

**Resilient, Sustainable
West Falls Church Economic Development Project:
Learning from Regional Experience**

**Panel discussion hosted by the City of Falls Church Environmental Sustainability Council
February 15, 2018, 7:00pm – 9:00pm
Mary Ellen Henderson Middle School Library**

Summary

Introduction

On February 15, 2018, the Environmental Sustainability Council (ESC) hosted a panel discussion entitled **Resilient, Sustainable West Falls Church Economic Development Project: Learning from Regional Experience**. The purpose of the event was to engage City decision-makers and the broader community in a discussion of how the City can integrate environmental and economic sustainability principles into the [West Falls Church Economic Development Project](#), driving resilient development, maximizing environmental benefit, creating place and reducing financial risk.

A panel of six experts addressed an audience of about 40 people, sharing practical insights on why and how to develop with climate resilience in mind as well as lessons learned from successful sustainable neighborhood scale projects in the Washington D.C. area. A robust question and answer session followed the presentations.

The ESC's intention is that this panel serves as the beginning of a longer discussion on how the City of Falls Church can integrate best practice in terms of sustainability and climate resiliency as the City continues to grow and redevelop.

Panelist presentations

[Resilient development: lessons learned from Washington, D.C.](#)

Jay Wilson, Green Building Program Analyst, D.C. Department of Energy & Environment

Jay Wilson lauded the City for having an early conversation about sustainable development, as these types of discussions typically start too late in the process. Integrating resiliency features to buildings and neighborhoods at the outset is much more cost effective than trying to tack them on after construction.

Mr. Wilson shared Washington DC's [Climate Ready DC](#) plan, which was developed under the city's broader [Sustainable DC](#) plan. The Climate Ready DC plan stemmed from a process that included analyzing the projected impacts of climate change, assessing risks from those impacts and ways to mitigate that risk, and prioritizing actions. The Climate Ready DC plan lists 77 actions and a plan for implementing them across the City, many of which could be applied by Falls Church.

Climate resilient neighborhoods are designed to withstand the projected physical impacts of climate change, which in the case of the West Falls Church project include increased temperatures, precipitation and severe weather. Mr. Wilson shared projections for D.C. and illustrated how infrastructure planning should change to account for these projections. For example, stormwater systems are typically designed to handle a 15-year event, but capacity needs will increase dramatically based on climate predictions (~50% greater volumes by 2080). Similarly, the number of heat index days (>95 F) is expected to continue growing. Most important is consideration of the people side of resiliency – how do we come together and rebound after acute shocks like hurricanes and under chronic stresses like rising temperatures?

Planning for resilience

Jon Penndorf, Senior Project Manager, Sustainability Leader, Perkins + Will

Jon Penndorf continued the discussion of resilient development, including the business case and specific strategies. He defined resilient design as “spaces, buildings and communities that are shock resistant, healthy, adaptable and regenerative.” The business case for resilient development includes social benefits (e.g. health and wellbeing of occupants), economic benefits (e.g. trading off upfront costs against losses from business disruptions and the cost to rebuild after a shock), and environmental benefits (e.g. reduced air and water pollution).

He provided practical strategies to design neighborhoods and buildings that are resilient to climate change. Strategies for extreme heat include: shade from natural vegetation, on-site renewable energy, cool roofs, back-up power for critical systems and cooling centers. Strategies for increased precipitation include: permeable pavement, oversize roof drains, respecting the water table when designing underground structures, avoiding low-lying areas for utilities.

Resilient design requires a systems approach. Perkins + Will was part of a team that created the RELi framework, which is an approach similar to LEED that provides guidance for resilient development at the building and community scales.

Framework for sustainable development: LEED Neighborhood Development

Mark Bryan, Director, National Capital Region, U.S. Green Building Council

Mark Bryan presented the LEED Neighborhood Development (ND) framework, which is a certification standard that can be used to guide sustainable development at the neighborhood scale. In contrast to the building scale LEED standards, LEED ND addresses a broader range of issues, including urban planning, land use, infrastructure and social equity. LEED ND provides a prepackaged system that can be incorporated into a Request for Proposal, and it includes credit for urban infill projects close to transportation such as the West Falls Church Metro. LEED certified buildings within the neighborhood would contribute to the LEED ND certification, as would walkable streets.

Certifying to a third party standard like LEED ND provides the community with certainty that the neighborhood has indeed been designed and built to meet sustainability goals. The

certification also enhances the community's reputation. Neighborhoods can be certified at the plan and fully constructed stages.

Sustainable developments close to home – Pike & Rose

Chris Brown, Director of Sustainability, Federal Realty Investment Trust

From a developer's and investor's perspective, sustainability provides significant business value and is not difficult to achieve. Sustainable buildings and communities provide a competitive advantage and enhanced brand recognition, create a sense of place, and reduce operations and maintenance costs. Incorporating environmental and social issues into design makes stakeholder engagement easier and more transparent, which in turn makes development easier. As an example, Pike and Rose is a 26 acre project in North Bethesda that has been in planning for 10 years and under construction for the last six, with four parcels left. Sustainable features include native plants, water-efficient irrigation, green roofs and roof agriculture and a 260 kW solar garage canopy.

In terms of applying lessons learned from Federal Realty's experience, Mr. Brown recommended: allowing a flexible mix of uses and timing to enable developers to adapt to the market; designing walkable streets that maximize the connection to metro; and encouraging sustainable development through density bonuses, reduced fees, expedited review.

Sustainable developments close to home – The Parks at Walter Reed

Vicki Davis, President, Urban Atlantic Development

Ms. Davis presented the Parks at Walter Reed, a 66 acre development in Washington D.C. As part of the procurement, the developer was presented with ambitious sustainability goals from the City and the community, including being Net Zero energy by 2030, using solar panels on buildings where possible, maximizing green open spaces, using native plants, using sustainable modes of transportation, recycling grey water and reducing potable water demand, and integrating bicycle lanes. Ms. Davis stressed that it is important to encourage developers to compete upwards in terms of integrating sustainability - "let's see how high you can go." In response to the community's sustainability goals, the Urban Atlantic team proposed many innovative solutions, including developing a microgrid, incorporating green roofs and bioswales, co-generation, electric vehicle charging stations, and using recycled materials in construction. Inclusionary housing is also essential to enhancing social equity. Above all, active community engagement is critical to ensuring success.

The connection with economic development

Michael Stevens, President, Capitol Riverfront BID

The Capitol Waterfront Business Improvement District encompasses 500 acres in Southwest D.C. and is a strong case study for the value that comes from investing in parks. Mr. Stevens provided a detailed presentation (linked above) making the business case for parks and open space.

The District of Columbia invested \$60 million into three parks in the Capitol Riverfront, and that investment has paid off for the City. The value proposition for parks includes: creating community, leveraging real estate value, attracting new development, becoming part of civic architecture, and attracting new residents, businesses and visitors. Dedicated funding (e.g. tax of retail spaces and hotels) and active management (programming, non-profit to manage park) are key to reaping value from parks. The District broke even on its investment in the Capitol Riverfront after only ten years, and in seven more years the District will have earned back double its investment.

Q&A Session

Following presentations, panelists and audience members engaged in a lively and wide-ranging one-hour Q&A session. Highlights from the discussion follow:

Applying sustainability standards to West Falls Church

- LEED certified is not a high standard to set
- International Green Construction Code – requirement set in North Bethesda
- RELi and LEED ND standards will likely converge over time now that USGBC owns both
- Be practical and partner with developers – set LEED Silver (Vicki Davis) as a target and then ask developers how high they can jump
- Proximity to WFC Metro is low-hanging fruit in terms of LEED ND certification
- U.S. Army Corps of Engineers has good tools for flood projections, although insurance premiums are often still tied to FEMA charts.
- Think through the risks and vulnerabilities of the site in the Master Plan. Use “US Climate Resilience Toolkit” to identify risks, then get benchmarks for metrics.
- City decision-makers should tour regional best practice. For scale comparable to Falls Church West End, go visit: CityCenterDC (10 acres), O St Market (Shaw), and the Wharf. Also consider Paley Park in NYC.
- “Nobody wants to be in the last brown building.” (i.e., not “green”)

Energy

- Key to microgrid opportunities is to be super efficient; only highly efficient buildings should be allowed to participate in the microgrid.
 - Proper building siting is critical (e.g., window orientations)
- “Big glass cube” buildings are highly inefficient
- RFP should focus on performance metrics, e.g. energy usage intensity, Zero Energy
- DC requires some projects to report energy use, and some to reduce energy use. DC also funds grants through its Sustainable Energy Utility. [Note that Arlington County incentivizes office buildings to ensure energy efficiency by obtaining an Energy Star score of 75 after 4 years of operations.]
- WGL (in audience) advised City to decide strategic objectives for the site. How do you define resiliency expectations? For example, with a microgrid, is it generating 20% of baseload power locally to support continuity?

Green spaces

- Washington D.C. adopted the [Green Area Ratio](#) (GAR) to drive more sustainable landscaping; however, stormwater regulations are aggressive in D.C. and are the force driving green roofs and green-space planning.
- People take ownership of their parks; water is magic – incorporate water features into parks
- Natural & park-like spaces are developers' view of what will maximize value for rent / sale. E.g., Walter Reed site was 24% parks.
- Use streets as linear parks, and connect the project to Metro and other transit.

Other market considerations

- How to achieve blended income housing
 - Jurisdictional resources are essential
 - Need lots of political will
- What creates difficulty for a developer to invest?
 - Need to have buy-in from stakeholders
 - Early stage infrastructure expenses; any public financing for infrastructure? What entitlements can a developer count on?
 - Don't create uncertainty; ensure predictability
 - Development environment is very competitive; developers are looking to partner
- Plan for the future – establish zoning for flexibility
- Density well planned and used is a beautiful thing
- If you want something, be willing to pay for it
- Integrated spaces and arts are inherently educational opportunities
- Be aware that adjacent projects (WMATA, Fairfax County) may draw away investors using less stringent demands.
- Cost effectiveness of project needs to align with market demand

Attendees			
Name	Role	Name	Role
Paul Baldino	CACT	Sally Eckfelt	CBC
Letty Hardi	City Council	Dick Eckfelt	CBC
Amy Thompson	Perkins+Will	Mark Way	TNC
Jennifer Tabola	FCC Citizen/parent	Melanie Way	TNC
Mark Bailey	WGL Energy	Sally D Cole	Chamber of Commerce
Tim Stevens	Planning Commission	Kate Reich	City Arborist
Jason Green	Citizen/investor	Sharon Schoeller	Citizen
Emma West	WMATA (Sustainability office)	Edward Saltzberg	EDA
Kim Hicks	City resident	Carly Aubrey	CFC Planning
Allison Brown	Community member	Annette Osso	Resilient VA
Rich Dooley	Arlington County	Nick Benton	FCNP
Arijanto Istandar	Citizen	Dan Sze	City Council
Steve Walz	MWCOG	Phil Skotte	ESC
Robert Lazaro	NVRC	Thomas Cash	ESC Vice Chair
Kathy Philpott Costa	Tree Commission/citizen	Chris McCloud	ESC
Andrew Young	ESC	Lee Goldstein	Project Manager
Bharat Pathac	Citizen/parent	Cory Weiss	ESC Chair
Shannon Litton	School Board	Andrew Crawford	ESC
Bob Young	Young Group	David Tarter	Mayor
Lindy Hockenberry	Planning Commission	Chris Brown	Panel - Federal Realty Investment Trust
Jon Ward	ESC	Vicki Davis	Panel – Urban Atlantic Development
Mark Bryan	Panel - USGBC	Michael Stevens	Panel - Capitol Riverfront BID
Avneet Gujral	SDC	Jay Wilson	Panel - DOEE
Jon Penndorf	Panel - Perkins+Will	Daniel Saltzberg	Northern Virginia Conservation Trust
Greg Anderson	School Board		