducing traffic and parking demand. Gorove/Slade evaluates, develops, implements and monitors TDM programs on behalf of major employers such as federal agencies, college campuses, and large corporations. Gorove/Slade takes an asset management approach to evaluating how clients' resources can be invested most efficiently, and then measures the effectiveness of the programs, evaluates and adjusts them.

Parking Planning & Design

Gorove/Slade has conducted various types of parking studies and design ranging from surface lot design for retail and office developments to functional parking garage layout and design to shared parking studies for complementary uses. We have extensive experience with municipalities and economic development organizations on the analysis of the adequacy of parking and access serving urban and suburban commercial districts.

Gorove/Slade provides comprehensive inventories and demand surveys, forecasts of future need, analysis of street circulation, signing and wayfinding systems, and other traffic related parking issues. Gorove/Slade has conducted shared parking studies for multi-use developments that combine and examine peak characteristics of various land uses and identify the necessary parking needs. Staff often provides expert testimony related to parking ordinances and policies and provide advice to governmental agencies.

Services include:

- Parking needs analysis
- Parking system planning
- Parking garage planning
- Parking field design

Traffic Signals & Traffic Control Plans

Gorove/Slade has developed hundreds of traffic signal designs with a variety of design applications, working with unique requirements of multiple agencies on behalf of private and public sector clients. Gorove/Slade designs and evaluates signal timings for isolated intersections, arterial coordination, preemption and other state-of-the-art technologies. Our projects involve traditional intersections, pre-emptive emergency station equipment and equipment incorporated into structures such as parking facilities and bridges.

Gorove/Slade optimizes progression in one and two directions on arterial streets and urban grid networks. Our signal design capabilities include specification of modern equipment such as magnetic loop vehicle detection (actuated) systems as well as the more traditional fixed-time traffic signals. Gorove/Slade optimizes the systems using computer analysis software such as Synchro, SimTraffic and CORSIM.

Master Plans

Gorove/Slade provides full-scale transportation master planning services for individual jurisdictions, corridors, small areas, large campus settings and individual sites. Transportation master planning includes a traditional analytic framework of long range forecasting of trip generation and distribution, mode split and assignment. Gorove/Slade blends quantitative and qualitative aspects as well, dealing with access management, inter-parcel access, roadway and public transportation functionality, development guidelines, and funding arrangements. Services include travel mode surveys and analyses of mode choice modification implications

Multi-Modal Planning and Design

Gorove/Slade integrates sidewalks, trails, bike lanes and bikeways, ADA Accessibility Guidelines and security applications into transportation infrastructure, traffic operations, master planning and site planning. Gorove/Slade has been developing and testing a more comprehensive 'mobility audit' approach which includes bicycle and pedestrian movements as well as other key urban users related to public transportation, enterprise, government and security.

Gorove/Slade has demonstrated the ability to move pedestrians in multimodal settings, addressing pedestrian/vehicle conflicts with passive and active solutions. Federal emphasis and availability of funding has accelerated pedestrian and bicycle planning, design and project implementation, and multiple projects are showing up in Capital Improvement Programs.

Gorove/Slade's transit planning and operation practice focuses on the connection between the transportation system and the land uses being served. Gorove/Slade is experienced in the preparation of traffic engineering and planning studies for land developments related to Metro rail stations in D.C. and surrounding communities. Our transit planning and operations experience also includes rail station area planning, station design, station rehabilitation, transit route planning, and transit resources management. We are often teamed with other professionals for these studies. Services include:

- Bicycle route planning
- Design of bicycle accommodations within roadways
- Pedestrian interface/traffic design (crosswalks and traffic calming)
- Bus accommodations features (bus stops, roadway features)

Site Access and Circulation Planning

Gorove/Slade provides site access and circulation planning services from project inception through implementation and operation. Gorove/Slade blends quantitative and qualitative aspects of transportation, planning and designing access management, inter-parcel access, internal roadway functionality, and development guidelines.

Pre-implementation tasks involve site assessments to determine the infrastructure requirements that are the basis for project costs and an assessment of the feasibility to implement the needed infrastructure. Site driveway and alley access is determined during the planning phases, and Gorove/Slade works with project owners and architects to determine the most viable options to coordinate with the off-site transportation network.

Gorove/Slade works with public agencies to delineate the features of the traffic, transportation, and parking systems and to provide public testimony as required.

Services include:

- Driveway and alley planning and design
- Service and loading design and planning
- Traffic control system design
- Interaction with transportation agencies
- Traffic regulatory sign design

WMATA & VRE EXPERIENCE

NAME	CITY	STATE	YEAR
College Park Metro Station	College Park	MD	2007
Dunn-Loring/Merrifield Station	Vienna	VA	
Forest Glen Metro Site	Bethesda	MD	2005
Franconia Springfield Metro Expansion	Springfield	VA	2002
Franconia Springfield Metro Station	Springfield	VA	2004
Grosvenor Metro Station Garage	Bethesda	MD	2000
Huntington Metro Station	Alexandria	VA	2001
New Carrollton Metro Station	New Carrollton	MD	2001
Rhode Island Avenue Metro	Washington	DC	2007
Rhode Island Avenue Station	Washington DC	DC	2010
Rhode Island Metro	Washington	DC	2012
Rhode Island Metro Station	Washington	DC	2005
Shady Grove Metro Station	Rockville	MD	1996
Shady Grove Metro Station Parking Structure	Rockville	MD	2003
Twinbrook Commons	Rockville	MD	2009
Vienna Metro Commuter Rail Station	Fairfax	VA	2002
Wiehle Avenue Metro Station	Fairfax County	VA	2012
WMATA Lighting Owner's Rep Services	Washington	DC	2012
WMATA Rhode Island Avenue Metro Garage	Washington	DC	2011
WMATA West Falls Church	Fairfax County	VA	2003
Burke Center Station – VRE	Burke	VA	2008
Broad Run Station – VRE	Prince William County	VA	2011

WHAT WE OFFER TO OUR CLIENTS…

PLANNING

Supply/Demand
Parking Alternatives
Site Analysis
Traffic Engineering
Parking and Transportation Master Planning
Wayfinding/Pedestrian Travel
Airport Landside Planning
Shared Parking Analysis

FINANCIAL

Preliminary Market Analysis
Preliminary Financial Analysis
Market and Financial Analysis
Financing Alternatives

OPERATIONS

Parking Operations
- Revenue Control Systems Analysis
- Facility Management
- Personnel
- Customer Relations
- Revenue/Expense Overview
- Management Oversight Plan
- Standard Operating Procedures Manual

Compliance Audits
Due Diligence Studies
Operator Selection and Negotiations
New Business Assistance
Organization Analysis

SYSTEMS

Lighting
Security
Signage
Functional Design
Parking Access & Revenue Control Equipment
ADA
Access and Circulation Design
Durability Engineering

DESIGN

Prime Design
Architecture
Structural Engineering
Electrical Engineering
Mechanical Engineering

RESTORATION

Structural Investigations
Seismic Retrofit
Condition Appraisals
Due Diligence
Construction Documents
Multi-Ramp Program
Capital Improvement Plan
Corrosion Protection
Upgrades

ALWAYS STAYING AHEAD OF THE CURVE

ANN ARBOR
734.663.1070

BOSTON
617.350.5040

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704.887.4960

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312.633.4260

DENVER
303.694.6622

ELGIN (HQ)
847.697.2640

HOUSTON
281.280.0068

INDIANAPOLIS
317.842.6890

KALAMAZOO
269.381.6080

LOS ANGELES
213.488.4911

MINNEAPOLIS
952.595.9116

NEW YORK
212.288.2501

PHILADELPHIA
610.995.0260

SAN FRANCISCO
415.644.0630

TAMPA
813.888.5800

www.walkerparking.com
800.860.1579
ask.us@walkerparking.com

Parking Data:

Number of Spaces	1,292
Number of Levels	5

Construction Data:

Final Cost	$21,169,500
Completion Date	2008

Structural Features:

Precast concrete with thin brick
Drilled pier foundations

Walker Parking Consultants' Services:

Functional Design/Parking Consulting
Structural/Mechanical/Electrical/Plumbing Engineering
Signage Design/Consulting

Client Reference:

Kenneth Lim
County of Fairfax
1200 Government Center Parkway
Fairfax, VA
Voice: 703.324.5800
Fax: 703.324.4365
kenneth.lim@fairfaxcounty.gov

Each year, the Virginia Railway Express (VRE) has seen an increase in ridership, resulting in a need for additional parking at stations like Burke Center. In order to meet projected commuter needs for the next 10 years, a new, five-tier, 405,400 SF garage was constructed at this station. The new structure accommodates 1,292 parking spaces (1,513 including surface lots) and was completed in 2008.

The design for the garage was influenced by certain aesthetic considerations and functional requirements, including:

- The use of brick to produce a more refined look
- The use of planters, covering most of the west elevation, to obstruct the view from the highway
- A tall clock tower to provide a visual centerpiece to the design
- Site improvements to serve community functions such as an adjacent ball field and a weekly farmers market that operates on site on the weekends

Construction Data:

Cost Estimate	$12,300,000
Completion Date	2003

Parking Data:

Number of Spaces added	1,050

Structural Features:

Precast pre-stressed concrete structural system

Special Features:

Design-Build Project Delivery System
New glass enclosed stair towers
Drop-off area for busses and cars on ground level

Walker Parking Consultants' Services:

Prime Designer/Engineer of Record

Client Reference:

Patrick Schmitt, Director of Parking
Washington Area Metro Transit Authority
600 Fifth Street, NW
Washington, DC
Phone: 202.962.1783
rpschmitt@wmata.com

The Franconia Springfield Metrorail Station anchors the south end of the blue line commuter rail from Washington, DC. The Station was experiencing a significant increase in parking demand and decided to add a horizontal expansion even though a 4,000 space 5-level parking facility was already on site. The additional 1,050 space horizontal expansion brings the capacity for parking at the station to nearly 5,200 spaces. The facility is four bays wide with a two way single-threaded circulation system designed to handle the high peak hour traffic volumes demanded by this busy commuter rail station. Both vehicular and pedestrian flows to the existing garage occur through a 30-foot wide bridge near the existing garages stair/elevator tower. Within each new stair tower glass was used extensively use of glass to provide an "open" feeling increasing pedestrian perception of comfort and security.

This facility represents Washington Metro Area Transit's (WMATA) second experience with the design-build project delivery system. Walker and the contractor were part of both the first and this second design-build WMATA project. The facility is scheduled to open in summer of 2003, only 20 months after the notice to proceed was given. Significant design issue included the successful resolution of dissimilar fire ratings for the original garage and the expansion, incorporating a car/small bus drop off area within the garage, utility constraints, phased demolition of tieback walls and a tight site. Precast, prestressed concrete was selected for its speed of construction, as well as its long-term durability and low maintenance.

The durability of the precast concrete is derived through pre-stressing, stainless steel tee flange connections, high strength and low water-cement ratio. Additional measures taken were positive drainage, corrosion inhibiting admixtures and transverse post-tensioning of the precast tee flanges.

Construction Data:

Cost $19,000,000
Completion Date January 2001

Parking Data:

Number of Spaces 2,285
Number of Levels 6

Structural Features:

Precast concrete structural system
Retaining walls
Field topped double tees
Drilled pier foundation system

Special Features:

Design-Build construction schedule
Double-thread helix circulation

Walker Parking Consultants' Services:

Prime Designer/Engineer of Record

Owner Reference:

Patrick Schmitt, Director of Parking
Washington Area Metro Transit Authority
600 Fifth Street, NW
Washington, DC
Phone: 202.962.1783
rpschmitt@wmata.com

The Vienna Metrorail Station anchors the west end of the orange line commuter rail from Washington, DC. The addition of this 2,200 car, 6 level parking facility brings the capacity for parking at the station to nearly 8,000 spaces. The facility is six bays wide with a centrally located two-way double-threaded circulation system poised to easily handle the high peak hour traffic volumes demanded by this busy commuter rail station. Large pedestrian flows are funneled through a spacious stair/elevator tower with two high-speed traction elevators. High 12'-0" floor-to-floor heights and extensive use of glass in the stair/elevator tower provide an "open" feeling increasing pedestrian perception of comfort and security.

This facility represents Washington Metro Area Transit's (WMATA) first experience with the design-build project delivery system. With much at stake, the facility opened on schedule in January 2001, only 17 months after the notice to proceed was given. Precast, prestressed concrete was selected for its speed of construction, as well as its long-term durability and low maintenance.