

# WEST HALF

TEAM 16

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UNIVERSITY OF MARYLAND  
COLVIN INSTITUTE OF REAL ESTATE DEVELOPMENT  
2020 CASE STUDY CHALLENGE

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# EXECUTIVE SUMMARY

It's the Astros vs. the Nationals, Game 3 of the 2019 World Series in Washington D.C. As millions of people tune in to watch the game from their homes and thousands pack the stands, the TV commentators bring everyone's attention to a stunning 'Jenga' styled building in left-center field. The building seen by millions is West Half.

Located at 1201 Half Street SE in Washington, D.C., the beautifully crafted development encompasses 465 dwelling units over nearly 65,000 square feet of first floor retail all within the new Ballpark District in Washington, DC. With sustainable features, new amenities, affordable housing options, and its location right next to Nationals Park, this new development has all of the makings to be one of the most sought after properties in Southeast Washington.

Before JBG Smith and other investors assembled to help develop the new Ballpark District, the area was an industrial wasteland filled with deteriorating gas stations, car shops, and warehouses. With few people living in the neighborhood and economic activity stalling, the city wanted to assist in bringing new life to the area. JBG Smith was one of the leading developers that saw the community's potential. They decided to step up to the plate and swing at the opportunity to be a part of a successful redevelopment plan within Washington D.C.

## PROJECT OVERVIEW

### Name

West Half

[www.westhalf.com/](http://www.westhalf.com/)

### Location

1201 Half Street SE  
Washington, D.C. 20003

### Project Type

Multifamily/Retail

### Project Area

1.44 Acres

### Development Cost

\$231 Million

### Building Size

388,174 SF GBA  
465 multifamily units  
65,000 sqft of retail

### Developer

JBG Smith

### Executive Architect

Eric Colbert & Associates

### Design Architect

ODA New York

### Civil Engineer

Bohler

### General Contractor

Hitt

# DEVELOPER TEAM

## **JBG Smith - *Developer***

Founded in 1957, JBG Smith is one of the largest real estate investment trusts in the Washington D.C. market. Their portfolio consists of more than 20 million square feet of commercial, multi-family, and retail assets; with 18.7 million square feet of assets in their development pipeline. The company is well-known for its placemaking abilities within communities while delivering high-quality, sustainable developments. JBG Smith has also been an integral part of the creation and success of the Washington Housing Initiative, a group that works to provide affordable housing solutions to the local population.

## **Eric Colbert & Associates - *Executive Architect***

ECA is a Washington D.C. located architecture firm that combines the needs of the client, community, and government to deliver transformative residential and mixed-use projects. Since 1982, the firm has provided a variety of design services including architecture, sustainable design, historical renovation, site planning, and interior design. By operating throughout the neighborhoods of D.C., ECA can deliver unmatched dedication to these communities.

## **ODA New York - *Design Architect***

Based in New York, ODA has quickly become one of the most well recognized design firms in the world. Since its formation in 2007, the firm has provided creative architectural solutions to clients across the globe. Many of ODA's projects feature unique, modular designs that deliver breathtaking streetscapes. By primarily engaging in residential architecture, ODA is committed to providing urbanites a better future.

## **Bohler - *Civil Engineer***

Bohler is a land development consulting firm that works widely across the east coast of the United States. Founded in 1981, they provide design services to owners and developers in commercial, institutional, and residential markets.

## **Hitt - *General Contractor***

With offices spanning across the United States, Hitt is a nationally recognized general contractor that works with a variety of real estate product types. Their commitment to quality and sustainability has produced an impressive portfolio.



## VISION

Nationals Park was completed during the height of the Great Recession in 2008. The park served as a diamond in the rough with the surrounding industrial area hurt from the sudden economic downturn.

As the country began to recover in the following years, investors realized the opportunity that the neighborhood presented. Developers began to acquire lots throughout the 2010s and the district began pushing and incentivizing for the neighborhood to be developed. It wasn't until 2017, when JBG Smith decided to invest in the neighborhood and commit to elevating the community into something that everyone could enjoy.

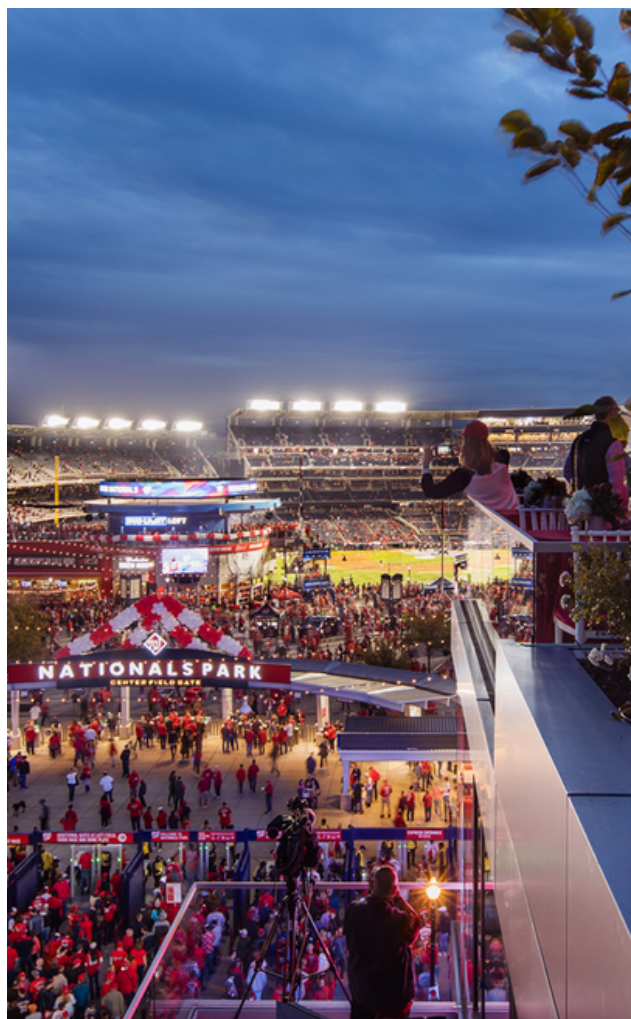
When JBG Smith came in, they saw two big opportunities; the neighborhood and the site. Because the neighborhood was

filled with vacant lots, concerns about displacing locals was not a factor. Despite not having much of a community or population in the neighborhood prior to development, the locational attributes of the site were invaluable in creating accessibility for future residents and customers. The site had great proximity to major highways, a metro station, and the growing Capitol Riverfront. Variable transportation options to the neighborhood were perfect for both visitors and residents who wanted to see a Nats game, shop at West Half's retail, or commute to work. The combination between neighborhood and site allowed JBG Smith the ability to create a spectacular project.

JBG Smith sought to develop the West Half project using Nationals Park as a major anchor to attract customers and tenants. They wanted to tailor their design to complement the stadium while also assisting in adding value to a

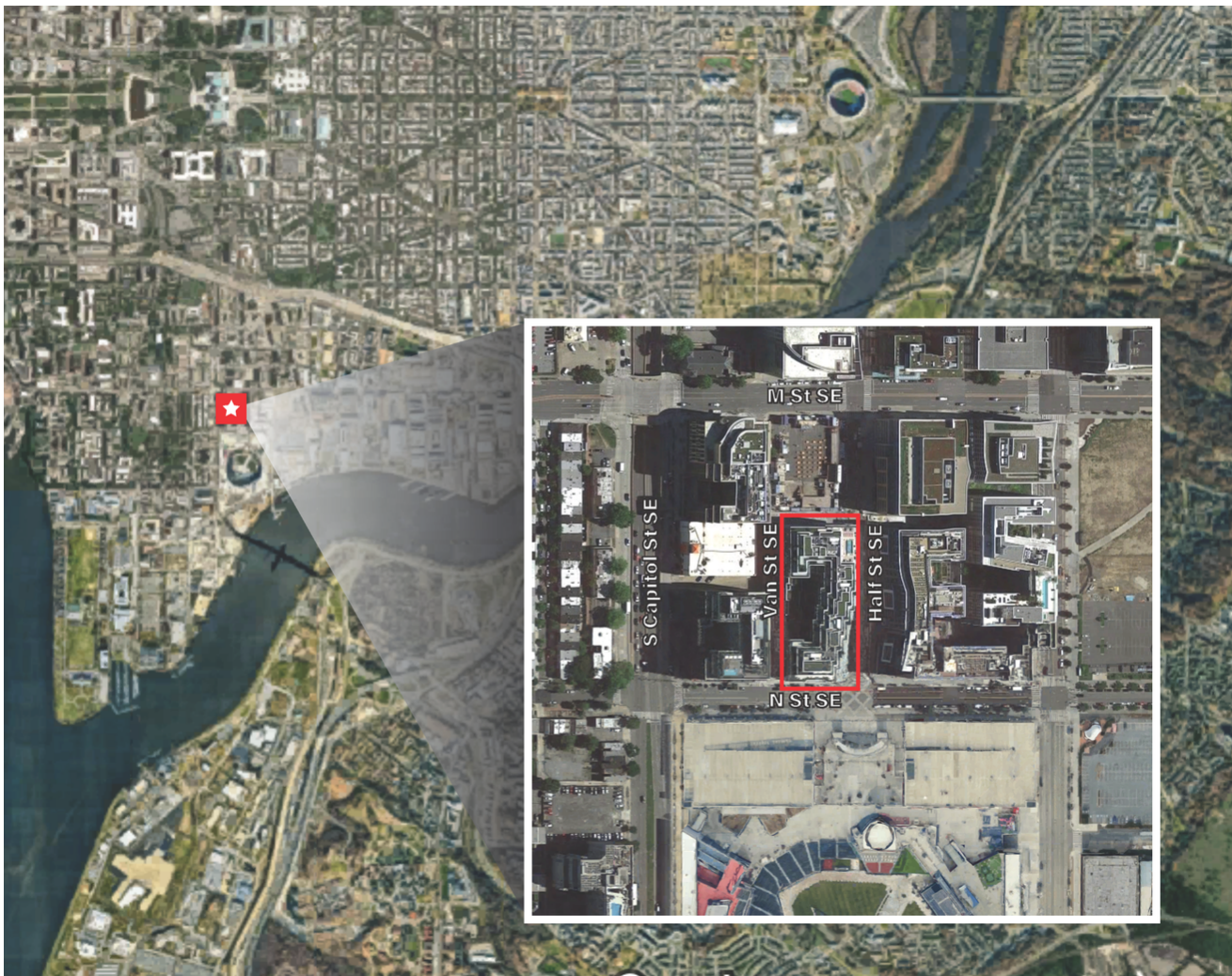
growing neighborhood.

During an interview with Jay Kelly, the Vice President of Development at JBG Smith, he painted a picture of the neighborhood that they were working to create. Imagine the experience of going to a Nationals game. As people walk up the steps out of the Green Line Metro station, they are greeted by a *"beautiful and wild site"* of unique buildings lining a curbside street filled with life. Walking down the street towards the center field entry gate, patrons are engulfed in the energy of game night. People are filing into the stadium while others finish up their dinners or drinks at outdoor dining on Half Street. Continuing to approach the gate, they are met with giant digital signs hung from the buildings thanking them for attending tonight's game. While looking at the signs they hear voices from above and see hundreds of people cheering from balconies on a magnificent, 'jenga' building as they prepare to watch the game from their homes with friends. Fans then go into the stadium and have a great night. As they walk back to the metro, the street continues to buzz with energy from game night. That is the feeling that JBG Smith wanted to help bring into the Ballpark District by building an iconic, memorable, and experience driven development known as West Half.



***"You don't often get a parcel that sits at the centerfield gate of a major league stadium "***

Jay Kelly  
Vice President  
JBG Smith



## SITE DESCRIPTION

Located at the corner of Half Street SE and N Street SE, the development site encompasses 1.44 acres of retail and residential property situated in the heart of Washington D.C.'s Ballpark District. The site allows for quick highway access to the Capitol Beltway with I-695 and I-295 only a few blocks away. West Half features access to many walkable destinations including The Yards Park (0.5 miles away) and Audi Field (0.9 miles away). The Navy Yard Metro Station immediately adjacent to the site creates easy transportation to workplaces, dining, leisure, and entertainment throughout the district. With Nationals Park immediately adjacent to the site, gameday and resident garage parking is available on Van Street SE, a crossroad of N Street SE. West Half's prime location within the Ballpark District made it an exciting business investment that could propel economic success through the surrounding amenities.

# MARKET ANALYSIS

West Half provides 465 luxury dwelling units to the D.C. housing supply and 65,000 square feet of first floor retail inside a vibrant and growing neighborhood. To compete with other 4&5 Star luxury apartments in the D.C. market, West Half hopes to absorb more households and capture consumer spending through their best in class amenities, convenience, and truly astounding locational attributes.

During the market analysis of West Half, ring data and walk-time measurements were used to effectively showcase the demographics supporting the feasibility of West Half. Ring data provides a great snapshot of the demographics while walk-times help provide a more accurate understanding of the populations' habits within the city. Due to the complexity of vehicular transportation in cities, walk-times are a better measure for criteria such as retail proximity or housing distance to work.

The average asking rent per unit at West Half is \$2,478, which is 14% higher than average rents at other 4&5 Star properties in D.C. This 14% premium can be justified through both current and projected data for the D.C. housing market. According to 2020 CoStar data,

the average household income within 2 miles of West Half is \$125,899 and the number of households is 57,860. Assuming a 30% income to housing ratio, the average household within this 2 mile radius could afford a \$3,148 monthly housing expense; this is well within the budget of what the average asking rent at West Half is. Within the next 5 years, the projected number of households within a 1 mile radius is set to increase by 4,339. With West Half's current vacancy rate of 54.6% due to its completion during the pandemic, JBG Smith hopes to occupy their vacant units by capturing 10% of that household increase. Along with the household increase, West Half has the potential to absorb other households that may be looking to upgrade their living situation to one with the amenities and benefits that living in the Ballpark Neighborhood provides.

A younger demographic tends to live in and around West Half. The median age of residents within 2 miles of the Ballpark Neighborhood is just 34.3 years, which is younger than the national median. Younger people tend to spend more on food, alcohol and entertainment, which aligns with West Half's strategy of leasing their retail space to mainly food, beverage and entertainment tenants. Esri, a GIS data provider, estimates that food and beverage spending will increase 64%



from 2020 to 2025 within a 15 minute walk of West Half. This roughly \$100 million increase in spending can be largely attributed to the household growth in the area, daytime employees, and increase of traffic from visitors attending Nationals games.

Currently, there is traffic to help support West Half's retail with a projected traffic increase in the future. South Capitol Street, which borders West Half, has Average Daily Traffic (ADT) counts of 52,300. Along with high ADT, there is also a 210,998 daytime employment population within 2 miles of the site. These high traffic numbers will help drive business to West Half as people look for nearby dining and entertainment options before, after, and during work. To assist in making the site more friendly to vehicular traffic, JBG Smith installed a parking deck on site to make the retail more accessible and also help provide gameday parking solutions to fans. This parking deck is a great way to generate ancillary income and increase accessibility to the Ballpark District for the over 2 million people attending Nationals games each year. The inflow business from fans attending Nationals games will be a great driver for West Half's retail business. If those attendance numbers stay the same or increase over the next few years, West Half will be in a key position to capture a percentage of that business from

millions of people during the baseball season.

JBG Smith has been integral in helping fund and fund the Washington Housing Initiative which addresses affordable housing options in DC. JBG Smith believes increasing housing stock leads to increases in affordability. By adding 465 more units to the housing stock, West Half is helping address the projected 8.92% household growth between 2020 and 2025 within 1 mile of West Half.



# PLANNING & ENTITLEMENT

The last decade has seen tremendous multifamily and retail growth throughout the Ballpark District with the addition of 2,832 households. Additionally, the residential and commercial property values have grown by more than \$1 billion since 2008. Anchored by Nationals Park, the once dilapidated industrial area has become one of the most exciting neighborhoods in Southeast Washington. That is by no coincidence. The planning office has strongly encouraged development in the community since the opening of the 41,000 seat stadium. JBG Smith knew something special could be done here and maximized the opportunity as D.C. did not apply a Planned Unit District (PUD) to this neighborhood. This allowed JBG Smith the chance to capitalize on their ideas and complete a strong project.

After emerging from the Navy Yard Metro Station, Half Street serves as the gateway to the centerfield entrance of Nationals Park. JBG Smith, along with the other developers of Half Street knew the space had to be special. The street sees high levels of pedestrian, bike, and vehicle traffic and they created a woonerf to aid that activity (see image below). A woonerf is a street design

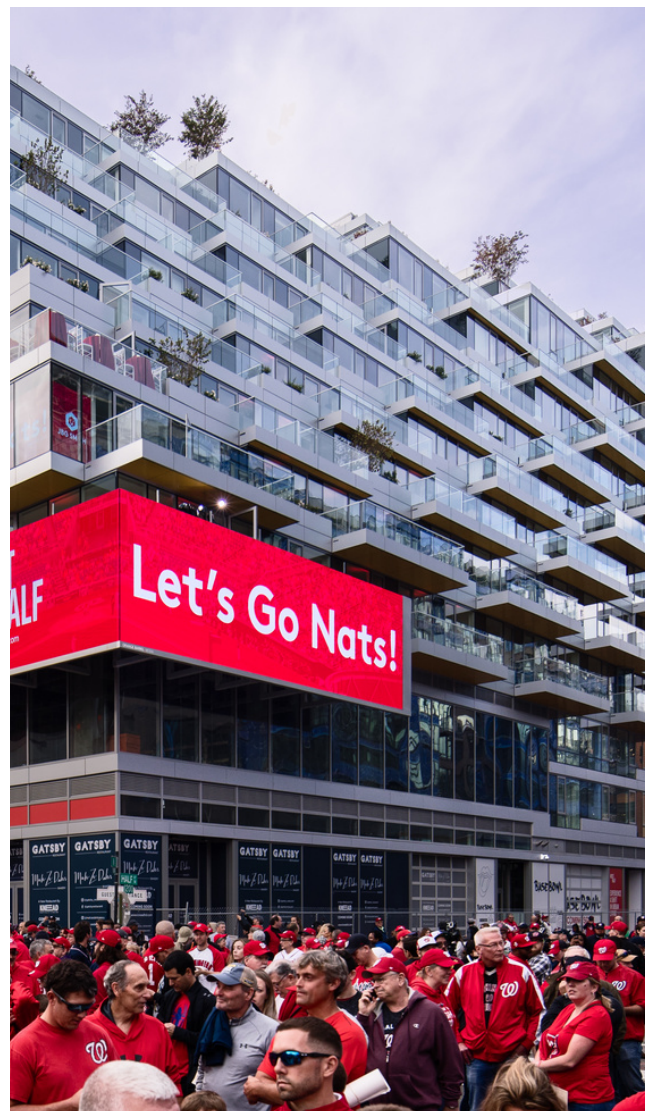
commonly found in Europe that helps maintain walkability while calming any vehicular traffic. However, since the woonerf would be privately developed, it faced concern from the planning office. In continuity with other public roads in the district, Half Street had to be compliant to these regulations. However, Half Street did not follow these requirements related to curb height and road width. JBG Smith was met with a long process of modification and reevaluation from the city. The district finally took a leap of faith and allowed the combined private ownership of Half Street. The woonerf totalled \$8 million and D.C. agreed to contribute \$2.2 million of that sum. All of the developers on the block financed the rest of it.

Another major challenge West Half encountered was working around the Height of Buildings Act of 1910. This law prohibited any buildings in Washington D.C. from being taller than 130 feet. This was a problem for JBG Smith as the building's eccentric design left minimal amenity space while being compliant with the law. They were able to find a special exception to the law through a 2015 penthouse amendment to the act. JBG Smith created habitable space on top of the building which allowed West Half to place a pool, lounge areas, and green space on the roof while being compliant with all district regulations.



### Gameday Experience

A unique element seen on West Half and throughout the neighborhood is the placement of digital signs on the exterior of multifamily and retail buildings surrounding the stadium. These signs monetize West Half and serve as advertisements for fans before and after games. The Office of Planning strongly discouraged this idea as they wanted to maintain a level of cohesiveness throughout Washington. JBG Smith met with the district for 2 years before finally receiving approval as an “Entertainment District”. The reclassification of the community allowed for advertisements and digital signs to be used.



# DESIGN & SUSTAINABILITY

West Half's prime location adjacent to Nationals Park demanded a marquee building unlike anything else within the Ballpark District. JBG Smith, along with the architects, realized this opportunity and developed a project centered around the stadium that would connect a place with people. It was critical that the residents would be able to view Nationals games from several levels within the development. To accomplish this, a staircase design was implemented across West Half to ease the transition between the stadium and the residence. Additionally, this design maximizes sightlines for tenants to peer into Nationals Park. The primary issue was that this unique configuration eliminated several units that could be constructed through a traditional approach. To recover the loss of these units and to make the project economically viable, an interior cantilever design was used to maximize the floor space on each level (see image below). Moreover, the unusual variation of units presented challenges relating to plumbing and structure for the executive architect.

By selecting Venus Williams' design firm, V Starr Interiors, West Half was beautifully crafted with top of the line amenities and features. A numerous amount of plantings and greenery generate the feeling of a garden within the sky. Additionally, rooftop terraces with a pool and an expansive lounge area create amazing views in all directions. The development includes elegant finishes, high end appliances, and floor to ceiling windows to maximize natural light.



### Environmental Remediation

Soil contamination was the biggest unknown for JBG Smith during the due diligence process. Prior to the development of West Half, auto shops and gas stations ruled the neighborhood. The heavy industrial use contributed to massive environmental pollution on site. JBG Smith estimated during underwriting that 50% of the soil would be contaminated. Soil borings found that West Half's soil was 100% contaminated and it costed JBG Smith over a million dollars to remediate.



Though West Half has an incredible design, the development does not falter when it comes to sustainability. The project was able to acquire a *LEED Gold Certification* due to the several sustainable and energy saving measures throughout the building. West Half exceeds D.C. stormwater regulations and utilizes green roofs to address water quality standards. JBG Smith's redevelopment of an existing brownfield also supports the project's sustainability. West Half's prime location adjacent to transit limits residents' reliance on personal vehicles. Additionally, balconies feature plantings that will help decrease the project's carbon impact. The building's orientation capitalizes on sunlight to reduce heating costs in colder months. Outside of the building, the woonerf street design emphasizes walkability while including planter boxes along Half Street.

***"The fun part is when the project finally comes together"***

Jay Kelly  
Vice President  
JBG Smith

# PROJECT FINANCING

## Overview

The total cost of West Half was \$231 million. Historically, JBG Smith has financed projects throughout the Washington Metro Area with loans and private equity. The financing of West Half was very unique as JBG Smith transitioned to a public REIT during the completion of the development.

When in place, JBG Smith secured a \$145 million loan with a 60% loan-to-cost (LTC) ratio and a 65% loan-to-value (LTV) ratio. Additionally, the financing included the concurrent LIBOR rate plus 2.85%. As a publicly traded REIT, JBG Smith used cash generated from issuing stock to pay off the original loan in 4 months. The transition to a REIT allowed JBG Smith to benefit from a different taxation structure and their financial returns from the project evolved as well. JBG Smith originally planned on selling the units as condos. However, they switched to a rentable unit approach. Their business model change shifted capital gains into a reoccurring revenue stream from tenants. As a trophy asset, West Half will generate strong revenue for their portfolio and increase earnings for the company.

## Public Support

The city was very supportive of the redevelopment of the Ballpark District. They allowed private ownership of Half Street and committed \$2.2 million to the *woonerf* project. JBG Smith and the other developers financed the remaining \$5.8 million for the street's completion.

## FINANCIAL STRUCTURE

Project Cost: *\$231 million*

Loan Amount: *\$145 million*

60% LTC

65% LTV

LIBOR plus 2.85%



# OPERATING ISSUES

A February 2020 completion date has been the biggest operational issue for West Half. The combination of a pandemic and the release of new luxury apartments during an economic downturn has created challenges for JBG Smith. West Half's 45.4% occupancy rate can be attributed to the drop in leasing activity due to COVID-19. Many people have lost their jobs or took pay cuts, making it difficult to justify paying the premium of living at West Half. Additionally, the incredible amenities on site can't be fully realized with lockdowns and limited occupancy regulations. It has been increasingly difficult for West Half to lease their 1205 Collection. These are a premier set of units offered at a higher price due to their elegance and locational attributes within the building. Regardless of these challenges, JBG Smith has said that West Half is performing better than expected in relation to the pandemic.

West Half's grand opening was set to coincide with Opening Day of the 2020 MLB Season in March. The start of the season was delayed due to the virus and the ground floor retail of West Half has felt the burden. Through limited seating, takeout, and lack of gameday driven foot traffic, thousands of dollars in revenue



## RETAIL TENANTS

**Atlas Brew Works (4,535 SF)**  
**Union Kitchen Grocery (3,931 SF)**  
**Compass Coffee (2,458 SF)**  
**Basebowl (1,500 SF)**  
**HipCityVeg (1,500 SF)**  
**Cold Stone (1,098 SF)**

have been lost. Along with lost sales, West Half has also been struggling to lease space to new retail tenants. Of the 65,000 square feet of retail space available, 15,022 square feet has been leased.

Despite the operational issues facing West Half right now, public health improvements and an increased knowledge of the pandemic will aid the recovery. Moving forward, it is likely that restrictions will be lifted and Nationals games will once again be played in front of thousands of fans. The retail space will lease up with the significant increase in foot traffic and the leasing activity will rise as people recover financially.



## EXIT STRATEGY

JBG Smith's business plan changed immensely when they made the decision to switch from selling luxury condos to a long-term holding plan involving rental units. Their new position as a REIT was complemented with a steady cash flow from West Half's apartments. Their delayed commitment to rental units resulted in a halt of construction to better design the development for apartments. This stoppage included remediations such as more amenity space for views of Nationals Park. Roughly 8 units were eliminated to accomplish this goal. Furthermore, JBG Smith's strategic transition to a REIT allowed for a more beneficial tax structure for returns on investments.



# INNOVATION

## A New Approach

The traditional procurement method when completing a development project is *design-bid-build*. In this process, the developer contracts the architect and builder separate. This process can be beneficial if the developer is trying to find the most cost-effective solution. However, this strategy has its downfalls when it comes to more complex architectural plans.

The eccentric silhouette and design of West Half required a more involved bidding process than standard developments. JBG Smith recognized this and knew that an innovative approach had to be used to fully bring their vision to reality. With this in mind, they implemented a *design-assist* strategy. In this procurement method, the architect, contractor, and engineer work together to assist in the completion of the design. This process is beneficial as it does not delay the conversation surrounding the capabilities of the contractors and engineers. *Design-assist* is quickly becoming the preferred procurement method in the industry due to its collaborative nature and ease in constructibility.

## Design-Assist in West Half

The 'jenga' styled orientation of West Half created several challenges for the building's plumbing and structure. The *design-assist* approach produced a joint effort between the executive architect, design architect, and general contractor. The collaboration of these groups allowed for any design remediation necessary to complete the project. Furthermore, the method seamlessly connected the design architect's vision with the executive architect's structural concerns. This granted the general contractor control of the construction process and alleviated any issues related to cost and constructability at West Half.

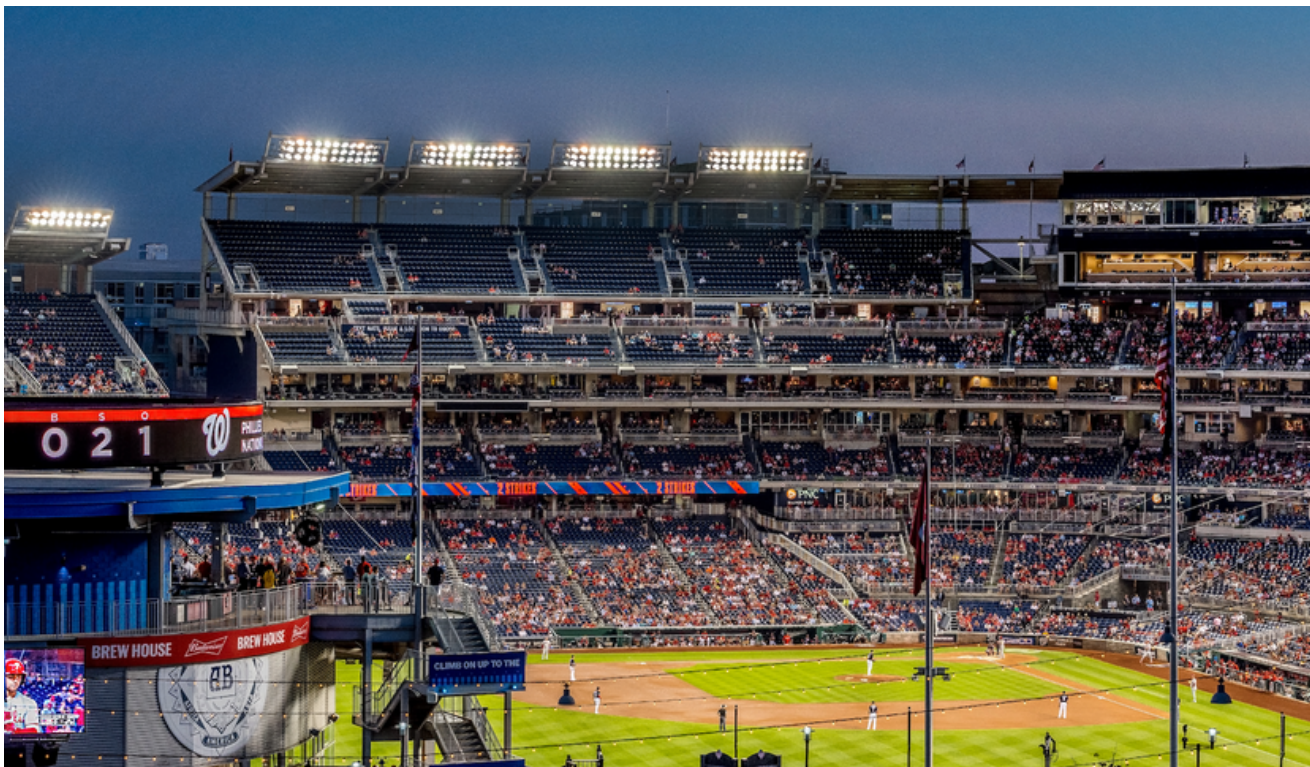
***"In a formal design-bid-build, we probably would not be able to build [West Half]"***

Jay Kelly  
Vice President  
JBG Smith

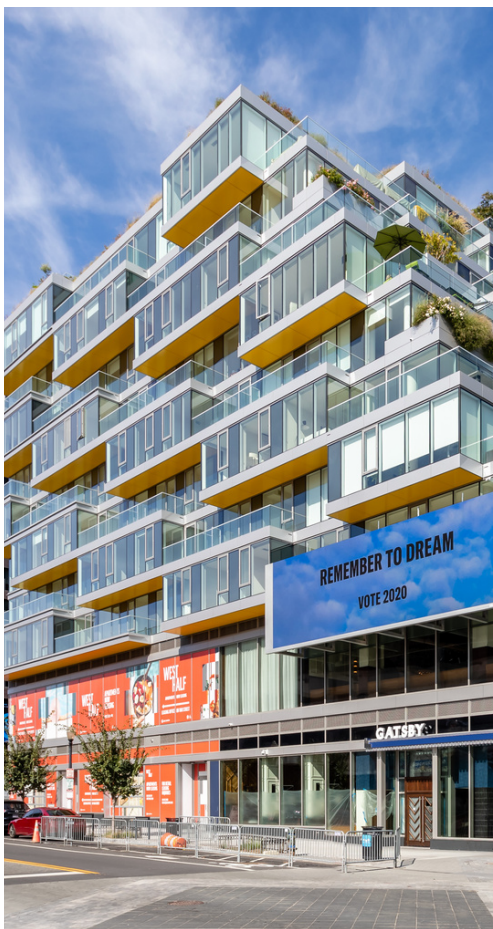
# IMPACT & AWARDS

JBG Smith has been an integral part in the transformation of the Ballpark District in Washington D.C. Nationals Park served as the catalyst for development throughout the neighborhood. JBG Smith's strong placemaking abilities have contributed massively in reshaping an obsolete area into one of the premier destinations within the city. It is by no coincidence that Half Street has become an incredible gathering space for locals to enjoy and for fans across the DMV (District-Maryland-Virginia) to experience. West Half will be the cornerstone in JBG Smith's plan to expand its footprint throughout the neighborhood and goal of advancing the area's success.

The city has also seen tremendous benefit from the project. For every \$1 spent at West Half, the city generates \$2 in revenue. In the neighborhoods surrounding the stadium, revenue from real estate taxes has increased by more than 2% since 2007 and income tax revenue has grown by more than 3% since 2007. The city partly financed Nationals Park, and due to the increase in tax revenue, the stadium will be paid off 10 years earlier than expected. The land value in the area has doubled from \$30/sf to \$60/sf. These economic gains have helped improve the city and fund local community needs such as schools. Additionally, with the increased growth, it is likely that the city will become more affordable for low and middle-income individuals.



West Half has acquired local and national recognition since the project's completion. Furthermore, the project's success spans outside of the real estate industry. It has also gained attention due to its architectural design and innovative construction processes. NAIOP's DC chapter selected West Half as the "Best Multifamily Project in DC". Furthermore, it placed as a finalist for the Urban Land Institute's "Excellence in Residential Development". The Architecture Community chose West Half for the "International Residential Architecture Award". Lastly, the Washington Building Congress saw the project as the "2019 Craftsmanship Award Winner" due to its use of concrete in a complex cantilever design. Outside of the awards, West Half has been featured in *MLB The Show 2020*. The videogame developers consulted the architect so that they could place an exact replica of the building in the background of Nationals Park. West Half's recognition speaks to the quality of the development. JBG Smith's vision became a reality and the project will benefit the community for years to come.



## Awards

"Best Multifamily Project in DC"  
*NAIOP DC Chapter*

"International Residential Architecture Award"  
*The Architecture Community*

"2019 Craftsmanship Award Winner - Concrete"  
*Washington Building Congress*

"Excellence in Residential Development Finalist"  
*ULI Washington*

## Featured In

*MLB The Show 2020 (video game)*  
*Sony Interactive*

# ACKNOWLEDGEMENTS

Team 16 would like to thank...

Jay Kelly (*Vice President, JBG Smith*) for his interview, expertise, and passion for the West Half project

Mike O'Hara (*Associate, Bohler*) for connecting us with Jay and the West Half project

ODA New York for allowing image use in the case study

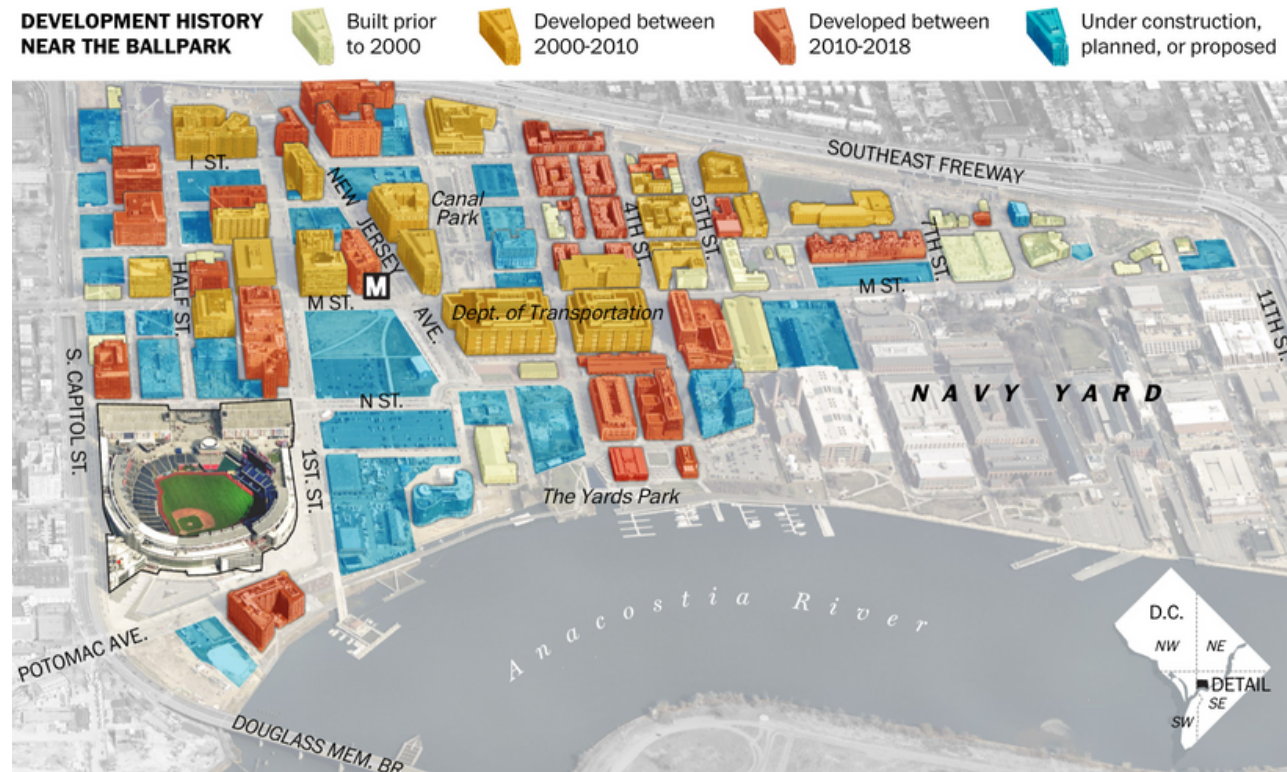
# APPENDIX

## West Half - website

<https://www.westhalf.com/>

## Growth of Ballpark District - Washington Post

<https://www.washingtonpost.com/graphics/2018/sports/nationals-park-brings-growth-worries-to-southeast-washington/>



## West Half - Affordable Housing

[https://www.westhalf.com/wp-content/uploads/2020/09/WH\\_IZ\\_Unit\\_Flyer.pdf](https://www.westhalf.com/wp-content/uploads/2020/09/WH_IZ_Unit_Flyer.pdf)

## Capitol Riverfront - Impact & Growth

<https://ctycms.com/dc-capitol-riverfront/docs/rclco-annual-meeting-presentation.pdf>

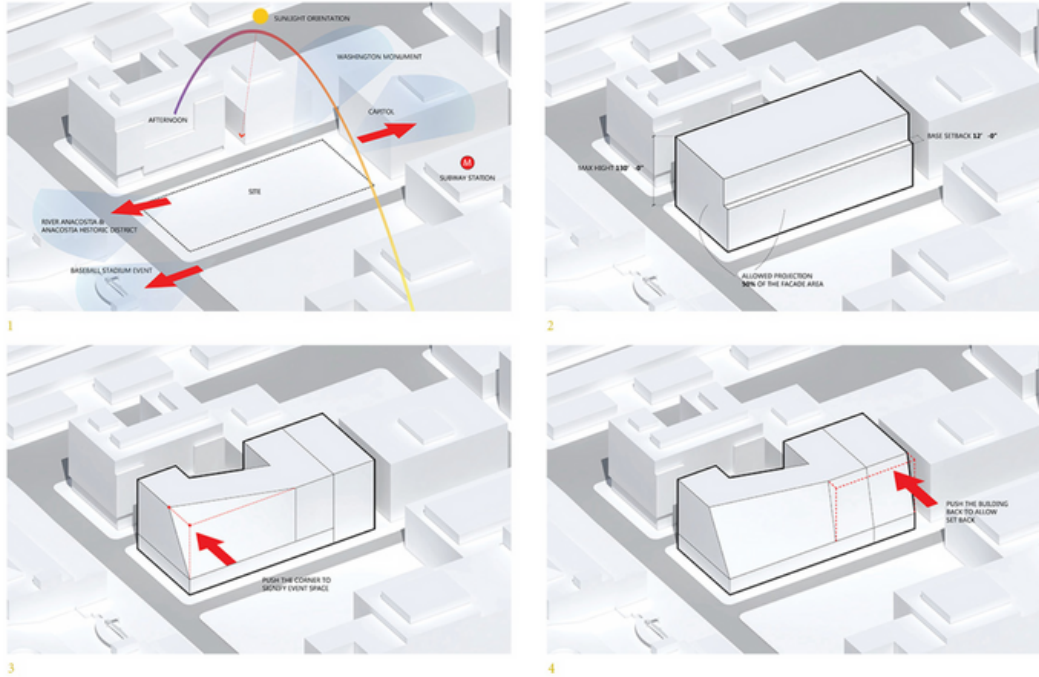
## USGBC (LEED) - West Half Scorecard

<https://www.usgbc.org/projects/west-half-street?view=scorecard>

# APPENDIX

## ODA New York - West Half's Design

<http://www.oda-architecture.com/projects/west-half-street>



### Image Use

JBG Smith, ODA New York, CoStar, HillRag