Urban Land Institute
Washington

A Technical Assistance Panel Report

Public Safety Training Academy/ Shady Grove Life Sciences Center

Sponsored by:

Maryland Department of Transportation,
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September 20 - 21, 2011

Public Safety Training Academy/ Shady Grove Life Sciences Center

Montgomery County, MD

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About ULI Washington
A District Council of the Urban Land Institute

ULI Washington is a district council of ULI–the Urban Land Institute, a nonprofit education and research organization supported by its members. Founded in 1936, the Institute today has over 30,000 members worldwide representing the entire spectrum of land use planning and real estate development disciplines, working in private enterprise and public service.

As the preeminent, multidisciplinary real estate forum, ULI facilitates the open exchange of ideas, information, and experience among local, national, and international industry leaders and policy makers dedicated to creating better communities.

ULI's mission is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. ULI Washington carries out the ULI mission locally by sharing best practices, building consensus, and advancing solutions through its educational programs and community outreach initiatives.

About the Technical Assistance Panel (TAP) Program

The objective of ULI Washington's Technical Assistance Panel (TAP) program is to provide expert, multidisciplinary advice on land use and real estate issues facing public agencies and nonprofit organizations in the Washington Metropolitan area. Drawing from its extensive membership base, ULI Washington conducts one and one-half day panels offering objective and responsible advice to local decision makers on a wide variety of land use and real estate issues ranging from site-specific projects to public policy questions. The TAP program is intentionally flexible to provide a customized approach to specific land use and real estate issues.

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Also deserving of the panel's thanks, for providing additional information during the site tour and/or the briefings that followed, are Henry Bernstein, Senior Vice President, Scheer Partners; Robert Brewer, Principal, Lerch, Early & Brewer, Chtd.; Stewart Edelstein, Executive Director, The Universities at Shady Grove; Steve Findley, Planner-Coordinator, Maryland-National Capital Park & Planning Commission; David McDonough, Senior Director of Development Oversight, Johns Hopkins University; and Tom Street, Assistant Chief Administrative Officer, Montgomery County.

Finally, the panel was grateful to have the benefit of input from the other stakeholders and neighborhood residents who attended the opening and/or closing sessions of the panel, as listed below:

Ramona Bell-Pearson	Montgomery County Office of the County Executive
Terry Forde	Adventist Health Care
Rick Kiegel	Maryland Transit Administration
Marlene Michaelson	Montgomery County Council
Terry O'Grady	Mid-County Citizen Alliance
Manisha Tewari	City of Rockville
Doug Wrenn	Smart Growth Initiative Implementation Advisory Group

The findings and recommendations provided in this report are based on the collective expertise of the panel, along with the briefing materials, and information gleaned from the tour, stakeholder presentations, and roundtable discussions conducted during the panel's one and one-half day effort.

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Foreword: Overview and Panel Assignment

In May 2010, the Montgomery County Council passed the Great Seneca Science Corridor Master Plan. This plan envisions transforming the existing Shady Grove Life Sciences Center (SGLSC) from a suburban office park into a vibrant, live-work community that integrates life science companies, academic institutions, housing, retail and services around the planned Corridor Cities Transitway.

The county seeks technical assistance from ULI experts to help the county most effectively leverage public assets within the Great Seneca Sciences Corridor to fulfill the vision of the Great Seneca Science Corridor Master Plan. The county owns approximately one dozen properties in the Plan area including the 52 acre Public Safety Training Academy (PSTA). The PSTA site is located in the LSC West District, and is the largest county-owned parcel in the Master Plan area. The county's Shady Grove Innovation Center is a county-established incubator on a 6 acre site adjacent to the PSTA site and is improved with a 70,000 square foot building that is equipped with 45 offices and 11 wet labs. A listing of all of the county's parcels in the Great Seneca Sciences Corridor Master Plan area is attached.

The county desires the TAP to focus on the PSTA site, including, if appropriate, adjacent land. The county welcomes TAP related recommendations as appropriate for the four other districts in the Master Plan area. (LSC Belward, LSC North, LSC Central, and LSC South).

Background

1. Shady Grove Life Science Center

Established by Montgomery County in 1983, Shady Grove was the first business park in the United States to be zoned exclusively for the biotechnology and life sciences industries. Today, it is the nucleus of one of the largest biotech clusters in the U.S., with over 200 private companies and over 21,000 professionals employed in the public and private sectors. At the outset, the county recognized the importance of higher education to the success of the SGLSC. Therefore, the county provided land to the Johns Hopkins University and the University System of Maryland – respectively, private and public research universities – to locate campuses at the SGLSC. The model has been a success and the Great Seneca Science Corridor is intended to build on that success

with a live/work/play community focused on biosciences and health related jobs and the Corridor Cities Transitway.

The LSC Districts in the Great Seneca Science Corridor Master Plan currently have 6.9 million square feet supporting healthcare facilities, research and educational centers, R & D facilities, laboratories and a business incubator. In addition, there are approximately 3,000 existing dwelling units within the LSC Districts. The new Great Seneca Science Corridor Master Plan builds on the work of the prior three decades and allows for a maximum of 17.5 million, sq. ft of commercial development with a life sciences focus. The plan also provides for 9,000 dwelling units in the LSC districts that are to be oriented to the Corridor Cities Transitway. It is estimated that the 17.5 million sq. ft. development will result in approximately 52,500 new jobs.

Through Master Plan-supported zoning changes and with the critical involvement of Johns Hopkins University, the Universities of Shady Grove (part of the University System of Maryland) and other stakeholders, over the next three decades the Great Seneca Sciences Corridor is planned to become a world-class, mixed-use hub for scientific and medical research, teaching, commercialization, and medical services.

2. Master Plan Opportunities

The 2009 County's Biosciences Task Force report observed that while Montgomery County is the region's undisputed biotech leader, it is not growing at a rate commensurate with its inherent potential and faces unprecedented national and global competition.

The Great Seneca Sciences Corridor Master Plan establishes a vision and a basic blueprint for expanding the SGLSC to retain and attract world-leading science research. Key recommendations include:

- Transform the Master Plan area into a dynamic live/work community
- Realign the Corridor Cities Transitway (CCT) through the LSC
- Create a grid street pattern to improve traffic flow and ease congestion
- Create the LSC Loop as a recreational and non-auto transportation feature and as the organizing element of the open space plan to connect districts, destinations and to incorporate natural features.
- Replace the PSTA with a new, higher density, residential transit-oriented community
- Maintain established neighborhoods
- Meet the recreational needs of the community

- Use Building Lot Termination easements as a mechanism for developers to achieve maximum densities.

The Master Plan calls for build-out to occur in four stages, each requiring certain project and transit mode share bench marks to be reached before the next stage of development can proceed.

Stage 1 allows 400,000 sq. ft. of additional commercial development for a total of 11.1 million sq. ft. and an additional 2,500 dwelling units in all five LSC districts.

Stage 2 allows an additional 2.3 million sq. ft. of commercial development for a total of 13.4 Million sq. ft. and an additional 2,000 dwelling units.

Stage 3 allows an additional 2.3 million sq. ft. of commercial development for a total of 15.7 million sq. ft. and an additional 1,200 residential units.

Stage 4 allows an additional 1.8 million sq. ft. of commercial development for a total of 17.5 million sq. ft. and no additional dwelling units.

The critical trigger for proceeding between stages is the funding and construction of the CCT and highway projects, as well as meeting transit mode split criteria. The specifics of the triggers can be found in the Master Plan.

2. Public Services Training Academy (PSTA) and other County Assets

The PSTA is a 52 acre site used for training firefighters, police officers and operators of large vehicles located near the corner of Great Seneca Highway and Darnestown Road next to the county's Shady Grove Innovation Center (SGIC). The PSTA cannot meet its expansion needs at its current location and has no relationship to the SGLSC. As part of the county's Smart Growth Initiative, the PSTA is being relocated to a parcel of land on Snouffer School Road known as the Webb Tract; thus freeing the current PSTA site for redevelopment.

The Master Plan calls for the PSTA parcel to be a transit-served predominantly residential community with amenities and services within walking or easy transit distance of the life sciences and medical jobs in the Plan area. The PSTA site is zoned Commercial Residential (CR) with a 1.0 Floor-to-Area (FAR) that could yield 2,000 dwelling units with supporting retail, services, and community uses. The SGIC could remain on its six acre site or it can be incorporated into redevelopment (see below).

3. Other County Assets

6.2 acre Shady Grove Innovation Center, 9700 Great Seneca Highway with a 70,000 sq. ft. facility with 45 offices and 11 wet labs and related services to foster start-up biotech companies. SGIC also hosts the MD Biotechnology Center and new Gateway for Innovation Center for Federal and Academic Technology Transfer and Commercialization.

Montgomery County owns four additional LSC sites

- 4.5 acre Treatment & Learning Center, 9975 Medical Center Drive
- 4.2 acre Betty Ann Krahnke Center, 14180 Broschart Road
- 1.0 acre Daycare Center, Broschart Road
- 2.0 acre Power Plant, 14900 Broschart Road

5. Other Assets

The 36-acre Johns Hopkins University Montgomery County Campus was established in 1988. Today, JHU offers more than 50 part-time graduate degree and certificate programs to more than 4,000 students in the areas of biotechnology, business, computer science, education, and engineering. The campus also is home to 17 private companies, research centers, and policy organizations, and will welcome 42 departments of the National Cancer Institute onto campus in 2013. JHU plans a major expansion of this campus up to 2.6 million square feet and also plans to develop the nearby Belward Research Campus, an additional 4.6 million square feet of development for research, education, and services to the community.

The University System of Maryland (USM) is a unique collaboration between all 11 degree-granting USM institutions providing part-time graduate programs and final two-years of bachelor degrees. USM has plans to expand its STEM programs and to bring more health programs to the USM campus. Plans for a fourth 200,000 sf education building are being pursued.

The Institute for Biosciences and Biotechnology Research is on the USM campus. This institute has recently been transformed and will continue to provide high quality research in biology, protein design and drug discovery, with a prime purpose to commercialize bioscience research.

6. Transportation

The Corridor Cities Transitway (CCT) is the transportation centerpiece of the Greater Seneca Science Corridor Master Plan. The CCT is a planned 14-mile transit line that will run from the Shady Grove Metro Station to the Comsat site in Clarksburg. Fourteen-station alignment is planned as an exclusive, dedicated facility for either light rail transit or bus rapid transit. Four of the stations will be within four of the LSC Districts. With station areas having the highest densities, transit is an essential element of the plan and is the basis for the land use and zoning recommendations. The CCT will connect with nearby residential communities at the Shady Grove Metro Station, the King Farm, the Crown Farm, Kentlands, and the Watkins Mill Town Center.

Highway access to the LSC includes the Sam Eig Highway, which will directly extend into the partially completed InterCounty Connector and provide highway access to BWI airport. Also, adjacent to LSC is I-270, a 12-lane highway with access to the Washington Beltway and I-70.

Questions to be Addressed

1. How can the PSTA site and the SGIC sites best support the goal of creating a world-class biosciences live work cluster?

2. What are the types and mixes of development that would optimize and support the plans for the Great Seneca Science Corridor?

    a. What should the mix of housing types and unit sizes be (single professionals, graduate students, researchers, young families, wounded warriors, intergenerational, etc.)?

    b. What services and amenities should be incorporated into the PSTA (and surrounding area) to accommodate the needs and preferences of future residents?

3. What best practices from successful, mixed-use science and technology centers (in the U.S. and internationally) can be applied to realizing the vision of the Master Plan and creating a world-class, highly successful community of innovation?

4. What development strategy is recommended – master developer or segmentation of the site?

5. How might the timing be integrated with the staging of the overall master plan area?

6. Should redevelopment proceed in advance of the CCT and if so, how can development be optimized and cost effective in advance of the CCT?

7. What is a reasonable expectation for absorption?

8. What infrastructure should be included in any design of the site to ensure optimal connectivity and information management?

9. How might land uses be designed to enhance entrepreneurship and the creation of new life science companies and related scientific R&D uses?

10. Regarding the incubator space:

    a. What services might a world-class incubator need?
    b. Will digitization of bioscience affect incubator design?
    c. Does the current incubator have the flexibility to keep up with future needs?
    d. Is the current location the optimum? What factors are of critical importance if another site should be pursued?
    e. What might the current site be used for, if the incubator were to be moved?

Market Potential

The panel began its discussion of the study area's market potential by citing the need for an in-depth market and feasibility analysis, in order to more precisely define the potential development program for the study area over the near- and long-term. That caveat notwithstanding, the panel was able to identify a strong and near-term market demand for a diversity of housing options within the study area, as detailed below. However, in order to realize its full market potential in all development product types, the Life Sciences Center as a whole must become a true "place," since authentic places are what residents, employees, employers, consumers, and those companies and institutions that seek to meet their needs now demand. In the panel's opinion, creating a world-class bioscience live/work cluster necessitates replicating all of the elements of a true city: cities are built over time, are diverse, meet the needs of different constituencies and stakeholders, and are quirky and have an array of uses. While it is true that such cities may have clusters of intensity of use, they do not have vertical silos of use.

To that end, the panel recommends that complementary residential uses be incorporated throughout the LSC districts wherever possible, in order to create a true mix of uses. This is not to say that the Public Safety Training Academy site shouldn't absorb a significant amount of the near-term residential demand, as envisioned by the Great Seneca Science Corridor Master Plan. Indeed, due to its ownership by the county and its status as a *tabula rasa* relative to other parcels within the LSC, the PSTA site provides maximum flexibility and a unique opportunity to develop housing that meets the needs of a variety of income groups *now*, and the majority of this report focuses on the potential design and development program of the PSTA site. Yet, the panel cautions against viewing the PSTA site as the residential or residential/amenity "piece of the puzzle." The panel instead recommends that the county work with each stakeholder within the LSC to identify opportunities for residential components within their sites that are complementary to their primary mission, in order to create synergistic uses for that stakeholder, fulfill the market demand for increased residential options, and better knit the LSC together.

Because the panel focused its efforts of the PSTA site, it did not delve into this issue too deeply, but by way of example, the panel noted that graduate student housing would be a good potential use for part of The Universities at Shady Grove site, both as a means to better activate that site and make it more "campus-like," and to better spread residents, and the activity they generate, across the LSC as a whole. Similarly, the

Shady Grove Adventist Hospital site could potentially incorporate continuing care facilities. Taken together, these residential opportunities and others throughout the LSC could provide for the entire spectrum of product types, enabling residents to age in place and creating a multi-generational community.

In terms of creating a diverse community socio-economically, the panel focused on the unique opportunities presented by the PSTA site's public ownership. Given the practically limitless demand for both affordable and workforce housing units within the county, and the likely income range of researchers, lab technicians, nurses, and the other types of employees likely to work within the LSC, the panel recommends that the county leverage its ownership of the PSTA land and offer the land at a discount in order to ensure that 12.5% of residential units be allocated for workforce housing, that is to say, for households earning between 70-100% of the area median household income (AMI). This would of course be in addition to the county's standard requirement for 12.5% moderately-priced dwelling units, which typically meets the needs of those households earning between 60-70% AMI.

The panel's recommendations regarding mix of product type, uses, scale, and layout can best be seen in the concept plan and SketchUp models included in the Planning & Design section of the report. Those designs evolved from the panel's following assessments regarding the area's assets and market potential.

SGIC

The panel was thoroughly impressed by the Shady Grove Innovation Center (SGIC), and came to view it as a key to the PSTA site's identity and the focal point for the site plan. The SGIC is not only successful, in that it has very little vacancy and has seen a number of its companies "graduate," but it also represents the spirit of the entire Life Sciences Center. To the extent that it can be celebrated and expanded, a resounding message can be sent to the rest of the bioscience world regarding Montgomery County's commitment to the industry and this site. There also appears to be a need for a graduated step in the business development process, such that once SGIC users have finished their wet lab work, but before they're ready to lease a large space of their own, they have an intermediate-level facility within the LSC that they can lease at below-market rates. Additionally, the Montgomery County life sciences market does not have the number of venture capital firms that similar life sciences clusters in Boston and California possess. This is a competitive disadvantage for Montgomery County, and one that the SGIC might be able to address by providing space for small venture capital companies.

Of course, the building exterior of the SGIC is not the most aesthetically pleasing or modern, so the panel did discuss whether the county should keep the building or demolish it and reconstruct a new facility. Since there are already several million dollars invested in the facility, however, the panel recommends keeping the current building and expanding it. Moreover, the panel learned something during its tour that seemed somewhat inconsequential at the time, but later took on added importance: the panel heard that the small, unadorned kitchen of the SGIC is one of the most frequently-used and treasured spaces within the entire facility. This important space supports social interaction among the young entrepreneurs, breeding innovation, creativity, and new business opportunities.

As the panel continued with its process, it realized that the SGIC kitchen—and the need for such a community gathering space, particularly in the midst of the frequently sealed-off and secure environments of research—could serve as a metaphor for the development of the site as a whole. The PSTA site, and the LSC in general, need such a gathering space. The panel sought to accomplish the linked goals of creating such a place, expanding the capacity of the SGIC, and improving the exterior appearance of the building, by recommending the addition of new buildings on either side of the SGIC on the site of the existing surface parking, creating a gathering place in the middle, and increasing the capacity of the SGIC from 70,000 to 210,000 square feet. These new buildings could have ground floor retail, with preferred tenants being those which, like Cosi, or Epicurean and Company on the campus of Georgetown University, provide a comfortable, yet energetic gathering space.

Retail

Due to the well-recognized potential for retail to enliven a space and provide possibilities for people to come together, precisely as described above, both jurisdictions and developers frequently attempt to “optimistically” inject retail in places it simply cannot prosper over the long-term. Moreover, the demand for near-term retail within the study area appears to be adequately met by Fallsgrove Village Center, while Crown Farm is expected to have 200,000-250,000 square feet of retail, thus pre-empting retail opportunities at the PSTA site. With the addition of residential units, however, and with careful placement of retail within the property and improvement of connections with other LSC Districts, the panel foresees a demand for a maximum of 25,000 square feet of retail, which could roughly translate into eight tenants with a focus on fast-casual dining.

As a result, the panel sought to identify where the demand for retail would be strongest, and to allow for such space in the plan. As noted above, one potential site would be in the ground-floor level of the expanded SGIC buildings. Because retail is most successful when it faces other retail across the street, the panel recommends that new residential buildings across from the SGIC have 15-16 foot heights at the ground floor, so that retail can be incorporated there given sufficient demand, or allowed for later on, as the market arrives. “Retail-like” uses, such as a day-care center, could also accommodate a demand perceived by the panel, while also helping to activate the space.

Residential

Having residential as the lead product type within the study area makes sense both in terms of current unmet demand and in laying the foundation for other product types. Given the employment base of the area, its perceived good schools, and accessibility to major roads, the panel envisions a demand for 30-60 residential units per month, even in advance of the Corridor Cities Transitway.

Earlier phases of this demand will largely need to be met by four- to five-story, stick-built construction, with 250-300 units per module, wrapped around parking. The buildings should transition to greater building heights and density from the approved townhome development on the western side of the site. Buildings of this size and type are in conformance with the 1.0 FAR allowed by the master plan; given that the plan was the result of a thorough and inclusive process, and that the plan is only one year old, the panel believed it was important to respect its dictates. Furthermore, given the 30% premium or more for high-rise construction costs, without evidence of a corresponding premium in rent obtainable here currently, low-rise construction is what the market allows for in the near-term. As seen in the concept plan, there is an opportunity for high-rise 10- to 15-story residential buildings within the center of the site, but these would likely only be feasible in the long-term, once the market had already proven itself with the new lower-rise buildings, and once the CCT connects to the site.

The unit mix will initially consist of one and two bedrooms, although studios may become more appropriate as the amenity base improves and the area becomes more urban. The site can allow for different product types, including flats, stacked flats, walk-ups, and perhaps some lofts, but this mix will need to be largely market-driven. The panel noted that there is already a variety of single-family-home options available within a short distance of the Shady Grove Life Sciences Center, so residential development at the PTSA should focus on attracting occupants that want to live in multifamily buildings

because a single-family home is not affordable or not practical given the possibility of changing jobs or income brackets. Either apartments or condos may be appropriate, depending on the market. The right rental product may also attract renters by choice.

Limited Service/Extended Stay Hotel

The panel viewed the inclusion of a hotel—also near the SGIC on the southern end of the parcel—as an important addition, although the county may again have to rely upon leveraging the value of the land to make the deal feasible for a developer and operator. By including a mid-rise hotel, eschewing cookie-cutter architecture and instead requiring that the building is high-quality and distinctive, the county could send yet another signal to the market regarding its commitment to the area and the standard expected of development. Such a project would also bring new people and activity to the area, and could allow for additional parking for adjacent sites, constructed through a public/private partnership.

Office

Given the limitations imposed by the master plan on the development of additional commercial office space, the panel did not spend significant time on that product type. However, as can been seen in the concept plan, the panel does feel that there are long-term opportunities for additional R&D and office space along the busiest streets with the highest traffic counts. Not only do such busy and noisier streets better lend themselves to office than residential, but the panel also believes that just as there should be housing on other sites, so too should there be workplaces on the PSTA site, enabling residents to walk to their jobs, instead of always having to travel to the other side of the LSC to do so.

School

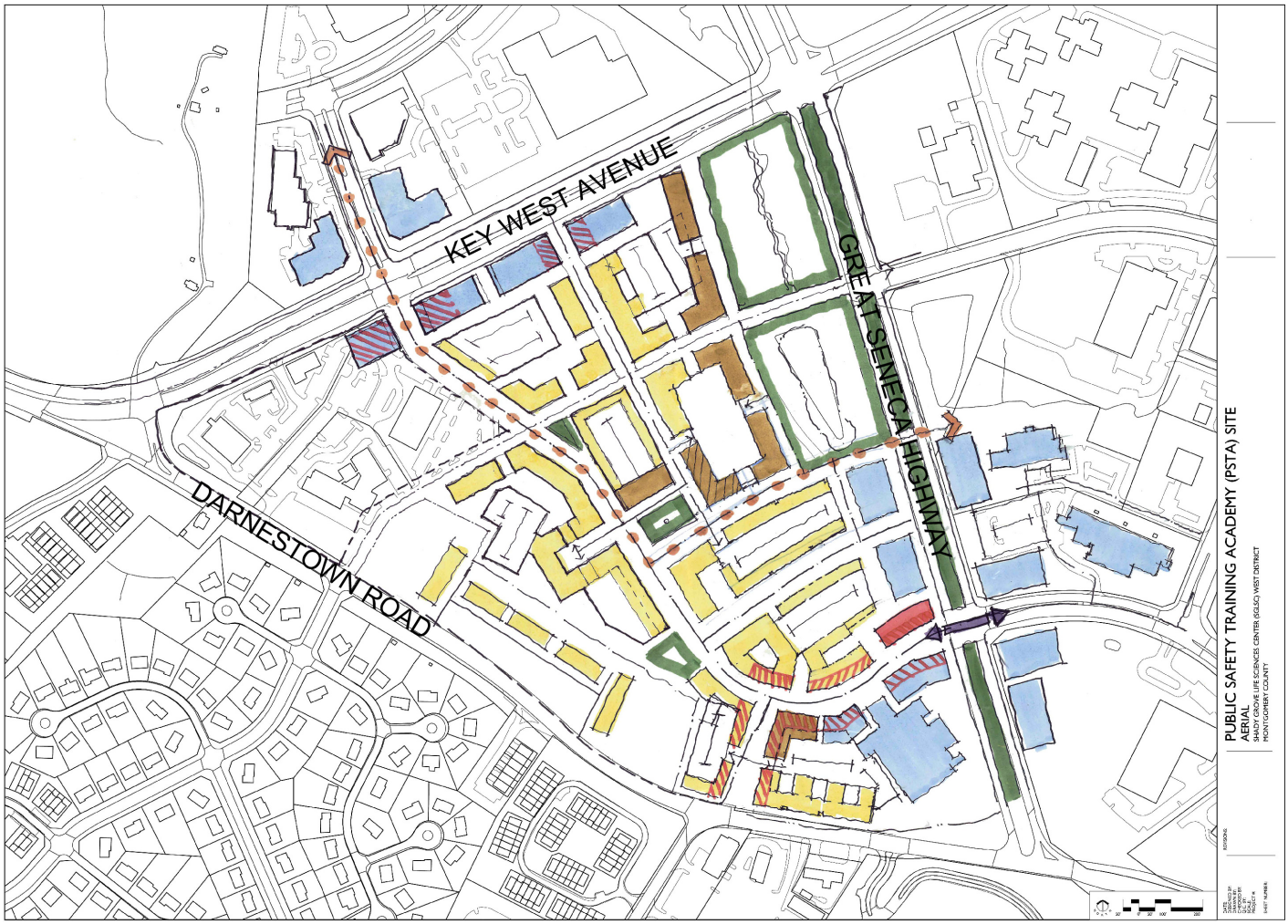
Although the master plan calls for the reservation of land within the PSTA site for an elementary school, the panel questions whether there is in fact a need for such a use, based on the panelists' experience with the residential product types proposed here and the types of residents they attract. Without the benefit of additional data regarding existing and anticipated future enrollment, though, the panel makes this point tentatively. On the other hand, the panel does commend the county for proposing a multi-story, urban-scale school, should one be needed.

Planning and Design

The concept plan and SketchUp models that follow illustrate the various product types discussed in the Market Potential section of the report, with blue representing office space, including most notably the two proposed additions to the SGIC, with ground-floor retail represented by the red hashmarks. Similarly, the four- to five-story residential buildings are represented in yellow, with those buildings including ground-floor retail also represented by red hashmarks. The mid-rise hotel building is represented in brown, to the west of the SGIC, in the concept plans while the higher-rise residential buildings are also represented in brown, in the middle of the site and adjacent to the six acre park. A significant green space is also represented on the plan, adjacent to the CCT stop. The panel's preferred route for the CCT, to be discussed in detail below, is also illustrated by a dotted red line, along the new roadway through the site.

The panel tried to honor the connection points with surrounding parcels that the master plan suggests, and noted the importance of carefully developing the edges of the PSTA site, as they can suggest how the edges across the street should be developed in the long term. The panel feels that this is particularly important with Great Seneca Highway, where bringing buildings to the street's edge, landscaping the median, and creating an urban boulevard can provide an appealing front door to the PSTA site and still accommodate the same amount of traffic, while also creating a better pedestrian experience so that people are encouraged to walk within the LSC districts. As noted by one panelist, the SGIC is only a ten-minute walk from the Universities at Shady Grove, but without such improvements few people will feel comfortable making the walk, and will opt to simply drive instead.

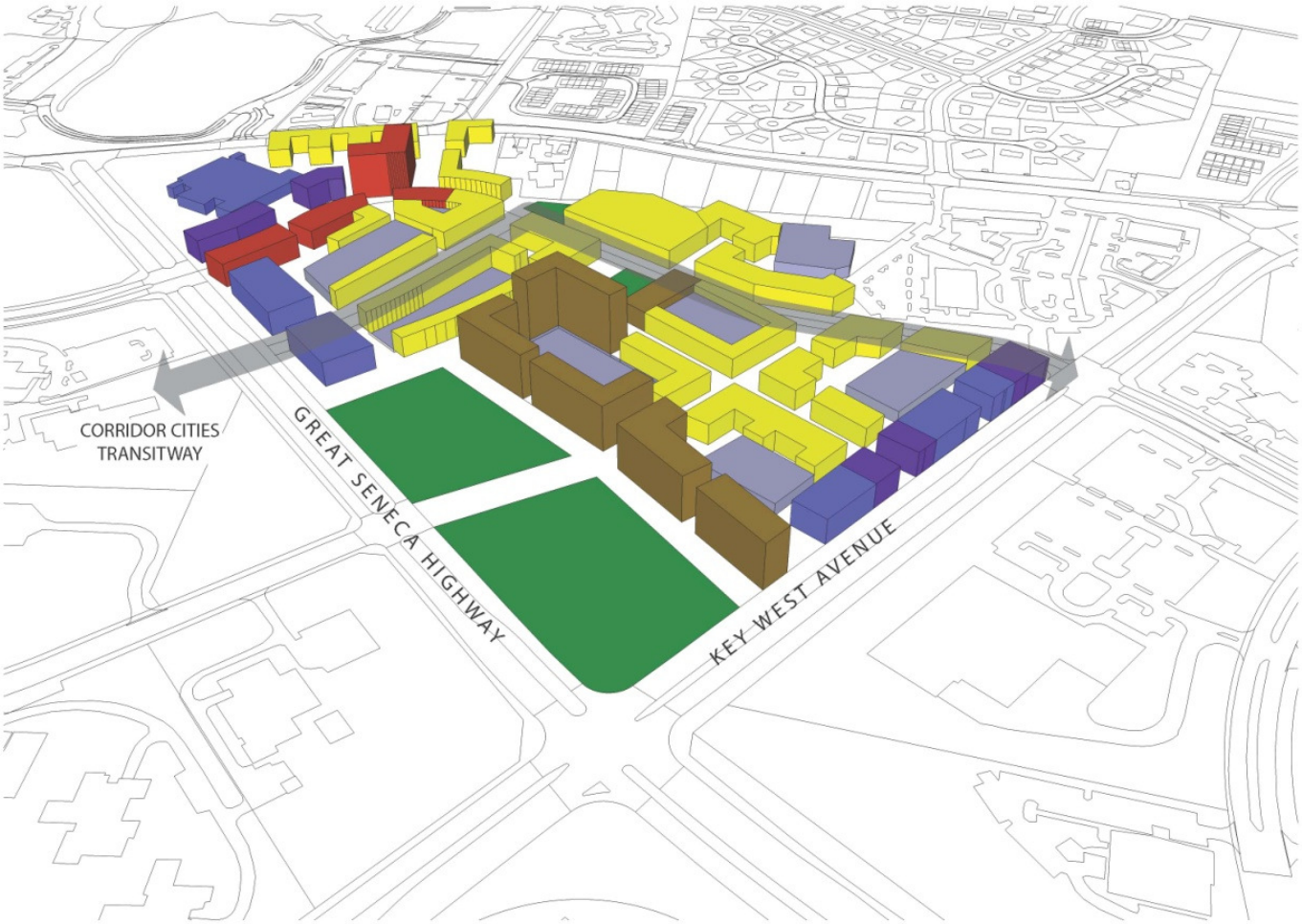
Concept Plan: Blue represents office space, including most notably the two proposed additions to the SGIC, with ground-floor retail represented by the red hashmarks. Four- to five-story residential buildings are represented in yellow, with those buildings including ground-floor retail also including red hashmarks. The mid-rise and distinctive hotel building is represented in brown with red hashmarks, to the west of the SGIC, while the higher-rise residential buildings are also represented in brown, in the middle of the site and adjacent to the six acre park. A significant green space is also represented on the plan, adjacent to the future CCT stop. The panel's preferred route for the CCT is also illustrated by a dotted red line, along the new roadway through the site.



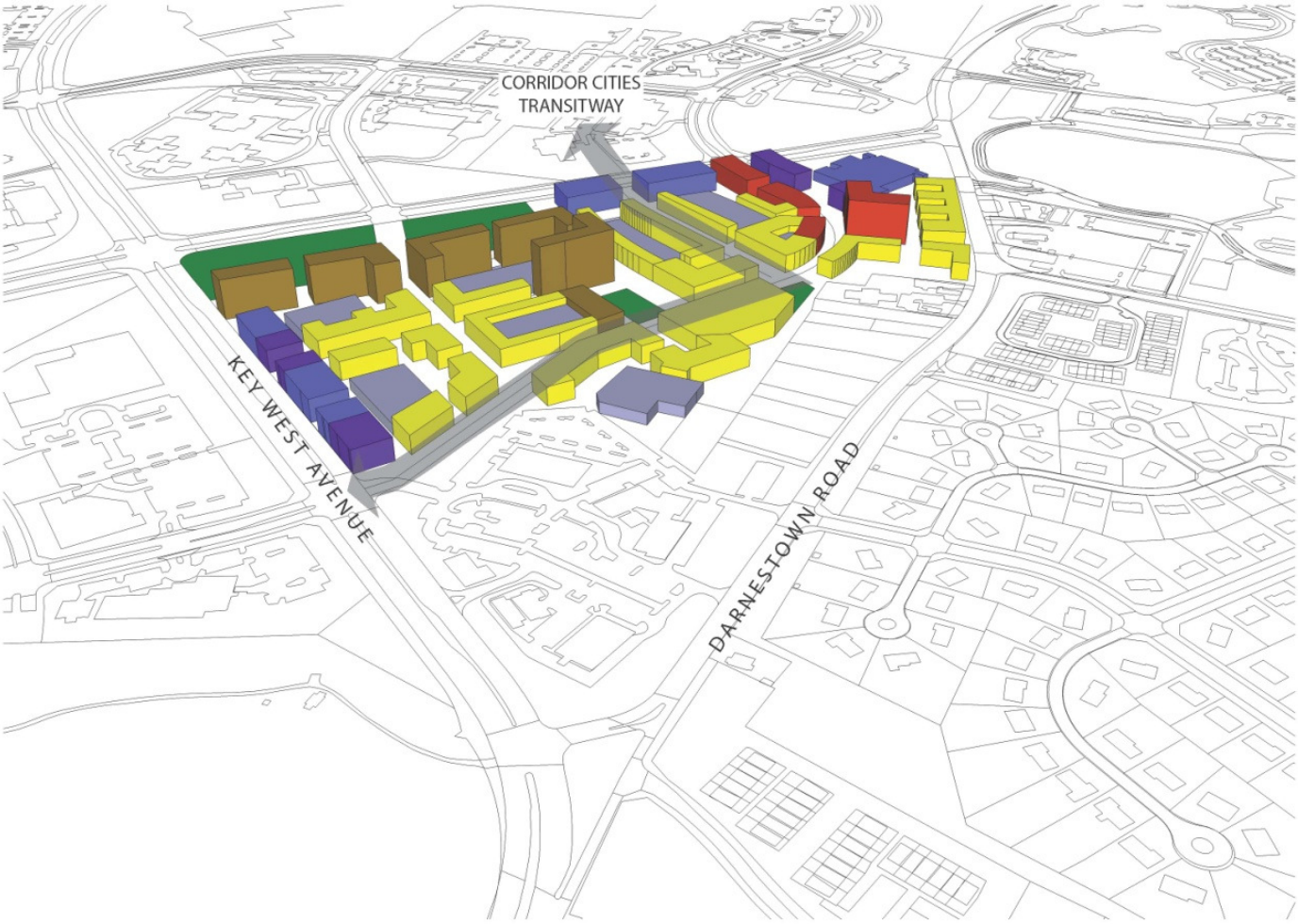
SketchUp Model 1, view from the south: This model represents the same plan and development program as the Concept Plan on page 19, but with some slight differences in color use: Blue represents office space, but here the two proposed additions to the SGIC with ground-floor retail are represented in purple. Four- to five-story residential buildings are represented in yellow, with those buildings including ground-floor retail represented in red. The mid-rise and distinctive hotel building is also represented in red, to the west of the SGIC, while the higher-rise residential buildings are represented in brown, in the middle of the site and adjacent to the six acre park, in green. This model also represents the same plan and program as SketchUp Models 2, 3, and 4, which follow.

SketchUp Model 2, view from the east: This model represents the same plan and program as SketchUp Models 1, 3, and 4, and is simply a view from a different vantage point. This model also represents the same plan and development program as the Concept Plan on page 19, but with some slight differences in color use: Blue represents office space, but here the two proposed additions to the SGIC with ground-floor retail are represented in purple. Four- to five-story residential buildings are represented in yellow, with those buildings including ground-floor retail represented in red. The mid-rise and distinctive hotel building is also represented in red, to the west of the SGIC, while the higher-rise residential buildings are represented in brown, in the middle of the site and adjacent to the six acre park, in green.

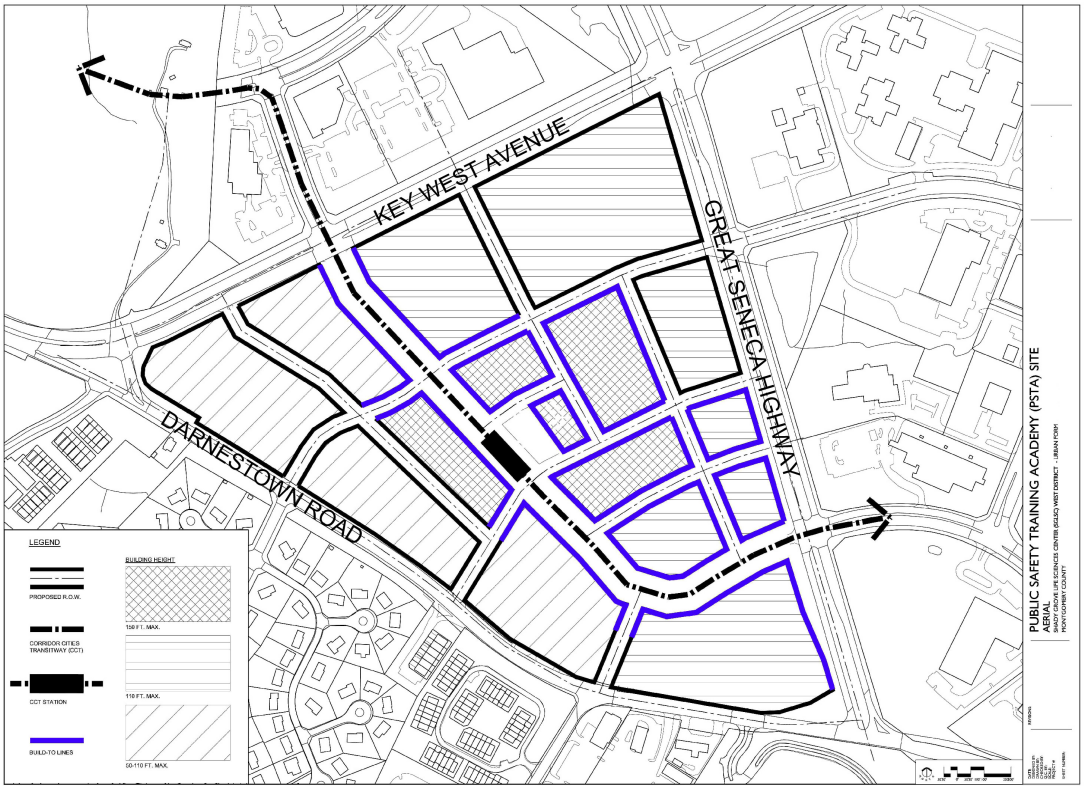
SketchUp Model 3, view from the north: This model represents the same plan and program as SketchUp Models 1, 2, and 4, and is simply a view from a different vantage point. This model also represents the same plan and development program as the Concept Plan on page 19, but with some slight differences in color use: Blue represents office space, but here the two proposed additions to the SGIC with ground-floor retail are represented in purple. Four- to five-story residential buildings are represented in yellow, with those buildings including ground-floor retail represented in red. The mid-rise and distinctive hotel building is also represented in red, to the west of the SGIC, while the higher-rise residential buildings are represented in brown, in the middle of the site and adjacent to the six acre park, in green.



SketchUp Model 4, view from the northwest: This model represents the same plan and program as SketchUp Models 1, 2, and 3, and is simply a view from a different vantage point. This model also represents the same plan and development program as the Concept Plan on page 19, but with some slight differences in color use: Blue represents office space, but here the two proposed additions to the SGIC with ground-floor retail are represented in purple. Four- to five-story residential buildings are represented in yellow, with those buildings including ground-floor retail represented in red. The mid-rise and distinctive hotel building is also represented in red, to the west of the SGIC, while the higher-rise residential buildings are represented in brown, in the middle of the site and adjacent to the six acre park, in green.



The illustration below is based upon Map 16 LSC West: Urban Form, from the Great Seneca Science Corridor Master Plan, and demonstrates the panel's attempts to respect the connection points with surrounding parcels and building height limitations established by the master plan, as well as the panel's concurrence with the master plan's guidance to build to the street edge. The illustration also clearly depicts the location of the CCT station. It is important to note, however, that this illustration depicts the CCT route via the southern alternative, while the panel recommends the northern alternative route, as explained below.



The CCT

Given its importance to the plan, the panel spent a significant amount of time thinking about the CCT and how it can best be incorporated into the project. As of the time that the panel completed its work, two alternative alignments were still being considered by the state for the CCT's route through the PSTA, albeit with the same stop. It is the

panel's understanding that a 50-foot dedication is sought for the CCT; adding that to the amount of right-of-way (ROW) needed for an automobile street, street trees, sidewalks and amenity zones could easily result in a street that is 150 feet wide. In order to provide a frame of reference, Connecticut Avenue in the District of Columbia—a street where retailers frequently struggle, despite the excellent demographics—is 130 feet wide. Given the aforementioned need to create an intimate space that allows for interaction and connectivity in the first phase of the project and the desire of retailers to be located along streets where shoppers can easily "bounce" between the two sides, the panel was very concerned about bringing a street that wide through the first phase.

Thus, the panel has a preference for the northern route for the CCT, which in turn allows the southern connection through the first phase to develop initially at a more reasonable 70-80 foot distance from building face to building face, which is more typical of an urban street, and more comfortable for pedestrians. Since the panel does not find a demand for, nor recommend, commercial uses that face both sides of the street along the northern route, a larger ROW there would not be as deleterious; moreover, the panel believes there are strategies that could allow for a narrower ROW.

Pictured below are examples to two bus rapid transit systems, in Vancouver, British Columbia and Eugene, Oregon, respectively, which demonstrate potential configurations. In the Vancouver example (upper left), the total ROW would appear to be between 40-50 feet, which include a landscaped median on the left side of the photo, as well as a narrower feature that serves as a divider from automobile traffic. In the Eugene example (lower right), we see a ROW that appears to be approximately 32 feet, including station.

Photo 1: BRT system in Vancouver, British Columbia

Photo 2: BRT system in Eugene, Oregon

Development Strategies and Implementation

Phasing. In terms of where and how to begin, the panel recommends that the residential portion of the project and the amenity/public space provisions, including expansion of the SGIC, happen sooner rather than later, both because demand already exists and because doing so demonstrates to the community and the greater world that Montgomery County is committed to creating a fully integrated urban area at the Life Sciences Center. Indeed, given the constraints of the Great Seneca Sciences Corridor Master Plan and the fact that many sites in Shady Grove are occupied by valuable cash-flowing buildings that will not be redeveloped anytime soon, the PTSA site is one of the few sites that can be developed in the near-term.

Process. The panel recommends that the county develop the site through the selection of a development manager. The development manager would be responsible for coordinating the provision of the necessary infrastructure and for the execution of the plan, with the entire site governed by a management agreement, covenants, conditions and restrictions (CC&R's), and/or other controlling documents. The manager may or may not develop portions of site, and would also go out and contract with individual developers to develop separate pieces of the site. The advantage of such an approach is that few developers have the capacity to provide for the mix of uses called for on the PSTA site, whereas a master developer that builds infrastructure and sets up the plan could team up with other developers more experienced with retail, residential, hospitality, or office, providing the county more potential development partners, and distributing the risk. This arrangement can survive the test of time, while relying on one developer or team of developers to develop every portion of the site over what could be a 15-year timeframe may lead to disappointment. Once the development manager completes the project, a business improvement district would take over management of the site, as described in greater detail below.

The county will likely need to set a low price for the land, so that the competition can focus more on the amenities and level of design provided—including benefits such as workforce housing, as discussed previously—rather than the price that can be paid. This can be done either by setting a price upfront, or by setting up a “point” system that awards more points for workforce housing and design than for price. The problem with Requests for Proposal that ask for everything – best price, best design, most affordable units – is that developers tend to focus on achieving the highest price, with design, etc. being secondary considerations.

Business Improvement District. Drawing from the lessons learned from the SGIC, which organizes events both on- and off-site for its tenants and seeks to draw them closer together, the panel recommends that a business improvement district (BID) be created for the LSC, in order to serve a similar function. Such a BID could not only organize events to help integrate the disconnected users of the LSC, but could also promote branding, marketing, way finding, and maintenance. For example, the panel was struck by the simple fact that lawns within the LSC appeared unmowed and unkempt; while seemingly unimportant in the scheme of the amazing achievements accomplished at the LSC on a daily basis, such small details make a lasting impression on current and potential users of the LSC, and impact their quality of life and desire to venture outside, especially on foot.

Such an overarching organization could also seek to identify and promote synergies among stakeholders wherever possible. Akin to the previously-cited example of promoting residential uses that are complementary to the core missions of LSC users on their parcels, a BID with a high degree of professional expertise on staff and on its board could also suggest opportunities for users to branch out into new endeavors and form partnerships that more tightly bind the campus and make the greatest use of the assets available. Admittedly, the panel does not possess such high-level expertise in the area of bioscience, but for what it's worth, one such example that did occur to the panelists would be to encourage Adventist Hospital to expand its teaching and research functions.

Circulator Service. In reviewing the sector plan, the panel was struck that there is no reference to any circulator service. Perhaps the CCT is envisioned as fulfilling a similar function at some point in time, but until then—and perhaps even after the CCT is in place—there may be a need to provide a circulator so that, for example, employees and visitors at Shady Grove Adventist Hospital can patronize the retail at the PSTA and make it back to the hospital while on a break. Also, since the CCT doesn't extend to The Universities at Shady Grove, and since students are more likely than any group to use transit, it is important to provide that opportunity to connect them to the PSTA site.

Parking District. Montgomery County has achieved great success with parking districts in Silver Spring, Bethesda, and Wheaton, and the panel recommends instituting one in the LSC as well, in order to gain efficiencies through correctly-sized garages as well as through shared parking. In order for parking garages to be efficient, they generally need to be 120-180 feet wide and a certain length, which is a scale that isn't necessary or achievable for all of the parcels within the area. Such shared garages would allow for office parking during the day and retail parking during the night and weekend. The panel

further recommends a strategy of slightly overbuilding such garages early-on, allowing for an intensification of uses later on without creating a need for more parking, and even allowing for the recapture of surface parking lots for other uses. Once the CCT comes on line, parking needs will be further alleviated, but in the meantime the LSC needs to be competitive with other jurisdictions and buildings in other locations.

Silicon Valley in California and Research Triangle Park in North Carolina, which are similar to the LSC in their suburban-style layouts and vintage, are facing many of the same issues as those highlighted in this report. Because Research Triangle Park already has the type of management entity proposed by the panel, though, it is better able to respond to these challenges. On the other side of the spectrum, the panel recommends that the county take a closer look at University Park, in Cambridge, Massachusetts, in order to see how a truly urban research park operates, as well as the constraints that it faces. It is the panel's hope that its recommendations for the PSTA site and the LSC as a whole will enable the area to begin thinking of itself and functioning not only as a campus but also as a diverse but connected urban place, rather than five separate subdistricts.

About the Panel

Peter R. Crowley (Panel Chair)
Partner
LandDesign
Alexandria, VA

Joining LandDesign in 1979, Peter Crowley established the Alexandria office in 1983 and is a Partner who participates in multidisciplinary teams domestically and internationally, with the stated objective of creating a balance between market forces and design aspirations.

With 32 years' experience, Mr. Crowley has used his planning skills to craft a wide variety of compelling projects involving town planning, urban infill, mixed-use, and master planned communities. He actively advocates aligning client needs with market conditions, bringing stakeholders together, embracing and sustaining the environment, and differentiating a place to engage the user. And his dedication to creating memorable space and developing community through design has been an integral part of the firm's development and the marketable success of our clients.

Over the last five years, Mr. Crowley has been active on projects in China, the Middle East, Africa, and Latin America. He also continues to focus in the United States in the Mid-Atlantic and Southeast on transit-oriented development, town center design, and innovative master-planned communities. Among his most notable projects are Moorefield, a 600-acre transit-oriented mixed-use development that includes four distinct neighborhoods tied together by a uniform design theme, and Wuhan Research Park, a 2,234-acre mixed-use university and software research park west of Shanghai in China.

Mr. Crowley earned a Bachelor of Landscape Architecture from the University of Georgia and is a registered landscape architect in Virginia, Connecticut, Delaware, Maryland, North Carolina, New York, and New Jersey. He is also a member of several professional organizations, including the American Society of Landscape Architects, Urban Land Institute, and American Planning Association.

Bryant Foulger
Principal
Foulger-Pratt Companies
Rockville, MD

Bryant Foulger has been a principal of the Foulger-Pratt Companies for over 25 years. He oversees much of Foulger-Pratt's work in development services and property management; and has been instrumental in the development of such projects as Downtown Silver Spring, Silver Spring Metro Center, Rockville Metro Center, Milestone Business Park, The Bennington, the Nature Conservancy headquarters, Hunters Branch Office Park, Blackwell Office Park, and many others.

Currently, Mr. Foulger is directing the development process for a new mixed-use project at the Silver Spring Transit Center, and a multi-tower residential community called Park Potomac Place in Rockville, Maryland. He also oversees the management of nearly four million square feet within the Foulger-Pratt property management portfolio.

Mr. Foulger was named Montgomery County Business Leader of the Year in 2003, and was named "Trendsetter of the Year," along with Clayton Foulger, at the 2004 Trendlines Conference. He is active on the Silver Spring Urban Advisory Board and the Montgomery County Business Advisory Panel. Mr. Foulger attended Brigham Young University.

Patricia A. Harris
Principal
Lerch, Early & Brewer, Chtd.
Bethesda, MD

Patricia Harris is a land use attorney at Lerch, Early & Brewer in Bethesda, Maryland. She helps developers and property owners secure approvals needed to develop their properties, including site plans, special exceptions, subdivision approvals, historic preservation, local map amendments, zoning text amendments, master plan recommendations and building permits in Montgomery County, Maryland. Pat is experienced in transit-oriented development and other issues related to smart growth development.

She represents national corporations, local development companies, churches and schools in zoning and land use matters. Pat appears before administrative boards, commissions and elected officials, including the Montgomery County Council, the

Maryland National Capital Park and Planning Commission Planning Board, the Montgomery County Historic Preservation Commission, the Board of Appeals and the Sign Review Board. She also represents many property developers pursuing approvals in the City of Rockville, and appears frequently before the Rockville Mayor and Council and Planning Commission.

Chambers USA says the "'extremely talented' [Pat] attracts praise from market sources for her zoning and land use expertise, particularly in Montgomery County. Clients say she is 'very responsive and easy to work with.'" (*Chambers USA* 2011).

Pat is active in Montgomery County economic development issues. She has served on the boards of directors of the Bethesda Urban Partnership and the Greater Bethesda-Chevy Chase Chamber of Commerce (where she now serves as counsel and previously served as vice president of Government Affairs and Economic Development). Pat also is very active in the Urban Land Institute. She is a member of the Washington, D.C. District Council of ULI and serves on several committees. She is listed in the *Best Lawyers in America* and in *Chambers USA* in the field of land use.

Pat received her Bachelor of Arts from the University of Delaware *cum laude* and her *Juris Doctor* from The George Washington University Law School. Prior to joining Lerch Early, she was a partner in the Montgomery County office of a national D.C. law firm. She is admitted to practice in Maryland and the District of Columbia.

Pat serves on the board of the NonProfit Village, which provides space and services for a collection of Montgomery County nonprofits, and of The Writer's Center in Bethesda. With two active boys, Pat and her husband love spending time outdoors. Pat rode her bicycle across the United States after graduating from college and hopes to repeat the feat someday with her boys.

Christopher L. Kabatt, P.E.
Senior Associate
Wells + Associates, Inc.
McLean, VA

Mr. Kabatt has 14 years of experience in traffic, parking and transportation planning and engineering. He has worked for both private developers and public sector clients. This experience includes traffic impact studies, travel demand management studies, site design and assessments, capacity analyses, directional distribution analyses, parking analyses and design, and data collection activities. Mr. Kabatt has provided expert

testimony before administrative hearing officers, citizens groups, planning commissions, and zoning commissions. He is a registered Professional Engineer in the District of Columbia, Maryland, and Virginia. Mr. Kabatt has a Bachelor of Science, Civil Engineering, from The Pennsylvania State University and is a member of the Institute of Transportation Engineers (ITE) and Urban Land Institute (ULI).

W. Thomas Lavash
Managing Principal
WTL+a
Washington, DC

Tom Lavash is the Managing Principal of WTL+a, a Washington, D.C.-based real estate and economic development consulting firm formed in 2010. He has 26 years of experience and focuses his practice in urban real estate and economic planning and development. He directs engagements dealing with all types of real estate, with an emphasis on mixed-use, downtown and waterfront, and commercial district redevelopment and repositioning. He serves as a key advisor on market and financial feasibility, multi-component land planning and pre-development programming, and phasing strategies for sites that dovetail environmental, site planning and engineering. For the past eight years, he has specialized in feasibility of numerous transit-oriented development projects (TOD) in Florida, Tennessee and Texas. He has completed over 350 projects across the United States, frequently as part of multi-disciplinary teams.

Tom is a member of the Urban Land Institute, active in the District Council, Washington, D.C., and previously served on the Technical Assistance Panel (TAP) committee. He is also active in UrbanPlan, and has participated in multiple ULI advisory services and AIA panels across the United States. This is his fifth TAP panel in metropolitan Washington and Baltimore. Tom holds a Master of City Planning degree from the University of Pennsylvania with a Certificate in Real Estate Development from its Wharton School of Business (1983), and a Bachelor of Arts in Urban Studies, *cum laude*, from the University of Massachusetts at Dartmouth (1980).

He is a 25-year resident of the District, including 16 years in Adams-Morgan and nine years in Michigan Park. He is an officer in the Michigan Park Citizens Association and is very active in tree planting initiatives throughout the city with Casey Trees.

Joshua A. Olsen
Senior Vice President
Monument Realty
Washington, DC

Joshua Olsen is the Senior Vice President in charge of acquisitions at Monument Realty, a Washington, D.C.-based developer of office buildings and multifamily apartments and condominiums. Monument has developed approximately 5.5 million sf of office space and 3,500 residential units. Josh has worked at Monument Realty since 2003. Prior to joining Monument, Josh wrote a biography of real estate developer and urban visionary James Rouse entitled *Better Places, Better Lives*, which was published by the Urban Land Institute. He is also the co-author of *Foggy Bottom and the West End in Vintage Images*, a compilation of historic images of two D.C. neighborhoods. Josh is on the executive committee of the Washington District Council of ULI and has served nationally as a juror for ULI's Kenneth M. Good Graduate Student Scholarship. He co-edited *Urban Land* magazine's focus on the D.C. area in the October 2010 issue of that publication, and co-authored an accompanying article on the state of development in D.C. Josh has an undergraduate degree in architecture from Yale and earned a master's degree from the University of Bristol while a Fulbright Scholar to the United Kingdom.

Katie Pavlechko
Urban Designer
LandDesign, Inc.
Alexandria, VA

Since joining LandDesign (Alexandria, VA) in August 2010, Katie Pavlechko has been involved in many projects at different stages of design, including planning, conceptual design, schematic design, construction documentation and site detailing. Her work focuses on urban planning, community planning and urban design projects. Her international work experiences have afforded travel opportunities to Dominica, Costa Rica, and Russia for work involving ecotourism and community planning.

Ms. Pavlechko earned a Bachelor of Landscape Architecture from Ball State University and is a LEED Accredited Professional (BD + C).

Michael C. Swartz
Principal
David M. Schwarz Architects
Washington, DC

Michael C. Swartz is a principal with David M. Schwarz Architects in Washington D.C. A graduate of Carnegie Mellon University, he has been with the firm for 28 years. His Professional memberships include the Urban Land Institute, the American Institute of Architects and the Congress for New Urbanism. Mr. Swartz is a LEED accredited professional and holds architectural registrations in the District of Columbia, Connecticut, Georgia, Maryland, Minnesota, Texas and Virginia.

Mr. Swartz's project experience includes master planning and mixed-use designs for: downtown Fort Worth, TX; Southlake Town Square, Southlake, TX; West Village, Dallas, TX; Frisco Square, Frisco, TX; Firewheel Town Center, Garland, TX; Regent Square, Houston, TX; Twinbrook West, Rockville, MD; Duke University, Durham, NC; and the University of Miami, Miami, FL. Mr. Swartz's completed building design commissions include Southlake Town Hall, Southlake, TX; The Tarrant County Family Law Center, Fort Worth, TX; the Yale University Class of 1954 Environmental Science Center, New Haven, CT and master planning and building design for the Baltimore Orioles Spring Training Facility in Sarasota, FL which opened this past March. Mr. Swartz is currently working on the design of several mixed-use and residential projects in Washington DC as well as the retail component for Crown Farm in Gaithersburg, MD.

On numerous occasions Mr. Swartz has been a presenter and panel member for the Urban Land Institute's Mixed Use Conferences and has previously participated with ULI's TAP program. He has also served as a visiting critic at the University of Maryland.