

BOSTON COLLEGE
2121 COMMONWEALTH
AVENUE, BRIGHTON
SMALL PROJECT REVIEW



SUBMITTED TO

Boston Redevelopment Authority
Boston, Massachusetts

SUBMITTED BY

Boston College
140 Commonwealth Avenue
Chestnut Hill, Massachusetts

June 30, 2010

TABLE OF CONTENTS

1.0	PROJECT SUMMARY	1-1
1.1	Project Identification.....	1-1
1.2	Project Description.....	1-1
1.3	Project Benefits.....	1-2
1.4	Relationship to the Institutional Master Plan.....	1-2
1.5	Consistency with Zoning Regulations	1-2
1.6	Anticipated Permits and Approvals.....	1-3
1.7	Project Team	1-4
2.0	PROJECT DESCRIPTION.....	2-1
2.1	Project Location	2-1
2.2	Existing Conditions	2-1
2.3	Development Context	2-1
2.4	Scope of Work.....	2-2
2.5	Public Benefits	2-3
2.5.1	Building Reuse/Preservation	2-3
2.5.2	Urban Design	2-3
2.5.3	Construction Employment.....	2-3
2.5.4	Economic Benefits.....	2-3
2.6	Public Review Process.....	2-3
2.7	Construction Schedule.....	2-3
3.0	ENVIRONMENTAL SUSTAINABILITY	3-1
3.1	Sustainable Design Principles.....	3-1
3.2	Building Design.....	3-1
3.3	Sustainable Practices.....	3-2
4.0	TRANSPORTATION.....	4-1
4.1	Introduction.....	4-1
4.2	Traffic	4-1
4.2.1	Vehicular Access.....	4-1
4.2.2	Traffic Generation.....	4-2
4.3	Parking.....	4-4
4.3.1	On-Campus Parking.....	4-4
4.3.2	On-Street Parking	4-5
4.4	Transit.....	4-5
4.4.1	Public Transportation.....	4-5

4.4.2	Boston College Shuttle Bus Services.....	4-6
4.5	Bicycle and Pedestrian Accommodations.....	4-6
4.5.1	Pedestrians.....	4-6
4.5.2	Bicycles.....	4-7
4.6	Transportation Demand Management.....	4-7
4.7	Loading and Service.....	4-9
5.0	ENVIRONMENTAL.....	5-1
5.1	Introduction.....	5-1
5.2	Air Quality.....	5-1
5.3	Noise.....	5-1
5.4	Water Quality.....	5-1
5.5	Solid and Hazardous Wastes.....	5-2
5.6	Renovation Impacts.....	5-2
5.7	Rodent Control.....	5-4
5.8	Wildlife Habitat.....	5-4
5.9	Flood Hazard District/Wetlands.....	5-4
5.10	Historic Resources.....	5-4
6.0	INFRASTRUCTURE.....	6-1
6.1	Introduction.....	6-1
6.2	Water Supply System.....	6-1
6.3	Sanitary Sewer System.....	6-1
6.4	Stormwater System.....	6-2
6.5	Energy and Telecommunications Services.....	6-2
APPENDIX A, DRAFT CONSTRUCTION AND TRANSPORTATION MANAGEMENT PLAN.....		I

List of Figures

Figure 1-1, Locus Map.....	1-5
Figure 1-2, Oblique View of Project Site	1-6
Figure 2-1, Context Aerial	2-4
Figure 2-2, Context Plan.....	2-5
Figure 2-3, Site Plan	2-6
Figure 2-4, Existing Conditions Photos, Exterior.....	2-7
Figure 2-5, Existing Conditions Photos, Interior	2-8
Figure 2-6, First Floor Plan.....	2-9
Figure 2-7, Second Floor Plan	2-10
Figure 2-8, Third Floor Plan	2-11
Figure 2-9, Roof Plan.....	2-12
Figure 2-10, Basement Level Plan.....	2-13
Figure 2-11, Section.....	2-14
Figure 2-12, Elevation	2-15
Figure 2-13, Rendering of Exterior.....	2-16
Figure 2-14, Rendering of Atrium	2-17
Figure 3-1, LEED Checklist	3-3
Figure 4-1, Brighton Campus Transportation Access and Parking	4-10
Figure 5-1, Listed and Inventoried Properties On and Near the Brighton Campus.....	5-7
Figure 6-1, Existing Water System.....	6-3
Figure 6-2, Existing Sanitary Sewer System	6-4
Figure 6-3, Existing Stormwater System.....	6-5

1.0 PROJECT SUMMARY

1.1 Project Identification

Project Name:	Boston College 2121 Commonwealth Avenue
Address/Location:	2121 Commonwealth Avenue, Brighton, Massachusetts
	Assessors Parcel # 2205268040

1.2 Project Description

Boston College (the “University”) is proposing to renovate 2121 Commonwealth Avenue, formerly known as the Chancery, for use as administrative office space (the “Project”). 2121 Commonwealth Avenue is part of the Boston College Brighton Campus, purchased from the Archdiocese of Boston in 2007. The Brighton Campus is adjacent to several residential neighborhoods, including the Lake Street, Greycliff Road and Glenmont Road areas. The building, which is currently vacant, was the site of administrative offices for the Archdiocese of Boston. (See Figure I-1, Locus Plan.) Upon completion of the Project, the University will relocate administrative staff from the University’s Advancement Division to 2121 Commonwealth Avenue, primarily employees currently located at St. Thomas More Hall, Alumni House (885 Centre Street, Newton) and 1280 Boylston Street. This building project is a separate, stand-alone project, although it is a component of other building renovations on the Brighton Campus as part of the approved Institutional Master Plan. The renovations, in concert with the remodeling of 129 Lake Street, will allow for the razing of More Hall and the construction of a new undergraduate student residence hall.

The building was constructed in 1960 and a third story was added to the East Wing in 2001. The building consists of three above-ground floors and a basement level. It is also attached by a connecting wing to the two story convent building, which will be removed as part of the project. The building height is approximately 35 feet, plus rooftop mechanical equipment. The proposed renovation will include a total of 66,000 sf. as defined in the City of Boston Zoning Code. (See Figure I-2, Oblique View of Project Site). The building mechanical, electrical, plumbing, life safety and HVAC systems are not up to current standards and the existing building does not fully meet existing accessibility code.

When completed, this project will provide offices and conference rooms for approximately 185 administrative staff. Transportation access for building visitors and staff will be managed in accordance with the University’s overall parking and transportation plan, which includes a campus shuttle serving the Brighton Campus with a stop at the Library lot area near 2121 Commonwealth Avenue. It also promotes the use of public transportation and managed parking to reduce parking demand and the number of spaces needed. No increase in parking capacity is proposed as part of this project.

1.3 Project Benefits

- Relocates University Advancement personnel from St. Thomas More Hall to allow for the future construction of a student residence hall on that site, the first major new construction project of the approved Institutional Master Plan.
- Develops an aging vacant building into a high-quality, energy efficient administrative office.
- Preserves the exterior appearance of the 2121 Commonwealth Avenue building from Commonwealth Avenue.
- Creates a more energy efficient and environmentally friendly building.
- Creates approximately 140 construction jobs.

1.4 Relationship to the Institutional Master Plan

In the spring of 2003, Boston College embarked on a comprehensive strategic planning initiative to define the University's needs and establish institutional goals for the coming decade and beyond. After several years of planning, a Strategic Plan was adopted by the Board of Trustees in February, 2006. Then, in December of 2007, after two years of working with the Boston College Allston-Brighton Community Task Force and the surrounding neighborhood, Boston College submitted an Institutional Master Plan Notification Form (IMP/NF) outlining the institutional needs of the University, including the use of the recently acquired Brighton Campus. Based on the Scoping Determination on the IMP/NF issued by the Boston Redevelopment Authority (BRA), Boston College submitted an Institutional Master Plan (IMP) in June 2008. In subsequent IMP filings with the BRA and the Zoning Commission in January and March of 2009 respectively, Boston College made changes to the IMP in response to community concerns. The proposed project at 2121 Commonwealth Avenue is described as a "Proposed Institutional Project" in the approved Boston College Institutional Master Plan. This Small Project Review filing is consistent with the Institutional Master Plan as approved by the BRA and Zoning Commission.

The Boston College IMP proposes the renovation of 2121 Commonwealth Avenue for "administrative offices." The Proposed Project as defined in this document is consistent with the Boston College IMP as adopted by the Boston Zoning Commission on June 10, 2009.

Beyond the proposed use of the building, the IMP includes a number of larger planning elements with which the Proposed Project is also consistent. The consistency of this project with other elements of the IMP is described in various sections of this document addressing infrastructure, environmental issues, transportation, parking, environmental sustainability, and historic resources.

1.5 Consistency with Zoning Regulations

According to the Boston Zoning Code, the underlying zoning of the Brighton Campus property is Conservation Protection Subdistrict (CPS), one of 11 such subdistricts in Allston-Brighton. The Brighton Campus is situated within the St. John's Seminary CPS. As stated in the Zoning Code, the CPS districts are established to promote the most desirable use of land and siting of

development in areas with special natural or scenic features in accordance with a well considered plan, and to protect and enhance the natural and scenic resources of Allston-Brighton. The CPS zoning designation is not meant to be a conservation restriction tool, nor does the CPS zoning require the permanent preservation of land. The CPS does encourage the drafting of a plan for land that is reviewed by the BRA that accounts for the natural and scenic features. The CPS zoning also provides an extensive list of allowed, conditional and forbidden land uses.

Since the establishment of the underlying zoning, the Boston Zoning Commission has rezoned on an overlay basis the Brighton Campus as Boston College Institutional Master Plan zoning, and therefore the use and dimensional regulations of the CPS will not apply to Proposed Institutional Projects consistent with the IMP (See Section 1.4 above).

While the CPS zoning no longer applies, the University acknowledges that the Brighton Campus has unique natural features. Development proposed at the Brighton Campus will respect the scenic beauty of the land to the extent feasible. This proposed institutional project advances this objective by reusing the existing 2121 Commonwealth Avenue building.

1.6 Anticipated Permits and Approvals

While Project design has not advanced sufficiently to identify all required Project approvals, the following public approvals may be required:

AGENCY	APPROVAL
City of Boston:	
Boston Redevelopment Authority	Article 80 Small Project Review Certificate of Consistency with IMP
Boston Landmarks Commission	Article 85 Demolition Delay approval
Boston Water and Sewer Commission	Water and Sewer Connection Permits
Fire Department	Flammable Storage Permit/License
Inspectional Services Department	Building Permit

1.7 Project Team

PROPONENT

Trustees of Boston College
140 Commonwealth Avenue
Chestnut Hill, MA 02467

Contact: **Thomas J. Keady, Jr.**
Vice-President for Governmental &
Community Affairs
617-552-4787
thomas.keady@bc.edu

ARCHITECT

ARC/Architectural Resources Cambridge
Five Cambridge Center
Cambridge, MA 02142

Contact: **Phil Laird, AIA,**
Principal
617-547-2200
plaird@arcusa.com

TRANSPORTATION CONSULTANT

VHB
101 Walnut Street
PO Box 9151
Watertown, MA 02471

Contact: **Howard W. Muise**
Senior Project Manager
(617) 924-1770
hmuise@vhb.com

**PLANNING/ ENVIRONMENTAL
CONSULTANT**

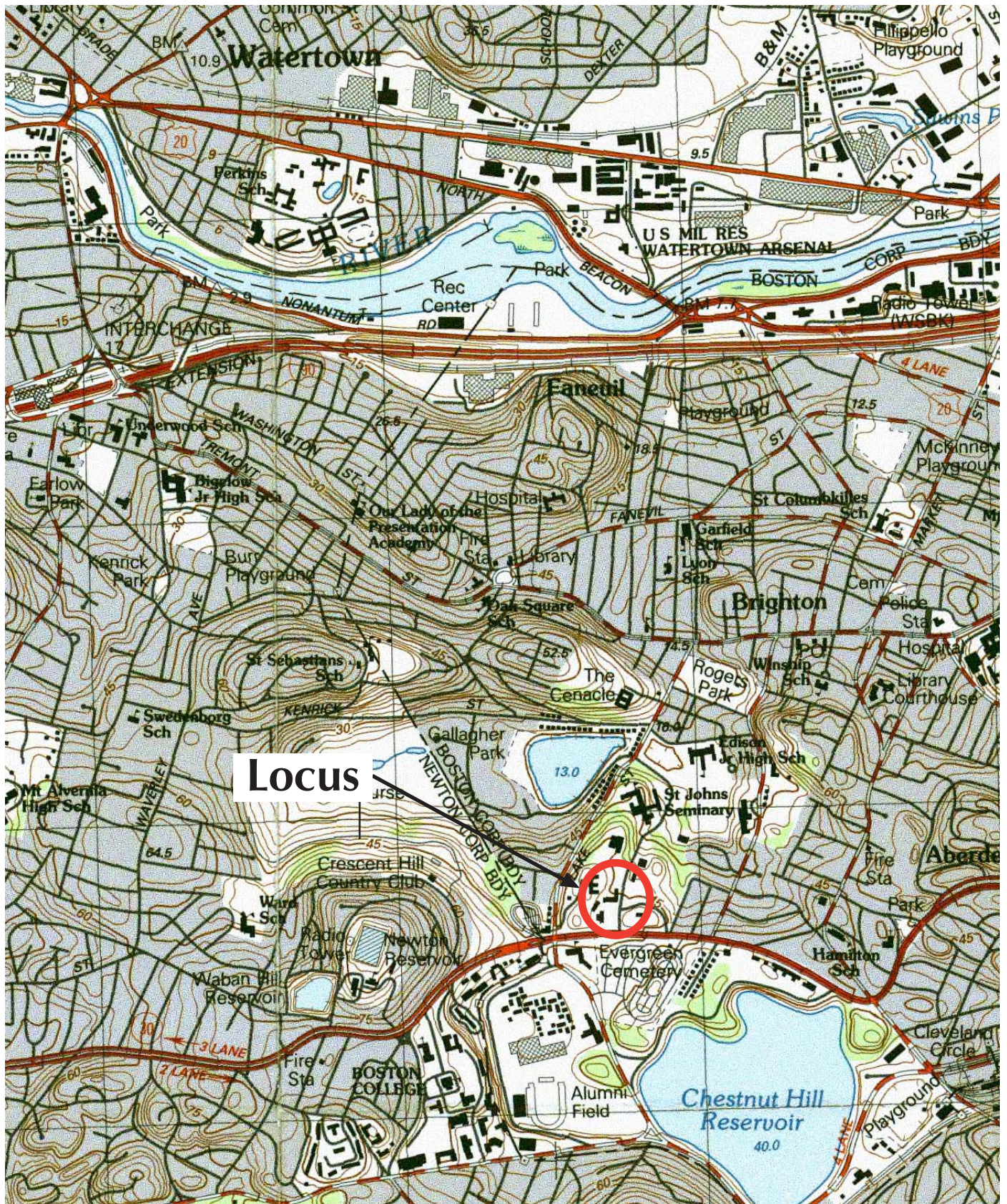
Fort Point Associates, Inc.
33 Union Street, 3rd Floor
Boston, MA 02108

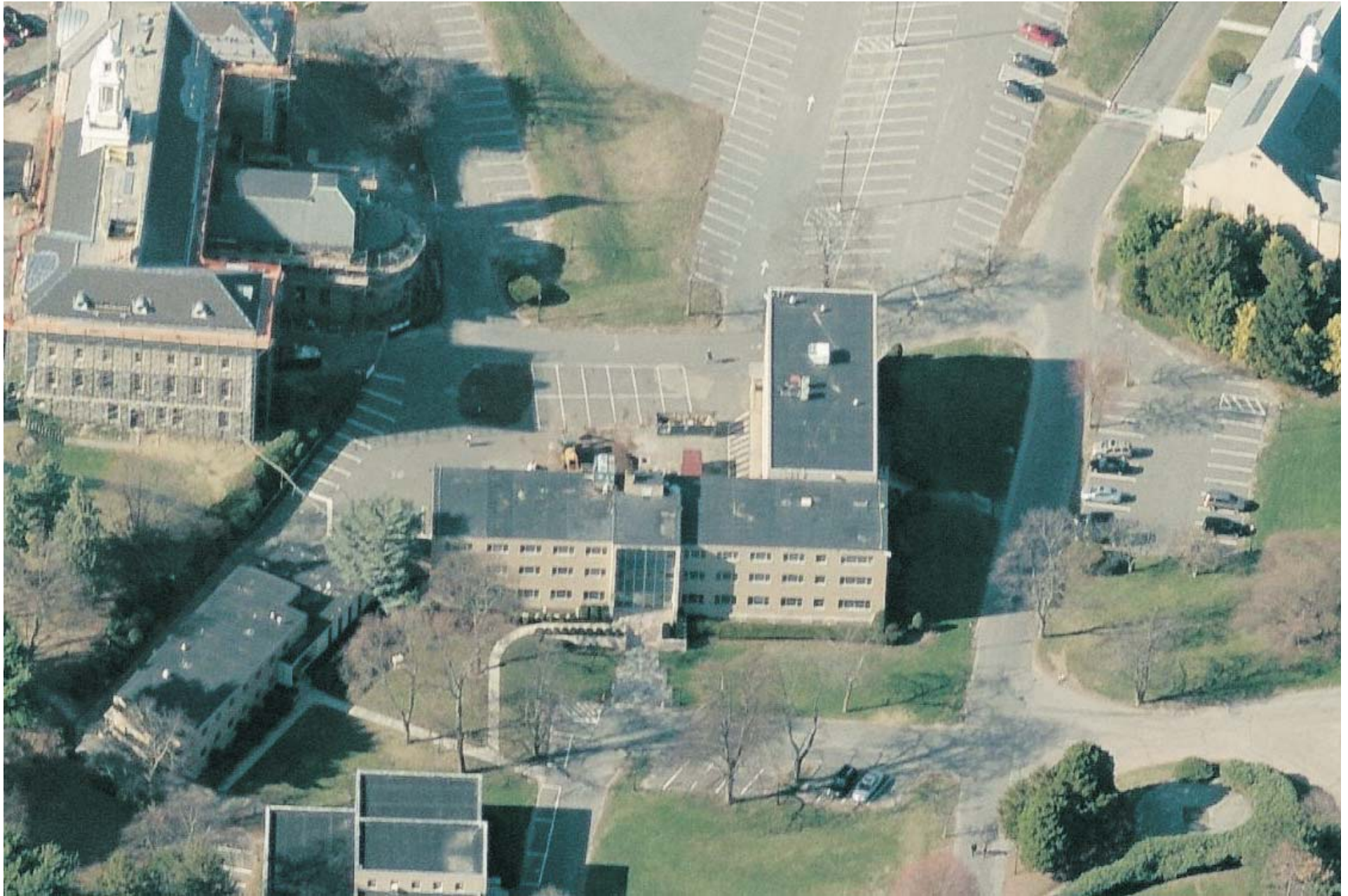
Contact: **Jamie M. Fay, AICP**
President
(617) 357-7044 x204
jfay@fpa-inc.com

LEGAL COUNSEL

Office of General Counsel
Boston College
140 Commonwealth Avenue
Chestnut Hill, MA 02467

Contact: **Joseph M. Herlihy**
General Counsel
617-552-2855
joseph.herlihy@bc.edu





2.0 PROJECT DESCRIPTION

2.1 Project Location

The 2121 Commonwealth Avenue building is located in the southern portion of the University's 65 acre Brighton Campus and the project site is buffered from the residential neighborhood along Lake Street by intervening topography and buildings. Access to the project site is from Commonwealth Avenue, a major arterial roadway. The Massachusetts Bay Transit Authority's (MBTA) Green Line runs along Commonwealth Avenue. (See Figure 2-1, Context Aerial; Figure 2-2, Context Plan; and Figure 2-3, Site Plan.)

2.2 Existing Conditions

Boston College's Brighton Campus sits north of Commonwealth Avenue and currently consists of thirteen buildings. The primary site entrance is on Commonwealth Avenue. Secondary access exists on Foster Street and on Lake Street near Commonwealth Avenue. For special events, egress is provided to Lake Street near Glenmont Road. Originally part of the Archdiocese of Boston campus, the 2121 Commonwealth Avenue building was constructed in 1960 to serve as administrative offices and residential quarters for the Archdiocese. A third story was added on the east wing of the building in 2001. Today, the building is vacant and is structurally sound.

The 2121 Commonwealth Avenue building consists of three above-ground floors and a basement level. The building height is approximately 35 feet, plus rooftop mechanical equipment. The total size of the building is approximately 52,000 gross square feet as defined in the City of Boston Zoning Code. The building is separate from, but is connected to, the convent wing. (See Figure 2-4, Existing Conditions Photos, Exterior, and Figure 2-5, Existing Conditions Photos, Interior.)

The building mechanical, electrical, plumbing, life safety, energy efficiency and HVAC systems are not up to current standards and the building does not fully meet existing accessibility code.

2.3 Development Context

The 2121 Commonwealth Avenue project is a Proposed Institutional Project as described in the Institutional Master Plan. The renovation and reuse of the building is a core component of the implementation of the Master Plan. 2121 Commonwealth Avenue will be renovated for use as administrative offices. Boston College intends to relocate administrative staff in St. Thomas More Hall to 2121 Commonwealth Avenue which, in concert with other building projects and relocations, will allow St. Thomas More Hall to be demolished. The St. Thomas More Hall site is programmed to be the location of a new undergraduate residence hall housing approximately 470 students, the first new construction of the approved Institutional Master Plan. Thus, the 2121 Commonwealth Avenue project is a critical precursor to the construction of the new residence hall. Additional employees will be relocated from 1280 Boylston Street and other campus facilities.

2.4 Scope of Work

The 2121 Commonwealth Avenue project is a renovation project with an estimated construction cost of \$18 million. The scope of work to be undertaken includes all of the items listed below. (See Figures 2-6, First Floor Plan, through 2-10, Basement Level Plan.)

The scope of renovations will include:

- removal of existing asbestos-containing materials by a licensed abatement contractor,
- complete renovation of building infrastructure systems, including mechanical, electrical, plumbing and heating and cooling,
- construction of a 23,000 s.f. addition to the rear of the building creating an atrium space,
- removal of the existing convent wing,
- replacement of windows with more energy-efficient designs,
- partial replacement of roofing and re-pointing exterior masonry façade as required,
- refurbishment of the existing elevator car and equipment,
- universal accessibility improvements throughout the building,
- replace existing emergency generator,
- installation of new water-conserving plumbing fixtures,
- installation of sprinklers and standpipes in stairwells to provide fire protection for the building,
- new air handling and energy recovery systems to provide improved indoor air quality and energy efficiency,
- seismic performance improvements and upgrades, and
- exterior site improvements, including walkways, parking areas, lighting and new underground utility connections.

2.5 Public Benefits

2.5.1 BUILDING REUSE/PRESERVATION

The 2121 Commonwealth Avenue Building Project will remodel a vacant building and add a new architecturally compatible wing to meet the University's administrative needs.

2.5.2 URBAN DESIGN

The renovation of 2121 Commonwealth Avenue will help to preserve the academic campus setting of the Boston College Brighton Campus. The building's exterior façade, including the main entryway, will be preserved. The ongoing use of this building fits into the larger plan for the Brighton Campus as approved in the Institutional Master Plan. The removal of the convent wing will create a more open approach to the building.

2.5.3 CONSTRUCTION EMPLOYMENT

The 2121 Commonwealth Avenue building will provide a valuable source of employment for 140 construction workers from a wide array of trades, during the approximately 15 months of the project.

In addition, Boston College is committed to implementing the Boston Residents Job Policy and will establish employment goals consistent with that program. Under that policy, a goal of 50% of the construction jobs will be intended for Boston residents, 25% for minorities and 10% for women.

2.5.4 ECONOMIC BENEFITS

Boston College is a major employer in the City of Boston and has an estimated economic impact on the City of \$1.6 billion annually. This project will help to maintain the University's strong contribution to the growth of the local and regional economies.

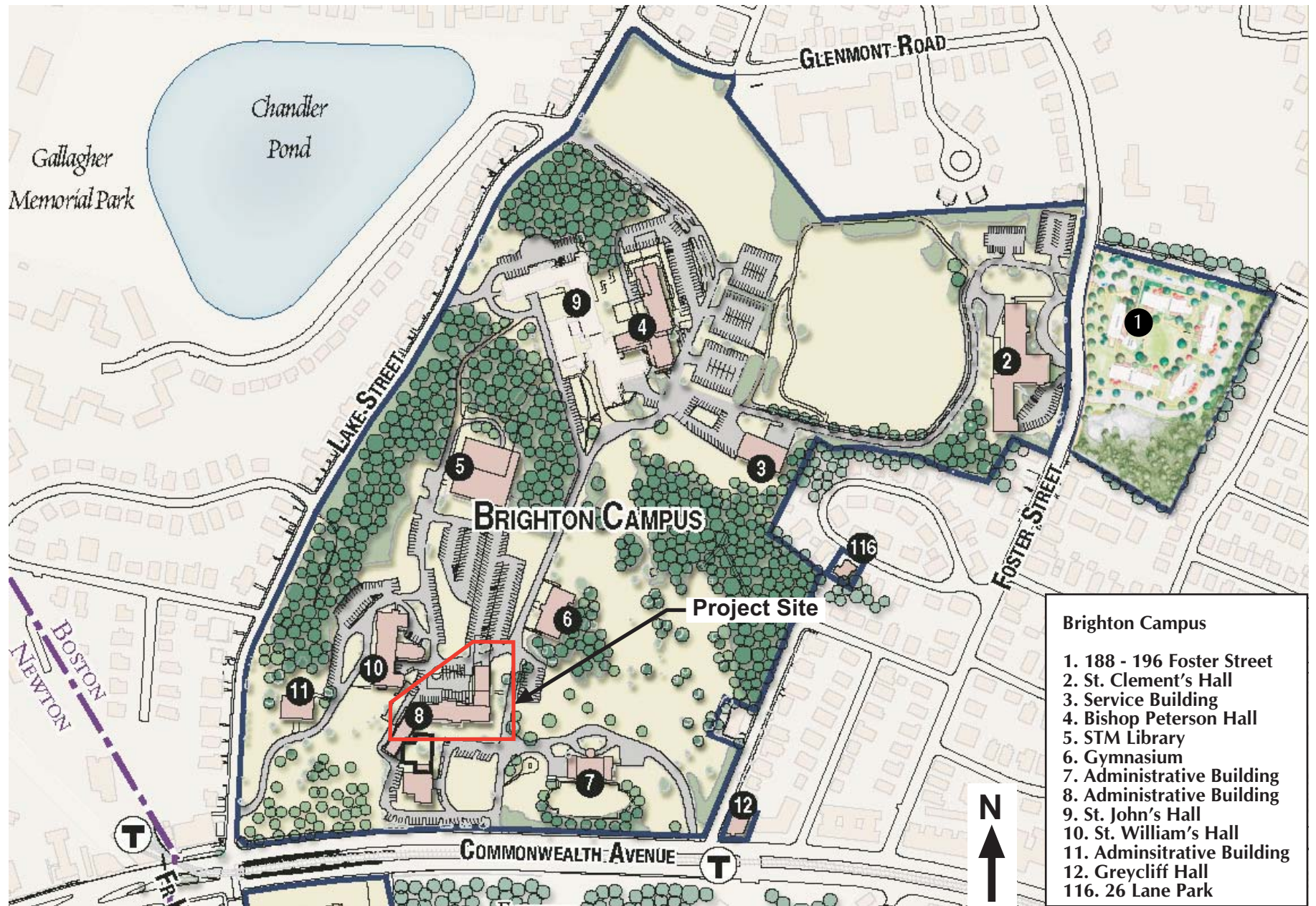
2.6 Public Review Process

The University is committed to continuing its public outreach with the Boston College Allston-Brighton Master Plan Task Force. The Task Force is composed of community representatives from various community and civic organizations in Allston and Brighton. In addition to the neighborhood input provided by the Task Force, the Boston Redevelopment Authority's Article 80 Small Project Review process offers an opportunity for public review and comment.

2.7 Construction Schedule

The current schedule calls for the Project to be competitively bid in fall 2010, and for Project construction to commence in December 2010 and continue until completion in March 2012. All work will be carried out in conformance with a Construction and Transportation Management Plan addressing site access, worker parking, truck routes, hours of operation, rodent control, etc. (See also Section 5.6, Renovation Impacts and Appendix A, Draft Construction and Transportation Management Plan.)

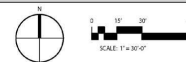






ARC Architectural Resources
Cambridge

BOSTON COLLEGE
2121 COMMONWEALTH AVENUE





View along the Front (south) Side



View looking Southwest of the North Wing



View looking East of the North Wing



View looking West of the Building to be Demolished



Interior View



Interior View

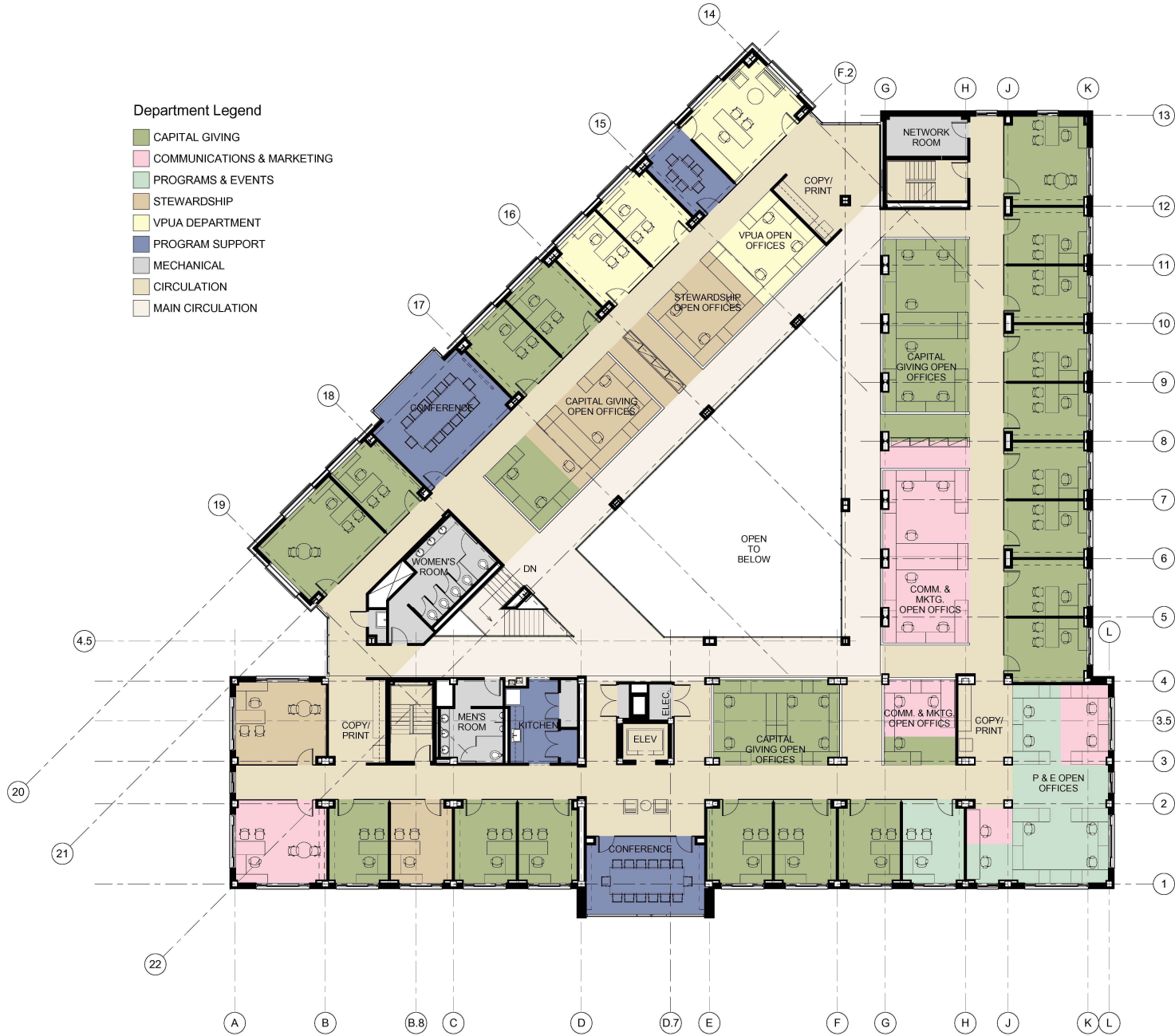


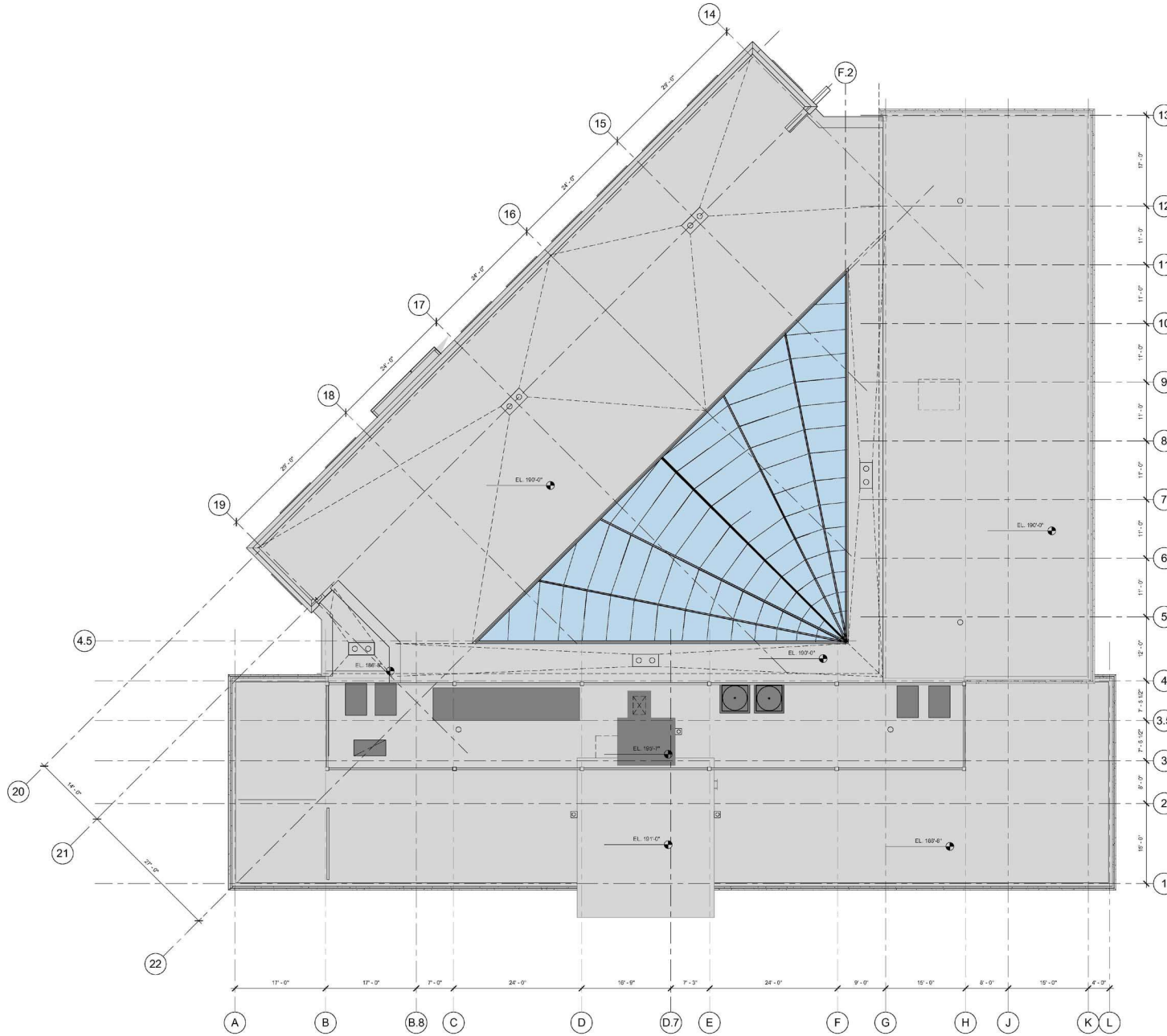
Hallway

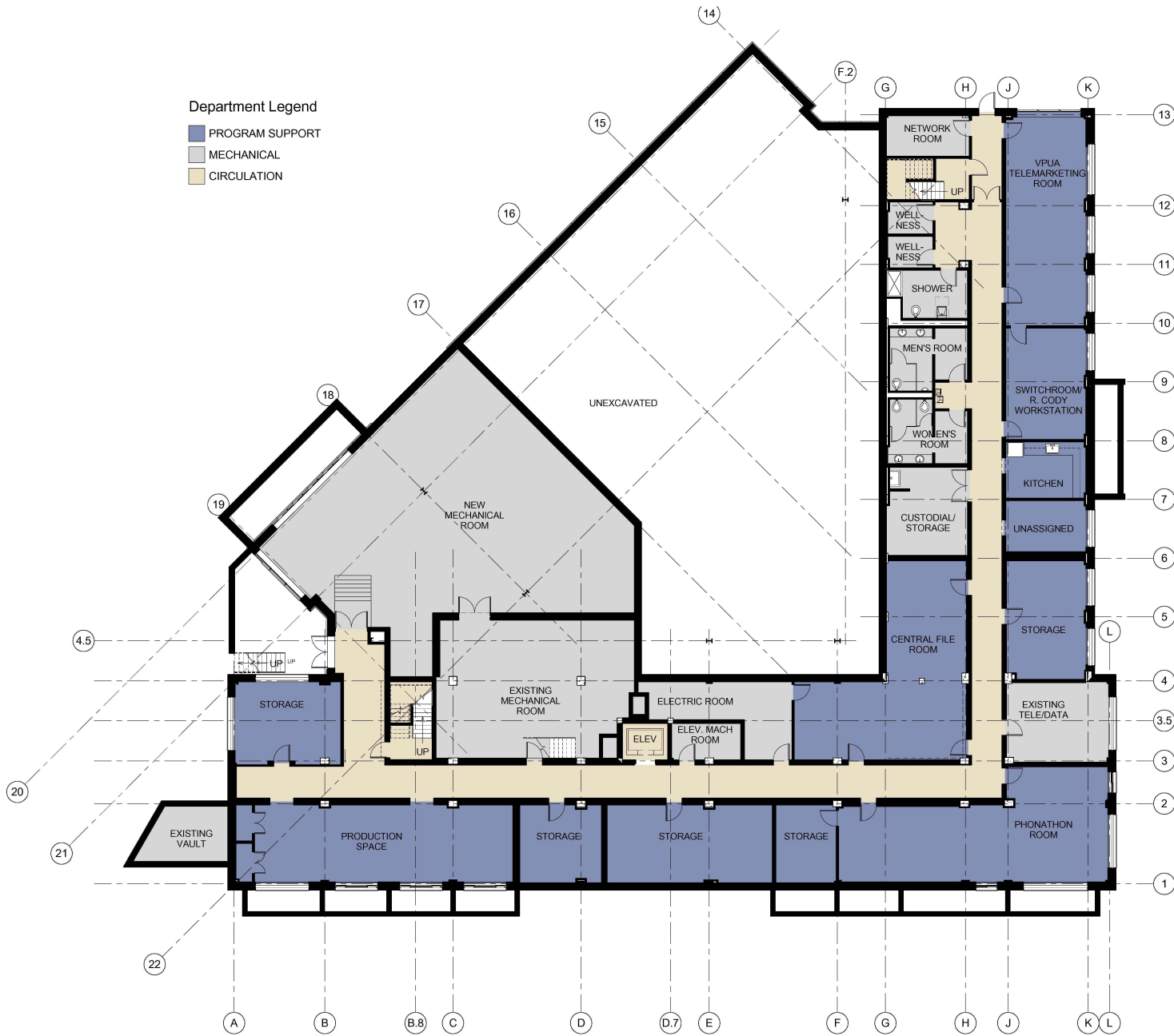


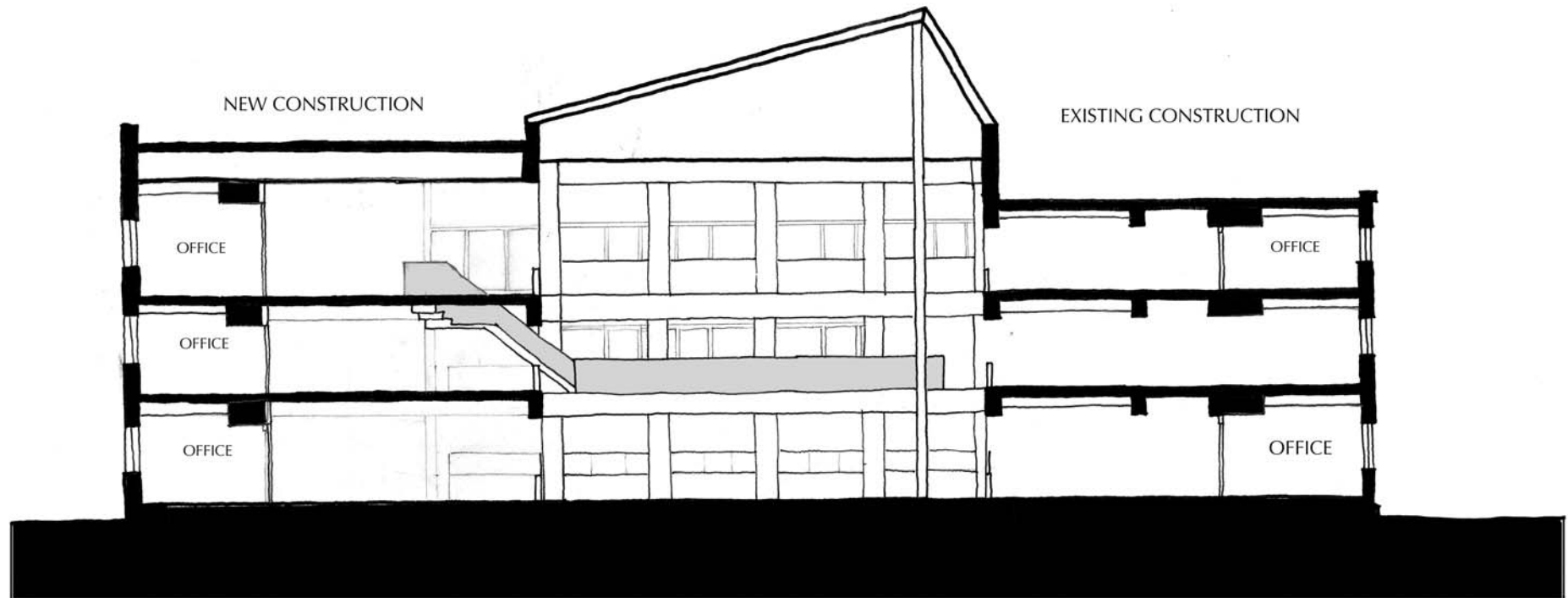
Basement

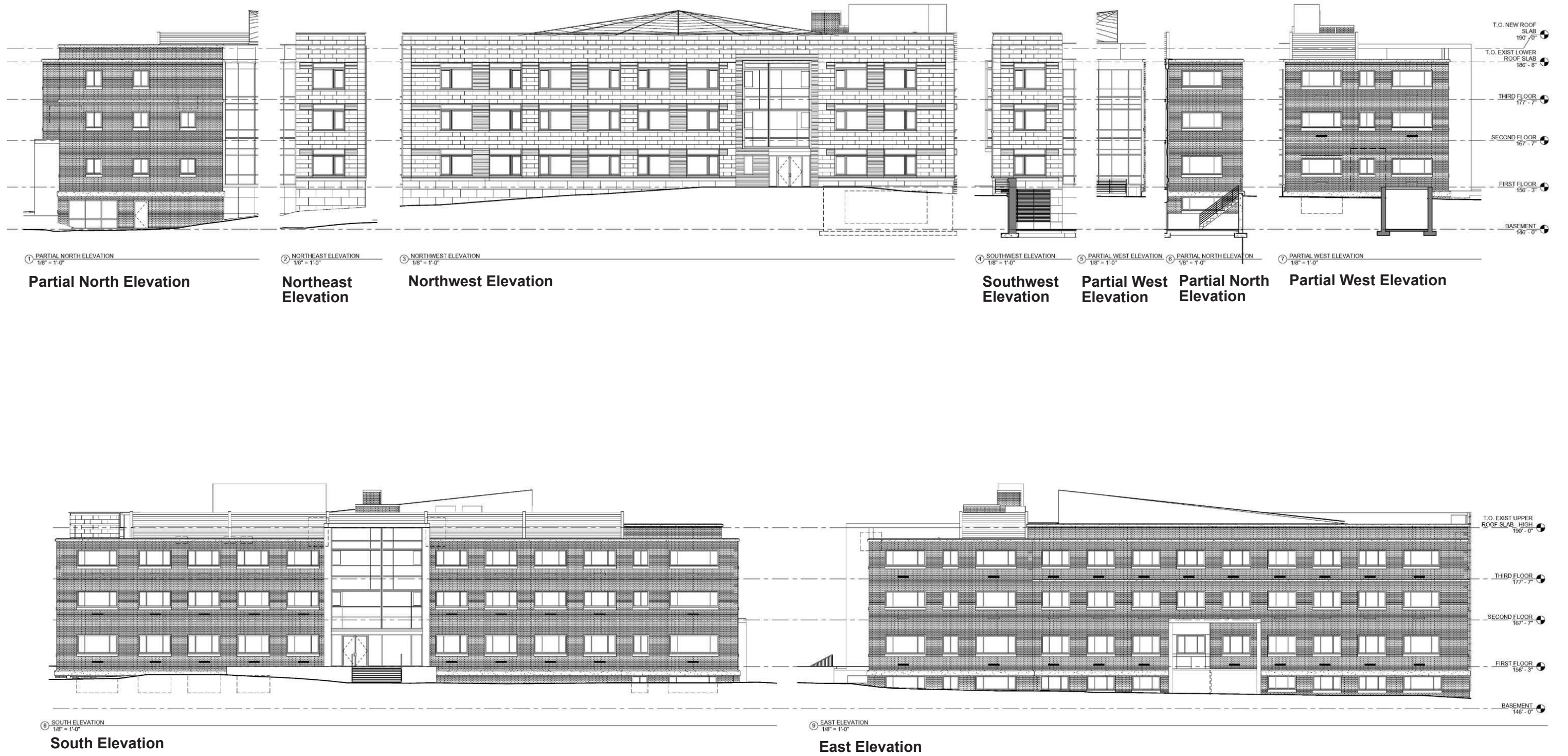
















3.0 ENVIRONMENTAL SUSTAINABILITY

3.1 Sustainable Design Principles

The 2121 Commonwealth Avenue project will incorporate sustainable design features, including the use of a sustainable site, increased water and energy efficiency, use of renewable and recycled materials, and improved indoor air quality.

Consistent with the Environmental Sustainability goals and practices described in the Institutional Master Plan, the project will be Leadership in Energy and Environmental Design (LEED) certifiable and will incorporate a number of sustainable measures and practices. As part of the specifications for the project, use of rapidly renewable and recycled materials will be encouraged, construction and demolition debris will be recycled or reused, and provisions will be made for the storage and recycling of waste materials.

3.2 Building Design

The University is committed to achieving a Project design certifiable under the Leadership in Energy and Environmental Design (LEED) program. Because the Project is still at a schematic design level, final decisions about which LEED credits to pursue have not yet been made. However, the University has identified a number of credits which are potentially available for the Project. (See Figure 3-1, LEED Checklist.) As the design progresses, the University will select the final design elements to achieve LEED certifiable status.

Highlights of the sustainability measures being considered include the following:


- **Sustainable Site** – The University has chosen to develop a sustainable site well-served by public transportation and other alternatives to single occupancy vehicle commuting. No increase in parking capacity is being provided. The University also plans to take steps to reduce light pollution from inside the building.
- **Water Efficiency** – The University plans to reduce water consumption through water-conserving fixtures and water efficient landscaping.
- **Energy and Atmosphere** – The University will optimize the energy performance of the Project and will utilize an enhanced commissioning process.
- **Materials and Resources** – The University will minimize its consumption of new materials and resources by reusing much of the existing building, and retaining the great majority of the interior and exterior building structure. At least 50% of construction wastes will be segregated and recycled or reused. In the selection of building materials, consideration will be given to the use of recycled content, regional materials and rapidly renewable materials. The University has a well-established recycling program that will be put in place in this Project.

- **Indoor Environmental Quality** – The University will improve indoor air quality with the installation of a new exhaust ventilation system for all bathrooms and a new mechanical ventilation system that will provide fresh air to all the occupied spaces. The University will utilize low emitting materials in the construction of the building. Daylighting of the interior building space will be achieved through the installation of a skylight, which will allow sunlight to reach the central corridor]of the building.
- **Innovation and Design Process and Regional Priority Credits** –The University’s Project team will include at least one LEED accredited professional. The Project will seek to achieve several regional priority credits.

3.3 Sustainable Practices

The University has designed the project to be consistent with the sustainable principles outlined in the IMP. As it relates to the project, the University will commit to the following practices:

- **Transportation** – The University will continue its campus-wide Transportation Demand Management program (see Section 4.6, Transportation Demand Management, for more details). The University currently provides a Brighton Campus Shuttle bus with frequent service intervals, which stops on the campus side of Lake Street.
- **Waste Reduction and Recycling** – At least 50% of non-construction and demolition waste will be recycled and the University will implement a permanent recycling plan appropriate to the needs of the facility.
- **Procurement** – The University intends to purchase environmentally-preferable products and services as part of a campus-wide sustainable purchasing effort.
- **Education and Outreach** – The University will provide education and outreach to its employees regarding sustainability issues and measures to improve sustainable practices.

 LEED 2009 for New Construction and Major Renovation Project Checklist		BOSTON COLLEGE - 2121 Comm. Ave Renovations	
11 15 Sustainable Sites		Possible Points: 26	
Y	N ?		
Y		Prereq 1	Construction Activity Pollution Prevention
1		Credit 1	Site Selection 1
	5	Credit 2	Development Density and Community Connectivity 5
	1	Credit 3	Brownfield Redevelopment 1
6		Credit 4.1	Alternative Transportation—Public Transportation Access 6
1		Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms 1
	3	Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles 3
2		Credit 4.4	Alternative Transportation—Parking Capacity 2
	1	Credit 5.1	Site Development—Protect or Restore Habitat 1
	1	Credit 5.2	Site Development—Maximize Open Space 1
	1	Credit 6.1	Stormwater Design—Quantity Control 1
	1	Credit 6.2	Stormwater Design—Quality Control 1
	1	Credit 7.1	Heat Island Effect—Non-roof 1
	1	Credit 7.2	Heat Island Effect—Roof 1
1		Credit 8	Light Pollution Reduction 1
6 4 Water Efficiency		Possible Points: 10	
Y		Prereq 1	Water Use Reduction—20% Reduction
	4	Credit 1	Water Efficient Landscaping 2 to 4
	2	Credit 2	Innovative Wastewater Technologies 2
	4	Credit 3	Water Use Reduction 2 to 4
3 27 5 Energy and Atmosphere		Possible Points: 35	
Y		Prereq 1	Fundamental Commissioning of Building Energy Systems
Y		Prereq 2	Minimum Energy Performance
Y		Prereq 3	Fundamental Refrigerant Management
1	17	Credit 1	Optimize Energy Performance 1 to 19
	7	Credit 2	On-Site Renewable Energy 1 to 7
2		Credit 3	Enhanced Commissioning 2
	2	Credit 4	Enhanced Refrigerant Management 2
	3	Credit 5	Measurement and Verification 3
	2	Credit 6	Green Power 2
5 7 2 Materials and Resources		Possible Points: 14	
Y		Prereq 1	Storage and Collection of Recyclables
1	2	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof 1 to 3
	1	Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements 1
2		Credit 2	Construction Waste Management 1 to 2
	2	Credit 3	Materials Reuse 1 to 2
8 2 5 Indoor Environmental Quality		Possible Points: 15	
Y		Prereq 1	Minimum Indoor Air Quality Performance
Y		Prereq 2	Environmental Tobacco Smoke (ETS) Control
	1	Credit 1	Outdoor Air Delivery Monitoring 1
	1	Credit 2	Increased Ventilation 1
	1	Credit 3.1	Construction IAQ Management Plan—During Construction 1
	1	Credit 3.2	Construction IAQ Management Plan—Before Occupancy 1
	1	Credit 4.1	Low-Emitting Materials—Adhesives and Sealants 1
	1	Credit 4.2	Low-Emitting Materials—Paints and Coatings 1
	1	Credit 4.3	Low-Emitting Materials—Flooring Systems 1
	1	Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products 1
	1	Credit 5	Indoor Chemical and Pollutant Source Control 1
	1	Credit 6.1	Controllability of Systems—Lighting 1
	1	Credit 6.2	Controllability of Systems—Thermal Comfort 1
	1	Credit 7.1	Thermal Comfort—Design 1
	1	Credit 7.2	Thermal Comfort—Verification 1
	1	Credit 8.1	Daylight and Views—Daylight 1
	1	Credit 8.2	Daylight and Views—Views 1
4 2 Innovation and Design Process		Possible Points: 6	
1		Credit 1.1	Innovation in Design: Specific Title 1
1		Credit 1.2	Innovation in Design: Specific Title 1
1		Credit 1.3	Innovation in Design: Specific Title 1
	1	Credit 1.4	Innovation in Design: Specific Title 1
	1	Credit 1.5	Innovation in Design: Specific Title 1
1		Credit 2	LEED Accredited Professional 1
4 Regional Priority Credits		Possible Points: 4	
	1	Credit 1.1	Regional Priority: SSc 3 1
	1	Credit 1.2	Regional Priority: SSc 6.1 1
	1	Credit 1.3	Regional Priority: SSc 7.1 1
	1	Credit 1.4	Regional Priority: SSc 7.2 1
31 42 37 Total		Possible Points: 110	
Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110			

4.0 TRANSPORTATION

4.1 Introduction

This transportation analysis reviews the impact of the renovation and expansion of 2121 Commonwealth Avenue on various transportation modes serving Boston College's Brighton Campus. The analysis is based on the planned relocation of approximately 185 University Advancement (Development Office) and Alumni Relations staff to 2121 Commonwealth Avenue from their current locations at More Hall, Alumni House (885 Centre Street, Newton) and 1280 Boylston Street. The following sections describe existing conditions and expected project impacts on the following:

- Traffic
- Parking
- Transit
- Bicycle and Pedestrian Accommodations
- Transportation Demand Management
- Loading and Service

4.2 Traffic

4.2.1 VEHICULAR ACCESS

Vehicular access to the Brighton Campus for Boston College is provided by four active driveways: one on Foster Street, one on Commonwealth Avenue and two on Lake Street, as shown in Figure 4-1, Brighton Campus Transportation Access and Parking. The entrance at 127 Lake Street serves primarily St. John's Seminary. Two additional Brighton Campus driveways on Lake Street near Glenmont Road and on Commonwealth Avenue at Greycliff Road are closed. The Lake Street driveway near Glenmont Road is only used during BC football games as an exit for vehicles parked on the Brighton Campus. The following describe the roadways serving the Brighton Campus.

Commonwealth Avenue is the south boundary of the Brighton Campus. It is a divided, east/west roadway providing two travel lanes in each direction. The MBTA Green Line B Branch is located in the median. Parking is provided along both sides of the street adjacent to the Brighton Campus, and sidewalks are provided on both sides of the street. The Brighton Campus entrance is a little more than a tenth of a mile from Lake Street.

Foster Street is a north/south roadway that provides two-way travel with one lane in each direction. It partially forms the eastern boundary of the Brighton Campus and connects Commonwealth Avenue and Washington Street. Sidewalks are provided along both sides of the street. Parking is allowed on the east side of the street adjacent to the Brighton Campus and on both sides of the street between the campus and Commonwealth Avenue. The Foster Street entrance to the Brighton Campus is adjacent to St. Clement's Hall.

Lake Street connects Commonwealth Avenue and Washington Street along the west side of the Brighton Campus. It provides one-way travel in the northbound direction. Trucks over 2.5

tons are prohibited from using Lake Street. Adjacent to the Brighton Campus, parking is permitted only on the west side of the street, and only the west side includes a sidewalk. The Lake Street driveway is located just north of Commonwealth Avenue.

4.2.2 TRAFFIC GENERATION

The 185 staff relocating to 2121 Commonwealth Avenue include 108 staff from 1280 Boylston Street, 55 from More Hall and 22 from Alumni House on the Newton Campus. The 55 staff relocating from More Hall is expected to have no impact on traffic in the area around the campus because they are moving only about 800 feet across Commonwealth Avenue. The relocation of this staff will divert traffic from the Chestnut Hill Campus to the Brighton Campus but will not add to traffic in the area. Some increase in traffic to the area is expected from the staff relocating from 1280 Boylston Street and the Newton Campus.

The expected increase in traffic to the area was calculated based on the number of people being relocated from 1280 Boylston Street and the Newton Campus. Using trip generation ratios from the transportation analysis in the IMP, the number of new trips to the Brighton Campus generated by 130 staff was calculated. These ratios include an 80 percent mode share by vehicle and an average vehicle occupancy rate of 1.05. Table 4-1, Additional Trip Generation to the Area shows the projected increase in daily, and morning and evening peak hour vehicle trips to area. On a daily basis, the 130 relocated staff members from 1280 Boylston Street and the Newton Campus are expected to add almost 200 trips daily to the area. This increase would include 35 morning peak hour trips and 45 evening peak hour trips. These increases do not take into account trips that may already pass through the area for travel to and from 1280 Boylston Street.

Table 4-1, Additional Trip Generation to the Area

Direction	Daily	Morning Peak Hour	Evening Peak Hour
Entering	99	29	17
Exiting	<u>99</u>	<u>6</u>	<u>28</u>
Total	198	35	45

The relocation of staff from More Hall to the Brighton Campus is expected to increase traffic to the Brighton Campus and reduce traffic to the Chestnut Hill Campus as relocated staff shift from parking on the Chestnut Hill Campus to parking on the Brighton Campus. The expected shift in traffic was calculated based on 55 people being relocated from More Hall. Using trip generation ratios from the IMP as described above, the number of trips shifted to the Brighton Campus was calculated. Table 4-2, Shifted Trips, shows the projected morning and evening peak hour vehicle trips expected to shift to the Brighton Campus. On a daily basis, the 55 relocated staff are expected to produce a shift of about 84 trips daily to the Brighton Campus from the Chestnut Hill Campus. This shift would include 15 morning peak hour trips and 19 evening peak hour trips.

Table 4-2, Shifted Trips

Direction	Daily	Morning Peak Hour	Evening Peak Hour
Entering	42	12	7
Exiting	<u>42</u>	<u>3</u>	<u>12</u>
Total	84	15	19

Table 4-3, Additional Trips at Brighton Campus Entrances, shows the additional trips expected to be added at each of the entrances of the Brighton Campus in the morning and evening peak hours. The busiest location in the morning peak hour would be the Lake Street south entrance, which would gain 17 entering vehicles. In the evening peak hour, the busiest location would be the Commonwealth Avenue entrance with 16 exiting and 2 entering vehicles. The entrances to the Brighton Campus currently operate at good levels of service, and the projected limited increase in turns in and out of these entrances would not adversely affect operating conditions.

Table 4-3, Additional Trips at Brighton Campus Entrances¹

Campus Entrance	Movement	Morning Peak Hour		Evening Peak Hour	
		Entering	Exiting	Entering	Exiting
Foster Street	Left Turn	3	1	3	4
	Right Turn	9	2	7	3
Commonwealth Avenue	Right Turn	8	5	2	16
Lake Street South	Right Turn	17	0	5	0
Lake Street North	Right Turn	<u>4</u>	<u>1</u>	<u>0</u>	<u>5</u>
Total		41	9	24	40

¹ Trips in and out of the Brighton Campus generated by the renovated building.

As noted in Table 4-1 above, the relocation of staff from 1280 Boylston Street is expected to add up to 35 morning peak hour trips and 45 evening peak hour trips to the area. The intersection of Commonwealth Avenue and Lake Street/St. Thomas More Road will receive the largest share of those new trips. Based on the current pattern of trips in the area, the

intersection is expected to receive up to an additional 20 trips in the morning peak hour and up to 25 trips in the evening peak hour.

4.3 Parking

4.3.1 ON-CAMPUS PARKING

The Brighton Campus currently has about 700 parking spaces available to University users. An additional 42 spaces are reserved for the use of St. John's Seminary and are not included in the active inventory. The number of parking spaces is 50 spaces higher than reported in the Boston College 129 Lake Street Small Project Review due to the inclusion of 36 unmarked spaces at the Cardinal's Residence and a few other minor updates in the parking count.

Boston College has issued about 485 parking permits for existing staff and student parking on the Brighton Campus. The 130 staff being relocated to 129 Lake Street currently hold 116 parking permits. As a result, there will be approximately 600 permits for parking on the Brighton Campus with the occupancy of 129 Lake Street. It is estimated that the 185 staff members to be relocated to 2121 Commonwealth Avenue will purchase about 165 parking permits, bringing the total to 780 parking permits. This is an estimate because some of the staff at 1280 Boylston Street do not travel to the campus and, therefore, have not purchased a permit in the past. Based on historical usage information, Boston College estimates that the maximum usage of spaces is no more than 80 percent of the total number of permits issued. This reflects the impact of people who are on vacation, out sick, traveling for business, not using an automobile each time they commute, or working part time. Applying the 80 percent factor to the 780 permits projected for the Brighton Campus (600 existing and 129 Lake Street permits plus 165 permits for 2121 Commonwealth Avenue) results in a demand for about 638 spaces. The projected demand of 638 spaces is within the planned supply of 700 spaces on the Brighton Campus (see Table 4-4, Parking Supply and Demand).

Table 4-4, Parking Supply and Demand

	<u>Parking Supply</u>	<u>Parking Permits</u>	<u>Parking Demand</u>	<u>Excess Capacity</u>
Current	700 ¹	485	388	+312
129 Lake Street	0	130	116	196
2121 Commonwealth Avenue	-0	165	134	62
Total	700	780	638	+62

1. Does not include 42 spaces at St. John's Seminary

4.3.2 ON-STREET PARKING

There is limited on-street parking around the Brighton Campus. With the exception of Foster Street and Commonwealth Avenue, parking is allowed on only one side of most streets in the area. In most of those cases, only Allston-Brighton Resident Permit parking is allowed. A small amount of unregulated parking is allowed on Commonwealth Avenue and Foster Street adjacent to the Brighton Campus, Glenmont Road, and Anselm Terrace. Only the limited spaces on Commonwealth Avenue are convenient to 2121 Commonwealth Avenue. A limited amount of visitor parking (2-hour limit) is provided on Commonwealth Avenue across from the Brighton Campus; Greycliff Road, Gerald Road and Foster Street near Commonwealth Avenue; Lake Street and Rogers Park Avenue.

4.4 Transit

4.4.1 PUBLIC TRANSPORTATION

Boston College is located at the terminus of the MBTA Green Line Boston College B Branch (see Figure 4-1). The Boston College stop is located on the north side of Commonwealth Avenue, just west of the Brighton Campus. Both the MBTA Green Line Cleveland Circle C Branch and the Riverside D Branch are within one mile east of the campus. Both are served by the Boston College Shuttle Service. Except for the 22 staff members relocating from the Newton Campus, the remaining occupants of 2121 Commonwealth Avenue are moving from locations currently served by the Green Line. Therefore, no significant change in transit usage is expected.

The three branches are described below¹:

Boston College B Branch operates between Boston College and Government Center on 6-minute headways during rush hours and on 8-minute headways throughout the day on weekdays. The Boston College stop, located on Commonwealth Avenue, is the most convenient branch to the Brighton Campus. Service from the Boston College station is provided between 5:01 a.m. and 12:10 a.m. during the week, between 4:45 a.m. and 12:10 a.m. on Saturdays, and between 5:20 a.m. and 12:10 a.m. on Sundays.

Cleveland Circle C Branch operates between Cleveland Circle and North Station on 7-minute headways during rush hours and 10-minute headways throughout the day on weekdays. The Cleveland Circle stop is located within one mile of Brighton campus. Service is provided between 5:01 a.m. and 12:10 a.m. during the week, between 4:50 a.m. and 12:10 a.m. on Saturdays, and between 5:30 a.m. and 12:10 a.m. on Sundays.

Riverside D Branch operates between Riverside and Government Center on 5-minute headways during rush hours and on 10-minute headways throughout the day on the weekdays. The Reservoir stop is located just east of the Cleveland Circle stop on the C Branch. Service is provided between 4:56 a.m. and 12:05 a.m. during the week, between 4:55 a.m. and 12:00 a.m. on Saturdays, and between 5:25 a.m. and 12:00 a.m. on Sundays.

¹ www.mbt.com/schedules_and_maps/subway/lines/?route=green May 10, 2010

The MBTA also operates several bus routes along Washington Street, which is within a quarter mile of the northern edge of the Brighton Campus, and along Chestnut Hill Avenue, which is within a quarter mile of the eastern edge of the Brighton Campus.

4.4.2 BOSTON COLLEGE SHUTTLE BUS SERVICES

Boston College provides shuttle bus services for students and employees of the Chestnut Hill, Brighton and Newton campuses. These services are described below:

The **Brighton Shuttle** provides a van service between the Brighton Campus and the Chestnut Hill Campus Monday through Friday from 8:15 a.m. to 5:40 p.m. Service is provided every 30 minutes except on weekends, University holidays, and when class is not in session.

The **Boston/Commonwealth Avenue Shuttle** service provides a Boston direct route and an all stops route that run every 15-20 minutes. The Brighton Campus is served by the Greycliff Hall stop. The Boston Direct Route stops at Conte Forum, opposite Greycliff Hall (outbound), 2000 – 2012 Commonwealth Avenue, Reservoir Green Line MBTA Stop at Cleveland Circle, Bank of America on Chestnut Hill Avenue, Chiswick Road, Corner of Commonwealth Avenue and Chestnut Hill Avenue, South Street, Greycliff Hall and Robsham Theater. The All Stops route makes all of these stops plus McElroy Commons on Boylston Street, Donaldson House on College Road and the Main Gate at the Chestnut Hill Campus.

The **Newton Shuttle** transports students and employees between the Newton Campus and the Chestnut Hill Campus via Commonwealth Avenue. Service is provided every 15-20 minutes from 7:00 a.m. to 2:00 a.m. on weekdays and from 8:00 a.m. to 2:00 a.m. on weekends. Five distinct routes are provided depending on the day of the week and time of day.

4.5 Bicycle and Pedestrian Accommodations

4.5.1 PEDESTRIANS

There are good pedestrian accommodations for accessing the Brighton Campus. As described above in Section 4.2.1, Vehicular Access, sidewalks exist on both sides of Commonwealth Avenue and Foster Street and on the west side of Lake Street adjacent to the campus. Because of the retaining wall and wooded, steeply sloped area on the west edge of the Brighton Campus, there is no sidewalk on the east side of Lake Street adjacent to the campus. From Lake Shore Drive north to Washington Street, there are sidewalks on both sides of Lake Street.

When Boston College acquired the Brighton Campus, it contained few dedicated pedestrian walkways. Pedestrians were able to walk in the roadways due to the limited vehicular traffic. With the development of the campus, BC has begun creating dedicated pedestrian paths. Currently, the campus has a sidewalk connecting St. Clement's Hall and the Foster Street entrance to the campus with 129 Lake Street, the three tennis court parking areas opposite 129 Lake Street, the School of Theology and Ministry library, and the library parking lot (see Figure 4-1, Brighton Campus Transportation Access and Parking). Pedestrian connections to the Chestnut Hill Campus are provided along the roadways to the Lake Street entrance near Commonwealth Avenue and the Commonwealth Avenue entrance.

A major component of the Boston College IMP is to strengthen pedestrian connections between the Chestnut Hill and Brighton campuses. Major paths will be provided across the Chestnut Hill Campus connecting to the St. Thomas More Hall site and crosswalks at the intersection of Commonwealth Avenue with Lake Street, and St. Thomas More Road, and crosswalks at a proposed new intersection of the Brighton Campus spine road and Commonwealth Avenue. Likewise, connections between the north end of the Brighton Campus and the Commonwealth Avenue intersections will be emphasized.

Boston College supports Van Escort Services to provide greater safety and well being for all members of the Boston College community. The Escort Service is limited to several areas, including the area around the Brighton Campus to Brighton Center and St. Elizabeth's Hospital. The Escort Service runs from 7 p.m. to 3 a.m. seven days a week, except for school holidays and breaks of four or more days. There are blue light emergency call facilities located throughout the Brighton and Chestnut Hill Campuses.

4.5.2 BICYCLES

Boston College offers services to bicyclists to aid in their commute and secure their equipment, and supports initiatives to create a bike-friendly campus. In addition, Boston College participates in the MassRIDES Bike to Work Week (BTWW) Challenge to promote bicycling as a viable commute option.

There are 28 locations on the Chestnut Hill Campus and 6 locations on the Newton Campus for securing bikes. Both campuses also provide locker areas with showers. As indicated in its IMP, Boston College plans to install bicycle racks on the Brighton Campus as buildings are renovated or constructed.

4.6 Transportation Demand Management

The location of the Brighton Campus at the end of the MBTA Green Line B Branch and the provision of shuttle bus service to the C and D Branches of the Green line provide the campus with transit access for commuters, students and visitors. The University actively supports efforts to reduce automobile use by faculty, staff, students and visitors traveling to the campus. Many actions to support this goal are actively employed by Boston College and will be applied to faculty, staff and students on the Brighton Campus. Existing measures include:

- **Information Dissemination.** Boston College promotes all forms of alternative transportation through the Office of Transportation and Parking and provides a comprehensive website for the members of the institution and the public. This website provides detailed transportation and parking policies. (See www.bc.edu/transportation.)
- **Transit.** Boston College is served by the MBTA Green Line B Branch and provides shuttle bus service to the Cleveland Circle and Reservoir MBTA stops on the C and D Branches of the Green Line. Students can purchase a semester pass through the University and receive an 11 percent discount on MBTA passes.
- **Ride matching.** In conjunction with MassRIDES, Boston College assists in the creation of carpools and vanpools, providing employees with a cost-effective and ecologically friendly alternative to drive-alone commutes. Law and graduate school students who

carpool are eligible for a 60 percent discount off regular parking permit rates. Carpoolers are guaranteed a prime parking location on campus. Additionally, as of fall 2007, the carpool permit rate was cut to \$100 (previously \$200), making it more affordable for each person in the carpool.

- **Shuttle Bus System.** Boston College operates and promotes a free 12-bus shuttle system to link the campus with the Green Line at the Cleveland Circle and Reservoir stops.
- **Guaranteed Ride Home.** Pre-registered employees who utilize alternative transportation can take advantage of a guaranteed ride home when a personal or family illness or unplanned overtime interrupts their regular commute.
- **Bicycling Incentives.** As described earlier, Boston College has numerous safe, clean and conveniently placed bicycle racks throughout its campus. Approximately 445 bicycle spaces are available in 28 locations on the Chestnut Hill Campus and approximately 80 spaces are provided on the Newton Campus. Boston College participates in the MassRIDES Bike to Work Week (BTWW) Challenge to promote bicycling as a viable commute option. Shower facilities are available near many of these locations. Boston College promotes biking as an alternative to driving, as identified on the Transportation website, and distributes promotional material and incentives for Bike Week to encourage employees to bike to work.
- **Car Sharing.** Boston College currently has a relationship with Zipcar, providing employees and students a significant discount on the membership rates and convenient access to 9 cars at the following locations:
 - Lake Street at Commonwealth Avenue – 2 cars
 - Commonwealth Avenue at Strathmore Road – 4 cars
 - Commonwealth Avenue at U.S. Petroleum – 3 cars

As part of its Institutional Master Plan, Boston College committed to improving and expanding its existing TDM program to provide additional travel options for employees and students that will reduce the demand for parking and ease traffic impacts to the roadways and neighborhood streets in Brighton. Specific measures committed to as part of the IMP, in addition to all current TDM initiatives, include:

- Provision of pre-tax MBTA pass sales for full time employees.
- Provision of a 25 percent MBTA pass subsidy for full-time employees who forgo a campus parking permit.
- Investigation of car-sharing opportunities on the Brighton Campus and provision of spaces to a car-sharing service.
- Provision of bicycle storage at new buildings on the Brighton Campus.

- Regular review of the shuttle services offered by Boston College to the Brighton Campus.

4.7 Loading and Service

Vehicular access to the building will be via the Brighton Campus spine road and the Commonwealth Avenue entrance to the campus. Courier and office supply deliveries will take place at the front entrance to the building facing Commonwealth Avenue.. Trash and recycling are expected to be handled through the employee entrance to the building at the rear. Since the planned administrative use of the building is the same as the building's most recent use when operated by the Roman Catholic Archdiocese of Boston, no change in the size and number of trucks is expected.

Boston College restricts deliveries to 2121 Commonwealth Avenue before 7:30 a.m. on weekdays and 9:00 a.m. on Saturdays. Trucks are required to enter and leave the campus via the entrance on Commonwealth Avenue, and those weighing more than 2.5 tons are prohibited from using Lake Street.

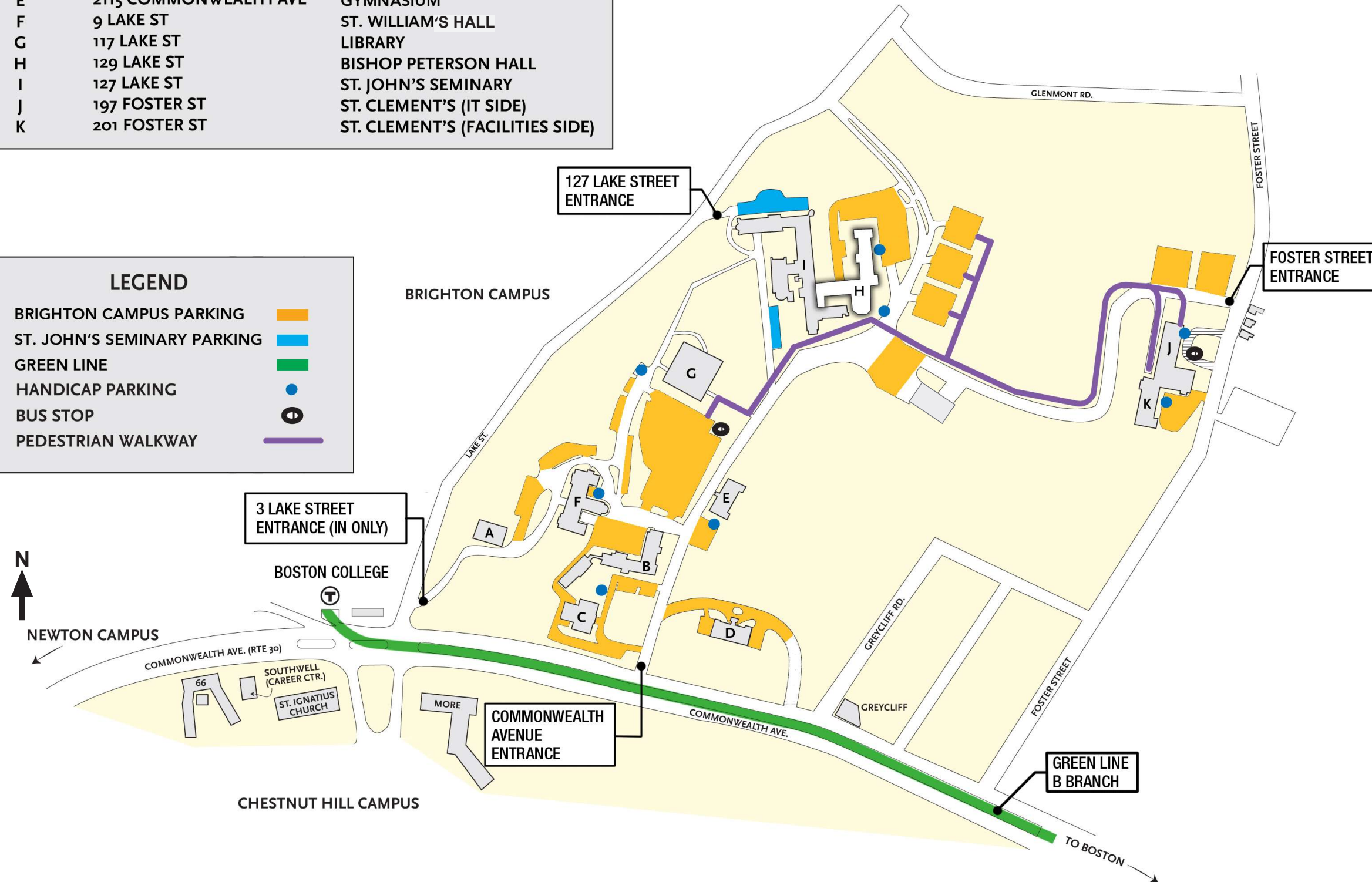


BOSTON COLLEGE
Brighton Campus

MAP NOTE	STREET ADDRESS	FORMERLY REFERRED TO AS
A	3 LAKE ST	TRIBUNAL
B	2121 COMMONWEALTH AVE	CHANCERY
C	2125 COMMONWEALTH AVE	CREAGH LIBRARY
D	2101 COMMONWEALTH AVE	CARDINAL'S RESIDENCE
E	2115 COMMONWEALTH AVE	GYMNASIUM
F	9 LAKE ST	ST. WILLIAM'S HALL
G	117 LAKE ST	LIBRARY
H	129 LAKE ST	BISHOP PETERSON HALL
I	127 LAKE ST	ST. JOHN'S SEMINARY
J	197 FOSTER ST	ST. CLEMENT'S (IT SIDE)
K	201 FOSTER ST	ST. CLEMENT'S (FACILITIES SIDE)

LEGEND

- BRIGHTON CAMPUS PARKING █
- ST. JOHN'S SEMINARY PARKING █
- GREEN LINE █
- HANDICAP PARKING ●
- BUS STOP T
- PEDESTRIAN WALKWAY █



5.0 ENVIRONMENTAL

5.1 Introduction

The 2121 Commonwealth Avenue project is an appropriate reuse of an existing building for compatible purposes. As such, the proposed use does not differ significantly from prior uses on the Brighton Campus. The Proposed Project will essentially shift existing staff from St. Thomas More Hall, Alumni House and 1280 Boylston Street to this new location. Accordingly, the environmental impacts of this project are minimal and confined to the immediate building envelope. The only significant change to the form of the building is an addition to the rear and removal of the existing convent wing. No pedestrian level wind analyses, daylight studies, solar glare or shadow impact studies have been performed given the modest size of the proposed project.

5.2 Air Quality

The proposed building renovation will include upgrades to building systems that may affect air quality. With respect to indoor air, the building HVAC systems will be upgraded to code compliant systems that will provide a significantly greater rate of air exchange over existing conditions. To prevent heat/AC loss due to increased air exchanges, a heat/AC recovery unit will be installed to minimize energy consumption. Installation of a new emergency generator will involve some increase in emissions from a diesel powered engine. However, the generator will be operated only sporadically during emergencies and for routine operational testing, and will be in conformance with current standards for air emissions regulated by the state Department of Environmental Protection.

5.3 Noise

Intermittent increases in noise levels will occur in the short term during renovation. Work will comply with the requirements of the City of Boston noise ordinance. Efforts will be made to minimize the noise impact of renovation activities, including appropriate mufflers on all equipment, maintenance of intake and exhaust mufflers, turning off idling equipment, replacing specific operations and techniques with less noisy ones, scheduling equipment operations to synchronize the noisiest operations with times of highest ambient noise levels, and muffling enclosures on continuously operating equipment such as air compressors and welding generators.

A new emergency generator and a replacement cooling tower will be provided, although final locations have not yet been selected. Noise reducing options will be considered in the selection of equipment. Acoustical enclosures and screening will be provided around this equipment to minimize noise dispersion.

5.4 Water Quality

In terms of stormwater runoff, the project will not alter the existing conditions significantly and may slightly improve them. Building systems will be checked to ensure that all stormwater is

completely separated from the existing sanitary sewer system and discharged into the appropriate Boston Water and Sewer Commission conveyance system.

5.5 Solid and Hazardous Wastes

Solid waste generated by construction will consist of demolition debris from interior renovations and waste from new construction. Debris resulting from the demolition of the interior of the existing structure will be recycled or disposed of in accordance with applicable federal and state regulations.

In the fall of 2008, Boston College retained Covino Environmental Associates to perform an inspection of 2121 Commonwealth Avenue for the presence of Asbestos Containing Materials (ACM). Given the age of the building, there was reason to believe that there could be ACMs. The results of this survey were presented in a report dated February 2009. It identified that there were ACMs in the building's boiler and pipe insulation, floor tiles and associated mastic and leveling compound, glazing compounds/window frame caulk around metal windows, caulking of exterior doors and fiberglass insulation adhesive. The recommendations of the study were to conduct additional investigations in areas that could not be reached in the initial survey prior to the start of any construction, develop a work plan for removal of ACMs, retain a licensed asbestos abatement contractor to remove the materials prior to the start of construction and dispose of the materials in accordance with federal, state and local regulations. The University will comply with the recommendations contained in the report, including the hiring of a licensed abatement contractor.

5.6 Renovation Impacts

A Construction Management Plan ("CMP"), in compliance with the City of Boston's Construction Management Program, will be submitted to the Boston Transportation Department. It will include detailed information on renovation activities, specific mitigation measures and materials access and staging area plans to minimize impact on the surrounding neighborhood.

Construction methodologies that ensure public safety and protect nearby residents will be employed. Techniques such as barricades, walkways and signage will be used. Construction management and scheduling will minimize impacts on the surrounding environment, including plans for construction worker commuting and parking, routing plans for trucking and deliveries and control of noise and dust. Although the design of the 2121 Commonwealth Avenue renovation is still in process, Boston College has begun to identify preliminary elements of how traffic and parking will be managed during construction. This section outlines some of these elements, which are subject to refinement and modification as the design of the renovation project progresses.

Worker parking will be provided on the Brighton Campus during the renovation. For previous renovation projects, Boston College has provided up to 60 parking permits to allow workers to park on campus. The construction period for 2121 Commonwealth Avenue will overlap the construction period for 129 Lake Street for about eleven months. During that time, construction worker parking will need to be provided for both projects. Based on utilization counts taken at peak hours over seven days in late September 2009, an average of 143 spaces were available in the library parking lot and the adjacent lot parallel to Lake Street. The two

lots provide sufficient parking capacity to accommodate 120 workers for both 2121 Commonwealth Avenue and 129 Lake Street.

As discussed in the Transportation chapter, parking demand for the 129 Lake Street project is expected to be 116 spaces. This demand plus the construction worker parking of 60 spaces for 2121 Commonwealth Avenue will exceed the 142 spaces currently available in the Library lots. There will be sufficient capacity to accommodate some of the construction working parking elsewhere on campus, such as in the existing 47 spaces in front of 2121 Commonwealth Avenue and in the 21-space Gymnasium lot across the street.

As with 129 Lake Street, the following steps will be taken regarding construction at 2121 Commonwealth Avenue to minimize traffic impacts in the area:

- Workers will be directed to reach the Brighton Campus via Commonwealth Avenue.
- Working hours will be 7:00 a.m. to 4:30 p.m. Monday through Friday and 8:00 a.m. to 4:30 p.m. on Saturday as authorized.
- Deliveries to the work site will be made via Commonwealth Avenue.
- As needed, a security detail will be utilized to safely direct and manage construction related traffic as well as routine campus traffic.
- A fenced lay down and work area will be established to separate construction activity from day-to-day pedestrian and vehicular traffic on campus.

Short-term air quality impact from fugitive dust may be expected during the demolition of the building interior and during the early phases of the Project site preparation activities. The construction contract for the project will require the contractor to reduce potential emissions and minimize air quality impacts. Mitigation measures are expected to include the use of wetting agents where needed on a scheduled basis, covered trucks, minimizing exposed construction debris stored on-site, monitoring construction practices to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized, locating aggregate storage piles away from areas having the greatest pedestrian activity where and when possible, and periodic cleaning of streets and sidewalks to reduce dust accumulations.

Intermittent increases in noise levels will occur in the short-term during renovations. Work will comply with the requirements of the City of Boston Noise Ordinance. Efforts will be made to minimize the noise impact of construction activities.

During renovation, erosion and sediment control measures will be implemented to minimize the transport of Project site soils to off-site areas and BWSC storm drain systems. The existing catch basins will be protected with filter fabric or silt sacks to provide for sediment removal from runoff. These controls will be inspected and maintained throughout the construction phase until all areas of disturbance have been stabilized through the placement of pavement, structure or vegetative cover.

Other sediment controls, which will be implemented as needed during construction, will include the following:

- Staked hay bales and/or silt fence barriers will be installed at the base of stockpiled soils and at erosion-prone areas throughout the construction phase of the Project. The erosion controls will be maintained and replaced as necessary to assure their effectiveness.
- Where necessary, temporary sedimentation basins will be constructed to prevent the transport of sediment off-site.
- Measures to control dust will be implemented during renovations. All debris will be properly contained on the Project site.
- Erosion controls will be maintained and replaced as necessary until the installation of pavement and the establishment of stabilized vegetation at the Project site.

5.7 Rodent Control

The contractor will file a rodent extermination certificate with the building permit application to the City. Rodent inspection, monitoring and treatment will be carried out before, during and at the completion of all construction work for the Project, in compliance with the City's requirements. Rodent extermination prior to work start-up will consist of treatment of areas throughout the project site, including building interiors. During the construction process, regular service visits will be made to maintain effective rodent control levels.

5.8 Wildlife Habitat

The Project Site is fully developed and, as such, the Project will not impact important wildlife habitats.

5.9 Flood Hazard District/Wetlands

It is not anticipated that the Project area will be susceptible to conditions of flooding. The Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Map ("FIRM") indicates the FEMA Flood Zone Designations for the Project Site (City of Boston, Community-Panel Numbers 250225C0056G and 250225C0058G, dated September 25, 2009). The FIRM for the Project site shows the project located in Zone C, Area of Minimal Flooding. In addition, the Project site does not contain any wetlands.

5.10 Historic Resources

Boston College acquired approximately 65 acres of land from the Roman Catholic Archdiocese of Boston (RCAB) that includes St. John's Seminary, Chancery Offices and the Cardinal's Residence. The Chancery-St. John's Seminary Complex was identified and evaluated in 2004 in the Massachusetts Historical Commission's (MHC) Survey of Historic Properties of the Roman Catholic Archdiocese in the City of Boston – Summary Report ("Survey") and was subsequently recorded on an Area Form in MHC's Inventory as a "potential historic district" (MHC #BOS.JW). The Chancery-St. John's Seminary Complex consists of buildings that date from 1881-1967 located north of Commonwealth Avenue, generally between Lake Street and Foster Street in Brighton.

Most buildings and structures located within the Chancery-St. John's Seminary Complex ("Complex") are considered by the MHC as contributing elements to the Complex, despite the relatively recent age and the lack of existent architectural merit of some of these buildings. 2121 Commonwealth Avenue (Chancery), constructed around 1960 (MHC #BOS.15235), was among the buildings identified as a contributing element.

The building was designed by Reardon and Turner and is described in the MHC Survey as being more modern in its styling and fenestration than the buildings previously constructed on the campus. The three story building is constructed of buff brick and cast stone and features a full-height entry pavilion incorporating laminate panels alternating with the metal and glass systems in the doors and windows. The convent wing has a separate entrance with a single wood door, and an asymmetrical façade of buff brick and stone veneer with metal sash in various configurations.

The Complex has been determined by MHC to be eligible for listing on the state and national register of historic places as an historic district, but no such listing has occurred. The Complex is not located within any existing state or local historic district. (See Figure 5-1, Listed and Inventoried Properties On and Near the Brighton Campus.)

The existing convent wing was constructed concurrently with the Chancery building to provide housing, with sleeping quarters on the second floor and community functions on the first. The wing is linked to the Chancery proper at the basement and first floor only, meaning there is no elevator access to the second floor. The floor-to-floor heights are in line with a mid-century residence and range from 8'-8" to 10'-0", providing inadequate clearance for current mechanical equipment routing. Windows at the basement level are small and mostly below grade, allowing very little light into the basement. Attempts to program the building uniformly revealed the basement to be unusable for anything but storage, in several places the structure of the building drops below 7' - 0" posing clearance issues. The plumbing in the current building is residential in design and not up to current accessibility standards, the doorways do not typically meet current clearance requirements, and stairways are not up to current codes. Code updates and ADA accessibility upgrades in this wing are cost prohibitive, and for the given program would result in subpar office spaces.

The renovation of 2121 Commonwealth Avenue for administrative offices was identified as a Proposed Institutional Project in the Institutional Master Plan. In a letter dated January 18, 2008, to John Palmieri, Director of the Boston Redevelopment Authority, MHC provided comments on the IMP. The letter noted the eligibility of the St. John's/Chancery area as an historic district, but did not contain any comments or raise any concerns specific to the planned renovations at 2121 Commonwealth Avenue.

A cost of approximately \$18 million has been estimated for the renovation of 2121 Commonwealth Avenue. The project design is sensitive to the fabric of the Brighton Campus and the specific elements of the 2121 Commonwealth Avenue building. A new addition to the rear will be architecturally integrated into the existing structure and will not be visible from surrounding public ways. The convent wing which was constructed as part of the original Chancery building will be removed as part of the project. Replacement windows will be selected to achieve energy efficiency while retaining the character of the building.

The project is not located in an historic district or architectural conservation district and thus is not subject to local historic review. There is no federal or state funding, and thus the project is not subject to review by MHC under Section 106 of the National Historic Preservation Act or under MA General Laws Chapter 9, Sections 26-27C.



6.0 INFRASTRUCTURE

6.1 Introduction

The Project Site is currently served by existing utility infrastructure. The renovation of the building does not change the use and occupancy of the building and accordingly, should not significantly alter the utility demands or flows. All water, sewer and storm drainage lines in the area of the Project should be adequate to meet the demands of the Project.

6.2 Water Supply System

The water supply for domestic use and fire protection services is supplied by the Massachusetts Water Resources Authority (MWRA) and distributed by the Boston Water and Sewer Commission (BWSC) via water mains in Lake Street and Commonwealth Avenue as shown in Figure 6-1, Existing Water System. Boston College owns and maintains all of the water supply system components within the Brighton Campus. The Brighton Campus is served by a 12-inch BWSC main in Lake Street and a 16-inch BWSC main in Commonwealth Avenue.

The existing campus water mains provide sufficient domestic water service to serve the 2121 Commonwealth Avenue building, although a new four-inch domestic and eight-inch fire protection building service connection will be constructed to connect the building to the existing 10-inch water line to the rear of the building. A portion of the existing 10-inch water line will be relocated due to the construction of the addition. The existing campus 10-inch water line provides a loop from the 16-inch line in Commonwealth Avenue to the 12-inch line in Lake Street. As part of the Brighton Fields Project, the eight-inch portion of this water line will be upgraded to a 10-inch line and connected back out to Lake Street to form a complete loop for water supply and fire protection purposes.

To improve fire protection in the building, the renovation will include a full sprinkler system and standpipes in the stairwells.

6.3 Sanitary Sewer System

The existing sanitary sewer system within the Brighton Campus is owned and maintained by Boston College. BWSC owns and maintains the sewer systems in the public streets surrounding the campus and has a sewer main crossing the campus in the vicinity of the athletic fields. As shown in Figure 6-2, Existing Sanitary Sewer System, the existing 12 inch sewer system for this area of the campus collects wastewater from buildings on campus and connects to a sewer main in Lake Street. There is a 12-inch sewer main in Lake Street that increases in size to a 15-inch main as it flows to the north. This sewer main combines with one from Greycliff Road to the north of the Brighton Campus into a 36-inch by 38-inch box culvert that flows northerly.

The existing sewer line to the rear of the Chancery which runs under the proposed addition will be abandoned as part of the project. A new eight inch sewer line will be constructed to tie the new building into the existing 12-inch sewer. No other improvements to the sanitary sewer collection system are proposed, as there is sufficient capacity within the existing collection system.

6.4 Stormwater System

The existing stormwater system on campus is owned and maintained by Boston College. BWSC owns and maintains the stormwater systems in the public streets surrounding the campus. Chandler Pond is located upstream of these drainage areas and does not receive runoff from Boston College. As a result, stormwater discharge from the Brighton Campus will have no impact on Chandler Pond. The Brighton Campus network discharges into a 24-inch storm drain in Lake Street and a 12-inch storm drain in Greycliff Road. The stormwater system appears adequate to serve the current needs of the campus. Currently, the stormwater runoff from the project site flows into a catch basin in the adjacent parking area and through a stormwater drain line to Lake Street where it enters the BWSC system. (See Figure 6-3, Existing Stormwater System.)

6.5 Energy and Telecommunications Services

The buildings on the Brighton Campus are supplied with gas by KeySpan Gas Company via Commonwealth Avenue, Lake Street and Foster Street. The Brighton Campus is served by individual building transformers operated directly by NSTAR. The Boston College campus is supplied with telecommunications carrier service from Verizon, AT&T and PaeTec Services include local, long distance and 800 telephone services, as well as a variety of carrier services for data communications. The fire alarm and telecommunications services are privately owned and maintained by Boston College. The telecommunications and data systems are distributed throughout all campus buildings in University-owned conduit systems.







APPENDIX A, DRAFT CONSTRUCTION AND TRANSPORTATION MANAGEMENT PLAN

2121 Commonwealth Avenue

CONSTRUCTION AND TRANSPORTATION MANAGEMENT PLAN

CMP/TMP

June 10, 2010

2121 Commonwealth Avenue

Construction and Transportation Management Plan (CMP/TMP)

May 25, 2010

The General Contractor (to be determined) for 2121 Commonwealth Avenue will be responsible for the renovation and addition to the existing building. The Project has been assigned Application # TBD by Inspectional Services. Tentative commencement for the Project is December 2010.

This Construction Management Plan/Transportation Management Plan (CMP/TMP) is being submitted to the Boston Transportation Department (BTD) for approval prior to the start of construction per City of Boston regulations. The CMP/TMP includes specific mitigation measures and staging plans to minimize impacts to the abutters and public at large. The Contractor will adhere to the conditions as outlined herein, and will further contractually bind their subcontractors and suppliers to the CMP/TMP.

Construction Schedule:

The construction period for the Project is expected to last approximately 15 months. Typical construction hours will be from 7:00 AM to 4:30 PM, Monday through Friday. Construction will occasionally occur on weekend days as approved by Boston College in conformance with City of Boston special permit requirements. Truck and equipment access to and from the site onto Commonwealth Avenue will be between 7:00 AM and 5:00 PM. The General Contractor notes that City of Boston ordinances require special permits to perform construction activities on weekends.

Construction Impact:

The Contractor will establish and maintain construction means and methods that will insure public safety for the duration of the Project. Controls such as barricades, walkways and signage will be utilized in the maintenance of public safety. Construction management, coordination and scheduling will minimize impacts on the surrounding environment, which will include plans for construction worker commuting and parking, routing plans for trucking and deliveries and control of noise and dust generation.

Construction Staging:

The Brighton Campus site is bordered on the sides by Lake Street, Foster Street, Greycliff Road and Commonwealth Avenue, all classified by the City of Boston as public ways.

The Commonwealth Avenue entrance to the site will be utilized as both an entrance and an exit way. No vehicles will use the Lake Street entrance.

Materials Handling:

All materials will be off-loaded within the construction site. Material deliveries will be scheduled to avoid peak traffic periods in order to minimize traffic impacts.

A sign will be installed at the materials delivery area advising drivers that they must comply with applicable restrictions regarding vehicle engine idling. No truck idling or queuing will be permitted on the job-site or any community streets.

Construction Worker Parking:

The number of workers required during the construction period will vary, with the estimated average daily work force ranging from approximately 40 workers during typical periods to as many as 60 workers during the peak of construction. Because the construction workers will arrive and depart prior to peak traffic periods, the construction trips are not expected to impact traffic conditions.

Personnel will arrive at the job site either by MBTA or by personal vehicles. Ample secured storage for tools will be provided on site so that workers will not need to transport their tools to the site daily, which will reduce the need to drive to the site. Carpooling will be encouraged by the construction contractor through the posting of a list of all construction personnel with their hometowns noted. During the weekly construction meetings with the project managers and the foremen, the construction contractor will monitor, explore and present the opportunities for carpooling. Parking requirements for the project management staff, whose daily work hours extend beyond that of the hourly construction workers, will be met via adjacent parking lots on Boston College property.

Trucking Route and Volumes:

Trucking traffic will vary throughout the construction period, depending on the work activity. However, it is expected that truck traffic will range from an average of five trucks a day during typical periods, to as many

as ten trucks a day during peak periods of construction. Idling of trucking will not be allowed on site.

Trucking to and from the construction site will utilize Commonwealth Avenue.

Construction Air Quality:

The construction contract provides for a number of strictly enforced measures to be implemented by contractors to reduce potential emissions and minimize impacts.

These include:

1. Using wetting agents to control and suppress dust that may come from construction materials.
2. Fully covering all trucks used for transportation of construction debris.
3. No site storage of construction debris.
4. Periodic cleaning of street and sidewalks so as to minimize dust accumulation.

Construction Noise:

Every reasonable effort will be made to minimize the noise impact of construction activities. Mitigation measures will include:

1. Initiating a proactive program to ensure compliance with the City of Boston noise limitation policy.
2. Using appropriate mufflers on all equipment and regular maintenance of intake and exhaust mufflers.
3. Muffling enclosures of continuously running equipment, such as air compressors and welding generators.
4. Replacing specific construction operations and techniques by less noisy ones where feasible.
5. Selecting the quietest of alternative items of equipment (e.g. electric instead of diesel powered equipment, hydraulic tools instead of pneumatic impact tools).

6. Scheduling equipment operations to keep average noise levels low, to synchronize noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels.
7. Turning off idling equipment.
8. Locating noise equipment as far as possible from sensitive areas.

Rodent Control:

The City of Boston has declared that the infestation of rodents in the City is a serious problem. To control this infestation, the City enforces the requirements established under the Massachusetts State Sanitary Code and the State Building Code. City of Boston Policy Number 87-4 establishes that the extermination of rodents shall be required for issuance of permits of demolition, excavation, foundation, and basement rehabilitation. The project will develop a rodent control program prior to its construction start. For this scope of work, the General Contractor will contract with a pest control company.

Construction:

Construction will include interior and exterior demolition, renovations, window replacement, selective exterior masonry re-pointing and a new addition. We intend to request the City of Boston to issue the appropriate permits to allow for the construction sequence to proceed as scheduled.

Commitment:

The General Contractor for the project will be responsible for all matters pertaining to construction permits. Although other individual subcontractors will be seeking permits in their own name, they will be contractually required to comply with this Construction Management Program upon its acceptance by BTM. Subcontractors to the General Contractor will coordinate all permit requirements through the General Contractor prior to actual application to the City, to ensure conformance of this CMP.

Project Manager: TBD
Project Superintendent: TBD