Dewitt Community Center

122 Dewitt Drive, Roxbury, MA

Small Project Review Application

Submitted Pursuant to Article 80 of the Boston Zoning Code

Submitted to:
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201

Submitted by:
Madison Park Development Corporation
184 Dudley Street
Boston, MA 02119

In Association with:
Stull & Lee, Inc.
103 Terrace Street
Boston, MA 02120

March 24, 2016

MPDC
Madison Park Development Corporation
Celebrating 50 Years of Activism, Renewal, and Culture

March 24, 2016

Brian P. Golden, Director
Boston Redevelopment Authority
Boston City Hall, 9th floor
Boston, MA 02201-1007
Attn: Gary Uter

RE: Article 80 Small Project Review Application
Dewitt Community Center, Roxbury, MA

Dear Director Golden:

Madison Park Development Corporation (MPDC) is pleased to submit the enclosed application for Article 80 Small Project Review for the Dewitt Community Center.

The Dewitt Community Center is a proposed project of 21,374 sf of community space and management offices (the "Proposed Project"). The Proposed Project is located at 122 Dewitt Drive, in the center of Madison Park Village in Roxbury. The proposed development includes the demolition of a small management building and the creation of a new 2-story Community Center with an array of programming spaces, property management offices, outdoor program space and seven (7) parking spaces. The SPRA is necessitated because the Project includes between 20,000 and 50,000 sf of new construction.

The Proposed Project will be constructed on an approximately 31,758 sf lot. This lot will be created with the subdivision and conveyance of a portion of an adjacent lot owned by a MPDC affiliate. An application for the subdivision/combining of lots, as well as for some slight zoning variances, was filed with the ISD on March 7, 2016.

The project team has had the opportunity to present its plans to BRA project and urban design staff, residents of Madison Park Village, and greater Roxbury neighborhood residents at various times over the last 18 months. The Project will play an essential role in bringing people together and providing much needed space for community development activities.

Please contact Project Manager Laura Martin (617-849-6222), lmartin@madison-park.org) with any questions or comments. On behalf of the entire project team, we would like to thank you and the BRA staff assigned to the Project for your input and assistance thus far on the design of this Project. We look forward to continuing to work with you and your staff on the Project, which will be a significant addition to Madison Park Village, the Roxbury neighborhood, and the City of Boston.

Sincerely,

Madison Park Development Corporation

Russell Tanner, Vice President of Real Estate

Table of Contents

PROJECT TEAM

1.1 Developer Profile

Founded in 1966, Madison Park Development Corporation (MPDC) is one of the nation's first community-based, non-profit organizations to independently develop affordable housing for low and moderate income residents. MPDC created a model of resident-led community development, and has evolved to become a comprehensive agency promoting the full revitalization and redevelopment of Roxbury. For almost 50 years, MPDC has been at the forefront of the physical redevelopment of Roxbury. MPDC has a strong track record of producing affordable and high quality housing for low and moderate income families. MPDC's commitment and impact can be seen in the development of 113 homeownership units, 1,169 rental apartments, and 125 units of student housing. As a result, more than 3,000 people choose to live in MPDC housing in the Roxbury, South End and Mattapan neighborhoods of Boston. MPDC projects such as the Schoolhouse Apartments and Hibernian Hall represent the preservation of important Boston historic sites that contribute to the character and vitality of Roxbury.

1.2 Development Team

Property Owner / Developer	**Madison Park Development Corporation (Developer)** **Madison Park III Associates (Current Owner)** **XXX LLC (New Owner to be Created)** 184 Dudley Street Roxbury, MA 02119-2573 William Gordon, Associate Director of Real Estate 617-849-6242 wgordgon@madison-park.org Laura Martin, Project Manager 617-849-6222 lmartin@madison-park.org
Architect	**Stull and Lee, Inc.** 103 Terrace Street Boston, MA 02120-3441 David Lee (Principal) 617-426-0406 dlee@stullandlee.com
Legal Counsel	**Klein Hornig** 101 Arch Street, Suite 1101 Boston, MA 02110 John Achatz 617-224-0608 JAchatz@kleinhornig.com Teresa Santalucia 617-224-0621 TSantalucia@kleinhornig.com

Civil Engineer	**Joyce Consulting Group** 100 Wyman Road Braintree, MA 02184 Erin Venezia Joyce (Principle) 781-817-6120 hello@joycecg.com
Structural Engineer	**Goldstein-Milano, LLC** 125 Main Street Reading, MA 01867 Brent Goldstein, P.E. 781-670-9990 brg@gm-se.com
MEP Engineer	**Wozny/Barbar & Associates, Inc.** 1090 Washington Street Hanover, MA 02339 Zbigniew Wozny, P.P., LEED AP 781-826-4144 zwozny@wbaengineers.com
Environmental/21E Engineer	**McPhail Associates, LLC** 2269 Massachusetts Avenue Cambridge, MA 02140 Ambrose J. Conovan, L.S.P., P.E. 617-868-1420 AJD@mcpahilgeo.com
Surveyor	**R.E.Cameron & Associates, Inc.** 681 Washington Street Norword, MA 02062 Scott Cameron (Principal) 781-769-1777 ext. 13 scameron@recomcast.net
Geotechnical Engineer	**Geotechnical Partnerships, Inc.** 805 Main Street Sanford, ME 04073 Lisa Casselli (Principal) 781-646-6982 Lisacasselli@aol.com

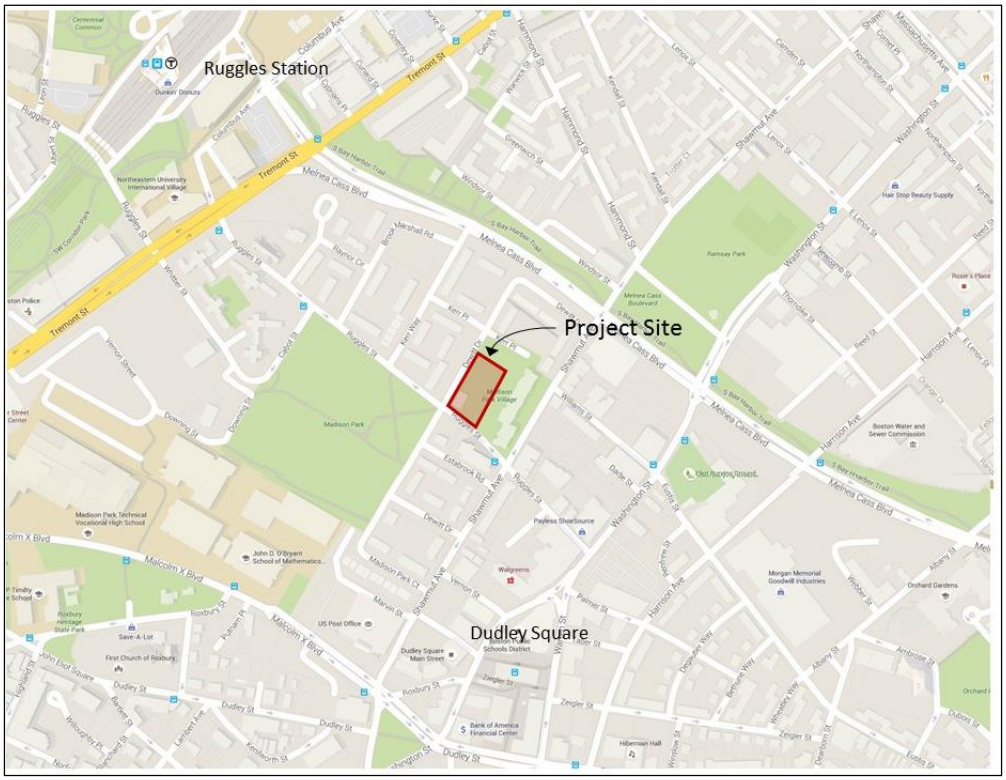
PROJECT DESCRIPTION

2.1 Project Introduction

The Community Center is part of MPDC's larger master plan for modernizing Madison Park Village (MPV), and creating a community that is actively engaged in developing itself. Madison Park Village contains a total of 546 affordable housing units developed in the 1970s and 1980s. Adjacent Madison Park properties and proposed new construction add another 149 families to the Madison Park Village community. These units are distributed through a series of townhomes, a mid-rise building, and a senior housing high-rise building. MPDC is in the process of renovating all of the units in the Village, and the proposed new Community Center will be a crowning project in making MPV a premier affordable housing development that can provide robust community development services and activities to residents of the neighborhood and the greater Roxbury community.

The Village currently contains limited community space, with a 935 sf community room located in the management office at 122 Dewitt Drive, and a 2,700 sf building housing a small public internet center and out-of-school program space located at 40 Raynor Circle. These facilities are woefully inadequate for the needs and demands for services at Madison Park Village at this time. Furthermore, the building at 40 Raynor Circle will be demolished as part of the approved construction of two new apartment buildings on Melnea Cass Boulevard (part of the Whittier Street Choice Neighborhoods Initiative (CNI) plan). The proposed Dewitt Community Center will provide a central location with greatly expanded space for the existing programs currently located at 40 Raynor Circle, as well as significant space for new programs. The vision of the Dewitt Community Center is to provide a central location for an array of program spaces, including a public internet center, a large recreational room with a basketball half court, out-of-school care space, flexible exercise/class rooms and outdoor space landscaped to allow for socialization and programing. MPDC will build on solid, long-term partnerships with service providers for these spaces, ensuring that this facility will be a central, well-utilized anchor for the community.

Figure 1 - Locus Plan



2.2 Site & Neighborhood Context

Location: The Project Site is within the Lower Roxbury Neighborhood, specifically in the center of the Madison Park Village (MPV) neighborhood. The site is located at the corner of Ruggles Street and Dewitt Drive. Direct adjacencies within the block include Haynes House, a mid-rise residential building to the southeast, and a residential parking lot to the northeast. MPV residential properties surround the site, with the exception of Madison Park High School athletic fields being located to the southwest of the site. Across Dewitt Drive and Ruggles Street are townhomes and a senior high-rise building, both part of MPV. Across the corner of Dewitt Drive and Ruggles Street are outdoor public basketball courts.

Regarding broader neighborhood context, Madison Park Village is located within a ¼ mile of Dudley Station and a ½ mile from Ruggles T Station. The site is located within a broader area of significant planning and neighborhood improvement activities. The Boston Housing Authority is applying for Choice Neighborhood Implementation funding that will provide redevelopment and new construction of housing at the Whittier Street site and Madison Melnea Cass Apartments sites. The increase in housing in the neighborhood will provide an even greater need for more community facilities in the area.

Parcel Information: The Project Site is comprised of approximately 31,758 sf of land. Ultimately, the proposed site area will include one parcel (Parcel Address: 122 Dewitt Drive, Assessor Parcel ID 0902170000). Currently, the site area includes portions of two parcels: the entire 122 Dewitt Drive parcel (currently 18,516 sf) and approximately 13,242 sf of an adjacent parcel (Parcel Address: 725- 751 Shawmut Avenue; Assessor Parcel ID 090216000). With the proposed subdivision plan, land from the adjacent parcel (also owned by an entity controlled by MPDC) will be conveyed to the 122 Dewitt Drive parcel, creating an approximately 31,758 sf lot on which the Project will be constructed. (see Figures 3 & 4 below, as well as Attachments 1 & 2 for the surveys).

Figure 2 - Context Plan

Figure 3 – Certified Site Survey with Subdivided Site

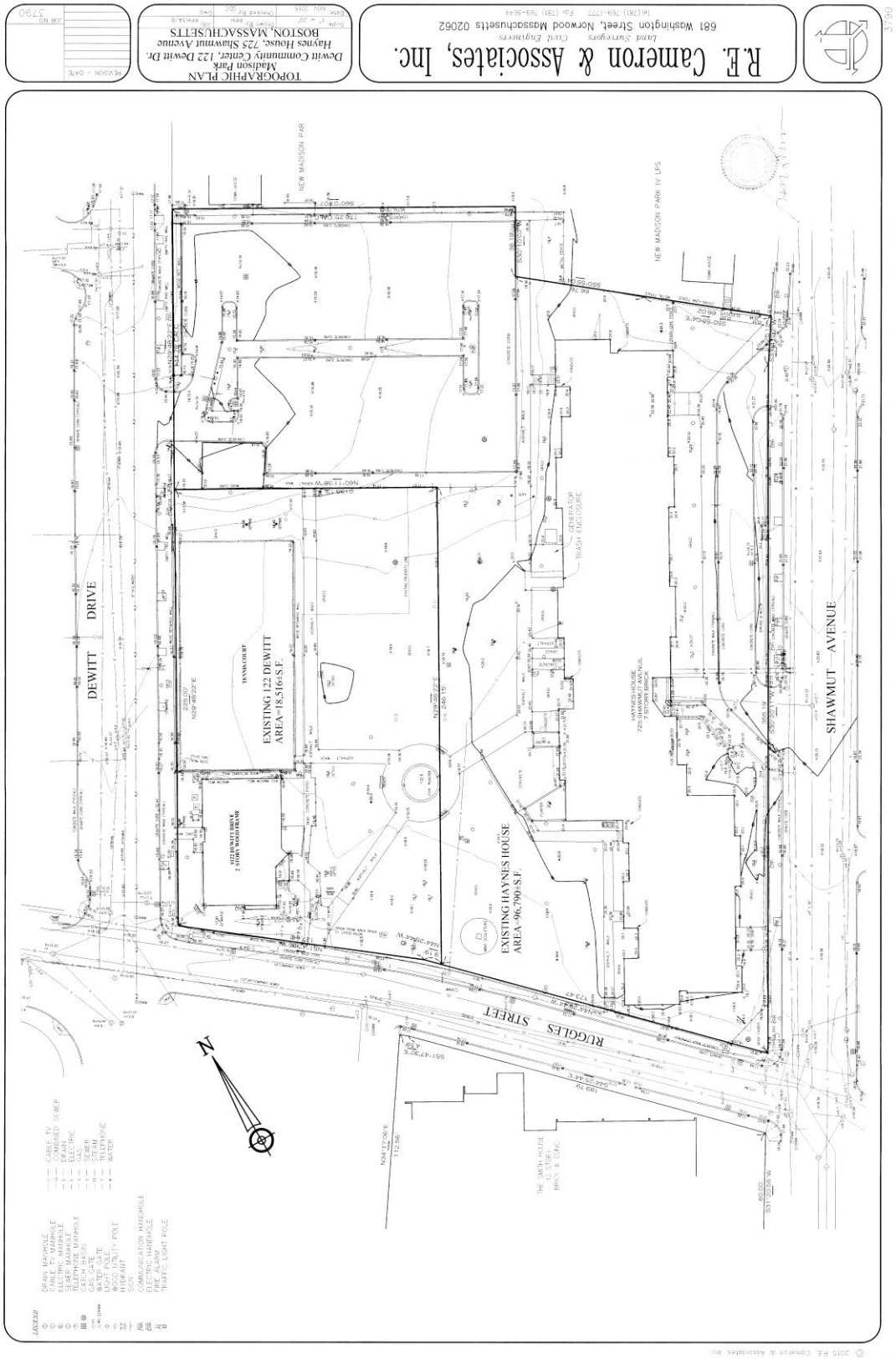
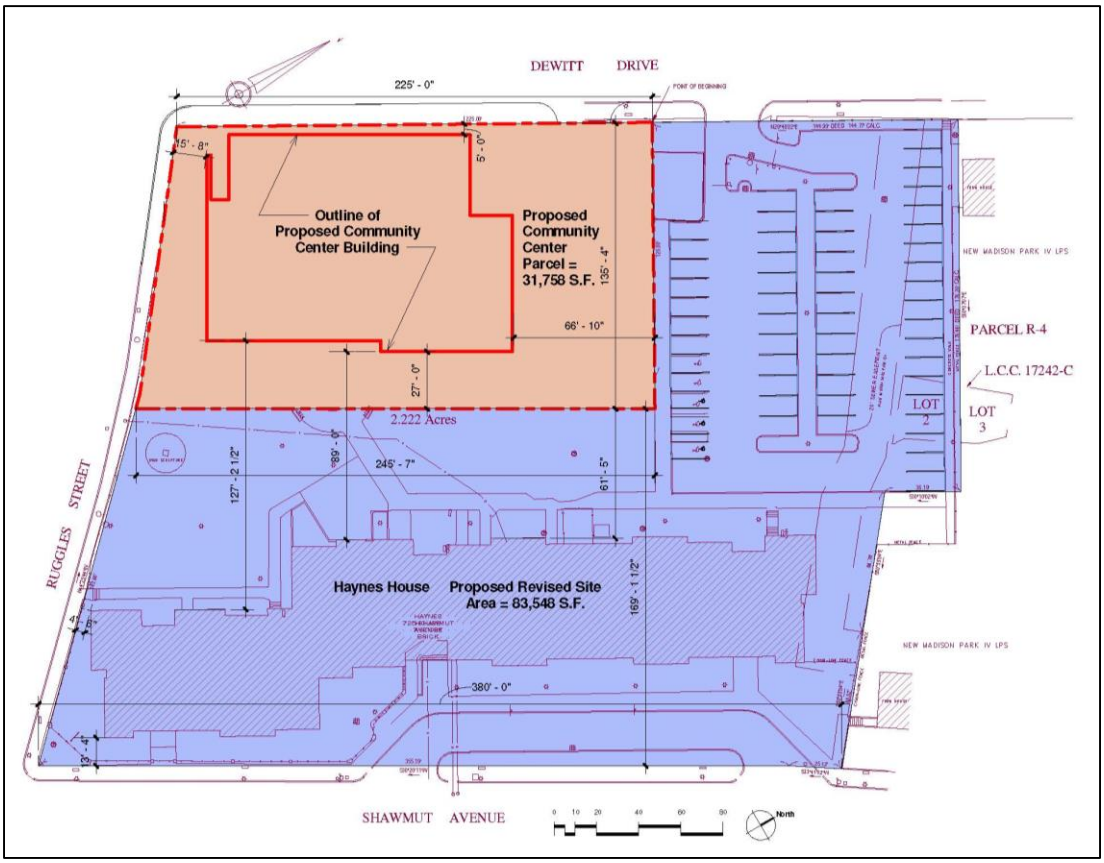


Figure 4 - Proposed Property/Zoning Plan



2.3 Development Program

The Proposed Project involves the new construction of a 2-story building with 21,374 gsf. The building footprint is 13,084 gsf. The building will contain approximately 14,722 sf of community facility spaces, approximately 2,800 nsf of management offices for Madison Park Village and 3,787 of circulation/restroom space. See the chart below for a more detailed outline of the various community facility spaces.

Dewitt Community Center: Program

First Floor	
Public Internet Center	1,560 sf
Large Multi-Purpose Recreation Room	3,119 sf
Out-of-school Program Space	3,555 sf
Classroom	534 sf
Circulation, Utilities, Restrooms	4,316 sf
Second Floor	
Exercise/Class Rooms	1,688 sf
Management Offices	2,805 sf
Circulation, Restrooms	3,787 sf
Total GSF	**21,374 sf**
Off-Street Parking Spaces	7 spaces

The Public Internet Center is large enough to include different seating areas, including a more casual seating area, computer pod stations, and a classroom instruction area.

The Out-of-School Program Space will provide a classroom area that can be divided into two spaces. The space is designed to hold up to 50 school-aged children. This space includes its own office area, bathrooms, and kitchen.

The Large Multi-Purpose Recreation Room will be a flexible space to host a range of activities, such as recreation/sports, job fairs, indoor walking groups, and holiday gatherings. The space is designed to hold a half-size basketball court. Off of this space is a large kitchen and storage to hold tables and chairs for the room.

Four additional class/exercise room spaces are located in the building; one of the first floor and three on the second floor. These spaces will be able to accommodate uses such as resident meetings, exercise classes like dance or yoga, and informational classes such as ESL or first-time homebuyer classes.

Finally, the second floor will have management office space for the property management staff of Madison Park Village.

See Section 2.7 for more information regarding parking.

2.4 Public Benefits

Community Amenities - As noted above, the Dewitt Community Center will be a community facility that will provide needed amenity space for Madison Park Village (MPV) residents and the broader Roxbury community. Programmed uses include:

- Multi-purpose function space supported by a large kitchen to accommodate recreation and community events, including a half sized basketball court
- Out-of-School space primarily targeted toward neighborhood children
- Adult exercise space for MPV residents including active seniors
- Public Internet Center providing WiFi accesses to neighborhood residents as well as a computer resource and training space
- Classrooms for continuing education and wellness programs

MPDC has a vision to provide opportunities for Roxbury residents and build a strong, health community in Roxbury. Thus, the majority of programs operated at the Center, including the Public Internet Center and Out-of-School program, will be open to the public, and outreach will focus on Roxbury residents. Some activities at the Community Center, such as holiday events or private parties, will be intended primarily or exclusively for Madison Park Village residents as part of community amenities.

Ultimately, these community facility spaces will help create a neighborhood that supports a wide spectrum of resident needs, including health, youth programming, educational advancement, and job skills. Such programs will promote a neighborhood that fosters social cohesion and well-being, enabling Lower Roxbury to be a thriving community.

Revitalization of Open Space – The Project will include a new landscape design for the open space between the Community Center and Haynes House residential building. This open space is currently underutilized with an unengaging design, and it is fenced off from the public sidewalk. The Project will redesign the space to make it more open and inviting, as well as better designed to host outdoor events such as a farmers market or small performance. Further, the Project will enhance the street life of Ruggles Street by adding lighting, a wider sidewalk, and activity to the street level.

MVP Master Plan - The Center will also be an important component of the larger master plan for Madison Park Village. In addition to an ongoing modernization program for the existing affordable housing units and

expansion of affordable housing opportunities, MPV plans to create the Dewitt Community Center that will house the Village's management offices and provide a central location for community facilities. As noted earlier in the Project Introduction Section, this Project will replace the small building currently hosting the out-of-school program and internet center; this building, located at 40 Raynor Circle, is limited both by its size and location at the corner of the Village. Further, the site at 40 Raynor Circle is the site for the Madison Melnea Cass Apartments, which will bring 76 more affordable housing units to the Village. Two other properties are managed and served from Madison Park Village: Ruggles Shawmut Housing, with 43 units, and 2101 Washington Street, with 30 units. Thus, this Project is part of a large master plan to increase the quantity of and quality of affordable housing in Madison Park Village and adjacent properties.

Sustainable Design/Green Building – The Center will be LEED certifiable under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) system.

Job Creation – Regarding construction jobs, the Project is expected to create roughly 30 to 40 full time construction jobs over the 12 month construction period. Regarding permanent jobs, the Project is expected to create 1 or 2 permanent jobs for administration of the Community Center, and 2 to 3 permanent jobs for the Out-of-School program. Additional jobs for operating health/wellness programming and other enrichment programming will likely be created, either directly or through various businesses and vendors providing services or using facilities at the Center.

Transit Oriented Development – The Dewitt Community Center is well served by public transportation, with bus stops located right outside the site on Ruggles Street, as well as the site being within walking distance to two major public transportation hubs- Ruggles MBTA Station and Dudley Square Bus Station. This TOD location will encourage those coming to the site like staff to use public transportation.

Linkage – At just over 20,000 square feet, the Center will not exceed the 100,000 square foot threshold as defined in Section 80B-7 requiring Housing and Job Creation Exaction payments.

2.5 Zoning and Anticipated Public Permits & Approvals

The subject property is on the corner of Dewitt Drive and Ruggles Street and will be comprised of a land area of approximately 31,758 square feet.

Zoning for the site is defined in Article 50 of the Boston Zoning Code, the Roxbury Neighborhood. The site is in the Multifamily Residential Subdistrict of the Roxbury Neighborhood District of the Zoning Code.

The Proposed Development is for a new community building providing educational, recreational and social services to the community allowed as-of-right under the Code. Potential variances are expected include:

- 50-29 Minimum front yard insufficient
- 50-41.1 Screening and buffering of nonresidential building/parking
- 50-43 Parking insufficient
- 50-43 Off-street loading insufficient
- 50-44.5 Corner lot (front yard setback required on all streets)

ZONING TABLE AND VARIANCES

	Zoning Requirement	Proposed
Maximum F.A.R.	1.0	0.68
Maximum Building Height	45 Feet	37'-6"
Minimum Lot Area	N/A	31,758 SF
Minimum Lot Width	40 Feet	146 Feet
Minimum Lot Frontage	40 Feet	225 Feet
Minimum Front Yard (Dewitt)	20 Feet	5 Feet
Minimum Front Yard (Ruggles)	20 Feet	15'-8"
Minimum Side Yard	10 Feet	66'-10"
Minimum Rear Yard	20 Feet	27'-0"
Traffic Visibility @ Corner	30 Foot Triangle	30 Foot Triangle
Off-Street Parking	22 Spaces	7 Spaces
Off-Street Loading	1 Bay	0 Bays
Allowed Use	Multi-Family Residential	Community Center (Allowed)

The subdivision plan to be created for the new building will acquire area from the adjacent Haynes House at 735 Shawmut Avenue resulting in a reduction of that parcel's area. (Note: Haynes House is also owned by an entity controlled by Madison Park Development Corporation.) 735 Shawmut Avenue will increase the existing nonconformity with respect to zoning requirements based on land area. Anticipated zoning relief will include:

- 50-29 Minimum lot area (based on number of units)
- 50-29 Maximum floor area ratio

The Proponent will seek approval of the Project through the Article 80 Development Review Process - Small Project Review. The Proponent met with BRA staff to review the Project design and expected variances on two occasions (December 21, 2015 and February 22, 2016); design changes were made between those meetings based on BRA input, and based on those meetings, the anticipated zoning relief is not anticipated to be an issue. Zoning documents for both the land subdivision/conveyance and the other zoning variances, as outlined above, were submitted to ISD on March 7, 2016, and the proponent is awaiting issues of the Zoning Code Refusal Letters.

While the Project must adhere to the City of Boston Zoning regulations, the Project site is also within the Campus High School Urban Renewal Area which establishes underlying land use controls. The BRA legal staff have determined the new site plan and proposed development of the community center were not anticipated under the Campus High Urban Renewal Plan and will require a minor modification. These minor modifications are being prepared with the BRA legal staff. It is anticipated that following a hearing on the minor amendment to urban renewal plan before City Council, the BRA board will act on the amendment and all zoning variances, possibly as early as May of 2016.

2.6 Legal Information

The Proponent knows of no judgements, which are adverse to the proposed project.

The Proponent knows of no tax arrearages with respect to Madison Park Village or Madison Park Development Corporation properties.

2.7 Schedule

Construction is expected to begin in the Fall of 2016 and will be completed for use in approximately 12 months.

2.8 Transportation

The Community Center is expected to generate few vehicular trips as the primary users are the residents of Madison Park Village who will access the site on foot. Further, the site is well-served by public transportation. Seven (7) on-site parking spaces will be provided, as described further below. Additional street parking is available directly around the site for occasional events that could generate a larger number of trips. Overall, the site's location, the building placement, and the site landscaping is meant to encourage pedestrian use.

Site Access and Circulation: The main pedestrian entrance to the building will be on Ruggles Street, which responds to the site context of Ruggles Street being a pedestrian route both to Dudley Square and Ruggles Station. Additional entrances to the building will be to the east of the building into to the open courtyard space, as well as to the north towards the on-site parking spaces. The rear entrance towards the parking lot will be the primary loading entrance. The entrance to the open space will provide a good connection for events using both indoor and outdoor space, as well a convenient entrance for Haynes House residents.

Public Transportation: The Project is well-served by public transportation. The site is a quarter mile northwest of Dudley Station, which provides access to a major bus station and the Silver Line. To the southeast, the site is half a mile from Ruggles MBTA Station, which provides bus, rapid transit, and commuter rail services. Three bus routes (the 8, 19, and 47) run directly down Ruggles Street with a stop right near the site on Ruggles Street and Shawmut Avenue. The buses operate on 10-20 minute headways in the a.m. and p.m. peak periods and on 30-minute headways during the off-peak periods.

Parking and Loading: Seven (7) on-site parking spaces will be provided for exclusive use of the Community Center. These spaces will provide designated close parking for users with limited mobility, as well as for program vendors/program operators coming to the site for an extended period of time. One space will be a designated handicap parking space. The parking spaces will also be available to site program staff, including staff for the internet center (1 full time staff) and out-of-school program (5 staff). The Property Management staff working in the building will continue to park in the adjacent Haynes House residential parking lot, which is where these staff currently park. Street parking is available in the area for additional program operators coming to the site (see Attachment 3 for parking counts). MPDC is working with the City of Boston Transportation Department to adjust some of the street parking on Dewitt Drive to be 2 hour parking, with the exception of residents; this adjustment will increase the availability of street parking for occasional events which could generate a larger number of trips to the site.

The parking lot will be large enough to provide a parking space and maneuvering space for a mini-bus for the out-of-school program. The bus will remain on-site during the times when it is not picking up students after school to bring them to the program. The parking lot will be screened around the back by a low-wall or similar feature, as well as surrounded by trees, grass, and bushes.

Any loading to/from the building, including for trash/recycling removal from the building's trash room, will occur at the rear of the building near the parking lot. Loading for larger trucks will be informalized on Dewitt Drive. Dewitt Drive is currently used as a loading area for landscaping and maintenance trucks in Madison Park Village, so this occasional loading should not change current uses of the road.

DESIGN NARRATIVE

3.1 Context

The Dewitt Center Ruggles Street site is midway between the Ruggles T station and Washington Street in the midst of the resurging historic Dudley Square business district. The immediate site context is defined by two late 70's era mid/high-rise apartment buildings: the seven story Haynes House to the east and the twelve story Smith House to the south. To the west and across Dewitt Street and to the north are two-story residential townhouses; these townhomes constitute the majority of the Madison Park Village neighborhood.

The building's central location in the neighborhood within easy walking of the Whittier Street housing project coupled with MBTA bus service on Ruggles Street is intentional, since many of the facilities and the programs offered will be accessible to residents of the entire Lower Roxbury neighborhood.

3.2 Building Design

The proposed building is a multi-purpose community facility with classrooms, a multi-use gymnasium/ large meeting room, out-of-school care facilities and management offices. The design takes advantage of the building's multiple functions as a device to create an articulated massing and generally increased visual interest to the site. A focus in the building's design at the corner of Ruggles Street and Dewitt Drive brings attention to the entrance, particularly with a glass store-front style design to draw pedestrians into the main entrance and public internet center, which is located on that corner. Additional large windows on the front of the building highlight the multi-purposes spaces on the second floor. A façade change for the large multi-purpose room will draw attention towards this space as a gathering location for the community.

The site plan is organized to relate closely to the immediate surrounding landscape which will serve both Madison Park Village residents and the broader community with a mix of planted and hard surfaces intended to host both active and passive uses. The building is set back from Ruggles Street in order to create an external gathering space before and after events.

The choices of materials and potential color palette for the building deliberately depart from the surrounding buildings to emphasize that the Community Center is not intended to be solely a Madison Park Village facility. With cost as a consideration, the palette of will be concrete masonry units and rain screen technology (metal or synthetic composition panels). Overall, the façade of the building is meant to differentiate the Community Center from the surrounding residential buildings, drawing interest to a welcoming community facility.

3.3 Green Design

While projects subject to Article 80 Small Project Review are not required to comply with Article 37 – Green Building Standards, the Project as currently conceived will meet or exceed the U.S. Green Building Council's Leadership in Energy Environmental Design (LEED) system to achieve a certifiable standard. Sustainable benefits achieved by the project include:

- Incorporation of Green Sustainable efforts supporting Mayor's Green Building Initiative
- Achieve LEED certifiable rating
- Community resource in dense urban neighborhood facilitating pedestrian accessibility
- Close proximity to mass transit
- Green building systems and façade construction
- Maximize use of natural light

An initial draft Climate Change Preparedness and Resiliency Checklist for New Construction has also been prepared and attached (see Attachment 4).

3.4 Design Exhibits

The Proponent has retained Stull and Lee, Inc. as the Project Architect. SLI has prepared the following graphic materials including context photographs, architectural plans, elevations and illustrations to further describe the proposed scope of improvements.

Figure 5 - Existing Conditions – Context/Aerial View

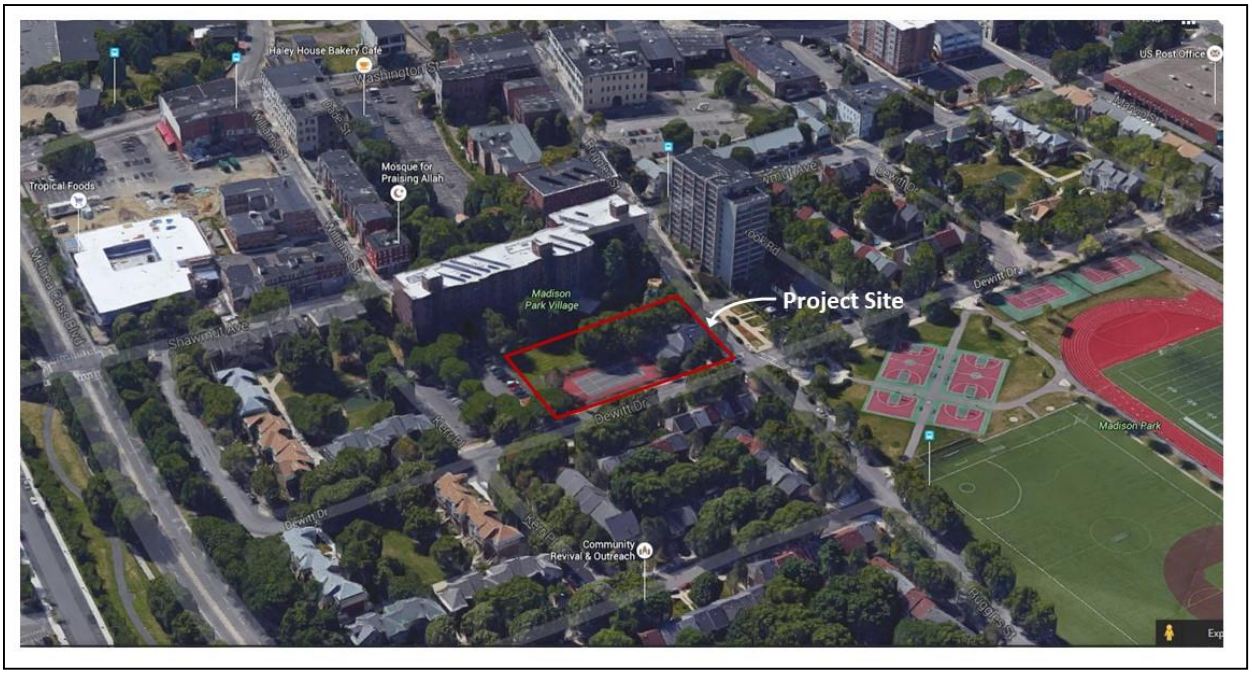


Figure 6 - Existing Conditions – View of Site from Dewitt/Ruggles Intersection

Figure 7 - Existing Conditions – View of Site from Ruggles Street – Haynes House on right

Figure 8 - Existing Conditions – View of Site from Dewitt Drive looking south

Figure 9 - Existing Conditions – View of Madison Park Village Townhouse on west side of Dewitt Drive

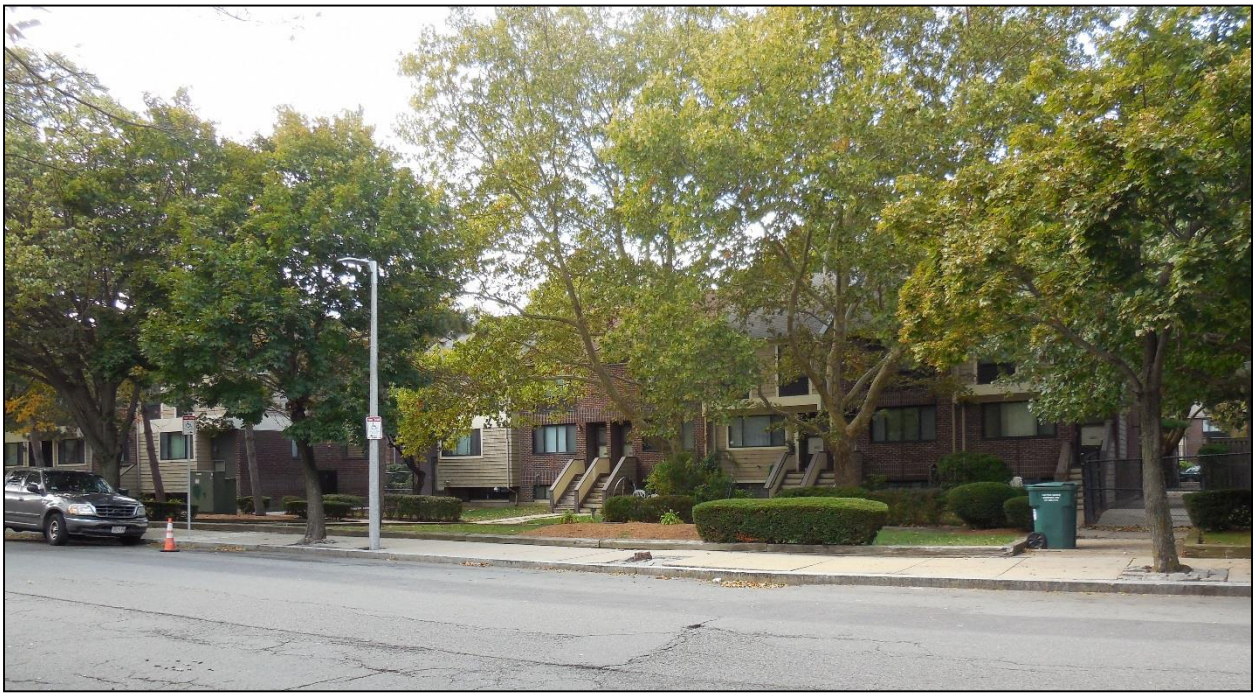


Figure 10 - Existing Conditions – View of Site looking north on Dewitt Drive

Figure 11 - Aerial View of Proposed Community Center in Context

Figure 12 - Proposed Site Plan

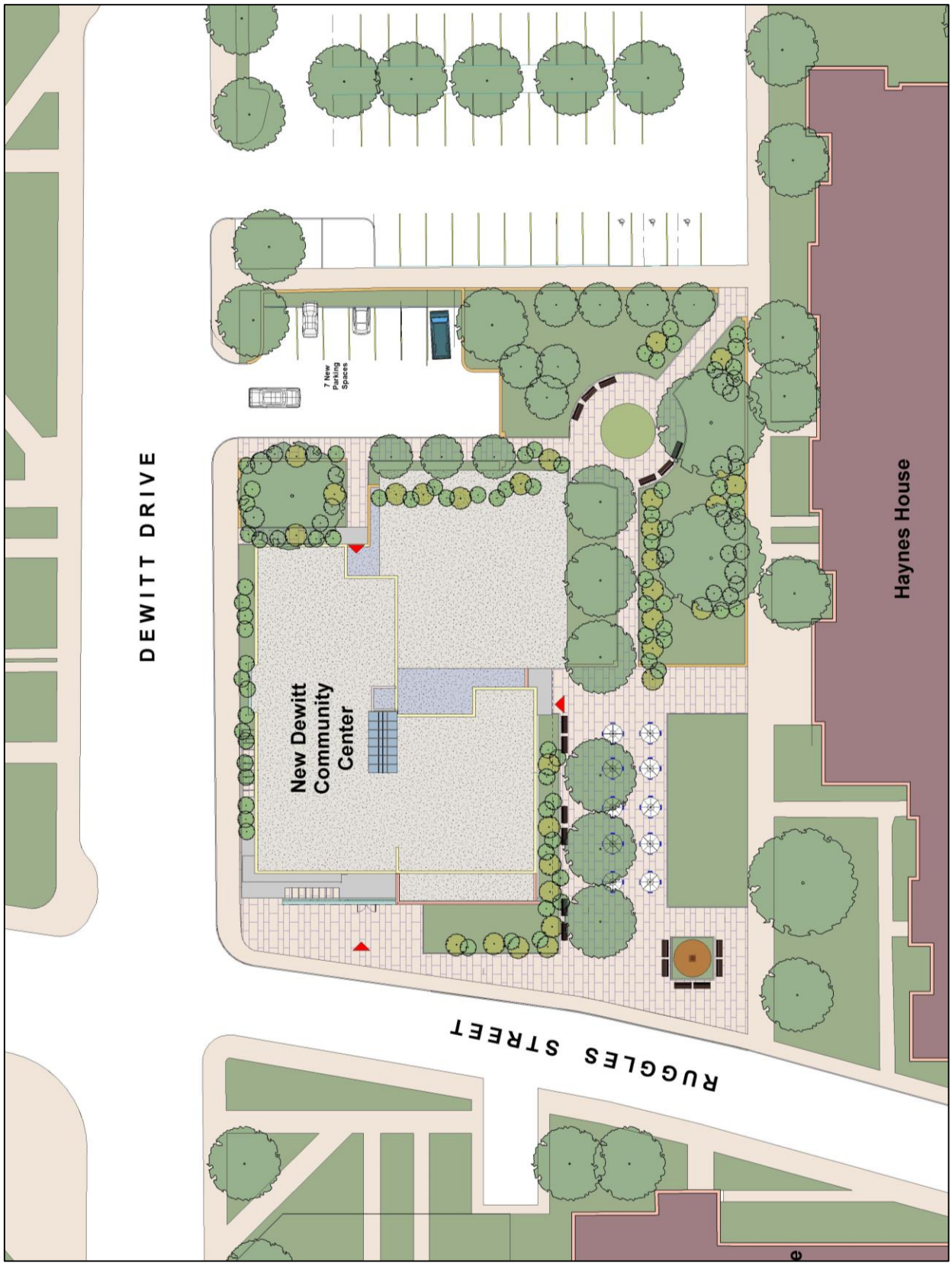


Figure 13 - Proposed First Floor Plan

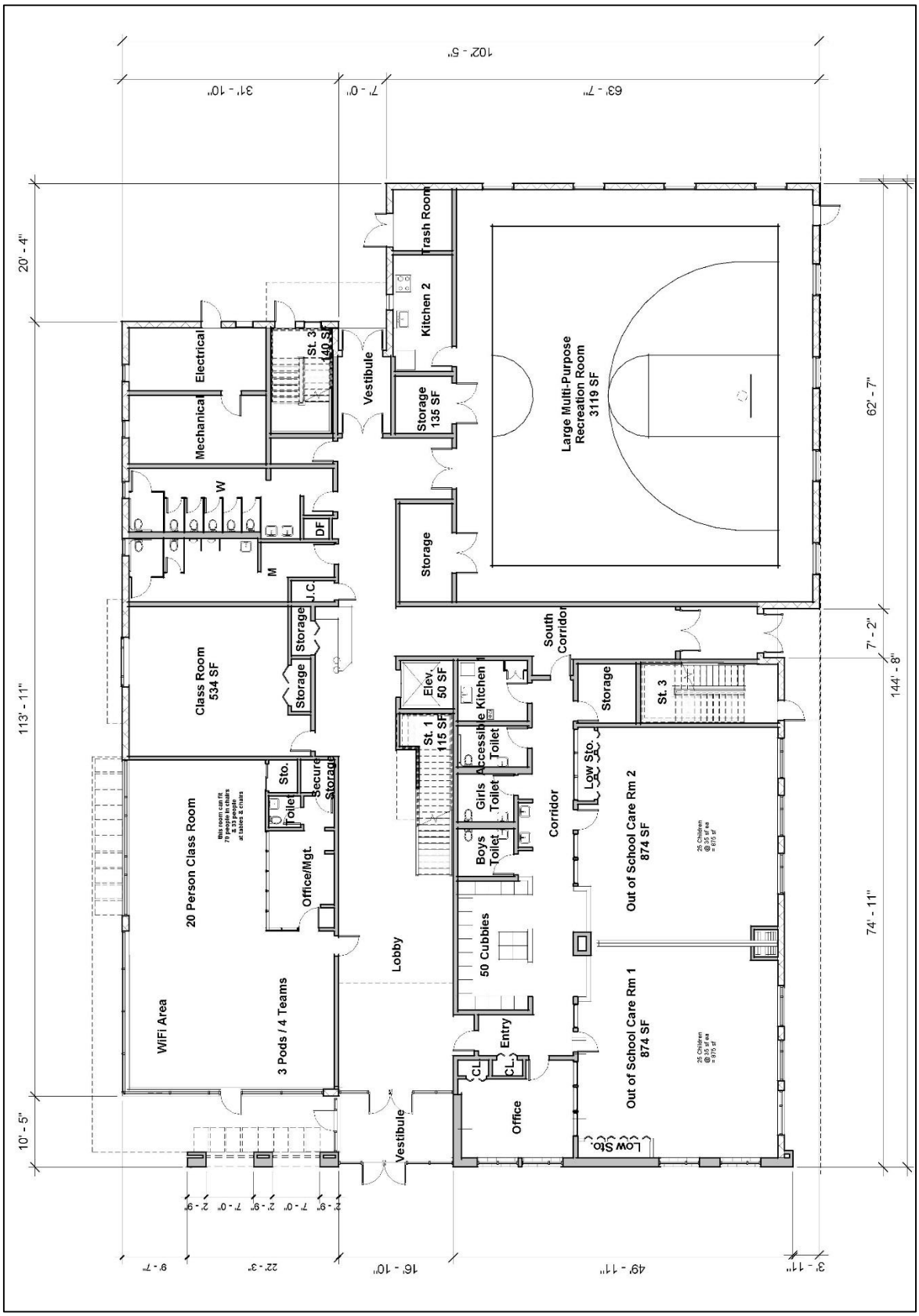


Figure 14 - Proposed Second Floor Plan

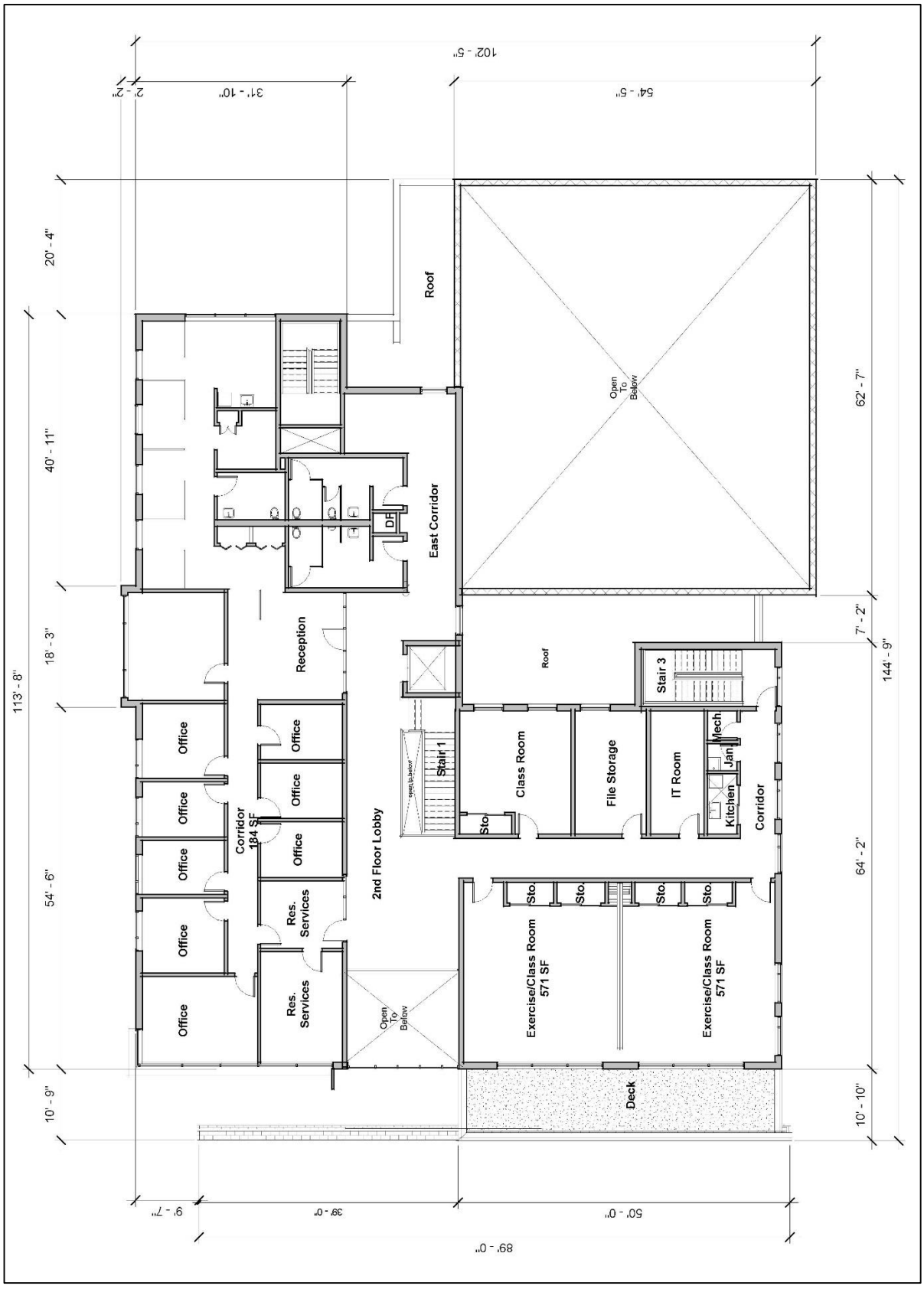


Figure 15 - Proposed Elevations

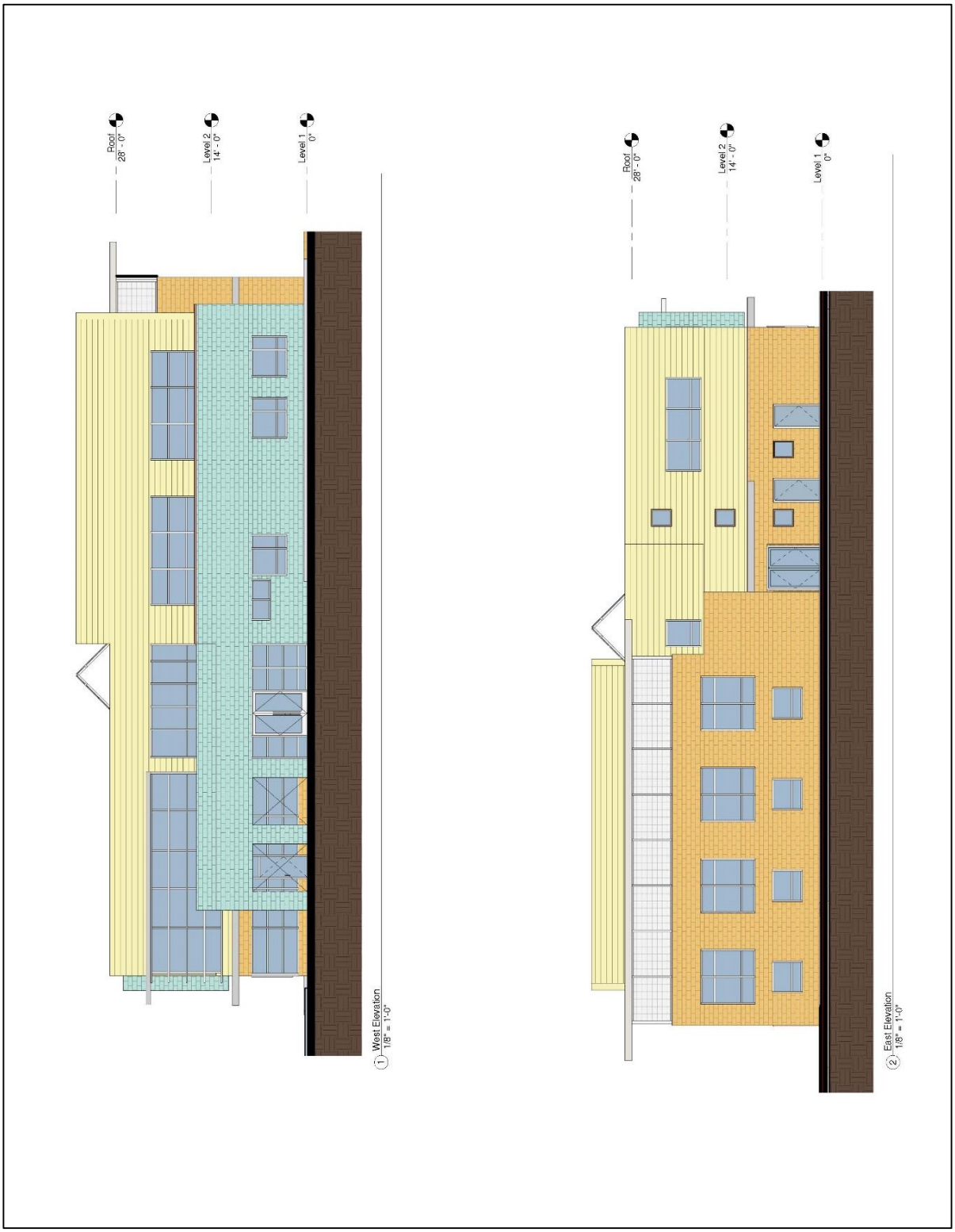
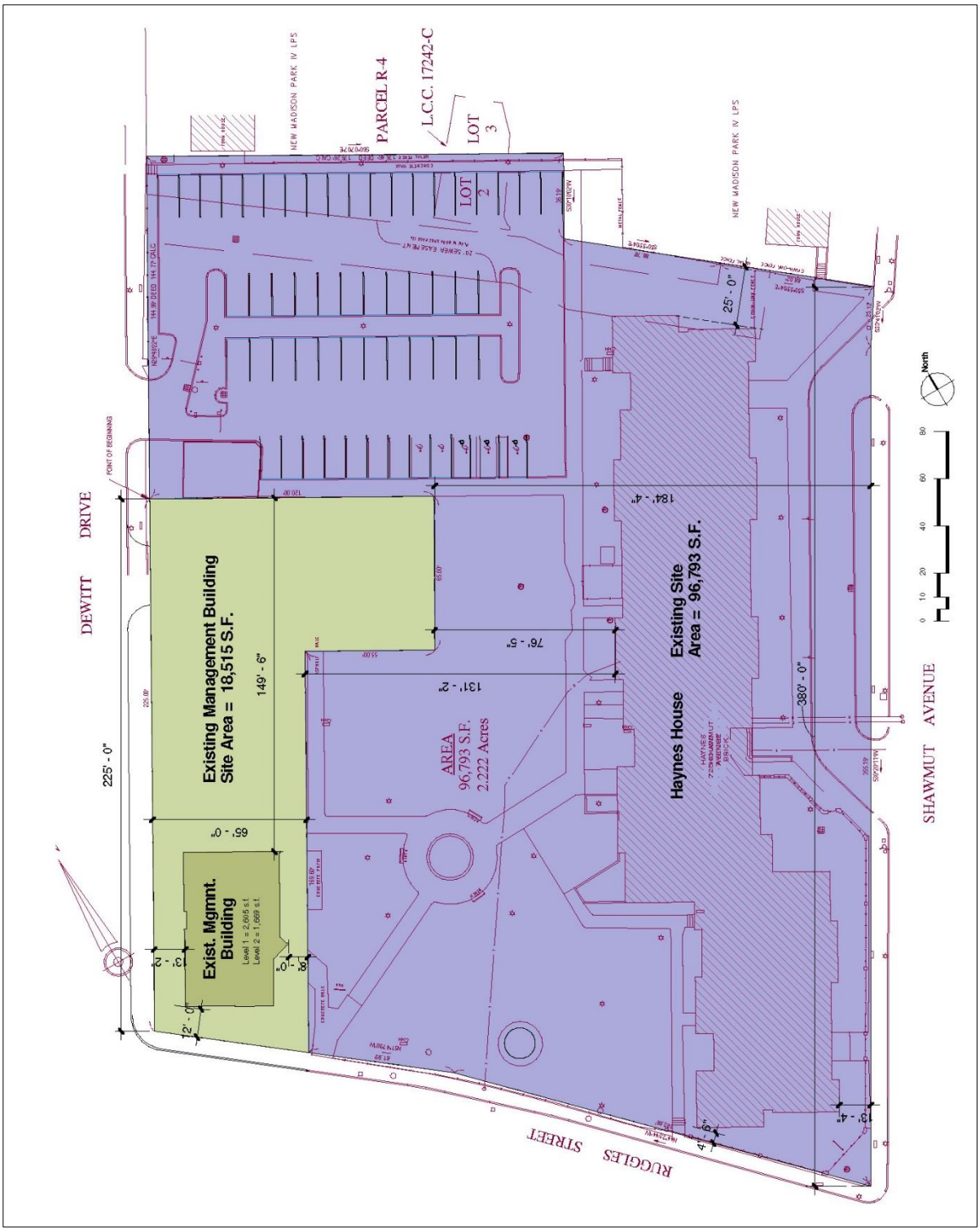


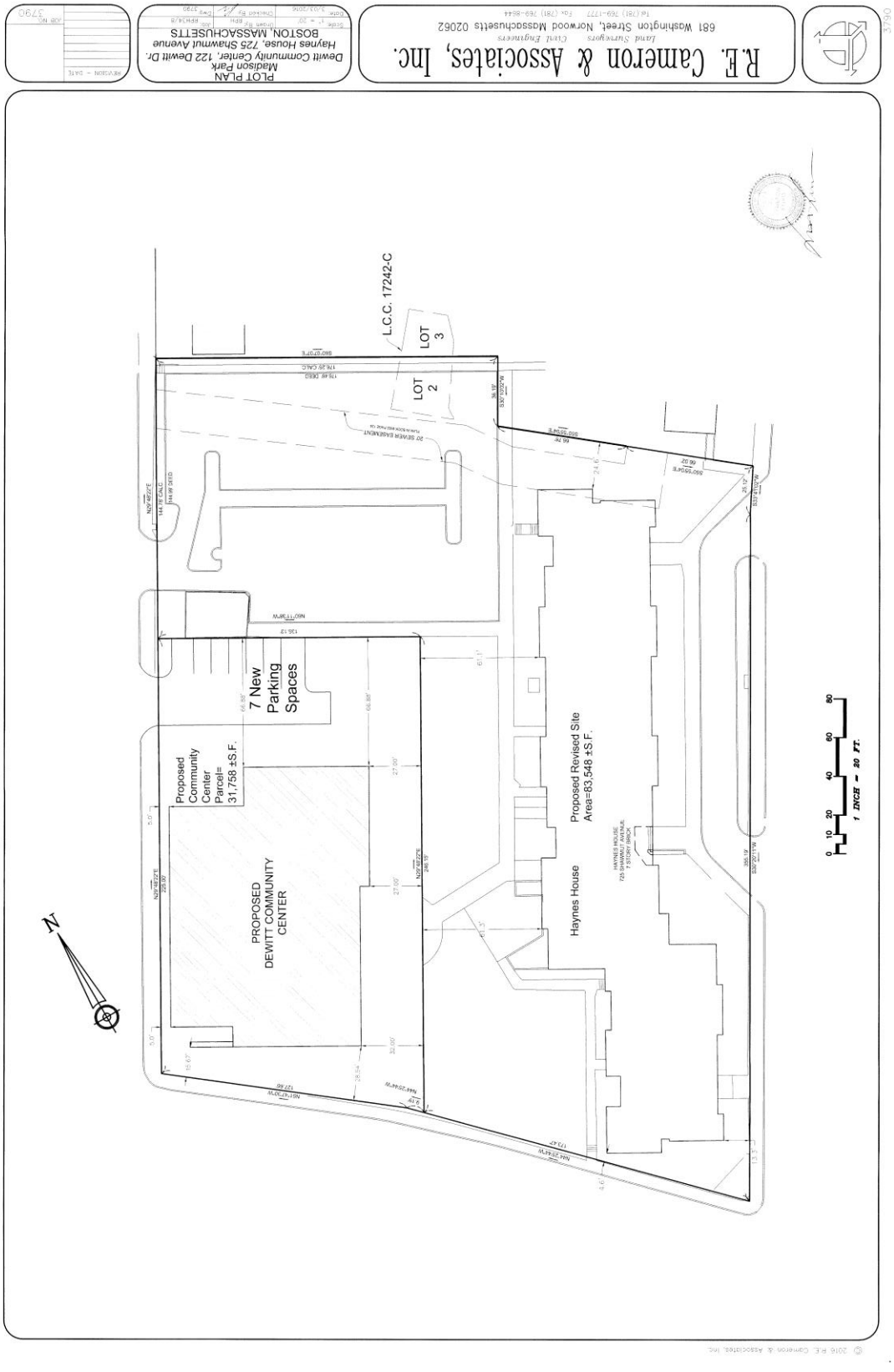
Figure 16 - Proposed Elevations

Figure 17 - Perspective View from Dewitt/Ruggles Intersection

Attachment 1: Site Survey of Existing Built Condition



Attachment 2: Certified Site Survey of Proposed Built Condition



Parking Study: 122 Dewitt Drive
Parking counts taken on Mon, Sept 28, 2015 and Tues, Sept 29, 2015

Dewitt Drive (between Ruggles Street and Kerr Place)
Street parking, restricted for residents only

	Open spaces	Filled Spaces	% occupied
7:30 AM	20	11	35%
9:30 AM	23	8	26%
2:50 PM	22	9	29%
5:45 PM	22	9	29%
7:10 PM	21	10	32%
TOTAL ~31 spaces			

Haynes House Parking Lot
Parking lot, restricted for Haynes House residents and Madison Park Village Property Management Staff

	Open spaces	Filled Spaces	% occupied
7:30 AM	20	36	64%
9:30 AM	17	39	70%
2:50 PM	23	33	59%
5:45 PM	19	37	66%
7:10 PM	15	41	73%
TOTAL 56 spaces			

Ruggles Street (between Shawmut Avenue and Dewitt Drive)
Street parking, unrestricted

	Open spaces	Filled Spaces	% occupied
7:30 AM	9	15	63%
9:30 AM	3	21	88%
2:50 PM	2	22	92%
5:45 PM	4	19	83%
7:10 PM	4	19	83%
TOTAL ~24 spaces			

Madison Park Development Corporation
Sept 2015

Attachment 4: Draft Climate Change Preparedness and Resiliency Checklist

Climate Change Preparedness and Resiliency Checklist for New Construction

In November 2013, in conformance with the Mayor's 2011 Climate Action Leadership Committee's recommendations, the Boston Redevelopment Authority adopted policy for all development projects subject to Boston Zoning Article 80 Small and Large Project Review, including all Institutional Master Plan modifications and updates, are to complete the following checklist and provide any necessary responses regarding project resiliency, preparedness, and to mitigate any identified adverse impacts that might arise under future climate conditions.

For more information about the City of Boston's climate policies and practices, and the 2011 update of the climate action plan, *A Climate of Progress*, please see the City's climate action web pages at http://www.cityofboston.gov/climate

In advance we thank you for your time and assistance in advancing best practices in Boston.

Climate Change Analysis and Information Sources:

1. Northeast Climate Impacts Assessment (www.climatechoices.org/ne/)
2. USGCRP 2009 (http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/)
3. Army Corps of Engineers guidance on sea level rise (http://planning.usace.army.mil/toolbox/library/ECs/EC11652212Nov2011.pdf)
4. Proceeding of the National Academy of Science, "Global sea level rise linked to global temperature", Vermeer and Rahmstorf, 2009 (http://www.pnas.org/content/early/2009/12/04/0907765106.full.pdf)
5. "Hotspot of accelerated sea-level rise on the Atlantic coast of North America", Asbury H. Sallenger Jr*, Kara S. Doran and Peter A. Howd, 2012 (http://www.bostonredevelopmentauthority.org/planning/Hotspot of Accelerated Sea-level Rise 2012.pdf)
6. "Building Resilience in Boston": Best Practices for Climate Change Adaptation and Resilience for Existing Buildings, Linnean Solutions, The Built Environment Coalition, The Resilient Design Institute, 2103 (http://www.greenribboncommission.org/downloads/Building_Resilience_in_Boston_SML.pdf)

Checklist

Please respond to all of the checklist questions to the fullest extent possible. For projects that respond "Yes" to any of the D.1 – Sea-Level Rise and Storms, Location Description and Classification questions, please respond to all of the remaining Section D questions.

Checklist responses are due at the time of initial project filing or Notice of Project Change and final filings just prior seeking Final BRA Approval. A PDF of your response to the Checklist should be submitted to the Boston Redevelopment Authority via your project manager.

Please Note: When initiating a new project, please visit the BRA web site for the most current Climate Change Preparedness & Resiliency Checklist.

Climate Change Resiliency and Preparedness Checklist

A.1 - Project Information

Project Name:	**Dewitt Community Center**
Project Address Primary:	**122 Dewitt Drive, Roxbury**
Project Address Additional:	
Project Contact (name / Title / Company / email / phone):	**Laura Martin, Project Manager, Madison Park Development Corp, Lmartin@madison-park.org 617-849-6222**

A.2 - Team Description

Owner / Developer:	**Madison Park Development Corporation**
Architect:	**Stull and Lee, Inc.**
Engineer (building systems):	**Wozny /Barbar & Associates, Inc.**
Sustainability / LEED:	**Stull and Lee, Inc.**
Permitting:	**Stull and Lee, Inc.**
Construction Management:	**Benchmark Structures**
Climate Change Expert:	**Stull and Lee, Inc**

A.3 - Project Permitting and Phase

At what phase is the project – most recent completed submission at the time of this response?

Small Project Review Application	Draft / Final Project Impact Report Submission	BRA Board Approved	Notice of Project Change
Planned Development Area	BRA Final Design Approved	Under Construction	Construction just completed:

A.4 - Building Classification and Description

List the principal Building Uses:	Community center, 21,374 GSF
List the First Floor Uses:	*Out of School Care, Recreation Room and IT/WiFi Area*

What is the principal Construction Type – select most appropriate type?

Wood Frame	Masonry	**Steel Frame**	Concrete

Describe the building?

Site Area:	*31,758 SF*	Building Area:	*21,374 SF*
Building Height:	*37 Ft*	Number of Stories:	*2 Flrs.*
First Floor Elevation (reference Boston City Base):	*18.5 ft Elev.*	Are there below grade spaces/levels, if yes how many:	***No /*** *Number of Levels*

A.5 - Green Building

Which LEED Rating System(s) and version has or will your project use (by area for multiple rating systems)?

Select by Primary Use:	**New Construction**	Core & Shell	Healthcare	Schools
	Retail	Homes Midrise	Homes	**Other**
Select LEED Outcome:	Certified	**Silver**	Gold	Platinum

Will the project be USGBC Registered and / or USGBC Certified?

Registered:	*Yes / **No***	Certified:	*Yes / **No***

A.6 - Building Energy

What are the base and peak operating energy loads for the building?

Electric:	***320** (kW)*	Heating:	***0.5** (MMBtu/hr)*
What is the planned building Energy Use Intensity:	***112** kWh/SF/Yr*	Cooling:	***70** (Tons/hr)*

What are the peak energy demands of your critical systems in the event of a service interruption?

Electric:	*N/A*	Heating:	***TBD** (MMBtu/hr)*
		Cooling:	***TBD** (Tons/hr)*

What is nature and source of your back-up / emergency generators?

Electrical Generation:	*None (kW)*		Fuel Source:	
System Type and Number of Units:	Combustion Engine	Gas Turbine	Combine Heat and Power	*(Units)*

B - Extreme Weather and Heat Events

Climate change will result in more extreme weather events including higher year round average temperatures, higher peak temperatures, and more periods of extended peak temperatures. The section explores how a project responds to higher temperatures and heat waves.

B.1 - Analysis

What is the full expected life of the project?

Select most appropriate:	10 Years	25 Years	**50 Years**	75 Years

What is the full expected operational life of key building systems (e.g. heating, cooling, ventilation)?

Select most appropriate:	10 Years	**25 Years**	50 Years	75 Years

What time span of future Climate Conditions was considered?

Select most appropriate:	10 Years	**25 Years**	50 Years	75 Years

Analysis Conditions - What range of temperatures will be used for project planning – Low/High?

7F/87F Deg.

What Extreme Heat Event characteristics will be used for project planning – Peak High, Duration, and Frequency?

N/A Deg.	*N/A Days*	*N/A Events / yr.*

What Drought characteristics will be used for project planning – Duration and Frequency?

N/A Days	*N/A Events / yr.*

What Extreme Rain Event characteristics will be used for project planning – Seasonal Rain Fall, Peak Rain Fall, and Frequency of Events per year?

N/A Inches / yr.	*N/A Inches*	*N/A Events / yr.*

What Extreme Wind Storm Event characteristics will be used for project planning – Peak Wind Speed, Duration of Storm Event, and Frequency of Events per year?

N/A Peak Wind	*N/A Hours*	*N/A Events / yr.*

B.2 - Mitigation Strategies

What will be the overall energy performance, based on use, of the project and how will performance be determined?

Building energy use below code:	*At least 20%*
How is performance determined:	ASHRAE Energy Modeling

What specific measures will the project employ to reduce building energy consumption?

Select all appropriate:	**High performance building envelop**	**High performance lighting & controls**	**Building day lighting**	**EnergyStar equip. / appliances**
	High performance HVAC equipment	Energy recovery ventilation	No active cooling	No active heating
Describe any added measures:				

What are the insulation (R) values for building envelop elements?

Roof:	*R = **38***	Walls / Curtain Wall Assembly:	*R = **20***
Foundation:	*R = **10***	Basement / Slab:	*R =**19***
Windows:	*R = / U =*	Doors:	*R = / U =*

What specific measures will the project employ to reduce building energy demands on the utilities and infrastructure?

On-site clean energy / CHP system(s)	Building-wide power dimming	Thermal energy storage systems	Ground source heat pump
On-site Solar PV	On-site Solar Thermal	Wind power	None
Describe any added measures:			

Will the project employ Distributed Energy / Smart Grid Infrastructure and /or Systems?

Select all appropriate:	**Connected to local distributed**	**Building will be Smart Grid ready**	Connected to distributed steam,	Distributed thermal energy

electrical		hot, chilled water	ready

Will the building remain operable without utility power for an extended period?

*Yes / **No***	If yes, for how long:	*Days*
If Yes, is building "Islandable?		
If Yes, describe strategies:		

Describe any non-mechanical strategies that will support building functionality and use during an extended interruption(s) of utility services and infrastructure:

Select all appropriate:	Solar oriented – longer south walls	Prevailing winds oriented	External shading devices	Tuned glazing,
	Building cool zones	**Operable windows**	**Natural ventilation**	**Building shading**
	Potable water for drinking / food preparation	Potable water for sinks / sanitary systems	Waste water storage capacity	High Performance Building Envelop
Describe any added measures:				

What measures will the project employ to reduce urban heat-island effect?

Select all appropriate:	High reflective paving materials	Shade trees & shrubs	High reflective roof materials	**Vegetated roofs**
Describe other strategies:				

What measures will the project employ to accommodate rain events and more rain fall?

Select all appropriate:	**On-site retention systems & ponds**	Infiltration galleries & areas	vegetated water capture systems	**Vegetated roofs**
Describe other strategies:				

What measures will the project employ to accommodate extreme storm events and high winds?

Select all appropriate:	Hardened building structure & elements	**Buried utilities & hardened infrastructure**	Hazard removal & protective landscapes	Soft & permeable surfaces (water infiltration)
Describe other strategies:				

C - Sea-Level Rise and Storms

Rising Sea-Levels and more frequent Extreme Storms increase the probability of coastal and river flooding and enlarging the extent of the 100 Year Flood Plain. This section explores if a project is or might be subject to Sea-Level Rise and Storm impacts.

C.1 - Location Description and Classification:

Do you believe the building to susceptible to flooding now or during the full expected life of the building?

*Yes / **No***

Describe site conditions?

Site Elevation – Low/High Points:	*Boston City Base*

Building Proximity to Water:	*Elev.(18.5 Ft.)* *>500 Ft.*

Is the site or building located in any of the following?

Coastal Zone:	*Yes / **No***	Velocity Zone:	*Yes / **No***
Flood Zone:	*Yes / **No***	Area Prone to Flooding:	*Yes / **No***

Will the 2013 Preliminary FEMA Flood Insurance Rate Maps or future floodplain delineation updates due to Climate Change result in a change of the classification of the site or building location?

2013 FEMA Prelim. FIRMs:	*Yes / **No***	Future floodplain delineation updates:	*Yes / **No***

What is the project or building proximity to nearest Coastal, Velocity or Flood Zone or Area Prone to Flooding?

>500 Ft.

If you answered YES to any of the above Location Description and Classification questions, please complete the following questions. ***Otherwise you have completed the questionnaire; thank you!***

C - Sea-Level Rise and Storms

This section explores how a project responds to Sea-Level Rise and / or increase in storm frequency or severity.

C.2 – Analysis

How were impacts from higher sea levels and more frequent and extreme storm events analyzed:

Sea Level Rise:	*Ft.*	Frequency of storms:	*per year*

C.3 - Building Flood Proofing

Describe any strategies to limit storm and flood damage and to maintain functionality during an extended periods of disruption.

What will be the Building Flood Proof Elevation and First Floor Elevation:

Flood Proof Elevation:	*Boston City Base Elev.(Ft.)*	First Floor Elevation:	*Boston City Base Elev. (Ft.)*

Will the project employ temporary measures to prevent building flooding (e.g. barricades, flood gates):

	Yes / No	If Yes, to what elevation	*Boston City Base Elev. (Ft.)*
If Yes, describe:			

What measures will be taken to ensure the integrity of critical building systems during a flood or severe storm event:

Systems located above 1st Floor.	Water tight utility conduits	**Waste water back flow prevention**	**Storm water back flow prevention**

Were the differing effects of fresh water and salt water flooding considered:

Yes / No

Will the project site / building(s) be accessible during periods of inundation or limited access to transportation:

	Yes / No	If yes, to what height above 100 Year Floodplain:	*Boston City Base Elev. (Ft.)*

Will the project employ hard and / or soft landscape elements as velocity barriers to reduce wind or wave impacts?

	Yes / No
If Yes, describe:	

Will the building remain occupiable without utility power during an extended period of inundation:

	Yes / No	If Yes, for how long:	*days*

Describe any additional strategies to addressing sea level rise and or sever storm impacts:

C.4 - Building Resilience and Adaptability

Describe any strategies that would support rapid recovery after a weather event and accommodate future building changes that respond to climate change:

Will the building be able to withstand severe storm impacts and endure temporary inundation?

Select appropriate:	*Yes / No*	**Hardened / Resilient Ground Floor Construction**	Temporary shutters and or barricades	Resilient site design, materials and construction

Can the site and building be reasonably modified to increase Building Flood Proof Elevation?

Select appropriate:	*Yes / **No***	Surrounding site elevation can be raised	Building ground floor can be raised	Construction been engineered
Describe additional strategies:				

Has the building been planned and designed to accommodate future resiliency enhancements?

Select appropriate:	*Yes / No*	**Solar PV**	**Solar Thermal**	Clean Energy / CHP System(s)
		Potable water storage	Wastewater storage	Back up energy systems & fuel
Describe any specific or additional strategies:				

Thank you for completing the Boston Climate Change Resilience and Preparedness Checklist!

For questions or comments about this checklist or Climate Change Resiliency and Preparedness best practices, please contact: John.Dalzell.BRA@cityofboston.gov