Appendix A: Waterfront Revitalization Program – Consistency Assessment

FOR INTERNAL USE ONLY	WRP No. 18-208
Date Received: _____	DOS No. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)* which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: Innovative Urban Living, LLC

Name of Applicant Representative: David Velez, AICP

Address: One Penn Plaza Suite 715 New York, NY 10119-0800

Telephone: 646-722-9247 Email: dvelez@vhb.com

Project site owner (if different than above): Bryan Kelly on behalf of Innovative Urban Living, LLC

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The Applicant, Innovative Urban Living, LLC, is seeking several discretionary approvals from the City Planning Commission (CPC), including:
-A zoning map amendment to change the existing R5 district to an R7-2 district with a C2-4 commercial overlay.
-An amendment to Appendix F of the Zoning Resolution (ZR) (Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas) to establish the Project Area as a Mandatory Inclusionary Housing (MIH) area.
-An amendment to Appendix I of the ZR (Transit Zone) to expand the boundary of the Transit Zone to include the Project Area.
-A special permit pursuant to ZR 74-743(a)(2) to locate buildings within a large-scale general development without regard to yard, court, distance between buildings, and height and setback regulations to allow for the centralized community-centered core and street-oriented residential buildings envisioned by the Proposed Project.
-A special permit pursuant to ZR 74-512 to permit a public parking garage with more than 150 spaces with the possibility of some spaces being located on the roof of the public parking garage during periods of peak parking demand for the church (Sundays and Tuesday evenings).

2. Purpose of activity

The Applicant, Innovative Living, LLC, is seeking several approvals to facilitate an approximately 2.2 million gross square foot (gsf) development housed within 10 proposed buildings, ranging from two to 15 stories. This would include: 2,050 residential units; 100,904 gsf of community facility space including a day care, general community facility and the existing CCC facility; 110,570 gsf of commercial space including a grocery store, local retail space, the trade school and Performing Arts Center (PAC), and 343,244 gsf of parking, including residential parking and of parking related to the on-site church (includes an additional 25,410 sf of flexible parking space on the roof of the garage).

C. PROJECT LOCATION

Borough: Brooklyn Tax Block/Lot(s): See Project Description

Street Address: 12020 Flatlands Avenue, Brooklyn, NY 11207

Name of water body (if located on the waterfront): N/A

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

- ☐ City Map Amendment
- ☑ Zoning Map Amendment
- ☑ Zoning Text Amendment
- ☐ Site Selection – Public Facility
- ☐ Housing Plan & Project
- ☑ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____
- ☐ Zoning Certification
- ☐ Zoning Authorizations
- ☐ Acquisition – Real Property
- ☐ Disposition – Real Property
- ☐ Other, explain: _____
- ☐ Concession
- ☐ UDAAP
- ☐ Revocable Consent
- ☐ Franchise

Board of Standards and Appeals ☐ Yes ☑ No

- ☐ Variance (use)
- ☐ Variance (bulk)
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

- ☐ Legislation
- ☐ Rulemaking
- ☐ Construction of Public Facilities
- ☐ 384 (b) (4) Approval
- ☐ Other, explain: _____
- ☑ Funding for Construction, specify: TBD
- ☐ Policy or Plan, specify: _____
- ☐ Funding of Program, specify: _____
- ☐ Permits, specify: _____

State Actions/Approvals/Funding

- ☐ State permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Federal Actions/Approvals/Funding

- ☐ Federal permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

E. LOCATION QUESTIONS

1.	Does the project require a waterfront site?	☐ Yes	☑ No
2.	Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters?	☐ Yes	☑ No
3.	Is the project located on publicly owned land or receiving public assistance?	☐ Yes	☑ No
4.	Is the project located within a FEMA 1% annual chance floodplain? *(6.2)*	☐ Yes	☑ No
5.	Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)*	☑ Yes	☐ No
6.	Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).*	☑ Yes	☐ No

- ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)
- ☑ Special Natural Waterfront Area (SNWA) (*4.1*)
- ☐ Priority Maritime Activity Zone (PMAZ) (*3.5*)
- ☐ Recognized Ecological Complex (REC) (*4.4*)
- ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* ***Part I*** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* ***Part II*** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		Promote	Hinder	N/A
1	**Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**	☑	☐	☐
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	☑	☐	☐
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	☐	☐	☑
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	☑	☐	☐
1.4	In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	☐	☐	☑
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	☑	☐	☐

		Promote	Hinder	N/A
2	**Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.**	☐	☐	☑
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	☐	☐	☑
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	☐	☐	☑
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	☐	☐	☑
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	☐	☐	☑
3	**Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**	☐	☐	☑
3.1.	Support and encourage in-water recreational activities in suitable locations.	☐	☐	☑
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	☐	☐	☑
3.3	Minimize conflicts between recreational boating and commercial ship operations.	☐	☐	☑
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	☐	☐	☑
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	☐	☐	☑
4	**Protect and restore the quality and function of ecological systems within the New York City coastal area.**	☐	☐	☑
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	☑	☐	☐
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	☐	☐	☑
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	☐	☐	☑
4.5	Protect and restore tidal and freshwater wetlands.	☐	☐	☑
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	☐	☐	☑
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	☐	☐	☑
4.8	Maintain and protect living aquatic resources.	☐	☐	☑

		Promote	Hinder	N/A
5	**Protect and improve water quality in the New York City coastal area.**	☐	☐	☑
5.1	Manage direct or indirect discharges to waterbodies.	☐	☐	☑
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	☐	☐	☑
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	☐	☐	☑
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	☐	☐	☑
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	☐	☐	☑
6	**Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**	☑	☐	☐
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	☑	☐	☐
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in *New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms*) into the planning and design of projects in the city's Coastal Zone.	☑	☐	☐
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	☐	☐	☑
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	☐	☐	☑
7	**Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**	☐	☐	☑
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	☐	☐	☑
7.2	Prevent and remediate discharge of petroleum products.	☐	☐	☑
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	☐	☐	☑
8	**Provide public access to, from, and along New York City's coastal waters.**	☐	☐	☑
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	☐	☐	☑
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	☐	☐	☑
8.3	Provide visual access to the waterfront where physically practical.	☐	☐	☑
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	☐	☐	☑

		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☐	☐	☑
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☐	☐	☑
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☐	☐	☑
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☐	☐	☑
9.2	Protect and enhance scenic values associated with natural resources.	☐	☐	☑
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☐	☐	☑
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☐	☐	☑
10.2	Protect and preserve archaeological resources and artifacts.	☐	☐	☑

G. CERTIFICATION

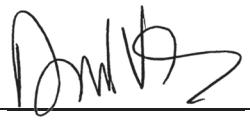
The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: David Velez

Address: One Penn Plaza Suite 715 New York, NY 10119-0800

Telephone: 646-722-9247 Email: dvelez@vhb.com

Applicant/Agent's Signature: 

Date: 5/4/22

WRP Consistency Assessment

The New York City Waterfront Revitalization Program (WRP) establishes the City's policies and objectives for maximizing benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives. The Project Area is located within the City's Coastal Zone (**Figure A-1**) and the Proposed Actions are consequently subject to the policies of New York City's Waterfront Revitalization Program (WRP).

The WRP Consistency Assessment Form (CAF) is used to identify the relevant WRP policies; the CAF is included in this appendix. For all relevant policies, a written assessment to determine consistency with the applicable WRP policy is provided.

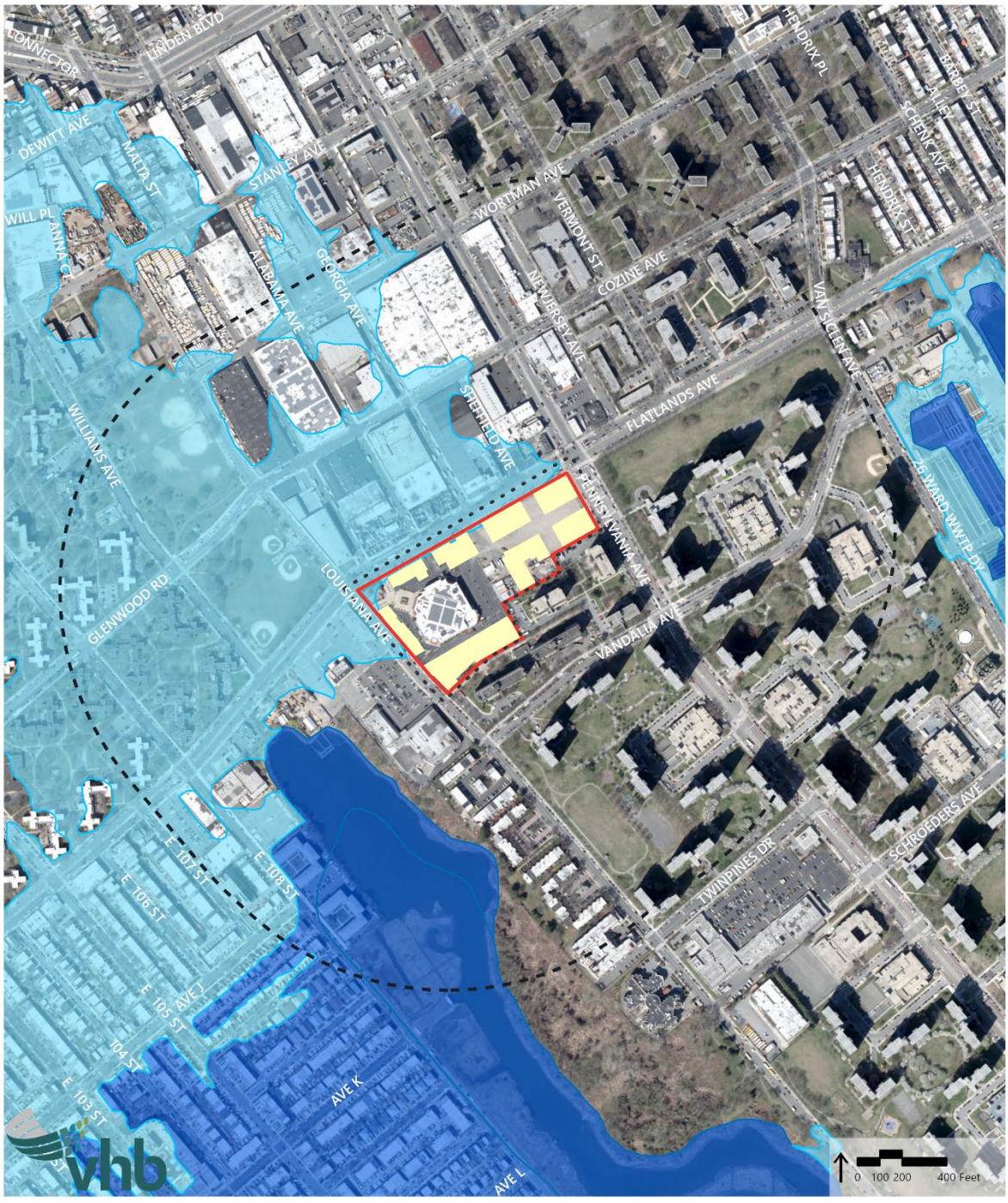
As described in **Part I: Project Description**, the Applicant proposes the development of a mixed-use, purpose-built community on the campus of the CCC, comprising income-based affordable housing, a performing arts center (PAC), local retail, a grocery store, and a variety of community facilities targeted to the civic, economic, educational, and cultural needs of the East New York neighborhood (the Proposed Project). This new development would occur in the East New York neighborhood of Brooklyn on Block 4430, Lot 1 and Block 4434, Lots 1 and 10 (Development Site).

The Applicant is requesting several Proposed Actions to facilitate the Proposed Project:

- A zoning map amendment to rezone the Development Site and *de minimis* portions of the north side of Block 4434, Lot 60 and Block 4431, Lots 70 and 100, and extends to the centerlines of Flatlands Avenue, Louisiana Avenue and Pennsylvania Avenue (the Project Area) from R5 to R7-2 with a C2-4 overlay;
- A zoning text amendment to Appendix F of the Zoning Resolution (ZR) (Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas) to establish the Project Area as a Mandatory Inclusionary Housing (MIH) area;
- An amendment to Appendix I of the ZR (Transit Zone) to expand the boundary of the Transit Zone to include the Project Area;
- A special permit pursuant to ZR 74-743(a)(2) to locate buildings within a large-scale general development without regard to yard, court, distance between buildings, and height and setback regulations to allow for the centralized community-centered core and street-oriented residential buildings envisioned by the Proposed Project;
- A special permit pursuant to ZR 74-512 to permit a public parking garage with more than 150 spaces with the possibility of some spaces being located on the roof of the public parking garage during periods of peak parking demand for the church (Sundays and Tuesday evenings).

Figure A-1 Flood and Coastal Zone Map

F



Policy 1: Support and facilitate commercial and residential redevelopment in areas well suited to such development

Policy 1.1: Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.

The Proposed Project would include a total approximate 2,162,808-gsf development to be constructed in phases over a planned 10-year period, with 12 buildings ranging from two to 15 stories. The proposed building program for the site would include approximately 1,645,820 gsf of residential space accommodating approximately 2,050 residential units; 100,904 gsf of community facility space including a day care, general community facility and the existing CCC facility; 110,570 gsf of commercial space including a grocery store, local retail space, the trade school and Performing Arts Center (PAC), and 305,514 gsf of parking, including residential parking and of parking related to the on-site church, plus an additional 25,410 sf of flexible parking space on the roof of the proposed parking garage to allow for increased parking capacity during the church's peak parking periods (Sundays and Tuesday evenings). At all other times, this space would be reserved for recreational space.

The Proposed Actions would facilitate the development of a mixed-use, purpose-built community on the campus of the CCC, which would be comprised of income-based affordable housing; a PAC; a grocery store; local retail; new publicly-accessible open space; and a variety of community facilities targeted to the civic, economic, educational, and cultural needs of the East New York neighborhood.

The Proposed Project is in an appropriate area for development because the Project Area was previously developed and is located within an area that contains an established residential presence; is well-served by roadways, public transportation, and infrastructure; and is absent of special area designations, such as Special Natural Waterfront Areas (SNWA) or Significant Maritime and Industrial Areas (SMIA). The Proposed Actions would also be consistent with neighboring land uses and activities. Furthermore, the 0.2 percent annual chance floodplain is located on the extreme northern and western edges of the Project Area (along Flatlands Avenue and along Louisiana Avenue), and as described further under Policy 6.2, will be elevated out of current 0.2 percent floodplain through the proposed site grading and would remain that way largely until the 2080s. Given the above, the Proposed Actions would be consistent with Policy 1.1.

Policy 1.3: Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.

The Project Area has access to sufficient roadway, transit, and essential community services. The Proposed Actions would not result in any significant adverse impacts on community facilities or water and sewer facilities. Further, they would not result in the physical loss of open space resources or result in any significant adverse shadow, air quality, noise, or other environmental impacts that would affect the utilization of any publicly accessible spaces. In fact, the Proposed Project would introduce new publicly-accessible open spaces and community facilities to a site that has historically been used for church parking. Therefore, the Proposed Actions would be consistent with Policy 1.3.

Policy 1.5: Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.

As discussed under Policy 6.2, the Proposed Project is being designed with consideration of climate change and sea level rise.

Policy 4: Protect and restore the quality and function of ecological systems within the New York City coastal area.

Policy 4.1: Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.

A special Natural Waterfront Area, Fresh Creek Basin is located a block away from the Project Area. The Proposed Project will not affect the ecological quality of this SNWA as the site would comply with the City's requirements related to stormwater management during construction. Furthermore, as part of the Proposed Project, there will be a series of detention tanks that will be provided throughout the site to control the release of stormwater flow into city infrastructure.

Policy 6: Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future condition created by climate change.

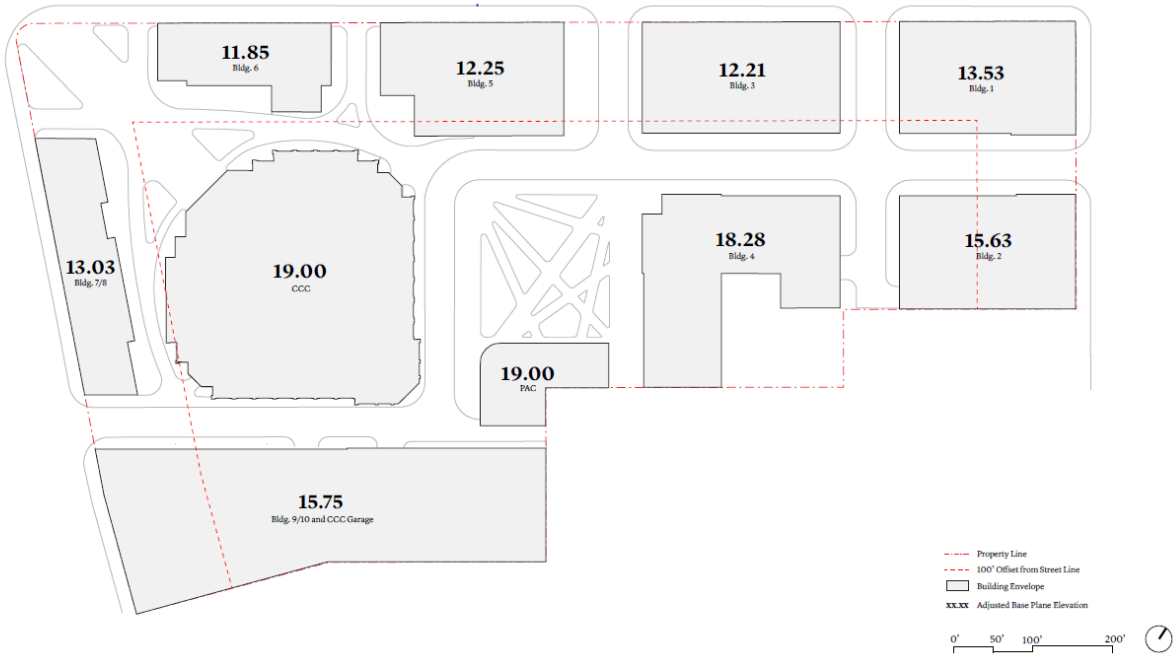
Policy 6.1: Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.

See response to WRP Policy 6.2, below.

Policy 6.2: Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms) into the planning and design of projects in the city's Coastal Zone.

Guidance provided by DCP includes a detailed methodology to determine the consistency of a project with Policy 6.2. This guidance identifies three basic steps to determine the consistency of a project with this policy: (1) identify vulnerabilities and consequences; (2) identify adaptive strategies; and (3) assess policy consistency. This assessment is based on the elevation drawings provided in **Figure A-2,** which show the lowest occupied floor elevation of each building.

Figure A-2 Building Elevation



Source: PAU

1. Identify vulnerabilities and consequences

1(a). Complete the Flood Elevation Worksheet to identify current and future flood elevations in relation to the elevations of the site and project features.

See attached Flood Evaluation Worksheet.

1(b). Identify any project feature that may be located below the elevation of the 1-Percent Floodplain over the lifespan of the project under any sea level rise scenario.

For this assessment, building features are defined in one of four categories:

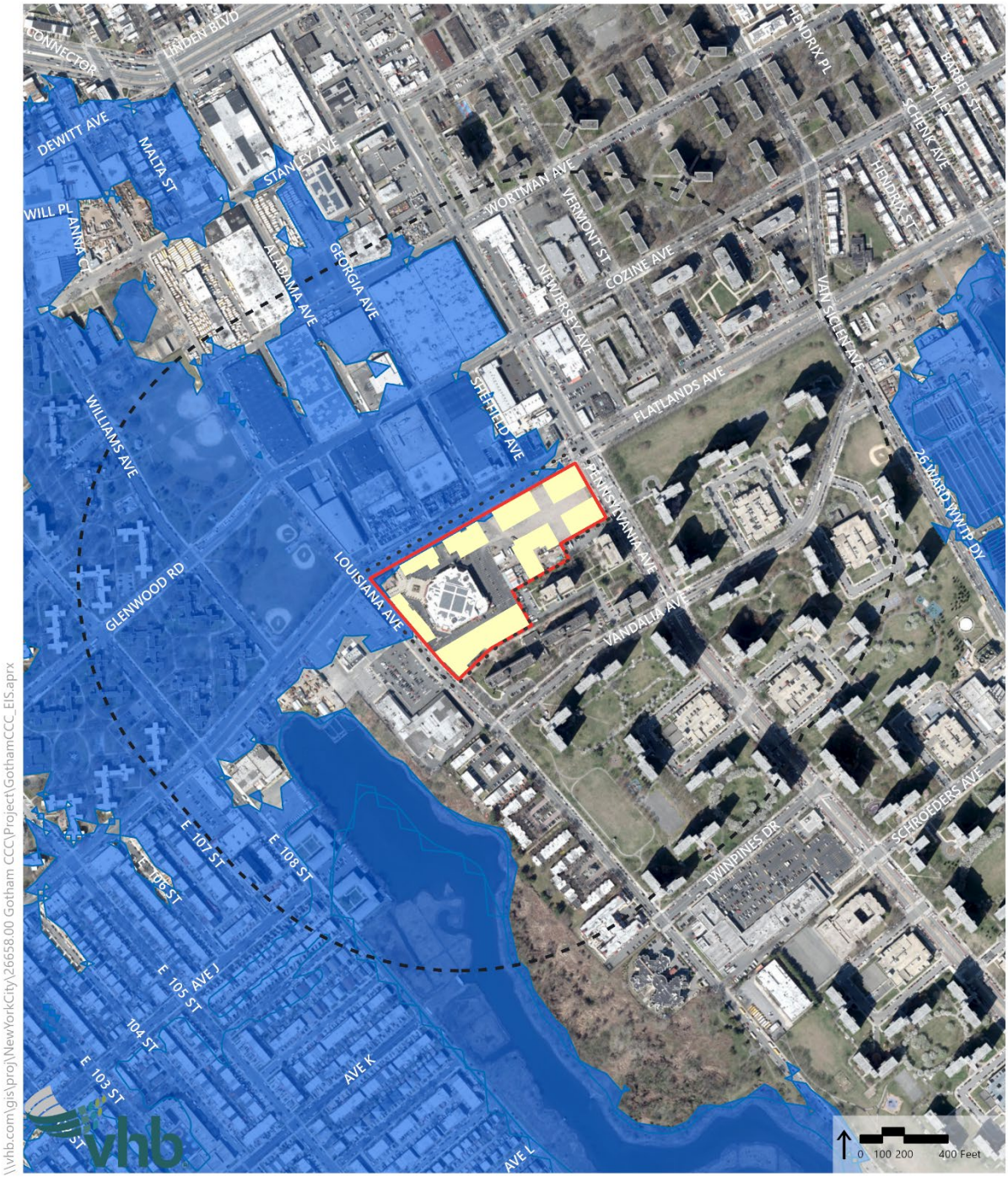
- (1) vulnerable: project features that have the potential to incur significant damage if flooded;
- (2) critical: project features that if damaged would have severe impacts on the project and its ability to function as designed;
- (3) potentially hazardous: project features that if damaged or made unsecure by flooding could potentially adversely affect the health and safety of the public and the environment; and,
- (4) other: project features that are entirely open and unenclosed spaces, except the open storage of potentially hazardous materials, which may be damaged by flooding, but are

not likely to present significant consequences and are more easily repaired.

The Flood Elevation Worksheet was prepared for the Proposed Project and is provided in this Appendix (see below). This tool identifies current and future flood elevations in relation to the elevations of the site and project features, presents a range of future flood elevations in relation to the elevations of the site and project features, and presents a range of future flood elevations as affected by sea level rise, from high (90th percentile) to low (10th percentile), where the "high estimate" represents a high-end projected increase in flood elevation.

According to the NYC Panel on Climate Change (NPCC), sea level rise projections in the middle range (25th to 75th percentile) in NYC are likely to have an increase of 4 to 8 inches by the 2020s, 11 to 21 inches by the 2050s, 18 to 39 inches by the 2080s, and 22 to 50 inches by 2100. Under the "high estimate" scenario (90th percentile), sea level rise projections reach 10 inches by the 2020s, 30 inches by the 2050s, 58 inches by the 2080s, and 75 inches by 2100. Sea level rise projections are relative to a 2000-2004 base period (the most recent projections from the NPCC were issued in 2015). According to the Preliminary Flood Insurance Rate Map (PFIRM) for Kings County, NY dated January 30, 2015 (Map Number 3604970219G), the northern portion of the Project Area boundary abuts the 0.2 percent annual chance minimal flood hazard area. The BFE is derived from the 1 percent annual chance flood hazard area to the west of the Project Area, which occurs at 10 feet NAVD88 (see attached worksheet and **Figure A-1**). Based on the NPCC "high estimate" scenario, the 1 percent annual chance flood BFE for the Project Area could increase up to 10.83 feet in the 2020s, 12.50 feet in the 2050s, 14.83 feet in the 2080s, and up to 16.25 feet by 2100 (NAVD88) as compounded by sea level rise projections (see **Table A-2)**. However, according to future floodplain projection maps based on NPCC estimates, the floodplain will remain largely the same into the 2050s with the Project Area abutting the 0.2 percent annual chance floodplain (see **Figure A-2**). Based on current projections, the Project Area is not projected to enter the 1 percent annual chance floodplain until the 2080s.

Figure A-2 2050's Flood and Coastal Zone Map



The Proposed Project's buildings are anticipated to have a lifespan of 50 or more years (which extends through 2081), when adaptive reuse in the form of major rehabilitation or reconstruction is assumed. The Proposed Project's buildings and open space elements are evaluated for projected flood levels through 2100 (the farthest data projection currently available).

The lowest occupiable floors of the proposed buildings would have a mix of community facility, local retail, grocery store space, and residential lobbies. The lowest floor elevation of the Proposed Project would be the retail and residential lobby space in Building 6, which would be constructed at an elevation of 11.89 feet NAVD88, an elevation that would be approximately 1.83 feet higher than the nearest 100-year flood height of 10 feet NAVD88. The proposed public spaces would also be constructed at the ground level throughout the site, which would be above the current 100-year flood height. Therefore, the Proposed Project would not result in development of any vulnerable, critical, or potentially hazardous features, within areas exposed to 1 percent annual chance flooding by the 2050s under the 90th percentile projections.

Using the 100-year flood height as a proxy for the 200-year flood height, the Proposed Project would also not be vulnerable under current conditions. Buildings 3, 5, and 6 would be within the 200-year flood height starting in the 2050's under high projections and the middle projections in the 2080s. In the 2080s, Buildings 7 and 8 would be within the 200-year floodplain under high to middle projections and Building 1 would be within the 200-year floodplain under high projections. In the 2080's these buildings may also be within the 100-year annual floodplain height, however this is at the end of the Proposed Project's lifespan.

Mechanical equipment across the site would be located on the cellar level and on the roof of the proposed buildings.

Table A-2 100-Year Floodplain Elevations with Sea Level Rise

Decade	Low Estimate – 10th percentile (ft)	Mid-Range – 25th to 75th percentile (ft)		High Estimate – 90th percentile (ft)
2020	10.17	10.50	10.67	10.83
2050	10.67	11.33	11.75	12.50
2080	11.08	12.42	13.25	14.83
2100	11.25	13.00	14.17	16.25

1(c). Identify any vulnerable, critical, or potentially hazardous features that may be located below the elevation of Mean Higher High Water over the lifespan of the project under any sea level rise scenario.

Based on the range of sea level rise predictions described above, Mean Higher High Water (MHHW) at the National Oceanic and Atmospheric Administration (NOAA) Station nearest the Project Area (North Channel #8507201) could range up to 8.97 feet NAVD88 by 2100 under the "high estimate" (90th percentile) scenario. Current tidal and flood heights in the Project Area are 2.72 feet NAVD88, as adjusted for changes in sea level since the 1983-2001

tidal epoch. As discussed above the lowest elevation of the Proposed Project is 11.89 feet NAVD88. As shown in the figure in the attached Flood Evaluation Worksheet, the ground floors of the proposed buildings and critical equipment would not be affected by MHHW in the 2080s under the any sea level rise scenario.

1(d). Describe how any additional coastal hazards are likely to affect the project, both currently in the future, such as waves, high winds, or debris.

Since the Project Area abuts the 0.2 percent annual chance minimal flood hazard area, the site would not be at risk for inundation from 1 percent annual chance flood events for its projected lifespan. Wave action hazards (i.e., Zone AE, VE or Coastal A Zone) have not been designated for the Project Area, and the Project Area is not subject to the Limit of Moderate Wave Action (LiMWA). As such, coastal hazards are not likely to affect the Project Area.

2. Identify adaptive strategies

2(a). For any features identified in Step 1(b), identify adaptive strategies:

As discussed above, the Proposed Project would not result in development of any vulnerable, critical, or potentially hazardous features, within areas exposed to 1 percent annual chance flooding by the 2050s under the 90th percentile projections. However, Buildings 3, 5, and 6 would be within the 200-year flood height starting in the 2050's under 90th percentile projections.

The proposed buildings are anticipated to have a lifespan of about 50 years (through around 2081), when adaptive reuse in the form of major rehabilitation or reconstruction is anticipated to be required. If retrofits of vulnerable elements of the building are required prior to the 2070's, there are some adaptive strategies that can be undertaken. For example, as shown in the Flood Evaluation Worksheet, in a 100-year flood occurring with the sea level rise that is projected for the 2080's the water level would rise 13.25 feet NAVD88. In this scenario, some ground floor spaces would be about 1 foot underwater. This means that in the future, there could be potential damage to paving materials and plantings, flood damage to the property, damage to the building structure, or potentially increased flood insurance costs. Measures to adapt and protect the site would rely on the implementation of best practices and technology available at that time. These may include but not be limited to structural changes, such as dry flood-proofing the ground floor areas, considering the implementation of a passive barrier strategy to protect vulnerable features, and incorporating marine glass into the ground floor facades as appropriate. Operational changes may include moving vulnerable uses or equipment to a higher elevation.

The Climate Resiliency Guidelines developed by the Mayor's Office of Climate Resiliency recommend designing adaptive strategies for a proposed project with features below the projected elevation of the "middle range estimate" MHHW (50th percentile) scenario and sea level rise combined, over a project's anticipated useful life. All elements of the project would be elevated above projected MHHW heights as described above.

2(b). Describe any additional measures being taken to protect the project from additional coastal hazards such as waves, high winds, or debris.

As discussed above, the Project Area does not intersect the LiMWA, and would not be impacted by coastal hazards such as waves, high winds, or debris.

2(c). Describe how the project would affect the flood protection of adjacent sites, if relevant. How would the project lead to increased flooding on adjacent sites? How would the project protect upland sites from coastal hazards? Does the project complement or conflict with planned, adjacent flood protection projects?

Because the floodplain within NYC is controlled by astronomic tide and meteorological forces (e.g., nor'easters and hurricanes) and not by fluvial flooding, the Proposed Project would not have the potential to adversely affect the floodplain or result in increased coastal flooding at adjacent sites or within the study area. During and following construction, activities within the Project Area would be completed in accordance with applicable stormwater regulations. Therefore, the construction and operation of the Proposed Project would not exacerbate future projected flooding conditions on adjacent sites.

3. Assess policy consistency

Based on this information, the Proposed Actions would promote Policy 6.2. The Proposed Project would not result in development of any vulnerable, critical, or potentially hazardous features, within areas exposed to 1 percent annual chance flooding or MHHW by the 2050s under the 90th percentile projections.

NYC Waterfront Revitalization Program - Policy 6.2 Flood Elevation Workhsheet

COMPLETE INSTRUCTIONS ON HOW TO USE THIS WORKSHEET ARE PROVIDED IN THE "CLIMATE CHANGE ADAPTATION GUIDANCE" DOCUMENT AVAILABLE AT www.nyc.gov/wrp

Enter information about the project and site in highlighted cells in Tabs 1-3. Tab 4, "Summary Charts" contains primary results. Tab 5, "0.2%+SLR" produces charts to be used for critical infrastructure or facilities. Tab 6, "Calculations" contains background computations. Appendix A contains tide elevations for station across the city to be used for the elevation of MHHW if a site survey is not available. Non-highlighted cells have been locked.

Background Information	
Project Name	Innovative Urban Village
Location	East New York, Brooklyn
Type(s)	☑ Residential, Commercial, Community Facility ☑ Parkland, Open Space, and Natural Areas ☐ Tidal Wetland Restoration ☐ Critical Infrastructure or Facility ☐ Industrial Uses ☐ Over-water Structures ☐ Shoreline Structures ☐ Transportation ☐ Wastewater Treatment/Drainage ☐ Coastal Protection
Description	The Applicant, Innovative Living, LLC, is seeking several approvals to facilitate an approximately 2.16 million gross square foot (gsf) development housed within 12 buildings, ranging from two to 15 stories. This would include: 2,050 residential units; 100,904 gsf of community facility space including a day care, general community facility and the existing CCC facility; 110,570 gsf of commercial space including a grocery store, local retail space, the trade school and Performing Arts Center (PAC), and 305,514 gsf of parking, including residential parking and of parking related to the on-site church (plus an additional 25,410 sf of flexible parking space on the roof of the garage).
Planned Completion Date	2031
Expected Project Lifespan	50+

The New York City Waterfront Revitalization Program Climate Change Adaptation Guidance document was developed by the NYC Department of City Planning. It is a guidance document only and is not intended to serve as a substitute for actual regulations. The City disclaims any liability for errors that may be contained herein and shall not be responsible for any damages, consequential or actual, arising out of or in connection with the use of this information. The City reserves the right to update or correct information in this guidance document at any time and without notice.

For technical assistance on using this worksheet, email wrp@planning.nyc.gov, using the message subject "Policy 6.2 Worksheet."

Last update: Sept. 7, 2018

Establish current tidal and flood heights.

	FT (NAVD88)	Feet	Datum	Source
MHHW	2.72	**2.72**	**NAVD88**	*Appendix A*
1% flood height	10.00	**10.00**	**NAVD88**	*Flood Hazard Mapper*
Design flood elevation	11.00	**11.00**	**NAVD88**	*Flood Hazard Mapper*
As relevant:				
0.2% flood height	10.00	10.00	**NAVD88**	*Flood Hazard Mapper (1% Flood Height)*

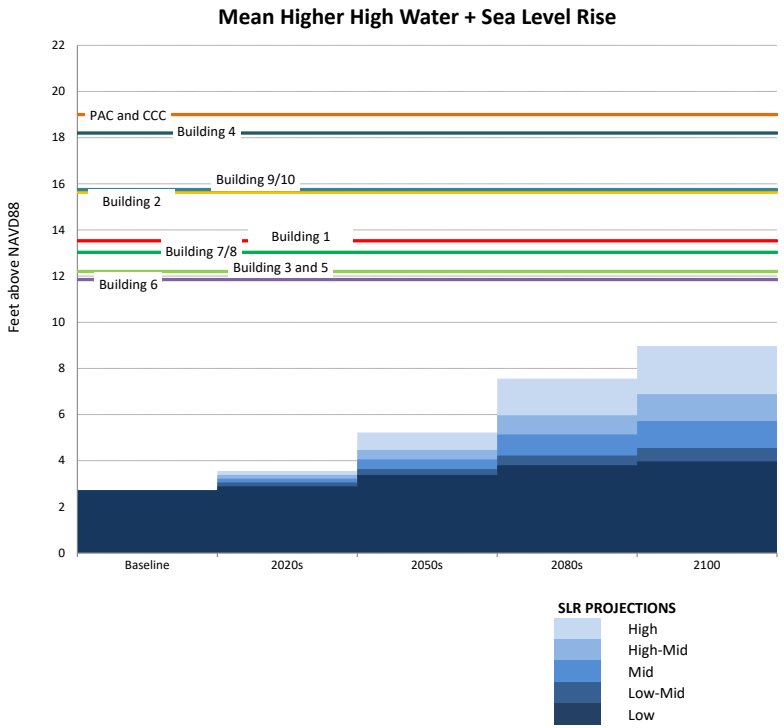
Data will be converted based on the following datums:

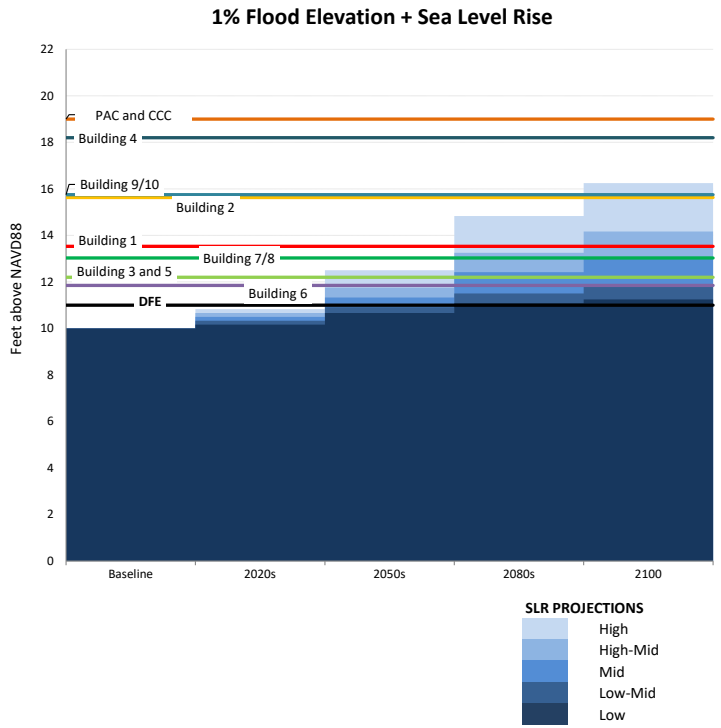
Datum	FT (NAVD88)
NAVD88	*0.00*
NGVD29	*-1.10*
Manhattan Datum	*1.65*
Bronx Datum	*1.51*
Brooklyn Datum (Sewer)	*0.61*
Brooklyn Datum (Highway)	*1.45*
Queens Datum	*1.63*
Richmond Datum	*2.09*

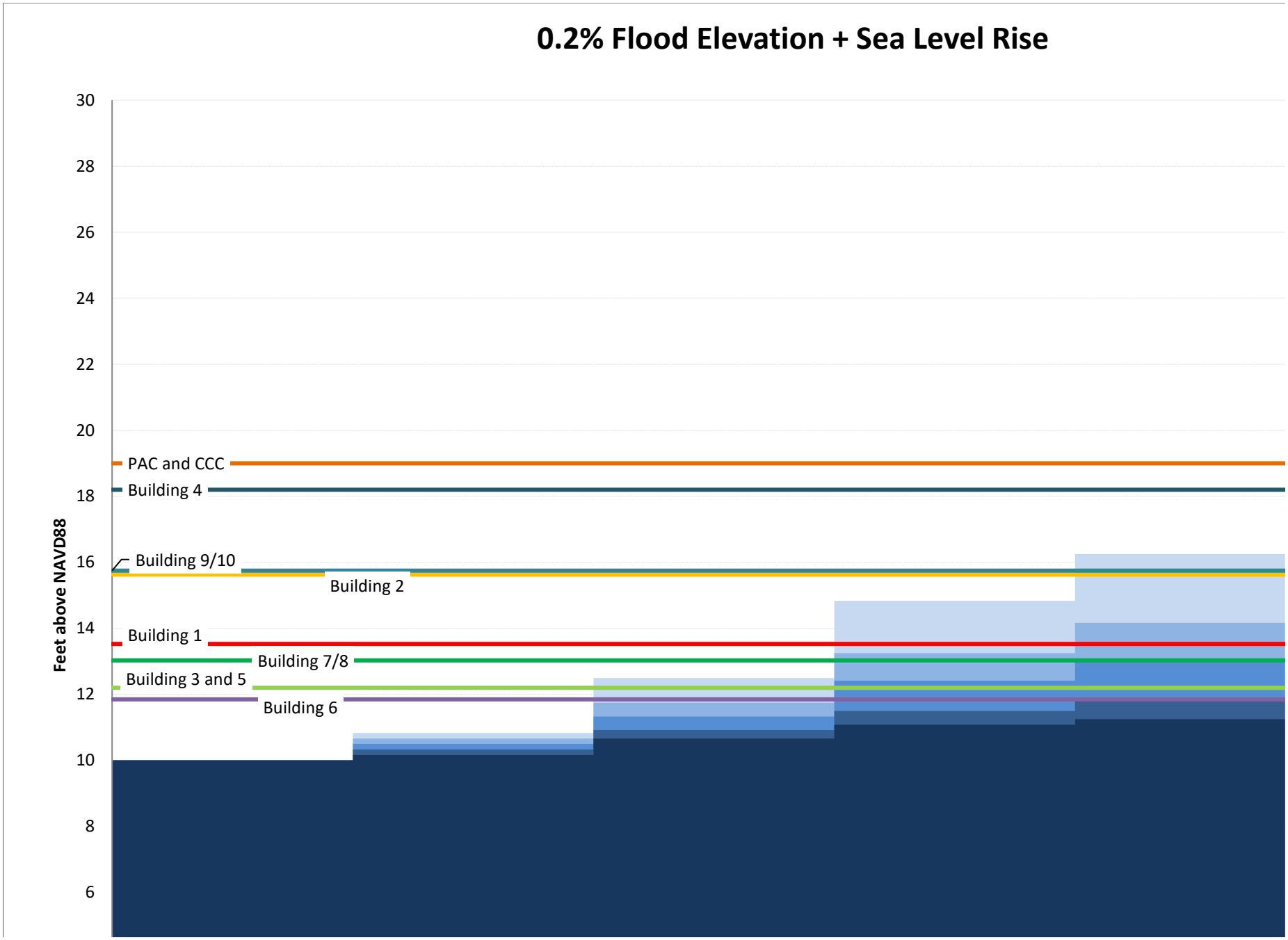
Describe key physical features of the project.

Feature *(enter name)*	Feature Category	Lifespan	Elevation	Units	Datum	Ft	Ft Above NAVD88	Ft Above MHHW	Ft Above 0.2% flood height
Building 1	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	50+	13.5	Feet	NAVD88	*13.5*	*13.5*	*10.8*	*3.5*
Ground-floor retail/ grocery store uses on multi-family residential buildings located along Flatlands Avenue of the Project Area									
Building 2	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	50+	15.6	Feet	NAVD88	*15.6*	*15.6*	*12.9*	*5.6*
Description of Planned Uses and Materials									
Building 3 and 5	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	50+	12.2	Feet	NAVD88	*12.2*	*12.2*	*9.5*	*2.2*
Description of Planned Uses and Materials									
Building 4	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	50+	18.2	Feet	NAVD88	*18.2*	*18.2*	*15.5*	*8.2*
Description of Planned Uses and Materials									
Building 6	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	50+	11.9	Feet	NAVD88	*11.9*	*11.9*	*9.1*	*1.9*
Description of Planned Uses and Materials									
Building 7/8	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	50+	13.0	Feet	NAVD88	*13.0*	*13.0*	*10.3*	*3.0*
Description of Planned Uses and Materials									
Building 9/10	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☑ Other	50+	15.8	Feet	NAVD88	*15.8*	*15.8*	*13.0*	*5.8*
Building									
PAC and CCC	☐ Vulnerable ☐ Critical ☑ Potentially Hazardous ☐ Other	50+	19.0	Feet	NAVD88	*19.0*	*19.0*	*16.3*	*9.0*
Description of Planned Uses and Materials									

Assess project vulnerability over a range of sea level rise projections.






0.2% Flood Elevation + Sea Level Rise
Feet above NAVD88
30
28
26
24
22
20
18
16
14
12
10
8
6
PAC and CCC
Building 4
Building 9/10
Building 2
Building 1
Building 7/8
Building 3 and 5
Building 6