### Institutional Master Plan Notification Form

## **Project Notification Form**

# **Simmons University**



#### Submitted to:

#### **Boston Planning and Development Agency**

One City Hall Square Boston, MA 02201

Submitted by:

**Simmons University** 

300 The Fenway Boston, MA 02115 Prepared by:

**Epsilon Associates, Inc.** 

3 Mill & Main Place, Suite 250

Maynard, MA 01754

In Association with:

**Redgate Real Estate Advisors, LLC** 

**Elkus Manfredi Architects** 

**DLA Piper LLP** 

**Howard Stein Hudson Nitsch Engineering McPhail Associates, LLC** 

May 9, 2019





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Introduction and General Information

#### 1.0 INTRODUCTION AND GENERAL INFORMATION

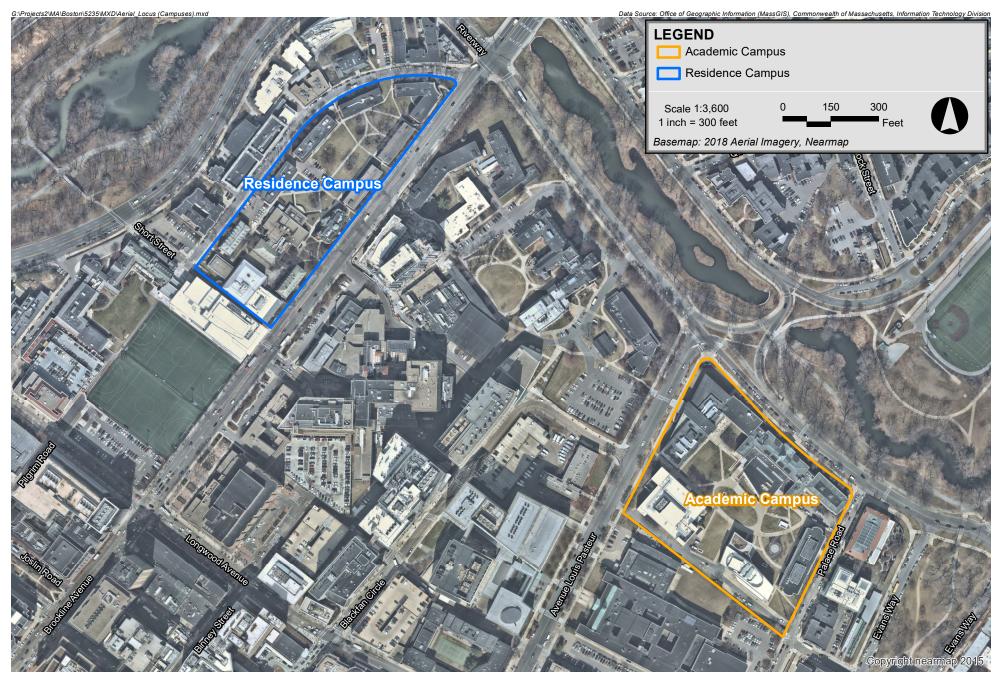
#### 1.1 Introduction

Decades before American women earned the right to vote, Boston businessman John Simmons had a revolutionary idea to prepare women for independent livelihoods and meaningful lives. Since 1899, Simmons has provided women with an innovative and practical undergraduate education that combines liberal arts and sciences with real-world experience. Today, Simmons is a distinguished institution of higher learning that has prepared tens of thousands of women and men to lead change that impacts families, communities, and the world. In addition, Simmons is the pre- eminent authority on women's leadership, with long established expertise in the development and success of women and girls.

In early 2013 Simmons initiated an institutional and master planning process to study how its aging physical plant can meet the needs of its academic future as Simmons enters its second century. Through this Strategy 2022 initiative, which included input from academic deans, faculty, staff, and students and is guided by the President and Board of Trustees, Simmons developed a set of priorities and recommendations for future campus development and began exploring options. The Strategy 2022 process crystalized a vision for one, unified campus for Simmons as a vital concept for the University's future. This involves uniting residential accommodations and athletics facilities with existing academic and administrative facilities as a One Simmons concept and addressing its aging science facilities at a time when Science Technology Engineering and Math (STEM) education has taken on a regional and national importance.

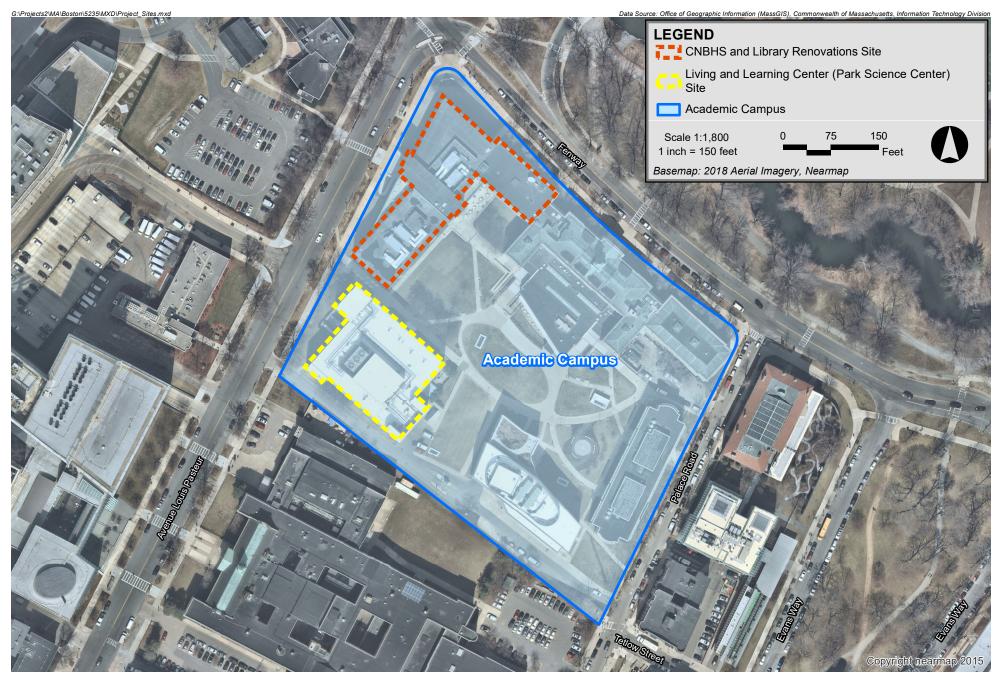
In order to achieve the goals of the One Simmons initiative, Simmons is proposing two projects — collectively referred to in this document as the "2019 IMP Projects" or "Projects". Simmons University currently consists of two campuses, the Academic Campus and the Residence Campus, located on either side of the Emmanuel College campus (see Figure 1-1). The Projects include renovating the existing Lefavour Hall and a portion of the Main College Building and geographically reorganizing the four academic colleges, and to demolish the Park Science Center and construct a new Living and Learning Center. With the completion of the 2019 IMP Projects, the current Residential Campus will be taken out of service. The Living and Learning Center will contain athletics, a dining hall, and approximately 1,100 dormitory beds. These Projects are described in more detail in Section 2.3. The Project sites are presented in Figure 1-2.

Simmons University (the Proponent) is pleased to submit this Institutional Master Plan Notification Form/Project Notification Form (IMPNF/PNF) to the BRA, doing business as Boston Planning and Development Agency (herein, the BPDA). With this submission, Simmons is initiating the process for approval of a new Institutional Master Plan (IMP) pursuant to Article 80D of the Boston Zoning Code (the Code) and initiating Large Project Review under Article 80B of the Code for the Projects, to enable the development of the proposed Projects.





Simmons University IMPNF/PNF Boston, Massachusetts





Simmons University IMPNF/PNF Boston, Massachusetts

#### 1.2 Simmons University Mission and Objectives

In the fall of 2018, Simmons took its rightful place among the prestigious institutions of higher education in Boston by becoming Simmons University. Steadfast to John Simmons' vision for preparing women for meaningful work, Simmons University remains an all-women's undergraduate institution. Its robust graduate programs are open to men and women.

Simmons University is consistently ranked among "America's Best Colleges" in *U.S. News & World Report*, the most widely recognized assessment of colleges and universities in the nation. In its most recent edition, 2019, Simmons is ranked #4 among 656 schools in their Regional Universities North category for "Best Value Schools." This ranking is based on a school's academic quality, its *U.S. News* Best Colleges ranking, and the 2016-17 net cost of attendance for a student who received the average level of need-based financial aid. Simmons is ranked #11 overall among the Regional North Universities, a designation for having distinctive programs that serve a "broad, engaged student body."

In addition to recognition in *U.S. News & World Report*, Simmons has been most recently recognized by the following national publications:

- ◆ 2018: #1 in female leadership among all Massachusetts higher education institutions (Women's Power Gap Report, EOS Foundation);
- ◆ 2018: #27 on list of the 2018 Top 100 Women-Led Businesses in Massachusetts (Commonwealth Institute/Boston Globe Magazine);
- ◆ 2018 MONEY magazine Best Colleges for Transfer Students ranks Simmons #16, the highest of any institution on the east coast, in part for average student debt and early career earnings;
- ♦ 2018 U.S. News & World Report Best Graduate Schools ranks Library Information Science program #12 in the nation; and
- ♦ 2018 U.S. News & World Report Best Online Programs for Nursing.

#### 1.3 History of IMP Process to Date

Simmons prepared an IMP in 2000, which presented information on the existing campus and discussed the mission and goals of the College, as well as its long-range plans. The BPDA (then known as the Boston Redevelopment Authority, but will be referred to throughout as the BPDA) approved the IMP on October 13, 2000. The Boston Zoning Commission approved the IMP on December 6, 2000, and designated Simmons Fenway Campus as an Institutional Master Plan Area.

On December 8, 2008, Simmons College filed an IMPNF/Renewal to extend the existing IMP for two years, and the BPDA approved the two-year renewal request in January 2009. On December 8, 2010, Simmons College filed an IMPNF/Renewal to extend the existing IMP for two years, which was approved by the BPDA in January 2011. On December 7, 2012, Simmons College filed an IMPNF/Renewal to extend the existing IMP for two years, which was approved by the BPDA in January 2013. On March 31, 2015, Simmons College filed an IMPNF/Renewal to extend the existing IMP for two years, which was approved by the BPDA on May 14, 2015. On April 7, 2017, Simmons College filed an IMPNF/Renewal to extend the existing IMP an additional two years, which was approved by the BPDA on May 11, 2017.

On September 1, 2018, Simmons College was officially renamed Simmons University.

#### 1.4 Existing Campus Description

#### 1.4.1 Simmons Academic Campus

The approximately 7.31-acre Academic Campus is comprised of five separate buildings forming the Academic Quadrangle, a main gathering place on campus. Together, these five buildings provide academic classrooms and labs, Beatley Library, the Trustman Art Gallery, faculty and staff offices, and dining and student life spaces (see Figure 1-3).

Table 1-1 provides a summary of the buildings on the Simmons Academic Campus. As part of Simmons Strategy 2022 Initiative, the University engaged with NBBJ to survey the conditions of all of its campus buildings as noted below.

Table 1-1 Simmons Academic Campus

Building/Address	Total Square Footage	Uses	Building Stories/Height	Year Constructed	Building Condition
Main College Building 300 The Fenway	198,500	Classrooms, Offices, Cafeteria, Bookstore, Meeting, Event Spaces, Art Gallery	3 – 4 stories 51- 67 ± feet	1904 – Main Building 1909 – East Wing 1929 – West Wing	Fair
Lefavour Hall 2 Avenue Louis Pasteur	121,000	Classrooms, Offices, Library, Meeting, Event Spaces, Café	5 stories 62 ± feet	2005	Good
Park Science Center 300 The Fenway	103,200	Classrooms, Offices, Laboratories	4 stories 59.5 ± feet	1972	Poor
Palace Road Building 1 Palace Road	60,000	Classrooms, Offices, Meeting spaces	4 stories 59.5 ± feet	2002	Good
Management and Academic Building 300R The Fenway	69,500	Classrooms, Offices Meeting, Event Spaces	5 stories 69.5 feet	2009	Good
TOTAL	552,200				





### Academic Campus

300 The Fenway Boston, Massachusetts 02115

- Main College Building
- Beatley Library and Lefavour Hall
- 3 Park Science Center
- School of Management and Academic Building
- 5 One Palace Road

## Residence Campus

54 Pilgrim Road Boston, Massachusetts 02115

- 6 Simmons Hall
- 7 Dix Hall
- 8 Smith Hall
- 9 Arnold Hall
- 10 North Hall
- III Health Center
- 12 Holmes Sports Center

- IB South Hall
- Malumnae Hall
- 15 Bartol Dining Hall
- 16 Evans Hall
- Mesick Hall
- 18 Morse Hall

Simmons University IMPNF/PNF Boston, Massachusetts



There is a five-level underground parking garage under the Management and Academic Building (713 parking spaces), which is also accessed from the lower level of the Main College Building. It is used for student and visitor parking. Of these parking spaces, 325 are leased to Boston Children's Hospital through October 2022. There is a three-level underground garage under the Palace Road building (211 parking spaces) used for faculty and staff parking.

Simmons currently leases approximately 20,600 rentable square feet of office space in Lefavour Hall to Boston Children's Hospital and approximately 6,250 rentable square feet of office space in the Management and Academic Building to Brigham & Women's Hospital. Simmons will recapture these spaces in 2019 to enable the projects described in this IMPNF/PNF.

#### 1.4.2 Simmons Residence Campus

Simmons University's approximately 5.88-acre Residence Campus is located a block northwest of the Academic Campus, adjacent to the vibrant Fenway neighborhood and the Longwood Medical Area. The Residence Campus contains 1,036 dormitory beds. It is bounded on the south by Brookline Avenue, on the north by Pilgrim Road, and on the west by the Winsor School.

The nine residence halls were built in the early to mid-1900s. Many have undergone varying levels of recent renovations. Bartol Hall, which houses a dining hall, is at the western side of the Residence Quad. Directly behind and adjacent to Bartol Hall is Alumnae Hall. The Holmes Sports Center and the Health Center complete the western side of the Residence Campus (see Figure 1-3).

Table 1-2 provides a summary of the buildings on Simmons Residence Campus.

Table 1-2 Simmons Residence Campus

Building/Address	Total Square Footage	Uses	Building Stories/Height	Year Constructed	Building Condition
Alumnae Hall 321R Brookline	7,600	Function Hall Stage Area	1 story 17 ± feet ±	1905	Fair
Arnold Hall 78 Pilgrim Road	22,000	Residence Hall	4 stories 42 ± feet	1951	Good
Bartol Hall 84 Pilgrim Road	25,400	Cafeteria	1 story 18 ± feet ±	1953	Fair
Dix Hall 30 Pilgrim Road	22,000	Residence Hall	4 stories 45 ± feet	1953	Fair
Evans Hall 305 Brookline Avenue	31,900	Residence Hall	5 stories 59.5 ± feet	1938	Fair
Health Center 94 Pilgrim Road	5,400	Offices/Meeting Rooms, Exam Areas	2 stories 21.5 ± feet	1966	Poor
Holmes Sports Center 331 Brookline Avenue	53,100	Athletic Center	3 stories 47.5 ± feet	1989	Fair
Mesick Hall 291 Brookline Avenue	25,900	Residence Hall	4 stories 45 ± feet	1961	Poor

Table 1-2 Simmons Residence Campus (Continued)

Building/Address	Total Square Footage	Uses	Building Stories/Height	Year Constructed	Building Condition
Morse Hall 275 Brookline Avenue	22,000	Residence Hall	4 stories 45 ± feet	1953	Poor
North Hall 86 Pilgrim Road	26,000	Residence Hall	5 stories 54 ± feet	1907	Fair
Simmons Hall 255 Brookline Avenue	34,400	Residence Hall	4 stories 44 ± feet	1956	Poor
Smith Hall 54 Pilgrim Road	32,400	Residence Hall, Café, Mail Room	4 stories 43 ± feet	1964	Good
South Hall 321 Brookline Avenue	26,100	Residence Hall	5 stories 53 ± feet	1905	Fair
TOTAL	334,200				•

There are two parking lots on the Residence Campus. Bartol lot is adjacent to the Bartol Hall building. The lot is approximately 700 square feet with a total of 10 parking spaces. Smith lot is adjacent to the Smith Hall building and is approximately 1,700 square feet with a total of 13 parking spaces. Both lots are used by staff members, visitors, and service contractors.

#### 1.4.3 Simmons Owned and Leased Properties

Simmons will lease three townhouse apartments for the 2019-2020 academic year from ESL Townhouse. Depending on Simmons enrollment and housing demand, these leases could be extended. From time to time as needed, Simmons may lease additional space for a variety of uses.

#### 1.4.4 Simmons Athletic Facilities

Nine NCAA Division III varsity intercollegiate teams form the core of the Simmons University athletics program: crew, cross country, field hockey, lacrosse, soccer, softball, swimming and diving, tennis, and volleyball. Simmons belongs to the Great Northeast Athletic Conference (GNAC), the North Atlantic Conference (NAC), the Eastern Collegiate Athletic Conference (ECAC), and is an associate member of the New England Men's and Women's Athletic Conference (NEWMAC). All teams also compete against worthy opponents outside the GNAC such as MIT, Tufts, Brandeis, Smith and Wellesley, among others.

Athletic activity on the Simmons campus centers on the William J. Holmes Sports and Fitness Center, a 60,000 square foot facility located just steps from Simmons nine residence halls and Bartol Dining Hall. Opened in 1989, the Center houses athletic training equipment, locker rooms, hardwood courts, an indoor running area, a swimming pool, and athletics staff offices for competition, academics, and recreation. In 1992, the Holmes Sports Center received the Athletic Business Architectural Award. Nevertheless, despite its adequacy, the 30-year-old Holmes Sports Center is showing its age.

#### Daly Field

In 2011, leaders from the Allston-Brighton community asked Simmons to consider an innovative public/private partnership for the benefit of the public and student athletes at the primary, secondary, and collegiate levels. As a result of this collaboration and under the leadership of state and city elected officials, the Commonwealth passed legislation permitting the state to enter into a lease agreement with the Allston Brighton Friends of Daly Field Inc., a non-profit corporation that is led by Simmons University.

Simmons was designated as the Corporation's agent to negotiate a lease with the Commissioner of the Division of Capital Asset Management for the fields and facilities at Daly Field in accordance with the Corporation's Bylaws and Chapter 223 of the Acts of 2012 of the Commonwealth of Massachusetts. The lease agreement runs for 20 years, with the option to renew for another 10, and entitles Simmons, Brighton High School football, and the Allston-Brighton Little League to use the facility at pre-designated times.

This unique public-private partnership led by Simmons transformed Daly Field in Brighton from a derelict, unplayable public space, to a state-of-the-art community recreational resource. Simmons total capital expenditure of \$13.5 million, along with its annual ongoing maintenance and operations expenditures of \$250,000 or more, will serve the athletes from Simmons, Brighton High School, and Allston-Brighton little leaguers, along with the citizens of Boston for the next 20 to 30 years. In his visit to Daly Field upon its opening in the fall of 2016, Mayor Marty Walsh commented, "Turning an unusable and unsafe field into a state-of-the-art athletic complex for the entire community is exactly the type of innovation that makes Boston shine. I commend Simmons, a leading institution for women's empowerment in our City and the force behind the Daly Field renovation project, not only for investing in the Boston Public School system and in the health of the people of Boston, but also for giving students in the neighborhoods of Allston and Brighton resources to reach their full potential."

With the opening of the Daly Field Athletics Complex in Brighton on September 10, 2016, for the first time in the University's history Simmons offered a home field for its outdoor athletics teams: soccer, softball, field hockey, tennis, and lacrosse. Simultaneously, the Brighton High School football team enjoyed its first home game in 25 years at Daly.

By legislation, Simmons athletics, Brighton High School football, and the Allston-Brighton Little League have priority usage of the facility. It is open for use by the general public for approximately 75% of playable hours via permitting by the Massachusetts Department of Conservation and Recreation or by walk-on. The complex features:

 Multipurpose synthetic turf field containing MIAA standard high school football field, NCAA Division III regulation soccer, men's and women's lacrosse fields, stadium seating for 200 and an elevated press box;

- ♦ NCAA compliant softball diamond with clay pitching circle and a 215-foot synthetic turf infield and outfield:
- ♦ NCAA Division III synthetic turf field hockey field;
- Six fenced NCAA standard tennis courts sized for singles and doubles play;
- ♦ 3,200 square foot service building containing a sports medicine facility, team meeting rooms, and public restrooms;
- Quarter-mile, two-lane walking track surrounding the softball field and tennis courts;
- ♦ New bicycle and walking path along the Charles River;
- ♦ Stadium lighting, digital scoreboard, and sound system; and a
- Public drinking fountain with bottle filler.

Simmons also invested nearly \$1 million to install an organic infill on the synthetic turf fields, "geofill," due to concerns over the possible connection between crumb rubber and cancer, an issue that has been subject to a federal investigation. Daly Field is the only complex in New England available to the public that uses the organic geofill. In addition, a Brock pad underlayment system has been installed beneath the turf, which is estimated to reduce the occurrence and impact of concussions by as much as 50%.

#### 1.5 Existing University Programs

While the mission of Simmons has remained constant over the years, the curriculum has changed to reflect modern-day social, economic, technological, and global changes. The undergraduate curriculum continues to provide students with a well-rounded liberal arts education combined with practical career preparation. The hallmark of the undergraduate curriculum is its flexibility and focus on individual responsibility and leadership, coupled with a distinctive program that links challenging academic study to the world of work.

Simmons prides itself on outstanding undergraduate programs taught by highly trained and experienced faculty and is deeply committed to outstanding teaching, small class size, and innovative programming that encourage students to actively engage with their studies, their communities, and the world around them. Grounded in individualized attention and the intersection of theory and practice, a Simmons education results in valued relationships for Simmons students among their fellow students, faculty, staff, and alumnae/i. With a special emphasis on leadership development, Simmons students graduate with a sense of pride, enhanced confidence, and a practical outlook on the modern American workplace.

Entering undergraduate students have diverse intellectual and academic interests, and Simmons offers programs to meet them. Among Simmons 70 academic offerings, popular majors include Nursing, Nutrition, English, Physical Therapy, Communications, Biology, Sociology, Psychology, Business Management, and Political Science/International Relations.

Simmons offers 14 accelerated and joint Bachelors/Masters programs for qualified undergraduates, on 3+1 and 4+1 schedules, leading to masters degrees in education, library and information science, nursing, nutrition, public policy, and social work. In addition, Simmons offers an integrated 3+3 undergraduate/graduate program leading to the Doctor of Physical Therapy degree. Woven into the curriculum and co-curriculum, Simmons partners with cultural and academic institutions in the Fenway and throughout New England to enhance their academic offerings and to enrich the experience of their students, faculty, and staff.

Simmons recently underwent an Academic Redesign. The Redesign is a structure of four distinct colleges under the new Simmons University umbrella. Academic offerings are grouped within each college, yet the University's commitment to the ease of inter-disciplinary study and the individual student academic journey remains a constant throughout each of the new colleges.

#### 1.5.1 The College of Natural, Behavioral, and Health Science

#### 1.5.1.1 Overview

In the College of Natural, Behavioral, and Health Sciences, inspiration is found at the intersection of life and science — cultivating innovative practices and procedures required to advance our scientific future and save lives.

Simmons faculty are leaders in their fields and pride themselves on being personal mentors. Students work with them to master the fundamentals and put that knowledge into practice through hands-on learning in Simmons labs. Students consider the natural world from every angle, blending social, mathematical, and life science to address intriguing issues related to behavior and experience.

Situated in the heart of Boston, the Simmons campus is surrounded by world-renowned teaching hospitals and research facilities — like Brigham and Women's Hospital, Beth Israel Deaconess Medical Center, Boston Children's Hospital and Massachusetts General Hospital. Simmons students are sought after for clinical rotations, research, and employment opportunities with leading experts in the industry.

#### 1.5.1.2 Academic Programs

The College of Natural, Behavioral, and Health Sciences has numerous academic programs as listed below.

- ♦ Behavior Analysis (MS, EdS, PhD)
- ♦ Biochemistry

- ♦ Biology
- ♦ Biology (BS)/Nutrition & Health Promotion (MS) 4+1
- **♦** Biostatistics
- **♦** Chemistry
- ♦ Chemistry Management
- ♦ Didactic Dietetics (Certificate)
- ♦ Environmental Science
- ♦ Exercise Science
- ◆ Exercise Science (BS)/Nutrition & Health Promotion (MS) 4+1
- ◆ Exercise Science (BS)/Physical Therapy (DPT)
- ♦ Health Professions Education (PhD)
- ♦ Heath Professions Education Certificate of Advanced Graduate Study
- ♦ Neuroscience and Behavior
- ♦ Nursing
- ♦ Nursing (BS)/Nursing (MS) 4+1
- ◆ Nursing (MSN) for BSN Holders
- ♦ Nursing (MSN) Direct Entry for BABS Holders
- ♦ Nursing (BSN) for RN Holders
- ♦ Nursing (MSN) for RN Holders
- ♦ Nursing (MS)/Public Health (MPH)
- ♦ Nursing Practice (DNP)
- Nutrition and Dietetics
- ♦ Nutrition and Food
- ♦ Nutrition and Health Promotion
- ◆ Nutrition (BS)/Nutrition and Health Promotion (MS) 4+1
- ♦ Physics
- ♦ Physics of Materials (minor)
- ♦ Physical Therapy (DPT)
- ♦ Psychology
- ◆ Public Health (BS)/Nutrition and Health Promotion (MS) 4+1
- ♦ Sports Nutrition (Certificate)

#### 1.5.2 The College of Organizational, Computational, and Information Sciences

#### **1.5.2.1** Overview

The College of Organizational, Computational, and Information Sciences empowers students to change the world by harnessing the power of information. Students find new patterns in potential pandemics, critique political campaigns, and examine global marketing strategies.

Every program at Simmons is taught by nationally distinguished faculty who combine practical and academic experience for teaching excellence. Real-world research experience is a key part of a Simmons STEM education. Students work with faculty to design powerful websites, forecast financial markets, and develop advanced economic and mathematical models.

Employers recognize the remarkable skills of a Simmons graduate. Students are sought after as decision-makers, adeptly analyzing information and creating dynamic solutions. Simmons students enter this exciting, expanding digital world with a sophisticated skill set, eminently qualified for careers as marketing executives, accountants, web developers, digital librarians, programmers, data analysts, and more.

#### **1.5.2.2 Programs**

Listed below are the academic programs of the College of Organizational, Computational, and Information Sciences.

- ♦ Accounting
- **♦** Biostatistics
- ♦ Business Management
- ♦ Chemistry Management
- ◆ Computer Science
- ◆ Computer Science (BS)/Library and Information Science (MS) 3+1
- ♦ Data Science and Analytics
- ♦ Economic and Mathematics
- ◆ Entrepreneurship (minor)
- **♦** Finance
- ♦ Financial Mathematics
- ♦ Health Care Management (minor)
- ♦ Health Informatics
- ♦ History
- ♦ History Archives Management (MS)
- ♦ Information Technology
- ♦ Library and Information Science
- ◆ Library and Information Science (MS, PhD)
- ♦ Marketing
- ♦ Mathematics
- ♦ Organizational Studies (minor)
- ◆ Principled Leadership (minor)
- ◆ Retail Management
- School Library Teacher Licensure (post-master's)
- ♦ Scientific Computation (minor)
- ♦ Statistics (minor)
- ♦ Web Design & Development

#### 1.5.3 The College of Social Sciences, Policy, and Practice

#### 1.5.3.1 Overview

At the College of Social Sciences, Policy, and Practice, students understand that to change the world, they need to understand it. From development to implementation, students study the impacts of policy and analyze the social forces that shape communities around the globe.

Students learn from renowned faculty who put their research to work improving social and economic policy for real-world systems change. Simmons students find placements at Boston's K-12 schools and world-renowned hospitals, intern with local, state, and federal legislators, and conduct original research on problems at the intersection of complex economic and social issues.

At Simmons, the campus culture is focused on community service and activism. Students hone their passion for advocacy and become influential leaders in social work, higher education, community development, government, law, community health, and finance.

#### 1.5.3.2 Academic Programs

Listed below are the academic programs of the College of Social Sciences, Policy, and Practice.

- **♦** Economics
- ♦ Economics and Mathematics
- ♦ Economics (BA)/Public Policy (MPP) 3+1
- ♦ Financial Mathematics
- ♦ International Relations
- ♦ Moderate Special Needs (certificate)
- ♦ Nursing (MS)/Public Health (MPH)
- ♦ Political Science
- ◆ Political Science (BA)/Public Policy (MPP) 3+1
- ♦ Public Health
- ◆ Public Health (BS)/Nutrition and Health Promotion (MS) 4+1
- ♦ Public Policy (MPP)
- ♦ Social Work
- ◆ Social Work (MSW)
- ◆ Social Work (BSW)/Social Work (MSW) 3+1
- ◆ Social Work (MSW) Accelerated 16-month program
- ♦ Social Work (MSW) for BSW Holders
- ♦ Social Work (PhD)
- ♦ Sociology
- ◆ Sociology (BA)/Public Policy (MPP) 3+1
- ◆ Special Education: Moderate & Severe Disabilities (MSEd)
- ◆ Teaching (MAT)

#### 1.5.4 The Gwen Ifill College of Media, Arts, and Humanities

#### 1.5.4.1 Overview

"We can't expect the world to get better by itself." — Gwen Ifill

The Gwen Ifill College of Media, Arts, and Humanities cultivates trailblazers and leaders. Students study the modes of expression through which the human experience is recorded and interpreted. Simmons students view society through the multi-faceted lenses of language, narrative, art, music, film and contemporary media. Students hone their creative abilities through real-world projects and on-the-job learning experiences.

As a pioneering African American woman journalist, Gwen Ifill broke through barriers of prejudice and stands as a model of professional excellence and a purposeful life. The Ifill College aims to carry on that legacy for the next generations. The College's mission is described below:

- They are a community of educators and learners guided by intellectual curiosity, critical thinking, and generosity of spirit.
- ♦ They derive strength from our differences and pursue civic engagement through humanistic inquiry that values language, lived experience, artistic expression, and imagination.
- ◆ They give voice to the stories, past and present, individual and global, told and untold, to influence a future whose questions have yet to be asked.

#### 1.5.4.2 Academic Programs

The Gwen Ifill College of Media, Arts, and Humanities includes the following Academic Programs.

- ♦ Africana Studies
- ♦ Art
- ♦ Arts Administration
- ♦ Children's Literature (MA)
- ◆ Children's Literature (MA)/Library Services to Children (MS)
- ◆ Children's Literature (MA)/Teaching (MAT)
- ◆ Children's Literature (MA)/Writing for Children (MFA)
- ♦ Cinema and Media Studies (minor)
- **♦** Communications
- ♦ English
- ♦ French
- ♦ Gender/Cultural Studies
- ♦ Gender History (minor)
- ♦ Graphic Design (concentration)
- ♦ History

- ♦ History (MA)
- ♦ History (BA)/Archives Management (MS)
- ♦ Journalism (concentration)
- ♦ Media Arts (concentration)
- ♦ Music
- ♦ Performing Arts (minor)
- ♦ Philosophy
- ♦ Photography (minor)
- ◆ Public History (minor)
- ◆ Public Policy (MPP) and Gender/Cultural Studies (MA)
- ♦ Public Relations and Marketing Communications
- ♦ Radio (minor)
- ♦ Spanish
- ◆ Teaching (MAT) Gender/Cultural Studies (MA)
- ◆ Teaching (MAT) History (MA)
- ♦ Web Design and Development
- ♦ Women's and Gender Studies
- ♦ Writing for Children (MFA)

#### 1.5.5 Online Programs

Since Simmons began offering its first fully online program, Archives Online, in the fall of 2012, the University has been steadily building its online program portfolio. Today online programs are thriving, enabling Simmons to reach beyond the confines of their campus to reach students throughout the world, providing the high quality and practical education for which Simmons has always been known.

Simmons has partnered with 2U, a national leader in distance education, to provide a robust selection of courses and programs. Through deliberate and careful planning, Simmons has uncovered two key ingredients for success in the distance learning space: high quality coursework and instruction combined with the latest distance learning technology.

#### 1.5.5.1 Nursing@Simmons

Designed for licensed registered nurses (RNs), Nursing@Simmons delivers some of the nursing degree programs for which the Simmons is widely known. Simmons offers two degree programs with unique program tracks for RNs and advanced practice nurses at different stages in their education and careers. Nursing@Simmons uses cutting-edge technology and a state-of- the-art online learning platform to help nurses earn their degrees. Importantly, online nursing students are supported by the University in finding quality health care providers for clinical experience that benefits the student and employers equally.

#### 1.5.5.2 Social Work@Simmons

SocialWork@Simmons is an online master of social work program featuring an innovative learning experience. The Simmons virtual classroom blends the latest distance learning technology with the exceptional pedagogy for which Simmons is known. SocialWork@Simmons also provides students with hands-on field experiences in the students' communities across the nation for practical clinical learning. Delivering the high quality social work training and education to rural communities and other locations that lack trained social workers is a significant benefit of the Social Work@Simmons program, and aligns with the University's core mission and values.

Nursing and social work students access a distinguished Simmons University degree without having to relocate to Boston, bringing their new skills and talents to the communities they care about the most.

#### 1.5.5.3 Additional Online Programs

The University continues to expand its online offerings. In addition to Nursing and Social Work, Simmons now proudly offers the following graduate programs online: MS in Behavior Analysis; their signature MBA program; Health Care MBA; Health Professions Education (PhD); Communications; MS in Library Information Science, with concentrations in Archives Management and Information Science and Technology; and an MS in Public Health and in Nutrition. As the growth of the online student population continues, Simmons ability to reach students who will serve communities all across the nation grows as well.

#### 1.6 Campus Demographics

While many other small, private, tuition-dependent and modestly endowed institutions of higher education are facing existential threats, Simmons University continues to thrive. Undergraduate enrollment remains steady. Online programming has grown rapidly over the past five years, and its enrollment doubles that of undergraduate students.

Thanks to prudent fiscal management and steady leadership, Simmons is in a position today to make the needed capital improvements that will fortify its next 120 years.

#### 1.6.1 Student Demographics

For the past 16 years, Simmons University has enjoyed solid enrollment numbers for undergraduate and graduate programs. While there has been a history of fluctuating enrollment, the University has settled on a target undergraduate class size (410) that fits the campus capacity, enables Simmons to provide the desired programming and student support services, and preserves the proper faculty and staff to student ratio. These projects are not intended to provide for a future increase in undergraduate enrollment, but rather to ensure Simmons campus is equipped to provide an exceptional living and learning environment for the same number of undergraduates now and into the future.

Table 1-3 Simmons Enrollment History

Year	Full Time Undergrad	Full Time Graduate	Total Full Time	Part Time Undergrad.	Part Time Graduate	Online Full- Time	Online Part- Time	Total Headcount
2002- 2003	1,236	644	1,880	140	1,763	0	35	3,783
2003- 2004	1,364	730	2,094	184	1,657	0	89	3,935
2004- 2005	1,627	908	2,535	185	1,834	0	171	4,554
2005- 2006	1,740	845	2,585	178	2,024	0	164	4,787
2006- 2007	1,847	638	2,485	162	2,050	0	116	4,697
2007- 2008	1,923	659	2,582	154	2,002	0	68	4,738
2008- 2009	1,852	638	2,490	208	2,235	0	69	4,933
2009- 2010	1,746	782	2,528	223	2,252	0	82	5,003
2010- 2011	1,706	883	2,589	206	2,188	0	67	4,983
2011- 2012	1,614	837	2,451	171	2,163	0	80	4,881
2012- 2013	1,646	803	2,449	146	2,235	2	141	4,936
2013- 2014	1,577	758	2,335	155	2,165	0	127	4,655
2014- 2015	1,472	738	2,210	114	1,672	56	584	3,996
2015- 2016	1,599	1,289	2,888	142	2,630	138	682	5,660
2016- 2017	1,594	1,460	3,054	187	2,870	512	1,463	6,111
2017- 2018	1,553	1,618	3,171	186	2,926	668	1,797	6,283
2018- 2019	1,631	1,700	3,331	178	3,524	901	2,467	7,033

#### 1.6.2 Faculty Demographics

As of January 1, 2019, there were 355 Simmons staff, faculty, and adjunct faculty residing in Boston, which accounts for 18.43% of Simmons employees.

Table 1-4 Active Full-Time and Part-Time Faculty/Staff as of January 2019

	Full-Time		Part-Time		Total Count of Worker	Percent of Total
	Count of	Percent of	Count of	Percent of		
	Worker	Total	Worker	Total		
Boston Resident	198	30.37%	157	12.32%	355	18.43%
Non-Boston Resident	454	69.63%	1117	87.68%	1571	81.57%
Total Count	652	100.00%	1274	100.00%	1926	100.00%

#### 1.7 Community/Public Benefits

#### 1.7.1 Transportation

Simmons has received an Excellence in Commuter Options (ECO) Award from the Massachusetts Department of Transportation for the past several years, most recently in April 2018. ECO Awards are in recognition of leadership in offering and promoting sustainable transportation options to employees. Simmons provides a 70 percent subsidy, up to \$130 per month, to full-time employees who earn up to \$75,000 per year; a 50 percent subsidy, up to \$130 per month, to full-time employees who earn more than \$75,000 per year; and up to a 30 percent subsidy to part-time employees, who purchase transit passes. Students receive an 11 percent subsidy as part of the University's participation in the MBTA Semester Pass Program. Transit passes are also available to employees through payroll deduction, which enables employees to use pre-tax dollars to pay for the balance of their transit costs. Information about these subsidies is promoted annually through the Simmons Human Resource department, the campus wide biweekly newsletter, Shark Bytes, and at monthly employee orientation sessions. Approximately 250 employees and 250 students took advantage of this program in 2018.

In addition, Simmons contributed \$42,740 in 2018 to operate the Longwood Medical Area Shuttle through MASCO. This service provides free and subsidized shuttle service from three area transit stations (Ruggles on the Orange Line, JFK/UMass on the Red Line, and the Jersey Street Station on the commuter rail) to our commuters. This year Simmons employees took an estimated 18,879 shuttle rides.

Simmons has continued to increase support for bike commuters, including adding bike racks, providing a sheltered bike area, and installing bike repair stations on campus. Each year, Simmons promotes community participation in the MASCO CommuteWorks program, which includes carpool and vanpool matching, preferential parking for carpools and vanpools, the Emergency Ride Home program, bike incentives, bike repair/tune-up sessions, and educational programs.

Through the Colleges of the Fenway, Simmons supports a BLUEBikes station, which is located in front of Simmons Main College Building at the corner of Avenue Louis Pasteur and The Fenway. To further support use of BLUEBikes, the Simmons library loans free helmets to students and employees.

#### 1.7.2 Payments in Lieu of Taxes (PILOT) and Linkage

#### **PILOT**

Simmons participates in the PILOT program including its most recent FY'19 payment on December 1, 2018. Since its founding in 1899, Simmons University has embraced its role as a community partner for the citizens of Boston. Simmons' deep roots in the Fenway neighborhood has enabled the University to establish meaningful relationships with important organizations and community leaders throughout Greater Boston – from the Fenway Alliance to the Science Club for Girls. Over the years Simmons has donated millions of dollars by lending time, space, and the expertise of their talented and well-trained students, staff and faculty, making quantifiable contributions to the City of Boston significantly beyond their PILOT payments.

#### **Future Linkage Payments**

The proposed Projects would trigger the following Development Impact Project ("DIP") linkage payments: (1) a housing exaction of \$9.03 for each square foot of gross floor area in excess of 100,000 square feet occupied by a DIP, and (2) a job creation exaction of \$1.78 for each square foot of gross floor area in excess of 100,000 square feet occupied by a DIP Use.

#### 1.7.3 Community Partnerships

With its deep roots in the Boston community, the impact of Simmons can be measured in many ways.

#### 1.7.3.1 Colleges of the Fenway

Simmons is a member of the Colleges of the Fenway (COF), a collaboration between five academic institutions in Boston's Fenway neighborhood: Simmons, Emmanuel College, Massachusetts College of Art & Design, MCPHS University, and Wentworth Institute of Technology. COF membership provides Simmons students with academic and co-curricular opportunities to engage and interact with other students, organizations, and classes at participating colleges.

Via cross-registration, the COF offers the more than 20,000 undergraduate and graduate students of the five schools approximately 2,300 course offerings to choose from. In addition, the COF provides free Wi-Fi, environmental health and safety programs and resources, study abroad opportunities, emergency preparedness resources, and career planning activities on behalf of its members.

In service to the City of Boston, in FY'18, nearly 600 participants joined in the following COF environmental activities: 5th Annual Earth Day, Muddy River Cleanup, 12th Annual Muddy River Symposium, and an Environmental Forum class. Through a partnership with BLUEBikes, COF helped facilitate 1,841 trips taken in Boston, for a total of 3,529 miles ridden.

#### 1.7.3.2 Services to the City of Boston

As an urban institution deeply committed to the City of Boston, Simmons offers programs that support and encourage partnerships between the University and the City of Boston. Thirty percent of all undergraduate students participate in service learning and many more volunteer in the community. In FY'17, the most recent data available, Simmons volunteers contributed nearly \$9M to our collective future (calculated using the national standard of about \$23 per hour as the value of volunteer hours). In addition, as a required part of their academic training, this year 1,100 Simmons University students perform hundreds of thousands of hours of service in unpaid internships throughout the City of Boston, with others serving across eastern Massachusetts and New England.

As part of their clinical training, Simmons students are placed in community organizations throughout Greater Boston and provide skilled service free of charge in exchange for invaluable (and required) field experience. As described in Simmons Community Benefits Report submitted to the City in April 2019, in FY'18 Simmons students performed clinical hours at the following:

- Physical Therapy, Nursing, and Nutrition students performed free service valued at \$444,383 at the following locations: Health Centers (Codman Square Dimock, East Boston, Martha Eliot) and Agencies (ABCD Head Start, Boston Public Health, Boys & Girls Club, Haley House, Hearth at Ruggles, Hebrew Senior Life, Healthcare for the Homeless, Mass Mental Health, South Cove WIC, Thom Early Intervention, Women's Lunch Place, Wellbridge PT); Hospitals (Beth Israel Deaconess, Boston Children's, Boston Medical Center, Brigham & Women's, Joslin, Kindred Hospital, MGH, NE Baptist, Tufts Medical, Franciscan Children's, Spaulding, St Elizabeth's, VA Healthcare System, The Faulkner).
- ◆ Social Work students performed more than 130,000 hours of free service in more than 250 locations in Boston valued at \$2,971,935, including at the following locations: Public Schools (East Boston High, Frederick Pilot, John D O'Bryant, Joseph Lee, TechBoston); Community Health Centers (Bowdoin St, Brookside, Codman Square, Fenway, Fuller, South End); Hospitals (Beth Israel Deaconess, Boston Medical Center, Brigham & Women's Faulkner, Boston Children's, Franciscan Children's, MGH, Shriners, Spaulding, St Elizabeth's, Tufts, VA); Public Agencies (Boston Juvenile Court, Boston Public Health Commission, DCF, Elder Affairs, Mass Mental Health); Social Service Agencies (AIDS Action Committee, Bay Cove Human Services, Boys and Girls Club, Bridge Over Troubled Waters, Casa Myrna Vazquez, Harbor Health Services, Home for Little Wanderers, Hope House).

#### 1.7.3.3 Daly Field

The initial \$13.5 million investment in Daly Field in Brighton, which fully revitalized a derelict, unplayable, unsafe state park into a state-of-the-art, environmentally sound, sparkling community resource, was a significant contribution to the community. In addition, Simmons pays approximately \$250,000 per year in annual maintenance fees to ensure Daly Field remains clean, safe, and pristine. Simmons also replaces the turf's geofill every three years or as needed.

**Project Description** 

#### 2.0 PROJECT DESCRIPTION

#### 2.1 Program Needs and Objectives

In 2015 a steering committee of Simmons senior administrators and Board members initiated an in-depth study of existing facilities and future facility needs for the next decade in preparation for the filing of the University's next 10-year IMP with the BPDA. This process, part of the Simmons "Strategy 2022" initiative, has included input from academic deans, faculty, staff, and students and is guided by the President and Board of Trustees. This process began with and was supported by a comprehensive study prepared by NBBJ in 2013 which included physical assessment of the campus plant and recommendations for physical improvements as well as analysis of alignment with programmatic goals, feasibility and costs. This planning has been governed by the following goals:

- to identify facilities and campus development needs and opportunities to best fulfill the University's academic mission and priorities;
- to explore possible programming opportunities and facilities expansion/repurposing potential to enhance the student experience for both residential and commuter students, focusing on creating a more vibrant campus experience for all students;
- to ensure the University's campus and facilities contribute to Simmons competitive advantages and fully leverage the campus location in the Fenway and City of Boston;
- to assess the conditions and suitability of Simmons existing facilities and prioritize improvement and capital investment;
- to analyze existing space utilization with a focus on instructional spaces and identify underutilized spaces for right-sizing and/or repurposing;
- to conduct a focused assessment, both physical and programmatic, of learning and research spaces for the health and life science programs, exploring a full range of options for renovation, addition and new construction for the sciences; and
- to examine opportunities for leveraging potential real estate opportunities for partnering with private and/or institutional entities for co-development.

Through this planning effort, Simmons developed a set of priorities and recommendations for future campus development and began exploring options. The most immediate capital needs that were identified are:

1. Funding for and the construction of new science facilities. This need was singled out as being Simmons highest priority in support of academic programs.

2. Funding for and construction of modern residential facilities, allowing for both cocurricular activity and social spaces where students can convene without having to leave campus, which was described as essential to support the student body with its rich diversity, high academic achievement and vigorous community engagement.

The Strategy 2022 process crystalized a vision for one, unified campus for Simmons as a vital concept for the University's future. This concept involves modernizing the science facilities in an existing building on the academic campus and constructing a new Living and Learning Center on the site of the Park Science Center.

#### 2.2 One Simmons and Science Upgrade

The needed capital improvements to the University's science facilities and residential accommodations represent one of the University's strategic building blocks focused on implementing changes and growth for Simmons University to ensure its vitality and its future, while honoring the mission conceived by its founder John Simmons. This building block involves uniting residential accommodations and athletics facilities with existing academic and administrative facilities as a One Simmons concept and addresses its aging science facilities at a time when STEM education has taken on a regional and national importance.

#### 2.2.1 One Simmons

The goal of the One Simmons Initiative is to create a robust learning community by improving the living experience on the Simmons campus. In order to continue on the current trajectory of strength and to deliver a truly 21<sup>st</sup> century co-curricular and residential experience for all students, today and in the future, Simmons leadership is convinced that their campus experience must continue to evolve.

- After undergoing a comprehensive academic redesign in 2015-2018, where four new colleges were established under the Simmons University umbrella as described in Chapter 1, Simmons is committed to an interdisciplinary and problem-solving integration of science, arts, and technology curriculum. To fully incorporate the new academic structure, the campus structure must evolve to enhance interactions between faculty and students; integrate academic and student life; and increase connectivity, safety, and health and wellness for students.
- Research confirms that in a marketplace where all universities and colleges are competing for the best students, the two key decision criteria for such students are: an academically robust program with good lifetime outcomes, particularly job opportunities; and a place where they can envision enjoying spending four years of their lives. The One Simmons concept provides state-of-the-art athletics, dining, science, and residences to support the University's mission and to attract and retain talent.

- ♦ Simmons new and innovative core curriculum, Purpose, Leadership, ActioN (PLAN), requires students to build and demonstrate skills that will be critical to their success as people and as employees for their first jobs and throughout their careers. This curriculum anticipates that students will participate in activities, programs, and living/learning experiences that complement the academic courses and clinical programs Simmons offers. The required courses that make up PLAN include engagement with the City of Boston and with classmates and peers, in group-focused work best supported by outside-the-classroom meeting spaces and technology. The University needs more of these types of spaces on its residential campus to support this important and innovative work.
- Simmons students' feedback, and national research confirms, that student-housing preferences have changed. In order to keep pace, Simmons needs to transform from its classic, traditional residential campus to the type of modern and welcoming living environment that prospective students are looking for when they select a college. Current residence halls are aged, with significant deferred maintenance that threatens their utility.

After years of study and deliberation, Simmons leaders are convinced that in order to create the vibrant, innovative, and collaborative campus environment the University strives for, there is a need to unite its facilities into one unified campus.

#### 2.2.2 Science Upgrades

When Simmons Female College first opened its doors in 1902, among its initial five schools was The School of General Science, of which President Henry Lefavour said, "In time, I venture to think, it would prove an important part of the College." First year courses included math, physics, and chemistry. Students of the time were preparing to teach biology, chemistry or physics, to serve as research assistants, or to pursue medical degrees. In 1920, Dorothy Celeste Boulding Ferebee graduated from Simmons, and she went on to become the second African-American woman to earn an MD in American history.

Today approximately 50 percent of Simmons students major in laboratory sciences including nursing and health sciences, chemistry, biology, and physics. Standing on the shoulders of student scholars and faculty who came before them, science majors at Simmons are empowered with early access to the lab and bolster their learning with a strong culture of mentorship and making a positive difference in the world. Meanwhile, with its deep roots in the Boston science and medical community, Simmons helps facilitate mutually beneficial clinical placements and internships throughout the Longwood Medical and Academic Area and other Boston neighborhoods providing hands-on, practical, real-world experience that enhances graduates' preparation for their careers while offering skilled workers in communities that need them.

Despite Simmons legacy of producing outstanding scientists, Simmons leaders recognize that aging science facilities may affect student learning and recruitment efforts. The Park Science Center was built in 1972 and reflects the brutalist architecture style of the times. As time goes on, its limited natural light and older laboratory configuration will make it difficult to provide the modern laboratories expected at universities such as Simmons. At a time when salaries in STEM-related jobs are growing, and technology and life science-based industries continue to drive the regional economy, there is still a lack of women in STEM fields. Simmons leaders believe the national phenomenon of a gender gap in STEM fields adds urgency to their plans to upgrade the science facilities on the campus of the only women's undergraduate program in Boston.

# 2.3 Proposed 2019 IMP Projects

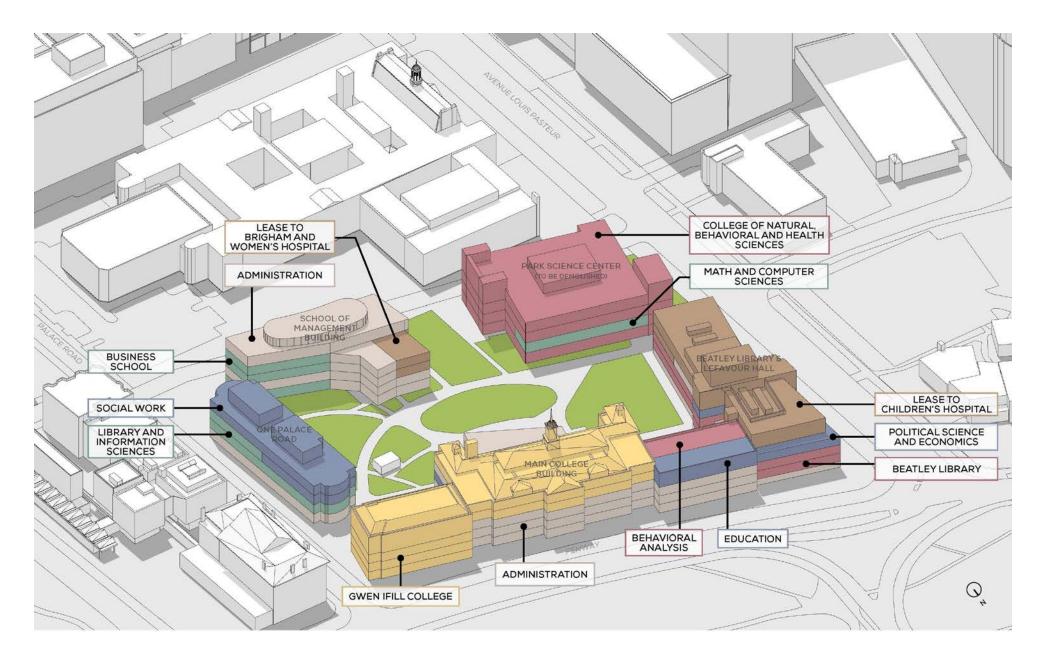
In order to achieve the goals of the One Simmons initiative, Simmons proposes to first renovate the existing Lefavour Hall building into a modern science facility, and then demolish the Park Science Center to enable the construction of a new Living and Learning Center. Together, these two Projects will create a consolidated academic and residential campus. In order to enable these two projects Simmons University will recapture leased space and undertake minor renovation and program relocation activities on its Academic Campus (Main College Building, Palace Road, and Management Building) beginning in fall 2019. Existing and proposed campus organization maps are presented in Figures 2-1 and 2-2.

# 2.3.1 College of Natural, Behavioral, and Heath Sciences (CNBHS) and Library Renovations

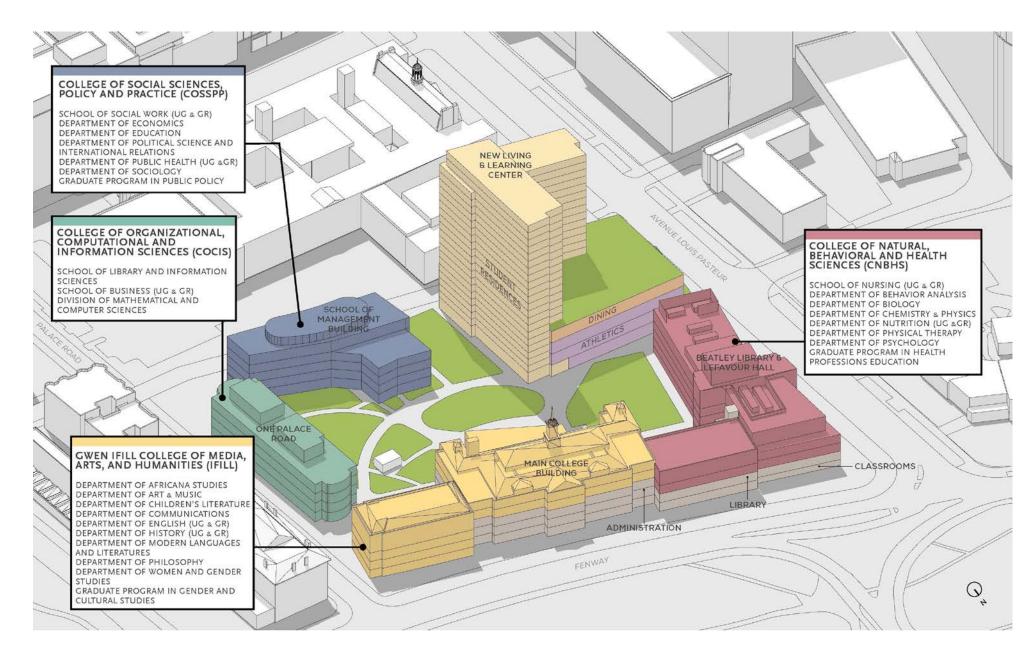
Simmons University will undertake significant renovation to convert Lefavour Hall and a portion of the Main College Building into a modern science facility to support the mission of Simmons University. To enable the new science facility, Simmons will decant Lefavour Hall and the west wing of the Main College Building and will then transform these two buildings to accommodate a reconfigured library as well as labs, classrooms and offices needed to support the chemistry, biology, physics, nursing, physical therapy and other programs of the College of Natural, Behavioral, and Health Sciences.

The Lefavour Hall and Main College Building renovations will consist of renovating floors two through four of Lefavour Hall and floors ground through four of the Main College Building to accommodate the Library and the College of Natural, Behavioral and Health Sciences, which is currently located in the Park Science Center. Apart from adding a new elevator and elevator lobby on the south side of the first floor, the ground and first floors of Lefavour Hall will generally remain as they are today. By reconfiguring the interior of the building to use space more efficiently, the renovations will allow Simmons to provide new research and instructional laboratories, and faculty and staff offices without significantly changing the massing of the building.

In order to accommodate the mechanical equipment requirements of the laboratory space, a new mechanical penthouse will be installed on the roof of Lefavour Hall.







Simmons University IMPNF/PNF Bos

**Boston, Massachusetts** 

# 2.3.2 Living and Learning Center

Once the CNBHS and Library renovations are complete and the Park Science Center is vacant, Simmons proposes to demolish the Park Science Center and construct a new Living and Learning Center containing athletics space, a dining hall, and approximately 1,100 dormitory beds. The Project program is presented in Table 2-1. No new parking will be created as part of the 2019 IMP Projects. Floor plans are presented in Appendix A.

Table 2-1 Living and Learning Center Project Program

Project Element	Approximate Dimension
Athletics	96,000 gfa
Dining and Other Student Spaces	38,000 gfa
Dormitory	1,100 beds/267,000 gfa
Total Gross Floor Area (gfa)	401,000 gfa
Height	4 to 20 stories/75 to 250 feet

With the completion of the 2019 IMP Projects, the current Residential Campus will be taken out of service. The number of on-campus beds is expected to increase from 1,036 to approximately 1,110. Table 2-2 below presents the overall shift in square footage proposed.

Table 2-2 Campus Land Uses – Existing and Proposed

Academic Campus	Existing (sf)	Demolished (sf)	Proposed (sf)	Final (sf)	Net New (sf)
Academic/Support	552,000	103,200	134,000	582,800	30,800
Residences	0	0	267,000	267,000	267,000
Academic Campus Total	552,000	103,200	401,000	849,800	297,800
Parking	964	0	0	964	0
Residential Campus	Existing (sf)	Vacated (sf)	Proposed (sf)	Final (sf)	Net New (sf)
Academic/Support	91,500	91,500	0	0	-91,500
Residences	242,700	242,700	0	0	-242,700
Residential Campus Total	334,200	334,200	0	0	-334,200
Parking	23	23	0	0	-23
Parking  Combined Total	Existing (sf)	23 Demolished or Vacated (sf)	Proposed (sf)	Final (sf)	-23 Net New (sf)
	Existing	Demolished or	Proposed	Final	Net New

Depending on the scheduling of the Living and Learning Center, Simmons may need to lease portions of the Park Science Center to third parties for an interim period. If needed, any such use would be for limited lease terms.

# 2.4 Consistency with the LMA Interim Guidelines

The BPDA (then the BRA) adopted the LMA Interim Guidelines in 2003 to inform the BPDA's consideration of development within the LMA prior to completion of a master plan for the area. The Guidelines provide direction on such matters as urban design, dimensions of buildings, uses, transportation, and benefits. The mission and objectives described in this IMPNF/PNF and the proposed Projects are generally consistent with the objectives of the LMA Interim Guidelines. By unifying Simmons University into one campus with the Living and Learning Center as a new signature building, Simmons will enhance its institutional identity. The building will maintain the prevailing urban street wall along Avenue Louis Pasteur and enliven the streetscape with active uses including athletics. This will be a significant improvement over the Park Science Center, which provides no first-floor windows facing Avenue Louis Pasteur. In terms of the height of the Living and Learning Center, the building will be limited to 75 feet in height along Avenue Louis Pasteur, stepping up to 17 to 21 stories facing the Management and Academic Building. The tower portion of the building is located in a zone where a residential height bonus can be earned with exceptional public benefits. The IMP will comprehensively describe each proposed Project's relationship with the LMA Interim Guidelines.

# 2.5 Project Team

Proponent: Simmons University

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Cambridge, MA 02140

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Chris Erikson

# 2.6 Zoning

The Site is located in (i) an H-2 Apartment Residential District under the base provisions of the Boston Zoning Code (the "Code"), (ii) a Groundwater Conservation Overlay District, which is governed principally by Article 32 of the Code, and (iii) a Restricted Parking Overlay District. The Site is further subject to an Institutional Master Plan established pursuant to Article 80D of the Code.

# 2.7 Anticipated Permits and Approvals

Table 2-3 presents a preliminary list of permits and approvals from governmental agencies that are expected to be required for the Project, based on currently available information. It is possible that only some of these permits or actions will be required, or that additional permits or actions will be required.

Table 2-3 Anticipated Permits and Approvals

Agency Name	Permit / Approval
Local	
Boston Civic Design Commission	Design Review
Boston Conservation Commission	Order of Conditions (if applicable)
Boston Employment Commission	Construction Employment Plan
Boston Fire Department	Site Access Plan and other required permits
Boston Landmarks Commission	Article 85 Demolition Delay
Boston Parks and Recreation Commission	70' height restriction of Building with 100 feet of Parkland (7-4.10) Approval of Building within 100 feet of Parkland (7-4.11) 20' Setback from Parkland (7-4.12)
Boston Planning and Development Agency	Article 80B Large Project Review Article 80D Institutional Master Plan Review
Boston Transportation Department	Transportation Access Plan Agreement Construction Management Plan
Boston Water and Sewer Commission	Water and sewer connection permits Site Plan review
Boston Zoning Commission	Institutional Master Plan Approval
Inspectional Services Department	Building and occupancy permits
Interagency Green Building Committee	Article 37 Review
Public Improvement Commission	Specific Repair Plan approval and License for changes to the public right of way, if required
Public Works Department	Curb cut and street/sidewalk opening permits (if required)
State	
Massachusetts Department of Environmental Protection	Notice of Demolition/Construction
Massachusetts Historic Commission	State Register Review, if applicable
Massachusetts Environmental Policy Act	MEPA review, if applicable
Federal	
U.S. Environmental Protection Agency	NPDES General Permit for dewatering and Stormwater Discharge Permit, if applicable
Federal Aviation Administration	Determination of no hazard to air navigation

# 2.8 Legal Information

# 2.8.1 Legal Judgements Adverse to the Proposed Projects

There are no legal judgments or actions pending concerning the proposed Projects.

#### 2.8.2 History of Tax Arrears on Property in Boston Owned by Simmons

Regarding property owned in Boston by Simmons that is subject to taxation, Simmons is not aware of any history of tax arrears.

# 2.8.3 Evidence of Site Control/Nature of Public Easements

The campus is owned by Simmons University pursuant to deeds described below. Site surveys are provided in Appendix B.

# **Academic Campus**

The land with the buildings thereon shown on Land Court Confirmation Plan No. 36335A, and recorded in Book 8428, Page 244; and are also shown as Lots 1 and 2 on a plan recorded in Book 8746, Page 745, and as Lots 1-A, 1-B and 2 on a plan and recorded in Book 9063, Page 657.

# **Residential Campus**

The land with the buildings thereon shown as Lots 1 through 16, on a plan entitled "Plan of Land of L. Pope & N.H. Emmons on Appleton Place in Roxbury", dated January 16, 1845, by Alex Wadsworth, Surveyor, recorded with Norfolk County Registry of Deeds in Plan Book 159, Page 256 n/k/a Plan Book 1, Plan E.

The above land is also shown on a plan entitled "Simmons College, Plan of Land in Boston, MA, Roxbury District, Back Bay, Suffolk County", dated March 18, 1987, by William S. Crocker Co. – Survey Engineers recorded in Plan Book 13883, Page 93 as Lot containing  $256,457\pm$  sq. ft. or  $23,826\pm$  m<sup>2</sup> according to said plan.

# 2.9 Schedule

Is it anticipated that the CNBHS and Library Renovations will begin in the fall of 2020 and will be completed in the fall of 2021. Construction of the Living and Learning Center will begin after the CNBHS and Library Renovations are complete, and construction will last approximately 36 months.

Assessment of Development Review Components

### 3.0 ASSESSMENT OF DEVELOPMENT REVIEW COMPONENTS

# 3.1 Transportation

Article 80 of the Boston Zoning Code outlines that an Institutional Master Plan must include a description of the institution's existing transportation and parking characteristics, a description of parking to be provided over the term of the Institutional Master Plan (IMP), a projection of impacts associated with the projects proposed in the IMP, and a set of transportation goals and mitigation measures to address these impacts. Additionally, the IMP must address the pedestrian circulation system to be provided through the campus, including guidelines and objectives regarding the accessibility to the general public of any pedestrian areas and open spaces.

This section addresses these elements and describes the existing transportation environment at Simmons University related to walking, bicycling, and vehicle travel. An assessment of transportation impacts associated with the proposed campus changes is presented along with a series of transportation demand management measures that the University will continue to maintain to discourage single occupant automobile travel.

# 3.1.1 Campus Overview and Study Area

Simmons University, located in the Fenway neighborhood of Boston, currently enrolls about 1,630 undergraduate students, including 1,075 students who live on-campus (Fall 2018). Graduate student enrollment is approximately 1,700 full-time students, including 900 full-time students taking online courses. University employees include about 650 full and part-time faculty and staff members, and about 1,275 part time faculty and staff.

The University has two separate campuses:

- ◆ The Academic Campus, located along The Fenway, is bounded by Avenue Louis Pasteur to the west, Palace Road to the east, and a Service Road to the south. The campus has five buildings that surround an outdoor main gathering place known as the Academic Quadrangle. The buildings contain academic classrooms and labs, the Beatley Library, the Trustman Art Gallery, faculty and staff offices, and dining and student life services. An underground parking garage, with capacity of 924 spaces, has access/egress via the Service Road.
- ◆ The Residential Campus is located about a quarter-mile northwest of the Academic Campus and is bounded by Brookline Avenue to the west and Pilgrim Road to the east. The campus contains nine residence halls, Alumnae Hall, the Health Center, Holmes Sports Center, and the Bartol Hall cafeteria. Pedestrians walking between the residential and academic campuses travel along The Fenway or cut through the adjacent Emmanuel College grounds. Two small surface parking lots with a total capacity of 23 spaces are located near Bartol Hall and Smith Hall.

The campuses and surrounding area are shown in Figure 3.1-1. Other key institutions in the area include Emmanuel College, the Isabella Stuart Gardener Museum, the Boston Latin School, Beth Israel Hospital Deaconess Medical Center, Boston Children's Hospital, Harvard Medical School, the Mass College of Pharmacy and Health Sciences, and Mass College of Art.

# 3.1.2 Proposed IMP Projects

Simmons University is proposing to renovate the existing Lefavour Hall and a portion of the Main College Building and geographically reorganize the four academic colleges, and to then demolish the Park Science Center and construct a new Living and Learning Center. Together, these Projects will create a consolidated academic and residential campus. Collectively, these components are referred to as the 2019 IMP Projects.

With the Projects, all on-campus student residents will be consolidated onto what is now referred to as the Academic Campus. While completion of the Projects will result in a net increase of approximately 297,800 square feet on the Academic Campus, the total square footage of the University will decrease. The number of on-campus beds is expected to increase from 1,036 to approximately 1,100. Student enrollment and the number of faculty/staff members are not anticipated to appreciably change. Table 3.1-1 summarizes the existing and proposed land use program.

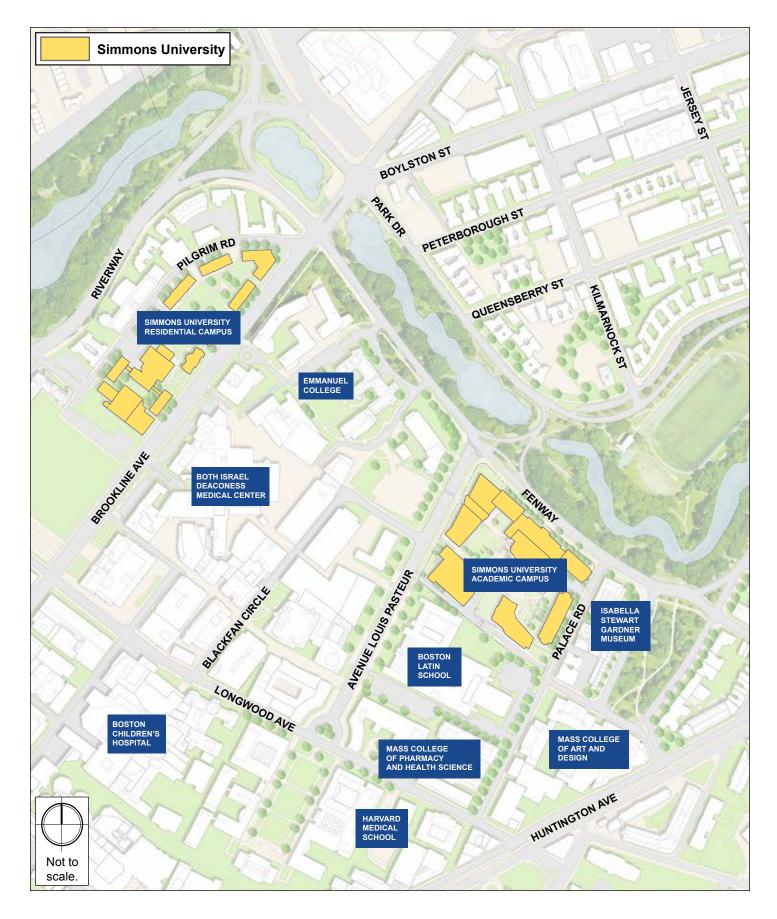
Table 3.1-1 Campus Land-Uses and Parking Supply – Existing and Proposed

Land Use	Existing <sup>1</sup>	Proposed
Academic/Support		
Academic Campus - Classrooms, labs, library, offices, dining, student life services	552,000 sf	849,800 sf
<b>Residential Campus</b> - Health center, athletic center, dining, function hall	91,500 sf	0 sf
Student Residences	242,700 sf (1,036 beds)	275,000 (1,100 beds)
Total	886,200 sf	849,800 sf
On-Campus Parking Spaces		
Academic Campus	924 spaces	924 spaces
Residential Campus	23 spaces	0 spaces

 $<sup>^{1}</sup>$  Source: Simmons College Institutional Master Plan Notification Form for Renewal, April 7, 2017.

### 3.1.3 Existing Transportation Condition

This section describes the transportation environment for all travel modes including walking, bicycling, transit, and vehicular.



# 3.1.3.1 Pedestrians and Bicycles

### 3.1.3.1.1 Pedestrian Environment

Figure 3.1-2 shows key components of the pedestrian environment serving the academic and residential campuses. On the Academic Campus, five pedestrian gateway locations connect the campus to the sidewalks on surrounding streets. The Residential Campus has eight controlled gateways along Brookline Avenue and Pilgrim Road.

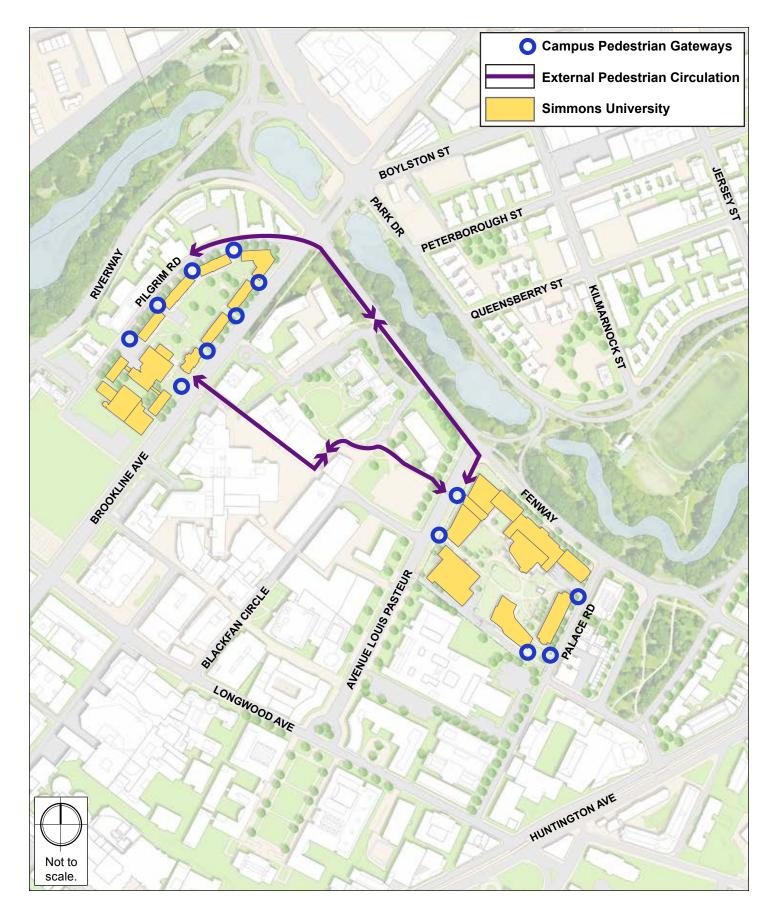
The pedestrian pathways between the two campuses are heavily used as students walk back and forth between dormitory rooms and academic activities. From the Academic Campus, some students walk along The Fenway to reach the intersection at Brookline Avenue, where pedestrian call buttons, pedestrian signals, and crosswalks are available to reach Pilgrim Road. Another common pathway for students is to walk across Avenue Louis Pasteur and cut through Emmanuel College campus to reach Brookline Avenue. Along Brookline Avenue between The Fenway and Longwood Avenue no mid-block crosswalks are provided, forcing students to cross at their own risk.

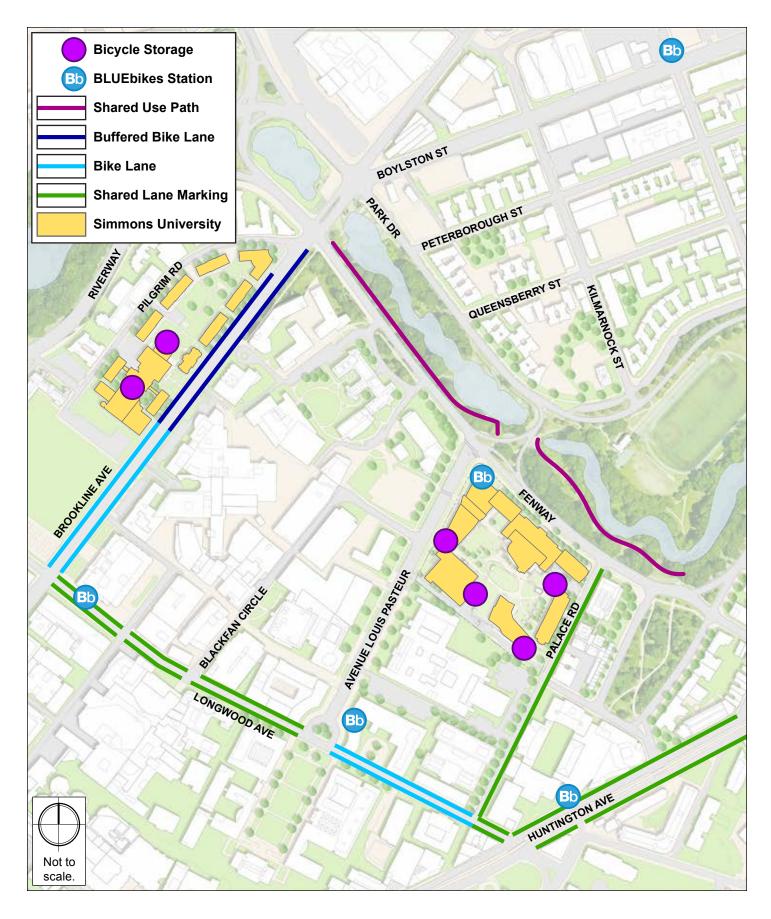
### 3.1.3.1.2 Bicycle Facilities

Figure 3.1-3 shows the on-street bicycle facilities in the area and on-campus bicycle rack locations.

There are currently no bicycle facilities on Avenue Louis Pasteur or The Fenway. A shared-use path exists in Justine Mee Liff Park across the street from the Simmons University Academic Campus. The shared use path is part of the Emerald Necklace. Palace Road has shared lane markings on the entire length of the street between Longwood Avenue and The Fenway. In the greater quarter-mile radius around the campus, bicycle facilities exist on all major roads except The Fenway. Brookline Avenue currently has buffered bike lanes on most of the length of the roadway between Longwood Avenue and The Fenway. The segment near the intersection of Brookline Avenue and Longwood Avenue is not buffered. Longwood Avenue has shared lane markings between Brookline Avenue and Avenue Louis Pasteur. The shared lane markings transition into unbuffered bike lanes on Longwood Avenue between Avenue Louis Pasteur and Huntington Avenue with a shared lane marking as the bike lane ends approaching Huntington Avenue. Huntington Avenue also has shared lane markings in both directions between Louis Prang Street and Longwood Avenue.

As shown in Figure 3.1-3, four bicycle storage racks are available on the Academic Campus for student and staff use. Racks were observed to be at about 50% capacity on a weekday in late February 2019. On the Residence Campus, two bicycle racks are located adjacent to Bartol Hall and on the patio between Alumnae Hall and Holmes Sports Center.





BLUEbikes has two stations near the Simmons University campus on Avenue Louis Pasteur. The Colleges of the Fenway location at the intersection of Avenue Louis Pasteur and The Fenway has 15 bicycle docks. The Harvard Medical School/Harvard School of Public Health location at the intersection of Avenue Louis Pasteur and Longwood Avenue has 21 bicycle docks. Four additional BLUEbikes stations are available within one-quarter mile of the campus.

#### 3.1.3.2 Transit

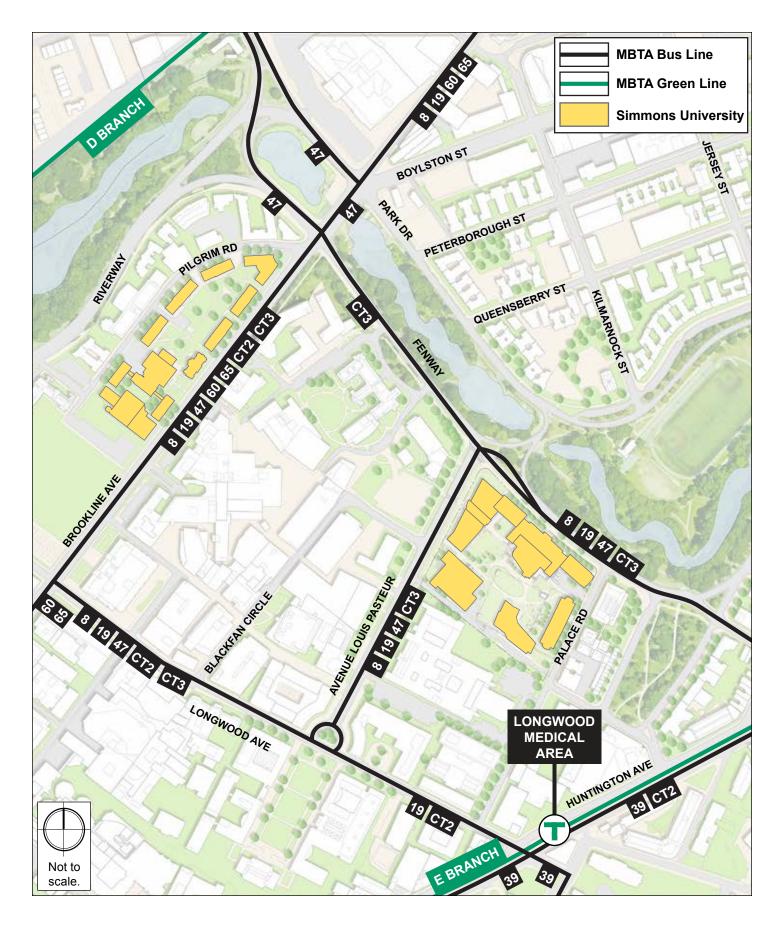
Simmons University is well served by public transportation including many MBTA services and the MASCO (Medical and Academic Area Scientific and Community Organization) shuttles, which operate between member institutions and outlying parking locations and MBTA stations.

#### 3.1.3.2.1 MBTA Public Transportation

The Simmons University campuses are located between two branches of the MBTA Green Line: the Riverside (D) branch and the Heath Street (E) branch. The Riverside (D) branch connects Government Center in downtown Boston to the Riverside Station in Newton and has stations near the University at Fenway and Longwood. The Heath Street (E) branch connects Lechmere Square, Cambridge, to Heath Street in Jamaica Plain. The closest stop along this branch to the University is Longwood Medical Area. Stops at the Museum of Fine Arts and Brigham Circle are also within a quarter mile of the University.

MBTA operates eight bus routes near Simmons University. Three of the eight bus routes (Route 8, 19, and 47) travel along Avenue Louis Pasteur and The Fenway and have stops on Avenue Louis Pasteur at The Fenway near the Academic Campus. Two routes (Route 60 and 65) have stops along Brookline Avenue near the Residential Campus. One bus route (Route 39) operates along Huntington Avenue. Two crosstown bus routes (CT2 and CT3) operate along Brookline Avenue and Longwood Avenue.

Available MBTA services in the area are summarized in Table 3.1-2 and mapped in Figure 3.1-4.





**Table 3.1-2** Existing Public Transportation Services

			Headway	
MBTA Service	Service Description	a.m. peak	p.m. peak	
Subway Lines				
Green Line Riverside (D) Branch	Government Center, Boston, to Riverside Station, Newton	6	6	
Green Line Heath St. (E) Branch	Lechmere Sq., Cambridge, to Heath St. Station, Jamaica Plain	6	6	
	Buses			
39	Forest Hills Station to Back Bay Station	8	11	
47	Central Square in Cambridge to Broadway Station	10-15	15-20	
60	Chestnut Hill to Kenmore Square	30	30-35	
65	Brighton Center to Kenmore Square	7-10	20-25	
CT2	Sullivan Square to Ruggles Station	20	20-25	
СТЗ	Beth Israel Medical Center/Boston University Medical Campus to Andrew Station	15-20	30	

<sup>\*</sup>All headway times are approximate. Headway is the interval of time between each bus or train on a route

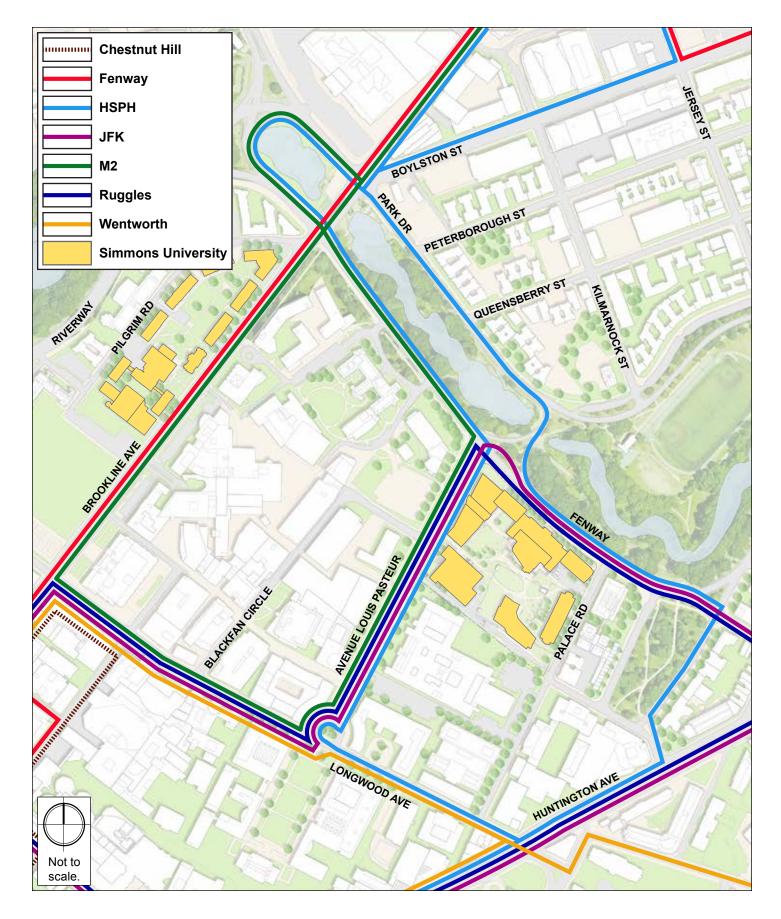
#### 3.1.3.2.2 MASCO Shuttle Services

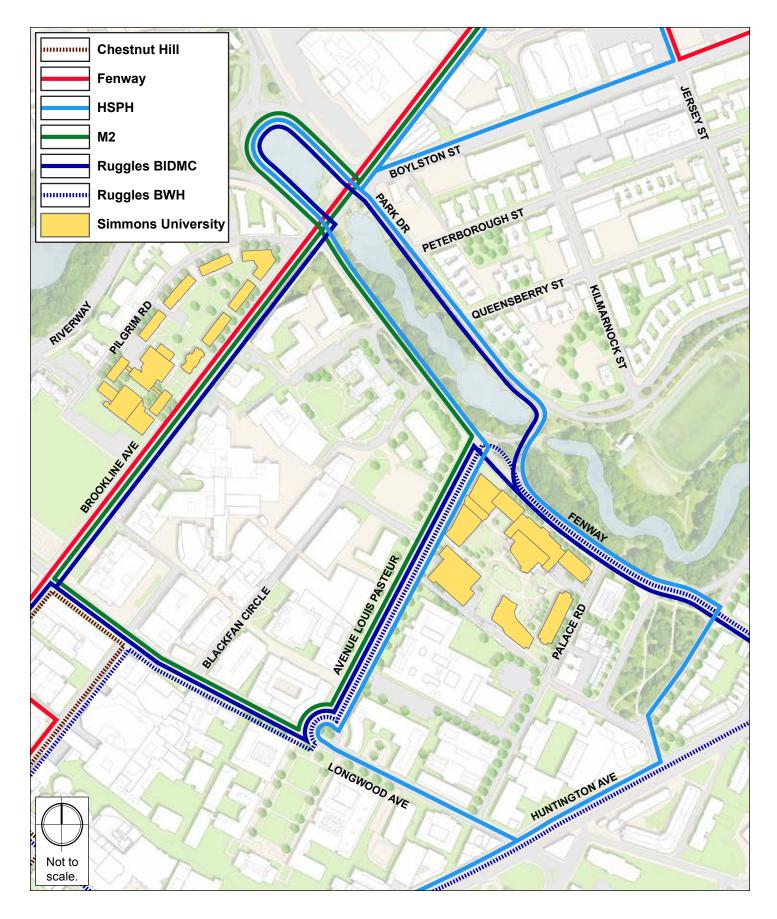
MASCO is a non-profit organization dedicated to enhancing Boston's Longwood Medical and Academic Area (LMA). MASCO provides member institutions/employers with services related to area planning and development, parking and transportation, collaborative purchasing, and other employee amenities. Simmons University is one of over 20 MASCO member institutions/employers in the LMA area. Overall, MASCO members employ over 57,000 people.

A key service provided by MASCO is a system of shuttle routes operating between the LMA and transit stations and parking facilities providing members with alternative travel choices.

MASCO operates seven shuttle routes in the area near Simmons University. The MASCO routes are described below and shown in Figure 3.1-5 and Figure 3.1-6 for the a.m. and p.m. peak periods respectively.

- ◆ The Chestnut Hill shuttle operates as a park and ride service to a parking garage at the Shops at Chestnut Hill. Riders must have a vehicle parked in this garage along with membership identification. The shuttle operates at headways under 15 minutes until 6:45 a.m. and increases to 15-minutes at 7:00 a.m. Headways increase to an hour after the a.m. peak travel times. Midday and evening headways are 20 minutes.
- ◆ The **Fenway** shuttle operates commuter shuttle and park and ride service between satellite Fenway parking lots, Landsdowne MBTA station and the LMA. The shuttle operates with 6-minute headways during morning peak hours and 30-minute headways midday and 8-minute headways during the afternoon and evening hours.





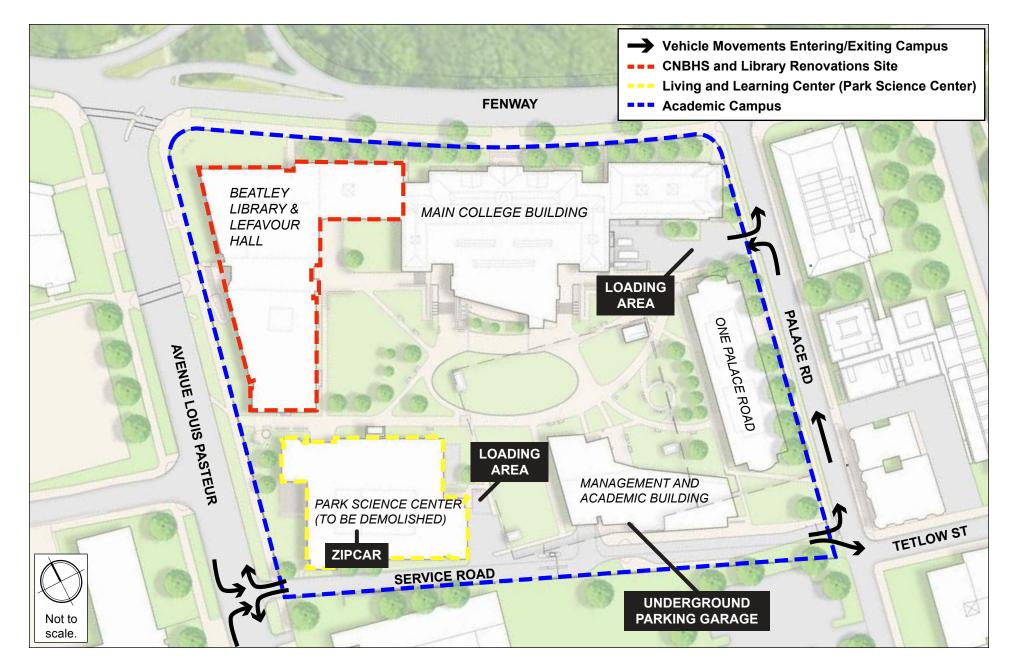
- ◆ The Harvard Chan-Landmark lot shuttle operates between the Harvard School of Public Health and the Landmark Center at Fenway. The shuttle operates with 35-minute headways.
- ◆ The JFK/UMass Station shuttle operates as a commuter shuttle between the JFK/UMass Station and the LMA with additional service to Andrew Station. The morning shuttle operate with 7-minute headways until 8:20 a.m. and then increases to 10-minute headways. Afternoon and evening shuttles operate with 15-minute headways
- ◆ The M2 Cambridge-HMS shuttle provides direct shuttle service between Harvard Medical School and the LMA to Harvard Square in Cambridge. The route has two schedules: Harvard and Vanderbilt. The Harvard shuttle leaves every 10 minutes before 10 a.m. and after 4:30 p.m. The Vanderbilt shuttle leaves every 10 minutes before 7:50 a.m. and after 4:10 p.m. The shuttles operate with 30-minute headways during midday.
- ♦ The **Ruggles Station** shuttle operates commuter shuttle service to Ruggles MBTA station. Shuttles operate with 6 to 8-minute headways during the morning hours and leaves every 5-10 minutes in the afternoon and evening.
- ◆ The Midday Wentworth-Ruggles-JFK-Combo shuttle operates a combined commuter and park and ride shuttle service between LMA, Wentworth, Ruggles, and JFK station. The shuttle only operates between 10:00 a.m. and 2:00 p.m. and has one shuttle each hour.
- ◆ The Wentworth Lot shuttle operates as a park and ride service to Wentworth University parking lot with midday service to Ruggles and JFK stations. The shuttle operates with 15minute headways.

Passengers on the JFK, M2, Ruggles and Chestnut Hill routes must provide MASCO membership identification to use this service. Passengers traveling on the Harvard Chan-Landmark and the M2 Cambridge-HMS routes must have a Harvard identification card or buy tickets through member institutions.

#### 3.1.3.3 **Vehicle Access and Circulation**

#### 3.1.3.3.1 Area Roadways

Primary vehicle access to the Simmons University campus is via The Fenway, Avenue Louis Pasteur, and Palace Road. Each of these roadways is described below and shown on Figure 3.1-7, the Academic Campus existing site plan.



The Fenway, an urban principal arterial roadway under the jurisdiction of the Department of Conservation and Recreation (DCR), runs in a predominantly east-west direction from Riverway to Boylston Street. West of the intersection with Avenue Louis Pasteur, The Fenway is a three-lane, one-way eastbound roadway. East of the intersection with Avenue Louis Pasteur, The Fenway is a two-way, two-lane roadway. Approximately 200 feet east of its intersection with Avenue Louis Pasteur, The Fenway is split by a median that ranges in width from 4 feet to 16 feet. This median is used to redirect westbound vehicles left onto Avenue Louis Pasteur. On-street parking is provided along the south side of The Fenway adjacent to Simmons University. Sidewalks are provided along both sides of the roadway and range in width from 10 to 12 feet.

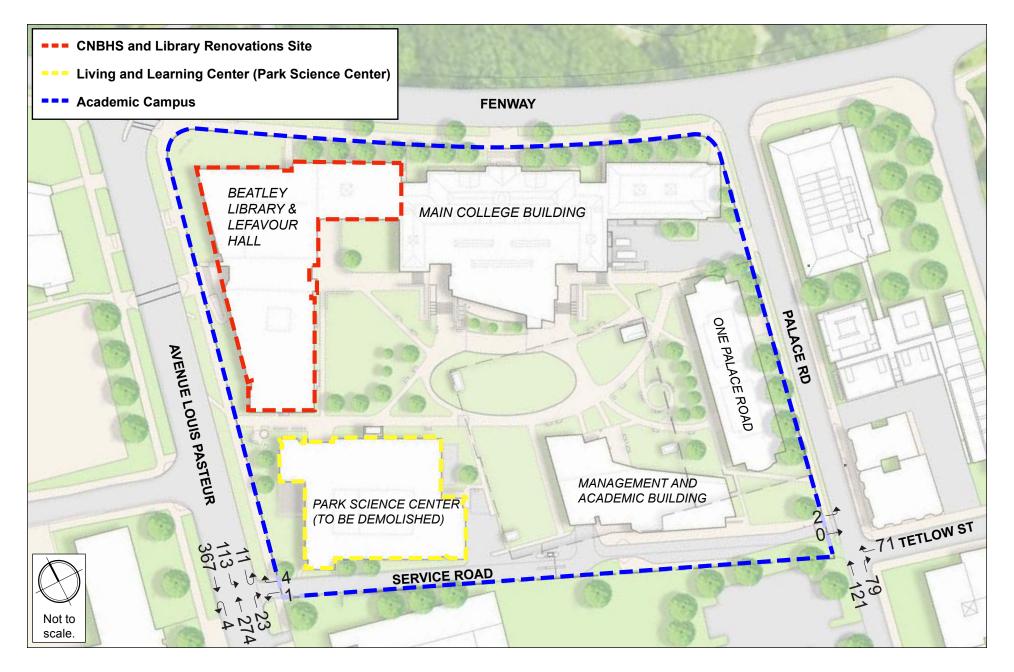
Avenue Louis Pasteur, an urban minor arterial roadway under the jurisdiction of the City of Boston, runs north-south from The Fenway to Longwood Avenue. Within the study area, Avenue Louis Pasteur provides one travel lane in each direction. On-street parking is provided on both sides of the roadway near the study area. Sidewalks are provided on each side of the roadway and are generally approximately 10 feet wide. Four MBTA bus stops exist along Avenue Louis Pasteur.

**Palace Road,** a local roadway under the jurisdiction of the City of Boston, runs north-south from The Fenway to Longwood Avenue. Palace Road is a one lane, one-way northbound roadway. Onstreet parking is provided on both sides of the roadway north of its intersection with Tetlow Street, and along the west side of the street south of its intersection with Tetlow Street. Sidewalks are provided along both sides of the roadway and range in width from eight to 12 feet.

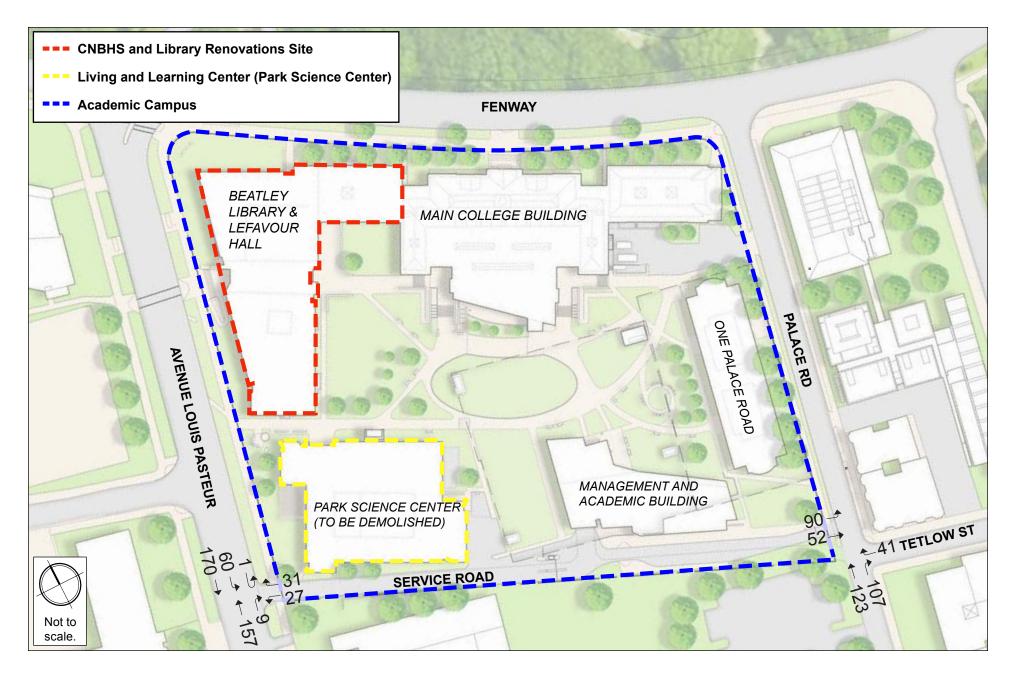
**Service Road** is a private roadway owned by Simmons University. The roadway forms the southern boundary of the Academic Campus and connects Avenue Louis Pasteur and Palace Road. The Service Road provides access/egress for the parking garage and loading facilities at the Park Science Center building. The roadway operates as two-way between Avenue Louis Pasteur and the garage driveway and is one-way eastbound between the garage driveway and Palace Road. Vehicles cannot enter the Service Road from Palace Road.

## 3.1.3.3.2 Traffic Counts

Traffic volume data was collected at the two Service Road intersections on February 28, 2019. Turning Movement Counts (TMCs) were conducted during the weekday a.m., and p.m. peak periods (7:00-9:00 a.m.) and 4:00-6:00 p.m., respectively) at the study area intersections. The TMCs collected vehicle classification including car, heavy vehicle, pedestrian, and bicycle movements. Figure 3.1-8 and Figure 3.1-9 show the a.m. peak hour and p.m. peak hour volumes, respectively.









# 3.1.3.3.3 Loading and Service Areas

As shown on the existing site plan in Figure 3.1-7, two loading and service areas are located on the Academic Campus adjacent to the Main College Building and the Park Science Center. All loading, service, and delivery activity occurs off-street.

Two loading and service areas on the Residential Campus are located off-street along Pilgrim Road, between North Hall and Arnold Hall and between Smith Hall and Arnold Hall. Day-to-day deliveries and maintenance activity occur at these locations. The University manages student move-in/move-out at the start and end of the academic year by assigning timeslots for student/parent vehicles to arrive/depart and providing staff and volunteers to streamline activity.

#### *3.1.3.3.4 Carshare*

Zipcar has one location at Simmons University in the small surface parking lot adjacent to the Park Science Center.

# **3.1.3.4** Parking

# 3.1.3.4.1 Off-street Parking

Simmons University has one parking garage on the Academic Campus, located under the Management and Academic Building. The five-level underground facility, with capacity of 924 spaces, has access and egress via the Service Road. General use parking is permitted between 6:00 a.m. and 12:00 a.m. on weekdays and 8:00 a.m. and 12:00 a.m. on weekends. Visitors can receive validation from the campus location they are visiting. Commuter students are permitted to obtain discount student parking in the garage, based on availability. Students who reside on campus are not permitted to use on-campus parking. These are two connected garages that are served by a shared entrance and exit.

On the Residential Campus, two small surface parking lots with a total capacity of 23 spaces are located near Bartol Hall and Smith Hall. The lots are for student permit parking and visitor parking only.

Table 3.1-3 shows the allocation of garage spaces by user type.

Table 3.1-3 Academic Campus Parking Garage – Capacity and User Allocation

User Allocation	Spaces
Faculty/Staff	211
Accessible/Handicapped	19
General Use Students with permits, campus visitors, public, Gardener Museum visitors	370
Leased to Boston Children's Hospital	325
Total	924

#### 3.1.3.4.2 On-street Parking Regulations

As shown in Figure 3.1-10, limited on-street parking is available immediately adjacent to the Simmons University campuses. Streets around the University are primarily designated as tow away zones with no allowed stopping. Palace Road has some daytime metered parking. The southern curb along The Fenway adjacent to the Academic Campus is available for parking anytime, except during street sweeping and DCR snow emergencies. Residential permit (Fenway/Kenmore neighborhood) parking is provided along Pilgrim Road.

#### 3.1.3.5 Travel Mode Shares

As required by the Massachusetts Department of Environmental Protection (DEP), Simmons University prepares an annual Rideshare Regulation Base Report, which is submitted by all educational institutions with 1,000 or more applicable commuters. (Note that applicable commuters include employees and students who live off-campus.) The aim of the DEP program is to assess commuting patterns and travel demand management strategies for major employers with the goal of reducing single occupancy vehicle travel.

Key elements of the rideshare report are 1) the travel mode shares estimated from the base data and commuter surveys, as developed and administered by Simmons University and 2) the list of travel demand reduction incentives that the University offers commuters. As published in University's 2018 Rideshare Report, the travel mode shares are listed in Table 3.1-4.

The drive alone mode share of 39%, indicating that 61% of University commuters use some other travel mode, reflects an exceptional level of commuter reliance on transit and walking. The set of transportation demand management measures that Simmons University have enacted are resulting in reduced dependence on single occupancy vehicle travel. (A discussion of Transportation Demand Management strategies is presented later in Section 3.1.5.)

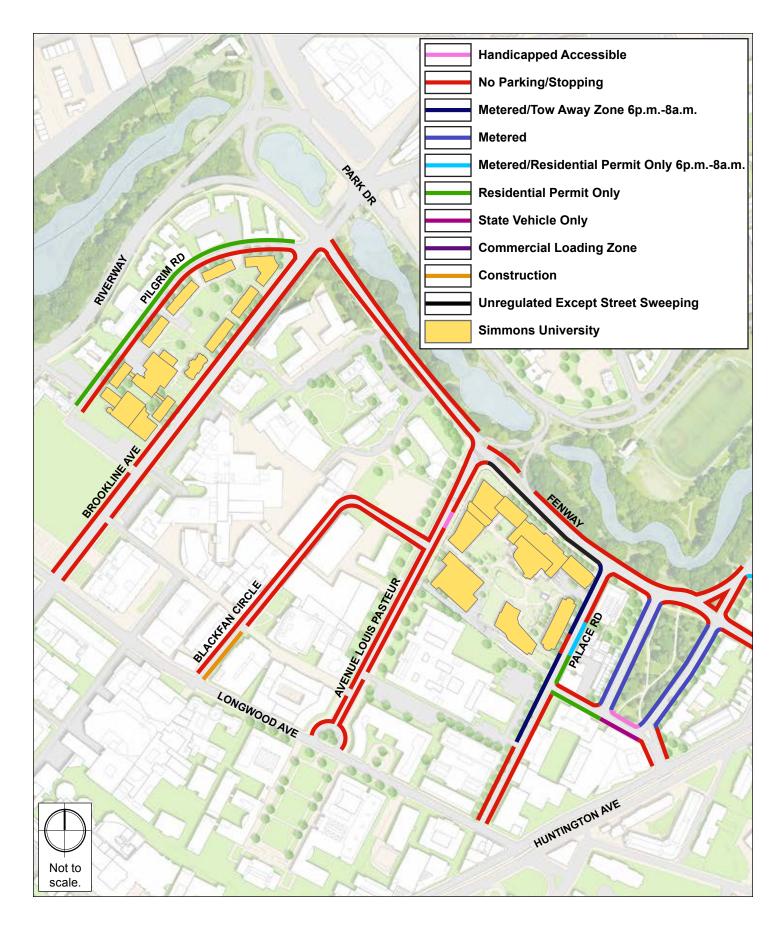




Table 3.1-4 Simmons University's Commuter Travel Mode Shares

Travel Mode	Percent
Walk	15%
Bicycle	3%
Transit	
MBTA Public Transportation	30%
MASCO Shuttle	4%
Drive alone	39%
Carpool/Vanpool	4%
Other (telecommute, flextime, etc.)	5%
Total	100%

# 3.1.4 Future Transportation Condition

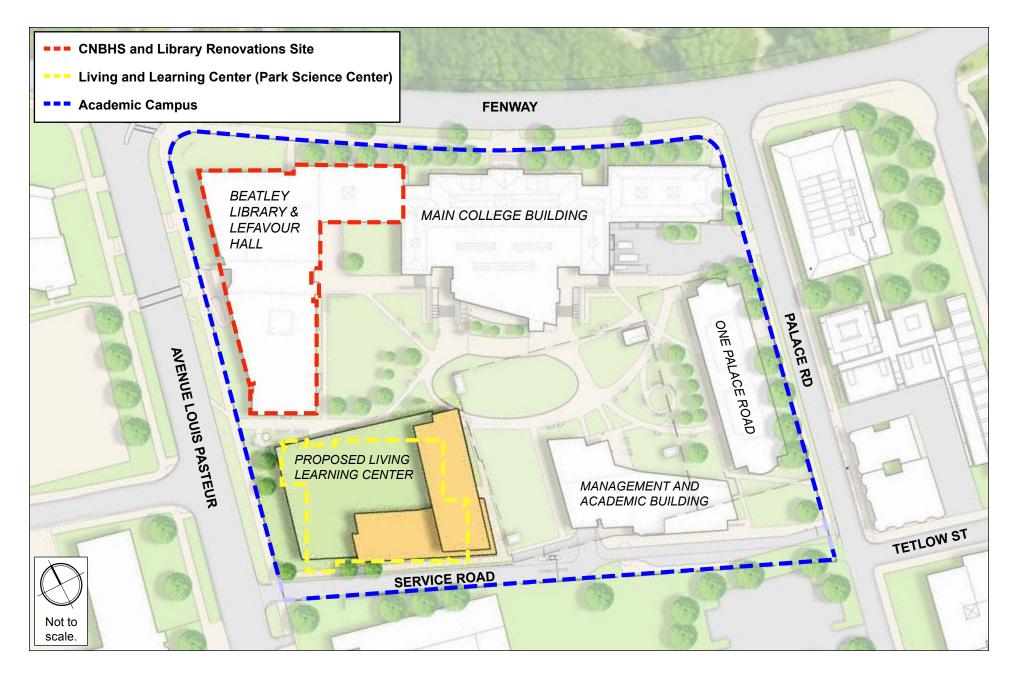
As previously described, Simmons University is proposing to renovate the existing Lefavour Hall and a portion of the Main College Building, and geographically reorganize the four academic colleges, and to then demolish the Park Science Center and construct a new Living and Learning Center. Together, these Projects will create a consolidated academic and residential campus. Collectively, these components are referred to as the 2019 IMP Projects. Figure 3.1-11 shows the campus site plan with the IMP Projects.

With the Projects, all on-campus student residents will be consolidated into the Living and Learning Center on what is now referred to as the Academic Campus. Student enrollment and the number of faculty/staff members are anticipated to stay relatively constant. While the number of on-campus beds is expected to increase from 1,036 to approximately 1,100, this small change will not have a perceptible impact on campus activity or trip generation.

By relocating all on-campus housing to the new Living and Learning Center, the University-generated pedestrian trips that currently occur between the Academic Campus and Residential Campus will be eliminated, thereby improving overall safety for students and staff who currently travel by foot between the two campuses.

With the Projects, transit ridership generated by the University will not change and no impact to transit services is expected.

Vehicle volumes generated by Simmons will not increase, because the number of students and faculty/staff members and the associated supply of parking will remain essentially the same as today.



The Projects will not affect vehicle circulation on or near campus. Access and egress for the parking garage will remain along the Service Road. Presently, loading and servicing for the Park Science Center occurs along the Service Road. With the new Living and Learning Center, loading and servicing for the building will continue to occur off-street along the Service Road and generally be located in the same place as the Park Science Center's loading area today.

Vehicle volumes generated by the University will not increase, because the number of students and faculty/staff members and the associated supply of parking will remain essentially the same as today.

# 3.1.5 Transportation Demand Management

Simmons University currently offers a wide array of incentives to reduce single-occupancy vehicle travel for faculty/staff and commuting students. The results of these programs yield the relatively low drive-alone mode share of 39%, as cited in Table 3.1-4. The University is committed to continuing to provide these travel demand management (TDM) measures.

This section provides an overview of Simmons University's TDM program, including the benefits associated with being a member of MASCO and their CommuteWorks program.

#### ♦ Carpooling

There are two types of carpooling incentives offered: carpool matching and preferential carpool parking. Carpool matching has been implemented by referring commuters to the in-office carpool matching program. Publicity and maintenance of carpool incentives has been done through posting carpool matching information at the facility and providing commuters with an online link to carpool matching services. There are two designated preferential carpool parking spaces. The spaces are publicized through an online link for preferential parking information.

#### ♦ Bicycle

 Placement of bicycle racks is used to incentivize bicycling to the campus and is publicized and maintained through the University website. A BLUEbikes station is located on campus on the southeast corner of The Fenway and Avenue Louis Pasteur.

#### ◆ Transit

o Transit passes are offered to staff as a pre-tax payroll deduction and through a website link for information on transit passes. Discounted MBTA passes are available through pre-order programs. Students may obtain them through Student Leadership and Activities. These incentives are publicized through online announcements. Transit schedules and routes are provided through on-site posting of transit schedules and an online link. Information about current transit schedules is updated through online announcements. Negotiation with transit providers are implemented through

surveying applicable commuters on needs for improved transit and forwarding commuter comments to the transit authority through formal meetings. Publicity and maintenance of this incentive is done through notifying commuters how they can submit transit comments.

#### ♦ Vanpool

- Vanpool matching implementation is done by providing in-office vanpool matching programs and providing commuters with an online link to vanpool matching services.
   Two preferential parking spots are allocated to vanpool. Preferential vanpool parking is maintained by posting information and identifying vanpool spaces with "Vanpool Parking" signs.
- ◆ CommuteWorks Program: CommuteWorks is a service offered by MASCO that provides information on commuting alternatives. Services offered through this program are described below:
  - MASCO Shuttles (see Section 3.2.2.)
  - Emergency Ride Home (ERH) offers eligibility to employees of a MASCO member to register to receive a free Lyft or cab ride to take them home in the event of a personal emergency if commuters choose to walk, bike, carpool, vanpool or take public transit to work.
  - CommuteFit is an incentive program that rewards Longwood Medical and Academic Area commuters for walking or biking as any part of their commute. The program requires that a commuter keeps track of their walking or biking miles traveled and allows commuters to submit their monthly totals to CommuteWorks to be eligible for a monthly drawing for a gift card.
  - o **CommuteSwap** allows drive-alone commuters who have a payroll deducted parking space to try other forms of commuting such as walking, biking, or taking public transportation while putting their parking space on hold for up to three months.
  - o **Rideshare Resources** is an online resource for various rideshare programs. Registration of a carpool makes commuters eligible for up to \$250 in free gas cards for six months. Registration with Bay State Commute allows commuters to find other people to commute to LMA from their area. Lyft offers CommuteLine and CommuteFlex to reduce traffic congestion and save drivers money for parking. Links to MassRides and vanpool routes are also available.
  - o **Rideshare Loyalty Program** allows MASCO member employees who carpool at least two days a week to enroll in the Carpool Incentive Program and randomly selects a participant each month to win a prize.

- Personalized Commuting Assistance provides a personalized commuting itinerary when commuters input their contact information, work schedule and a home or nearby address.
- Commuter Calculator is a price comparison tool that compares the cost of a commuter to drive alone against their cost to use MBTA, private bus, carpool, or vanpool.
- Refer-A-Friend refers to current CommuteWorks participants that want to refer MASCO member employees to the program who are currently not CommuteWorks participants for a chance to win a gift card.
- o **Zipcar Discounts** are available for CommuteWorks participants. A discounted yearly rate, as well as 10-20% off Monday through Friday, rates are available.

# 3.2 Environmental Protection Component

#### 3.2.1 Wind

The Living and Learning Center is proposed to be approximately 250 feet at the tallest portion of the building. A quantitative wind analysis will be conducted, including a wind tunnel test, as required by the BPDA for buildings over 150 feet. Results of the wind analysis will be included in the Draft PIR. The CNBHS and Library Renovations will not significantly change the building's height or massing, and no new wind impacts are anticipated in association with the Project.

#### 3.2.2 Shadow

The Living and Learning Center is being designed to minimize new shadows on open spaces, sitting areas or pathways. The Draft PIR will include a shadow study. The CNBHS and Library Renovations will not significantly change the building's height or massing, but will include additional height in the form of a new mechanical penthouse. No new shadow impacts are anticipated in association with the Project.

# 3.2.3 Daylight

The purpose of a daylight analysis is to estimate the extent to which a proposed project affects the amount of daylight reaching public streets in the immediate vicinity of a project site. The daylight obstruction related to the Living and Learning Center is anticipated to be similar to daylight obstruction on streets in the surrounding area. The extent of daylight obstruction resulting from the Living and Learning Center and measures to mitigate adverse impacts will be included in the Draft PIR. The CNBHS and Library Renovations will not change the building's height or massing, and the daylight obstruction from the building will not change.

#### 3.2.4 Solar Glare

It is not anticipated that the Living and Learning Center will include the use of reflective glass or other reflective materials on the building facades that would result in adverse impacts from reflected solar glare from the Project. No substantial changes to the façade materials of Lefavour Hall or Main College Building are expected and no new solar glare impacts are anticipated.

# 3.2.5 Air Quality

As described in Section 3.1.4, the small increase in the number of beds on campus from 1,036 beds to 1,100 beds will not have a perceptible impact on trip generation. It is anticipated that the minimal increases in volume will not result in violations of the National Ambient Air Quality Standards (NAAQS) for CO at any intersections.

It is expected that the majority of stationary sources (boilers, engines, etc) would be subject to the MassDEP's Environmental Results Program (ERP). The ERP regulation applies to new emergency generators greater than 37 kW. The regulation is similar to the boiler ERP in that new engines are subject to emission standards, recordkeeping, certification, and compliance with the MassDEP noise policy. Since the generator maximum rating capacity will be greater than the ERP limit of 37 kW, it will be subject to the ERP program. Per the ERP, the generator owner will limit operation of the generator to less than 300 hours per year and submit a certification form to MassDEP within 60 days of installation.

Construction period air quality impacts and mitigation are discussed below in Section 3.2.10.1.

#### 3.2.6 Flood Hazard Zones/Wetlands

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the site located in the City of Boston - Community Panel Number 25025C0078G indicates the FEMA Flood Zone Designations for the site area. The map shows that the Projects are located in a Zone X "Areas determined to be outside the 0.2% annual chance floodplain."

The site does not contain wetlands.

#### 3.2.7 Geotechnical/Groundwater

This section includes a description of anticipated subsurface soil and groundwater conditions at the Project sites, planned foundation and below-grade construction activities, and mitigation measures for maintaining groundwater levels in the Project's vicinity during foundation and below-grade construction.

#### 3.2.7.1 Subsurface Soil and Bedrock Conditions

Based on available subsurface data, the general subsurface profile at the Project sites is listed below in Table 3.2-1, in order of increasing depth below ground surface.

Table 3.2-1 Subsurface Soil and Bedrock Conditions

Generalized Subsurface Strata	Approximate Thickness (Feet)
Miscellaneous Fill	9 to 14
Organic Deposits	15 to 21
Outwash	3 to 6
Marine Clay/Marine Sand	75 to 120
Glacial Till	4 to 12
Bedrock	

#### 3.2.7.2 Groundwater

Groundwater levels in the vicinity of the sites are expected to be at depths ranging from seven feet to 12 feet below ground surface, corresponding to about Elevation +10 to Elevation +5 on the Boston City Base (BCB) datum.

Groundwater levels in the area could be influenced by leakage into and out of sewers, storm drains and other below grade structures, as well as environmental factors such as precipitation, season, and temperature.

#### 3.2.7.3 Proposed Conditions

The Living and Learning Center includes demolition of the existing Park Science Building; construction of a new 75 to 250-foot tall building with one below-grade level beneath the new building.

The foundation construction will include the installation of deep end-bearing piles and/or rock-socketed drilled shafts to support the proposed building. The foundation piles will be driven into the glacial till deposit and/or bedrock at a depth of about 120 to 160 feet below the existing ground surface. The rock-socketed drilled shafts will be drilled into bedrock. Vibrations associated with pile driving will be monitored continuously.

Construction of the foundations and below-grade level will require excavation depths anticipated to be up to 20 feet below the ground surface. The below-grade level will be waterproofed.

The excavation will be conducted within an engineered lateral earth support system, such as a steel sheet pile wall system, which will be designed to provide excavation support, limit ground movements outside the excavation to protect adjacent facilities, and maintain groundwater levels outside the excavation by creating a groundwater "cutoff" between the excavation and the surrounding area. The lateral earth support system will be designed to be installed/sealed into the clay stratum to isolate the excavation and future below-grade level from the groundwater level. Due to the depth of excavation, the lateral earth support system may need to be supported by an internal bracing system.

Temporary dewatering will be required during excavation and foundation construction to remove "free" water from the soils to be excavated as well as precipitation. The essentially watertight excavation support wall will prevent withdrawal of groundwater from outside the excavation. In the unlikely event that leakage occurs through the walls, it will be promptly sealed by grouting of the wall.

A temporary construction dewatering permit will be obtained from governing agencies prior to discharge of dewatering effluent from the Project Site. Testing of the effluent will be conducted prior to and during discharge to confirm compliance with all permit requirements.

#### 3.2.7.4 **Groundwater Conservation Overlay District**

The Project sites are located within the Groundwater Conservation Overlay District (GCOD) as outlined in Article 32 of the City of Boston Zoning Code. Because of the location in the GCOD, Simmons plans to promote infiltration of rainwater into the ground and will certify that the Projects will not negatively impact groundwater levels on the sites or on adjacent lots pursuant to the provisions of Article 32, Section 6.

The below-grade construction will likely be performed within a continuous temporary steel sheet pile cofferdam driven into the impervious clay deposit. The perimeter steel sheet piling will provide a positive groundwater cut-off during the construction phase of the Living and Learning Center, which will minimize the impact of temporary construction dewatering performed within the limits of the Project site on adjacent properties.

The excavation to construct the below-grade level will require temporary dewatering to construct the proposed structure in-the-dry. The dewatering will be short-term, and the effluent will be discharged legally off-site. If the temporary dewatering is observed to have a negative impact on groundwater levels in the vicinity of the site, a temporary groundwater recharge system would be installed which utilizes the water collected in the construction dewatering system to restore the groundwater condition by means of recharge wells located outside of the steel sheet pile wall.

The proposed below-grade perimeter foundation walls and foundation will be protected against groundwater intrusion by the utilization of a membrane type waterproofing. Note that continuous pumping of groundwater for the permanent building condition will not be performed, and therefore the Project is not anticipated to have an adverse impact on the groundwater level within or adjacent to the site.

The Project will coordinate with the Boston Groundwater Trust to protect groundwater levels in the area, and it will include the installation and/or monitoring of groundwater observation wells in the vicinity of the site before site excavation to facilitate monitoring of the groundwater level before, during, and following construction.

#### 3.2.8 Hazardous and Solid Waste

#### 3.2.8.1 Hazardous Waste

Asphalt pavement, brick, and concrete (ABC) rubble generated from demolition of site walkways and structures will be handled in accordance with applicable Massachusetts Department of Environmental Protection (DEP) solid waste policies. The proposed Project's disposal contract will include specific provisions for the segregation, reprocessing, reuse, and/or recycling of building materials and demolition debris. Those materials will be transported in covered trucks to an approved solid waste facility per applicable DEP solid waste policies.

Abatement and disposal of hazardous materials (or hazardous waste), if encountered, will be performed under the provisions of MGL c21/2C, OSHA, and the Massachusetts Contingency Plan (MCP) by specialty contractors experienced and licensed in handling materials of this nature.

It is currently anticipated that construction of the Living and Learning Center and site improvements will require excavation and off-site removal of an unknown quantity of excess soil. Off-site removal of excess excavated soil will be conducted in accordance with the current policies of the Massachusetts Department of Environmental Protection (DEP). Chemical testing of soil samples will be performed as needed to reuse/dispose of the soils off-site depending on the acceptance criteria of specific facilities. The soils transported off-site will be legally reused/disposed in accordance with the MCP and other regulatory requirements. Disposal of materials will be tracked via Material Shipping Records, Bills of Lading and/or other methods, as required to ensure their proper and legal disposal.

# Massachusetts Contingency Plan

The Simmons University Academic Campus is the location of four historical releases of oil and/or hazardous material as defined by the Massachusetts Contingency Plan 310 CMR 40.0000 (MCP) which have been reported to DEP. Specifically, the DEP has assigned Release Tracking Numbers (RTNs) 3-18384, 3-21446, 3-19637 and 3-25638 to the previous releases. In summary, a Permanent Solution and a Condition of No Significant Risk was achieved for each of these releases.

Simmons will retain a Licensed Site Professional (LSP) to manage the environmental aspects of the Project, including proper management and/or disposal of contaminated soil encountered during construction. In the event that compounds are detected in soil during the above referenced testing at concentrations above applicable DEP standards, the release condition will be reported to the DEP. Further, remedial activities, if necessary, will be conducted in accordance with the Massachusetts Contingency Plan and applicable DEP Policies. The LSP will also prepare required MCP regulatory compliance submittals.

# 3.2.8.2 Solid Waste

The Projects will generate solid waste typical of residential and academic uses. Solid waste is expected to include wastepaper, cardboard, glass bottles and food. Recyclable materials will be recycled through a program implemented by Simmons.

With the exception of hazardous wastes typical of residential developments (e.g., cleaning fluids and paint), the Projects will not involve the generation, use, transportation, storage, release, or disposal of potentially hazardous materials. Typical waste generated by the uses will be handled in compliance with all local, state and federal regulations.

The Projects will include recycling areas for items such as paper, plastic, glass, and cans.

#### 3.2.9 Noise

The mechanical equipment for the Living and Learning Center will be similar to that used on similarly sized student housing buildings, and the new mechanical penthouse on Lefavour Hall will be similar to that used on similarly sized academic buildings. Rooftop equipment will be screened and acoustic screening will be included if necessary to meet local noise standards. The Project team will ensure that the buildings' mechanical equipment will meet the City of Boston Noise Standards.

Construction-period noise impacts and mitigation are discussed below in Section 3.2.10.2.

### 3.2.10 Construction Impacts

The proximity of city streets and abutting commercial properties to the site will require careful scheduling of material removal and delivery. Planning with the City and neighborhood will be essential to the successful development of the Projects.

A Construction Management Plan (CMP) will be submitted to the Boston Transportation Department for review and approval prior to issuance of a building permit. The CMP will define truck routes which will help in minimizing the impact of trucks on local streets.

Construction methodologies that ensure public safety and protect nearby businesses will be employed. Techniques such as barricades, walkways, painted lines, and signage will be used as necessary. Construction management and scheduling including plans for construction worker commuting and parking, routing plans and scheduling for trucking and deliveries, protection of existing utilities, maintenance of fire access, and control of noise and dust, will minimize impacts on the surrounding environment.

Throughout construction, a secure perimeter will be maintained to protect the public from construction activities.

#### 3.2.10.1 Construction Air Quality

Short-term air quality impacts from fugitive dust may be expected during demolition, excavation and the early phases of construction. Plans for controlling fugitive dust during demolition, excavation and construction include mechanical street sweeping, wetting portions of the site during periods of high wind, and careful removal of debris by covered trucks. The construction contract will provide for a number of strictly enforced measures to be used by contractors to reduce potential emissions and minimize impacts. These measures are expected to include:

- Using wetting agents on areas of exposed soil on a scheduled basis;
- Using covered trucks;
- Minimizing spoils on the construction site;
- Monitoring of actual construction practices to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized;
- ♦ Minimizing storage of debris on the site; and
- Periodic street and sidewalk cleaning with water to minimize dust accumulations.

#### 3.2.10.2 Construction Noise

Simmons is committed to mitigating noise impacts from the construction of the Projects. Periodic increased community sound levels, however, are an inherent consequence of construction activities. Construction work will comply with the requirements of the City of Boston Noise Ordinance. Every reasonable effort will be made to minimize the noise impact of construction activities, including:

- ♦ Instituting a proactive program to ensure compliance with the City of Boston noise limitation policy;
- Using appropriate mufflers on all equipment and ongoing maintenance of intake and exhaust mufflers;
- Muffling enclosures on continuously running equipment, such as air compressors and welding generators;
- Replacing specific construction operations and techniques by less noisy ones where feasible;
- ◆ Selecting the quietest of alternative items of equipment where feasible;

- Scheduling equipment operations to keep average noise levels low, to synchronize the noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels;
- ♦ Turning off idling equipment; and
- ♦ Locating noisy equipment at locations that protect sensitive locations by shielding or distance.

# 3.2.10.3 Construction Waste Management

Simmons will reuse or recycle demolition and construction materials to the greatest extent feasible. Construction procedures will allow for the segregation, reuse, and recycling of materials. Materials that cannot be reused or recycled will be transported in covered trucks by a contract hauler to a licensed facility.

### 3.2.11 Rodent Control

A rodent extermination certificate will be filed 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 Projects, in compliance with the City's requirements. Rodent extermination prior to work commencement will consist of treatment of areas throughout the site.

### 3.3.12 Wildlife Habitat

The Simmons campus is currently developed and within a fully developed urban area and, as such, the Projects will not impact wildlife habitats as designated on the National Heritage and Endangered Species Priority Habitats of Rare Species and Estimated Habitats of Rare Wildlife maps.

# 3.3 Sustainability

# 3.3.1 Campus Sustainability

Since the 2000 IMP, Simmons has made excellent progress on sustainability improvements on campus. The Management and Academic Building and Academic Quad project were awarded LEED Gold certification, and other university construction projects, including the expansion of Beatley Library and the Fens Cafeteria, incorporated sustainable design aimed at reduced energy and water consumption along with increased use of recycled and sustainable materials. Simmons has also completed many infrastructure improvement projects to improve energy efficiency, including:

- upgrading the main campus boiler plant and main switchgear;
- installing a white reflective roof on the Holmes Sports Center;

- upgrading HVAC equipment to connect all buildings to a central automated temperature control system, enabling the implementation of energy efficiency standards in all classrooms and meeting spaces;
- setting classroom temperatures based on room occupancy;
- controlling interior lights through room sensors, and exterior lights by photo cell;
- upgrading lighting to improve efficiency through use of compact florescent lighting and LED lighting in large areas such as Residence Campus exterior lighting, the new Ifill College (west wing of 1st floor of MCB), the Center for Student Success (ground floor of Lefavour Hall), office suites on the 3rd floor of MCB, and in the underground garages;
- installing new passenger and freight elevators in the Park Science Center in the summer of 2011, which reduced electrical load for the building elevators by 40 percent;
- replacing the roof on the Management and Academic Building and the Park Science Center and adding insulation to the decking to save energy;
- installing insulation jackets on hot water components on both campuses 2018;
- installing variable speed control units on mechanical equipment on both campuses in 2017;
- performing annual steam trap surveys on both campuses to ensure operational efficiency and to reduce energy costs through steam losses;
- installing hydration stations in 2016 to reduce the purchase of single use water bottles and to reduce carbon emissions; and
- using organic infill for the fields at the Daly Field athletic complex.

Over the past decade, Simmons has increased recycling on campus, now offering single stream recycling in all buildings, including residence halls. Simmons has also steadily increased the use of recycled products on campus, including all paper towels and toilet tissue; and has implemented a program for composting kitchen waste.

# 3.3.2 Sustainable Design

To measure the results of their sustainability initiatives and to comply with Article 37 of the Code, Simmons intends to use the framework of the Leadership in Energy and Environmental Design (LEED) rating system promulgated by the US Green Building Council (USGBC). The Projects will use LEED for New Construction (LEED v4 for BD+C) as the rating system to demonstrate compliance with Article 37 for both Projects. The LEED rating system tracks the sustainable

features of a project by achieving points in the following categories: Location and Transportation, Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation and Design Process, and Regional Priority Credits.

A LEED checklist for each Project is included at the end of this section, and details the credits the Projects anticipate achieving. This is a preliminary evaluation of the LEED checklists, and applicable credits may change as the building designs advance.

The following is a detailed credit-by-credit analysis of the Project team's approach to achieving LEED certifiability at the Silver level for the Living and Learning Center, and Certifiable level for the CNBHS and Library Renovations. Points that are still being studied and marked as "maybe" on the LEED checklists are italicized below.

### 3.3.2.1 Living and Learning Center

### **Integrative Process**

<u>Integrative Process:</u> The Project team will perform a preliminary energy model and water budget before the completion of schematic design and document in the Owner's Project Requirements (OPR) and Basis of Design (BOD). The team will also engage local utility companies to discuss incentives.

# **Location and Transportation**

<u>Sensitive Land Protection:</u> The site has been previously developed with the Campus' Park Science Center and will be replaced with a new residence hall and athletics center.

<u>Surrounding Density and Diverse Uses:</u> The Project is located within a ½ mile of a neighborhood that meets the density requirements and has at least 10 existing and publicly available diverse uses such as supermarket, pharmacy, convenience store, restaurant, other retail, public park, entertainment venue, bank, museum and education facility.

Access to Quality Transit: The Project is within a ½ mile walking distance of the MBTA Green Line (D) stops at Longwood and Fenway, as well as the Longwood Medical and Academic Area and Museum of Fine Arts on the Green Line (E). Free shuttle service through the MASCO LMA Shuttle is provided from two area transit stations (Ruggles at the Orange Line and JFK/UMASS at the Red Line) for commuters.

<u>Bicycle Facilities:</u> The Project will provide bicycle parking and indoor bicycle storage for 15% of the total 1,100 beds. The bike storage provided will be for residents of the building as well as visitors to the campus and athletics center. Students will be able to use the showers in their residences or in the athletics center. An additional shower will be provided for visitors to the campus and employees of the Public Safety Offices and Campus Bookstore.

#### Sustainable Sites

<u>Construction Activity Pollution Prevention (prerequisite):</u> The Project will create and implement an erosion and sedimentation control plan for all activities associated with the Project.

<u>Site Assessment:</u> The Project will complete a comprehensive site survey that will include topography, hydrology, climate, vegetation, soils, human use and human health effects.

<u>Open Space:</u> The amount of open space provided through the green roofs/landscape terraces, street landscaping and pedestrian oriented hardscape may meet the credit requirements; depending on the final location of the LEED Project Boundary. The open space includes landscape terraces, street tree landscaping, pedestrian oriented hardscape and a vegetated roof.

<u>Rainwater Management:</u> The Project may manage runoff for 98<sup>th</sup> percentile with low-impact development (LID) and green infrastructure.

<u>Heat Island Reduction – non roof:</u> Reducing the heat island effect has been categorized as a regional priority for Boston. The Project will plant shade trees along the hardscaped elements on the site and will provide paving materials that meet the SRI minimum requirements.

<u>Heat Island Reduction – roof:</u> The Project will utilize roofing materials with a solar reflective index (SRI) equal to or greater than the minimum SRI values. The Project team is considering a green roof atop the athletics center.

# Water Efficiency

<u>Outdoor Water Use Reduction (prerequisite):</u> The Project will reduce potable water used for irrigation by 50%.

<u>Indoor Water Use Reduction (prerequisite):</u> The Project will reduce aggregate water consumption by at least 20% from the baseline.

<u>Building-Level Water Metering (prerequisite):</u> The Project will install permanent water meters that measure the total potable water use and commit to sharing with USGBC for a five-year period.

Outdoor Water Use Reduction: The Project will reduce potable water used for irrigation by 50%.

<u>Indoor Water Use Reduction:</u> The Project will reduce building water use over the LEED baseline by 35%.

<u>Water Metering:</u> The Project will install permanent water meters for two or more water subsystems.

# **Energy and Atmosphere**

<u>Fundamental Commissioning and Verification (prerequisite):</u> The Project will engage a commission agent for the commissioning process to verify that the building's related systems are installed and performed as intended.

Minimum Energy Performance (prerequisite): Architectural and engineering systems will be designed to meet the mandatory requirements of ASHRAE 90.1-2010 Appendix G. Energy use will be demonstrated using a USGBC-approved whole building energy simulation software package. Energy performance is highly dependent on ultimate system selection and operational parameters.

<u>Building-Level Energy Metering (prerequisite):</u> The Project will install new or use existing building-level energy meters that measure total building energy consumption and commit to sharing with USGBC for a five-year period.

<u>Fundamental Refrigerant Management (prerequisite):</u> The Project will use refrigerants that are chlorofluorocarbon (CFC) free in the HVAC&R systems.

<u>Enhanced Commissioning:</u> The Project will complete the required commission process (CxP) for mechanical, electrical, plumbing and renewable energy systems and assemblies per Option 1 Path 1 and in accordance with ASHRAE Guideline 0-2005 and ASHRAE Guideline 1.1-2007 for HVAC&R systems. It will also complete the required commission process for the building's thermal envelope per Option 2 and in accordance with ASHRAE Guideline 0-2005 and the National Institute of Building Sciences (NIBS) Guideline 3-2012, Exterior Enclosure Technical Requirements for the Commissioning Process.

<u>Optimize Energy Performance:</u> The Project will reduce building energy costs by 24% compared to ASHRAE 90.1-2010, Appendix G.

<u>Enhanced Refrigerant Management:</u> The Project will select refrigerants with low global warming potential and ozone depletion potential.

<u>Green Power and Carbon Offsets:</u> The Project will engage in a five-year contract for 50% of the project's energy from green power, carbon offsets, or RECs.

# **Materials and Resources**

<u>Storage and Collection of Recyclables (prerequisite):</u> The Project will provide an easily accessible dedicated area for the collection and storage of materials for the entire building.

Construction and Demo Waste Management Planning (prerequisite): The Project manual will include direction for the Construction Manager (CM) to develop and implement a Construction Waste Management Plan (CWMP). The CM will endeavor to divert as much demolition debris and construction waste from area landfills as possible with a minimum diversion rate target of 75% overall.

<u>Building Life-Cycle Impact Reduction:</u> The Project will study the possibility to reuse or salvage building materials from on-site demolition, including structural elements, enclosure materials and selected interior elements.

<u>Building Product Disclosure & Optimization - Environmental Product Declarations:</u> The Project will specify and use 20 products sourced from five different manufacturers that meet the disclosure criteria or use products that exhibit optimized performance by 50% of cost.

<u>Building Product Disclosure & Optimization - Material Ingredients:</u> The Project will specify and use 20 products sourced from five different manufacturers that demonstrate the chemical inventory of the products.

<u>Construction and Demolition Waste Management:</u> The Project will divert 50% of waste through three material streams. *The Project will study the possibility of diverting through four streams or generating less than 2.5 pounds of waste per square foot.* 

# **Environmental Air Quality**

Minimum Indoor Air Quality Performance (prerequisite): The team will ensure that all ventilation systems meet the minimum requirements of Sections 4 through 7 of the ASHRAE 62.1-2013 standard for Acceptable Indoor Air Quality.

<u>Environmental Tobacco Smoke (ETS) Control (prerequisite):</u> The Project will prohibit smoking inside the building and will locate exterior smoking areas at least 25 feet away from the building.

<u>Enhanced Indoor Air Quality Strategies:</u> The Project will provide entryway systems, prevent interior cross-contamination, and specify MERV 13 filters.

<u>Low-Emitting Materials:</u> The Project will achieve the threshold level of compliance with emissions and content standards for at least four product categories, including interior paints and coatings, interior adhesives and sealants, flooring, and ceilings, walls, thermal, and acoustic insulation.

<u>Construction IAQ Management Plan</u>: The Project will develop an IAQ plan for construction and preoccupancy phases that meets SMACNA IAQ Guidelines for Occupied Buildings under Construction.

<u>Thermal Comfort:</u> The Project will meet ASHRAE 55-2013 Thermal Comfort Conditions for Human Occupancy.

<u>Quality Views:</u> The Project will provide direct views to the outside in 75% of regularly occupied spaces, which meets two out of four LEED view criteria.

# Innovation and Exemplary Performance

The team will seek to achieve four Innovation points:

<u>Green Cleaning Policy:</u> The Project will implement a green cleaning policy that will cover green cleaning procedures, materials and services and will develop consistent methods to collect cleaning purchases data on a regular basis.

<u>Integrated Pest Management:</u> The Project will have an integrated pest management (IPM) plan in place.

<u>Occupant Comfort Survey:</u> Simmons will administer and document the results of at least one occupant comfort survey to collect anonymous responses from at least 30% of the total building occupants. The survey will include acoustics, building cleanliness, indoor air quality, lighting and thermal comfort and will be performed at least once every two years.

<u>Green Building Education:</u> Two of the following three elements will be included in the educational program:

- 1. A comprehensive signage program built into the building's spaces to educate the occupants and visitors of the benefits of green buildings.
- 2. The development of a manual, guideline or case study to inform the design of other buildings based on the success of this project.
- 3. An educational outreach program or guided tour could be developed to focus on sustainable living, using the project as an example.

<u>Purchasing – LED Lamps:</u> The Project may implement a lighting purchasing plan that specifies an overall building average of 70 picograms of mercury per lumen-hour for all mercury-containing lamps. Lamps containing no mercury may be counted only if their energy efficiency at least equals that of their mercury-containing counterparts.

LEED Accredited Professional: A LEED Accredited Professional will be on the Project design team.

# **Regional Priority Credits**

Regional Priority Credits (RPCs) are established LEED credits designated by the USGBC to have priority for a particular area of the country. When a Project team achieves one of the designated RPCs, an additional credit is awarded to the Project. The Project is anticipating one RPC for EA Optimize Energy Performance

#### 3.3.2.2 CNBHS and Library Renovations

# **Integrative Process**

<u>Integrative Process:</u> The Project team will perform a preliminary energy model and water budget before the completion of schematic design and document in the Owner's Project Requirements (OPR) and Basis of Design (BOD). The team will also engage local utility companies to discuss incentives.

# **Location and Transportation**

<u>Sensitive Land Protection:</u> The Project is a renovation of an existing building within the Simmons University campus.

<u>Surrounding Density and Diverse Uses:</u> The Project is located within a ½ mile of a neighborhood that meets the density requirements and has at least ten existing and publicly available diverse uses such as supermarket, pharmacy, convenience store, restaurant, other retail, public park, entertainment venue, bank, museum and education facility.

Access to Quality Transit: The Project is within a ½ mile walking distance of the MBTA Green Line (D) stops at Longwood and Fenway, as well as the Longwood Medical and Academic Area and Museum of Fine Arts on the Green Line (E). Free shuttle service through the MASCO LMA Shuttle is provided from two area transit stations (Ruggles at the Orange Line and JFK/UMASS at the Red Line) for commuters.

#### Sustainable Sites

<u>Construction Activity Pollution Prevention (prerequisite):</u> The Project will create and implement an erosion and sedimentation control plan for all activities associated with the Project.

<u>Heat Island Reduction – roof:</u> The Project will aim to utilize roofing materials with a solar reflective index (SRI) equal to or greater than the minimum SRI values, where new roof construction occurs. Inclusion of this credit is dependent on both roof and non-roof measures and will be studied as the Project boundary is determined.

# Water Efficiency

<u>Outdoor Water Use Reduction (prerequisite):</u> The Project will reduce potable water used for irrigation by 50%.

<u>Indoor Water Use Reduction (prerequisite):</u> The Project will reduce aggregate water consumption by at least 20% from the baseline.

<u>Building-Level Water Metering (prerequisite):</u> The Project will install permanent water meters that measure the total potable water use and commit to sharing with USGBC for a five-year period.

<u>Outdoor Water Use Reduction:</u> The Project may reduce potable water used for irrigation by 50%.

<u>Indoor Water Use Reduction:</u> The Project will reduce building water use over the LEED baseline by 25%.

<u>Cooling Tower Water Use:</u> The Project will aim to achieve the number of cycles required to attain one point and use a minimum of 20% recycled non-potable water.

<u>Water Metering:</u> The Project will install permanent water meters for two or more water subsystems.

# **Energy and Atmosphere**

<u>Fundamental Commissioning and Verification (prerequisite):</u> The Project will engage a commission agent for the commissioning process to verify that the building's related systems are installed and performed as intended.

<u>Minimum Energy Performance (prerequisite):</u> Architectural and engineering systems will be designed to meet the mandatory requirements of ASHRAE 90.1-2010 Appendix G. Energy use will be demonstrated using a USGBC-approved whole building energy simulation software package. Energy performance is highly dependent on ultimate system selection and operational parameters.

<u>Building-Level Energy Metering (prerequisite):</u> The Project will install new or use existing building-level energy meters that measure total building energy consumption and commit to sharing with USGBC for a five-year period.

<u>Fundamental Refrigerant Management (prerequisite):</u> The Project will use refrigerants that are chlorofluorocarbon (CFC) free in the HVAC&R systems.

<u>Enhanced Commissioning:</u> The Project will complete the required commission process (CxP) for mechanical, electrical, plumbing and renewable energy systems and assemblies per Option 1 Path 1 and in accordance with ASHRAE Guideline 0-2005 and ASHRAE Guideline 1.1-2007 for HVAC&R systems.

Optimize Energy Performance: The Project will reduce building energy costs by 22% compared to ASHRAE 90.1-2010, Appendix G.

<u>Enhanced Refrigerant Management:</u> The Project will select refrigerants with low global warming potential and ozone depletion potential.

#### **Materials and Resources**

<u>Storage and Collection of Recyclables (prerequisite):</u> The Project will provide an easily accessible dedicated area for the collection and storage of materials for the entire building.

<u>Construction and Demo Waste Management Planning (prerequisite):</u> The Project manual will include direction for the CM to develop and implement a Construction Waste Management Plan. The CM will endeavor to divert as much demolition debris and construction waste from area landfills as possible with a minimum diversion rate target of 75% overall.

<u>Building Life-Cycle Impact Reduction:</u> The Project will reuse or salvage at least 25% of building materials from on-site demolition, including structural elements, enclosure materials and selected interior elements. *Dependent upon further development of the renovation scope, the project may salvage 50% of building materials for an additional point.* 

<u>Building Product Disclosure & Optimization - Environmental Product Declarations:</u> The Project will specify and use 20 products sourced from five different manufacturers that meet the disclosure criteria or use products that exhibit optimized performance by 50% of cost.

<u>Building Product Disclosure & Optimization - Material Ingredients:</u> The Project will specify and use 20 products sourced from five different manufacturers that demonstrate the chemical inventory of the products.

<u>Construction and Demolition Waste Management:</u> The Project will either divert 50% of waste through three material streams or generate less than 2.5 pounds of waste per square foot.

# **Environmental Air Quality**

<u>Minimum Indoor Air Quality Performance (prerequisite):</u> The team will ensure that all ventilation systems meet the minimum requirements of Sections 4 through 7 of the ASHRAE 62.1-2013 standard for Acceptable Indoor Air Quality.

<u>Environmental Tobacco Smoke (ETS) Control (prerequisite):</u> The Project will prohibit smoking inside the building and will locate exterior smoking areas at least 25 feet away from the building.

<u>Enhanced Indoor Air Quality Strategies:</u> The Project will provide entryway systems, prevent interior cross-contamination, and specify MERV 13 filters.

<u>Low-Emitting Materials:</u> The Project will achieve the threshold level of compliance with emissions and content standards for at least four product categories, including interior paints and coatings, interior adhesives and sealants, flooring, and ceilings, walls, thermal, and acoustic insulation.

<u>Construction IAQ Management Plan</u>: The Project will develop an IAQ plan for construction and preoccupancy phases that meets SMACNA IAQ Guidelines for Occupied Buildings under Construction.

<u>Indoor Air Quality Assessment:</u> The Project will perform either a building flush-out before or during occupancy or conduct a baseline IAQ testing for all occupied spaces. Laboratories will likely be accredited under ISO/IEC 17025 for the test methods used, pending further development of scope and academic program.

<u>Thermal Comfort:</u> The Project will meet ASHRAE 55-2013 Thermal Comfort Conditions for Human Occupancy.

<u>Interior Lighting – Lighting Control:</u> The Project will implement lighting controls at 90% of all individually occupied spaces, including all offices and task lighting in the laboratory spaces. For all shared multi-occupant spaces, the Project will provide multizone control systems, presentation lighting that is separately controlled and manual controls.

<u>Quality Views:</u> The Project will strive to provide direct views to the outside in 75% of regularly occupied spaces, which meets two out of four LEED view criteria.

# **Innovation and Exemplary Performance**

The team will seek to achieve four Innovation points:

<u>Green Cleaning Policy:</u> The Project will implement a green cleaning policy that will cover green cleaning procedures, materials and services and will develop consistent methods to collect cleaning purchases data on a regular basis.

<u>Integrated Pest Management:</u> The Project will have an integrated pest management (IPM) plan in place.

<u>Purchasing – LED Lamps:</u> The Project will implement a lighting purchasing plan that specifies an overall building average of 70 picograms of mercury per lumen-hour for all mercury-containing lamps. Lamps containing no mercury may be counted only if their energy efficiency at least equals that of their mercury-containing counterparts.

<u>Design for Active Occupants:</u> The Project will include one main stair that enables occupants to travel between the building entrance floors and common use floors and at least seven LEED features to meet this credit.

<u>WELL Features:</u> The Project may pursue WELL Feature 87: Beauty and Design I and may provide a narrative of how the innovation strategy achieved comprehensible, measurable environmental performance beyond standard design practices.

<u>Green Building Education:</u> Two of the following three elements may be included in the educational program:

1. A comprehensive signage program built into the building's spaces to educate the occupants and visitors of the benefits of green buildings.

- 2. The development of a manual, guideline or case study to inform the design of other buildings based on the success of this project.
- 3. An educational outreach program or guided tour could be developed to focus on sustainable living, using the project as an example.

<u>LEED Accredited Professional:</u> A LEED Accredited Professional will be on the Project design team.

# **Regional Priority Credits**

Regional Priority Credits (RPCs) are established LEED credits designated by the USGBC to have priority for a particular area of the country. When a Project team achieves one of the designated RPCs, an additional credit is awarded to the Project. The Project anticipated achieving one RPC for EA Optimize Energy Performance.

# 3.4 Climate Change Resilience

Climate change conditions considered by the Project team include sea level rise, higher maximum and mean temperatures, more frequent and longer extreme heat events, more frequent and longer droughts, more severe freezing rain and heavy rainfall events, and increased wind gusts.

A copy of the completed Climate Resiliency Checklists are included in Appendix C. Given the preliminary level of design, the responses are also preliminary and may be updated as the Project's designs progress.

### 3.4.1 Extreme Heat Events

The *Climate Ready Boston* report predicts that in Boston, there may be between 25 to 90 days with temperatures over 90 degrees by 2070, compared to an average of 11 days per year over 90 degrees between 1971 to 2000. The Projects designs will include measures to adapt to these conditions, including installing high performance HVAC equipment and building envelope to the extent feasible. The rooftop terrace on the Living and Learning Center will reduce the urban heat island effect.

#### 3.4.2 Rain Events

As a result of climate change, the Northeast is expected to experience more frequent and intense storms. To mitigate this, the Proponent will take measures to minimize stormwater runoff and protect the Projects' mechanical equipment, as necessary. The Living and Learning Center will be designed to reduce the existing peak rates and volumes of stormwater runoff from the site, and promote runoff recharge to the greatest extent practicable.



# LEED v4: BD+C New Construction and Major Renovation Project Checklist Simmons University - New Living and Learning Center Elkus Manfredi Architects #18014 Last Update: April 24, 2019 LEED Online Project Number:

				PROJECT INFORMATION FORM	
	,	^	^	P1 Project Information	,
Phase	1 Y	9	<b>0</b>	INTEGRATIVE PROCESS  Possible Points:	1
D	1			Cr Integrative Process	1
	12	0	4	LOCATION AND TRANSPORTATION  Possible Points:	16
	Υ	?	N		
D D	1		0	Cr LEED for Neighborhood Development Location Cr Sensitive Land Protection	16 1
D	·		2	Cr High Priority Site	2
D D	5			Cr Surrounding Density and Diverse Uses Cr Access to Quality Transit	5 5
D	1			Cr Bicycle Facilities	1
D D			1	Cr Reduced Parking Footprint Cr Green Vehicles	1
<i>D</i>				Ci differi venicles	
	3	5	2	SUSTAINABLE SITES Possible Points:	10
C	Y	}	N	Pr   Construction Activity Pollution Prevention	0
D	1			Cr Site Assessment	1
D D		1	2	Cr Site Development - Protect or Restore Habitat Cr Open Space	2
D		3		Cr Rainwater Management	3
D D	2	1		Cr Heat Island Reduction Cr Light Pollution Reduction	2
<i>D</i>		1		Ci Elgitti onution Reduction	1
	5	2	4	WATER EFFICIENCY Possible Points:	11
C	Y	è	N	Pr   Outdoor Water Use Reduction	0
D	Υ			Pr Indoor Water Use Reduction	0
D C	1	1		Pr Building-Level Water Metering Cr Outdoor Water Use Reduction	2
D	3	1	2	Cr Indoor Water Use Reduction	6
D D	2   Cr   Cooling Tower Water Use				1
	Social Points				
				ENERGY AND ATMOSPHERE Possible Points:	33
C		j	N	Pr Fundamental Commissioning and Verification	0
D				Pr Minimum Energy Performance	0
D D					0
C				Cr Enhanced Commissioning	6
D D	10			1 0	18 1
C				Cr Demand Response	2
D D	1		3		3
C		1			2
	_			MATERIALS AND RESOURCES  Possible Points:	13
D	Y	r	IN	Pr   Storage and Collection of Recyclables	0
C C	Y	2	3	Pr Construction and Demo Waste Management Planning Cr Building Life-Cycle Impact Reduction	<u> </u>
C	1		1	Cr Building Product Disclosure and Optimization - Environmental Product Declarations	2
C C	1	1	1	Cr Building Product Disclosure and Optimization - Sourcing of Raw Materials Cr Building Product Disclosure and Optimization - Material Ingredients	2
C	1	1		Cr Construction and Demolition Waste Management	2
			-	INDOOR ENVIRONMENTAL OUTLIET	16
	<b>5</b>	4	<b>7</b>	INDOOR ENVIRONMENTAL QUALITY Possible Points:	16
D	Y			Pr Minimum Indoor Air Quality Performance	0
D D	1		1	Pr Environmental Tobacco Smoke (ETS) Control Cr Enhanced Indoor Air Quality Strategies	2
C	1	1	1	Cr Low-Emitting Materials	3
C	1	1	1	Cr Construction IAQ Management Plan Cr Indoor Air Quality Assessment	2
D	1			Cr Thermal Comfort	1
D D		2	1	Cr Interior Lighting - Lighting Control Cr Daylight	3
D	1			Cr Quality Views	1
D			1	Cr Acoustic Performance	1
	4	2	0	INNOVATION AND EXEMPLARY PERFORMANCE Possible Points:	6
	Y	?	N	Cr. Innovation and Evamples: Desfarmance	7
D	1			Cr         Innovation and Exemplary Performance         Green Cleaning and IPM           Cr         Innovation and Exemplary Performance         Occupant Comfort Survey	1
D	1	1		Cr Innovation and Exemplary Performance Purchasing - Lamps	1
	1			Cr Innovation and Exemplary Performance Green Building Education Cr LEED Accredited Professional	1
D		1		Cr Innovation and Exemplary Performance	1
	1	1	3	REGIONAL PRIORITY CREDITS  Possible Points:	5
	Y	5	N	Zipcode of Project to Determine Credits: 02210	
	1		1	Cr Regional Priority: Specific Credit: Renewable energy production	1
			1	Cr Regional Priority: Specific Credit: Optimize energy Performance Cr Regional Priority: Specific Credit: Indoor Water Use Reduction	1
		1	,	Cr Regional Priority: Specific Credit: Rainwater Management	1
			1	Cr Regional Priority: Specific Credit: High Priority Site	1
	Y	?	N	Certified 40-49 Silver 50-59 Gold 60-79 Platinum 80-110	
	51	20	40	TOTALS Possible Points:	111



# LEED v4: BD+C New Construction and Major Renovation Project Checklist Simmons University - CNBHS and Library Renovation Elkus Manfredi Architects #18014 Last Update: April 24, 2019 LEED Online Project Number:

				<b>PROJE</b>	ECT INFORMATION FORM Project Information	
Phase	1	0	0	INT	EGRATIVE PROCESS Possible Points:	1
D Phi	Y 1	ý	N	Cr	Integrative Process	1
						3.6
	11 Y	<b>2</b>	<b>3</b>	LOC	CATION AND TRANSPORTATION Possible Points:	16
D D	1		0	Cr Cr	LEED for Neighborhood Development Location Sensitive Land Protection	16 1
D D	5		2		High Priority Site Surrounding Density and Diverse Uses	2 5
D D	5	1		Cr		5
D		1	1		Reduced Parking Footprint Green Vehicles	1
U						-
	<b>0</b>	<b>3</b>	<b>7</b>	SUS	TAINABLE SITES Possible Points:	10
C D	Y		1	Pr Cr	Construction Activity Pollution Prevention Site Assessment	0
D D			2	Cr Cr	Site Development - Protect or Restore Habitat Open Space	2
D		2	3	Cr	Rainwater Management	3 2
D D		2 1		Cr	Cr Heat Island Reduction Cr Light Pollution Reduction	
	2	5	4	WA <sup>-</sup>	TER EFFICIENCY Possible Points:	11
C	Y	;	N	Pr	Outdoor Water Use Reduction	0
D	Υ			Pr	Indoor Water Use Reduction	0
D C	Y	1	1	Pr Cr	Building-Level Water Metering Outdoor Water Use Reduction	2
D D	1	2	3		Indoor Water Use Reduction Cooling Tower Water Use	6
D	1			Cr	Water Metering	1
	14	4	15	ENE	ERGY AND ATMOSPHERE Points:	33
С	Y	,	N	Pr	Fundamental Commissioning and Verification	0
D D	Y Y			Pr Pr	Minimum Energy Performance Building-Level Energy Metering	0
D C	Y 3		3	Pr Cr	Fundamental Refrigerant Management	0
D	10		8	Cr	Optimize Energy Performance	18
D C			1 2	Cr Cr	Advanced Energy Metering Demand Response	2
D D	1	2	1	Cr Cr	Renewable Energy Production Enhanced Refrigerant Management	3
С		2		Cr	Green Power and Carbon Offsets	2
	5	5	3	MA	TERIALS AND RESOURCES Possible Points:	13
D	Y	ý	N	Pr	Storage and Collection of Recyclables	0
C C	Y 2	1	2	Pr Cr	Construction and Demo Waste Management Planning Building Life-Cycle Impact Reduction	0 5
C	1	1	1	Cr	Building Product Disclosure and Optimization - Environmental Product Declarations Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
C	1	1		Cr	Building Product Disclosure and Optimization - Material Ingredients	2
C	ı	1		Cr	Construction and Demolition Waste Management	2
	<b>7</b>	<b>8</b>	<b>1</b> N	IND	OOR ENVIRONMENTAL QUALITY Possible Points:	16
D D	Y			Pr Pr	Minimum Indoor Air Quality Performance Environmental Tobacco Smoke (ETS) Control	0
D C	1	1	1	Cr	Enhanced Indoor Air Quality Strategies	2
C	1	1		Cr	· o	1
C D	1	1		Cr Cr	Thermal Comfort	1
D D	1	1		Cr Cr	Interior Lighting - Lighting Control Daylight	3
D D		1			Quality Views Acoustic Performance	1
			_			
	<b>4</b>	?	<b>0</b> N		IOVATION AND EXEMPLARY PERFORMANCE Possible Points:	6
O D	1				Innovation and Exemplary Performance Green Cleaning and IPM Innovation and Exemplary Performance Purchasing - Lamps	1
D D	1	1		Cr Cr		1
D D	1	1		Cr Cr		1
	1 Y	<b>2</b>	<b>2</b>	REC	<b>GIONAL PRIORITY CREDITS</b> Zipcode of Project to Determine Credits: 02210	5
	1	1		Cr Cr	Regional Priority: Specific Credit: Renewable energy production Regional Priority: Specific Credit: Optimize energy Performance	1
		1	1	Cr Cr	Cr Regional Priority: Specific Credit: Indoor Water Use Reduction	
			1	Cr	Regional Priority: Specific Credit: Rainwater Management Regional Priority: Specific Credit: High Priority Site	1
	Y	,	N		Certified 40-49 Silver 50-59 Gold 60-79 Platinum 80-110	
	45	31	35		TOTALS Possible Points:	111

# 3.4.3 Drought Conditions

Although more intense rain storms are predicted, extended periods of drought are also predicted due to climate change. Under the high emissions scenario, the occurrence of droughts lasting one to three months could go up by as much as 75% over existing conditions by the end of the century. To minimize the Living and learning Center's susceptibility to drought conditions, the landscape design is anticipated to incorporate native and adaptive plant materials. Aeration fixtures and appliances will be chosen for water conservation qualities, conserving potable water supplies.

# 3.5 Urban Design

# 3.5.1 Urban Design Principles

The Living and Learning Center is being designed with the following urban design principles in mind:

- Create a 24-7 campus with integrated academic, social, and student life.
- Foster an active, safe and pedestrian-friendly campus.
- Create a variety of uses which encourage health and wellness, and residential, academic and social activity.
- ♦ Maximize utilization of campus open space.
- ◆ Improve the streetscape and pedestrian experience along Avenue Louis Pasteur by removing the existing transformer and fencing and providing transparent and active uses and sidewalk design consistent with Boston Complete Streets and the remainder of Avenue Louis Pasteur.
- Provide potential for increased housing supply in the area by relocating existing remote student housing to the academic campus.

# 3.5.2 Architecture and Building Massing

The Living and Learning Center will be a signature campus building (see Figure 3.5-1). The building will maintain the prevailing urban street wall along Avenue Louis Pasteur, where the ground floor will enhance the street activation compared to the existing condition by animating with uses such as athletics. The relocation of the existing electrical transformer and fence combined with the transparent and active character of the ground floor of the proposed building will enliven the pedestrian experience. The base of the building will be reinforced with projecting architectural elements to mark entries and provide identity for the University.

The building will be limited to 75 feet in height along Avenue Louis Pasteur, stepping up to a taller element and concentrating the height towards the center of the site. The taller element will be articulated with setbacks to respond to the existing campus buildings and quadrangle.



Simmons University IMPNF/PNF Boston, Massachusetts

The CNBHS and Library Renovations will include a new mechanical penthouse that will be placed in the center of the building so as not to be visible from the street or the Academic Quadrangle. A new approximately 15 foot screen and Penthouse will also be placed on the lower roof, however, the 75 foot height limit will be maintained at this location.

# 3.6 Historic and Archaeological Resources

# 3.6.1 Simmons University Campus

As previously described, Simmons University currently consists of two campuses, the Academic Campus and the Residence Campus. The Academic Campus is centered around the original college building at 300 The Fenway and the Residential Campus is located a block away. Separated from the academic center by the campus of another educational institution, Emmanuel College, the Simmons residential campus occupies an elongated parcel bounded by Longwood Avenue on the south, Pilgrim Road to the west and north, and Brookline Avenue to the east.

A symmetrical, Classical Revival-style composition of three stories set on a low base, the Main College Building at 300 The Fenway lends visual definition not only to the University but also to this section of the city. Organized about a three-bay-wide pedimented pavilion of limestone, it spreads long wings of Roman brick right and left to encompass virtually the entire block between Palace Road on the east and Avenue Louis Pasteur on the west. Approached by a granite podium bracketed by bronze lanterns raised on limestone plinths, the primacy of this pavilion is asserted by its more costly material and more generous ornament, which includes ground-floor rustication, Corinthian columns in antis, swagged garlands and a modillion cornice.

Although its consistent appearance suggests a single construction campaign, the Main College Building was erected in three stages; following the completion of the central pavilion in 1904, the west wing was added in 1909 while the east wing followed some 20 years later in 1929-1930. A restrained design by the storied Boston architectural firm of Peabody & Stearns, it expresses neoclassical features of buff Roman brick trimmed with limestone.

Unlike the original Main Building and its later wings, the remaining four buildings that comprise the Simmons University Academic Campus are of considerably more recent date. The oldest of these is the Park Science Center, which was built in 1972; the other three (1 Palace Road, Lefavour Hall, and the Management and Academic Building) were completed, respectively, in 2002, 2005, and 2009.

Lining the segments of Pilgrim Road and Brookline Avenue between Short Street and The Fenway but facing inward, to address an elongated quadrangle of lawn, are the buildings of the Residence Campus. In contrast to the Academic Campus, the residential node reflects a different pattern of development; of its 13 buildings, only the Holmes Sports Center, dating from 1989, is of recent origin. The others are all at least 50 years old. These are Alumnae Hall, the original student dining commons (1905), and the dormitories South Hall, also built in 1905, and North Hall, which was completed in 1907.

# 3.6.2 Historic Resources in the Vicinity

Located within a quarter-mile radius of the Simmons campus are numerous State and National Register listed historic districts. These resources are identified in Table 3.6-1 below and their locations are depicted in Figure 3.6-1.

Table 3.6-1 State and National Register-Listed Properties near the Project Sites

Historic Resource	Address	Designation
A. Lawrence Local Historic District	Kent Street between Longwood Avenue &	LHD
	Francis Street, Brookline	
B. Beacon Street Historic District	Beacon Street from St. Mary's Street to Ayr	NRDIS, NRMRA
	Road, including segments of Tappan Street	
	and Garrison Road, Brookline	
C. Longwood Historic District	St. Mary's Street (NE); Beacon Street (NW);	NRDIS
	Kent Street (SW); Maple Street (SE),	
	Brookline	
D. Olmsted Park System	The banks of Leverett Pond and the	NRDIS
	segment of the Muddy River that falls within	
	the Town of Brookline	
E. Olmsted Park System	The contiguous public parks extending from	NRDIS
	Boston Common to Franklin Park	
F. Back Bay Fens	The Fenway, Park Drive and Boylston Street,	LL, NRDIS
	Boston	
G. Emerald Necklace Parks	The contiguous public parks extending from	LL
	Boston Common to Franklin Park	
H. Mission Hill Triangle Architectural	Smith, Wigglesworth and Worthington	LHD, NRDIS
Conservation District	Streets between Huntington Avenue and	
	Tremont Street, Boston	
1. Massachusetts College of Art	364 Brookline Avenue	NR
2. Isabella Stewart Gardner Museum	280 The Fenway	LL, NR, PR
3. Sears Building	201 Brookline Ave.	LL, NR

**Designation Legend** 

LHD Local Historic District

NRDIS National Register of Historic Places Historic District

NRMRA National Register Multiple Resource Area

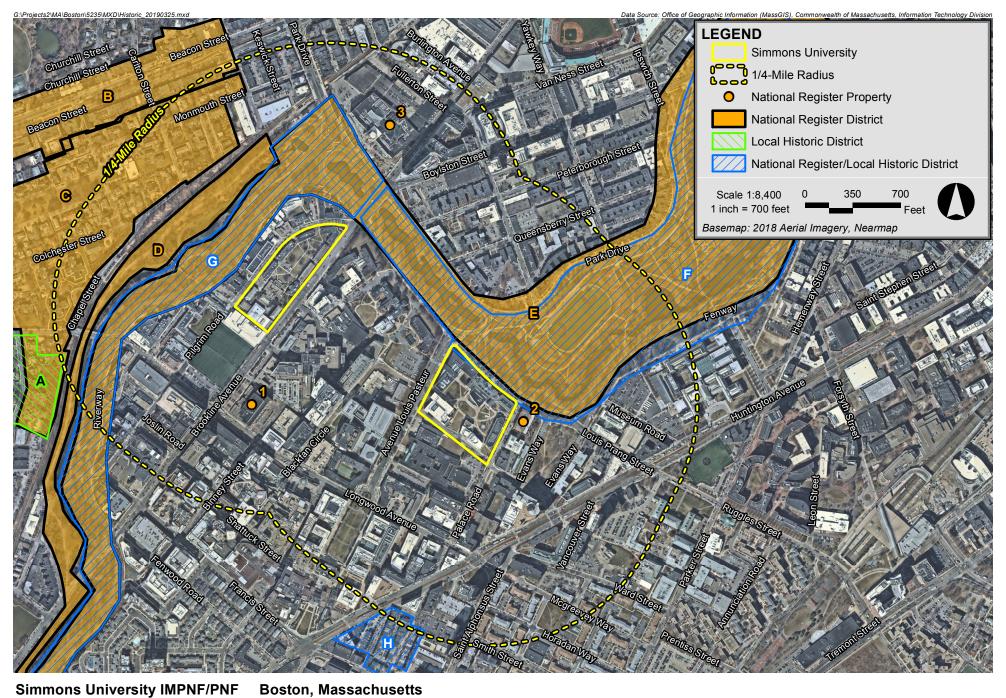
LL Local Landmark

NR Individually listed in the National Register of Historic Places

PR Preservation Restriction

# 3.6.3 Archaeological Resources

The Project sites are previously developed urban parcels. There are no known archaeological resources listed in the State and National Registers of Historic Places or included in the Inventory within the Project sites.





**Boston, Massachusetts** 

#### 3.7 Infrastructure

Article 80 of the Boston Zoning Code outlines that an Institutional Master Plan must include a description of the Institution's existing infrastructure and the anticipated impacts to it.

This section addresses these elements and describes the existing infrastructure serving Simmons University related to sanitary sewer, domestic water, fire protection, stormwater management, natural gas, electricity, and telecommunication.

The following section outlines the existing infrastructure systems near Simmons University, the utility connections required to support the proposed IMP Projects and potential impacts on the utility systems that may result from construction of the Projects.

The existing infrastructure systems include those owned by the Boston Water and Sewer Commission (BWSC), Massachusetts Water Resources Authority (MWRA), private utility companies, and privately-owned on-site infrastructure. The area included in the infrastructure analyses includes the approximately 7.3-acre campus owned by Simmons University. The campus is bounded by Avenue Louis Pasteur to the northwest, The Fenway to the northeast, Palace Road to the southeast, and a private service road and Boston Latin School (78 Avenue Louis Pasteur) to the southwest. The campus currently has five existing buildings: The Park Science Center, Lefavour Hall, the Main College Building, One Palace Road, and the School of Management which are separated by a courtyard with paved walkways in the middle. The utility analyses include the privately-owned utilities within the campus and the private building services connecting to the BWSC-owned infrastructure. The IMP Projects include renovating the existing Lefavour Hall and a portion of the Main College Building and geographically reorganizing the four academic colleges, and to then demolish the Park Science Center and construct a new Living and Learning Center.

# 3.7.1 Campus Overview and Study Area

Simmons University, located in the Fenway neighborhood of Boston, currently has about 1,630 undergraduate students, including 1,075 students who live on-campus.

The University has two separate campuses:

The Academic Campus, located along The Fenway, is bounded by Avenue Louis Pasteur to the west, Palace Road to the east, and a Service Road to the south. The campus has five buildings that surround an outdoor main gathering place known as the Academic Quadrangle. The buildings contain academic classrooms and labs, the Beatley Library, the Trustman Art Gallery, faculty and staff offices, and dining and student life services. An underground parking garage, with capacity of 924 spaces, has access/egress via the Service Road.

Epsilon Associates, Inc.

◆ The Residential Campus is located about a quarter-mile northwest of the Academic Campus and is bounded by Brookline Avenue to the west and Pilgrim Road to the east. The campus contains nine residence halls, Alumnae Hall, the Health Center, Holmes Sports Center, and the Bartol Hall cafeteria.

# 3.7.2 Proposed IMP Projects

Simmons University is proposing to renovate the existing Lefavour Hall and a portion of the Main College Building and geographically reorganize the four academic colleges, and to then demolish the Park Science Center and construct a new Living and Learning Center. Together, these Projects will create a consolidated academic and residential campus.

With the Projects, all on-campus student residents will be consolidated onto what is now referred to as the Academic Campus. The number of on-campus beds is expected to increase from 1,036 to approximately 1,100. Student enrollment and the number of faculty/staff members are not anticipated to appreciably change.

# 3.7.3 Regulatory Framework

The proposed project utility connections will be designed and constructed in accordance with City, State, and Federal standards. The following is a list of permits that will be required for proposed utility connections:

- ♦ BWSC site plan approval will be required for new or modified water, sewer, and stormwater systems;
- ◆ The Boston Fire Department will review the proposed Projects for siamese connections, hydrants, standpipes, and fire truck access;
- New utility connections will be authorized by the Boston Public Works Department through the street opening permit process and coordinated with the City of Boston Utility Coordination Software (COBUCS) as required.
- Proposed site and utility work within the Public Way will be approved by the City of Boston Public Improvement Commission.
- ◆ The stormwater management system will require approval by the Boston Groundwater Trust to comply with Article 32.
- ◆ Additional information on the regulatory framework for each utility system is included in subsequent sections of this section.

#### 3.7.4 Wastewater

# 3.7.4.1 Existing Wastewater Systems

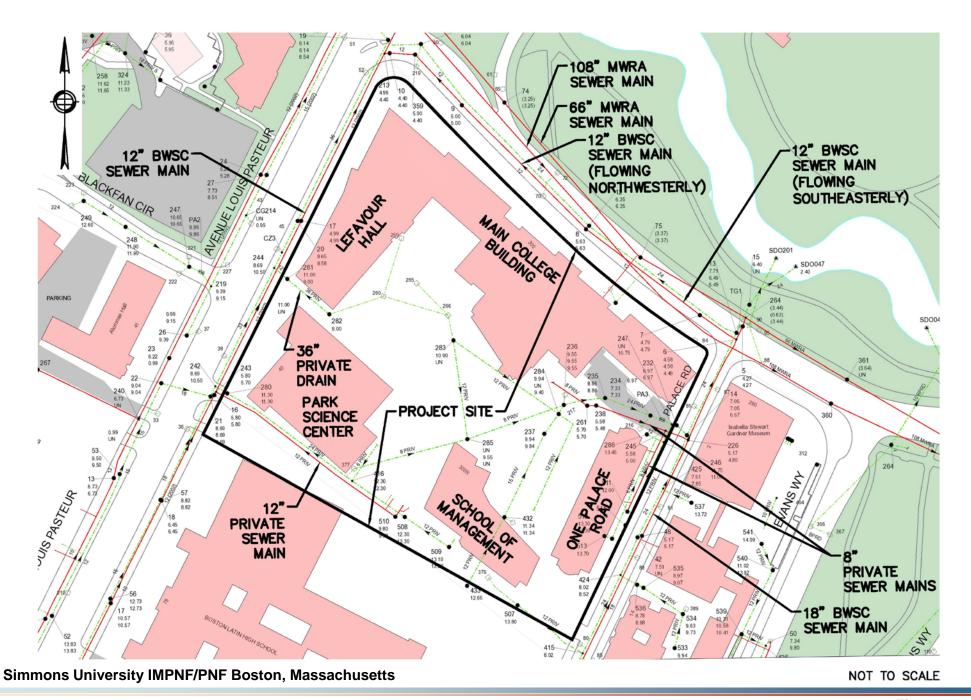
The Boston Water and Sewer Commission owns and maintains the sewer system that services the City of Boston. The BWSC sewer system connects to the Massachusetts Water Resources Authority (MWRA) interceptors for conveyance, treatment, and disposal through the MWRA Deer Island Wastewater Treatment Plant. The following BWSC and MWRA sanitary sewer mains are adjacent to the campus:

- ♦ 12-inch BWSC sewer main in Avenue Louis Pasteur;
- ♦ 12-inch BWSC sewer main in The Fenway;
- ♦ 66-inch MWRA sewer main in the Fenway;
- ◆ 108-inch MWRA sewer main in the Fenway; and
- ♦ 18-inch BWSC sewer main in Palace Road.

A portion of the 12-inch sewer main in The Fenway flows northwesterly to the 12-inch sewer main in Avenue Louis Pasteur. The 12-inch sewer main in Avenue Louis Pasteur flows northeasterly to the 66-inch MWRA sewer main in The Fenway. The remaining portion of the 12-inch sewer main in The Fenway flows southeasterly to the 18-inch sewer main in Palace Road. The 18-inch sewer main in Palace Road flows northeasterly to the 66-inch MWRA sewer main in the Fenway. The 66-inch MWRA sewer main, along with the 108-inch MWRA sewer main, continue flowing south, cross Huntington Avenue to the Ward Street Headworks Building and are ultimately directed to the Deer Island Wastewater Treatment Plant for treatment and disposal. The existing BWSC and MWRA sanitary sewer systems are shown in Figure 3.7-1.

Additionally, record information indicates the existing buildings have sanitary sewer services and private sewer mains which connect to the BWSC mains, as described below:

- ◆ Park Science Center: There is an 8-inch building service which connects to the 12-inch BWSC sewer main in Avenue Louis Pasteur.
- ♦ Lefavour Hall: There are 8-inch and 6-inch building services which connect to the 12-inch BWSC sewer main in Avenue Louis Pasteur.
- Main College Building: There are 8-inch and 10-inch building services which flow to a manhole and combine to an 8-inch in sewer service which then connects to the 12-inch sewer main in The Fenway. Another sewer service (size unknown) connects to the 12inch sewer main in the Fenway. There is also an 8-inch private sewer main behind the Main College Building which flows southeasterly to the 18-inch sewer main in Palace Road.





- ◆ One Palace Road: There is an 8-inch private sewer main with building services connecting to the building which flows northeasterly into the 8-inch private main behind the Main College Building and then connects to the 18-inch sewer main in Palace Road.
- ♦ School of Management: There is a 12-inch private sewer main in the service drive on the southern edge of the site which flows northwesterly and connects to the 12-inch BWSC sewer main in Avenue Louis Pasteur. There is a 10-inch building service and another building service (size unknown) from the School of Management building which connect to the 12-inch private sewer main.

#### 3.7.4.2 Demand

The existing Academic Campus consists of five buildings including classroom, office, and laboratory space. The Residential Campus consists of multiple buildings totaling at 1,036 beds. To approximate the sewer discharges and water use from the existing buildings, water use records were obtained from BWSC between March 2017 to January 2019. The water records provided the amount of water used each month for the five buildings which were used to approximate an average water use in gallons per day. To determine approximate sewage flows, a conservative factor of 10% was applied to the average water use to account for consumption, system losses, and other uses. Additionally, it is anticipated that the sewage flows calculated using the water records are lower than the flows that would be calculated using the Massachusetts Department of Environmental Protection's 310 CMR 15.203 and more accurately represent actual discharges. In total, the existing average daily sewage generation is estimated to be 136,019 gallons per day (gpd). The existing average daily sewage generation are as follows:

- ♦ Residential 111,090 gpd
- ♦ Park Science Center 9,972 gpd
- ♦ Lefavour Hall 4,259 gpd
- ♦ Main College Building 7,741 gpd
- ♦ One Palace Road 1,586 gpd
- ♦ Fenway School of Management 1,371 gpd
- ♦ Total Existing Sewage Flow: 136,019 gpd

The existing building programs in the Park Science Center will be redistributed and combined within the remaining existing building classrooms (Main College Building, One Palace Road, Lefavour Hall, and School of Management). As a result, these buildings' sewage flows may see a small increase, however, no increase from the overall academic uses is anticipated.

To account for the increase in sewage flows generated by the Living and Learning Center, the Massachusetts Department of Environmental Protection's 310 CMR 15.203 and the proposed building program were used. In total, the estimated campus sewer flows are expected to be approximately 148,304 gpd, an increase of approximately 12,285 gpd. Refer to Table 3.7-1 and 3.7-2 for a summary of sewage flows.

Table 3.7-1 Sewage Demands – Existing and Proposed

Land Use	Existing	Proposed
Academic/Support	24,929 gpd	24,929 gpd
Academic Campus - Classrooms, labs, library,		
offices, dining, student life services		
Student Residences	111,090 gpd	123,375
	(1,036 beds)	(1,100 beds)
Total	136,019 gpd	148,304 gpd
Increase in Sewage Daily Load		12,285 gpd

Table 3.7-2 Estimated Sewage Flows by Use

Proposed Use	Units/Size	Design Flow Rate (GPD/unit)	Proposed Sanitary Flows (GPD)
Residence Hall	1,100 beds	65/bed	71,500
Dining Hall	1,250 seats <sup>1</sup>	35/seat	43,750
Athletics	325 participants <sup>2</sup>	25/participant	8,125
Total Proposed Sanitary Flo	123,375		
Remaining Sewer Flows from added flow from Park Science	(+)24,929		
Total Proposed Campus Sev	148,304		
<b>Total Proposed Campus Inc</b>	12,285		

<sup>&</sup>lt;sup>1</sup>1,250 seats assumed for 25,000 square feet, at 20 sf per seat

The capacity of the existing BWSC systems in Avenue Louis Pasteur, The Fenway, and Palace Road were analyzed. The minimum flow capacity is 0.92 million gallons per day (MGD) or 2.62 cubic feet per second (cfs) for the BWSC sewer main in Avenue Louis Pasteur, 1.13 MGD or 1.75 for the BWSC sewer main in The Fenway (flowing southeasterly), 0.98 MGD or 1.51 cfs for the BWSC sewer main in The Fenway (flowing northwesterly), and 2.15 GPD or 3.32 cfs for the BWSC sewer main in Palace Road. The existing sewer system capacity calculations are presented in Table 3.7-3.

<sup>&</sup>lt;sup>2</sup> 325 participants assumed for 65,000 square feet, at 200 sf per participant

**Table 3.7-3** Sewer Hydraulic Capacity Analysis

BWSC Sewer Manhole <sup>2</sup>	Slope (%)¹	Dia. (inches)	Manning's Number	Flow Capacity (cfs) <sup>3</sup>	Flow Capacity (MGD)				
Avenue Louis Pasteur									
16 to 243	1.3%	12	0.013	3.98	2.57				
243 to 17	0.2%	12	0.013	1.54	1.00				
17 to 213	0.2%	12	0.013	1.42	0.92				
213 to 18	4.9%	12	0.013	7.86	5.08				
		Minimun	n Flow Analyzed:	2.62	0.92				
The Fenway (flow	ing southe	east)							
7 to 8	0.3%	12	0.013	1.93	1.25				
6 to 7	0.2%	12	0.013	1.75	1.13				
		Minimun	n Flow Analyzed:	1.75	1.13				
The Fenway (flow	ing northu	vest)							
8 to 9	0.2%	12	0.013	1.51	0.98				
9 to 359	0.3%	12	0.013	1.94	1.26				
359 to 10	0.3%	12	0.013	1.98	1.28				
10 to 213	0.3%	12	0.013	1.86	1.20				
	Minimum Flow Analyzed: 1.51 0.98								
Palace Road									
47 to 48	0.2%	18	0.013	4.37	2.82				
48 to 226	0.2%	18	0.013	4.41	2.85				
226 to 6	0.1%	18	0.013	3.32	2.15				
6 to 5	0.7%	18	0.013	8.99	5.81				
5 to 264	19.2%	18	0.013	45.97	29.71				
Minimum Flow A	nalyzed:	3.32	2.15						

<sup>&</sup>lt;sup>1</sup>Slopes were calculated with inverts from BWSC GIS Sewer Maps.

The Living and Learning Center will require new sanitary sewer service connections and will connect to either the private 12-inch private sewer main in the service drive and/or the 12-inch BWSC sewer main in Avenue Louis Pasteur.

The impact due to the proposed flows expected from the Living and Learning Center on the existing BWSC systems in Avenue Louis Pasteur was analyzed. As previously stated, the approximate proposed increase in sewage flow is 123,375 gpd or 0.13 MGD. Based on an increase in average daily flow of 0.13 MGD, no capacity problems are expected for the sewer main in Avenue Louis Pasteur.

<sup>&</sup>lt;sup>2</sup> BWSC sewer manhole numbers are from BWSC GIS Sewer Maps.

<sup>&</sup>lt;sup>3</sup> Flow calculations based on Manning's Equation

Applying a factor of safety of 10 (total estimate 0.13 MGD x 10 = 1.3 MGD) to account for peak flows times and other buildings that contribute sewage flows to the main, there may not be enough capacity in the 12-inch sewer main in Avenue Louis Pasteur. Simmons will work with BWSC throughout the design process to further evaluate the capacity of the existing sewer mains adjacent to the campus and determine if the BWSC sewer main in Avenue Louis Pasteur has enough capacity or if it will need to be upgraded to accommodate additional sewer flows. BWSC may require sewage flow monitoring in Palace Road to determine how much sewage currently flows in Palace Road. Simmons is committed to assisting BWSC in this study.

#### 3.7.4.3 Proposed Connection

New sewer connections for the Living and Learning Center will tie into either the 12-inch BWSC sewer main in Avenue Louis Pasteur and/or the 12-inch private sewer main in the service drive on the southern edge of the campus. The existing buildings to remain have separate sewer services connecting to other BWSC sewer mains adjacent to the campus which will be maintained if they are determined to be in adequate condition. As design for renovations to Lefavour Hall and the Main College Building progresses, the building sewer services may need to be relocated or replaced if determined necessary by the design team and BWSC. In addition, Simmons will submit a General Service Application and site plan for review as the Projects progress.

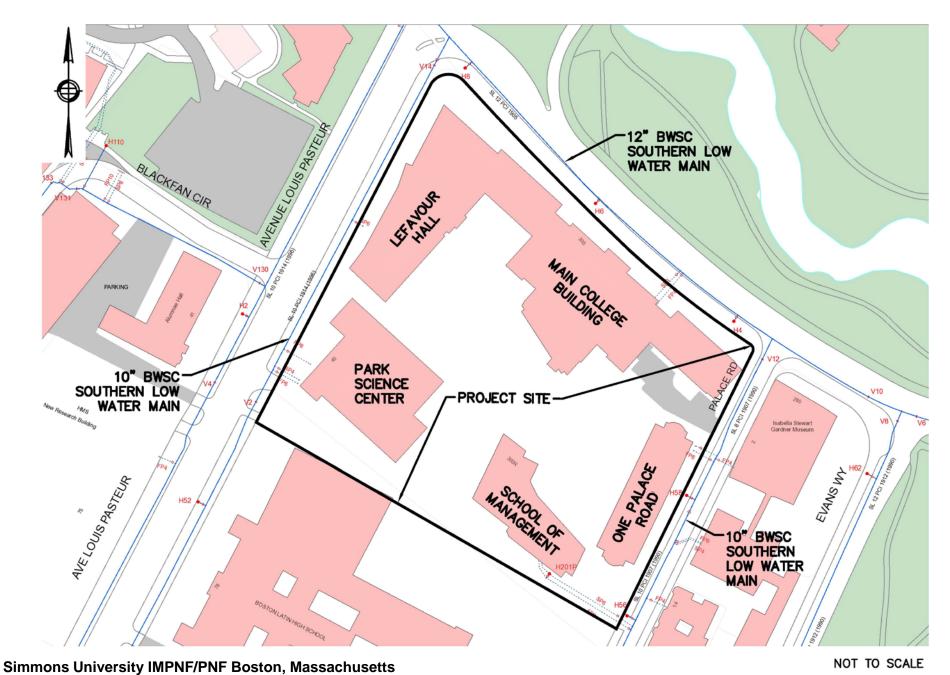
# 3.7.5 Water Infrastructure

### 3.7.5.1 Existing Water Supply System

Water for the IMP Projects will be provided by BWSC. BWSC is supplied water by the MWRA system. There are five water systems within the City of Boston, and these provide service to portions of the City based on ground surface elevation. The five systems are the southern low (SL), southern high (SH), southern extra high (SEH), northern low (NL), and northern high (NH). Water mains are labeled by their system, pipe size, year installed, pipe material, and year cement lined (CL), if applicable. The Simmons Campus is served by the BWSC southern low water system. The existing BWSC water system is shown in Figure 3.7-2.

The following BWSC water mains are in the streets adjacent to the campus:

- ◆ 10-inch precast iron main in Avenue Louis Pasteur, installed 1914 and relined in 1996;
- ♦ 12-inch precast iron main in The Fenway, installed in 1905; and
- ♦ 8-inch and 10-inch precast iron main in Palace Road, installed in 1907 and relined in 1990.





Record information indicates the existing buildings on the campus have the following private building services:

- ◆ Park Science Center: There is a 4-inch domestic service, a 6-inch fire protection service and an 8-inch fire protection service connecting to the 10-inch main in Avenue Louis Pasteur.
- ◆ Lefavour Hall: There is a 6-inch fire protection connecting to the 10-inch main in Avenue Louis Pasteur.
- ◆ Main College Building: There is a 3-inch domestic service and a 4-inch fire protection service connecting to the 12-inch BWSC water main in The Fenway.
- One Palace Road: There is a 4-inch domestic service and a 6-inch fire protection service connecting to the 8-inch water main in Palace Road.
- ◆ School of Management: There is a 6-inch domestic service and a 4-inch fire protection service connecting to the 10-inch water main in Palace Road.

Water records were obtained from BWSC between March 2017 to January 2019 to approximate the water use of the five existing buildings. The water records provided the amount of water used each month for the five buildings which were used to approximate an average water use in gallons per day. In total, the existing average daily water usage is 149,442 gpd. By building, the existing average daily water use is as follows:

- ♦ Residential 122,199 gpd
- ♦ Park Science Center 10,970 gpd
- ♦ Lefavour Hall 4,685 gpd
- ♦ Main College Building 8,516 gpd
- ♦ One Palace Road 1,744 gpd
- ♦ Fenway School of Management 1,508 gpd
- ◆ Total Existing Water Usage: 149,422 gpd

# 3.7.5.2 Existing Water Capacity

Recent BWSC record flow test data containing actual flow and pressure for hydrants within the vicinity of the campus was not available. As the design progresses, Simmons will request hydrant flows be conducted by BWSC adjacent to the Projects, as hydrant flow test data must be less than one-year old when used for design.

#### 3.7.5.3 Proposed Water Demand

The water demand estimates for the Living and Learning Center is based on the estimated sewage generation for the building. Since existing building programs in the Park Science Center will be redistributed and combined within the remaining existing buildings (Main College Building, One Palace Road, Fenway School of Management and Lefavour Hall), there is a small increase in water usage for those buildings.

For the Living and Learning Center, a conservative factor of 1.1 (10%) is applied to the estimated daily sewage flows, calculated in Table 3.7-1 to account for consumption, system losses and other uses. The estimated proposed domestic water demand due to the new residence hall is approximately 135,712 gpd. Adding in the four other buildings to remain with the existing educational programs (27,423 gpd), the total proposed campus water demand is expected to be 163,135 gpd, or an increase in 13,693 gpd compared to the existing condition. Water capacity problems are not anticipated within the BWSC water system as a result of the Project's construction.

# 3.7.5.4 Proposed Water Services and Impacts

The Living and Learning Center will require a new domestic water service and two fire protection services. The new services will connect to the existing 8-inch BWSC water main in Avenue Louis Pasteur. The existing buildings to remain have separate domestic water and fire protection services which will be maintained if they are determined to be in acceptable condition. As design for renovations to Lefavour Hall and the Main College Building progresses, the services may need to be relocated or replaced if determined necessary by the design team and BWSC. Simmons will submit a General Service Application and site plan to BWSC for review as the Projects progress.

New water services will be installed in accordance with the latest local, state, and federal codes and standards. Backflow preventers will be installed at both domestic and fire protection service connections. New meters will be installed with Meter Transmitter Units (MTU's) as part of the BWSC's Automatic Meter Reading (AMR) system.

Efforts to reduce water consumption will be made. Aeration fixtures and appliances will be chosen for water conservation qualities. In public areas, sensor operated faucets and toilets will be installed. As part of the BWSC's review process, Simmons will consider measures wherever applicable to minimize water usage.

#### 3.7.5.5 Fire Protection and Control

The fire protection systems for the buildings will be designed in compliance with the latest Massachusetts Building Code, which refers to the National Fire Protection Association Handbook. In addition, the fire protection system will meet applicable standards and requirements as set forth in the Boston Fire Prevention Code, the Massachusetts Fire Prevention Regulation (527 CMR), and the Massachusetts Fire Prevention Laws (MGL CH 148).

Compliance with the standards for the fire protection system connections will be determined as part of BWSC's Site Plan Review process. The proposed fire protection services for the Living and Learning Center will connect to the BWSC's low service system located in Avenue Louis Pasteur. For renovations to Lefavour Hall and the Main College Building, the existing fire protection services will be replaced or relocated, which will be determined as the design progresses. Water service connections required by the Projects will meet the applicable city and state codes and standards, including cross-connection backflow prevention.

# 3.7.6 Stormwater Infrastructure

# 3.7.6.1 Existing Stormwater Systems

The BWSC owns and maintains the storm drain systems that service the City of Boston. There are existing BWSC storm drain mains near the campus. The existing BWSC water system is shown in Figure 3.7-3.

The following storm drain mains are adjacent to the campus:

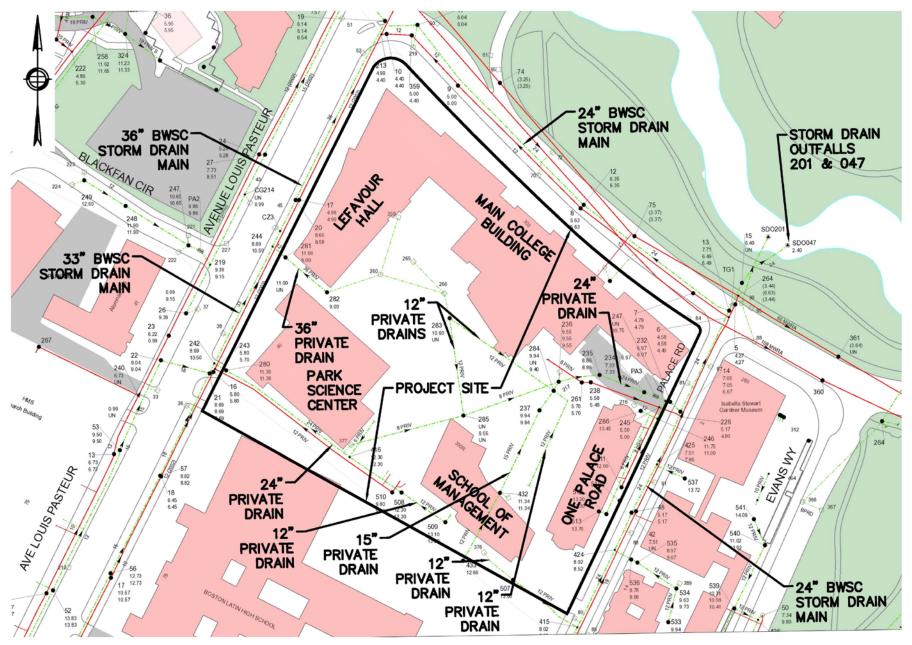
- ♦ 33-inch and 36-inch BWSC storm drain mains in Avenue Louis Pasteur;
- ♦ 24-inch BWSC storm drain main in The Fenway; and
- ♦ 24-inch gravity storm drain main in Palace Road.

The 24-inch storm drain in The Fenway flows northwesterly and increases to a 36-inch main at the intersection of Avenue Louis Pasteur. The 36-inch sewer main in Avenue Louis Pasteur flows northeasterly to the 36-inch storm drain main in The Fenway. The 36-inch storm drain main in The Fenway continues flowing northerly and eventually flows to the 116-inch x 132-inch storm drain main in Deerfield Street and discharges to the Charles River via Storm Drain Outfall 042 (SDO042).

The 24-inch storm drain main in Palace Road flows northeasterly and discharges to the Muddy River via Storm Drain Outfall 047 (SDO047). Additionally, the 24-inch storm drain main in The Fenway is connected to the 24-inch storm drain main in Palace Road so that stormwater overflows are directed to SDO042.

The existing campus is approximately 77% impervious. The campus has several closed drainage systems which connect to the BWSC mains in the adjacent streets:

◆ Park Science Center: There is a 10-inch private drain service from the existing building which connects to the 24-inch storm drain main Avenue Louis Pasteur.



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NOT TO SCALE

- ◆ Lefavour Hall: Stormwater behind the existing building is collected by area drains and trench drains and directed to an underground storage system for storage, treatment, and groundwater recharge prior to discharging to the 24-inch storm drain main in Avenue Louis Pasteur. Stormwater from the building and from areas in front of the building are collected and directed to an underground storage system for storage, treatment, and groundwater recharge prior to discharging to the 24-inch storm drain system in Avenue Louis Pasteur.
- Main College Building: There is an existing drain service from the building which connects to the 24-inch storm drain in The Fenway. Stormwater from portions of the plaza behind the Main College Building is collected and directed to an underground stormwater system which provides stormwater storage, treatment and recharge prior to discharging to the 36-inch storm drain main in Avenue Louis Pasteur or the 24-inch storm drain main in Palace Road.
- One Palace Road: There is a 6-inch private storm drain main which runs along the front of One Palace Road and connects to the 24-inch storm drain main in Palace Road. There are also area drains which direct stormwater to a 12-inch private drain which connects to the 24-inch storm drain main in Palace Road.
- ◆ School of Management: There is a 12-inch private storm drain main which connects from the back of the building and runs along the southern edge of the site, increases to a 24-inch main and connects to the 33-inch storm drain main in Avenue Louis Pasteur. There is also a 15-inch private storm drain main from the School of Management building which combines with additional 8-inch and 12-inch private storm drain mains and increases to a 24-inch private storm drain main, and then connects to the 24-inch storm drain main in Palace Road. There is also a 12-inch drain main which runs along the service drive on the southern edge of the campus and connects to the 24-inch storm drain main in Palace Road.

# 3.7.6.2 Stormwater Quality

The Living and Learning Center will require a new stormwater management system sized to store 1.25-inches of stormwater from the new and substantially renovated impervious building(s) and site areas to meet BWSC, Article 32 and MassDEP requirements. The stormwater management system will be either an underground stormwater storage system or a stormwater storage tank with recharge wells to promote stormwater storage, treatment, and infiltration. The private closed drainage system will be adequately sized for the campus' expected stormwater flows and will direct stormwater to the on-site infiltration system for groundwater recharge prior to overflow to the BWSC systems. Overflow connections to the BWSC storm drain mains will be provided for greater stormwater flows.

The proposed impervious area will consist mostly of building roof with new walkway and landscape areas. The Projects will be designed to meet or reduce stormwater runoff peak rates and volumes, and to minimize the loss of annual stormwater recharge to groundwater through the use of on-site infiltration measures to the greatest extent practicable.

For renovations to Lefavour Hall and the Main College Building, BWSC may require the review of the existing stormwater management systems to ensure that they sufficiently manage stormwater to meet BWSC standards.

Improvements to the BWSC infrastructure and the existing private storm drain systems will be evaluated as part of the BWSC Site Plan Review Process.

#### 3.7.6.3 **Stormwater Quality**

The Projects will not affect the water quality of nearby water bodies. Erosion and sediment control measures will be implemented during construction to minimize the transport of site soils to offsite areas and BWSC storm drain systems. During construction, existing catch basins will be protected with filter fabric, straw bales and/or crushed stone, to provide for sediment removal from runoff. These controls will be inspected and maintained throughout the construction phase until the areas of disturbance have been stabilized through the placement of pavement, structure, or vegetative cover.

The IMP Projects will be designed at a minimum to meet the existing rates and volumes of stormwater from the existing campus. The proposed design will treat stormwater by collecting it at the building roof and directing it to underground recharge systems for storage and treatment prior to overflowing to BWSC infrastructure. Stormwater from the paved vehicular areas will be collected by deep sump and hooded catch basins, directed to proprietary water quality structures, and then to the underground recharge systems. Stormwater from landscaped areas will be collected by area drains or catch basins.

The installation of new stormwater management systems will promote stormwater storage, treatment, and stormwater infiltration which will improve the quality of stormwater discharges from the campus. Stormwater management controls will be established in compliance with BWSC standards, and the Projects will reduce peak flows, pollutants, or sediments that impact the Muddy River and Charles River. In conjunction with the site plan and the General Service

Application, the Projects will submit a Stormwater Management Plan to the BWSC. Compliance with the standards for the final site design will be reviewed as part of the BWSC Site Plan Review process.

All necessary dewatering will be conducted in accordance with applicable MWRA and BWSC discharge permits. Once construction is complete, the campus will follow local and state stormwater management policies, as described below.

## 3.7.6.4 Boston Zoning Code Article 32 Compliance

The campus is located in the City of Boston Groundwater Conservation Overlay District (Article 32 of the Boston Zoning Code). Article 32 requires that 1-inch of stormwater over the entire impervious area of the site be recharged into the ground. The stormwater system for the Living and Learning Center and Lefavour Hall and Main College Building will be designed to recharge 1.25-inches over the site impervious area to meet BWSC requirements. It is Simmons's intention to implement measures aimed at complying with Article 32 and BWSC.

# 3.7.6.5 DEP Stormwater Management Policy Standards

In March 1997, Massachusetts Department of Environmental Protection (MassDEP) adopted a new Stormwater Management Policy to address non-point source pollution. In 1997, MassDEP published the Massachusetts Stormwater Handbook as guidance on the Stormwater Policy, which was revised in February 2008. The Policy prescribes specific stormwater management standards for development projects, including urban pollutant removal criteria for Projects that may impact environmental resource areas. Compliance is achieved through the implementation of Best Management Practices (BMPs) in the stormwater management design. The Policy is administered locally pursuant to MGL Ch. 131, s. 40.

A description of the Projects' anticipated compliance with the Standards is outlined below:

Standard #1: No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

Compliance: The proposed design will comply with this Standard. The design will not propose new stormwater conveyances and no new untreated stormwater will be directly discharged to, nor will erosion be caused to wetlands or waters of the Commonwealth as a result of stormwater discharges related to the proposed Projects.

Standard #2: Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.

Compliance: The proposed design will comply with this Standard to the maximum extent practicable. The existing peak discharge rate will be met or will be decreased as a result of the improvements associated with any proposed Projects.

Standard #3: Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

Compliance: The Projects will comply with this standard. The stormwater system shall be designed to capture and infiltrate 1.25-inch of stormwater from the impervious site's areas to the greatest extent practicable.

Standard #4: Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:

- a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;
- b. Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and
- c. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.

Compliance: The proposed design will comply with this standard. Within the existing campus, there is mostly roof, paved sidewalks, and landscape, along with some landscape and walkway over an underground garage. The proposed Projects will increase the amount of impervious area on the campus, mainly due to building roof, resulting in an increase in 5% impervious cover. Runoff from paved areas that would contribute unwanted sediments or pollutants to the existing storm drain system will be collected by deep sump, hooded catch basins and treated with proprietary water quality structures before discharging into the BWSC system.

Standard #5: For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

Compliance: The proposed design will comply with this standard. The proposed design will include source control, pollution prevention and pretreatment practices, as necessary.

Standard #6: Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to

said area, considering site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

Compliance: Not Applicable. The proposed Projects are not within an outstanding resource area.

Standard #7: A redevelopment Project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment Project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

Compliance: The Projects will comply with this standard to the maximum extent practicable.

Standard #8: A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

Compliance: The proposed design will comply with this standard. A plan to control temporary construction-related impacts including erosion, sedimentation, and other pollutant sources during construction and land disturbing activities will be developed and implemented.

Standard #9: A long-term operation and maintenance (O&M) plan shall be developed and implemented to ensure that stormwater management systems function as designed.

Compliance: The Projects will comply with this standard. An O&M Plan including long-term Best Management Practices (BMP) operation requirements will be prepared for the Projects and will assure proper maintenance and functioning of the stormwater management system.

Standard #10: All illicit discharges to the stormwater management system are prohibited.

Compliance: The Projects will comply with this standard. There will be no illicit connections associated with the Projects.

# 3.7.7 Anticipated Energy Needs

### 3.7.7.1 Natural Gas Service

It is anticipated that National Grid will provide gas service from the 6-inch gas main in Avenue Louis Pasteur for the Living and Learning Center. The existing Park Science Center building has a 3-inch building service connecting to the main in Avenue Louis Pasteur.

The other existing buildings have existing gas services connecting to the mains in Avenue Louis Pasteur, The Fenway and Palace Road. Simmons will work with National Grid to confirm adequate system capacity as the Project designs are finalized.

### 3.7.7.2 Electrical Service

The electrical service for the Living and Learning Center is anticipated to be provided by the local electrical utility, Eversource. New electrical service will either serve all buildings on the Academic Campus or will serve all buildings but the Living and Learning Center, with a new separate service for the Living and Learning Center. Simmons will work with Eversource to confirm adequate system capacity as the Project designs are finalized.

### 3.7.7.3 Telecommunications

Simmons will select private telecommunications companies to provide telephone, cable, and data services. The existing buildings have telephone, cable and data services and will be maintained. There are several potential candidates with substantial downtown Boston networks capable of providing service. Upon selection of a provider or providers, Simmons will coordinate service connection locations and obtain appropriate approvals.

## 3.7.7.4 Campus Steam and Electricity

The existing Simmons buildings are interconnected with steam lines and electrical lines. Construction of the Living and Learning Center will require relocation of the central electrical service to One Palace Road.

## 3.7.8 Protection of Utilities

Existing public and private infrastructure located within nearby public rights-of-way will be protected during Project construction. The installation of proposed utility connections within public ways will be undertaken in accordance with BWSC, Boston Public Works Department, the Dig-Safe Program, and applicable utility company requirements. Specific methods for constructing proposed utilities where they are near to, or connect with, existing water, sewer, and drain facilities will be reviewed by the BWSC as part of its Site Plan Review process. All necessary permits will be obtained before the commencement of work.

### 3.7.9 Construction Coordination

Simmons will continue to work and coordinate with the utility companies to ensure compliance with their standards. The design team will use the City of Boston Utility Coordination Software (COBUCS) to ensure work within the public roadway is coordinated with other planned work adjacent to the campus.

## 3.7.10 Conclusion

The Living and Learning Center will connect to the existing water, sewer, electrical, and natural gas systems in the public roadways adjacent to the campus and will work with the utility owners to determine that there is enough capacity of the existing utilities as the design progresses. For renovations to Lefavour Hall and the Main College Building, the design team will work with the utility owners to determine if the existing building services are suitable for reuse or if they must be replaced.

The proposed utility connections will be designed and constructed in accordance with city, state, and federal standards and to minimize impact to the greatest extent practicable.

Coordination with other Governmental Agencies

# 4.0 COORDINATION WITH OTHER GOVERNMENTAL AGENCIES

# 4.1 Architectural Access Board Requirements

The Projects will comply with the requirements of the Architectural Access Board and the standards of the Americans with Disabilities Act. An Accessibility Checklist for each Project is included in Appendix D.

# 4.2 Massachusetts Environmental Policy Act (MEPA)

A project is subject to the Massachusetts Environmental Policy Act (MEPA) review when the following two conditions are met: (1) a project is subject to MEPA jurisdiction, and (2) a MEPA review threshold is exceeded. Simmons may pursue state funding for the Lefavour Hall renovations. If MEPA review is required, an Environmental Notification Form will be filed with the MEPA Office to initiate MEPA review of the Project.

## 4.3 Massachusetts Historical Commission

If the Lefavour Hall renovations utilizes state funding, the Project would be subject to review by the Massachusetts Historical Commission (MHC) under State Register Review (950 CMR 71.00). The MHC review process would be initiated either through the filing of the ENF (if MEPA review is required), or through the filing of an MHC Project Notification Form.

# 4.4 Boston Civic Design Commission

The Living and Learning Center will comply with the provisions of Article 28 of the Boston Zoning Code. This PNF will be submitted to the Boston Civic Design Commission by the BPDA as part of the Article 80 process.

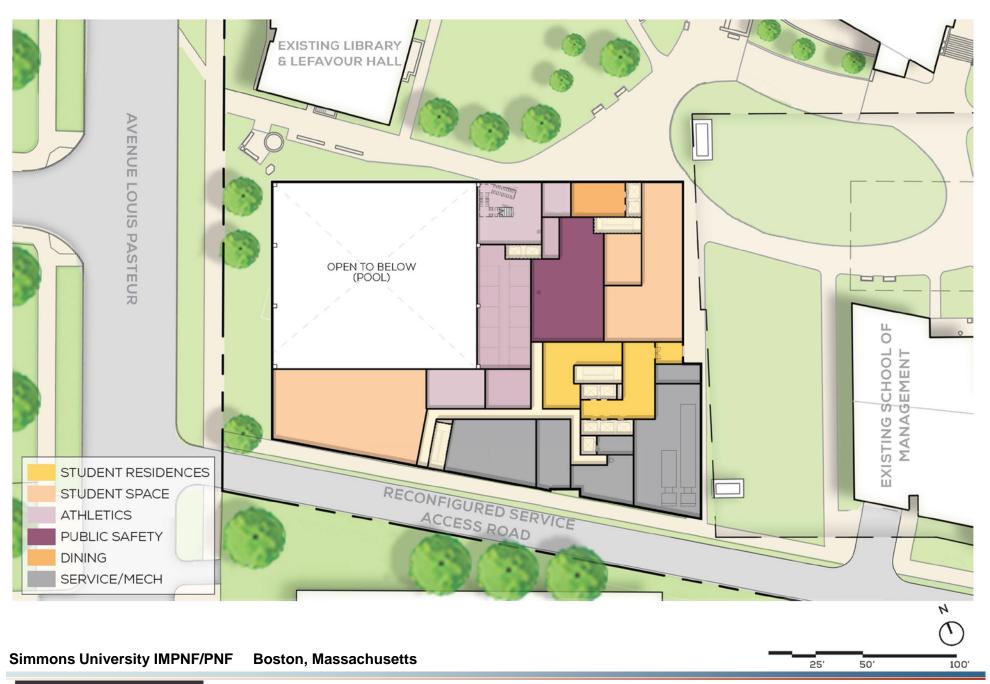
Living and Learning Center Floor Plans and Section

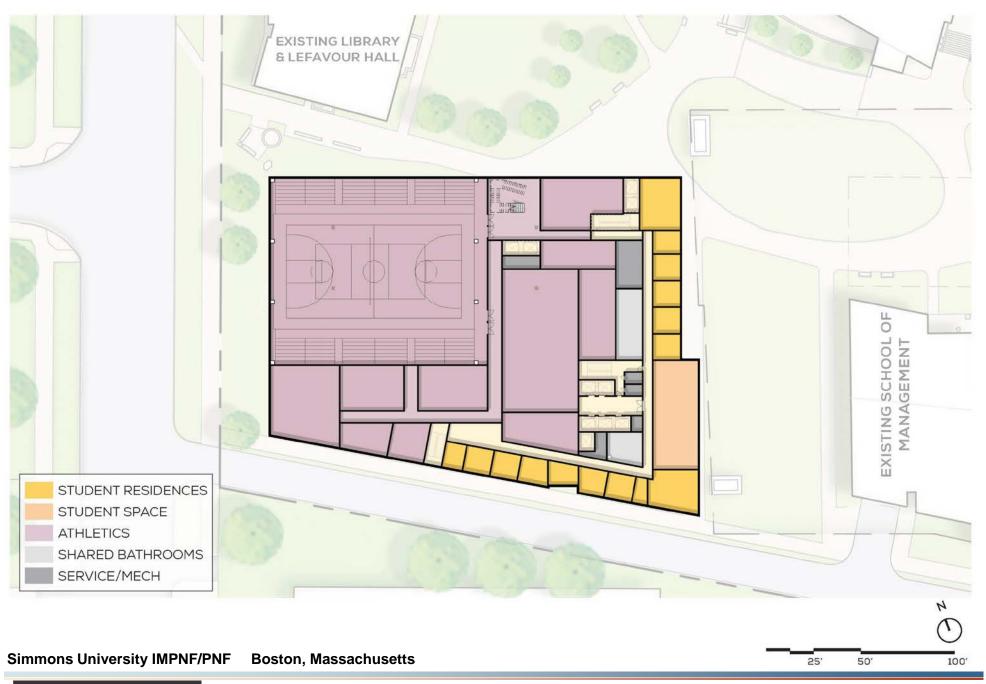


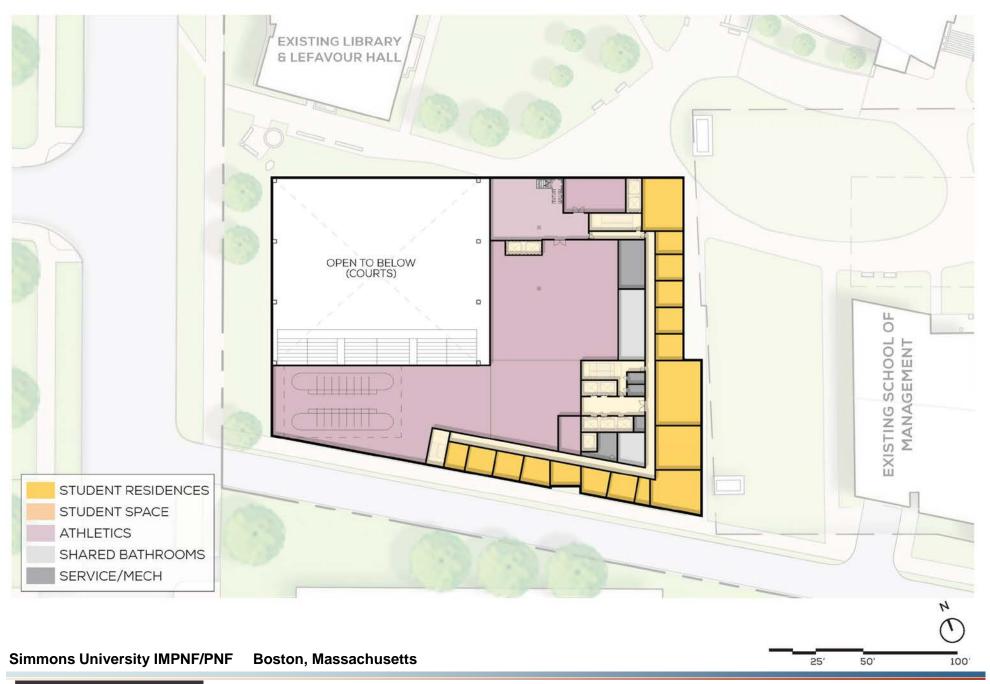
ATHLETICS
SERVICE/MECH

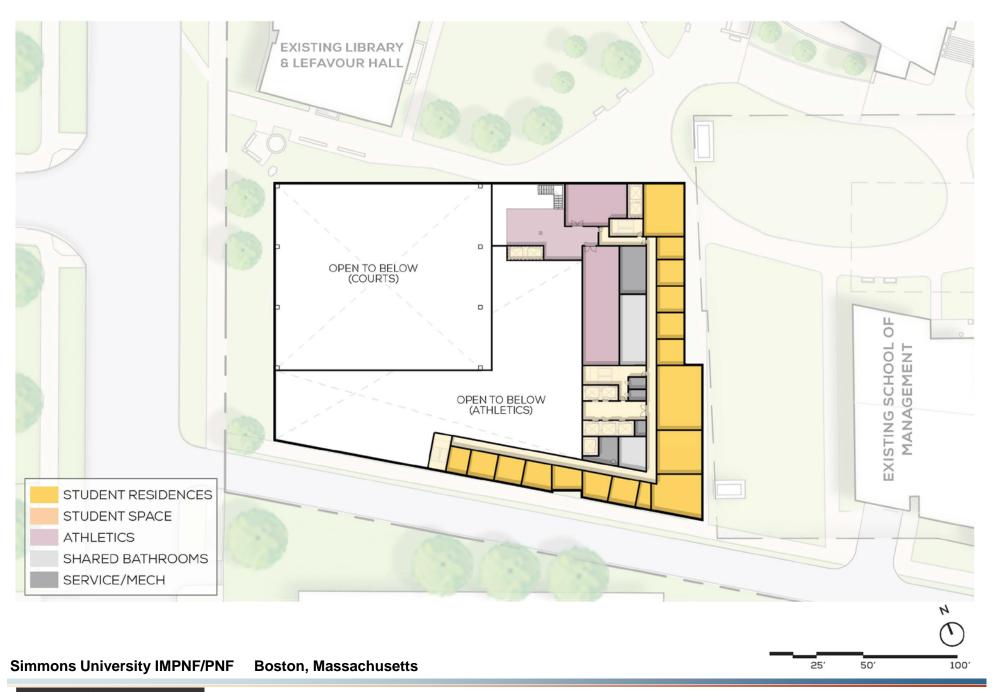
Simmons University IMPNF/PNF Boston, Massachusetts

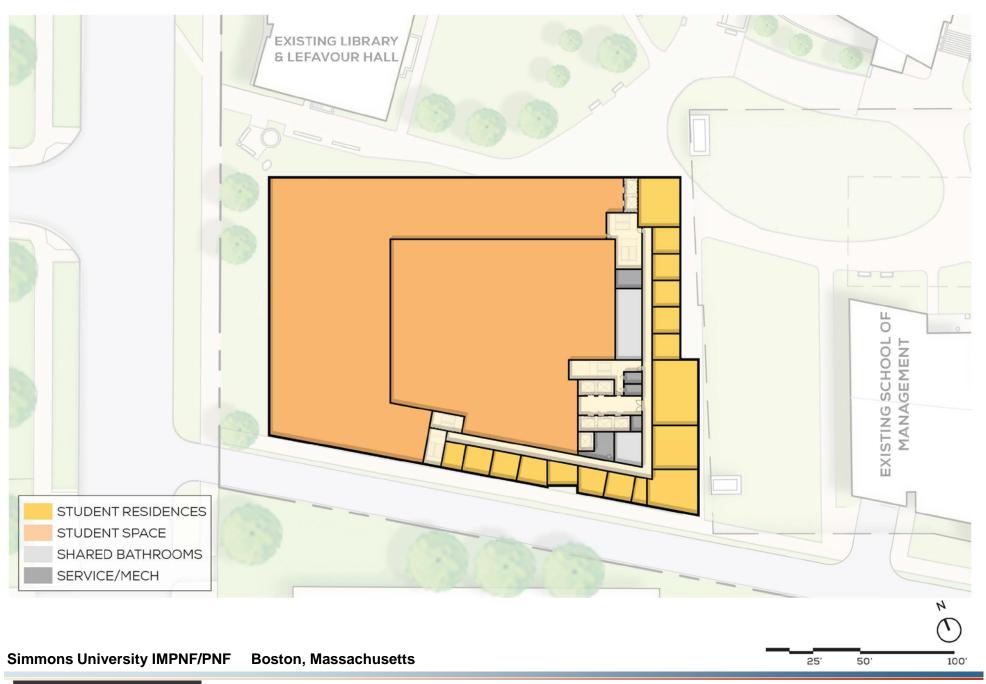


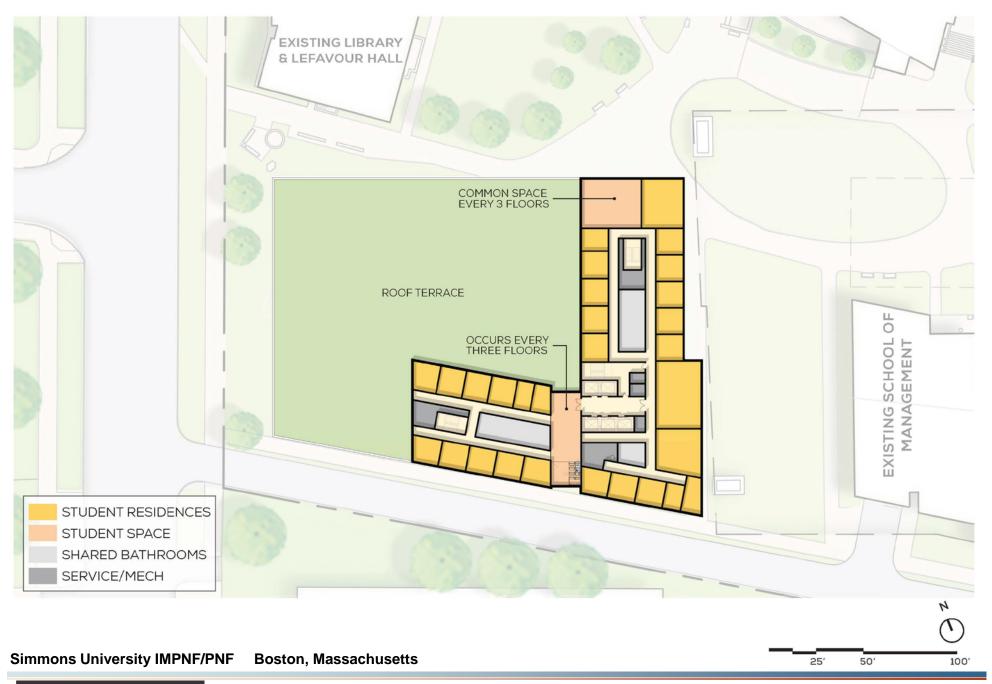


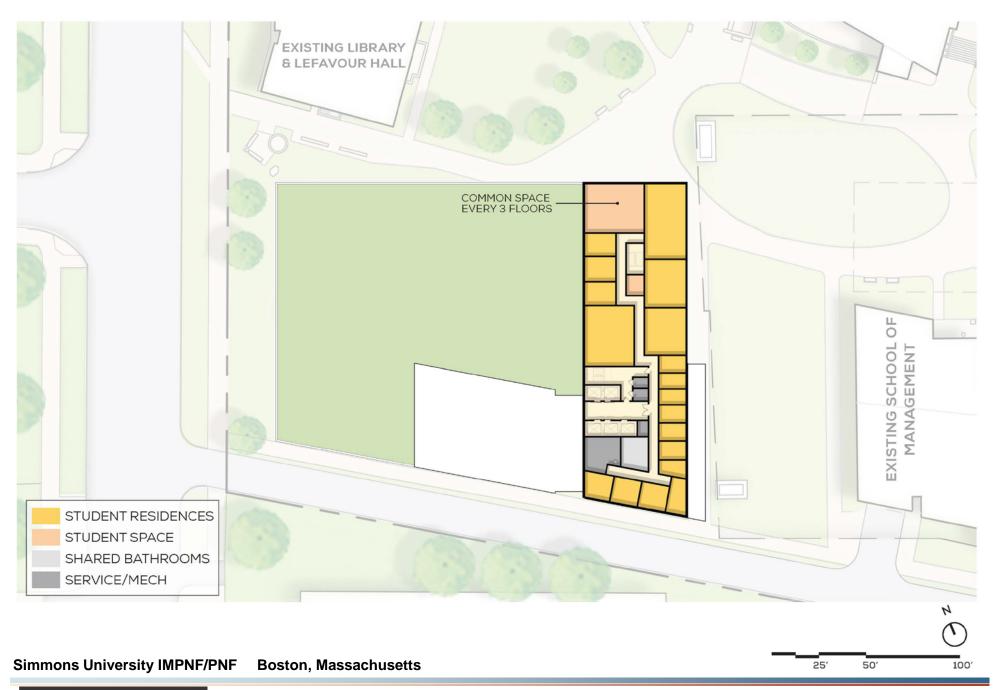


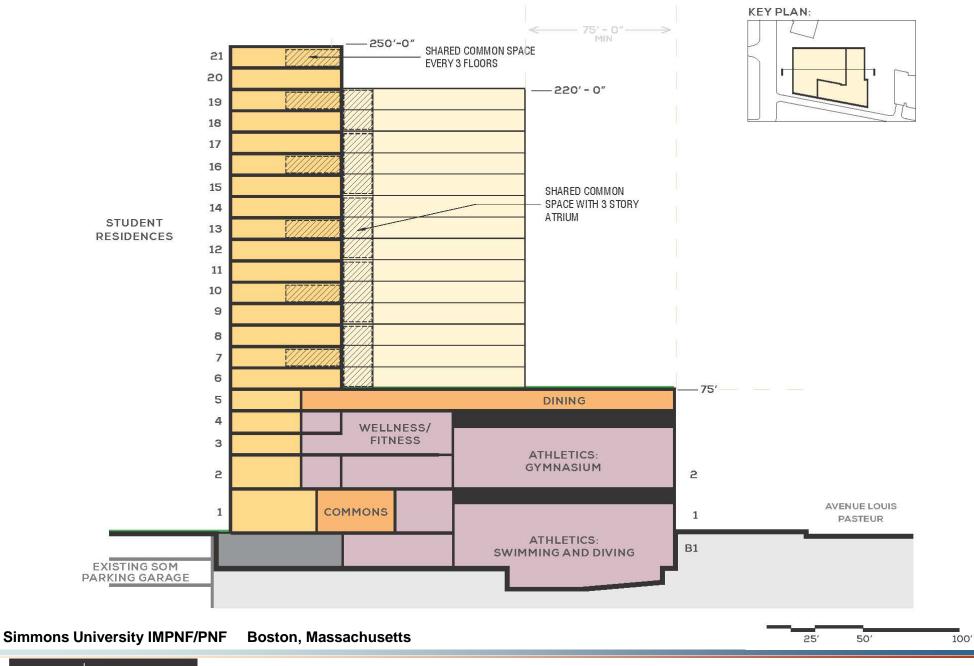










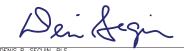


# Appendix B

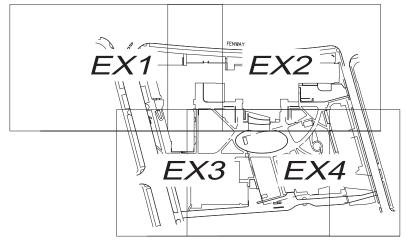
**Campus Survey** 







MASSACHUSETTS REG. No. 37058
REGISTERED PROFESSIONAL LAND SURVEYOR



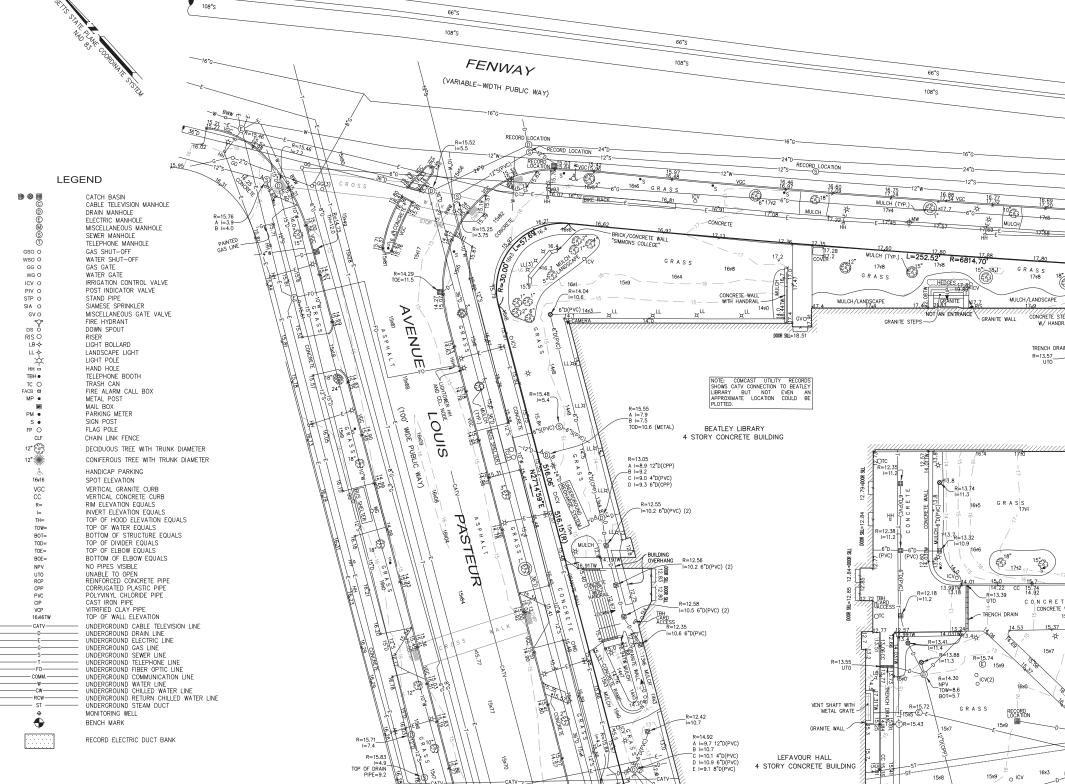
### NOTES

- 1. THIS DOCUMENT IS AN INSTRUMENT OF SERVICE OF NITSCH ENGINEERING. IT IS ISSUED TO SIMMONS 1. THIS DOCUMENT IS AN INSTRUMENT OF SERVICE OF NITSCH ENGINEERING. IT IS ISSUED TO SIMMONS COLLEGE FOR PURPOSES RELATED DIRECTLY AND SOLELY TO NITSCH ENGINEERING'S SCOPE OF SERVICES UNDER CONTRACT WITH SIMMONS COLLEGE MAIN CAMPUS LAND SURVEYING SERVICES. ANY USE OR REUSE OF THIS DOCUMENT FOR ANY REASON BY ANY PARTY FOR PURPOSES UNRELATED DIRECTLY AND SOLELY TO SAID CONTRACT AND PROJECT SHALL BE AT THE USER'S SOLE AND EXCLUSIVE RISK AND LABILITY, INCLUDING LIABILITY FOR VIOLATION OF COPYRIGHT LAWS, UNLESS WRITTEN AUTHORIZATION IS GIVEN THEREFOR BY NITSCH ENGINEERING.
- 2. THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS AS THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY WHICH OCCURRED BETWEEN 6/5/2017 AND 2/20/2018.
- 3. HORIZONTAL BASIS OF ROTATION IS BASED ON THE MASSACHUSETTS STATE COORDINATE SYSTEM (NAD83) BASED ON RTK GPS OBSERVATIONS
- 4. ELEVATION REFERS TO BOSTON CITY BASE (BCB) VERTICAL BASED ON RTK GPS OBSERVATIONS.
- 5. THE ENTIRE SITE FALLS WITHIN THE AREA DESIGNATED ZONE X (UNSHADED), DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP NUMBER 25025C0078G HAVING AN EFFECTIVE DATE OF SEPTEMBER 25, 2009.
- 6. THE INFORMATION CONTAINED ON THE DISK OR ELECTRONIC DRAWING FILE ACCOMPANYING THIS PLAN 6. THE INFORMATION CONTAINED ON THE DISK OR ELECTRONIC DRAWING FILE ACCOMPANYING THIS PLAL MUST BE COMPARED TO THE SEALED AND SIGNED HABD COPY OF THE PLAN TO ENSURE THE ACCURACY OF ALL INFORMATION AND TO ENSURE THE ACCURACY OF ALL INFORMATION AND TO ENSURE THE ACCURACY OF ALL INFORMATION AND TO ENSURE NO CHANGES, ALTERATIONS, OR MODIFICATIONS HAVE BEEN MADE. RELIANCE SHALL NOT BE MADE ON A DOCUMENT TRANSMITTED BY COMPUTER OR OTHER ELECTRONIC MEANS UNLESS FIRST COMPARED TO THE ORIGINAL SEALED DOCUMENT ISSUED AT THE TIME OF THE SURVEY. DUE TO THE CRITICAL NATURE OF SURVEYING, DATA ACCUISITION, AND AUTOCAD PLAN DEVELOPMENT, IF CRITICAL DIMENSIONAL INFORMATION IS NEEDED AND IS NOT SPECIFICALLY SHOWN ON THE ELECTRONIC DRAWING FILE, PLEASE CONTACT NITSCH ENGINEERING.

### UTILITY INFORMATION STATEMENT

- 1. THE SUB—SURFACE UTILITY INFORMATION SHOWN HEREON IS COMPILED BASED ON FIELD SURVEY INFORMATION, RECORD INFORMATION AS SUPPLIED BY THE APPROPRIATE UTILITY COMPANIES, AND PLAN INFORMATION SUPPLIED BY THE CLIENT, IF ANY, THEREFORE WE CANNOT GUARANTEE THE ACCURACY OF SAID COMPILED SUB—SURFACE INFORMATION TO ANY CERTAIN DEGREE OF STATED TOLERANCE. ONLY PHYSICALLY LOCATED SUB—SURFACE UTILITY FEATURES FALL WITHIN NORMAL STANDARD OF CARE ACCURACIES.
- 2. THE LOCATIONS OF UNDERGROUND PIPES, CONDUITS, AND STRUCTURES HAVE BEEN DETERMINED FROM SAID INFORMATION, AND ARE APPROXIMATE ONLY. COMPILED LOCATIONS OF ANY UNDERGROUND STRUCTURES, NOT VISIBLY OBSERVED AND LOCATED, CAN VARY FROM THEIR ACTUAL LOCATIONS.
- 3. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED.
- 4. THE STATUS OF UTILITIES, WHETHER ACTIVE, ABANDONED, OR REMOVED, IS AN UNKNOWN CONDITION AS FAR AS OUR COMPILATION OF THIS INFORMATION.
- 5. IT IS INCUMBENT UPON INDIVIDUALS USING THIS INFORMATION TO UNDERSTAND THAT COMPILING UTILITY INFORMATION IS NOT EXACT, AND IS SUBJECT TO CHANGE BASED UPON VARYING PLAN INFORMATION RECEIVED AND ACTUAL LOCATIONS.
- 5. THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES IS SUBJECT TO FIELD CONDITIONS, THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS AND OTHER MATTERS.
- 7. THE PROPER UTILITY ENGINEERING/COMPANY SHOULD BE CONSULTED AND THE ACTUAL LOCATIONS OF SUBSURFACE STRUCTURES SHOULD BE VERIFIED IN THE FIELD (V.I.F.) BEFORE PLANNING FUTURE CONNECTIONS. CONTACT THE DIG SAFE CALL CENTER AT 1-888-344-7233, SEVENTY-TWO HOURS PRIOR TO EXCAVATION, BLASTING, GRADING, AND/OR PAVING.
- 8. AS OF THE DATE OF THIS PLAN RECORD INFORMATION HAS NOT BEEN RECEIVED BY NITSCH ENGINEERING FOR THE FOLLOWING UTILITIES: TRANSPORTATION(MBTA POWER, PANAM, CSX), FIRE DEP., FIBER OPTIC(EVERSOURCE FIBER)







### www.nitscheng.com

T: (617) 338-0063

2 Center Plaza. Suite 430 Boston, MA 02108

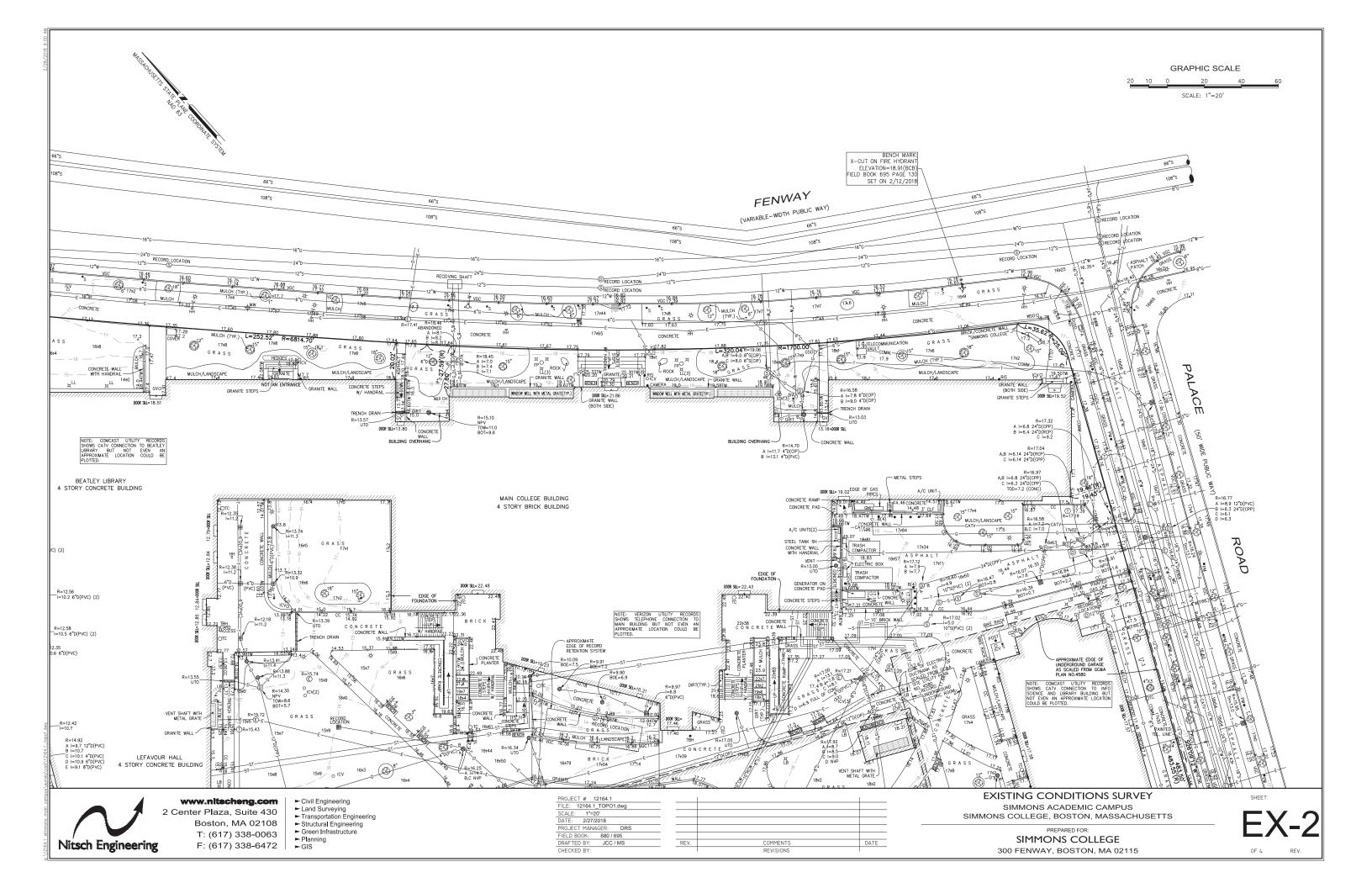
- ► Civil Engineering
  - ► Land Surveying
  - ► Transportation Engineering ► Structural Engineering
  - ➤ Green Infrastructure
- ► Planning F: (617) 338-6472

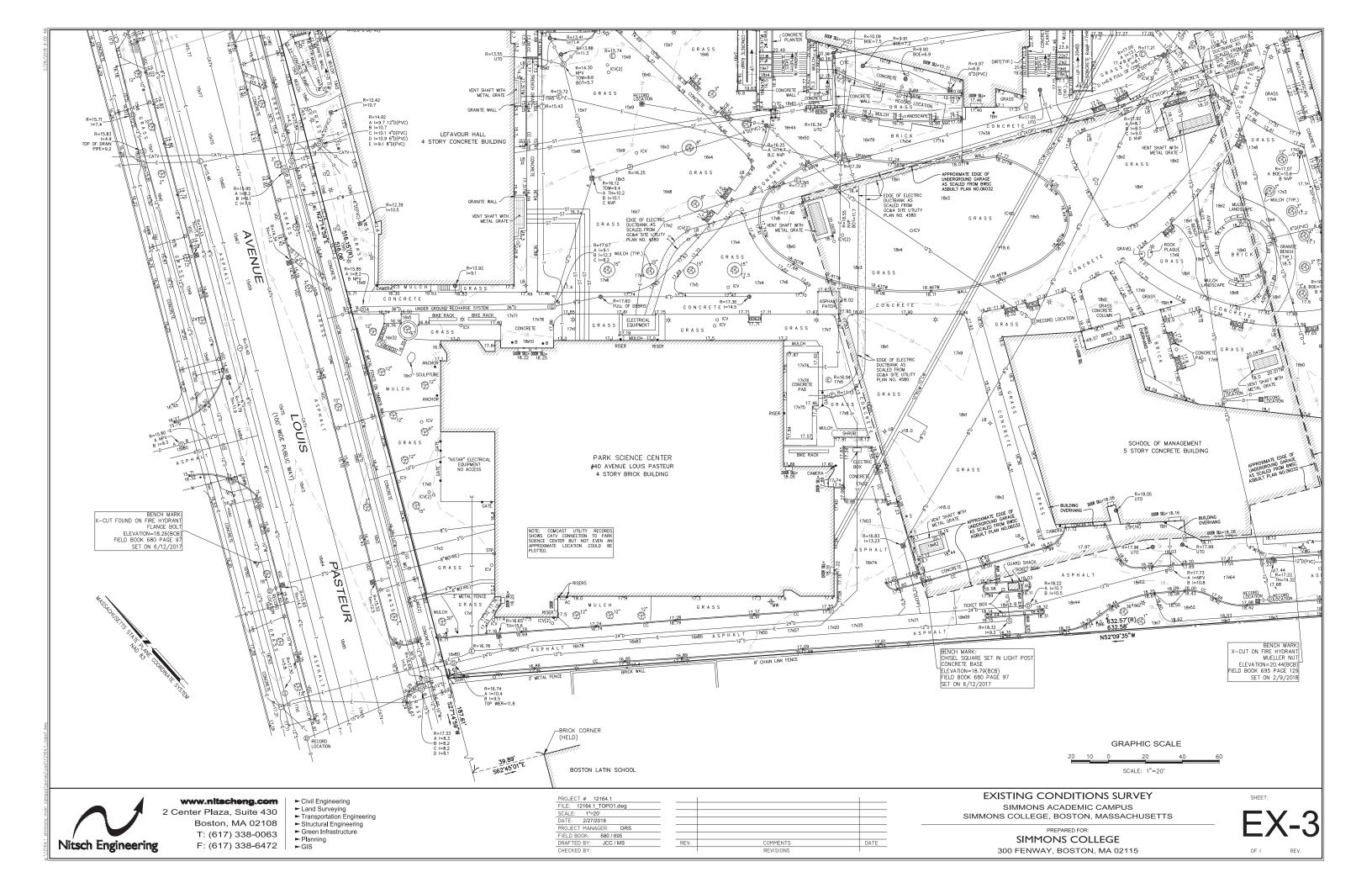
FILE: 12164.1 TOPO1.dwg PROJECT MANAGER: REV.

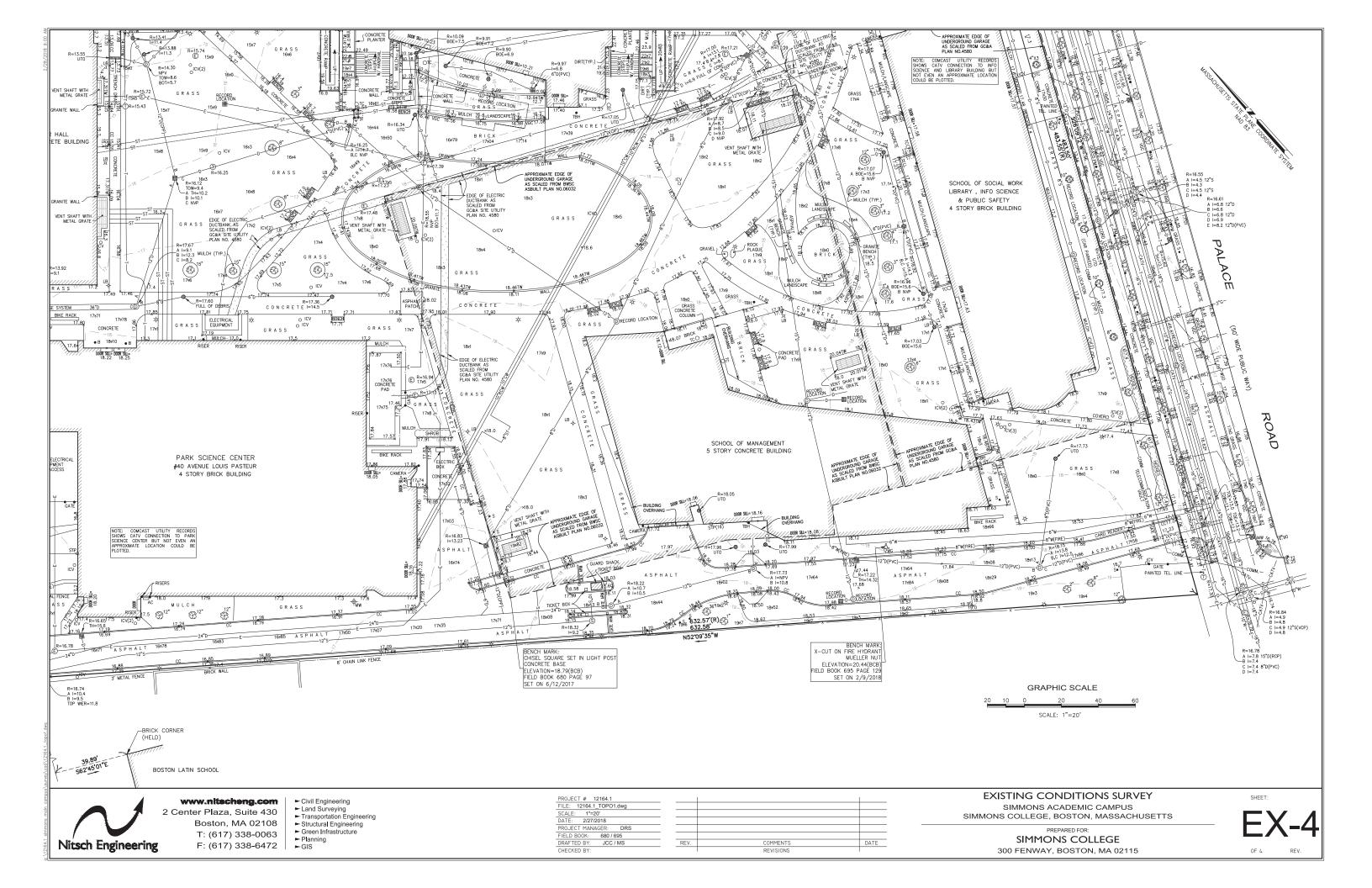
**EXISTING CONDITIONS SURVEY** SIMMONS ACADEMIC CAMPUS SIMMONS COLLEGE, BOSTON, MASSACHUSETTS

> PREPARED FOR SIMMONS COLLEGE 300 FENWAY, BOSTON, MA 02115

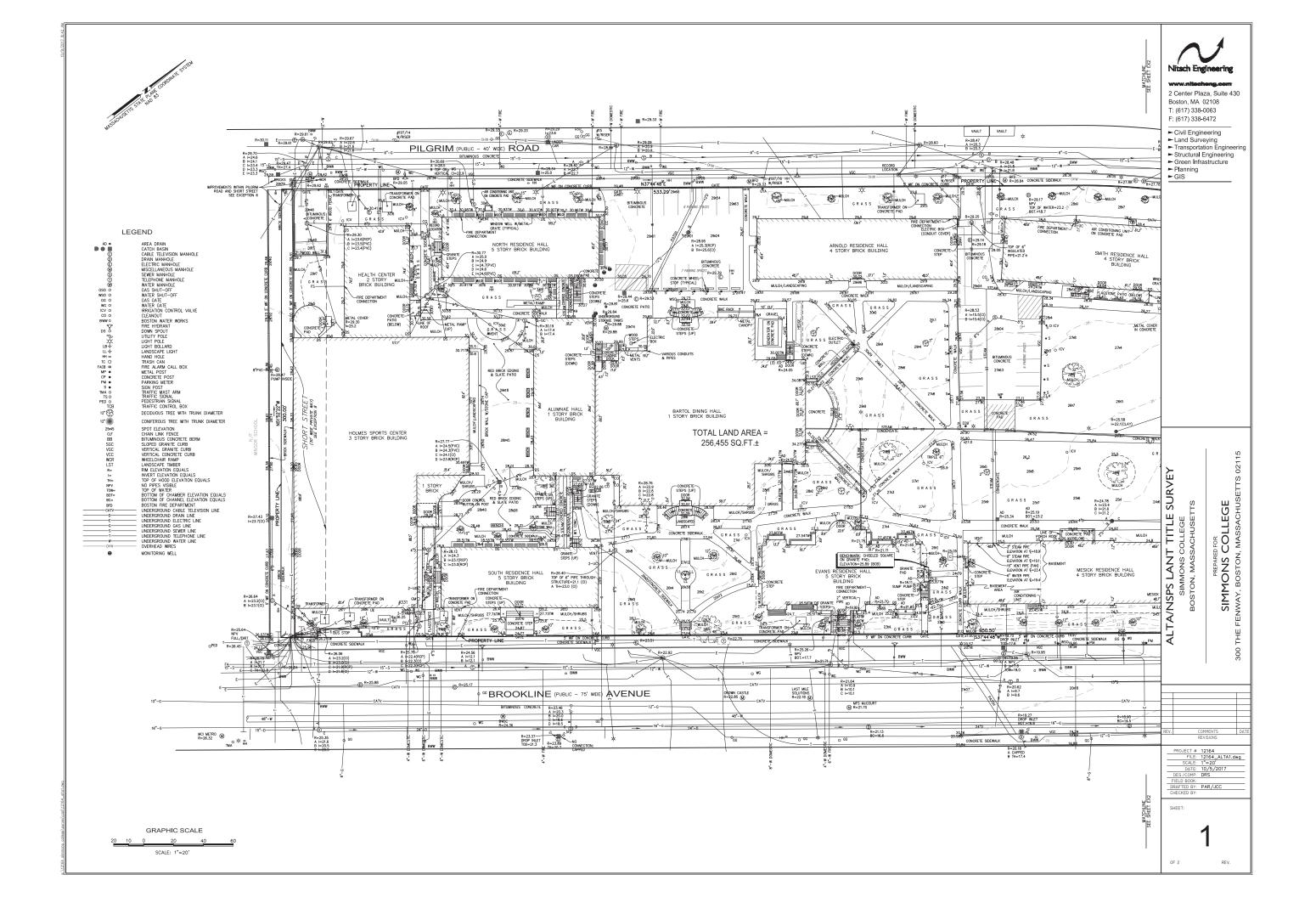
SHEET:

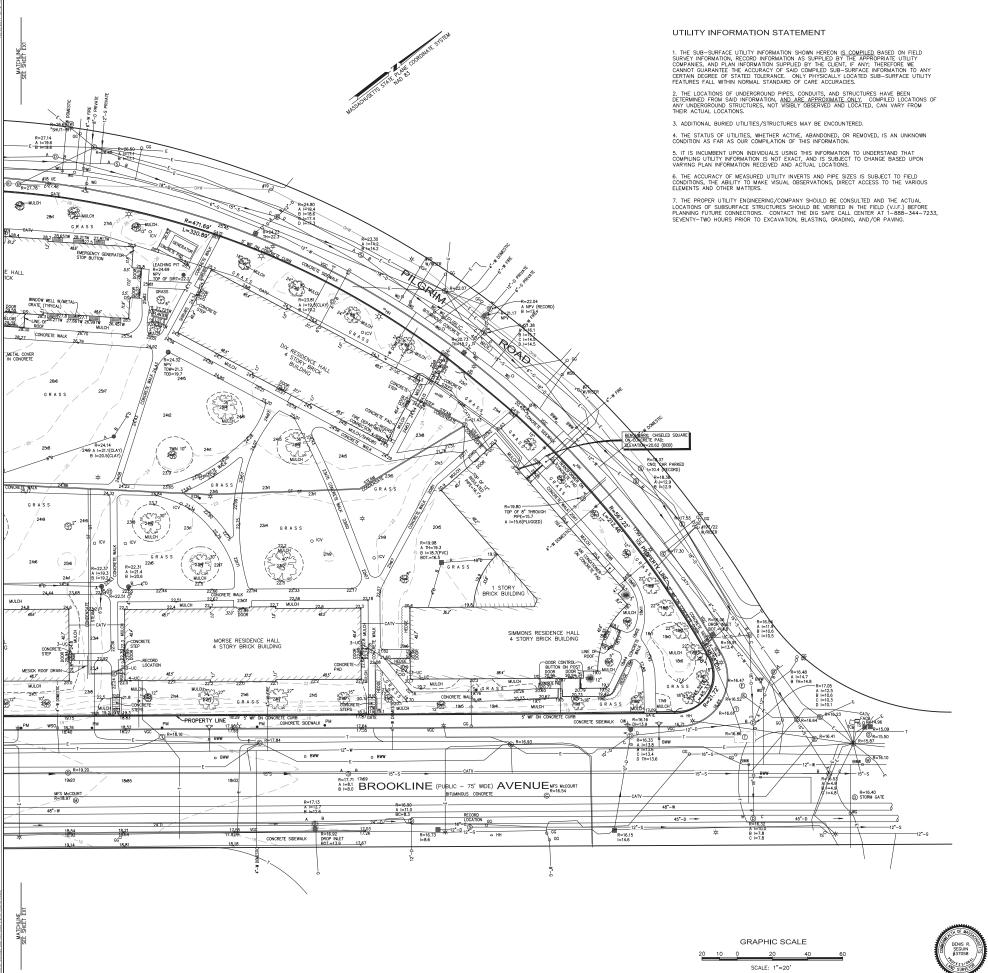














1. THIS PLAN WAS PREPARED IN CONJUNCTION WITH THE COMMITMENT FOR TITLE INSURANCE PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, CASE NUMBER C24436, AND HAVING AN EFFECTIVE DATE OF: SEPTEMBER 11, 2017 AT 4;00 P.M.

2. ELEVATIONS SHOWN REFER TO BOSTON CITY BASE VERTICAL DATUM (BCB) BASED ON RTK GPS OBSERVATIONS.

3. THE ENTIRE SITE FALLS WITHIN ZONE X (UNSHADED), WHICH IS AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON FEMA FLOOD MAP NUMBER 25025C0078G, HAVING AN FFFECTIVE DATE OF 9/2/2009.

4. AS OF THE DATE OF THIS SURVEY, NO ZONING REPORT OR LETTER HAS BEEN PROVIDED TO THE SURVEY BY THE CLIENT.

5. THE SITE CONTAINS 28 PAINTED PARKING SPACES, ONE (1) OF WHICH IS DESIGNATED DISABLED PARKING.

 $6.\ \mbox{NO}$  EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS WAS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK.

7. NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.

### OWNER OF RECORD

SIMMONS COLLEGE F/K/A SIMMONS FEMALE COLLEGE, BY VIRTUE OF THE FOLLOWING DEEDS:

1. DEED FROM MARY C. HASTINGS AND FRANCIS HASTINGS, DATED JUNE 2, 1904 AND RECORDED IN BOOK DEED HYDM MARY C. HASHINGS AND ATTO JUNE 2, 2004 AND RECORDED IN BOOK 2971, PAGE 83; DEED FROM FRANCE I. TURRED, DATED JUNE 2, 2004 AND RECORDED IN BOOK 2971, PAGE 85; DEED FROM FRANCIS HASTINGS, IR. DATED MAY 31, 1904 AND RECORDED IN BOOK 2971, PAGE 85; DEED FROM MARY C. EMERS, DATED MAY 31, 1904 AND RECORDED IN BOOK 2971, PAGE 86; DEED FROM MARY C. BEMES, DATED MAY 81, 1904 AND RECORDED IN BOOK 2971, PAGE 88; DEED FROM BENJAMIN F, BEGLA, DATED JUNE 2, 1904 AND RECORDED IN BOOK 2971, PAGE 88; DEED FROM BENJAMIN F, BEGLA, DATED JUNE 1, 1906 AND RECORDED IN BOOK 333, PAGE 88; OPEN STANDARD S

DEED FROM LILLIOR T. NUTTING, DATED MARCH 2, 1910 AND RECORDED IN BOOK 3433, PAGE 193; DEED FROM BYRON MILLARD, ET ALS, DATED MARCH 7, 1910 AND RECORDED IN BOOK 3469, PAGE

0. DEED FROM WOODBURY RAND, DATED DECEMBER 23, 1919 AND RECORDED IN BOOK 4206, PAGE 360; 1. DEED FROM HANNAH M. EDWARDS, ET UX, DATED JUNE 15, 1925 AND RECORDED IN BOOK 4691, PAGE

605;
12. DEED FROM GRACE M. EDWARDS, DATED JUNE 30, 1937 AND RECORDED IN BOOK 5678, PAGE 121;
13. DEED FROM JAMES M. ROTHWELL AND WILLIAM H. ROTHWELL, TRUSTEES, DATED AFRIL 25, 1941 AND
RECORRED IN BOOK 5911, PAGE 24;
14. DEED FROM LOWELL T. CLAPP, ET AL, EXECUTORS OF AND TRUSTEES UNDER THE WILL OF GERTRUDE
R. CLAPP, DATED AFRIL 25, 1941 AND RECORDED IN BOOK 5911, PAGE 25; AND
15. DEED FROM ELISE R. BRUSH, WIFE OF HORACE D. BRUSH, DATED APRIL 25, 1941 AND RECORDED IN
BOOK 5911, PAGE 26.

# LEGAL DESCRIPTION

THE LAND WITH THE BUILDINGS THEREON SHOWN AS LOTS 1 THROUGH 16, ON A PLAN ENTITLED "PLAN OF LAND OF L. POPE & N.H. EMMONS ON APPLETON PLACE IN ROXBURY", DATED JANUARY 16, 1845, BY ALEX WADSWORTH, SURVEYOR, RECORDED WITH NORFOLK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 159, PAGE 256 N/K/A PLAN BOOK 1, PLAN E.

THE ABOVE DESCRIBED LAND IS ALSO SHOWN ON A PLAN ENTITLED "SIMMONS COLLEGE, PLAN OF LAND IN BOSTON, MA, ROXBUPY DISTRICT, BACK BAY, SUFFOLK COUNTY", DATED MARCH 18, 1987, BY WILLIAM S. CROCKER CO. — SURVEY ENGINEERS RECORDED IN PLAN BOOK 13883, PAGE 93 AS LOT CONTAINING 256,457 ± SQ. FT. OR 23,626 ± M2 ACCORDING TO SAID PLAN.

#### SCHEDULE B - SECTION 2 **EXCEPTIONS FROM COVERAGE**

1. RIGHT OR CLAIMS OF PERSONS IN POSSESSION. (NOT SHOWN)

2. EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY-LINE DISPUTES, OVERLAPS, ENCROACHMENTS, TITLE TO FILLED LANDS (IF ANY) AND ANY MATTERS NOT OR RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

3. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIAL, HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS. (NOT SHOWN)

4. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSCOURT TO THE EFFECTIVE DATE HEREOF BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OR RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT. (NOT SHOWN)

5. LIENS FOR TAXES AND MUNICIPAL CHARGES WHICH BECOME DUE AND PAYABLE SUBSEQUENT TOT HE DATE OF SAID POLICY. (NOT SHOWN)

6. TAKING BY THE CITY OF BOSTON PUBLIC IMPROVEMENT COMMISSION FOR THE WIDENING AND RELOCATION OF BROOKLINE AVENUE, DATED AUGUST, 3, 1955, RECORDED IN BOOK 7114, PAGE 242 AND SHOWN ON PLAN I—B678. (DOES NOT EFFECT LOCUS)

7. ORDER FOR SPECIFIC REPAIRS IN PILGRIM ROAD BY THE CITY OF BOSTON PUBLIC IMPROVEMENT COMMISSION DATED MAY 2, 2013, RECORDED IN BOOK 51564, PAGE 16 AND SHOWN ON PLAN 2013-198.

8. RIGHT OF THE PUBLIC AND OTHERS ENTITLED THERETO IN SHORT STREET, A PRIVATE WAY. (SHOWN AS SHOWN ON PLAN BOOK 13883, PAGE 93)

### CERTIFICATION

DATE OF SURVEY: OCTOBER 5, 2017



2 Center Plaza, Suite 430 Boston, MA 02108 T: (617) 338-0063

F: (617) 338-6472 ➤ Civil Engineering

► Land Surveying

► Transportation Engineering

➤ Structural Engineering
➤ Green Infrastructure

➤ Planning **►**GIS

SURVI TITLE LANT A/NSPS

COLLEGE

SIMMONS (

WAY, BOSTON,

PROJECT # 12164 FILE: 12164\_ALTA1.dwg SCALE: 1"=20" DATE: 10/5/2017 DES./COMP: DRS FIELD BOOK:

DRAFTED BY: PAR/JCC

CHECKED BY:

OF 2

REV.

# Appendix C

Climate Resiliency Checklist





**Submitted:** 05/08/2019 07:54:28

A.1 - Project Information

Project Name: **CNBHS and Library Renovations** 

**Project Address:** 300 Fenway Avenue

Filing Type: Initial (PNF, EPNF, NPC or other substantial filing)

Filing Contact: Talya **Epsilon** tmoked@epsilonassocia 978-461-6223

> Moked Associates, Inc. tes.com

Is MEPA approval required? MEPA date:

A.2 - Project Team

Owner / Developer: **Simmons University** 

Architect: Elkus Manfredi Architects

Engineer:

Sustainability / LEED: Elkus Manfredi Architects

Permitting: Epsilon Associates, Inc.

**Construction Management:** 

**A.3 - Project Description and Design Conditions** 

List the principal Building Uses: Academic

List the First Floor Uses:

List any Critical Site Infrastructure

and or Building Uses:

**Site and Building:** 

Site Area (SF):

Building Height (Ft):

Existing Site Elevation - Low

(Ft BCB):

Proposed Site Elevation - Low

(Ft BCB):

Proposed First Floor Elevation

(Ft BCB):

**Article 37 Green Building:** 

LEED Version - Rating System:

Proposed LEED rating:

Academic

35200

100

12.5

12.5

12.75

LEED v4 BD+C

Certified

Building Area (SF):

Building Height (Stories):

Existing Site Elevation - High

(Ft BCB):

Proposed Site Elevation – High

(Ft BCB):

Below grade spaces/levels (#):

1

5

17.8

17.8

161500

**LEED Certification:** 

Proposed LEED point score (Pts.):

05/08/2019 07:54:28



# **Building Envelope:**

When reporting R values, differentiate between R discontinuous and R continuous. For example, use "R13" to show R13 discontinuous and use R10c.i. to show R10 continuous. When reporting U value, report total assembly U value including supports and structural elements.

Roof:		Exposed Floor:	
Foundation Wall:		Slab Edge (at or below grade):	
Vertical Above-grade Assemblies (%	's are of total vertical	area and together should total 100%):	
Area of Opaque Curtain Wall & Spandrel Assembly:		Wall & Spandrel Assembly Value:	
Area of Framed & Insulated / Standard Wall:		Wall Value:	
Area of Vision Window:		Window Glazing Assembly Value:	
		Window Glazing SHGC:	
Area of Doors:		Door Assembly Value :	
Energy Loads and Performance			
For this filing – describe how energy loads & performance were determined	Engineering load calculations were used for this filing based on existing building massing and anticipated MEP systems approach. Future filings will utilize an eQuest energy model that will be developed as the Project design progresses. The proposed design vs ASHRAE 90.1 2013 App. G baseline with MA Amendments.		
Annual Electric (kWh):	2246822	Peak Electric (kW):	1149
Annual Heating (MMbtu/hr):	5000	Peak Heating (MMbtu):	4098
Annual Cooling (Tons/hr):	625000	Peak Cooling (Tons):	500
Energy Use - Below ASHRAE 90.1 - 2013 (%):	12	Have the local utilities reviewed the building energy performance?:	No
Energy Use - Below Mass. Code (%):	12	Energy Use Intensity (kBtu/SF):	91
Back-up / Emergency Power Syst	em		
Electrical Generation Output (kW):	750	Number of Power Units:	1
System Type (kW):	Combustion	Fuel Source:	Diesel
Emergency and Critical System L	oads (in the event of a	a service interruption)	
Electric (kW):	600	Heating (MMbtu/hr):	0
		Cooling (Tons/hr):	0

# B - Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance



Reducing greenhouse gas emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon-neutrality by 2050 the performance of new buildings will need to progressively improve to carbon net zero and net positive.

# **B.1 - GHG Emissions - Design Conditions**

For this filing - Annual Building GHG Emissions (Tons): 1035

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

The Project team will perform a preliminary energy model in order to determine appropriate energy efficiency measures for the Project.

Describe building specific passive energy efficiency measures including orientation, massing, building envelop, and systems:

The Project will design interior layouts to optimize day light penetration to the greatest extent feasible. The Project is also studying high albedo roof replacements where feasible.

Describe building specific active energy efficiency measures including high performance equipment, controls, fixtures, and systems:

HVAC equipment will be designed to maximize efficiency and exceed code standard. The design will include fan coil units with EC motors in each unit. Energy Recovery has been included to incorporate energy and waste-heat savings. High performance fixtures such as LED will be installed throughout the Project. Occupancy sensors will be applied throughout the building. Lighting Controls will enable controllability and energy savings throughout. Energy efficient condensing water heaters will provide domestic hot water throughout the building. Domestic water fixtures that are replaced as part of the project will be low-flow Water Sense fixtures where feasible.

Describe building specific load reduction strategies including on-site renewable energy, clean energy, and storage systems:

Solar Photovoltaic, Solar Thermal, Battery Storage, Daylighting and other renewable energy strategies are being reviewed for project design and implementation. Options for renewables, efficient buildings/HVAC systems, options for demand response, and option for co- or tri-gen to reduce carbon emissions, save energy and promote resiliency. The design team will follow the Smart Utilities strategies set forth by the city to integrate technology with existing/new infrastructure for future connections to anticipated smart grids for all utilities.

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

Describe any energy efficiency assistance or support provided or to be provided to the project:

The ownership team plans to take advantage of all local utility rebate programs provided by Eversource and National Grid. To determine the incentive levels, a whole building energy model will be created. The analysis will be performed based on ASHRAE 90.1. The proposed model will incorporate any energy conservation measures proposed by the



design team. The propose model will accurately reflect the whole building, per its design. The building upgrade will utilize central utilities for heating and cooling.

## **B.2 - GHG Reduction - Adaptation Strategies**

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

The building/systems may evolve to further reduce GHG over time through inclusion of metering, tenant guidelines, energy conservation measures, opportunities for renewables, and exploring energy storage options as they emerge and as systems get upgraded. The project team will continue to evaluate energy conservation strategies during the design phase of the project. Several additional strategies have been identified for further investigation:

- Reduce lighting power density by 30%, or more
- Combined Heat and Power (CHP)
- Photovoltaic array (PV)

## **C - Extreme Heat Events**

Annual average temperature in Boston increased by about 2°F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

## C.1 - Extreme Heat - Design Conditions

Temperature Range - Low (Deg.): 9

remperature name 2011 (Beg.).	<b>J</b>	remperature range mgm (Begi).	31
Annual Heating Degree Days:		Annual Cooling Degree Days	
What Extreme Heat Event characteristics will be / have been used for project planning			
Days - Above 90° (#):	60	Days - Above 100° (#):	30
Number of Heatwaves / Year (#):	6	Average Duration of Heatwave (Days):	5

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

The Project is studying high albedo roof replacements where feasible.

## **C.2 - Extreme Heat - Adaptation Strategies**

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

As part of the energy modeling process, climate files that reflect the predicted increase in temperature can be used to better understand how the buildings and their systems would perform under different climate conditions. This

Temperature Range - High (Deg.): 91



understanding can then be considered when designing major plant and overall HVAC systems.

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

During power outages, building emergency and life safety systems (i.e., fire-pump pressurizing sprinkler and standpipe systems, egress lighting, smoke evacuation systems, heat and smoke detection and alarm systems, emergency communications and first-responder's elevator systems) will all be powered by diesel emergency generators in each building. The Project team is evaluating an increase in capacity of the generator to provide base minimum mechanical loads for key aspects of the building use. Of this would include the heat generating systems and kitchen spaces.

# **D** - Extreme Precipitation Events

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25". There is a significant probability that this will increase to at least 6" by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

# **D.1 - Extreme Precipitation - Design Conditions**

What is the project design precipitation level? (In. / 24 Hours)

6

Describe all building and site measures for reducing storm water run-off:

Because the project area is limited to interior renovation and rooftop equipment, the opportunity to increase runoff and stormwater retention may be deferred to future projects on the University's campus.

# **D.2 - Extreme Precipitation - Adaptation Strategies**

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

Because the project area is limited to interior renovation and rooftop equipment, the opportunity to increase runoff and stormwater retention may be deferred to future projects on the University's campus.

# **E - Sea Level Rise and Storms**



Under any plausible greenhouse gas emissions scenario, the sea level in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA Special Flood Hazard Area?	No	What Zone:	
What is the current FEMA SFHA Zone	Base Flood Ele	evation for the site (Ft BCB)?	
Is any portion of the site in the BPDA Sea Level Rise Flood Hazard Area (see <u>SLR-FHA online map</u> )?	No		
If you answered YES to either of the above questions, p Otherwise you have completed the questionnaire; than		ete the following questions	s.

# E.1 - Sea Level Rise and Storms - Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented by the Sea Level Rise Flood Hazard Area (SLR-FHA), which includes 3.2' of sea level rise above 2013 tide levels, an additional 2.5" to account for subsidence, and the 1% Annual Chance Flood. After using the SLR-FHA to identify a project's Sea Level Rise Base Flood Elevation, proponents should calculate the Sea Level Rise Design Flood Elevation by adding 12" of freeboard for buildings, and 24" of freeboard for critical facilities and infrastructure and any ground floor residential units.

What is the Sea Level Rise - Base Flood Elevation for the site (Ft BCB)?		
What is the Sea Level Rise - Design Flood Elevation for the site (Ft BCB)?	First Floor Elevation (Ft BCB):	
What are the Site Elevations at Building (Ft BCB)?	What is the Accessible Route Elevation (Ft BCB)?	

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:



Describe any strategies that we	ould support rapid recovery after a weather event:
Describe any strategies that we	buta support rapid recovery after a weather event.

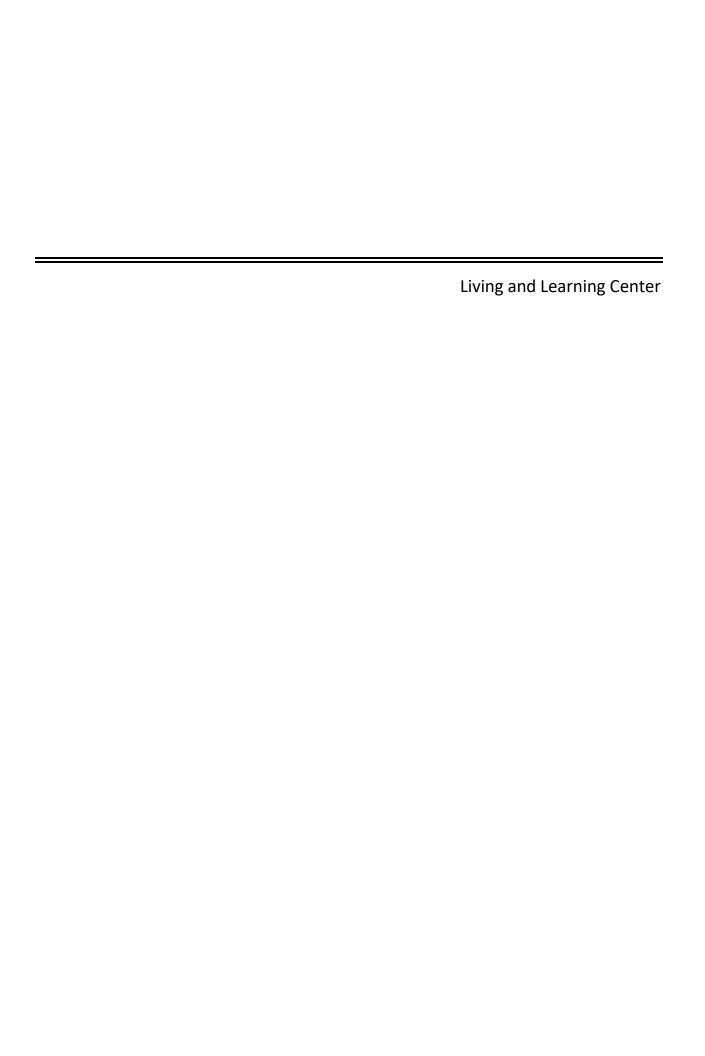
# E.2 - Sea Level Rise and Storms - Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

Thank you for completing the Boston Climate Change Checklist!

For questions or comments about this checklist or Climate Change best practices, please contact: John.Dalzell@boston.gov





**Submitted:** 05/08/2019 07:44:36

A.1 - Project Information

Project Name: Simmons Living and Learning Center

Project Address: 300 Fenway Avenue

Filing Type: Initial (PNF, EPNF, NPC or other substantial filing)

Filing Contact: Talya Epsilon tmoked@epsilonassocia 978-461-6223

Moked Associates, Inc. tes.com

Is MEPA approval required? No MEPA date:

A.2 - Project Team

Owner / Developer: Simmons University

Architect: Elkus Manfredi Architects

Engineer:

Sustainability / LEED: Elkus Manfredi Architects

Permitting: Epsilon Associates, Inc.

**Construction Management:** 

A.3 - Project Description and Design Conditions

List the principal Building Uses: Athletics, dining, student residences

List the First Floor Uses: Lobby, common spaces, student spaces

List any Critical Site Infrastructure

and or Building Uses:

Site and Building:

Site Area (SF): 50000 Building Area (SF): 401000
Building Height (Ft): 250 Building Height (Stories): 21

Existing Site Elevation – Low 15.7 Existing Site Elevation – High

(Ft BCB): (Ft BCB):

Proposed Site Elevation – Low Proposed Site Elevation – High

 (Ft BCB):
 (Ft BCB):

 Proposed First Floor Elevation
 18.0

 Below grade spaces/levels (#):
 1

Article 37 Green Building:

(Ft BCB):

LEED Version - Rating System: LEED v4 BD+C LEED Certification:

Proposed LEED rating: Silver Proposed LEED point score (Pts.): 51

18.1



### **Building Envelope:**

When reporting R values, differentiate between R discontinuous and R continuous. For example, use "R13" to show R13 discontinuous and use R10c.i. to show R10 continuous. When reporting U value, report total assembly U value including supports and structural elements.

• •			
Roof:	35	Exposed Floor:	
Foundation Wall:	15	Slab Edge (at or below grade):	15
Vertical Above-grade Assemblies (%	's are of total vertical	area and together should total 100%):	
Area of Opaque Curtain Wall & Spandrel Assembly:	5	Wall & Spandrel Assembly Value:	
Area of Framed & Insulated / Standard Wall:	60	Wall Value:	35
Area of Vision Window:	35	Window Glazing Assembly Value:	0.2
		Window Glazing SHGC:	
Area of Doors:		Door Assembly Value :	

### **Energy Loads and Performance**

For this filing – describe how energy loads & performance were determined	Engineering load calculations were used for this filing based on existing building massing and anticipated MEP systems approach. Future filings will utilize an eQuest energy model that will be developed as the project is developed. The proposed design vs ASHRAE 90.1 2013 App. G baseline with MA Amendments		
Annual Electric (kWh):	3600000	Peak Electric (kW):	1841
Annual Heating (MMbtu/hr):	18000	Peak Heating (MMbtu):	14175
Annual Cooling (Tons/hr):	1600000	Peak Cooling (Tons):	1100
Energy Use - Below ASHRAE 90.1 - 2013 (%):	15	Have the local utilities reviewed the building energy performance?:	No
Energy Use - Below Mass. Code (%):	15	Energy Use Intensity (kBtu/SF):	48

### **Back-up / Emergency Power System**

Electrical Generation Output (kW):	1000	Number of Power Units:	1
System Type (kW):	Combustion	Fuel Source:	Diesel

### **Emergency and Critical System Loads** (in the event of a service interruption)

Electric (kW):	800	Heating (MMbtu/hr):	0
		Cooling (Tons/hr)	0

### B - Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance



Reducing greenhouse gas emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon-neutrality by 2050 the performance of new buildings will need to progressively improve to carbon net zero and net positive.

### **B.1 - GHG Emissions - Design Conditions**

For this filing - Annual Building GHG Emissions (Tons): 1799

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

The Project team will perform a preliminary energy model in order to determine appropriate energy efficiency measures for the Project.

Describe building specific passive energy efficiency measures including orientation, massing, building envelop, and systems:

The Project will incorporate efficient, compact massing and a high-performance building envelope to the greatest extent feasible. The Project will optimize daylight while minimizing energy losses and balancing internal heat gain. Additional high-performance strategies include optimized glazing u-factors and Solar Heat Gain Coefficients and increased roof and wall r-values.

Describe building specific active energy efficiency measures including high performance equipment, controls, fixtures, and systems:

HVAC equipment will be designed to maximize efficiency and exceed code standard. The design will include high-performance water-source heat pumps with EC motors in each unit. Energy Recovery has been included to incorporate energy and waste-heat savings.

High performance fixtures such as LED will be installed throughout the Project. Occupancy sensors will be applied throughout the building. Lighting Controls will enable controllability and energy savings throughout. Energy efficient condensing water heaters will provide domestic hot water throughout the building. Domestic water fixtures will be low-flow Energy Star appliances.

Describe building specific load reduction strategies including on-site renewable energy, clean energy, and storage systems:

Combined Heat and Power, Solar Photovoltaic, Solar Thermal, Battery Storage and other renewable energy strategies are being reviewed for project design and implementation. Regarding the integration of Smart Utility Technology and Microgrid strategies into the new development, the proposed case has several elements to achieve this as mentioned above. Options for renewables, efficient buildings/HVAC systems, options for demand response, and option for co- or tri-gen to reduce carbon emissions, save energy and promote resiliency. The design team will follow the Smart Utilities strategies set forth by the city to integrate technology with existing/new infrastructure for future connections to anticipated smart grids for all utilities.

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:



Describe any energy efficiency assistance or support provided or to be provided to the project:

Simmons plans to take advantage of all local utility rebate programs provided by Eversource and National Grid. To determine the incentive levels, a whole building energy model will be created. The analysis will be performed based on ASHRAE 90.1. The proposed model will incorporate any energy conservation measures proposed by the design team. The proposed model will accurately reflect the whole building, per its design.

### **B.2 - GHG Reduction - Adaptation Strategies**

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

The building/systems may evolve to further reduce GHG over time through inclusion of metering, tenant guidelines, energy conservation measures, opportunities for renewables, and exploring energy storage options as they emerge and as systems get upgraded. The Project team will continue to evaluate energy conservation strategies during the design phase of the Project. Several additional strategies have been identified for further investigation:

- Reduce overall glass percentage
- Optimize wall and roof U-value
- Optimize glass SHGC
- Reduce lighting power density by 30%, or more
- Combined Heat and Power (CHP)
- Photovoltaic array (PV)

#### **C - Extreme Heat Events**

Annual average temperature in Boston increased by about 2°F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

### C.1 - Extreme Heat - Design Conditions

Temperature Range - Low (Deg.):	8	Temperature Range - High (Deg.):	91
Annual Heating Degree Days:		Annual Cooling Degree Days	

What Extreme Heat Event characteristics will be / have been used for project planning

Days - Above 90° (#):	60	Days - Above 100° (#):	30
Number of Heatwaves / Year (#):	6	Average Duration of Heatwave (Days):	5

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

The Project will plant shade trees along the hardscaped elements on the site and will use reflective paving and roofing materials. The Project team is considering a green roof atop the athletics center.



### C.2 - Extreme Heat - Adaptation Strategies

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

As part of the energy modeling process, climate files that reflect the predicted increase in temperature can be used to better understand how the buildings and their systems would perform under different climate conditions. This understanding can then be considered when designing major plant and overall HVAC systems.

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

During power outages, building emergency and life safety systems (i.e., fire-pump pressurizing sprinkler and standpipe systems, egress lighting, smoke evacuation systems, heat and smoke detection and alarm systems, emergency communications and first-responder's elevator systems) will all be powered by diesel emergency generators. The Project team is evaluating an increase in capacity of the generator to provide base minimum mechanical loads for key aspects of the building use. Of this would include the heat generating systems and kitchen spaces.

### **D - Extreme Precipitation Events**

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25". There is a significant probability that this will increase to at least 6" by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

### **D.1 - Extreme Precipitation - Design Conditions**

What is the project design precipitation level? (In. / 24 Hours)

6

Describe all building and site measures for reducing storm water run-off:

The new Living and Learning Center will have a new stormwater management system sized to store 1.25-inches of stormwater from the impervious building and site areas to meet BWSC, Article 32 and MassDEP requirements. The stormwater management system will be either an underground stormwater storage system or an interior stormwater storage tank inside the building with recharge wells to promote stormwater storage, treatment, and infiltration. Stormwater from paved walkways and landscape areas will be directed to deep sump and hooded catch basins prior to being directed to the underground recharge systems. Stormwater collected on the building roof will be sent directly to the underground recharge system. The private closed drainage system will be adequately sized for the Project's expected stormwater flows and will direct stormwater to the on-site



infiltration system for groundwater recharge prior to overflow to the BWSC systems. Overflow connections to the BWSC storm drain mains will be provided for greater stormwater flows.

### **D.2 - Extreme Precipitation - Adaptation Strategies**

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

The site is not located in the FEMA 100-year Flood Plain or the BPDA's Flood Hazard Area – Seal Level Rise. The site is in close proximity to the Muddy River which is in the FEMA 100-year Flood Plain and the BPDA's FHA-SLR. The Fenway roadway and the site is raised at a higher elevation and acts as a buffer from the Muddy River during extreme weather events.

### E - Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, the sea level in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA Special Flood Hazard Area?	No	What Zone:	
What is the current FEMA SFHA Zone Base Flood Elevation for the site (Ft BCB)?			
Is any portion of the site in the BPDA Sea Level Rise Flood	No		
Hazard Area (see <u>SLR-FHA online map</u> )?			

If you answered YES to either of the above questions, please complete the following questions. Otherwise you have completed the questionnaire; thank you!

### E.1 - Sea Level Rise and Storms - Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented by the Sea Level Rise Flood Hazard Area (SLR-FHA), which includes 3.2' of sea level rise above 2013 tide levels, an additional 2.5" to account for subsidence, and the 1% Annual Chance Flood. After using the SLR-FHA to identify a project's Sea Level Rise Base Flood Elevation, proponents should calculate the Sea Level Rise Design Flood Elevation by adding 12" of freeboard for buildings, and 24" of freeboard for critical facilities and infrastructure and any ground floor residential units.



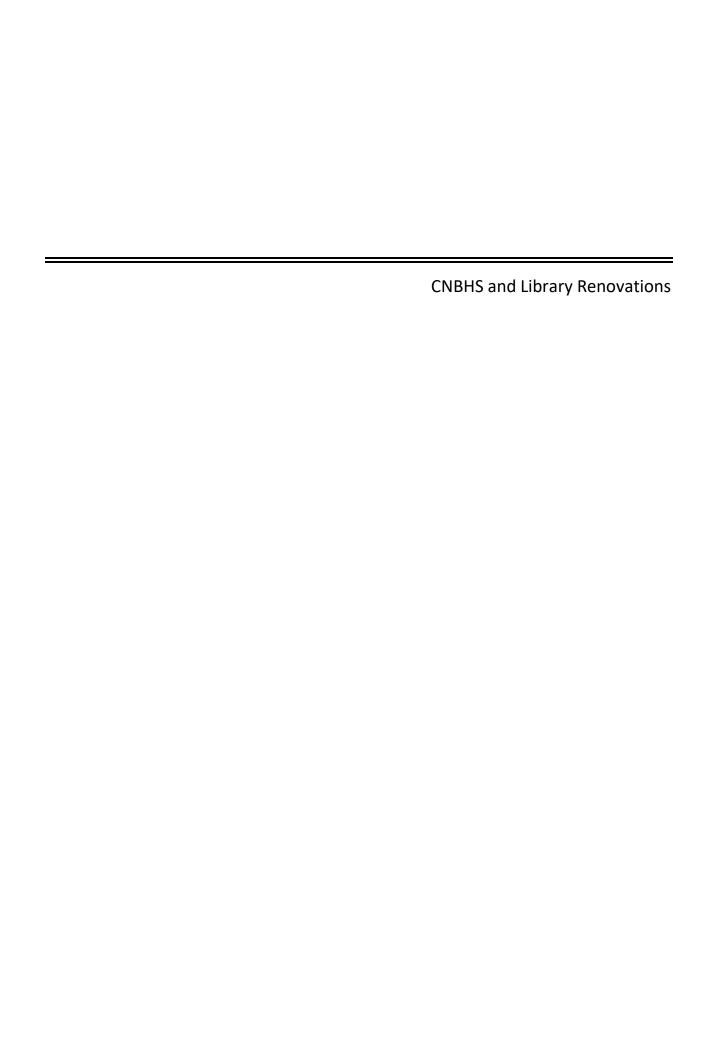
What is the Sea Level Rise - Base Flood Elevation for the site (Ft BCB)?			
What is the Sea Level Rise - Design Flood Elevation for the site (Ft BCB)?		First Floor Elevation (Ft BCB):	
What are the Site Elevations at Building (Ft BCB)?		What is the Accessible Route Elevation (Ft BCB)?	
		including building access during flood eve water systems, utility services, etc.:	nts, elevated site
		n will be achieved including dry / wet flood and barriers, waste and drain water back flo	
Describe how occupants migh water provisions and the expe		oding event including any emergency poweneasures:	er, water, and waste
Describe any strategies that w	ould support rapid recovery a	ifter a weather event:	
E.2 – Sea Level Rise and Sto	rms – Adantation Strategi	as.	
		strategies for responding to sea level rise	including future
		locity breaks, storm water systems, utility	
Describe future building adap critical systems, including per		e Sea Level Rise Design Flood Elevation an ures:	d further protecting
Thank you for completing the	Boston Climate Change Cl	necklist!	

For questions or comments about this checklist or Climate Change best practices, please contact:

<u>John.Dalzell@boston.gov</u>

# Appendix D

Accessibility Checklist



### Article 80 - Accessibility Checklist

# A requirement of the Boston Planning & Development Agency (BPDA) Article 80 Development Review Process

The Mayor's Commission for Persons with Disabilities strives to reduce architectural, procedural, attitudinal, and communication barriers that affect persons with disabilities in the City of Boston. In 2009, a Disability Advisory Board was appointed by the Mayor to work alongside the Commission in creating universal access throughout the city's built environment. The Disability Advisory Board is made up of 13 volunteer Boston residents with disabilities who have been tasked with representing the accessibility needs of their neighborhoods and increasing inclusion of people with disabilities.

In conformance with this directive, the BDPA has instituted this Accessibility Checklist as a tool to encourage developers to begin thinking about access and inclusion at the beginning of development projects, and strive to go beyond meeting only minimum MAAB / ADAAG compliance requirements. Instead, our goal is for developers to create ideal design for accessibility which will ensure that the built environment provides equitable experiences for all people, regardless of their abilities. As such, any project subject to Boston Zoning Article 80 Small or Large Project Review, including Institutional Master Plan modifications and updates, must complete this Accessibility Checklist thoroughly to provide specific detail about accessibility and inclusion, including descriptions, diagrams, and data.

For more information on compliance requirements, advancing best practices, and learning about progressive approaches to expand accessibility throughout Boston's built environment. Proponents are highly encouraged to meet with Commission staff, prior to filing.

### Accessibility Analysis Information Sources:

- Americans with Disabilities Act 2010 ADA Standards for Accessible Design http://www.ada.gov/2010ADAstandards index.htm
- 2. Massachusetts Architectural Access Board 521 CMR <a href="http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html">http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html</a>
- Massachusetts State Building Code 780 CMR http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/csl/building-codebbrs.html
- 4. Massachusetts Office of Disability Disabled Parking Regulations http://www.mass.gov/anf/docs/mod/hp-parking-regulations-summary-mod.pdf
- MBTA Fixed Route Accessible Transit Stations
   http://www.mbta.com/riding\_the\_t/accessible\_services/
- 6. City of Boston Complete Street Guidelines http://bostoncompletestreets.org/
- City of Boston Mayor's Commission for Persons with Disabilities Advisory Board www.boston.gov/disability
- 8. City of Boston Public Works Sidewalk Reconstruction Policy <a href="http://www.cityofboston.gov/images">http://www.cityofboston.gov/images</a> documents/sidewalk%20policy%200114 tcm3-41668.pdf
- 9. City of Boston Public Improvement Commission Sidewalk Café Policy <a href="http://www.cityofboston.gov/images-documents/Sidewalk-cafes-tcm3-1845.pdf">http://www.cityofboston.gov/images-documents/Sidewalk-cafes-tcm3-1845.pdf</a>

### Glossary of Terms:

- 1. *Accessible Route* A continuous and unobstructed path of travel that meets or exceeds the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 20
- 2. Accessible Group 2 Units Residential units with additional floor space that meet or exceed the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 9.4
- 3. *Accessible Guestrooms* Guestrooms with additional floor space, that meet or exceed the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 8.4
- 4. *Inclusionary Development Policy (IDP)* Program run by the BPDA that preserves access to affordable housing opportunities, in the City. For more information visit: <a href="http://www.bostonplans.org/housing/overview">http://www.bostonplans.org/housing/overview</a>
- Public Improvement Commission (PIC) The regulatory body in charge of managing the public right of way. For more information visit: <a href="https://www.boston.gov/pic">https://www.boston.gov/pic</a>
- 6. **Visitability** A place's ability to be accessed and visited by persons with disabilities that cause functional limitations; where architectural barriers do not inhibit access to entrances/doors and bathrooms.

Project Information:  If this is a multi-phased or multi-	building project, fill	out a separate Che	cklist for	each <sub>l</sub>	ohase/building.
Project Name:	CNBHS and Library	CNBHS and Library Renovations			
Primary Project Address:	300 Fenway Avenue	e (Lefavour Hall at Ave	nue Louis	s Paste	ur)
Total Number of Phases/Buildings:	1				
Primary Contact (Name / Title / Company / Email / Phone):	Laura Brink, Simmo	ons University Chief of	Staff, <u>Lau</u>	ıra.Brin	k@simmons.edu
Owner / Developer:	N/A				
Architect:	Elkus Manfredi Arch	nitects			
Civil Engineer:	Nitsch Engineering,	Inc.			
Landscape Architect:	N/A				
Permitting:	Epsilon Associates				
Construction Management:	TBD				
At what stage is the project at time of	this questionnaire? S	select below:			
	PNF / Expanded PNF Submitted	Draft / Final Project Report Submitted	Impact	BPDA I	Board Approved
	BPDA Design Approved	Under Construction		Constr Comple	
Do you anticipate filing for any variances with the Massachusetts Architectural Access Board (MAAB)? <i>If yes,</i> identify and explain.	Not at this time				
2. Building Classification and Descrip  This section identifies preliminar		rmation about the pr	oject inc	luding	size and uses.
What are the dimensions of the project	et?				
Site Area:	32,500 SF	Building Area:			161,500 GSF
Building Height:	60-100 FT.	Number of Storie	es:		4-5 Flrs.
First Floor Elevation:	12.75 Is there below grade space:		Yes		
What is the Construction Type? (Select most appropriate type) - EXISTING TO REMAIN					
	Wood Frame	Masonry	Steel Fra	ame	Concrete
What are the principal building uses?	(IBC definitions are b	elow – select all appro	priate tha	at apply	/)
	Residential - One - Three Unit	Residential - Multi- unit, Four +	Institutio	onal	Educational
	Business	Mercantile	Factory		Hospitality

site? *If yes*, list the existing sidewalk

	Laboratory / Medical	Storage, Utility and Other	
List street-level uses of the building:	Existing Lefavour H to remain	all Lobby, Classrooms and Center for S	Student Success
to) hospitals, elderly & disabled h surrounding the development is a	y to accessible trai ousing, and genera ccessible for peop	: sit lines and institutions, such as ( I neighborhood resources. Identify e with mobility impairments and a dewalk and pedestrian ramp repo	how the area nalyze the
Provide a description of the neighborhood where this development is located and its identifying topographical characteristics:	adjacent to the Em Medical area. The I	is one of the five Colleges of the Fenderald Necklace and at the edge of Bos enway area is activated by many stud by Museums and Fenway Park, less th	ton's Longwood ents as well as
List the surrounding accessible MBTA transit lines and their proximity to development site: commuter rail / subway stations, bus stops:	Simmons University is serviced by the MBTA Green Line E train (Heath Street), MBTA Orange Line (Ruggles Station) and the MBTA Bus Routes 8 and 47.		
List the surrounding institutions: hospitals, public housing, elderly and disabled housing developments, educational facilities, others:	Colleges of the Fenway: Emmanuel College, Massachusetts College of Art and Design, MCPHS University, Simmons University, Wentworth Institute of Technology  Longwood Medical Area: Beth Israel Deaconess Medical Center, Boston Children's Hospital, Brigham and Women's Hospital, Dana-Farber Cancer Institute, Joslin Diabetes Center, Massachusetts Mental Health Center, Wyss Institute for Biologically Inspired Engineering  Other: Boston Latin School, Wheelock College, The Winsor School, Harvard's Medical School, School of Dental Medicine, and School of Public Health.		
List the surrounding government buildings: libraries, community centers, recreational facilities, and other related facilities:	Baker Eddy Library	rdner Museum, Museum of Fine Arts ( Warren Anatomical Museum Gallery, Morris Hunt Memorial Library, Fenwa	Remis
<ol> <li>Surrounding Site Conditions – Exist</li> <li>This section identifies current consite.</li> </ol>	_	alks and pedestrian ramps at the	development
Is the development site within a historic district? <i>If yes,</i> identify which district:	No		
Are there sidewalks and pedestrian ramps existing at the development		Pasteur is a boulevard-type road that hat hately 12 feet wide with no obstruction	

pedestrian right-of-way? *If yes,* what are the proposed dimensions of the sidewalk café or furnishings and what

will the remaining right-of-way

clearance be?

iticle 60   ACCESSIBILITY CHECKEST	
and pedestrian ramp dimensions, slopes, materials, and physical condition at the development site:	strips with planted trees that act as a buffer between the street and academic uses.
Are the sidewalks and pedestrian ramps existing-to-remain? <i>If yes,</i> have they been verified as ADA / MAAB compliant (with yellow composite detectable warning surfaces, cast in concrete)? <i>If yes,</i> provide description and photos:	Yes, the existing sidewalks and pedestrian ramps are existing-to-remain but have not yet been verified as ADA/MAAB compliant.
development site. Sidewalk width sidewalks do not support lively pe	ed condition of the walkways and pedestrian ramps around the contributes to the degree of comfort walking along a street. Narrow edestrian activity, and may create dangerous conditions that force r sidewalks allow people to walk side by side and pass each other
Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? <i>If yes</i> , choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, or Boulevard.	The Project includes a new sidewalk that provides access to the loading dock from the existing quad. The new sidewalk is internal to the campus and will not be consistent with any Boston Complete Street Guideline street types.
What are the total dimensions and slopes of the proposed sidewalks? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone:	The proposed adjusted sidewalk and curb cut will match dimensions and slopes of adjacent sidewalks.
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	The proposed adjusted sidewalk and curb cut will match materials of adjacent sidewalks.
Will sidewalk cafes or other furnishings be programmed for the	No sidewalk cafés or other furnishings are planned for the street level or pedestrian right-of-way.

Stairs, Ramp, Lift or Elevator:

If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the Public Improvement Commission (PIC)?	N/A
Will any portion of the Project be going through the PIC? <i>If yes,</i> identify PIC actions and provide details.	N/A
	Access Board Rules and Regulations 521 CMR Section 23.00 uirement counts and the Massachusetts Office of Disability –
What is the total number of parking spaces provided at the development site? Will these be in a parking lot or garage?	N/A, The Project does not include parking.
What is the total number of accessible spaces provided at the development site? How many of these are "Van Accessible" spaces with an 8 foot access aisle?	N/A, The Project does not include parking.
Will any on-street accessible parking spaces be required? <i>If yes,</i> has the proponent contacted the Commission for Persons with Disabilities regarding this need?	N/A, The Project does not include street parking.
Where is the accessible visitor parking located?	The two existing campus garages will continue to service the students, faculty, staff and visitors.
Has a drop-off area been identified? <i>If yes,</i> will it be accessible?	Drop-off location has not yet been determined. It will be accessible
	: g smooth and continuous paths of travel is to create universal access s, which accommodates persons of all abilities and allows for
Describe accessibility at each entryway: Example: Flush Condition,	All entryways and circulation elements will be accessible per MAAB.

Are the accessible entrances and standard entrance integrated? <i>If yes,</i> describe. <i>If no,</i> what is the reason?	Yes, all entries are accessible.
If project is subject to Large Project Review/Institutional Master Plan, describe the accessible routes way- finding / signage package.	The way-finding/signage packed has not yet been developed but will comply with MAAB.
	estrooms: (If applicable) using and hospitality, this section addresses the number of d for the development site that remove barriers to housing and hotel
What is the total number of proposed housing units or hotel rooms for the development?	N/A
If a residential development, how many units are for sale? How many are for rent? What is the breakdown of market value units vs. IDP (Inclusionary Development Policy) units?	N/A
If a residential development, how many accessible Group 2 units are being proposed?	N/A
If a residential development, how many accessible Group 2 units will also be IDP units? If none, describe reason.	N/A
If a hospitality development, how many accessible units will feature a wheel-in shower? Will accessible equipment be provided as well? If yes, provide amount and location of equipment.	N/A
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs / thresholds at entry, step to balcony, others. <i>If yes</i> , provide reason.	N/A

Are there interior elevators, ramps or lifts located in the development for access around architectural barriers and/or to separate floors? <i>If yes</i> , describe:	N/A
	past required compliance with building codes. Providing an overall participation of persons with disabilities makes the development an nity.
Is this project providing any funding or improvements to the surrounding neighborhood? Examples: adding extra street trees, building or refurbishing a local park, or supporting other community-based initiatives?	Simmons University provides sidewalk, snow removal and public amenity maintenance as well as campus police services to surrounding community.
What inclusion elements does this development provide for persons with disabilities in common social and open spaces? Example: Indoor seating and TVs in common rooms; outdoor seating and barbeque grills in yard. Will all of these spaces and features provide accessibility?	All common use areas of the College building renovation will be designed to comply with MAAB.
Are any restrooms planned in common public spaces? <i>If yes,</i> will any be single-stall, ADA compliant and designated as "Family"/ "Companion" restrooms? <i>If no,</i> explain why not.	No. There is no current need for a "Family"/"Companion" restroom in the renovated Academic building because the expected patron demographic is primarily comprised of students and student athletes.
Has the proponent reviewed the proposed plan with the City of Boston Disability Commissioner or with their Architectural Access staff? <i>If yes,</i> did	No

approve? <i>If no,</i> what were their nents?	
ne proponent presented the sed plan to the Disability ory Board at one of their monthly ngs? Did the Advisory Board vote oport this project? <i>If no,</i> what nmendations did the Advisory I give to make this project more ssible?	No
achments	
achments Iude a list of all documents you a	

Include a list of all documents you are submitting with this Checklist. This may include drawings, diagrams, photos, or any other material that describes the accessible and inclusive elements of this project.

Provide a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations, including route distances.

Provide a diagram of the accessible route connections through the site, including distances.

Provide a diagram the accessible route to any roof decks or outdoor courtyard space? (if applicable)

Provide a plan and diagram of the accessible Group 2 units, including locations and route from accessible entry.

Provide any additional drawings, diagrams, photos, or any other material that describes the inclusive and accessible elements of this project.

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This completes the Article 80 Accessibility Checklist required for your project. Prior to and during the review process, Commission staff are able to provide technical assistance and design review, in order to help achieve ideal accessibility and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to Boston's diverse residents and visitors, including those with physical, sensory, and other disabilities.

For questions or comments about this checklist, or for more information on best practices for improving accessibility and inclusion, visit <a href="https://www.boston.gov/disability">www.boston.gov/disability</a>, or our office:

The Mayor's Commission for Persons with Disabilities 1 City Hall Square, Room 967, Boston MA 02201.

Architectural Access staff can be reached at:

accessibility@boston.gov | patricia.mendez@boston.gov | sarah.leung@boston.gov | 617-635-3682



### Article 80 - Accessibility Checklist

# A requirement of the Boston Planning & Development Agency (BPDA) Article 80 Development Review Process

The Mayor's Commission for Persons with Disabilities strives to reduce architectural, procedural, attitudinal, and communication barriers that affect persons with disabilities in the City of Boston. In 2009, a Disability Advisory Board was appointed by the Mayor to work alongside the Commission in creating universal access throughout the city's built environment. The Disability Advisory Board is made up of 13 volunteer Boston residents with disabilities who have been tasked with representing the accessibility needs of their neighborhoods and increasing inclusion of people with disabilities.

In conformance with this directive, the BDPA has instituted this Accessibility Checklist as a tool to encourage developers to begin thinking about access and inclusion at the beginning of development projects, and strive to go beyond meeting only minimum MAAB / ADAAG compliance requirements. Instead, our goal is for developers to create ideal design for accessibility which will ensure that the built environment provides equitable experiences for all people, regardless of their abilities. As such, any project subject to Boston Zoning Article 80 Small or Large Project Review, including Institutional Master Plan modifications and updates, must complete this Accessibility Checklist thoroughly to provide specific detail about accessibility and inclusion, including descriptions, diagrams, and data.

For more information on compliance requirements, advancing best practices, and learning about progressive approaches to expand accessibility throughout Boston's built environment. Proponents are highly encouraged to meet with Commission staff, prior to filing.

### **Accessibility Analysis Information Sources:**

- Americans with Disabilities Act 2010 ADA Standards for Accessible Design http://www.ada.gov/2010ADAstandards index.htm
- 2. Massachusetts Architectural Access Board 521 CMR <a href="http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html">http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html</a>
- Massachusetts State Building Code 780 CMR http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/csl/building-codebbrs.html
- 4. Massachusetts Office of Disability Disabled Parking Regulations http://www.mass.gov/anf/docs/mod/hp-parking-regulations-summary-mod.pdf
- MBTA Fixed Route Accessible Transit Stations
   http://www.mbta.com/riding\_the\_t/accessible\_services/
- 6. City of Boston Complete Street Guidelines http://bostoncompletestreets.org/
- City of Boston Mayor's Commission for Persons with Disabilities Advisory Board www.boston.gov/disability
- 8. City of Boston Public Works Sidewalk Reconstruction Policy <a href="http://www.cityofboston.gov/images">http://www.cityofboston.gov/images</a> documents/sidewalk%20policy%200114 tcm3-41668.pdf
- 9. City of Boston Public Improvement Commission Sidewalk Café Policy <a href="http://www.cityofboston.gov/images-documents/Sidewalk-cafes-tcm3-1845.pdf">http://www.cityofboston.gov/images-documents/Sidewalk-cafes-tcm3-1845.pdf</a>

### Glossary of Terms:

- 1. *Accessible Route* A continuous and unobstructed path of travel that meets or exceeds the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 20
- 2. Accessible Group 2 Units Residential units with additional floor space that meet or exceed the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 9.4
- 3. *Accessible Guestrooms* Guestrooms with additional floor space, that meet or exceed the dimensional and inclusionary requirements set forth by MAAB 521 CMR: Section 8.4
- 4. *Inclusionary Development Policy (IDP)* Program run by the BPDA that preserves access to affordable housing opportunities, in the City. For more information visit: <a href="http://www.bostonplans.org/housing/overview">http://www.bostonplans.org/housing/overview</a>
- Public Improvement Commission (PIC) The regulatory body in charge of managing the public right of way. For more information visit: <a href="https://www.boston.gov/pic">https://www.boston.gov/pic</a>
- 6. **Visitability** A place's ability to be accessed and visited by persons with disabilities that cause functional limitations; where architectural barriers do not inhibit access to entrances/doors and bathrooms.

1.	<b>Project Information:</b> If this is a multi-phased or multi-	building project, fill	out a separate Chec	cklist fo	r each <sub>l</sub>	phase/building.
	Project Name:	Simmons University Living and Learning Center				
	Primary Project Address:	300 Fenway Avenue (Louis Pasteur)				
	Total Number of Phases/Buildings:	1				
	Primary Contact (Name / Title / Company / Email / Phone):	Laura Brink, Simmons University Chief of Staff, Laura.Brink@simmons.edu				
	Owner / Developer:	N/A				
	Architect:	Elkus Manfredi Arch	nitects			
	Civil Engineer:	Nitsch Engineering,	Inc.			
	Landscape Architect:	Reed Hilderbrand L	andscape Architects			
	Permitting:	Epsilon Associates	Epsilon Associates			
	Construction Management:	TBD				
	At what stage is the project at time of this questionnaire? Select below:					
		PNF / Expanded PNF Submitted	Draft / Final Project I Report Submitted	mpact	BPDA I	Board Approved
		BPDA Design Approved	Under Construction		Constr	
	Do you anticipate filing for any variances with the Massachusetts Architectural Access Board (MAAB)? <i>If yes,</i> identify and explain.	Not at this time				
2.	Building Classification and Descrip This section identifies preliminar		rmation about the pr	oject in	cluding	size and uses.
	What are the dimensions of the project	et?				
	Site Area:	50,000 SF	Building Area:			401,000 GSF
	Building Height:	250 FT.	Number of Stories:			21 Flrs.
	First Floor Elevation:	+18'-0"	Is there below grade space:		ce:	Yes
	What is the Construction Type? (Select most appropriate type)					
		Wood Frame	Masonry	Steel F	rame	Concrete
	What are the principal building uses?	(IBC definitions are b	elow - select all appro	priate th	nat apply	<i>y</i> )
		Residential - One - Three Unit	Residential - Multi- unit, Four +	Institut	ional	Educational

	Business	Mercantile	Factory	Hospitality
	Laboratory / Medical	Storage, Utility and Other		
List street-level uses of the building:	Lobby, common s	spaces, student spaces		
3. Assessment of Existing Infrastructor This section explores the proximit to) hospitals, elderly & disabled he surrounding the development is a existing condition of the accessible	y to accessible tr ousing, and gene ccessible for pec	ransit lines and institu eral neighborhood resc ople with mobility impa	ources. Ident airments and	ify how the area analyze the
Provide a description of the neighborhood where this development is located and its identifying topographical characteristics:	adjacent to the E Medical area. Th	sity is one of the five Coll imerald Necklace and at e Fenway area is activate earby Museums and Fen	the edge of B ed by many st	oston's Longwood udents as well as
List the surrounding accessible MBTA transit lines and their proximity to development site: commuter rail / subway stations, bus stops:	Simmons University is serviced by the MBTA Green Line E train (Heath Street), MBTA Orange Line (Ruggles Station) and the MBTA Bus Routes 8 and 47.			
List the surrounding institutions: hospitals, public housing, elderly and disabled housing developments, educational facilities, others:	and Design, MCF Technology Longwood Medic Children's Hospit Institute, Joslin D Wyss Institute for Other: Boston La	enway: Emmanuel Collegens of Suniversity, Simmons al Area: Beth Israel Dead al, Brigham and Women Diabetes Center, Massac r Biologically Inspired Entin School, Wheelock Coal School, School of Dental	University, We coness Medica's Hospital, Dahusetts Mentagineering	entworth Institute of al Center, Boston ana-Farber Cancer al Health Center, sor School,
List the surrounding government buildings: libraries, community centers, recreational facilities, and other related facilities:	Isabella Stewart Gardner Museum, Museum of Fine Arts (Boston), Mary Baker Eddy Library, Warren Anatomical Museum Gallery, Remis Auditorium, William Morris Hunt Memorial Library, Fenway Park			
4. Surrounding Site Conditions – Exis  This section identifies current consite.	_	ewalks and pedestriar	n ramps at th	ne development
Is the development site within a historic district? <i>If yes,</i> identify which district:	No			
Are there sidewalks and pedestrian ramps existing at the development site? <i>If yes</i> , list the existing sidewalk and pedestrian ramp dimensions,	Yes. Avenue Louis Pasteur is a boulevard-type road that has wide sidewalks, approximately 12 feet wide with no obstructions, and grass strips with planted trees that act as a buffer between the street and academic uses.			

slopes, materials, and physical condition at the development site:	
Are the sidewalks and pedestrian ramps existing-to-remain? <i>If yes,</i> have they been verified as ADA / MAAB compliant (with yellow composite detectable warning surfaces, cast in concrete)? <i>If yes,</i> provide description and photos:	Yes, the existing sidewalks and pedestrian ramps are existing-to-remain but have not yet been verified as ADA/MAAB compliant.
development site. Sidewalk width sidewalks do not support lively pe	ed condition of the walkways and pedestrian ramps around the contributes to the degree of comfort walking along a street. Narrow destrian activity, and may create dangerous conditions that force r sidewalks allow people to walk side by side and pass each other
Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? <i>If yes</i> , choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, or Boulevard.	The proposed Project scope includes an adjusted sidewalk along Avenue Louis Pasteur to reconfigure the existing service drive. A new sidewalk will be created along the existing service drive to provide safe pedestrian access but will not be consistent with any Boston Complete Street Guideline street types.
What are the total dimensions and slopes of the proposed sidewalks? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone:	The proposed adjusted sidewalk will match dimensions and slopes of existing and immediately adjacent sidewalks.
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	The proposed adjusted sidewalk will match materials of existing and immediately adjacent sidewalks.
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way? <i>If yes,</i> what are the proposed dimensions of the sidewalk café or furnishings and what will the remaining right-of-way clearance be?	No sidewalk cafés or other furnishings are planned for the street level or pedestrian right-of-way.
If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the Public Improvement Commission (PIC)?	N/A, Pedestrian right-of-way is not on private property.

Will any portion of the Project be going through the PIC? <i>If yes,</i> identify PIC actions and provide details.	N/A
	Access Board Rules and Regulations 521 CMR Section 23.00 uirement counts and the Massachusetts Office of Disability –
What is the total number of parking spaces provided at the development site? Will these be in a parking lot or garage?	N/A, The Project does not include parking.
What is the total number of accessible spaces provided at the development site? How many of these are "Van Accessible" spaces with an 8 foot access aisle?	N/A, The Project does not include parking.
Will any on-street accessible parking spaces be required? <i>If yes,</i> has the proponent contacted the Commission for Persons with Disabilities regarding this need?	N/A, The Project does not include street parking.
Where is the accessible visitor parking located?	The two existing campus garages will continue to service the students, faculty, staff and visitors.
Has a drop-off area been identified? <i>If</i> yes, will it be accessible?	Drop-off location has not yet been determined. It will be accessible.
	g smooth and continuous paths of travel is to create universal access s, which accommodates persons of all abilities and allows for
Describe accessibility at each entryway: Example: Flush Condition, Stairs, Ramp, Lift or Elevator:	All resident and student entries and circulation elements will be accessible per MAAB.
Are the accessible entrances and standard entrance integrated? <i>If yes, describe. If no,</i> what is the reason?	Yes, all entries are accessible.
If project is subject to Large Project Review/Institutional Master Plan,	The way-finding/signage packed has not yet been developed but will comply with MAAB.

describe the accessible routes way- finding / signage package.	
	estrooms: (If applicable) using and hospitality, this section addresses the number of d for the development site that remove barriers to housing and hotel
What is the total number of proposed housing units or hotel rooms for the development?	The proposed unit mix will provide a minimum of 1,100 beds.
If a residential development, how many units are for sale? How many are for rent? What is the breakdown of market value units vs. IDP (Inclusionary Development Policy) units?	All proposed units are not for sale or rent, but rather subject to Simmons University housing agreements with the undergraduate student body.
If a residential development, how many accessible Group 2 units are being proposed?	5% of proposed units will be Group 2A per MAAB. All other units will be Group 1 per MAAB.
If a residential development, how many accessible Group 2 units will also be IDP units? If none, describe reason.	N/A, Dormitories as defined by the zoning code are exempt from IDP.
If a hospitality development, how many accessible units will feature a wheel-in shower? Will accessible equipment be provided as well? If yes, provide amount and location of equipment.	N/A, Proposed project is not a hospitality development.
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs / thresholds at entry, step to balcony, others. <i>If yes</i> , provide reason.	No, all units will be designed to comply with MAAB Group 1 or Group 2A.
Are there interior elevators, ramps or lifts located in the development for access around architectural barriers and/or to separate floors? <i>If yes</i> , describe:	If there are areas that prevent entry or use of common space for persons with mobility impairments, interior elevators, ramps or lifts will be provided.
-	past required compliance with building codes. Providing an overall participation of persons with disabilities makes the development an lity.

Simmons University provides sidewalk, snow removal and public amenity maintenance as well as campus police services to surrounding community.
maintenance as well as campus police services to surrounding community.
All common use areas of the residence hall, athletics and dining centers will be designed to comply with MAAB.
No. There is no current need for a "Family"/"Companion" restroom in the new Athletics Center because the expected patron demographic is primarily comprised of students and student athletes.
No
No No

### 10. Attachments

Include a list of all documents you are submitting with this Checklist. This may include drawings, diagrams, photos, or any other material that describes the accessible and inclusive elements of this project.

Provide a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations, including route distances.

Provide a diagram of the accessible route connections through the site, including distances.

Provide a diagram the accessible route to any roof decks or outdoor courtyard space? (if applicable)

Provide a plan and diagram of the accessible Group 2 units, including locations and route from accessible entry.

Provide any additional drawings, diagrams, photos, or any other material that describes the inclusive and accessible elements of this project.

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This completes the Article 80 Accessibility Checklist required for your project. Prior to and during the review process, Commission staff are able to provide technical assistance and design review, in order to help achieve ideal accessibility and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to Boston's diverse residents and visitors, including those with physical, sensory, and other disabilities.

For questions or comments about this checklist, or for more information on best practices for improving accessibility and inclusion, visit <a href="https://www.boston.gov/disability">www.boston.gov/disability</a>, or our office:

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