

Estimated Economic Impacts Of the 11th Street Bridge Park



Prepared by:
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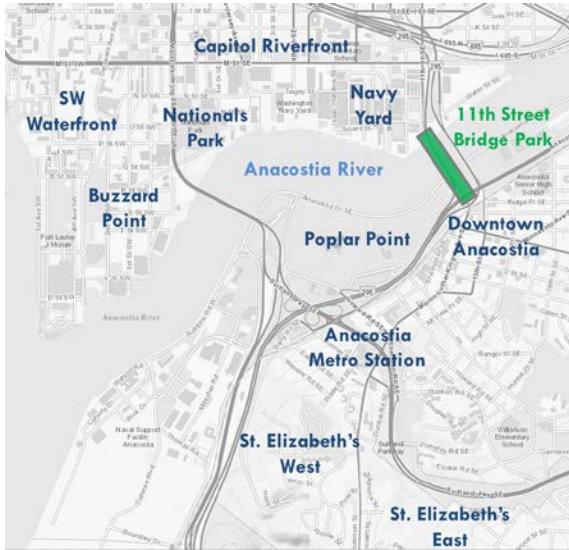
Prepared for:
Building Bridges Across the River

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EXECUTIVE SUMMARY

Building Bridges Across the River (BBAR) retained HR&A Advisors, Inc. (HR&A) to estimate the economic impacts of the proposed 11th Street Bridge Park, in Washington, DC. The proposed park would span the Anacostia River between the Washington Navy Yard and the Anacostia Historic District.

FIGURE 1 | Location of the 11th Street Bridge Park



As the 11th Street Bridge Park does not yet have a final design or cost estimates, HR&A used a variety of analytic techniques to estimate a range of impacts that can be credibly attributed to a “generic” design for the park. HR&A’s analysis is quantitatively rigorous and appropriately conservative for a park at this formative stage of development. HR&A estimates that the 11th Street Bridge Park could generate significant economic benefits for its adjacent neighborhoods and the District of Columbia overall in the following categories:

- Jobs, wages, local revenue - and resulting economic output - from the park’s construction;
- Expanded opportunities for local businesses in communities adjacent to the park;
- Increased real estate development adjacent to the park, and additional local revenue; and
- Higher values for existing properties adjacent to the park, and additional local revenue.

FIGURE 2 | Summary of Estimated Impacts of the 11th Street Bridge Park

Benefit	Estimate (one-time)	
Jobs, wages, and local revenue from construction	175 jobs/\$14m in wages \$31m in economic activity \$720k in sales and income tax revenue	
	Low Estimate (annual)	High Estimate (annual)
Expanded opportunities for local businesses	\$7m in new spending \$550k in new sales tax revenue 6 new businesses supported	\$10m in new spending \$790k in new sales tax revenue 9 new businesses supported
Increased real estate development	\$52m in value \$960k in property tax revenue	\$175m in value \$3m in property tax revenue
Higher existing property values	\$12m in value \$210k in property tax revenue	\$19m in value \$340k in property tax revenue
Total annual economic benefits¹	\$73m	\$208m

¹ Total of net new retail spending, annual sales tax on retail spending, increased real estate development value, higher existing property values, and annual property tax revenue from new development and existing properties.

INTRODUCTION

The 11th Street Bridge Park would span the Anacostia River between the Washington Navy Yard and the Anacostia Historic District. The park would be created by decking existing piers from the old 11th Street Bridge and building a greenway, or park, atop them. The completion in 2012 of a new 11th Street Bridge made the piers obsolete.

The park is envisioned as a greenway 800 - 1,000 feet long and up to 120 feet wide - nearly three acres. According to the District's Office of Planning, the 11th Street Bridge Park "would help unify the waterfront neighborhoods of Wards 6, 7, and 8, and be a hub connecting parks, trails, and recreation assets up and down both sides of the Anacostia River."²

BBAR is sponsoring a competition to determine the final design for the 11th Street Bridge Park. The winning design will be announced in October 2014. BBAR has convened hundreds of community meetings to solicit input on the park's design and programming elements, which the winning design is expected to reflect. The community's stated goals for the 11th Street Bridge Park are to:

- Create a healthy community by establishing a safe place for residents to exercise and play;
- Connect the community with the Anacostia River;
- Reconnect the neighborhoods of Anacostia and Capitol Hill; and
- Generate new jobs and economic activity.³

The 11th Street Bridge Park's location positions it to both benefit from and augment redevelopment momentum in the adjacent areas. To the west is the thriving Capital Riverfront district, with additional development in the pipeline, such as the Cohen Companies' site at 1333 M Street SE, which is planned to provide 653 residential units and 1,000 square feet of retail.

To the east, in and around the Anacostia Historic District, there are tangible signs of long awaited revitalization, such as Four Points LLC and Curtis Properties' plans to redevelop an eight acre site along Martin Luther King Jr. Avenue SE. A ten minute walk from the 11th Street Bridge Park, this development is planned to include 855,000 square feet of office space, 165,000 square feet of retail, 500 residential units, a movie theater, and a grocery store.

Continued redevelopment in the areas adjacent to the 11th Street Bridge Park could establish these communities as comparable to recently revitalized neighborhoods in the District, in terms of population and income, as indicated in Figure 3 below.

FIGURE 3 | Neighborhood Comparison

Revitalized DC Neighborhoods ⁴	Population	Median Household Income
11th Street Bridge Park⁵	28,169 (1 mile radius)	\$45,998
Union Market	41,115 (1 mile radius)	\$59,166
Shaw	74,765	\$70,179
NoMa	46,668	\$71,685
Capital Riverfront	33,447	\$81,112
Historic Anacostia	29,621	\$31,976

² District of Columbia Department of Planning website: <http://planning.dc.gov/DC/Planning/In+Your+Neighborhood/Center+City/Proposed+Recreation+Reuse++of+the+11th+Street+Bridge>.

³ 11th Street Bridge Park website: <http://bridgepark.org/about-11th-st-bridge-park>.

⁴ Washington, DC Economic Partnership, Neighborhood Profiles, 2014 Edition.

⁵ ESRI Business Analyst Online.

ANALYTIC APPROACH

Parks have been shown to generate a range of economic benefits for their surrounding neighborhoods and cities. Parks can create jobs, boost property values, stimulate additional development, increase tourism, drive leisure spending (by tourists and local residents), expand opportunities for local businesses, and generate tax revenues for local governments.⁶ Signature parks can arguably augment the “brand” of a community or entire city. Parks can also yield public health and environmental benefits, by encouraging and enabling exercise, increasing green space, reducing traffic, and mitigating pollution.⁷ These outcomes may also have economic impacts.

Since the 11th Street Bridge Park is at the pre-design stage, HR&A determined that the park’s public health and environmental benefits, and their associated economic impacts, are not possible to project at this time. BBAR plans to assess these impacts after the park is built. HR&A also determined that it is not possible in the absence of a final design to project the extent to which the park may increase *net new* tourism and tourist spending in the District; such an estimate can be developed when the final design is determined. HR&A was able to estimate the potential impacts of the 11th Street Bridge Park in the following categories:

- Jobs, wages, local revenue - and resulting economic output - from the park’s construction;
- Expanded opportunities for local businesses in adjacent communities, and additional local revenue;
- Increased real estate development adjacent to the park, and additional local revenue; and
- Higher values for existing properties adjacent to the park, and additional local revenue.

FIGURE 4 | Potential Impacts of the 11th Street Bridge Park

User	Neighborhood	Washington, DC
Health: Encourages and enables walking, biking, and water activities by creating an appealing and practical new greenway across the Anacostia River.	Real Estate Development: Encourages, accelerates, and adds value to new development nearby, based on the creation of a new amenity and attraction of visitors.	Employment: Creates jobs, wages, and local revenue through construction – and, potentially, depending on programming – operation.
Education: Establishes a compelling platform (literally and figuratively) to educate Washingtonians about the Anacostia River, larger Chesapeake Bay, and environmental stewardship.	Property Values: Increases the value of nearby properties by providing a new neighborhood amenity, yielding additional local revenue.	Local Business: Generates sales for new and existing nearby businesses by attracting new visitors (tourists and local residents) to the area.
Environmental: Helps mitigate the effects of storm water runoff and airborne pollutants.	Tourism: Induces new spending by out of town visitors to the District, primarily by creating a destination that entices them to extend their stay in the city.	Brand: Increases the visibility of adjacent neighborhoods and elevates the status of Washington, DC by creating an iconic public space.

Impacts estimated by HR&A in this study.

⁶ See for example: Active Living Research, “The Economic Benefits of Open Space, Recreation Facilities, and Walkable Community Design,” 2011; and Ernst & Young, “How Smart Park Investment Pays its Way in Full,” 2003.

⁷ See for Example: Trust for Public Land, “From Fitness Zones to the Medical Mile: How Urban Park Systems Can Best Promote Health and Wellness,” 2011; and American Planning Association, “How Cities Use Parks for Climate Change Management,” 2007.

ECONOMIC IMPACTS

Jobs, Wages, and Local Revenue: Total Economic Output

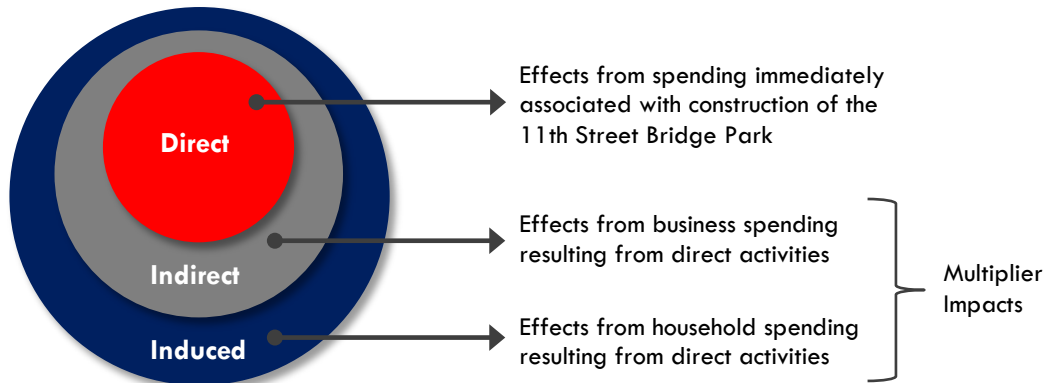
HR&A developed a model to estimate the one-time fiscal and economic impacts generated by the 11th Street Bridge Park’s construction. HR&A based its model on an estimated cost to construct the 11th Street Bridge Park of \$25 million. BBAR provided this figure, based on a preliminary analysis by Skanska, a member of the construction team that designed and built the new 11th Street vehicular bridges.

FIGURE 5 | Fiscal and Economic Impacts from Construction

Jobs	Direct Impact	136
	Multiplier Impact	39
	Total	175
Wages	Direct Impact	\$11m
	Multiplier Impact	\$3m
	Total	\$14m
Local Revenue	Direct Impact	\$51k
	Multiplier Impact	\$670k
	Total	\$721k
Total Economic Output	Direct Impact	\$24m
	Multiplier Impact	\$7m
	Total	\$31m

HR&A used the IMPLAN modeling program to derive our estimate of fiscal and economic impacts.⁸ Our analysis quantifies three types of economic activity: 1) “direct” impacts (e.g. the compensation to a worker who helps build the park); 2) “indirect” impacts (e.g. the compensation to a worker at a firm that provided equipment used to help build the park); and 3) “induced” impacts (e.g. the consumer purchases made by workers employed in construction of the park). Indirect and induced impacts together are referred to as “multiplier impacts.”

FIGURE 6 | Overview of Economic Impacts



Source: HR&A

In addition to overall economic spending, the IMPLAN model produces estimates of the number of jobs supported and employee compensation. Finally, the model estimates total economic output, which represents all sales of goods and services, either at the intermediate or final product level.

⁸ IMPLAN (IMpact analysis for PLANning) is an input-output modeling approach initially developed in 1979 by the Forest Service in cooperation with the Federal Management Agency and the U.S. Bureau of Labor Management.

Expanded Opportunities for Local Business

HR&A estimated the extent to which the 11th Street Bridge Park could help expand opportunities for new or existing local businesses near the park by attracting visitors to the area who would not otherwise visit the area.

FIGURE 7 | Opportunities for Local Businesses

Low Estimate (annual)	High Estimate (annual)
\$7m in new spending	\$10m in new spending
\$550k in new sales tax revenue	\$790k in new sales tax revenue
6 new businesses supported	9 new businesses supported

To determine the number of potential new visitors that the park would attract we developed a low-end and a high-end estimate, using two different approaches.

To develop the high-end estimate we benchmarked the 11th Street Bridge Park, on a hypothetical basis, against signature urban parks elsewhere in the U.S. These parks attract a range of 120,000 - 5,000,000 annual visitors. These visitors represent anywhere from 0.2% - 10.8% of the visitors to their cities (Figure 8).

FIGURE 8 | Visitation to Destination Parks

Park	Location	Park Visitors	City Visitors	“Capture Rate”
Millennium Park ⁹	Chicago, IL	5.0m	46.3m	10.8%
The High Line ¹⁰	New York, NY	3.0m	59.2m	5.1%
Georgetown Waterfront ¹¹	Washington, DC	1.5m	24.4m	6.2%
Klyde Warren Park ¹²	Dallas, TX	1.0m	41.9m	2.4%
Discovery Green Park ¹³	Houston, TX	1.0m	35.0m	2.9%
Rose Kennedy Greenway ¹⁴	Boston, MA	.5m	23.1m	2.2%
Race Street Pier ¹⁵	Philadelphia, PA	.12m	35.9m	0.2%

We took the average “capture rate” of these parks of 4.8% and applied it to the sum of annual tourist visitors to the District and the resident population of the metropolitan area in 2014: 18.5m annual tourists to Washington, DC and 5.9m residents in the metro area.¹⁶ The result is 1.2 million.

To establish a low-end estimate, we analyzed the number of annual visitors to cultural destinations and events in proximity to the 11th Street Bridge Park. The annual total is 3 million (Figure 9). If the 11th Street Bridge Park could capture 25 percent of this annual visitation, the result would be 800,000. While this may not appear to be a conservative, or low-end, estimate on its face, *consider that it does not account for any net new visitation to the area as a result of the 11th Street Bridge Park*, when in fact the evidence from other signature urban parks suggests they can attract large numbers of net new visitors.

Because the 11th Street Bridge Park would be unlike any amenity in the adjacent areas, we do not believe it would reduce visitation to other nearby attractions and events. In fact, as a complementary amenity, the 11th Street Bridge Park may increase visitation to other nearby attractions and events.

⁹ Texas A&M/DePaul University, 2011.

¹⁰ HR&A, 2011.

¹¹ 2008 Visitor Survey, National Park Service, 2008. Estimated from visitation to Georgetown.

¹² UT Arlington, 2014.

¹³ Project for Public Spaces, 2011.

¹⁴ Colliers Meredith & Grew.

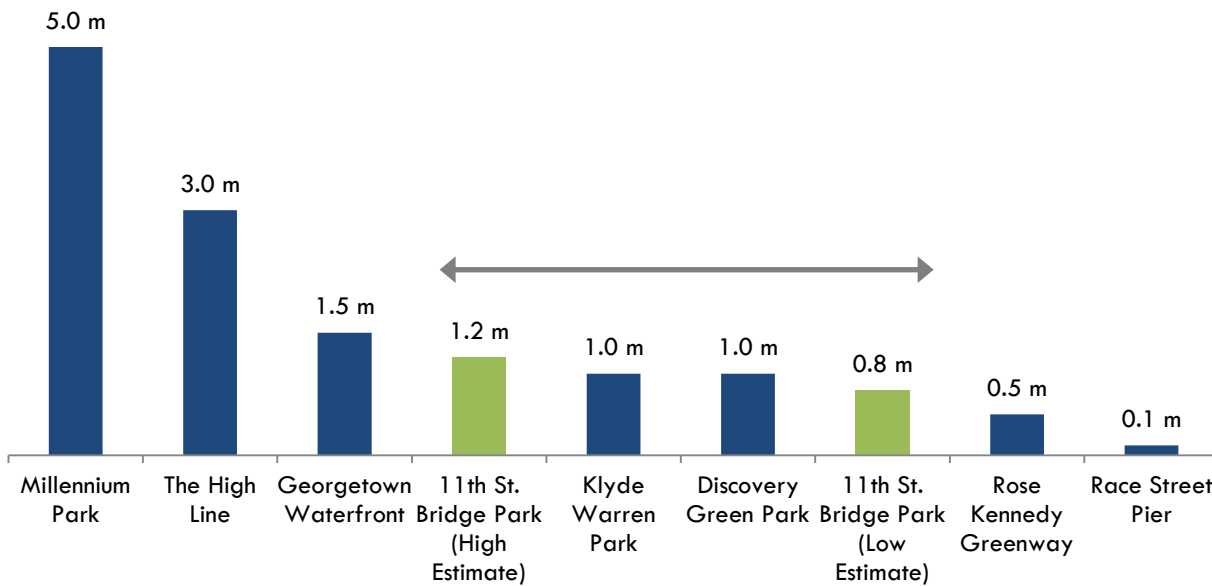
¹⁵ Delaware River Waterfront Corporation, 2014.

¹⁶ DestinationDC.com; U.S. Census Bureau, Population Division.

FIGURE 9 | Visitation to Nearby Attractions

Nearby Attractions		Annual Visitors
Local Cultural Destinations	National Museum of the U.S. Navy ¹⁷	200k
	Frederick Douglass National Historic Site ¹⁸	48k
	Anacostia Community Museum ¹⁹	36k
Seasonal Events	Truckeroo (food truck festival) ²⁰	80k
	Yards Park Friday Night Concert Series ²¹	20k
	Canal Park Ice Skating ²²	20k
	VegFest (food festival) ²³	10k
	Tour de Fat (festival) ²⁴	5k
	Washington Area Frisbee Club ²⁵	12k
Nationals Games	Nationals Park ²⁶	2.6m
Total		3.0m

FIGURE 10 | Estimated Range of Visitors to 11th Street Bridge Park



¹⁷ U.S. Navy, 2014.

¹⁸ National Park Service, 2014.

¹⁹ Smithsonian, 2014.

²⁰ Capital Riverfront BID, 2014.

²¹ Ibid.

²² Canal Park Development Association, 2014.

²³ Capital Riverfront BID, 2014.

²⁴ Ibid.

²⁵ Washington Area Frisbee Club, 2014.

²⁶ baseball-reference.com, 2014.

Visitors to the 11th Street Bridge Park could bring new purchasing power to the surrounding areas that local businesses could capture. Based on the current average daily “retail spending” in the adjacent areas, HR&A estimated that these visitors could spend an average of \$8.60 per visit to the park. (“Retail spending” is spending on retail goods in the apparel, entertainment, and food categories within a one mile radius from the park). Multiplying daily retail spending of \$8.60 by the range of estimated visitors to the 11th Street Bridge Park, results in an estimated \$7m - \$10m in potential new annual retail spending in areas proximate to the park. Assuming an equal split between food/beverage purchases and general merchandise purchases, this potential spending would generate an estimated \$550k - \$790k in sales tax revenue. We established potential sales tax revenue by using DC Office of the Chief Financial Officer rates.

HR&A estimated that this new spending could support 6 - 9 new businesses in the areas around the 11th Street Bridge Park (or augment sales by existing businesses). Based on average retail sales per square foot in Anacostia of \$369, the estimated new spending could support 19,000 - 28,000 square feet in new retail space.²⁷ Assuming an average size of 3,000 square feet per retailer, the equivalent of 6 - 9 businesses could be created.

Assuming that these new businesses would be restaurants and retailers, this increase would represent an approximately 33% increase in the number of restaurants and retailers in Anacostia.²⁸ New business development will support additional jobs and help to revitalize the once vibrant storefronts in downtown Anacostia. These additional businesses may also contribute tenants and property owners to the Anacostia Business Improvement District. Increased revenue from yearly assessments would assist with financing beautification, maintenance, and safety of the district.

²⁷ Green Door Advisors, “Anacostia Commercial Market Analysis,” 2011.

²⁸ Eat Shop Live Anacostia, www.eatshopliveanacostia.com.

Increased Real Estate Development

HR&A analyzed the potential for the 11th Street Bridge Park to drive new real estate development nearby. We developed low-end and high-end estimates.

FIGURE 11 | Estimated New Development

	Low Estimate	High Estimate
Square Feet	210,000	710,000
Market Value	\$52m	\$175m
Annual Property Tax Revenue	\$960k	\$3.2m

To derive our estimate we first defined five “development zones” in areas adjacent to the 11th Street Bridge Park on both sides of the Anacostia River. Using information from the DC Office of Zoning, we identified potentially “underdeveloped” land: parcels with current built areas that are less than their as-of-right zoning floor area ratios (FAR), i.e. the amount of development that ostensibly would be permitted under current zoning.

FIGURE 12 | Potential Development Zones²⁹



As shown in Figure 12 above, Zone A is a group of parcels closest to the 11th Street Bridge Park along the M Street SE approach from the Navy Yard Metro station. This stretch of M Street also provides a direct link between 11th Street and 8th Street. This section of 8th Street, also known as Barracks Row, is a vibrant and historic retail corridor, and a connection to the Eastern Market Metro station.

Zone B is directly adjacent to the possible west entry point of the park, connecting to Capitol Hill and the Barney Circle/Southeast Boulevard project.³⁰ Currently in the planning stages, this project proposes to transform a decommissioned portion of the Southeast Freeway into a landscaped urban boulevard.

²⁹ DC Office of Zoning; DC Office of Tax and Revenue; HR&A.

³⁰ See: <http://www.anacostiawaterfront.org/awi-transportation-projects/barney-circle-southeast-boulevard>

Zone C connects the eastern edge of the 11th Street Bridge Park to the heart of the Anacostia Historic District at the intersection of Martin Luther King Jr. Avenue SE and Good Hope Road SE. These sites link to the park both along the approach from Martin Luther King Jr. Avenue and through Anacostia Park via Good Hope Road.

Zones D and E are part of Poplar Point, an area that is seen as one of the most significant redevelopment sites in the District. According to the District’s Office of the Deputy Mayor for Planning and Economic Development, “Poplar Point is envisioned to be the home of a variety of different uses including residential, retail, office entertainment, cultural, and park/open space uses.”³¹ An environmental impact analysis and Small Area Planning process for the site is expected to be complete by the fall of 2014.

FIGURE 13 | Potential Developable Land

Zone	Zoning FAR	Ownership		Potential Developable Land Square Feet	Current Uses
		Private	Public		
A	1.8-4	100%	0%	61,000	Mostly single story retail and parking.
B	6	85%	15%	599,300	May require rezoning from industrial use.
C	1-4	52%	48%	245,700	MLK Ave. streetscape, light industrial, and vacant parcels
D	N/A	0%	100%	900,000	Publically-owned land with development potential based on a transfer of jurisdiction to DC.
E	N/A	0%	100%	327,000	

We estimated the full amount of potential new construction by multiplying the land areas in these zones by an assumed “low” and “high” range of 3 to 5 FAR, respectively, to estimate a range of potential new square footage of development.

FIGURE 14 | Potential Development Square Feet

Potential Development Square Feet		
Zone	Low	High
A	180,000	310,000
B	1,800,000	3,000,000
C	740,000	1,230,000
D	270,000	450,000
E	980,000	1,640,000
Total	3,970,000	6,630,000

Land ownership in these areas is split between the public and private sector (Figure 13). HR&A only estimated the new development potential on privately owned parcels. To the extent that public sector entities may seek redevelopment on some of the publicly owned parcels, the real estate development impacts attributable to the 11th Street Bridge Park would significantly increase.

We estimate that 10% - 20% of the value of this redevelopment could be attributable to the presence of the 11th Street Bridge Park. We estimated the value of this development potential by applying an assumed value of \$246 per square foot. This assumption was based on the current average market value in the identified zones of \$231 per square foot with a 6.5% premium. This figure is the average of the 5% - 8% “property value premium” range for buildings near signature parks (see Figure 17).³² We established potential property tax revenue by using the DC Office of Tax and Revenue’s rates for commercial property.

³¹ Office of the Deputy Mayor for Planning and Economic Development, <http://dmped.dc.gov/page/poplar-point>

³² See “Higher Property Value” section.

Higher Property Values

HR&A analyzed the potential for the 11th Street Bridge Park to increase the values of existing properties. We developed low-end and high-end estimates.

FIGURE 15 | Estimated Increases in Property Value and Tax Revenue

	Low Estimate	High Estimate
Property Value Increase	\$12m	\$19m
Annual Property Tax Revenue	\$210k	\$350k

HR&A estimated the 11th Street Bridge Park’s potential impact on existing property values by first establishing a baseline value for a set of properties in close proximity to the 11th Street Bridge Park. We then estimated a range of value premiums based on a comparative analysis of other signature parks around the U.S.

To establish baseline values, we identified three areas in strategic locations likely to benefit from the 11th Street Bridge Park in the shortest period of time from its construction. As shown in Figure 16 below, these areas are:

- Sites located on the approach to the 11th Street Bridge Park along M St (1);
- Sites directly adjacent to the west abutment of the current bridge (2); and
- Sites on the approach to the 11th Street Bridge Park along Martin Luther King Jr. Avenue SE, connecting the eastern edge of the 11th Street Bridge Park to the Anacostia Historic District (3).

FIGURE 16 | Baseline Assessed Value Areas



Using 2014 data from the DC Office of Tax and Revenue, we estimated the total assessed market value of properties contained within these areas to be \$237 million, an average of \$242 per built square foot. We then studied the “property value premiums” created by other signature parks, finding a range of 5% - 40%.

FIGURE 17 | Value Premiums of Comparison Parks

Comparison Parks	Value Premium
Rose Kennedy Greenway ³³	5%
The High Line ³⁴	20%
Klyde Warren Park ³⁵	23%
Millennium Park ³⁶	30% - 40%

Physical differences between the comparison parks and methodological differences in the research estimating their value premia require a cautious approach to extrapolating for this analysis. We applied a conservative range of a 5% - 8% increase to the baseline property value estimate. We established potential property tax revenue by using DC Office of Tax and Revenue rates for commercial property.

To the extent that the 11th Street Bridge Park increases existing property values and augments new commercial development in its surrounding areas, there may be legitimate concerns about the extent to which the park could contribute to “gentrification” pressures that have adverse impacts on lower income residents.

BBAR has expressed sensitivity to this concern and committed to working with community residents to ensure equitable benefits from the 11th Street Park’s development. An emerging body of research suggests that new signature urban parks need not conflict with goals of environmental justice and economic inclusion. Successful approaches may require “the willingness of planners and local stakeholders to design green space projects that are explicitly shaped by community concerns, needs, and desires rather than either conventional urban design formulae or ecological restoration approaches.”³⁷ BBAR’s extensive and continuing community outreach process reflects such intention and commitment.

³³ Net new property value increase. Source: HR&A, Colliers Meredith & Grew.

³⁴ New construction of residential units between 2007 and 2010. Source: HR&A.

³⁵ Average annual growth between 2008 and 2013. Source: UT Arlington.

³⁶ Compared condos with park views vs. those without. Source: Texas A&M/ Depaul University.

³⁷ Jennifer R. Wolcha, Jason Byrne, Joshua P. Newell, “Urban green space, public health, and environmental justice: The challenge of making cities ‘just green enough,’” March 2014.

CONCLUSION

The 11th Street Bridge Park could generate significant economic benefits to the District of Columbia given an estimated annual park visitation of 800,000 to 1.2 million people. Based on HR&A's analysis, this annual benefit ranges from a low estimate of \$73 million to a high estimate of \$208 million, especially to the communities adjacent to the park on each side of the Anacostia River. As the park's final design is selected, it is recommended to explore the economic benefits in the areas of health, environment, increased tourism, and neighborhood visibility/brand. The beneficiaries will include community residents and businesses, other commercial interests, and the District government.