SAN FRANCISCO
PLANNING DEPARTMENT

Preliminary Mitigated Negative Declaration

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Date:	January 31, 2018
Case No.:	2015-000058ENV
Project Address:	2500 - 2698 Turk Street & 222 Stanyan Street University of San Francisco
Zoning:	RH-2 (Residential House, Two-Family) District 40-X Height and Bulk District
Block/Lot:	1107/008 and 1144/001B
Lot Size:	740,520 square feet (Block 1107/Lot 008) and 84,789 square feet (Block 1144/Lot 001B)
Project Sponsor	Elizabeth Miles, University of San Francisco (415) 422-5611 eemiles@usfca.edu
Lead Agency:	San Francisco Planning Department
Staff Contact:	Alesia Hsiao – (415) 575-9044 alesia.hsiao@sfgov.org

PROJECT DESCRIPTION:

The proposed project includes four components: a new student residence hall, expansion and renovation to the dining hall/facilities, replacement of the recycling and waste facility, and relocation of the Reserve Officer's Training Corps (ROTC) program. The recycling and waste facility and ROTC program (located within the existing one-story, 8-feet tall Underhill Building) are currently located on the proposed student residence hall site. Each of the four project components are discussed below.

The proposed student residence hall project would demolish the existing one-story Underhill Building, located on the University of San Francisco (USF) Upper Campus, and construct two new student housing buildings up to 40 feet tall with 155 dwelling units providing a total of 606 beds (600 beds for students and six beds for resident ministers and resident staff), as well as community common spaces for students and academic program space for approximately two classrooms. The student residence hall would serve the existing student population and would not increase the student population. The student residence hall buildings would total approximately 234,450 square feet, not including the 73,846-square-foot below-ground garage.

The below-ground garage would contain 156 vehicle parking spaces and 171 *class 1* bicycle parking spaces, resulting in an increase of 78 net new vehicle parking spaces.[1] The buildings would front Turk Street with vehicular and pedestrian access provided primarily via Lone Mountain Main Drive.

The proposed renovations to the existing dining hall facilities (Wolf and Kettle Café) would be located in the Lone Mountain Main Building on the Upper Campus. The existing 10,815-square-foot café would be renovated and expanded through an approximately 3,760-square-foot freestanding addition to create the dining commons. The proposed dining commons would offer a variety of dining options for the student residence hall residents and the Upper Campus community.

The recycling and waste facility would be relocated next to the Lone Mountain North Residence Hall on the Upper Campus in an approximately 1,600-square-foot enclosed facility accessed by Lo Schiavo Drive.

The ROTC program, currently housed in the Underhill Building, would be relocated to the Lower Campus Koret Health and Recreation Center building as an addition. The new two-story approximately 3,740-square-foot ROTC program relocation addition would front Negoesco Field, with pedestrian access from Parker Avenue. In total, the proposed project would result in an increase of the on-campus student residential population from 2,138 existing on-campus students to 2,738 proposed on-campus students.

The project would require a Conditional Use (CU) authorization from the planning commission for the post-secondary educational institutional components of the project and a Planned Unit Development (PUD) for the student residence hall that would include PUD modifications to provisions related to dwelling-unit density, rear yard, off-street loading, and height measurement.

FINDING:

This project would not have a significant effect on the environment. This finding is based upon the criteria of the Guidelines of the State Secretary for Resources, sections 15064 (Determining Significant Effects), 15065 (Mandatory Findings of Significance), and 15070 (Decision to prepare a

[1] *Class 1* bicycle parking includes bicycle lockers, bicycle rooms or cages where each bicycle can be individually locked. The most common form of *class 2* bicycle parking are bicycle racks. (Zoning Administrator Bulletin No. 9, *Bicycle Parking Requirements: Design and Layout,* August 2013.)

Negative Declaration), and the following reasons as documented in the Initial Evaluation (Initial Study) for the project, which is attached.

Mitigation measures are included in this project to avoid potentially significant effects. See page 299.

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Acronyms

Acronym	*Definition*
AB	*Assembly Bill*
ABAG	*Association of Bay Area Governments*
a.m.	*Ante meridiem (before noon)*
ATCM	*Asbestos Airborne Toxic Control Measure*
BTU	*British thermal unit*
Cal/OSHA	*State Occupational Safety and Health Administration*
CalEEMod	*California Emissions Estimator Model*
CDFW	*California Department of Fish and Wildlife*
CEQA	*California Environmental Quality Act*
CO	*Carbon Monoxide*
CU	*Conditional Use*
dB	*Decibels*
dBA	*A-weighted decibels*
DNL	*Day/Night Average Sound Level*
e.g.,	*Exempli Gratia, which mean "For Example"*
EIR	*Environmental Impact Report*
EO	*Executive Order*
ERO	*Environmental Review Officer*
etc.	*Et cetera*
et. seq.	*Et sequens*
FMND	*Final Mitigated Negative Declaration*
GHG	*Green House Gases*
GIS	*Geographic Information System*
gpd	*Gallons per Day*
HP	*High Pressure*
HP	*Horsepower*
Hz	*Hertz*
i.e.	*Id Est, which means "That is"*
IMP	*Institutional Master Plan*
kW	*kilo Watt*
MBH	*Thousand BTUs per Hour*
mgd	*Million Gallons per Day*
MLD	*Most Likely Descendant*
MT	*Million Ton*
Muni	*San Francisco Municipal Railway*

Acronym	*Definition*
No.	*Number*
NO_2	*Nitrogen Dioxide*
NO_x	*Oxides of Nitrogen*
p.	*Page*
PG&E	*Pacific Gas and Electric Company*
p.m.	*Post meridiem (after noon)*
PMND	*Preliminary Mitigated Negative Declaration*
PUD	*Planned Unit Development*
ROG	*Reactive Organic Gases*
ROTC	*Reserve Officers' Training Corps*
ROW	*Right-of-way*
SB	*Senate Bill*
SFPUC	*San Francisco Public Utilities Commission*
SMO	*Stormwater Management Ordinance*
SO_2	*Sulfur Dioxide*
S.R.	*State Route*
TAZ	*Transportation Analysis Zone*
U.S. EPA	*United States Environmental Protection Agency*
USF	*University of San Francisco*
VdB	*vibration decibels*
VMT	*Vehicle Miles Travel*
VOCs	*Volatile Organic Compounds*
Vol or Vol.	*Volume*

Initial Study

University of San Francisco
2500-2698 Turk Street & 222 Stanyan Street
Planning Department Case No. 2015-000058ENV

A. PROJECT DESCRIPTION

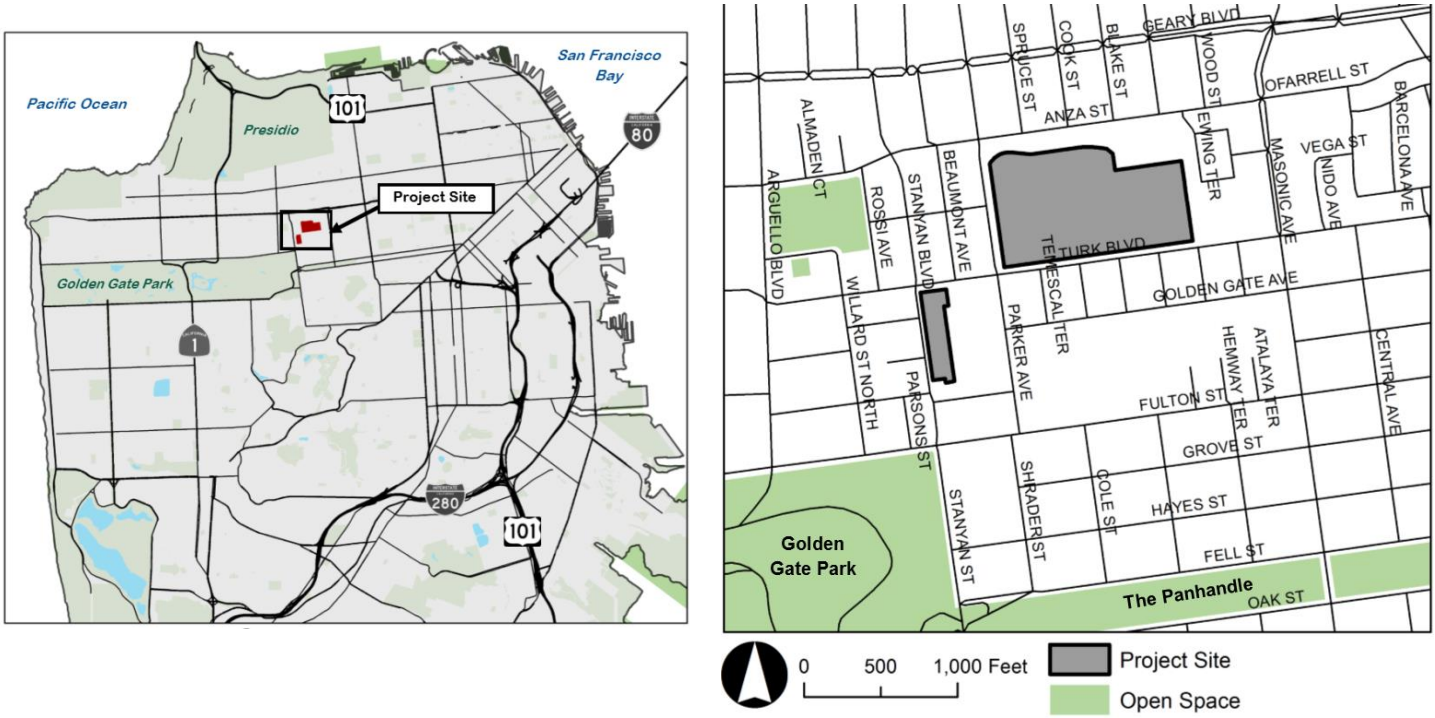
Project Location and Site Characteristics

The proposed project is located at 2500 – 2698 Turk Street and 222 Stanyan Street (project site), within the University of San Francisco's (USF) Hilltop Campus, as illustrated on **Figure 1**. The USF Hilltop Campus is in the eastern portion of the Inner Richmond District, three blocks north of the Panhandle. The area is bounded by Masonic, Golden Gate, and Parker avenues and Turk Street.

The USF Hilltop Campus comprises two primary components: (1) an Upper Campus (also commonly known as Lone Mountain) and (2) a Lower Campus. The Upper Campus is located north of Turk Street and south of Anza Street, between Parker and Masonic avenues. The Lower Campus is located north of Fulton Street and south of Golden Gate Avenue, between Parker and Masonic avenues. The Lower Campus also occupies a partial block north of McAllister Street and south of Turk Street, between Stanyan Street and Parker Avenue, at the site of the Koret Health and Recreation Center and Negoesco Field. Two residential neighborhoods are located near the USF Hilltop Campus: the University Terrace neighborhood that is between the Upper and Lower campuses and the Ewing Terrace neighborhood immediately east, below a hillside of the Upper Campus. Existing facilities are shown on **Figure 2**, p. 3.

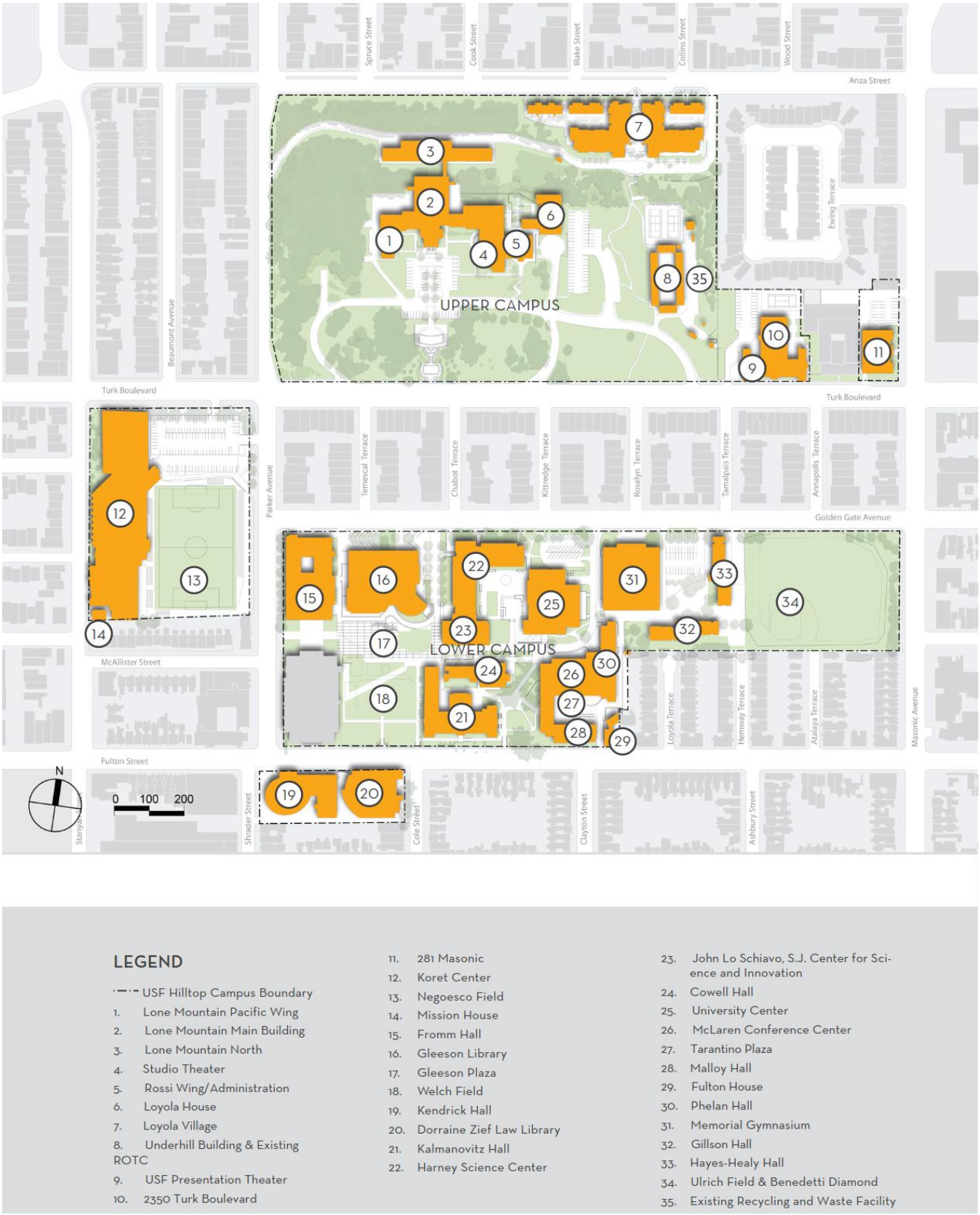
The project site is located within the RH-2 (residential house, two-family) District and the 40-X Height and Bulk District.

Figure 1: Project Location



Source: City and County of San Francisco, GIS data, WSP, 2017.

Figure 2: Existing Conditions



LEGEND

- USF Hilltop Campus Boundary
1. Lone Mountain Pacific Wing
2. Lone Mountain Main Building
3. Lone Mountain North
4. Studio Theater
5. Rossi Wing/Administration
6. Loyola House
7. Loyola Village
8. Underhill Building & Existing ROTC
9. USF Presentation Theater
10. 2350 Turk Boulevard
11. 281 Masonic
12. Koret Center
13. Negoesco Field
14. Mission House
15. Fromm Hall
16. Gleeson Library
17. Gleeson Plaza
18. Welch Field
19. Kendrick Hall
20. Dorraine Zief Law Library
21. Kalmanovitz Hall
22. Harney Science Center
23. John Lo Schiavo, S.J. Center for Science and Innovation
24. Cowell Hall
25. University Center
26. McLaren Conference Center
27. Tarantino Plaza
28. Malloy Hall
29. Fulton House
30. Phelan Hall
31. Memorial Gymnasium
32. Gillson Hall
33. Hayes-Healy Hall
34. Ulrich Field & Benedetti Diamond
35. Existing Recycling and Waste Facility

Source: University of San Francisco, *Institutional Master Plan* Figure 2, p. 21, August 2013.

Site Topography

The Upper Campus contains steep vegetated slopes on the west, north, and east sides of the property. The site elevations vary from about 324 feet San Francisco Datum at the eastern boundary to 364 feet San Francisco Datum at the northwest corner. The south side of the Upper Campus property, bordered by Turk Street, is characterized by a gentle grassy slope. The Lower Campus is generally flat with elevations at the Koret Health and Recreation Center ranging from 300 to 326 feet. Because the block is slightly lower on the west side than the east side, the east entrance of the Koret Health and Recreation Center leads to the second floor, and the emergency exit doors on the west side lead to the ground-floor level.

Circulation

Existing Pedestrian Circulation

Two existing primary north-south pedestrian pathways connect the Upper and Lower campuses and are illustrated on **Figure 3**, p. 6. The first pathway connects the Lower Campus to Lone Mountain along Chabot Terrace, up the Spanish Steps and then to the main (south) entrance of the Lone Mountain Main Building. The second pathway connects the two campuses from the War Memorial Gym along Roselyn Terrace to the current Underhill Building site, then to Loyola Village. One existing east-west pedestrian route connects the Lower Campus to the Koret Health and Recreation Center.

Figure 3, p. 6, also shows multiple existing secondary pedestrian routes throughout the Upper and Lower campuses, allowing pedestrians to access the primary routes at a variety of locations along Parker Avenue, Temescal Terrace, Kittredge Terrace, Tamalpais Terrace, Annapolis Terrace, Turk Street, Golden Gate Avenue, and Fulton Street, depending on an individual's schedule and location of classes or activity.

Existing Vehicular Circulation

Drivers who arrive at USF include faculty, staff, service providers, students residing off campus, and visitors. Faculty and non-resident students often come to campus for only portions of the day, while staff generally arrive at USF in the morning and stay until the evening. Most full-time students travel to campus on transit,[2] by foot, or by bicycle. Part-time and evening students often live farther away and are more likely to drive to campus.

[2] University of San Francisco provides all undergraduate students a Muni pass every year.

Figure 4, p. 7, illustrates the existing vehicular circulation system. The Upper Campus has two private drives: Lone Mountain Main Drive off Turk Street and Lo Schiavo Drive**,** on the north side of the Lone Mountain Main Building**,** near the Lone Mountain North Residence Hall and Loyola Village. Secondary vehicular routes on the Upper Campus provide access to campus parking spaces along Lone Mountain Drive, Lo Schiavo Drive, and to parking lots located near the Lone Mountain Main Building. Secondary vehicular routes also provide access to service areas near the Underhill Building, the west side of the Lone Mountain Main Building, near Loyola House, and along Lo Schiavo Drive. There are no public vehicular roadways on the Lower Campus.

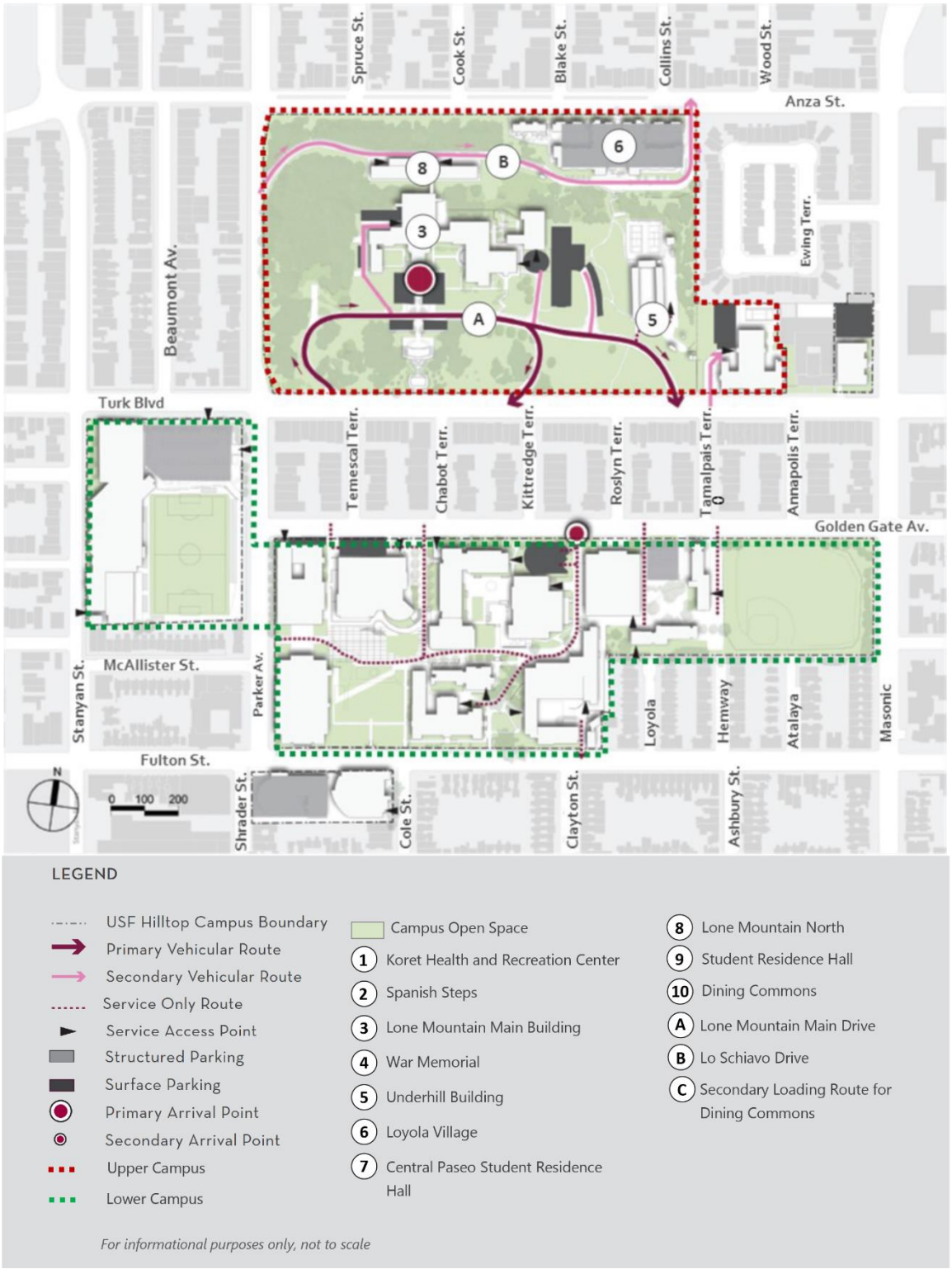
Landscaping

An abundant tree cover is present on the Upper Campus. The west, north, and east sides of the Upper Campus are characterized with vegetated slopes kept primarily in their natural state. The area between Turk Street and Lone Mountain Main Drive is characterized by manicured lawns and plantings with a variety of trees. The Spanish Steps (built between 1936–1941) are the stairs leading from Turk Street to the Lone Mountain Main Building.

Figure 3: Existing Pedestrian Circulation

Source: University of San Francisco, *University of San Francisco, Institutional Master Plan Figure 8, p. 36*, August 2013, and adapted by WSP, June 2017.

Figure 4: Existing Vehicular Circulation



Source: University of San Francisco, *University of San Francisco, Institutional Master Plan Figure 8, p. 36*, August 2013, and adapted by WSP, June 2017.

Project Background

USF's Institutional Master Plan

San Francisco Planning Code section 304.5 requires post-secondary schools and universities to have a current institutional master plan (IMP) on file with the planning department. An IMP describes current facilities and operations and outlines future growth plans and other information. The principal purposes of an IMP, as described in Planning Code section 304.5, are:

1. To provide notice and information to the planning commission, community and neighborhood organizations, other public and private agencies, and the general public as to the plans of each affected institution at an early stage, and to give an opportunity for early and meaningful involvement of these groups in such plans prior to substantial investment in property acquisition or building design by the institution.
2. To enable the institution to make modifications to its master plan in response to comments made in public hearings prior to its more detailed planning and prior to any request for authorization by the city of new development proposed in the IMP.
3. To provide the planning commission, community and neighborhood organizations, other public and private agencies, the general public, and other institutions with information that may help guide their decisions with regard to use of, and investment in, land in the vicinity of the institution, provision of public services, and particularly the planning of similar institutions in order to ensure that costly duplication of facilities does not occur.

The USF IMP is the result of a collaborative process involving the university, residents of adjacent neighborhoods, the City and County of San Francisco, and numerous specialists in the planning, urban design, landscape architecture, transportation, and impact mitigation fields. The IMP process was led internally by USF's Master Plan Working Committee, composed of senior academic, facilities, student life, and administrative leadership. As part of the IMP process, USF worked with neighborhood associations surrounding the campus (the University Terrace Association,[3] the Ewing Terrace Neighborhood Association, and the Francisco Heights Neighborhood Association). Issues covered in the IMP included enrollment growth and accommodation, transportation and parking, traffic calming and pedestrian safety, acoustics, student behavior, and the impact of USF activities on the neighborhood.

The proposed student residence hall site was identified for new development in the USF IMP beginning in 1993. USF houses the smallest percentage of undergraduates in its residence halls of

[3] University Terrace neighborhood lies between the upper and lower portions of the Hilltop Campus.

any of its peer universities, and USF's dormitories operate at full capacity. The proposed dining commons are also identified in the 2014 IMP, and the proposed ROTC program relocation addition is identified in the IMP as "Mixed-Use Buildings at Negoesco Field."[4] The site of the proposed recycling and waste facility was planned as a grounds storage and maintenance facility in the 2014 IMP, but USF modified this item during the 2016 IMP update[5] to change the function to the proposed recycling and waste facility.

Project Overview

There are four components of the proposed project, listed below and discussed in greater detail throughout this chapter. The student residence hall component would be developed on the project site that is currently occupied by the recycling and waste facility and ROTC program. These two project components, the recycling and waste facility and ROTC program, would be replaced and relocated in connection with development of the student residence hall. The dining commons component would provide expanded food service on the Upper Campus to accommodate the increased on-campus resident population generated by the new student residence hall. The locations for each project component are shown on **Figure 5,** p.11.

1. Student residence hall **(Figure 6**, p.12)
2. Dining commons **(Figure 6**, p.12)
3. Recycling and waste facility replacement **(Figure 6**, p.12)
4. ROTC program relocation (**Figure 7**, p.13)

Project Location

The proposed student residence hall, dining commons, and recycling and waste facility would be located on the 17-acre (740,520 square feet) Upper Campus (Assessor's Block 1107, Lot 008). A new lot would be created for the student residence hall at 2500-2698 Turk Street with vehicular and pedestrian access easements.[6] The Upper Campus is hilly with slopes varying from between level ground to 12 percent in the area where construction is proposed. The Upper Campus site generally has a rectangular shape with 1,240 feet of frontage on Turk Street and 680 feet of frontage along Parker Avenue. The combined site area of the proposed project on the Upper

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[4] University of San Francisco, *University of San Francisco Institutional Master Plan*, August 2013, *https://www.usfca.edu/neighborhood-relations/planning-documents,* accessed on October 24, 2017.

[5] University of San Francisco, *University of San Francisco Institutional Master Plan Update*, December 2016, *https://www.usfca.edu/neighborhood-relations/planning-documents,* accessed October 24, 2017.

[6] Subdivision application for 2698 Turk Street, San Francisco Planning Department, this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2015-000058SUB.

Campus is approximately 103,500 square feet, distributed as follows:[7] (1) student residence hall: 94,300 square feet (includes interior courts); (2) dining commons: 4,450 net new square feet (does not include the interior renovation); and (3) recycling and waste facility: 3,700 square feet.

The student residence hall project site is partially occupied by an existing approximately 8,500-square-foot, one-story building known as the Underhill Building that is currently used by USF for its ROTC program and for a youth development program. According to the historic resource evaluation[8] prepared for the project, the Underhill Building was constructed in 1948. The site is located east of the USF Rossi Wing and Loyola House buildings. The student residence hall project site also contains a surface parking lot, known as the Loyola Lot, with 78 vehicle parking spaces, two regulation-size tennis courts, and recycling and waste facility.

The dining commons project site is located northwest of the proposed student residence hall, directly east of the Lone Mountain Main Building, which was constructed in 1932. Vehicular access would be provided from the Lone Mountain Main Drive off Turk Street. The dining commons site is currently composed of the approximately 10,815 square-foot Wolf & Kettle Café located inside the Lone Mountain Main Building and an undeveloped lawn and paved courtyard area adjacent to the building. The café interior would be renovated and expanded with a new freestanding structure extending on the adjacent undeveloped lawn and paved courtyard area.

The recycling and waste facility, displaced by the proposed student residence hall, would be relocated to the northwest quadrant of the Upper Campus, on an undeveloped grassy area along Lo Schiavo Drive. The proposed site is located approximately 250 feet south from the off-campus neighbors along Anza Street. An existing access ramp would be modified to accommodate the proposed facility.

The ROTC program, also displaced by the proposed student residence hall, would be relocated to the Koret Health and Recreation Center block on the Lower Campus that is bounded by Turk Street to the north, McAllister Street to the south, Stanyan Street to the west, and Parker Avenue to the east (Assessor's Block 1144, Lot 001B). The approximately 85,000-square-foot lot area is generally flat and rectangular in shape with 575 feet of frontage on Stanyan Street and 170 feet of frontage on Turk Street.

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[7] Numbers are approximate.

[8] Kostura, William, *Historical Evaluation of the Underhill Building on the Lone Mountain Campus, USF, San Francisco, CA,* 2015.

Figure 5: Location of Proposed Project Components

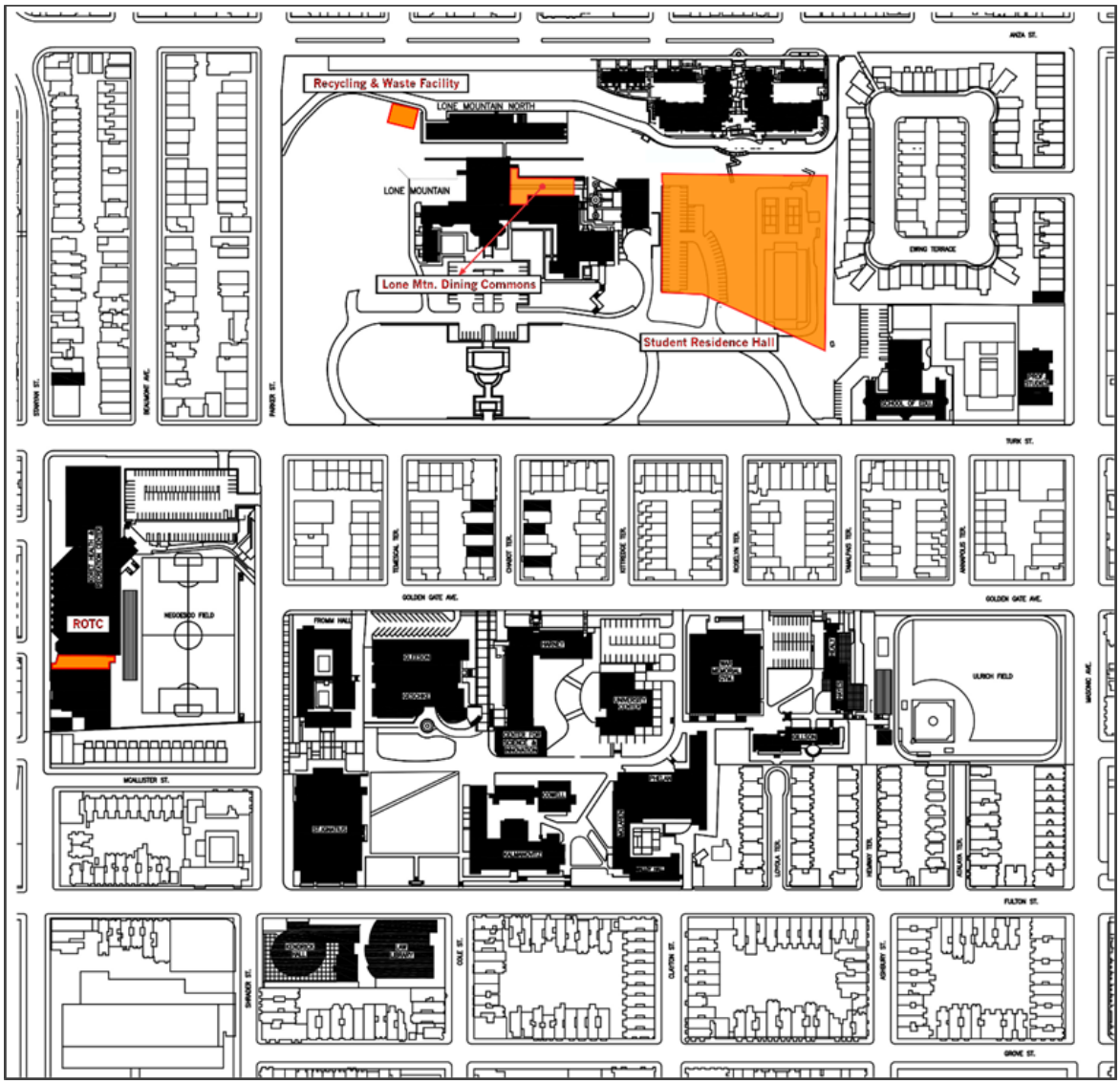
Recycling & Waste Facility
LONE MOUNTAIN NORTH
LONE MOUNTAIN
Lone Mtn. Dining Commons
Student Residence Hall
ROTC
HEDDEDO FIELD
MCALLISTER ST.
GOLDEN GATE AVE.
FROMM HALL
KALMANOVITZ HALL
GLEESON LIBRARY
MALOONEY HALL
LONE MOUNTAIN HALL
ST. IGNATIUS CHURCH
ZIEGLER HALL
ZIEGLER ANNEX
ZIEGLER ANNEX II
ZIEGLER ANNEX III
ZIEGLER ANNEX IV
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Figure 6: Project Location of the Proposed Student Residence Hall, Dining Commons, and Recycling & Waste Facility

Source: Information provided by the University of San Francisco, June 2017.

Figure 7: Project Location of Proposed ROTC Program Relocation

Project Component

Source: Information provided by University of San Francisco, June 2017.

Proposed Project Characteristics

The proposed project would provide new on-campus housing for students and a related dining facility to serve the additional on-campus residents. Because construction of the proposed student residence hall would displace the existing ROTC program and recycling and waste facilities on the site, these facilities would be relocated elsewhere on campus. The ROTC program would be relocated to the Lower Campus as an addition to the campus' existing Koret Health and Recreation Center, and the recycling and waste facility would be relocated to the northwest portion of the Upper Campus property, farther removed from off-campus neighbors. These components are further described below.

Student Residence Hall

The proposed student residence hall would provide on-campus student housing in two new two- to four-story buildings and would involve the demolition of the existing one-story, approximately 8,500-square-foot Underhill Building constructed in 1947-1948,[9] the adjacent Loyola surface parking lot, and two tennis courts that currently occupy the site. The relocation of the tennis courts is not part of the proposed project.

The proposed student residence hall would accommodate approximately 606 beds (600 beds for students and six beds for ministers and directors) provided in 155 dwelling units in two separate buildings: an "east building" and "west building" that would be connected by an elevated walkway. Together, the buildings would total approximately 234,450 square feet, not including the below-ground garage areas (see **Figure 8**, p. 18). The below-ground garage would total approximately 73,846 square feet and would contain 156 parking spaces, 171 *class 1* bicycle parking spaces, and accessory uses serving the aboveground buildings. Twenty three *class 2* bicycle parking spaces would be provided in the central paseo between the west and east buildings.[10] The student residence hall would contain approximately 203,493 square feet of residential and circulation space. Each of the student dwelling units would contain four beds, one full bathroom, a common living space and a kitchen. One-bedroom dwelling units would be provided for two resident ministers and two assistant resident directors, and a two-bedroom dwelling unit would be provided for the resident director. The 155 dwelling units would include approximately four one-bedroom units, 94 two-bedroom units, and 57 four-bedroom units.

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[9] Kostura, William, *Historical Evaluation of the Underhill Building on the Lone Mountain Campus, USF,* 2015.

[10] *Class 1* bicycle parking includes bicycle lockers, bicycle rooms or cages where each bicycle can be individually locked. The most common form of *class 2* bicycle parking are bicycle racks. (Zoning Administrator Bulletin No. 9, *Bicycle Parking Requirements: Design and Layout,* August 2013.)

The student residence hall would contain approximately 21,160 square feet of administrative and common areas, including but not limited to an office for the resident director, staff offices, a staff room, meeting spaces, lounges, laundry rooms, study rooms, computer rooms, a TV room, music rooms and a fitness room. Storage and utility closets would total approximately 7,962 square feet. Approximately 1,835 square feet of USF program space would be provided on the second floor of the east building, which is currently proposed to accommodate two classrooms. (see **Figure 9** to **Figure 17**, pp. 19-27, and **Table 1**, pp. 15-17).

Table 1: Student Residence Hall Characteristics

Use/Characteristic	Amount/Description	Approximate Area (square feet)		
		West Building	East Building	Total
Residential Dwelling Units	606 beds and 155 dwelling units (4 one-bedroom, 94 two-bedroom and 57 four-bedroom)	68,847	80,684	149,531
Circulation	Includes corridors, stair landings, and elevator lobbies	26,882	27,080	53,962
Administrative Areas	Includes uses such as: resident director's office, staff offices, mail and parcel rooms, office supply rooms, staff conference rooms, and staff project rooms	1,095	712	1,807
Common Areas	Includes uses such as: building lobbies, reception areas, café, student lounges, fitness room, laundry rooms, and miscellaneous student rooms (i.e., music, TV, and computer rooms)	10,201	9,152	19,353
Storage		0	1,007	1,007
Utility Closets		3,735	3,220	6,955
Institutional Use	Two classrooms	0	1,835	1,835
Total Above-Ground Building Area		**110,760**	**123,690**	**234,450**

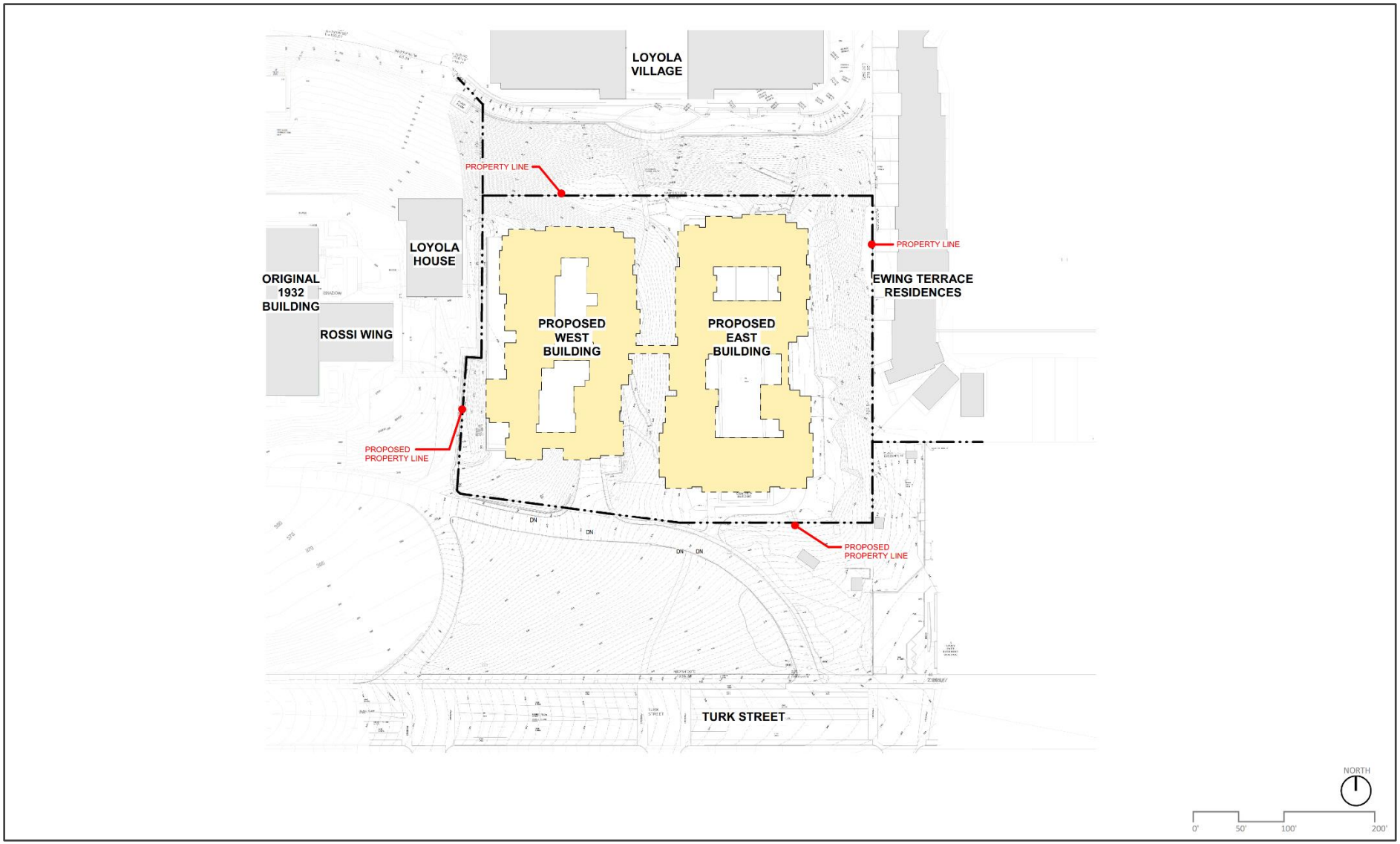
Use/Characteristic	Amount/Description	Approximate Area (square feet)		
		West Building	East Building	Total
Parking Spaces	156 (102 in east building garage and 54 in west building garage) (approximately 13% would be tandem)	23,778	37,862	61,640
Bicycle Parking Spaces (Class 1)	171 (west building garage)	1,983	0	1,983
Circulation	Elevator lobbies and stair landings (east building garage and west building garage)	1,544	1,137	2,681
Recycling and Garbage Areas	East building garage and west building garage	961	967	1,928
Utility and Mechanical Closets	East building garage and west building garage	1,792	2,889	4,681
Microturbine Cogeneration Energy System	West building garage	933	0	933
Total Below-Ground Building Area		**30,991**	**42,855**	**73,846**
Outside Open Spaces (Courtyards and Paseo)	4 interior courtyards and paseo space between the west and east buildings (Student amenities areas could include a bocce court, fountain, outdoor grill, benches and fitness loop)	8,913 (interior courtyards)	7,040 (interior courtyards)	32,513 (total) 15,953 (interior courtyards) 16,560 (paseo)
Outdoor Bicycle Parking Spaces (Class 2)	23 (located in the central paseo)	-	-	-
Number of Buildings	2	-	-	-

Use/Characteristic	Amount/Description	Approximate Area (square feet)		
		West Building	East Building	Total
Building Height	40 feet tall, stepped down with natural slopes	-	-	-
Number of Stories	2-4 stories + 1 level below-ground garage	-	-	-

Source: MVE+Partner, November 2017.

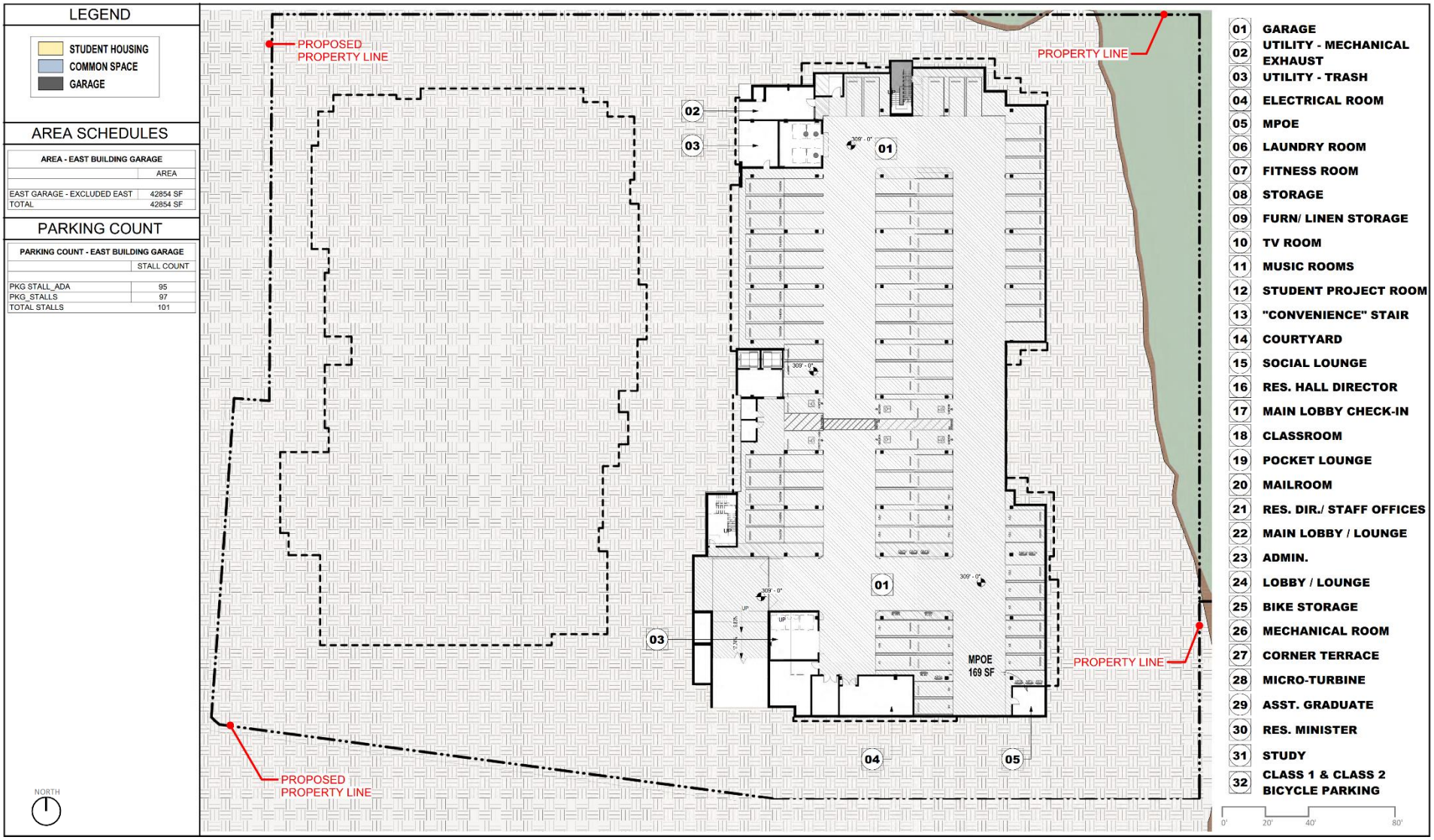
Building mass would be reduced by breaking up the student residence hall into two components: the west building and east building, which in turn would be composed of visually distinct components ranging from two to four stories. The proposed student residence hall would be 40 feet tall as measured under the Planning Code section 260(b), including a permitted minor deviation from the provisions for measurement of height as part of the PUD modification process for the project in compliance with the applicable 40-foot height limit. The maximum building height would be approximately 60 feet at the top of the roof of the approximately 20-foot ornamental tower, which is exempt from the measurement of building height under the planning code. **Figure 18**, p. 28, and **Figure 19**, p. 29, depict the elevations and **Figure 20,** p. 30, the cross-section for the proposed student residence hall. Structurally, the student residence hall would be composed of *type V* wood framing above the t*ype I* concrete garage podium construction.

Figure 8: Student Residence Hall – Proposed Site Plan



Source: MVE+Partner, November 2017.

Figure 9: Student Residence Hall – East Building Garage

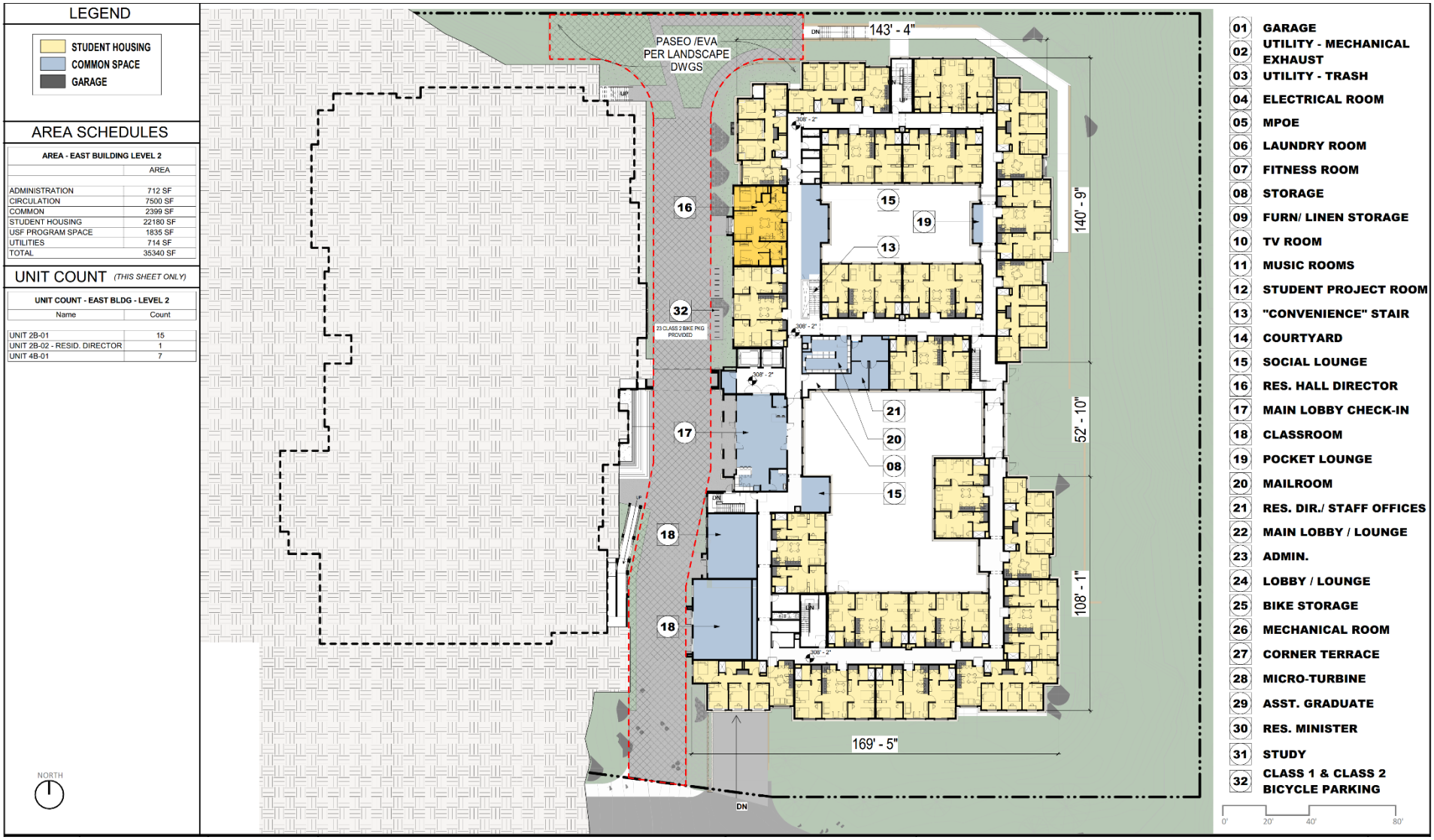


Source: MVE+Partner, December 2017.

Figure 10: Student Residence Hall – East Building Level 1

Source: MVE+Partner, December 2017.

Figure 11: Student Residence Hall – East Building Level 2



Source: MVE+Partner, December 2017.

Figure 12: Student Residence Hall – West Building Garage and East Building Level 3

Source: MVE+Partner, December 2017.

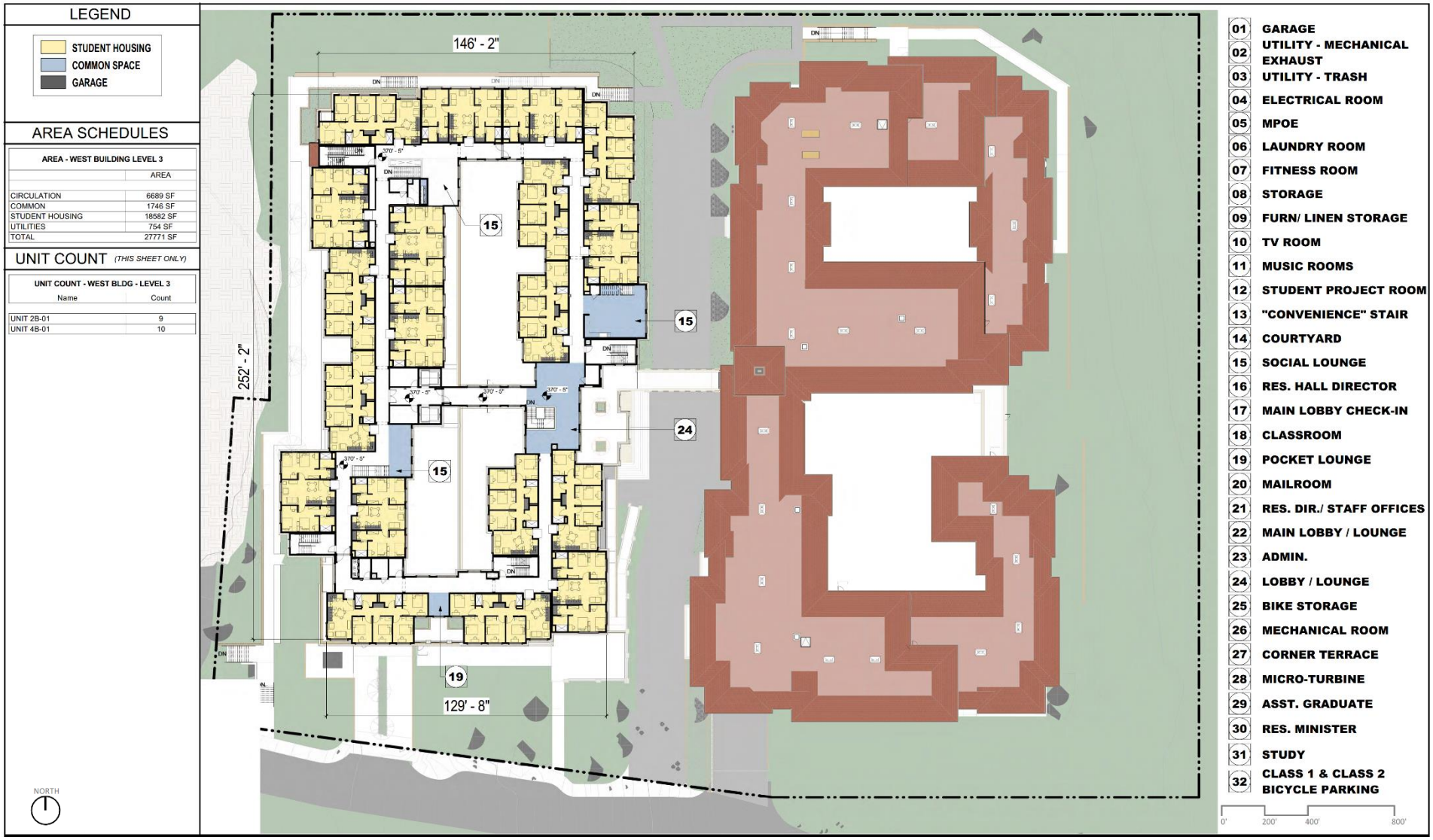
Figure 13: Student Residence Hall – West Building Level 1 and East Building Level 4

Source: MVE+Partner, December 2017.

Figure 14: Student Residence Hall – West Building Level 2 and East Building Roof

Source: MVE+Partner, December 2017.

Figure 15: Student Residence Hall – West Building Level 3 and East Building Roof



Source: MVE+Partner, December 2017.

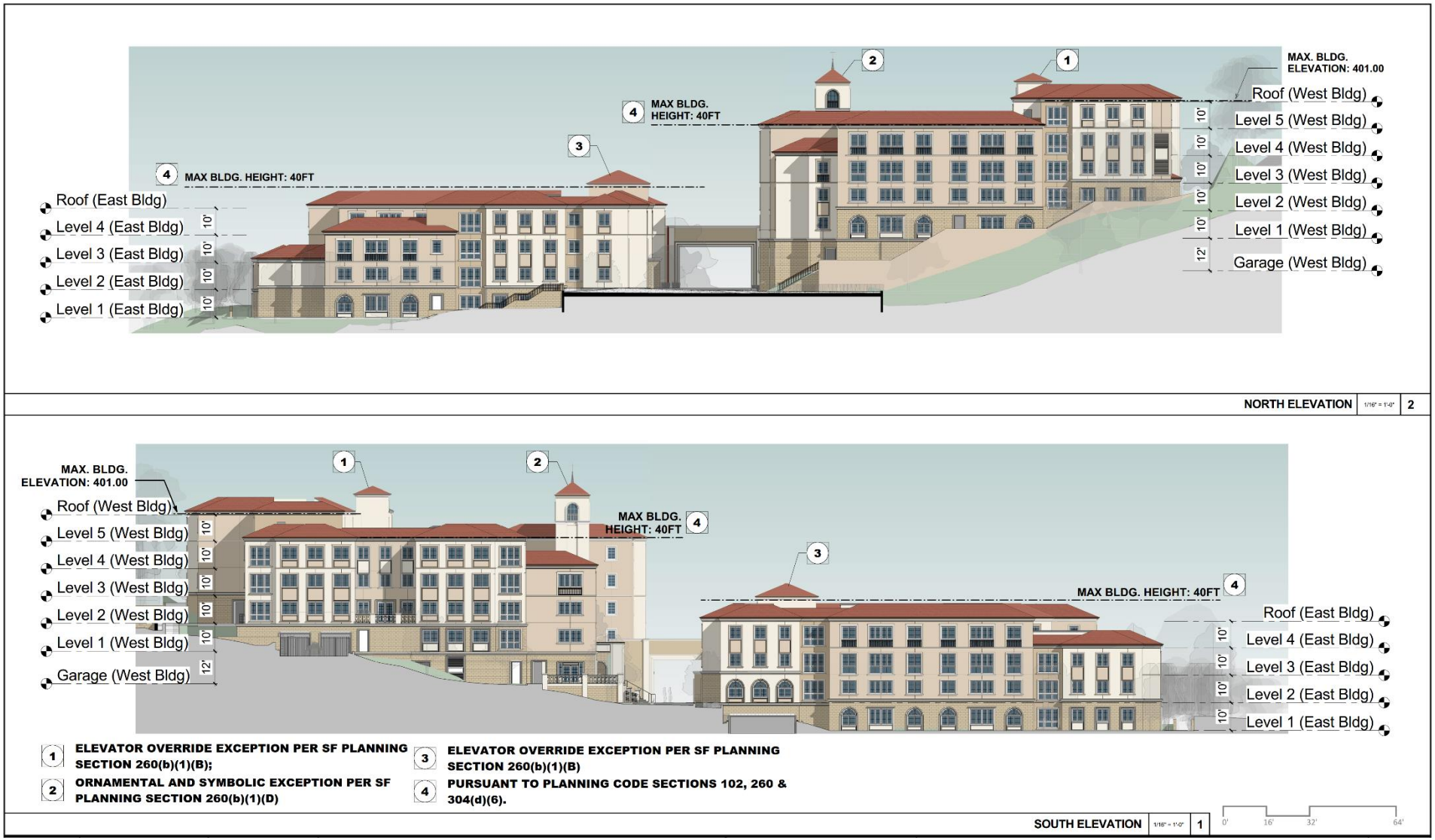
Figure 16: Student Residence Hall – West Building Level 4 and East Building Roof

Source: MVE+Partner, December 2017.

Figure 17: Student Residence Hall – West Building Level 5 and East Building Roof

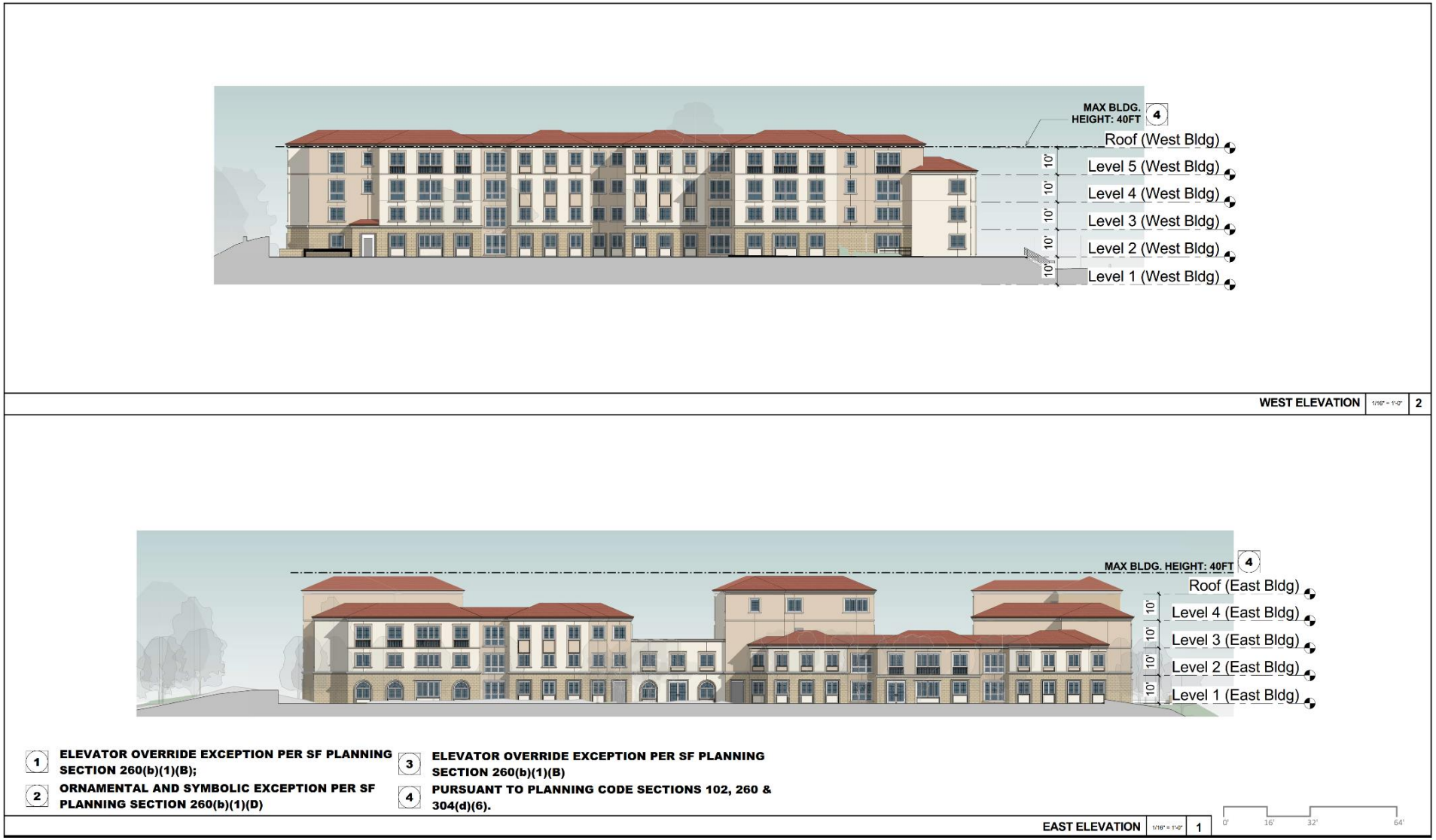
Source: MVE+Partner, December 2017.

Figure 18: Student Residence Hall – North and South Elevations



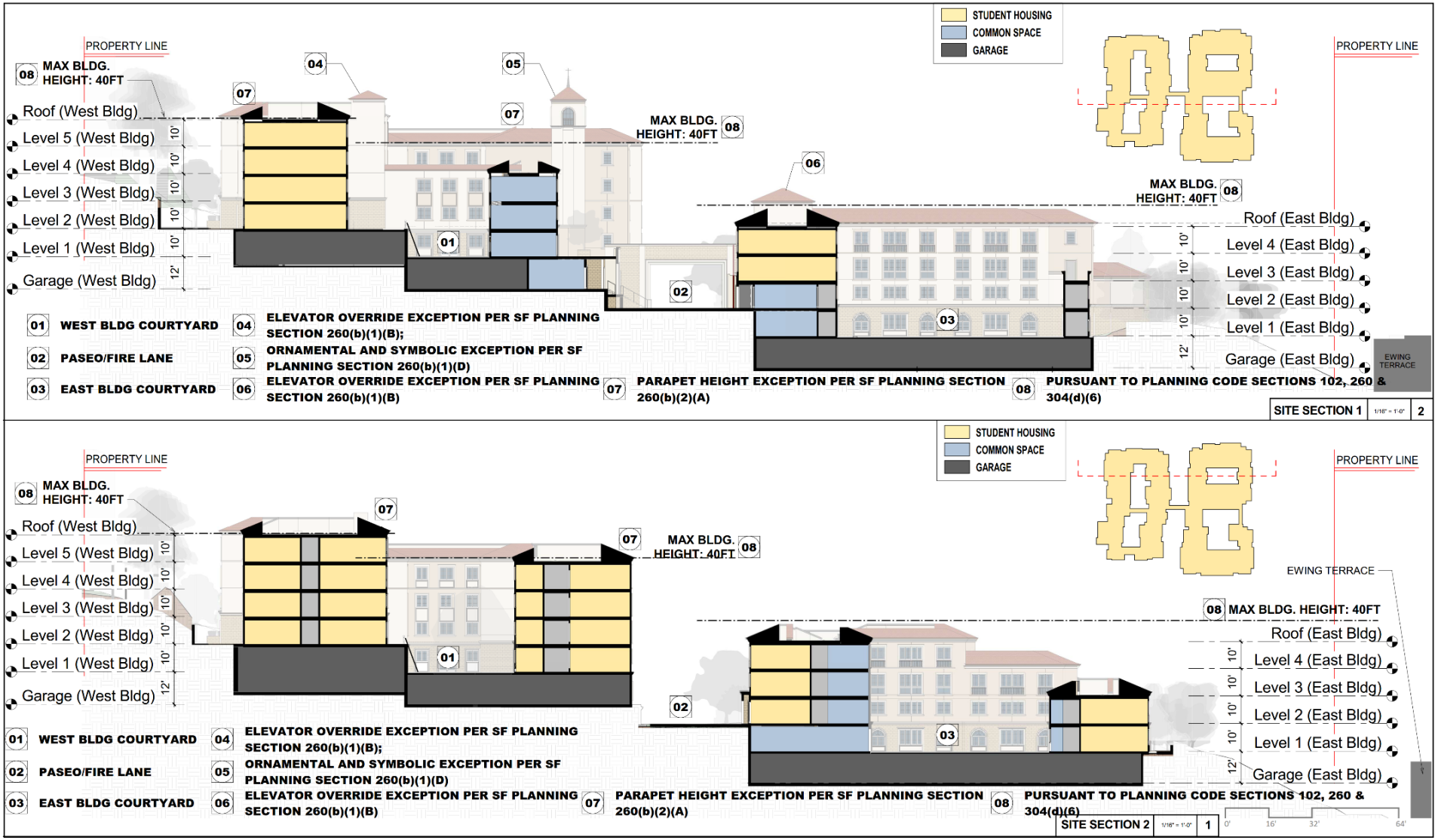
Source: MVE+Partner, December 2017.

Figure 19: Student Residence Hall –West and East Elevations



Source: MVE+Partner, December 2017.

Figure 20: Student Residence Hall –West and East Cross-Sections



Source: MVE+Partner, December 2017.

Parking, Loading and Bicycle Facilities

An approximately 73,850-square-foot underground garage serving both the east building and west building would provide 156 vehicle parking spaces, as well as 171 class 1 bicycle parking spaces. Access to the garage would be from Lone Mountain Drive, with separate entrances at the east building and west building. The garage would also provide underground circulation areas, utility and mechanical closets, three 65 kW natural-gas-fired cogeneration powered microturbines, and recycling and garbage areas. The 156 parking spaces would represent approximately 78 net new parking spaces, with 78 parking spaces replacing the Loyola surface parking lot spaces displaced by the project. Approximately 13 percent of the underground parking spaces would be tandem parking spaces. The 171 class 1 bicycle spaces would be in the west building underground garage, while the 23 class 2 bicycle spaces would be located in the central paseo between the west and east buildings. Two off-street loading spaces would be provided on the north side of Lone Mountain Drive, interior to Upper Campus and located within close proximity to the garage entrances and paseo walkway and shown on **Figure 21,** p. 34.

Vehicle parking would not be available to student on-campus residents, consistent with USF's Housing Contract parking policy,[11] which prohibits students living in campus residence halls from bringing vehicles to campus.[12] Parking in the student residence hall garage would be available for faculty and staff only. The vehicle parking component would total approximately 61,640 square feet, including driveways and aisles. The capacity and circulation pattern of Lone Mountain Drive would not be altered.

Mechanical Equipment

The proposed project is expected to include a diesel emergency generator and a microturbine[13] energy system. The diesel emergency generator would be located at the southwestern corner of

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[11] University of San Francisco Housing Contract, Section 16., *2017-2018. Terms and Conditions of On-Campus Occupancy Housing Contract, Section 16*, https://myusf.usfca.edu/sites/default/files/1718_USF_Housing_Contract.pdf, accessed on January 2, 2018.

[12] University of San Francisco, *General Parking Rules and Regulations*, https://www.usfca.edu/public-safety/parking/rules-regulations, accessed on June 7, 2017.

[13] Microturbines are small combustion turbines that burn gaseous or liquid fuels to drive an electrical generator. Microturbines operate on the same thermodynamic cycle (Brayton Cycle) as larger gas turbines and share many of the same basic components. In this cycle, atmospheric air is compressed, heated (usually by introducing and burning fuel), and then these hot gases drive an expansion turbine that drives both the inlet compressor and a drive shaft capable of providing mechanical or electrical power. United States Environmental Protection Agency, *Combined Heat and Power Partnership*, https://www.epa.gov/sites/production/files/2015-07/documents/catalog_of_chp_technologies_section_5._characterization_-_microturbines.pdf, accessed on January 24, 2018.

the student residence hall. The generator would use diesel combustible fuel to provide 800 kW of electricity in case of emergency. The microturbine energy system would occupy approximately 930 square feet and provide supplemental electrical power and a source for heating water for the student residence hall buildings, which would reduce the amount of electricity and natural gas that the student residence hall would need to obtain from *Pacific Gas and Electric Company* (PG&E).

Open Space

The student residence hall site would include a total of approximately 32,510 square feet of usable open space, including four interior courtyard spaces, which would create approximately 15,950 square feet of private usable open space areas for students. Open-space amenities for students in the interior courtyards could include a bocce court, outdoor fountain, outdoor grill, benches, and a walking lap/fitness loop. The remaining approximately 16,560 square feet of usable open space would be in the paseo. Out of the total usable open space provided, approximately 26,411 square feet would strictly comply with Planning Code section 135(g) horizontal dimension requirements for courtyards, which would exceed the amount required under the planning code (25,769 square feet) (see **Figure 22**, p. 35). Other open space in the Upper Campus includes paths and landscaped and wooded areas.

Landscaping

Approximately 75 trees would be removed for the construction of the student residence hall. **Table 2** lists the species of trees to be removed. None of the trees proposed for removal are significant or landmark trees protected by the San Francisco Urban Forestry Ordinance, Public Works Code article 16. Some trees are within the project construction site and would therefore require removal, while others would be removed as per the arborist recommendation (trees located in the east part of the project site).[14] A total of approximately 81 trees would be planted on the student residence hall site, resulting in a net gain of six trees on the project site. Additionally, nine street trees would be planted along Turk Street. The replacement trees would be species that are in keeping with the character of the campus and the historic landscape such as Deodar Cedar, Monterey Cypress, Italian Cypress, Evergreen Ash, Catalina Ironwood, Brisbane Box and Southern Magnolia. New landscaping and trees would be provided and located between the Ewing Terrace neighborhood and the student residence hall to create a buffer and to reduce visibility between the Ewing Terrace residences and the student residence hall. At original

[14] The Guzzardo Partnership Inc, *Tree Disposition Plan, p. L-2, USF Student Housing,* November 9, 2017.

planting, the trees would be saplings. **Figure 23**, p. 36, shows the landscape plan for the student residence hall site.

Table 2: Species of Trees to be Removed for the Student Residence Hall

Species to be Removed		***Number of trees***
Botanical Name	**Common Name**	
Cypressus Macrocarpa	Monterey Cypress	30
Eucalyptus Sp.	No Common Name	2
Acacia Melanoxylon	Blackwood Acacia	6
Heteromeles Sp.	Toyon/California Holly	1
Prunus Lusitanica	Portugal Laurel	3
Magnolia Grandiflora	Southern Magnolia	8
Sequoia Sempervirens	Coast Redwood	5
Cedrus Deodora	Deodar Cedar	2
Crataegus Sp.	Hawthorn	2
Prunus Cerasifera	Cherry Plum	1
Prunus Domestica	European Plum	1
Acacia Baileyana	Bailey acacia, Cootamundra wattle	8
Pittosporum Undulatum	Australian cheesewood or Victorian box	4
Pittosporum crassifolium	Stiffleaf cheesewood or Thick leaf box	2
	Total trees to be removed	**75**

Source: The Guzzardo Partnership Inc, *Tree Disposition Plan, USF Student Housing*, September 8, 2017.

Foundation and Excavation

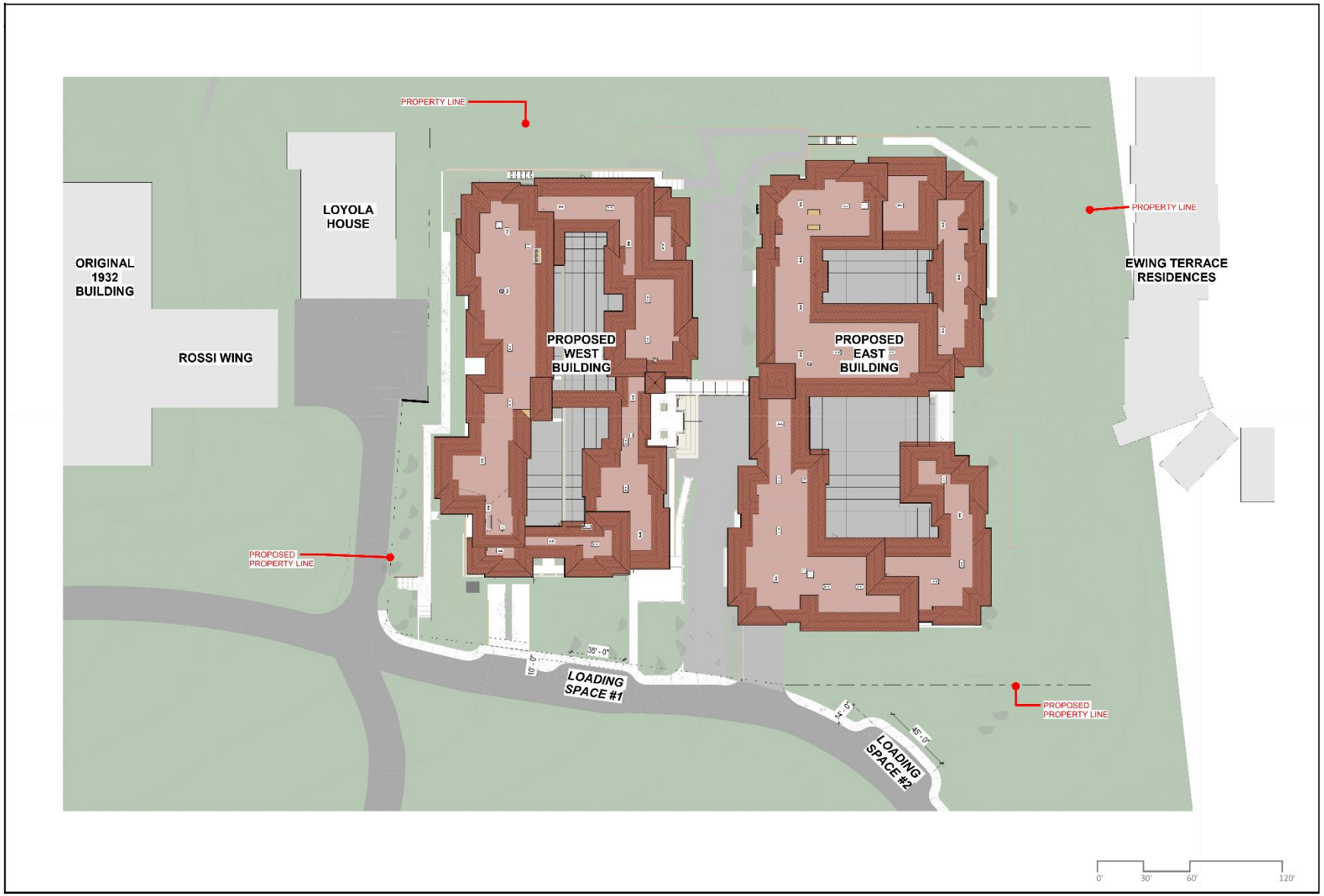
The student residence hall would require excavation to a depth of up to approximately 20 feet below ground surface to accommodate the underground garage level and building foundation. Approximately 60,000 cubic yards of soil would be excavated in an approximately 135,000-square-foot excavation area. The student residence hall would be constructed on a deep foundation system consisting of augercast piles connected by reinforced-concrete-grade beams, which would achieve the desired reliable deep foundation for building support without producing vibrations during construction. Pile driving would not be required for the foundation of the student residence hall.

If necessary, shoring would be used to retain portions of the excavation during construction for the subgrade garages and foundation installations. The shoring system would retain primarily medium dense sandy fill and gravel fill, as well as dune sand. A soldier pile and lagging shoring system with tiebacks or internal bracing could be installed if necessary.

Construction Schedule

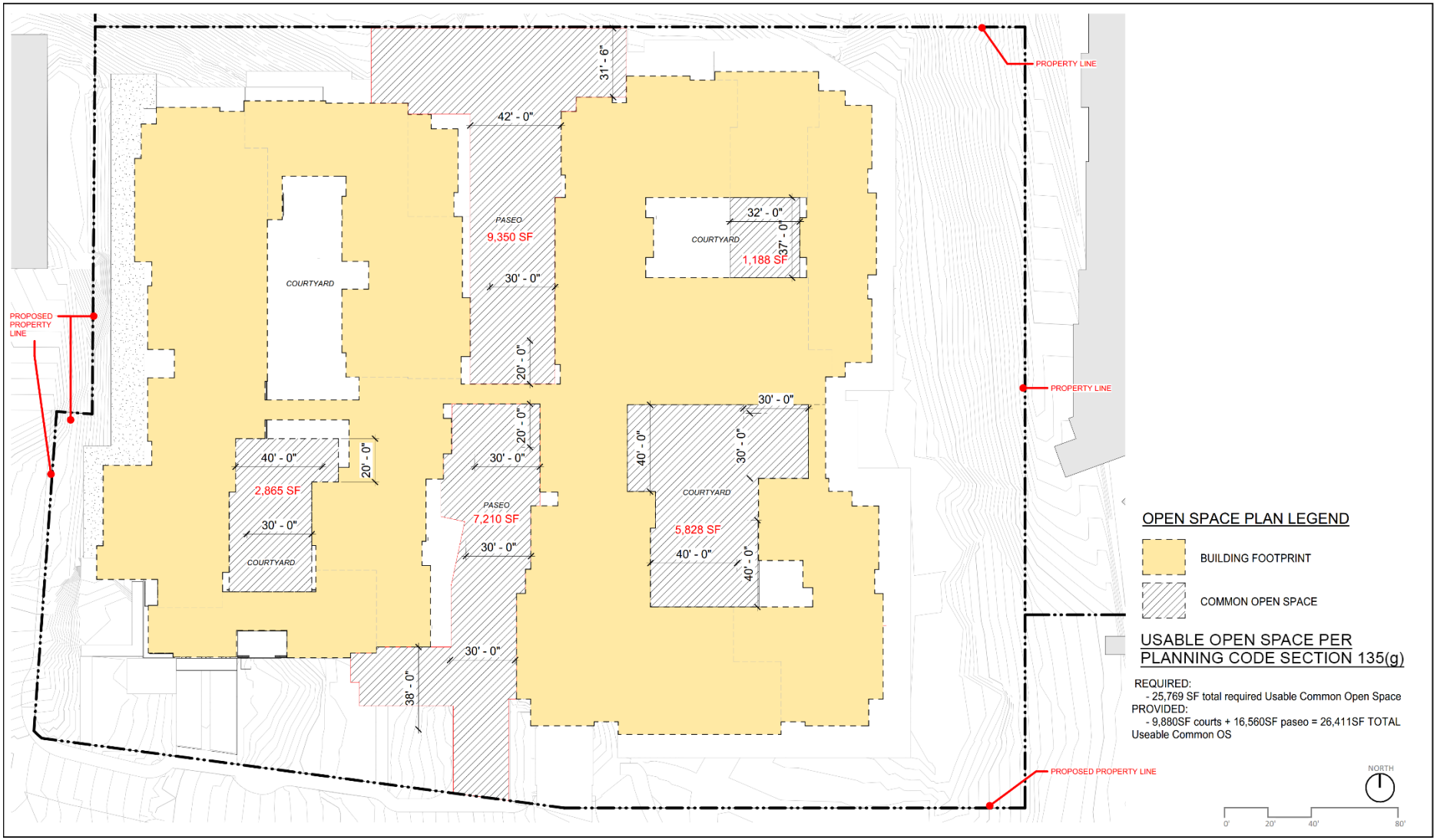
The demolition and construction activities for the student residence hall are estimated to take approximately 24 months and would start in spring 2018.

Figure 21: Student Residence Hall - Location of the Loading Spaces



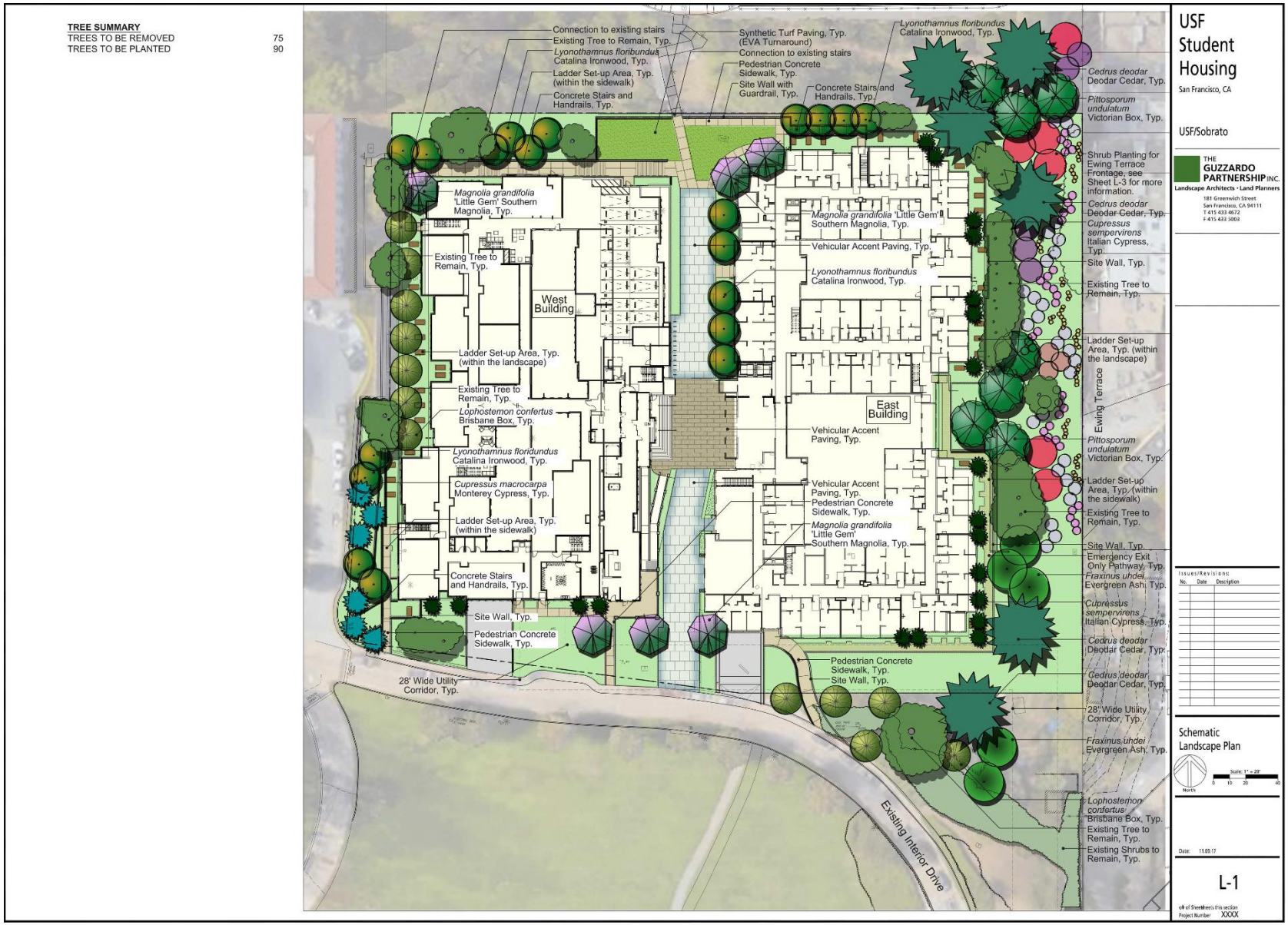
Source: MVE+Partner, December 2017.

Figure 22: Student Residence Hall – Location of Usable Open Space per Planning Code Section 135(g)



Source: MVE+Partner, November 2017.

Figure 23: Student Residence Hall – Landscaping Plan



Source: The Guzzardo Partnership Inc., November 2017.

Dining Commons

The proposed dining commons would offer a variety of dining options for the student residence hall residents and the Upper Campus community. The proposed renovation to the existing dining facility (known as the Wolf & Kettle Café) located within the Lone Mountain Main Building, would remodel the existing kitchen and expand the square footage of the dining area by approximately 10,815 square feet. The proposed renovation would accommodate a net increase in the seating capacity from 147 seats to 306 seats, a net increase of 159 seats. The renovated area would provide an approximately 3,825-square-foot kitchen and serving area, 1,370-square-foot grocery area, 1,260 square feet of food bars, and 3,055 square feet of dining seating. The new addition would offer an approximately 910-square-foot coffee shop/café and 2,850-square-foot dining area with lounge seating (see **Table 3,** and **Figure 24**, p. 39, to **Figure 26**, p. 41, for site plan and floor plan).

The proposed addition would be a freestanding, approximately 3,760-square-foot "pavilion" building, which would be constructed on the site of the existing lawn and paved courtyard area east of the Wolf & Kettle Café, and northwest of the proposed student residence hall. The pavilion building would have a maximum height of approximately 40 feet and would be set back approximately 20 feet from the existing dining facility, and approximately 10 feet from the existing Lone Mountain Main Classroom Wing (see **Figure 27**, p. 42, and **Figure 28,** p. 43). An approximately 690-square-foot glazed rain canopy would serve as a transition zone between the Lone Mountain Main Building portion of the dining commons and the freestanding structure. The proposed dining commons would lessen the need for Upper Campus residents, staff, and faculty to walk through the University Terrace neighborhood to the Lower Campus for dining amenities.

Table 3: Dining Commons Characteristics

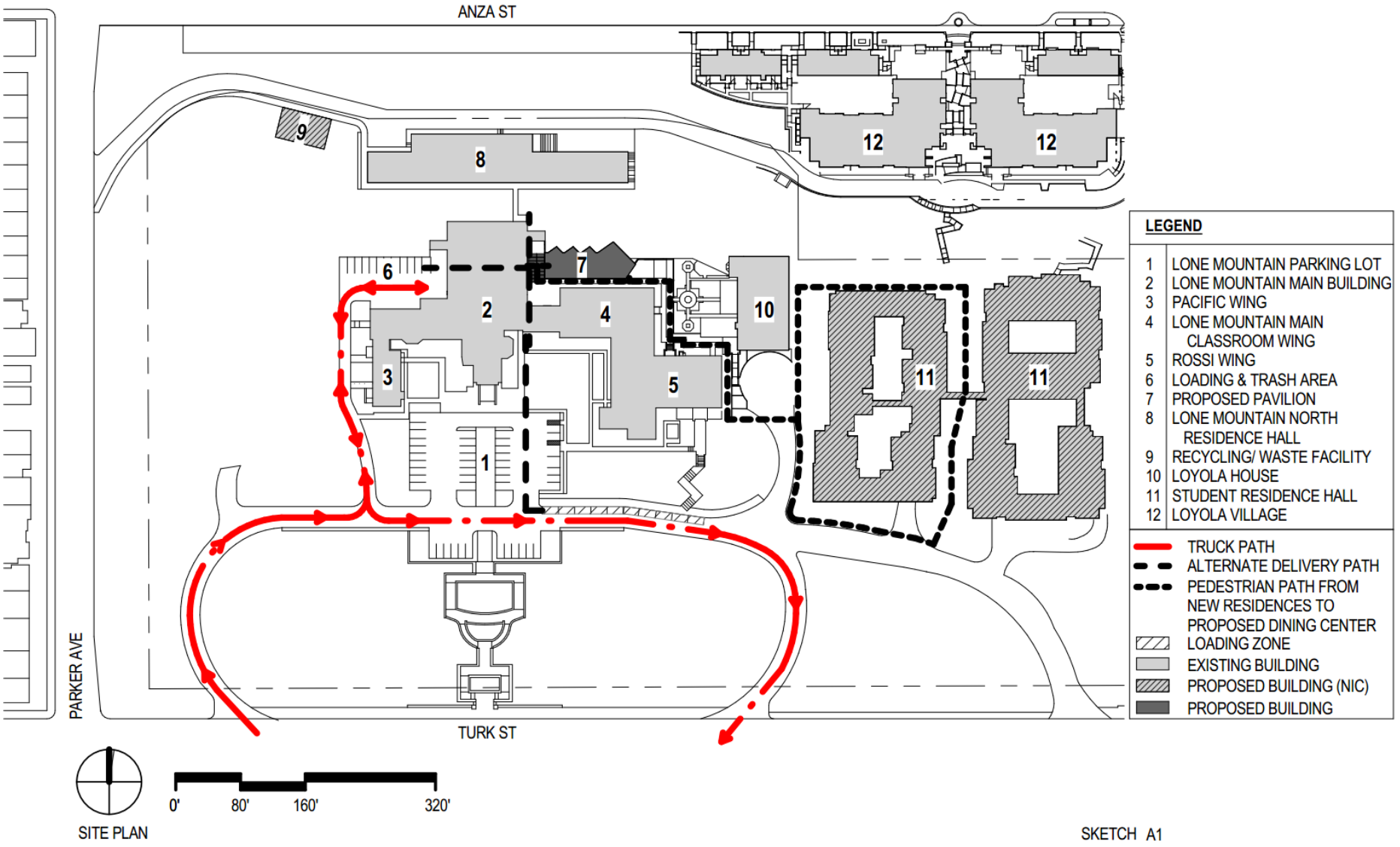
Use/Characteristic	Approximate Area (square feet)
Renovated Area (Current Wolf & Kettle Café Dining Facility)	
Kitchen and Servery	3,825
Dining Seating	3,055
Grocery	1,370
Food Bars	1,260
North Entry	660
South Entry	185
Subtotal Renovated Area	**10,815**

Use/Characteristic	Approximate Area (square feet)
New Freestanding Addition	
Dining Area with lounge seating	2,850
Café	910
Subtotal New Freestanding Addition	**3,760**
Glazed Rain Canopy (unenclosed)	690
Total (Renovated Area + Addition)	**15,265**
Other Project Elements	
Outdoor Bicycle Parking Spaces (class 2)	6-10, additional bicycle parking available near the main entrance of Lone Mountain Main
Freestanding Addition Height	40-foot maximum height
Freestanding Addition Number of Stories	1

Source: Field Paoli, June 2017.

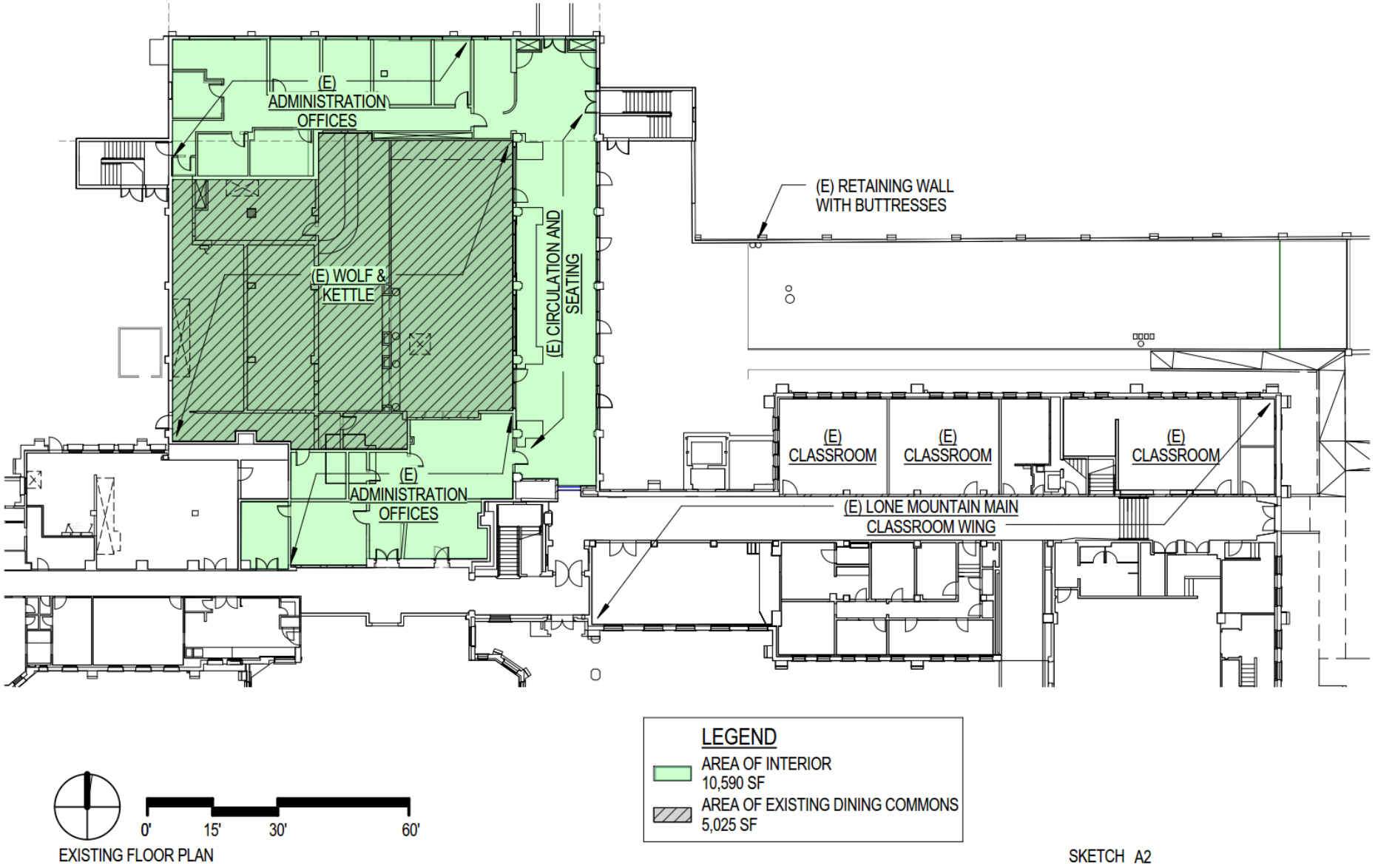
The pavilion building would be a simple concrete, light gauge steel and glass structure. The south side of the pavilion building would be cast-in-place concrete incorporating a vegetated wall along the south facing surface. The north side of the building, supported by concrete piers, would be cement plaster with large window areas facing northeast to take advantage of hillside and city views. Operable windows would be integrated into the glazing system to facilitate nighttime flushing of the air within the building. Roofs would be single-ply roofing where flat, and corrugated metal where sloping, with skylights in three of the sloping roofs. On the west side, an approximately 32-foot-wide steel canopy with opaque glass overhead would provide covered entry to the Lone Mountain Main Building, which would continue to house kitchen and food service operations (see proposed elevations and sections at **Figure 27** to **Figure 29**, pp. 42 to 44).

Figure 24: Dining Commons – Proposed Site Plan



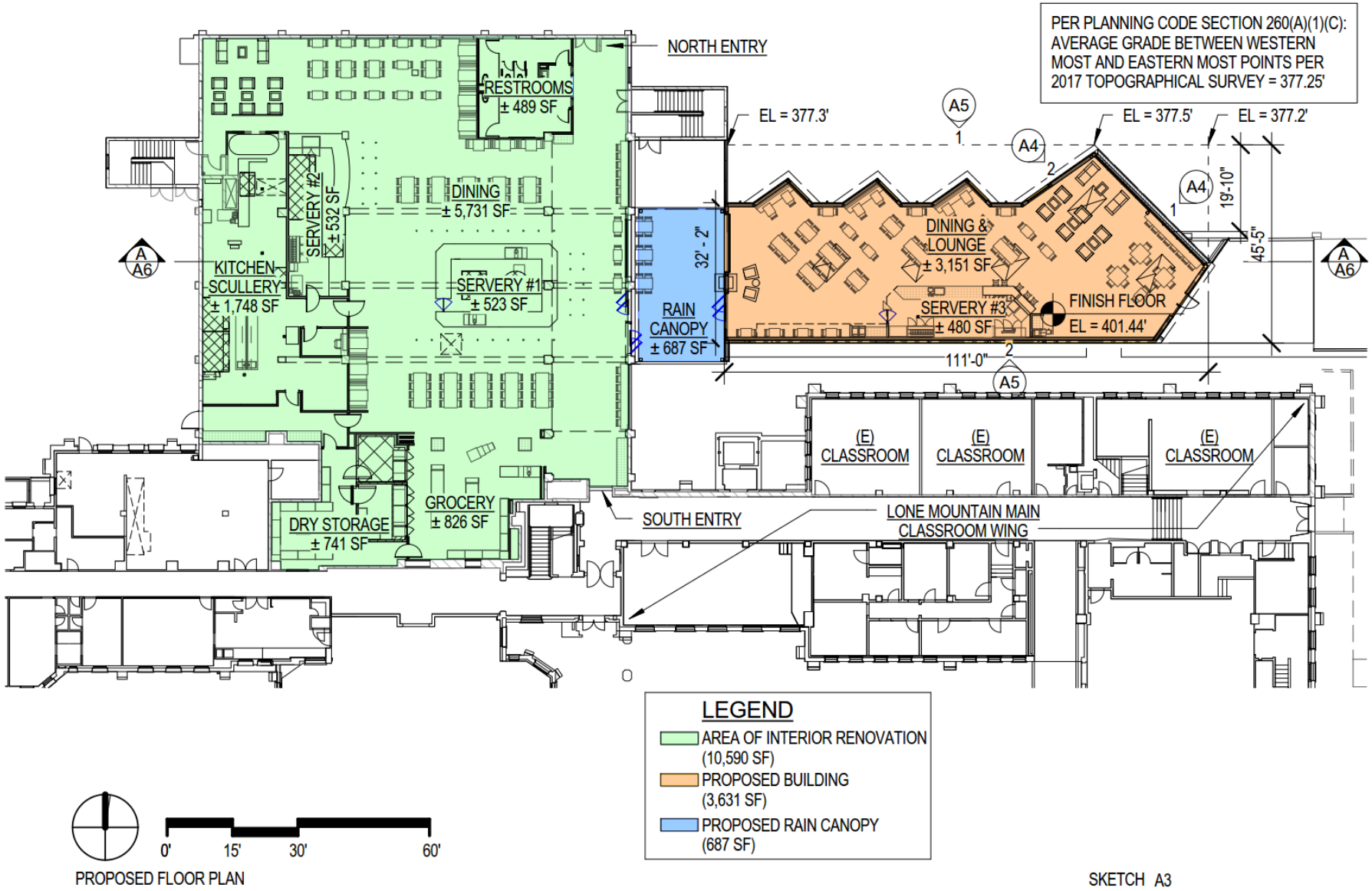
Source: Field Paoli, June 2017.

Figure 25: Dining Commons – Existing Floor Plan



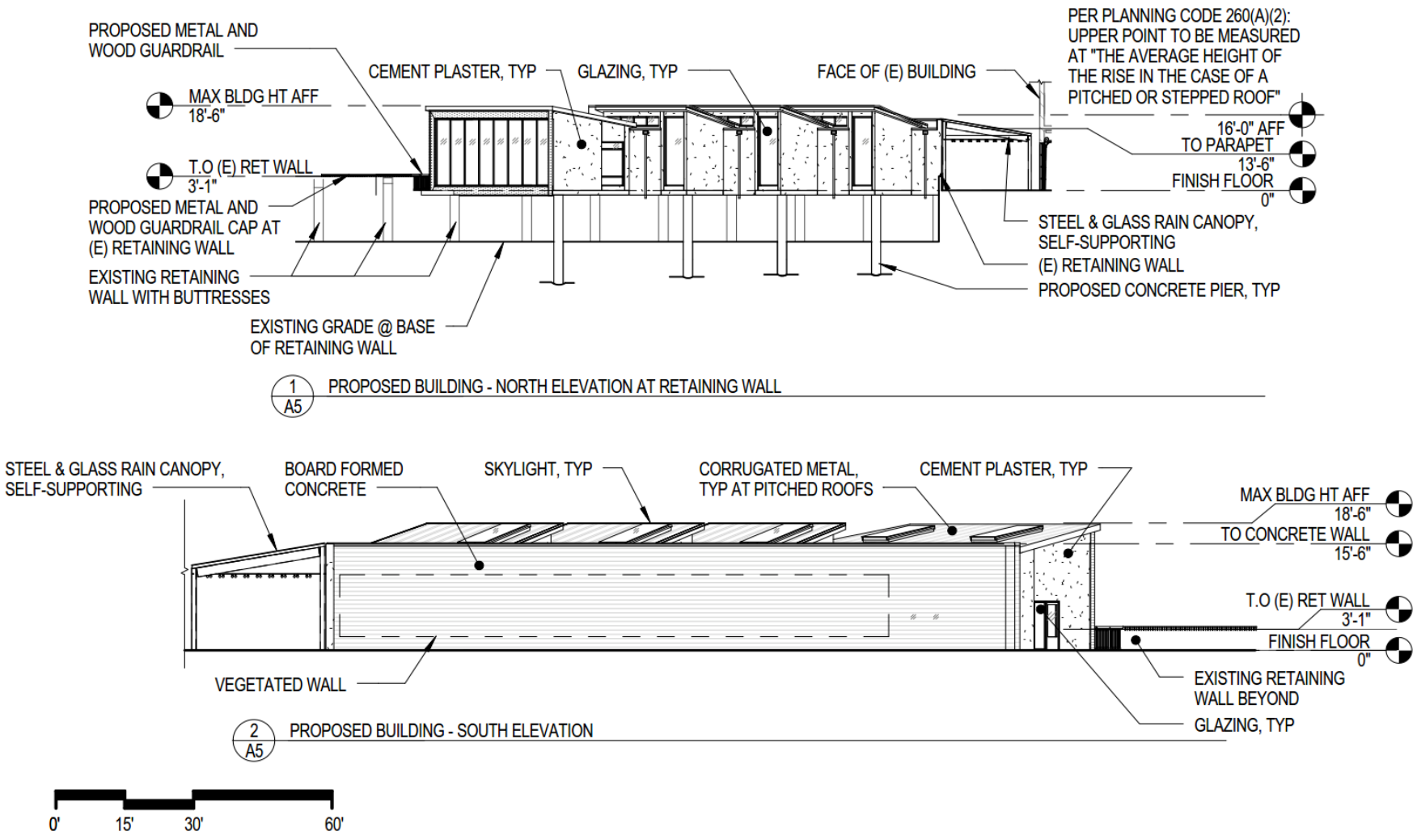
Source: Field Paoli, June 2017.

Figure 26: Dining Commons – Proposed Floor Plan



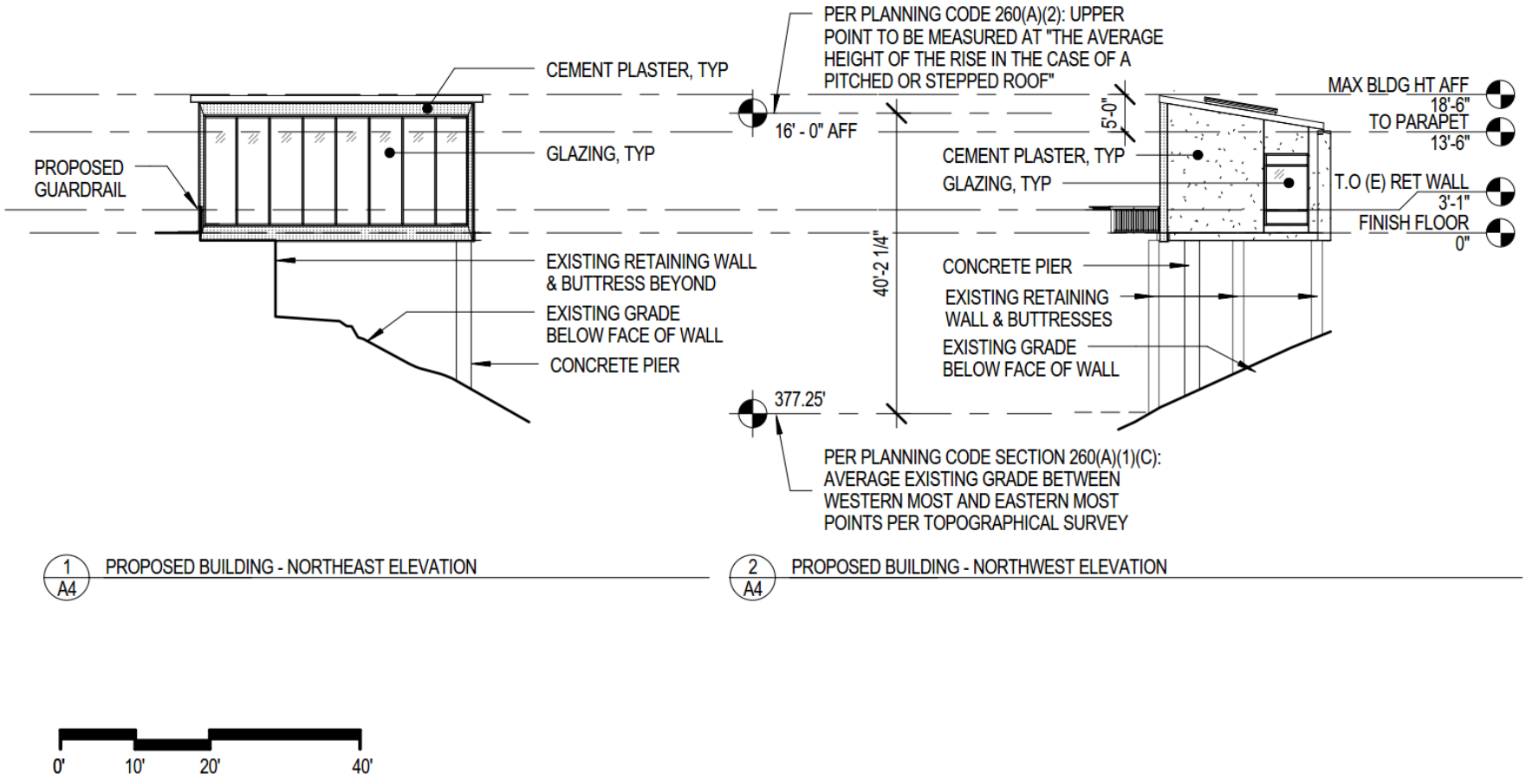
Source: Field Paoli, June 2017.

Figure 27: Dining Commons – Proposed North and South Elevations



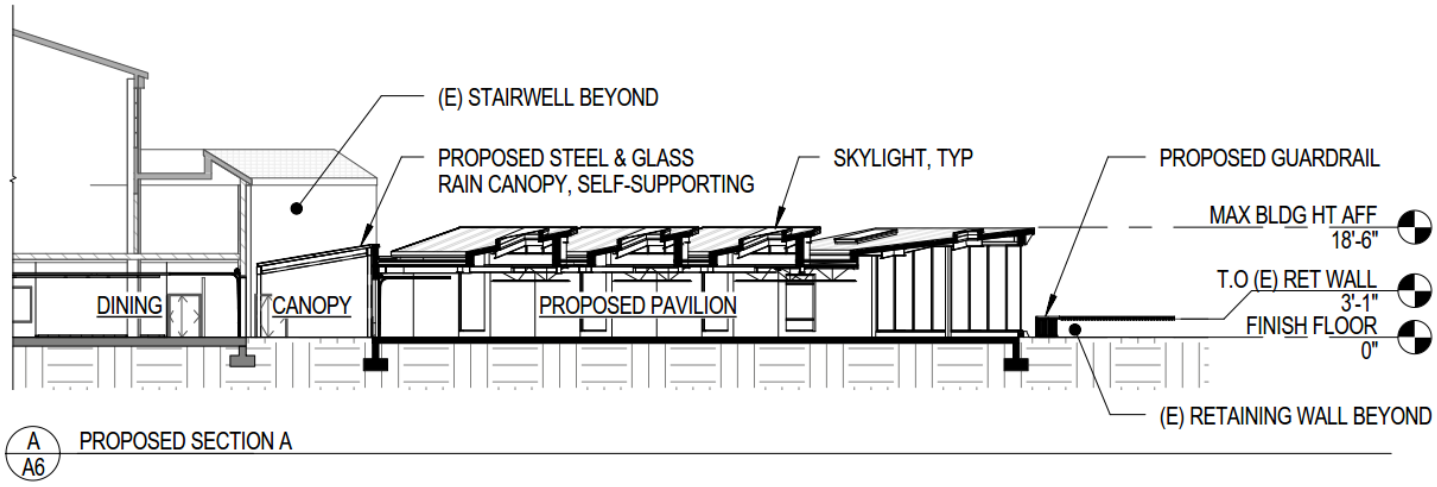
Source: Field Paoli, June 2017.

Figure 28: Dining Commons – Proposed Northeast and Northwest Elevations



Source: Field Paoli, June 2017.

Figure 29: Dining Commons – Proposed Section Looking North



Source: Field Paoli, June 2017.

Parking, Loading, and Bicycle Facilities

Three primary site access pathways would provide pedestrian access to the dining commons: (1) the existing pathways from the existing Loyola House site, which would be used primarily by residents of the student residence hall; (2) the existing interior entrance from the Lone Mountain Main Building's south side, main entrance, which would be used by faculty, staff, and other students; and (3) the existing pedestrian bridge, north of the Lone Mountain Main Building, which connects the Lone Mountain Main Building and the Lone Mountain North Residence Hall.

Consistent with current conditions at the Wolf & Kettle Café dining facility, delivery and other vehicles would continue to access the dining commons from the northwest loading and parking lot as shown in **Figure 4**, p. 7, by way of Turk Street and Lone Mountain Drive. Anticipated daily deliveries would include produce, bakery, meats, and linens/uniforms while other deliveries to the dining commons such as furniture, kitchen equipment, and supplies would be less frequent.

Class 1 bicycle parking for the dining commons would be provided in the student residence hall garage, given the expected overlap with residents of the proposed student residence hall as well as Upper Campus faculty and staff currently on campus and using existing facilities. No additional dedicated vehicle parking for the dining commons would be provided. Existing vehicle parking along Lone Mountain Drive and in the visitor parking lot located in front of Lone Mountain Main Building would be available. Access to existing vehicle parking would be from Turk Street onto Lone Mountain Drive. Ten bicycle parking spaces exist in front of Lone Mountain Main Building and approximately six to 10 class 2 bicycle parking spaces would be added for the dining commons near the main entrance of Lone Mountain Main. Access would be from Lone Mountain Drive.

Landscaping

Approximately 10 trees (eight Blue Gum and two Red Flowering Gum) would be removed to accommodate the new freestanding light gauge structure. None of the trees are significant or landmark trees protected by the San Francisco Urban Forestry Ordinance, Public Works Code article 16. The removed trees are currently located in the footprint of the proposed building and would be replaced with approximately five Bronze Loquat trees that would blend in with the surrounding trees, resulting in a net loss of five trees at this project component location.[15]

[15] Quinn Landscape Architects, *Landscape Plan for Dining Commons, Recycling and Waste Facility Replacement, Reserve Officer Training Corps Program Relocation,* November 27, 2016.

Foundation and Excavation

Approximately 200 to 250 cubic yards of excavation would be required for the proposed dining commons addition. The dining commons would likely be constructed on a deep foundation system consisting of either drilled piers, cast-in-place piers, or augercast piles connected by reinforced-concrete-grade beams that extend through the weak soil and gain support in the underlying Hillslope Deposits and bedrock and gain support from skin friction. No pile driving would occur.

Construction Schedule

Construction activities for the dining commons are expected to take approximately 10 months and would start in summer 2019. The completion date would be coordinated with the completion of the student residence hall.

Recycling and Waste Facility Replacement

The proposed project would replace the existing, outdoor unenclosed 4,905-square-foot waste facility, located at the Underhill Building site, with an enclosed, approximately 1,600-square-foot, recycling and waste facility with a height approximately 22 feet above the surface of the viaduct wall at the entrance, and less than 40 feet above the ground surface. The location for the proposed facility is in the Upper Campus' northwest quadrant away from Anza Street and interior to the campus, approximately 250 feet south of the off-campus neighbors and 900 feet west from the Ewing Terrace neighborhood. **Figure 30**, p. 49, depicts the existing site plan and the proposed site/floor plan for the recycling and waste facility.

The proposed recycling and waste facility would demolish part of the existing viaduct wall, concrete sidewalk, and curb on the existing elevated road viaduct to allow access to a new, approximately 2,100-square-foot structurally independent suspended concrete exterior access ramp and loading area. This access ramp and loading area, which connects to Lo Schiavo Drive, an interior campus road, would accommodate the Recology trucks. **Figure 31**, p. 50, depicts proposed elevations for the recycling and waste facility. **Table 4** summarizes the characteristics of the proposed recycling and waste facility.

Table 4: Recycling and Waste Facility Characteristics

Use/Characteristic	Approximate Area (square feet)
Enclosed Compactor Storage Area	1,600
Outdoor Truck Roll-Off Area/Connector Ramp	2,100
Total Enclosed Area	**1,600**
Total Exterior Area	**2,100**
Other Project Elements	
Height	Maximum height of 37 feet 2 inches above grade
Number of Stories	1

Source: Oculus Architects Inc., June 2017.

The proposed facility would accommodate three compactors in the enclosed building. On a heavy usage day, it is expected that the compactor would operate four to five times per hour during the daytime (between 8:30 a.m. and 4:30 p.m.). Compaction would occur seven days a week.

The proposed building, exterior access ramp, and loading area would be constructed on a structurally independent concrete column and steel frame system. The proposed building would be constructed with a structural steel frame and exterior envelope walls of lightweight steel stud members with an external architectural skin of gypsum exterior building board painted with a cement stucco textured finish.

Loading and Access

The proposed recycling and waste facility would serve as a consolidation point for most of USF's waste and recycling, with up to three pick-ups per week by Recology. As discussed above, access to the proposed recycling and waste facility would be from Lo Schiavo Drive via a new short connector ramp. No vehicle or bicycle parking would be required for the facility.

Landscaping

Approximately 10 trees (two Monterey Pines, two Red Flowering Gum, and six Eucalyptus) would likely be removed to construct the recycling and waste facility. None of these trees are significant or landmark trees protected by the San Francisco Urban Forestry Ordinance, Public Works Code article 16. The trees requiring removal are currently located in the footprint of the structure. These trees would be replaced with approximately five Monterey Cypress that would

blend in with the surrounding trees, resulting in a net loss of approximately five trees at this project location.[16]

Foundation and Excavation

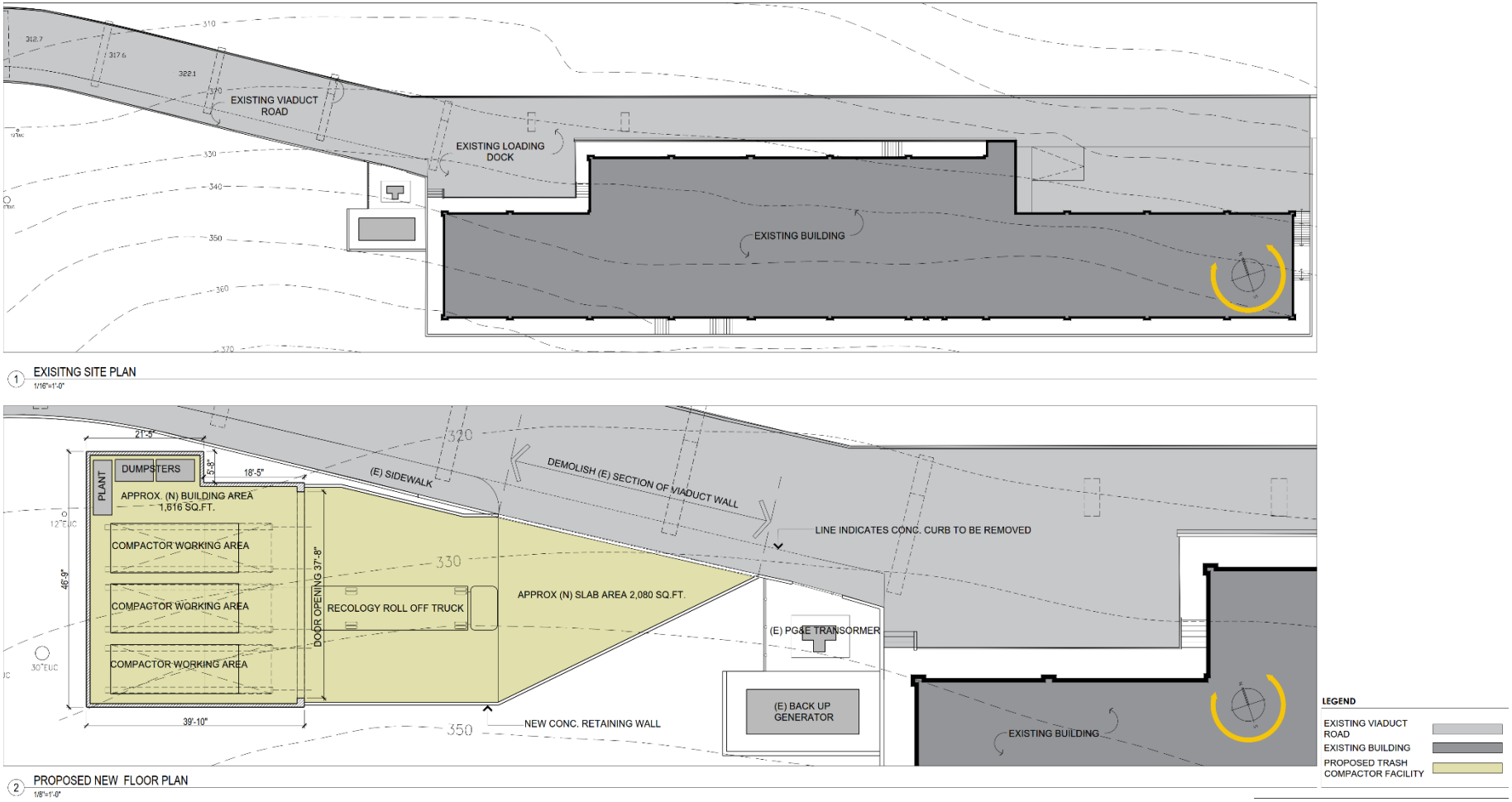
The proposed recycling and waste facility would require excavation to a depth up to a maximum of 15 feet in a 300-square-foot area for a total excavation of up to 800 cubic yards of soil, including slight grading of the hill to accommodate the facility. The proposed facility would likely be constructed on drilled, cast-in-place concrete piers embedded in undisturbed bedrock. Where appropriate, the foundation system may also consist of a grid of interconnected, reinforced-concrete footings or a reinforced-concrete mat.

Construction Schedule

The construction activities for the recycling and waste facility are estimated to take approximately 10 months and would start in spring 2018.

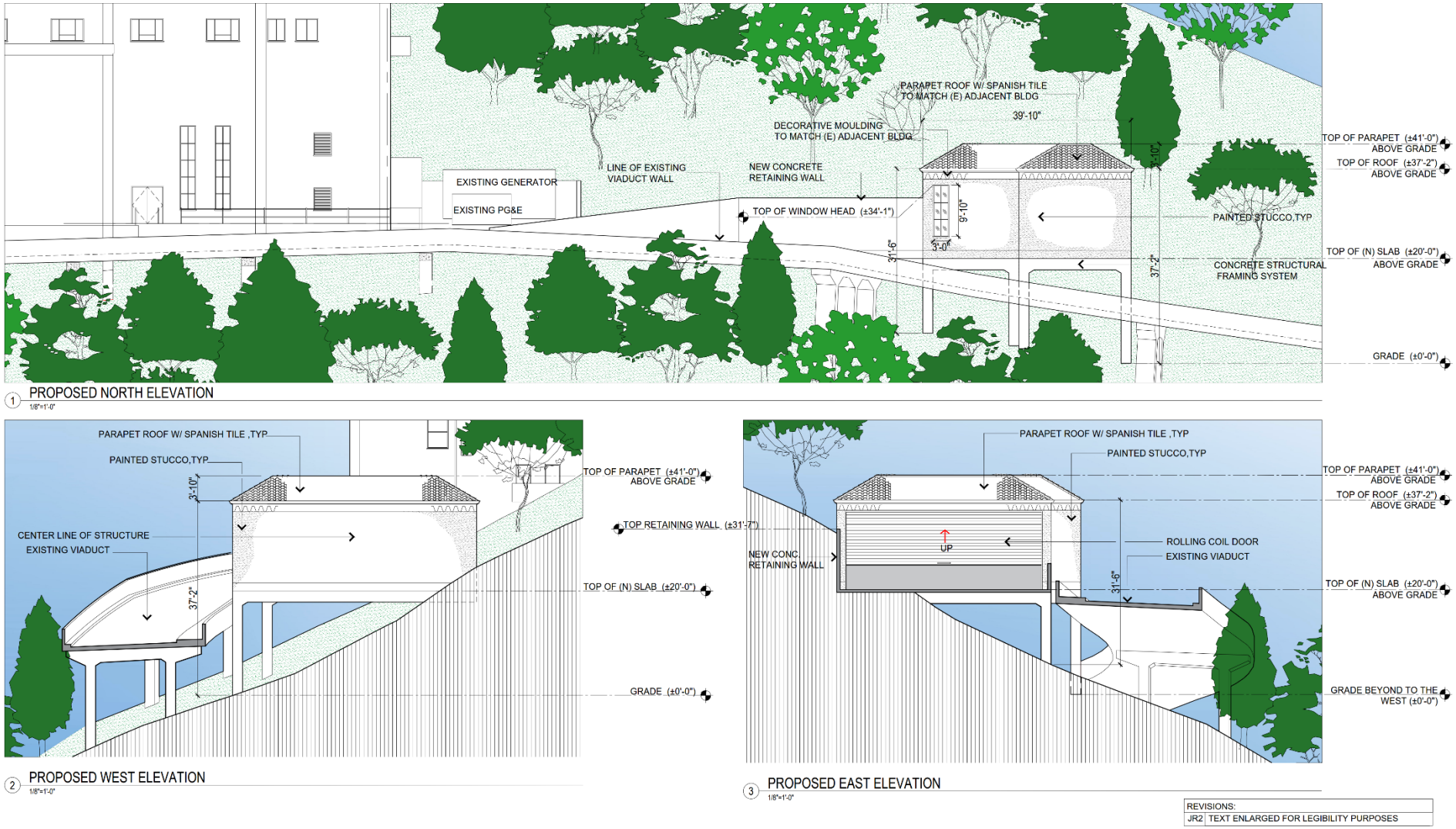
[16] Quinn Landscape Architects, *Landscape Plan for Dining Commons, Recycling and Waste Facility Replacement, Reserve Officer Training Corps Program Relocation,* November 27, 2016.

Figure 30: Recycling and Waste Facility – Existing and Proposed Floor Plans



Source: Oculus Architects Inc., June 2017.

Figure 31: Recycling and Waste Facility – Elevations

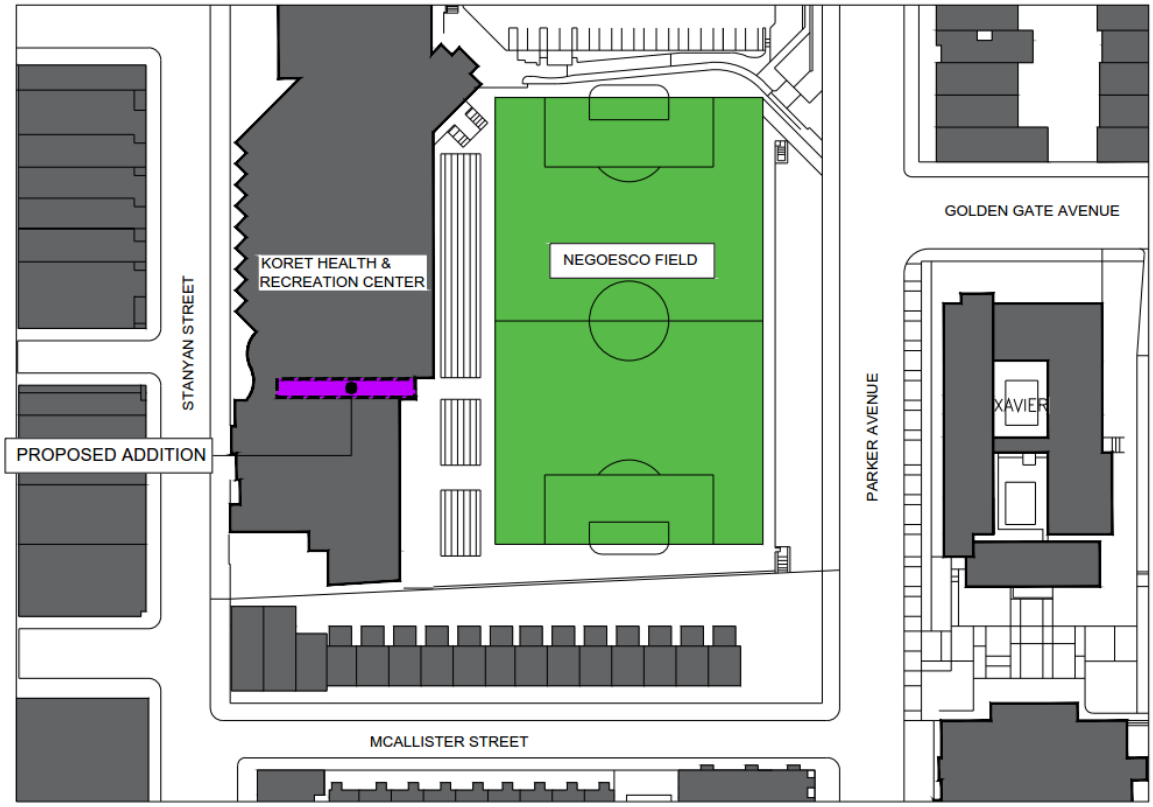


Source: Oculus Architects Inc., June 2017.

ROTC Program Relocation

The university's ROTC program is currently housed in the approximately 8,500-square-foot Underhill Building, which would be demolished to allow construction of the student residence hall. To relocate this program, USF would construct an approximately 3,740-square-foot horizontal and vertical addition to the existing Koret Health and Recreation Center (built in 1990), above the natatorium and adjacent to the Hagan Gymnasium (see **Figure 32**).

Figure 32: ROTC Program Relocation – Location Map



Source: Oculus Architects Inc., June 2017.

The proposed addition would include approximately: 700 square feet of faculty/staff offices; 1,410 square feet of storage space; 170 square feet of conference room/meeting space; a 125-square-foot kitchen/breakroom; a 75-square-foot laundry room; a 120-square-foot restroom facility; and 1,190 square feet of ancillary circulation space (see **Figure 33**, p. 53, and **Figure 34**, p. 53). **Table 5** summarizes the characteristics of the proposed ROTC program relocation addition.

Table 5: ROTC Program Relocation Characteristics

Use/Characteristic	Approximate Area (square feet)
Faculty/Staff Offices	720
Storage Space	1,410
Conference Room/Meeting Space	150
Kitchen/Breakroom	75
Laundry Room	75
Restroom	120
Ancillary/Circulation Space	1,190
Total Building Area	**3,740**
Other Project Elements	
Height	38 feet 10 inches maximum height
Number of Stories	Primarily one story above existing one-story building; two stories at entry closest to Negoesco Field

Source: Oculus Architects Inc., June 2017.

The proposed ROTC program relocation addition would be located within the central portion and the eastern side of the one- to two-story Koret Health and Recreation Center. The proposed addition would construct a new second floor and extend 550 square feet outside the existing Koret Health and Recreation Center footprint, interior to the campus and adjacent to Negoesco Field. It would have a maximum height of approximately 39 feet, which is comparable to the height of the existing Hagan Gymnasium (see **Figure 35**, p. 54**,** for existing and proposed elevations, and **Figure 36**, p. 55 for existing and proposed sections). The addition would be constructed of a structural steel frame with shallow concrete strip footings on the east side of the addition, adjacent to the Negoesco Field area. The new exterior walls of the addition would be constructed of lightweight steel-stud members with an external architectural skin of gypsum exterior building board painted with a cement stucco textured finish.

Figure 33: ROTC Program Relocation – Proposed Addition to the First Floor of the Koret Health and Recreation Center

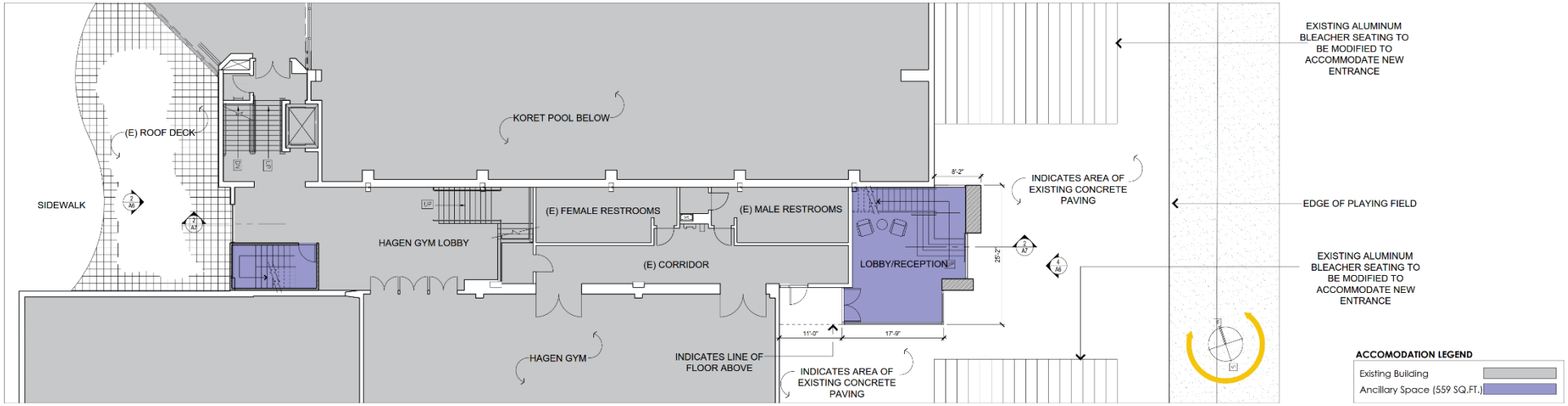
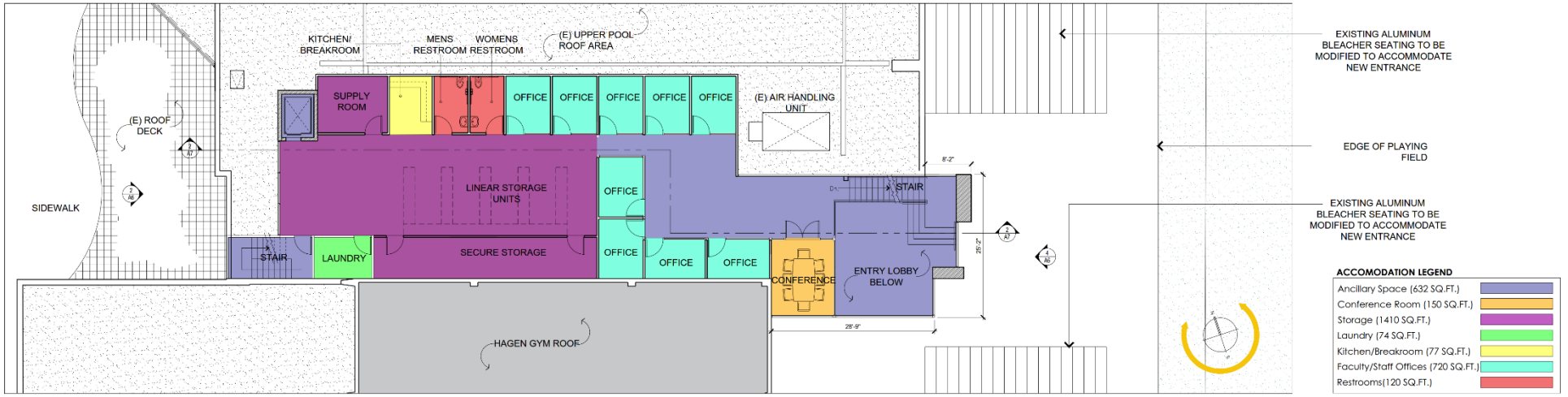
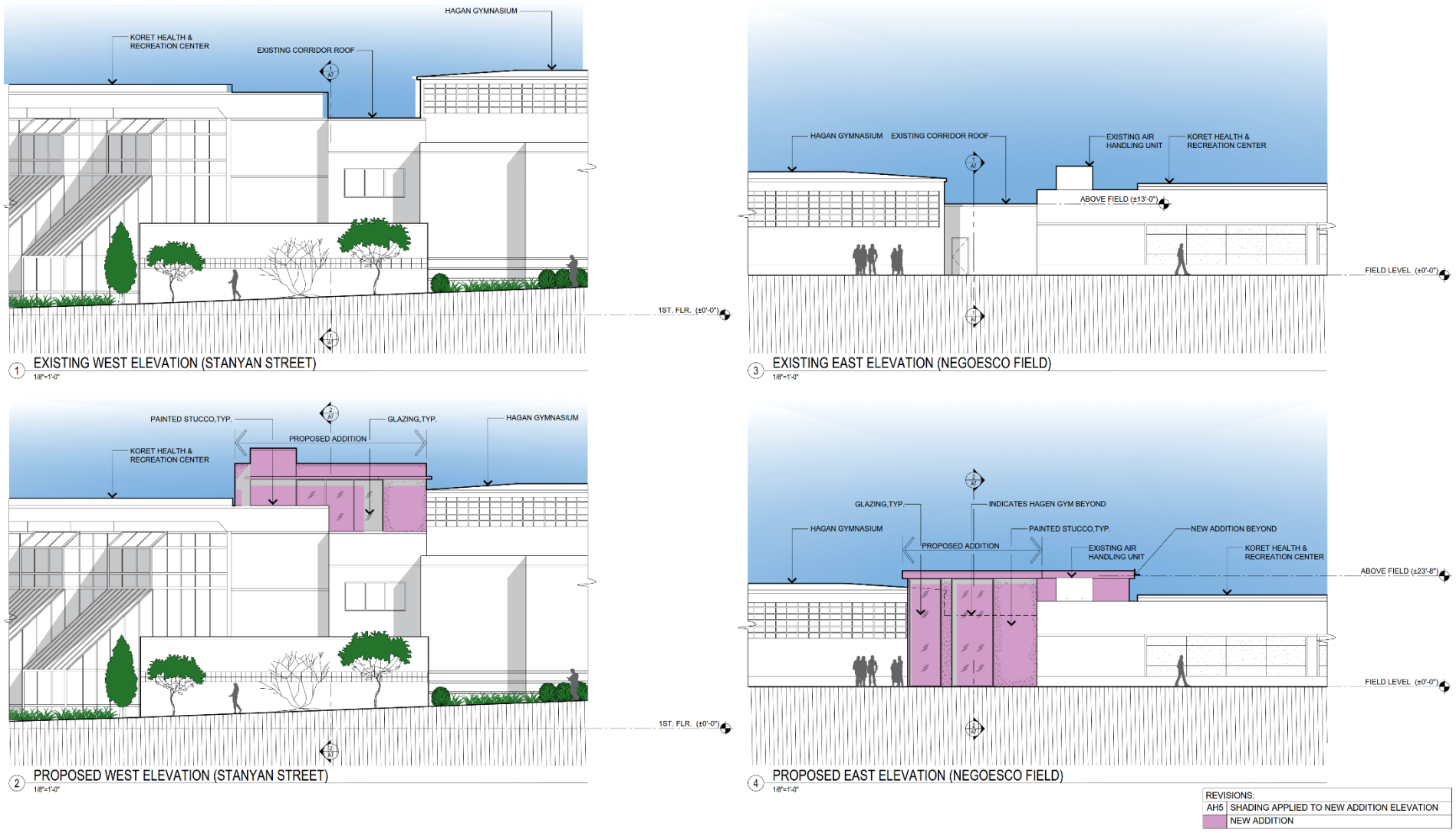


Figure 34: ROTC Program Relocation – Proposed Addition to the Second Floor of the Koret Health and Recreation Center



Source: Oculus Architects Inc., June 2017.

Figure 35: ROTC Program Relocation – Existing and Proposed Elevations



Source: Oculus Architects Inc., June 2017.

Figure 36: ROTC Program Relocation – Existing and Proposed Sections Looking North

Source: Oculus Architects Inc., June 2017.

Access and Parking

Pedestrian access to the proposed ROTC program relocation addition would be through the Koret Heath and Recreation Center or from the entryway adjacent to Negoesco Field to the east. There would not be an entrance from Stanyan Street; however, there would be an emergency exit at the western edge of the addition onto the existing roof deck. The proposed ROTC program relocation addition would not require any additional vehicle or bicycle parking spaces as the ROTC faculty and students would utilize existing vehicle and bicycle parking provided on campus.

Foundation and Excavation

As the proposed ROTC program relocation would be an addition to an existing building, no excavation would be anticipated. Drilled, cast-in-place concrete piers may be used to upgrade the existing foundations if necessary, and to support the ROTC structure where its proposed footprint would extend beyond the existing structure. No soil reinforcement would be required.

Construction Schedule

The construction activities for the ROTC program relocation addition are estimated to take approximately six months and would start in summer 2018.

Construction Staging Areas

Figure 37 shows the locations of the construction staging areas for the project components. The main construction staging area and parking for workers and equipment, to be used primarily for the construction of the student residence hall, would be located on a portion of the southeast quadrant of the Upper Campus with access from Turk Street. The construction staging area for the dining commons would be on the west side of the Lone Mountain Main Building with access from Lone Mountain Drive. The staging area for the recycling and trash facility would be located on Lo Schiavo Drive, next to the Lone Mountain North dormitory. The southern portion of the ground-level parking area next to the Koret Health and Recreation Center would serve as the construction staging area for the ROTC program relocation addition.

Figure 37: Construction Staging Areas

Source: WSP, January 2018.

Proposed Infrastructure

The proposed project would construct a flow diversion structure to four infiltration trenches with each trench estimated to contain a 4-foot gravel storage depth and a total footprint of approximately 4,400 square feet. The proposed infiltration facility and/or other approved stormwater controls would be located outside the project boundary on a parcel owned by the project sponsor, but separate from the proposed student residence hall parcel.

Proposed Circulation

The IMP adopted in August 2013 and revised in December 2016 examined existing and proposed pedestrian and vehicular circulation. The four components proposed in this project were considered in the IMP, and the IMP's planned pedestrian and vehicular circulation remain generally applicable.

Pedestrian Circulation

Proposed pedestrian circulation to the student residence hall and dining commons would be concentrated on a network of primary and secondary pedestrian routes. On the Upper Campus, the two existing primary routes, the Lone Mountain Spanish Steps at Chabot Terrace and the pedestrian route from Turk Street to Loyola Village, would be enhanced by a proposed pathway through the central paseo of the proposed student residence hall. The existing east-west pathway from the Lone Mountain Main entrance to the Underhill Building site would be extended to the proposed student residence hall and would also serve the proposed dining commons (**Figure 38**, p. 60).

The ROTC program relocation addition, located at the Koret Health and Recreation Center, would continue to be accessed by the existing pedestrian route connecting the Lower Campus to the Koret Health and Recreation Center.

Vehicular Circulation

As discussed above, vehicle parking would not be available to on-campus student residents, consistent with USF's Housing Contract parking policy,[17] which prohibits students living in campus residence halls from bringing vehicles to campus.[18]

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[17] University of San Francisco Housing Contract, Section 16, 2017-2018. Terms and Conditions of On-Campus Occupancy Housing Contract, Section 16, *https://myusf.usfca.edu/sites/default/files/1718_USF_Housing_Contract.pdf*, accessed on January 2, 2018.

Figure 39, p. 61, identifies the proposed vehicular access and routes on the project site. Vehicular access for parking and deliveries to the proposed student residence hall and its two underground garages would occur via Lone Mountain Drive, with its single one-way entrance near the intersection of Turk Street and Temescal Terrace and its two one-way exits near the intersections of Turk Street with Kittredge and Tamalpais terraces.

Vehicular access for loading and deliveries to the dining commons would occur along Lone Mountain Drive via the existing secondary vehicular route turning north off the main drive, west of the Lone Mountain Main Building. The dining commons would cater primarily to the Upper Campus community, including faculty, staff, student residents, and other students on campus for work or for classes. Those who drive would have access to permitted parking at the various parking lots on the Upper Campus.

Vehicular access for the proposed recycling and waste facility would occur via Lo Schiavo Drive on the north side of the Upper Campus, with its entry off Parker Avenue, south of Anza Street. The exit of the one-way Lo Schiavo Drive is at Anza Street, on the east side of Loyola Village.

The ROTC program relocation addition would have no direct vehicular access. Permitted parking would be available at the Koret Health and Recreation Center parking lot, accessible from Turk Street and from Parker Avenue.

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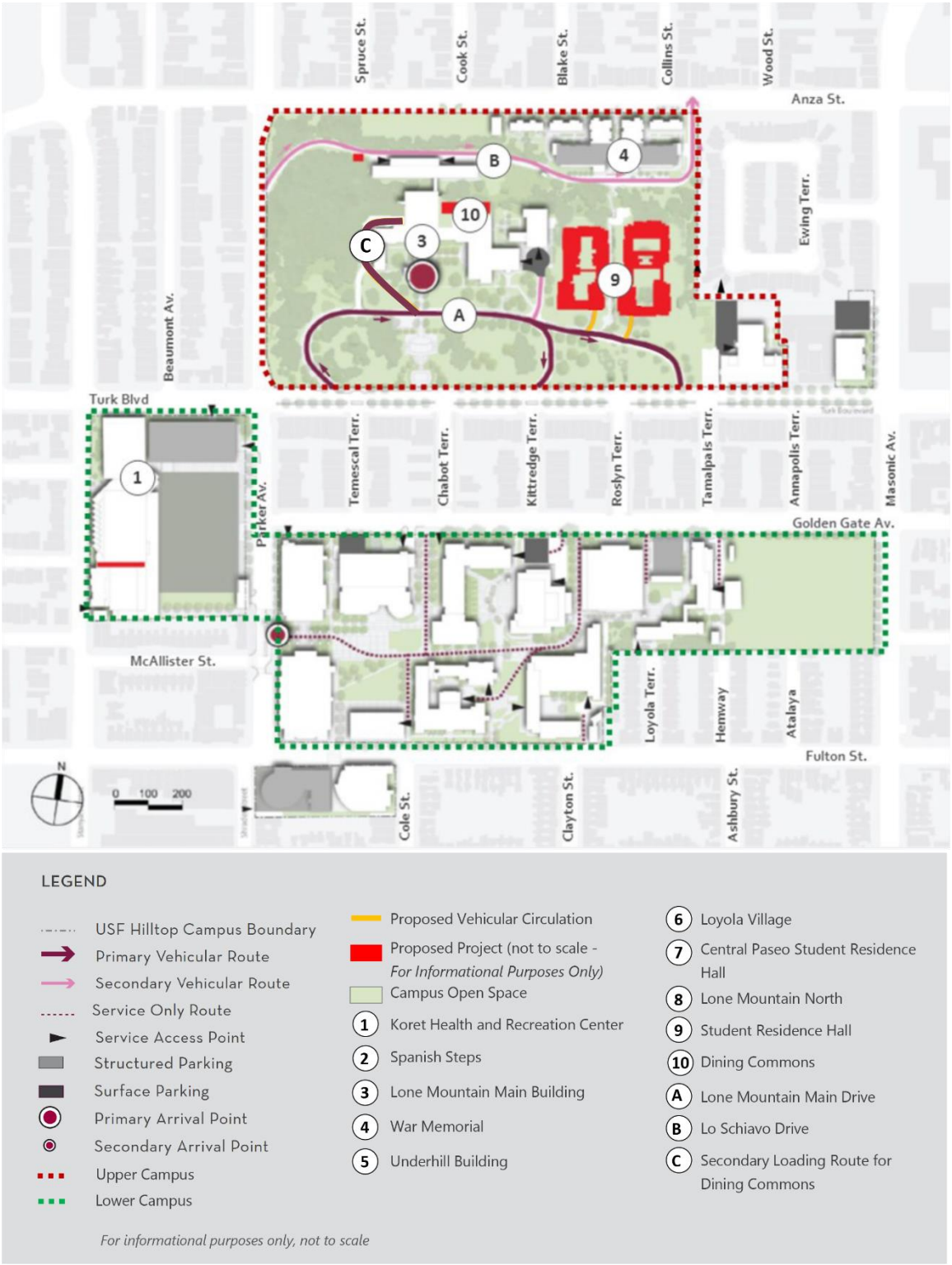
[18] University of San Francisco, *General Parking Rules and Regulation*, *https://www.usfca.edu/public-safety/parking/rules-regulations*, accessed on June 7, 2017.

Figure 38: Proposed Pedestrian Circulation

Source: University of San Francisco, *Institutional Master Plan,* August 2013, Figure 8, p.36 and adapted by WSP, June 2017.

Figure 39: Proposed Vehicular Circulation



Source: University of San Francisco, *Institutional Master Plan,* August 2013, Figure 8, p.36 and adapted by WSP, June 2017.

Project Approvals

Planning Commission

- Conditional Use (CU) authorization from the planning commission for the post-secondary educational institutional components of the project: recycling and waste facility, classrooms in the student residence hall, and dining commons and ROTC additions. CU authorization is also required for a PUD for the student residence hall, including PUD modifications to provisions related to dwelling unit density, rear yard, off-street loading, and height measurement. The CU approval would include the recycling and waste facility, dining commons, and student residence hall located at 2500 to 2698 Turk Street, and ROTC program relocation addition located at 222 Stanyan Street.

Department of Building Inspection

- Review and approval of demolition and building permits.

Department of Public Works

- Approval of a parcel map to create a new legal parcel for the proposed student residence hall site, requiring approval and processing under the city Subdivision Code.
- Approval of a waiver by the director of Public Works for the street trees requirement under Public Works Code section 806(d)(4). If a waiver is obtained, USF would pay an in-lieu fee for trees not provided.

San Francisco Public Utilities Commission

- Approval of any changes to sewer laterals (connections to the city sewer).
- Approval of a stormwater control plan that complies with the City's stormwater design guidelines.
- Approval of a landscape plan per the City's Water Efficient Irrigation Ordinance.
- Approval of an erosion and sediment control plan, in accordance with Article 4.1 of the San Francisco Public Works Code.

San Francisco Department of Public Health

- Department of Public Health review for compliance with the Maher Ordinance, article 22A of the Health Code.
- Department of Public Health review and approval of a Dust Control Plan.

Bay Area Air Quality Management District

- Review and approval of permit required for emergency generators under regulation 2, rule 5.

- Review and approval of permit required for microturbine energy system with a maximum output rating greater than 50 hp under regulation 2 rule 1.

The approval of the CU authorization including a PUD by the planning commission constitutes the Approval Action for the proposed project, pursuant to section 31.04(h)(3) of the San Francisco Administrative Code. The Approval Action date would establish the start of the 30-day appeal period for appeal of the Final Mitigated Negative Declaration (FMND) to the Board of Supervisors pursuant to San Francisco Administrative Code section 31.04(h). Appeal of the PMND to the planning commission is required to be able to appeal the FMND to the Board of Supervisors pursuant to San Francisco Administrative Code section 31.16(d).

B. PROJECT SETTING

The University of San Francisco (USF) Hilltop Campus is located in the Inner Richmond neighborhood of San Francisco, which is a predominantly residential area with commercial uses concentrated on Clement Street and Geary Boulevard, north of the project site. These moderate-scale (three-story buildings) commercial streets are located within neighborhood commercial districts, which contain a variety of neighborhood-serving retail and restaurant uses on the ground level of residential buildings. A shopping center (City Center) anchored by Target is located at the corner of Geary Boulevard and Masonic Avenue northeast of the project site. In general, the Inner Richmond neighborhood contains low-rise two- to four-story buildings on small lots.

The USF Hilltop Campus is composed of an Upper Campus and a Lower Campus. The Upper Campus is bordered by Turk Street to the south, Parker Avenue to the west, and Anza Street to the north. Land uses immediately surrounding the Upper Campus project site are primarily post-secondary educational institutional buildings owned by USF and single or multi-family residential buildings. The nearest student residences are downhill to the north at Loyola Village on Anza Street, and adjacent to the Lone Mountain Main Building. The east side of the Upper Campus is bordered by Ewing Terrace.

The Lower Campus is bordered by McAllister Street and Fulton Street to the south, Stanyan Street and Parker Avenue to the west, Turk Street and Golden Gate Avenue to the north, and Masonic Avenue to the east. Land uses surrounding the Lower Campus project site include one- to three-story single-family residential buildings to the south and west with post-secondary educational institutional buildings owned by USF to the north and east.

The proposed student residence hall, dining commons, and recycling and waste facility would be located on the Upper Campus, while the proposed ROTC program relocation addition would be sited on the Lower Campus. The student residence hall would be located east of the Lone Mountain Main Building and north of Lone Mountain Drive. The dining commons would include the existing café within the Lone Mountain Main Building and a new structure on the lawn area adjacent to the café. The recycling and waste facility would be located west of the Lone Mountain North Residence Hall along Lo Schiavo Drive. The ROTC program relocation would be an addition to the Koret Health and Recreation Center building on the portion of the Lower Campus that is bordered by Stanyan Street to the west and the Negoesco Field to the east.

The Upper Campus contains approximately 11 acres of vegetation and open spaces. The Lower Campus contains a 2-acre open space area (Welch Field), a soccer field (the Negoesco Field) located next to the Koret Health and Recreation Center, and a baseball field (Ulrich Field &

Benedetti Diamond) located at the corner of Golden Gate Avenue and Masonic Avenue. The Koret Health and Recreation Center also contains an indoor swimming pool and gymnasium. Excluding the USF Hilltop Campus property, nearby public parks and open spaces include the Laurel Hill Playground approximately 0.3 mile north of the project site, the Rossi Playground, 0.2 mile northwest of the project site, Golden Gate Park, 0.1 mile southwest of the project site and the Panhandle, 0.3 mile south of the project site.

The closest state route to the project is S.R. 1, Park Presidio Boulevard, which is located approximately 1 mile west of the project site. U.S. 101, Van Ness Avenue, is located approximately 2 miles east of the project site.

USF is centrally located in San Francisco and has access to four cross-city streets, including: Masonic Avenue, Turk Street, Fulton Street, and Geary Boulevard. The campus is well served by public transit, which connects it to the city and region. Fulton Street (Muni bus lines 5 and 5R) and Geary Boulevard (Muni bus lines 31AX, 38, 38R, 38AX, 38BX) are major transit corridors with high-frequency Muni services. Muni buses also run on Turk Street (31 and 31BX) and Masonic Avenue (Muni bus line 43) and provide express service to and from the San Francisco downtown and crosstown services. These bus lines are within a half-mile radius of the project site.

Cumulative Setting

Reasonably foreseeable cumulative development projects sponsored by USF are listed in **Table 6**, and the projects within the vicinity of the project site outside of USF property are listed in **Table 7,** p. 67. Projects listed in **Table 7** are mapped on **Figure 40**, p. 68. In addition to the cumulative projects identified in **Table 6** and **Table 7**, the following transportation infrastructure projects are also considered part of the cumulative setting:

- **Geary Corridor Bus Rapid Transit Project (A)**: This project would implement bus rapid transit improvements along a six-mile length of the Geary Corridor comprising the route to and from the Transbay Transit Center. The project will include constructing dedicated bus lanes and new bus stations, improving pedestrian conditions and access to transit, and signal upgrades.

- **USF Traffic Calming Plan (B) [IMP Project #42]**: This plan provides safer crossings and traffic calming design features—all of which would improve pedestrian conditions under cumulative conditions. The pedestrian improvements at and near the project site will include upgrades to existing crosswalks (i.e., from striped to high-visibility, continental design) at four intersections on Turk Street: Tamalpais Terrace, Chabot Terrace, Parker Terrace, and Annapolis Terrace. Along Golden Gate Avenue, there will be upgrades to

existing crosswalks at three intersections: Chabot Terrace, Parker Terrace, and Kittredge Terrace and new crosswalks at the intersections at Tamalpais Terrace, Roselyn Terrace, Annapolis Terrace, and Temescal Terrace. Upgrades to curb ramps along Golden Gate Avenue at Tamalpais Terrace, Annapolis Terrace, and Temescal Terrace would be included.

Table 6: University of San Francisco Cumulative Project List

	Title [a] [b]	*IMP Reference*	*Description* [c]
1	War Memorial Gym New West Entrance and Interior Renovation	#26	Includes seismic and MEP upgrades, relocation of the Main Building entrance to southwest side of building, in the campus interior.
2	Lone Mountain Main MEP[d] Replacement	#31	Replacement of existing heating and piping system with modern, energy efficient system for increased reliability.
3	Lone Mountain window replacement	#32	Upgrade the windows from current single-pane glazing to improve energy performance and weather protection.
4	Koret Health and Recreation Center Boiler Upgrade, Replacement	-	Replacement of Koret Recreation Center boiler with cogeneration options using microturbines.

Notes:

a. These projects can be found in the USF Institutional Master Plan (IMP).

b. Not all projects identified in the IMP were included in the cumulative analysis; projects that have not submitted applications to the planning department, and for which the project details are unknown and speculative at this time are not included.

c. The descriptions are for summary purposes only; the full descriptions are contained within the IMP.

d. MEP: Mechanical, Electrical and Plumbing additional

Sources: University of San Francisco, *Institutional Master Plan,* August 2013, *https://dgfmssnschws7.cloudfront.net/sites/default/files/pdfs/usf_complete_aug05_print.pdf*, accessed on January 17, 2018.
University of San Francisco, *2016 University of San Francisco Institutional Master Plan Update*, December 2016: *https://www.usfca.edu/sites/default/files/pdfs/dec-2-2016-institutional-master-plan-update.pdf*, accessed on January 17, 2018.

Table 7: Cumulative Projects in a Half-Mile Radius of the Project Site

	Address	*Case File No.*	*Dwelling Units*	*Office (gsf)*	*Commercial (gsf)*	*Other (gsf)*
5	4121 Geary Boulevard [a]	2014-002824ENV				
6	1950 Page Street	2014.000734ENV				27,070[b]
7	1735-1751 Fulton Street	2015-013965ENV	9		3,625	
8	2150A-2166 Hayes Street	2015-011253ENV	9			
9	2675 Geary Boulevard	2015-007917ENV			33,210	
10	3333 California Street	2015-014028ENV	558	49,999	54,117	14,690[c]
11	3637-3657 Sacramento Street	2007.1347E	18		8,883	10,863[d]
12	2670 Geary Boulevard	2014-002181ENV	121		2,300	
13	350 Masonic Avenue	2014-003090ENV				23,000[e]
14	1801 Haight Street	2017-001816ENV	7		435	1,600[f]
15	2200 O'Farrell Street	2017-008010ENV				20,400[g]
16	3700 California Street	2017-003559ENV	250			
		Totals	**972**	**49,999**	**102,570**	**97,623**

Notes:

a. This project would demolish two existing vacant buildings and replace them with landscaping and paving for an extension of an existing maintenance yard.

b. This project proposes a change of use from a community facility to a performing arts school for elementary and secondary students.

c. Other use includes child care center use.

d. Other uses include classrooms and school offices.

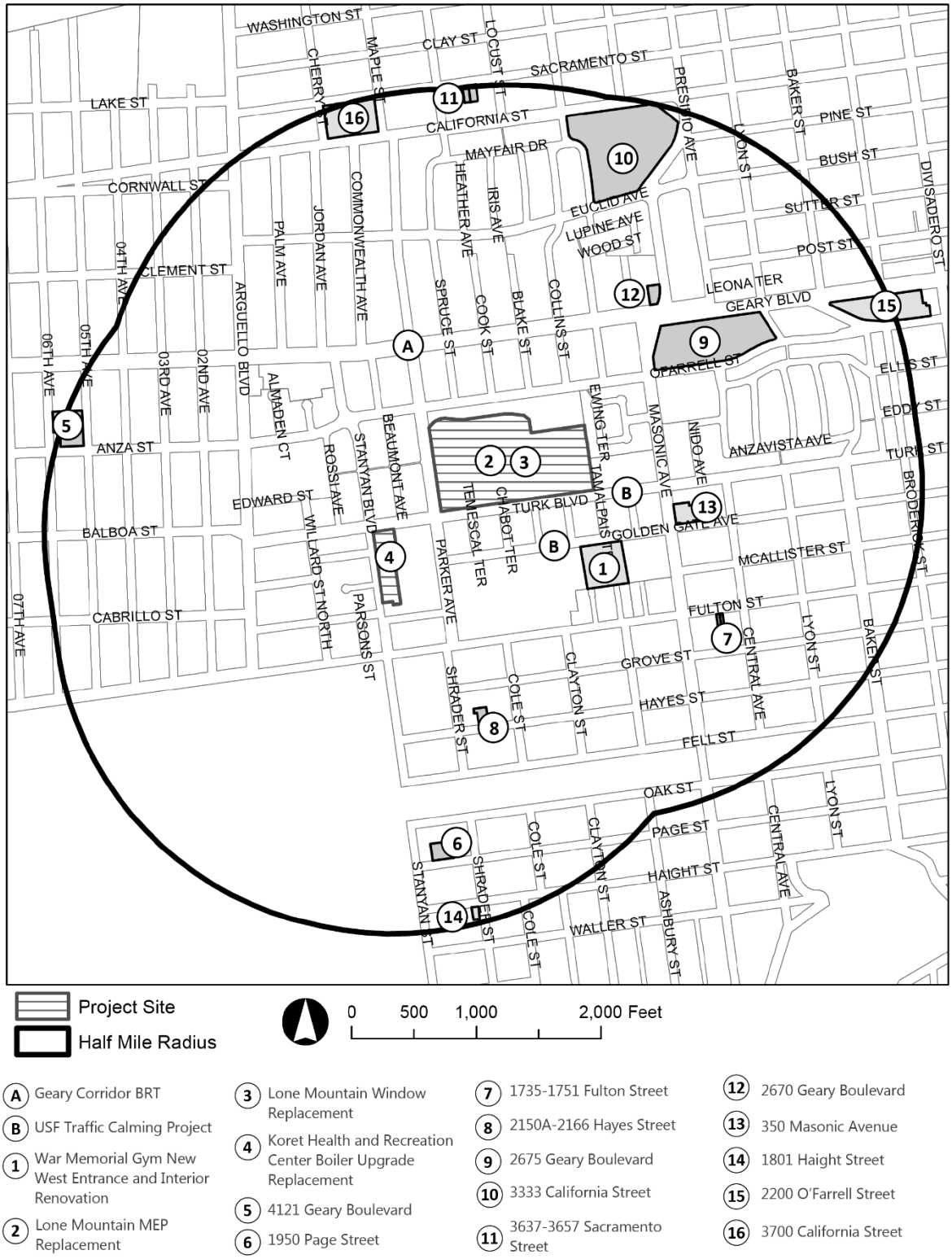
e. Other uses include classrooms and school offices.

f. Other uses include a bike storage, storage for existing Cha-Cha-Cha restaurant, and a trash room.

g. Other uses include a 10,500-square-foot orchard garden, a 2,200-square-foot patio, a 3,200-square-foot farmer's market plaza, and a 4,500-square-foot public access area.

Source: Information obtained from San Francisco Planning Department, 2017.

Figure 40: Cumulative Projects



A Geary Corridor BRT
B USF Traffic Calming Project
1 War Memorial Gym New West Entrance and Interior Renovation
2 Lone Mountain MEP Replacement
3 Lone Mountain Window Replacement
4 Koret Health and Recreation Center Boiler Upgrade Replacement
5 4121 Geary Boulevard
6 1950 Page Street
7 1735-1751 Fulton Street
8 2150A-2166 Hayes Street
9 2675 Geary Boulevard
10 3333 California Street
11 3637-3657 Sacramento Street
12 2670 Geary Boulevard
13 350 Masonic Avenue
14 1801 Haight Street
15 2200 O'Farrell Street
16 3700 California Street

Source: San Francisco GIS data and San Francisco Planning Department, 2017.

C. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	Applicable	*Not Applicable*
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.	☒	☐
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.	☒	☐
Discuss any approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from Regional, State, or Federal Agencies.	☒	☐

San Francisco Planning Code and Zoning Maps

The San Francisco Planning Code (planning code) incorporates by reference the City's zoning maps, and governs permitted uses, densities, and the configuration of buildings in San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless: 1) the proposed action conforms to the planning code; 2) allowable exceptions are granted pursuant to provisions of the planning code; or 3) legislative amendments to the planning code are included as part of the proposed project.

Allowable Uses

The project site is in the RH-2 (residential house, two family) Zoning District. As stated in the Planning Code section 209.1, the RH-2 District primarily consists of one-family or two-family houses, which are principally permitted, while institutional uses, such as USF, require a CU authorization from the planning commission.

The requirements associated with the RH-2 District are described in Planning Code section 209.1 with references to other applicable articles of the planning code as necessary (for example, for provisions concerning parking, rear yards, street trees, etc.). Within the RH-2 District, residential uses, including student housing, are principally permitted. Planning commission authorization is required for the dwelling unit density proposed for the student residence hall, which would exceed the conditionally permitted density of one dwelling unit per 1,500 square feet of lot area under Planning Code section 209.1. Additional dwelling unit density may be permitted by the planning commission as a PUD modification under Planning Code section 304 if the proposed dwelling unit density would be less than the density allowed in, as applicable here, the RH-3 (residential house, three family) Zoning District. In the RH-3 District, one dwelling unit per 1,000 square feet of lot area is conditionally permitted under Planning Code section 209.1. Accordingly, 155 dwelling units may be approved through the PUD process based on a proposed lot area of approximately 155,514 square feet. See below for other PUD modifications required under the

planning code for the proposed project. Post-secondary educational institutions and programs and services affiliated with the institutions, such as the USF academic space within the student residence hall, and the dining commons addition, the recycling and waste facility, and the ROTC program relocation addition, taken together, also require CU authorization from the planning commission (Planning Code section 209.1).

Height and Bulk

The project site is located within a 40-X Height and Bulk District. This district allows a maximum building height of 40 feet, as measured per the planning code, and has no bulk limit. The proposed student residence hall would be 40 feet tall as measured under the planning code, including a minor deviation from the provisions for height measurement on lateral slopes (Planning Code section 260) as part of the PUD modification process for the project. The maximum building height would be approximately 60 feet at the top of the roof of the approximately 20-foot ornamental tower, which is exempt from the measurement of building height under the planning code. The proposed dining commons would be a maximum 40 feet tall measured from the average slope of the ground to the average height of the rise for a pitched roof. The proposed recycling and waste facility would be approximately 37 feet tall measured from the average slope of the ground to the average height of the rise for a pitched roof. The proposed ROTC program relocation addition would be approximately 39 feet tall as measured from the ground level to the top of the roof in the case of a flat roof. Therefore, the proposed project components would comply with the 40-X District height limit.

Affordable Housing

San Francisco adopted legislation in 2010 and 2012 to incentivize the development of new student housing. City Ordinance Nos. 321-10 and 188-12 exempt qualified student housing projects from the City's inclusionary affordable housing program requirements. Accordingly, no inclusionary affordable dwelling units are included in the proposed student residence hall.

Street Trees

Planning Code section 138.1(c)(1) requires that for every 20 feet of property frontage along each street, one 24-inch box tree be planted, with any remaining fraction of 10 feet or more of frontage requiring an additional tree. The proposed student residence hall, dining commons, and the recycling and waste facility located on the Upper Campus would include 456 feet of property frontage along Turk Street. A total of 23 street trees would be required (one street tree for every 20 linear feet of frontage). Because there are three existing street trees along Turk Street, 20 net

new street trees would be required. The landscape architect has determined that nine out of the 20 net new required street trees could be located along Turk Street.[19] Not all required trees can be accommodated due to tree spacing requirements and existing utilities and street uses (water meters, Muni poles, street lights, crosswalks, and a bus stop). Public Works Code section 806(d)(4), administered by the Bureau of Urban Forestry within the Department of Public Works, provides a waiver option for the street tree requirement under these circumstances. If a waiver is obtained, USF would pay an in-lieu fee for the 11 street trees not provided. The ROTC program relocation addition located at the Koret Health and Recreation Center includes 35 feet of property frontage along Stanyan Street. There are two existing street trees on Stanyan Street. Construction would not remove the existing street trees.

Usable Open Space

Approximately 166.25 square feet of common usable open space is required for each dwelling unit in the RH-2 District under Planning Code section 135. The student residence hall site would include a total of approximately 32,513 square feet of open space in the interior courts and in the paseo between the two buildings of the student residence hall as shown on **Figure 22**, p. 34. Out of the total open space provided, approximately 26,411 square feet of common usable open space would strictly comply with Planning Code section 135(g) horizontal dimension requirements, exceeding the required 25,769 square feet of common usable open space.[20] As the proposed dining commons, recycling and waste facility and ROTC program relocation addition are non-residential uses, usable open space is not required under Planning Code section 135.

Rear Yard Requirement

Planning Code section 134(a)(2) generally requires a rear yard equivalent to 45 percent of total lot depth in the RH-2 District (approximately 69,646 square feet). Rear yards shall be provided at grade level and at each succeeding level or story of the building. The rear yard open space for the proposed student residence hall would be distributed throughout the proposed lot totaling approximately 75,827 square feet. These open spaces would include interior courtyards (15,953 square feet), the interior paseo (16,560 square feet), and other open space areas along the sides of the buildings, including landscaped areas (42,774 square feet), for a total of approximately 75,827 square feet of open space. While the student residence hall would not strictly comply with the applicable 45 percent lot depth requirement, the project is proposing more open space than would be required by the 45 percent rear yard requirement. The project sponsor is therefore

[19] The Guzzardo Partnership Inc, *Street Trees Diagram, USF Student Housing*, September 11, 2017.

[20] Calculated by multiplying 166.25 square feet x 155 dwelling units.

requesting modification of the rear yard requirement, given the unique site configuration, through the PUD process.

Vehicle Parking

Planning Code section 151 requires a minimum of one off-street vehicle parking space per dwelling unit, and one space for each two classrooms proposed for a post-secondary educational institution.[21] The proposed student residence hall would remove 78 existing surface parking spaces, and create 156 parking spaces located in two garages, for a total of approximately 78 net new parking spaces. These 156 vehicle parking spaces would satisfy the planning code requirement and would be available for faculty and staff only.

Bike Parking

For new residential buildings, Planning Code section 155.2 requires one class 1 bicycle parking space (i.e., bicycle locker or space in a secure room) for each dwelling unit up to 100 units and one class 1 space for every four dwelling units over 100 and for student housing, 50 percent more spaces than would otherwise be required. One class 2 bicycle parking space (i.e., space on a publicly accessible bicycle rack) is required for every 20 dwelling units and for student housing, 50 percent more spaces than would otherwise be required. Therefore, at least 171 class 1 bicycle parking spaces and 12 class 2 bicycle parking spaces would be required for the proposed student residence hall. The proposed project would include 171 class 1 and 23 class 2 bicycle parking, which would comply with planning code requirements. The class 1 bicycle parking spaces would be provided in a secure storage area located in the east building (93 spaces) accessible by a bike ramp next to the garage entrance and in another area in the west building (78 spaces). The class 2 bicycle spaces would be provided in the central paseo between the west and east buildings.

For post-secondary educational institution uses, Planning Code section 155.2 requires one class 1 bicycle parking space for every 20,000 square feet of occupied floor area, as defined in the Planning Code section 102, and a minimum of two class 2 spaces, with one class 2 space for every 10,000 square feet of occupied floor area. The post-secondary educational institutional components of the project would total approximately 9,250 net new square feet of occupied floor area, including the proposed academic space in the student residence hall. Six to 10 new class 2 bicycle parking spaces would be provided at Lone Mountain Main, which would exceed the planning code requirement based on the net new occupied floor area proposed. Furthermore, as explained above, 23 class 2 bicycle parking spaces would be provided as part of the student

[21] As the proposed project consists of 155 dwelling units and two classrooms, a minimum of 156 parking spaces is required for the student residence hall per Planning Code section 151.

residence hall component, and substantial overlap between student residence hall residents and dining commons patrons would be anticipated.

Loading

Planning Code section 152 requires two off-street freight loading spaces for residential and post-secondary educational institution uses greater than 200,001 square feet and less than 500,000 square feet. The proposed 205,160-square-foot student residence hall would provide two loading spaces along the north side of Lone Mountain Drive, interior to Upper Campus and located within close proximity to the garage entrances and paseo walkway and shown on **Figure 21**, p. 34. Because these off-street loading spaces would be on a separate lot from the student residence hall, the project sponsor is requesting modification of planning code section 155's requirement that off-street freight loading be provided on the same lot as the use served. The remaining uses are all below Planning Code section 152 requirements for off-street freight loading spaces. However, it should be noted that the dining commons would utilize an existing off-street service vehicle loading space on the west side of the proposed renovated area and the recycling and waste facility would be designed to accommodate campus and Recology waste and recycling hauling vehicles.

Plans and Policies

San Francisco General Plan

The general plan establishes general policies and objectives to guide land use decisions related to physical development of the city. The general plan contains 10 elements (Commerce and Industry; Recreation and Open Space; Housing; Community Facilities; Urban Design; Environmental Protection; Transportation; Air Quality; Community Safety; and Arts) that set forth goals, policies, and objectives for the physical development of the city.

A conflict between a proposed project and a general plan policy does not, in itself, indicate a significant effect on the environment within the context of the California Environmental Quality Act (CEQA). Any physical environmental impacts that could result from such conflicts are analyzed in this initial study. In general, potential conflicts with the general plan are considered by the decision-makers (normally the planning commission) independently of the environmental review process. Thus, in addition to considering inconsistencies that affect environmental issues, the planning commission considers other potential inconsistencies with the general plan, independently of the environmental review process, as part of the decision to approve or disapprove a proposed project. Any potential conflict not identified in this environmental document would be considered in that context and would not alter the physical environmental effects of the proposed project that are analyzed in this initial study.

The Accountable Planning Initiative

In November 1986, the San Francisco voters approved Proposition M, the Accountable Planning Initiative, which added section 101.1 to the planning code to establish eight priority policies. These policies are: (1) preservation and enhancement of neighborhood-serving retail uses; (2) protection of neighborhood character; (3) preservation and enhancement of affordable housing; (4) discouragement of commuter automobiles; (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; (6) maximization of earthquake preparedness; (7) landmark and historic building preservation; and (8) protection of open space. The priority policies, which provide general policies and objectives to guide certain land use decisions, contain certain policies that relate to physical environmental issues. Where appropriate these issues are discussed in the topical sections of this initial study.

The above priority policies are also incorporated into the preamble to the general plan, which is intended to be "an integrated, internally consistent and compatible statement of objectives and policies, and its objectives and policies are to be construed in a manner which achieves that intent." The priority policies "shall be the basis upon which inconsistencies in the general plan are resolved."[22] Prior to issuing a permit for any project that requires an initial study under CEQA, and prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of inconsistency with the general plan, the City is required to find that the proposed project or legislation would generally be consistent with the priority policies. As noted above, the physical environmental effects of the project as they may relate to the priority policies are addressed in the analyses in this initial study. The information contained in this initial study will be referenced as appropriate in the planning department's comprehensive project analysis and findings regarding the consistency of the proposed project with the priority policies.

Other Local Plans and Policies

In addition to the general plan, the planning code and zoning maps, and the Accountable Planning Initiative, other local plans and policies that are relevant to the proposed project are discussed below.

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[22] City and County of San Francisco, *San Francisco General Plan*, 1988, as amended through 2009. Available at *http://www.sf-planning.org/ftp/General_Plan/index.htm*.

- ***The San Francisco Sustainability Plan*** is a blueprint for achieving long-term environmental sustainability by addressing specific environmental issues including, but not limited to, air quality, climate change, energy, ozone depletion, and transportation. The goal of the San Francisco Sustainability Plan is to enable the people of San Francisco to meet their present needs without sacrificing the ability of future generations to meet their own needs.
- ***The Climate Action Plan for San Francisco:*** Local Actions to Reduce Greenhouse Emissions is a local action plan that examines the causes of global climate change and the human activities that contribute to global warming, provides projections of climate change impacts on California and San Francisco based on recent scientific reports, presents estimates of San Francisco's baseline greenhouse gas emissions inventory and reduction targets, and describes recommended actions for reducing the city's greenhouse gas emissions. The 2013 Climate Action Strategy is an update to this plan.
- ***The Transit-First Policy*** (City Charter, section 8A.115) is a set of principles that underscore the City's commitment to prioritizing travel by transit, bicycle, and on foot over travel by private automobile. These principles are embodied in the objectives and policies of the transportation element of the general plan. All City boards, commissions, and departments are required by law to implement transit-first principles in conducting the City's affairs.
- ***The San Francisco Bicycle Plan*** is a citywide bicycle transportation plan that identifies short-term, long-term, and other minor improvements to San Francisco's bicycle route network. The overall goal of the San Francisco Bicycle Plan is to make bicycling an integral part of daily life in San Francisco.
- ***The San Francisco Better Streets Plan*** consists of illustrative typologies, standards, and guidelines for the design of San Francisco's pedestrian environment, with the central focus of enhancing the livability of the city's streets.

The proposed project has been reviewed in the context of these local plans and policies and would not obviously or substantially conflict with them. Staff reports and approval motions prepared for the decision-makers would include a comprehensive project analysis and findings regarding the consistency of the proposed project with applicable local plans and policies.

Regional Plans and Policies

The five principal regional planning agencies and their overarching policy plans to guide planning in the nine-county Bay Area include the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission Plan Bay Area, the Bay Area Air Quality Management District's (air district) Bay Area 2017 Clean Air Plan, the San Francisco Regional

Water Quality Control Board's Water Quality Control San Francisco Basin Plan, and the Bay Conservation and Development Commission's San Francisco Bay Plan. The proposed project has been reviewed against these regional plans and policies, and due to its size, location, and nature, no conflicts with regional plans would occur.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The proposed project could potentially affect the environmental factor(s) checked below, for which mitigation measures would be required to reduce potentially significant impacts to less than significant. The following pages present a more detailed checklist and discussion of each environmental factor.

☐ Land Use	☐ Air Quality	☒ Biological Resources
☐ Aesthetics	☐ Greenhouse Gas Emissions	☒ Geology and Soils
☐ Population and Housing	☐ Wind and Shadow	☒ Hydrology and Water Quality
☒ Cultural Resources	☐ Recreation	☐ Hazards/Hazardous Materials
☐ Transportation and Circulation	☒ Utilities and Service Systems	☐ Mineral/Energy Resources
☒ Noise	☐ Public Services	☐ Agricultural and Forest Resources
		☐ Mandatory Findings of Significance

E. EVALUATION OF ENVIRONMENTAL EFFECTS

All items on the Initial Study Checklist that have been checked "Less than Significant with Mitigation Incorporated," "Less than Significant Impact," "No Impact" or "Not Applicable" indicate that, upon evaluation, staff has determined that the proposed project could not have a significant adverse environmental effect relating to that topic. A discussion is included for those issues checked "Less than Significant with Mitigation Incorporated" and "Less than Significant Impact" and for most items checked with "No Impact" or "Not Applicable." For all of the items checked "Not Applicable" or "No Impact" without discussion, the conclusions regarding potential significant adverse environmental effects are based upon field observation, staff experience and expertise on similar projects, and/or standard reference material available within the planning department, such as the department's Transportation Impact Analysis Guidelines for Environmental Review, or the California Natural Diversity Data Base and maps, published by the California Department of Fish and Wildlife. For each checklist item, the evaluation has considered the impacts of the components of the proposed both individually and cumulatively.

Aesthetics and Parking Analysis Senate Bill 743 and CEQA Section 21099

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. Among other provisions, SB 743 amends CEQA by adding section 21099 regarding analysis of aesthetics and parking impacts for urban infill projects.

CEQA section 21099(d) states that, "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment." Accordingly, aesthetics and parking are no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

a) The project is in a transit priority area[23]
b) The project is on an infill site[24]
c) The project is residential, mixed-use residential, or an employment center[25]

The proposed project does not meet all of the above criteria. The dining commons, recycling and waste facility, and the ROTC program relocation addition do not meet criterion c) since the components would not be a residential, mixed-use residential, or an employment center. Thus, for the purposes of a conservative analysis, the initial study considers aesthetics in determining the significance of the proposed project impacts under CEQA for all components of the proposed project. Topic 2, Aesthetics, evaluates whether the project would result in a significant CEQA impact on aesthetics. Topic 5, Transportation and Circulation, evaluates whether the project would result in a significant CEQA impact on parking.

Automobile Delay and Vehicle Miles Traveled (VMT) Analysis

In addition, CEQA section 21099(b)(1) requires that the state Office of Planning and Research develop revisions to the CEQA guidelines establishing criteria for determining the significance of

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[23] According to SB 743, a "transit priority is defined in as an area within one-half mile of an existing or planned major transit stop. A "major transit stop" is defined in Section 21064.3 of the California Public Resources Code as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods."

[24] According to SB 743 an "infill site means a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses."

[25] According to SB 743, an "employment center project means a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area."

transportation impacts of projects that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." CEQA section 21099(b)(2) states that upon certification of the revised guidelines for determining transportation impacts pursuant to CEQA section 21099(b)(1), automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment under CEQA.

In January 2016, the State Office of Planning and Research published for public review and comment a Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA[26] recommending that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. On March 3, 2016, in anticipation of the future certification of the revised CEQA guidelines, the San Francisco Planning Commission adopted the State Office of Planning and Research's recommendation to use the VMT metric instead of automobile delay to evaluate the transportation impacts of projects (resolution 19579). (Note: the VMT metric does not apply to the analysis of impacts on non-automobile modes of travel such as riding transit, walking, and bicycling.)

Accordingly, the initial study does not contain a discussion of automobile delay impacts. Instead, a VMT and induced automobile travel impact analysis is provided in Topic 5, Transportation and Circulation. The topic of automobile delay, nonetheless, may be considered by decision-makers, independent of the environmental review process, as part of their decision to approve, modify, or disapprove the proposed project.

[26] Governor's Office of Planning and Research, Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA - Implementing Senate Bill 743 (Steinberg, 2013), January 22, 2016, *http://www.opr.ca.gov/docs/Revised_VMT_CEQA_Guidelines_Proposal_January_20_2016.pdf,* accessed on November 8, 2017.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
1. LAND USE AND PLANNING. Would the project:					
a) Physically divide an established community?	☐	☐	☒	☐	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐	☐

Impact LU-1: The proposed project would not physically divide an established community. (Less than Significant)

The division of an established community would typically involve the construction of a physical barrier to neighborhood access, such as a new freeway or the removal of a means of access, such as a bridge or a roadway. The proposed project would be incorporated into the existing USF Hilltop Campus configuration and would add new pedestrian access to enhance connectivity within the campus. The proposed project would not alter the established street grid or permanently close any streets or impede pedestrian or other travel through the neighborhood. Although the sidewalk on the north side of Turk Street from the Lone Mountain Drive central driveway to the eastern-most driveways would be closed during construction of the student residence hall, these closures would be temporary and public access to Lone Mountain Drive by the west and central entrances would be retained during construction.

The proposed project would intensify the use of the project site, but would not alter the general land use pattern of the immediate area, which already includes a mix of institutional and residential buildings that characterizes the surrounding established community. The surrounding uses and activities would remain and they would interrelate with each other as they do currently. They would not be affected substantially by the proposed project.

Accordingly, the proposed project would not disrupt or physically divide an established community. Therefore, the project would have a ***less-than-significant impact*** with respect to physically dividing an established community. No mitigation is required.

Impact LU-2: The proposed project would not conflict with any applicable land use plans, policies or regulations of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

Land use impacts are considered to be significant if the proposed project would conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Environmental plans and policies are those, like the Bay Area Air Quality Management District Bay Area 2017 Clean Air Plan, which directly address environmental issues and/or contain targets or standards, which must be met in order to preserve or improve characteristics of the city's physical environment. As discussed in Section C, Compatibility with Existing Zoning and Plans, (pp. 69 through 77), the proposed project would not obviously or substantially conflict with any such adopted environmental plan or policy. Furthermore, the proposed project would not conflict with the San Francisco General Plan policies that relate to physical environmental issues. Therefore, the proposed project would have a ***less-than-significant*** impact with regard to consistency with existing plans, policies, and regulations. No mitigation is required.

Impact C-LU-1: The proposed project would not make a considerable contribution to any cumulative significant land use impacts. (Less than Significant)

Cumulative development projects sponsored by USF and the projects within the project vicinity (within a 0.5-mile radius of the project site) that are either under construction or for which the planning department has an environmental evaluation application on file are listed and discussed in Section B, Project Setting. **Table 6,** p. 66 and **Table 7**, p. 67 identify and **Figure 40**, p. 68 shows the cumulative development projects in the vicinity of the project site. Developing these projects would intensify land uses in certain locations within the project vicinity as shown on **Figure 40**, p. 68. Although these development projects would introduce new infill, residential, commercial, and institutional uses in the project vicinity, these uses currently exist in this area. Therefore, the proposed project, as well as nearby cumulative development projects would not introduce any incompatible uses that would divide an established community. Accordingly, the proposed project, in combination with past, present, and reasonably foreseeable future projects, would result in a ***less-than-significant*** cumulative land use impact. No mitigation is required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
2. AESTHETICS. Would the project:					
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐	☐

Impact AE-1: The proposed project would not have a substantial adverse effect on a scenic vista. (Less than Significant)

Scenic vistas are views from public areas that generally encompass a wide area with long-range views to surrounding elements in the landscape. Scenic vista views are often of local and regional value. Such views are often visible because of a flat landscape with little vegetation or an elevated viewing point that allows for views out and over the surrounding landscape. Vistas also have a directional range, which is to say that some viewpoints have scenic vistas with a 360-degree view in all directions, while others may be limited in one direction in a manner that reduces the line-of-sight, angle, and amount of vista that is visible.

There are no officially designated scenic vistas from the USF Hilltop Campus or from areas surrounding the campus, however, corridor views along certain local streets, are recognized as notable resources in the urban design element of the San Francisco General Plan,[27] due to the quality of views they provide. The city streets within close proximity to the project that were identified include Turk Street, Stanyan Street, and Masonic Avenue. Views along these streets include corridor views to distant vistas framed by surrounding urban development and limited

[27] City and County of San Francisco, *San Francisco General Plan, Urban Design Element, Map 1-3, http://generalplan.sfplanning.org/I5_Urban_Design.htm*, accessed on January 17, 2018.

only by topography, as well as views of important buildings or landmarks that define the urban environment.

The proposed student residence hall, dining commons, and recycling and waste facility would not cross into public rights-of-way and are completely sited on private USF property away from Turk Street and Masonic Avenue. Therefore, the proposed project components would not have the potential to block views along these streets. The proposed ROTC program relocation addition would be located above the natatorium portion of the Koret Health and Recreation Center. Therefore, the proposed addition would not encroach on the public right-of-way, and would not have the potential to block views along Stanyan Street. The project components are designed to be consistent with the existing height profile of nearby buildings and features, and would be located within existing campus boundaries, and therefore would not impact those existing notable views or the quality of the corridor views. The project would not impact views of important buildings (e.g., City Hall) or landmarks (e.g., the Golden Gate Bridge) from elevated locations on campus or from within the surrounding community. The proposed project would not have a substantial adverse effect on a scenic vista. The impact would therefore be ***less than significant***. No mitigation is required.

Impact AE-2: The proposed project would not damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. (Less than Significant)

A scenic resource is a site, object, or landscape feature that contributes to the visual character of the surrounding area or is important because of its visual characteristics or scenic qualities. Scenic resources are elements in the environment such as topographic features, trees, rock outcroppings, or other features of the built or natural environment that contribute to a scenic public setting. Scenic resources may be protected by federal, state, or local regulations or highly valued by the local community. The San Francisco General Plan and the planning code do not specifically identify any USF Hilltop Campus buildings or features as landmarks, and there is no part of the USF Hilltop Campus that falls within a special use or historic preservation district (i.e., article 10 or 11 districts). There are also no listed landmark or significant trees within the project area.

The proposed student residence hall, dining commons, recycling and waste facility, and ROTC program relocation addition would be located entirely within the existing campus environment. The student residence hall, which would represent a more intense use than what currently exists, would require the removal of the existing Underhill Building (**Figure 41**), a surface parking lot known as the Loyola Lot (**Figure 42**), two regulation-size tennis courts (**Figure 43**, p. 85), and approximately 75 trees. In addition, the proposed infiltration facility would remove grass and

vegetation outside the project boundary, south of the proposed student residence hall. These uses would be replaced by two new two- to four-story buildings and approximately 81 new trees.

The Underhill Building was constructed in 1948 and is currently used by USF for its ROTC program and a youth development program. None of the trees that would be removed are landmark, significant, or street trees.

Figure 41: Underhill Building (future student residence hall location) looking north towards the tennis courts

Source: WSP June 2016.

Figure 42: Loyola Lot Parking (future student residence hall location) looking south towards Turk Street

Source: WSP, June 2016.

Figure 43: Tennis Courts (future student residence hall location) looking northwest

Source: WSP, June 2016.

The proposed dining commons would be located northwest of the proposed student residence hall, on a site currently occupied by the Wolf & Kettle Café, which is within the Lone Mountain Main Building. Just east of the Lone Mountain Main Building is an undeveloped lawn area upon which the expanded dining facility's pavilion building would be constructed (**Figure 44**).

Figure 44: Lawn Area (future dining commons pavilion location) east of Lone Mountain Main Building looking west

Source: WSP, June 2016.

The proposed recycling and waste facility would be located northwest of the Lone Mountain Main Building in the Upper Campus' northwest quadrant and would be sited on a vacant area removed from off-campus neighbors (**Figure 45**). The proposed site is near an access ramp that would be modified to accommodate the new facility.

Figure 45: Lone Mountain Main Building (future recycling and waste facility location) northwest corner looking west

Source: WSP, June 2016.

The proposed ROTC program relocation addition would be located on a 2-acre, flat and rectangular portion of the Lower Campus as an addition to the Koret Health and Recreation Center adjacent to Negoesco Field (**Figure 46**). Approximately 550 square feet of the total addition would extend beyond the Koret Health and Recreation Center's current footprint, interior to the campus and adjacent to Negoesco Field. The remainder would be constructed on the existing roof of the one-story natatorium portion of the Koret Health and Recreation Center.

Figure 46: View of Koret Health and Recreation Center (future ROTC Program location)

Source: WSP, August 2017.

Implementing the project would remove existing trees from the proposed student residence hall, dining commons, and recycling and waste facility sites. None of the trees that would be removed are landmark, significant, or street trees. The preservation of trees and the addition of replacement trees and street trees have been incorporated to the extent feasible for the project to reduce potential impacts resulting from tree removal; refer to the landscaping plan (see **Figure 23**, p. 36). Trees removed as part of the project would be replaced with species that blend in with the surrounding trees as stated in the project description and Topic 13, Biological Resources. The project proposes additional trees and new landscaping between the Ewing Terrace neighborhood and the student residence hall to create a visual buffer and to reduce visibility of the student residence hall from Ewing Terrace and visibility of Ewing Terrace residences from the student residence hall.

Overall, the proposed project would not damage existing resources or affect the overall scenic setting of the campus which lends to the recreational and social opportunities of the campus for the USF community and neighborhood residents. The student residence hall, dining commons, recycling and waste facility, and ROTC program relocation addition would be additions to or replacement of existing campus facilities and would not damage or otherwise alter existing resources that contribute to the existing scenic character and quality of the campus environment.

The preservation of trees and the addition of replacement trees have been incorporated into the landscaping plans to the extent feasible for the project to reduce potential impacts resulting from tree removal. Trees removed as part of the project would be replaced with appropriate species that blend in with the surrounding trees. Replacement trees would not be the same size and maturity than the existing trees; however, this impact would still be ***less than significant***. No mitigation is required.

Impact AE-3: The proposed project would not have a substantial adverse effect on the visual character or quality of the site and its surroundings. (Less than Significant).

The USF Hilltop Campus is located on approximately 55 acres between the Golden Gate Bridge and Golden Gate Park. The Upper Campus is located on Lone Mountain, one of San Francisco's major geographical features. Views from the Upper Campus extend to Golden Gate Park, the Presidio and the Golden Gate Bridge. Large mature trees located on campus are a prominent visual feature seen from nearby streets; however, landscape quality varies across the campus, especially on the edges of campus.

The Upper Campus was designed in traditional campus form, with wide lawns and trees spread out along Turk Street, framing buildings built in a neo-traditional southern European style and providing a dramatic sense of arrival. Open space is a defining characteristic of the Upper Campus, and against the backdrop of the built urban environment, the Upper Campus provides the USF community and neighborhood residents with recreational opportunities and a sense of visual openness and spaciousness.

Topography is also a defining characteristic of the USF Hilltop Campus, with the Upper Campus being approximately 150 feet higher than the Lower Campus, creating opportunities for dramatic siting of buildings. The Lone Mountain Main Building is a visually prominent feature of the Hilltop Campus because of its placement on the Upper Campus. The stairway and entry arch leading from Turk Street to the Upper Campus define the Hilltop Campus entrance and provide a unique entry experience. Upper Campus architecture is composed of primarily two- to four-stories-tall buildings. Lower Campus buildings provide a range of architectural styles including the eclectic "Jesuit Baroque" style complementary of the Saint Ignatius Catholic Church, the complementary traditional styles of the first USF buildings like Campion Hall, and subsequent buildings with more restrained contemporary style.[28] Lower Campus buildings face towards the

[28] University of San Francisco, *University of San Francisco Institutional Master Plan*, August 2013, p. 28, *https://www.usfca.edu/sites/default/files/pdfs/usf_complete_aug05_print.pdf*, accessed on November 8, 2017.

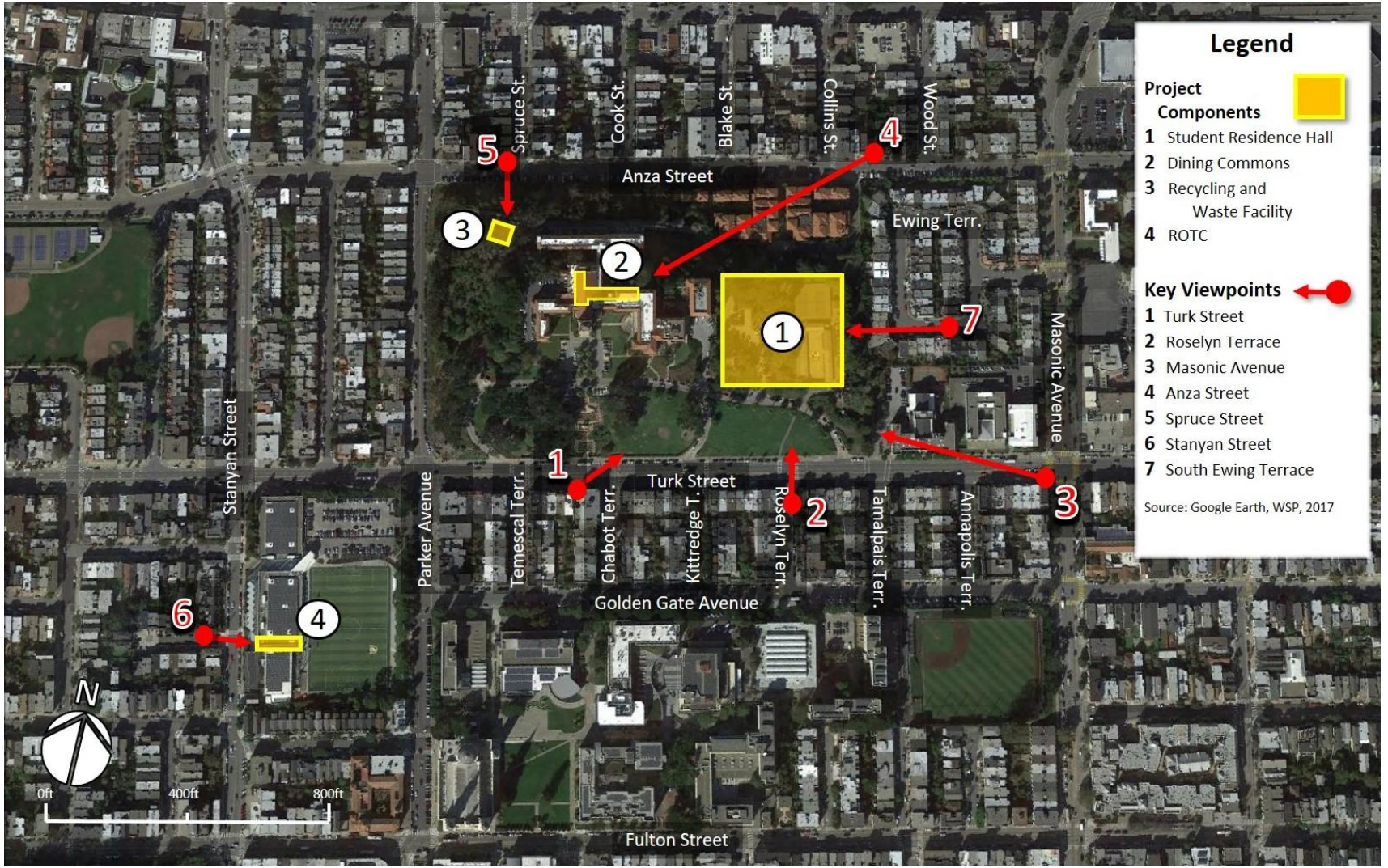
campus center rather than outward toward the neighboring community. Visitors cannot easily see into the Lower Campus core from the street.

The project's effect on existing visual character and quality includes consideration of the character of the proposed project relative to the existing visual environment and how the site user (student, employee, or visitor) would experience the visual environment under existing and with-project conditions. Building size (height and bulk) is one factor in the consideration of visual character. Another consideration is the pattern of development as it relates to existing site uses. The proposed project would continue the pattern of a post-secondary educational institutional use within a mixed-use neighborhood. The project components would be constructed on the already developed Upper and Lower campuses, and the proposed residential and post-secondary educational institutional uses would be consistent with the existing uses on the USF Hilltop Campus.

To facilitate the analysis of the project's effect on the visual character and quality of the campus, seven key views were selected to illustrate potential impacts, particularly as they relate to each of the project components (i.e., each of the building additions on campus) (**Figure 47**). The use of key views and simulations helps to show the visual effects of the proposed changes and clearly demonstrates the visual effects of those changes. The key views were chosen based on their proximity to each of the project components, sensitivity of views (e.g., public views) and notable views as identified by local urban design policies.

The following section describes and illustrates the existing views, visual quality, and character of each key view for use in comparing photo simulations of the proposed project within the visual context of the project.

Figure 47: Location of Key Views



Source: Google Earth, WSP, December 2017.

Key View #1 (**Figure 48** and **Figure 49**) shows the existing and proposed views of the student residence hall looking northeast from Turk Street near Chabot Terrace. The view shows the project site for the proposed student residence hall and is just east of the Upper Campus entry with its iconic stairs (Spanish Steps), arch, and Lone Mountain Main Building entrance. The east wing of the Lone Mountain Main Building can be seen through the surrounding trees. The Underhill Building, Loyola parking lot, and tennis courts, which the proposed student residence hall would replace, cannot be seen from this location. Turk Street is considered a street "important to urban design and views," as well as "important for the quality of views" and "sources of light, air and open space."[29] The San Francisco General Plan identifies Turk Street along the entire length of the campus as important for these qualities. Views of the Upper Campus open space, trees, iconic structures, and street-corridor horizon views lend themselves to the perception of the city and the importance of views from this street.

As seen in the photo simulation (**Figure 49**), the student residence hall would have a similar urban character and complementary architectural style and landscaping to the existing campus buildings and landscaped areas. To reduce the building mass, the student residence hall would be constructed of visually distinct components ranging from two to four stories, at a maximum height of 40 feet. The scale is consistent with the scale of the Upper Campus and the surrounding neighborhood. The aesthetic style of the buildings would complement the southern European style of the other Upper Campus buildings.

The proposed student residence hall would have minimal impact on the existing views from this location. The building would not block corridor views along Turk Street or degrade existing open space at this location. The building would not block views of iconic structures on or around the campus. The proposed student residence hall is somewhat obtrusive from this viewpoint; however, it would blend into the existing campus environment.

[29] San Francisco General Plan, Urban Design Element Maps 1-3 show that Turk Street falls within the locations identified for their important urban design resources (i.e., Visually Prominent Landscaping, Landscaping and Lighting, and Sources of Light, Air, and Open Space.).

Figure 48: (Key View 1) Existing View of the Student Residence Hall from Turk Street (South Side)

Source: University of San Francisco, April 2017.

Figure 49: (Key View 1) Proposed View of the Student Residence Hall from Turk Street (South Side)

Source: MVE+Partner, June 2017.

Key View #2 (**Figure 50** and **Figure 51**) shows the existing and proposed views of the student residence hall looking north from Turk Street near Roselyn Terrace. This view encompasses the open lawn area east of Lone Mountain and a path leading to the Underhill Building, which is visible just beyond the trees that frame the open lawn. This view also represents views along Turk Street that lend to the image of the city and are important for their scenic quality.

As seen in the photo simulation (**Figure 51**) with the proposed student residence hall, the building would add visible urban elements to the existing open space. Despite the addition, the structure would not affect corridor views along Turk Street or block views across the open lawn. The scale and height of the structure would be consistent with the Lone Mountain Main Building and would not degrade the important visual qualities associated with Turk Street at this location (i.e., visual openness and spaciousness).

Figure 50: (Key View 2) Existing View of the Student Residence Hall from the East Sidewalk of Roselyn Terrace

Source: University of San Francisco, April 2017.

Figure 51: (Key View 2) Proposed View of the Student Residence Hall from the East Sidewalk of Roselyn Terrace

Source: MVE+Partner, June 2017.

Key View #3 (**Figure 52**) shows the existing and proposed view towards the proposed student residence hall from the corner of Turk Street and Masonic Avenue, east of Key View #2. The view extends west up Turk Street and encompasses the School of Education, Sisters of the Presentation, and Professional Studies buildings. The trees surrounding the Lone Mountain Main Building and the lawn leading up to it are visible just beyond the buildings. As seen in **Figure 52**, the area proposed for the student residence hall would not be visible from this location. The proposed structure would not affect corridor views or the visual openness along Turk Street.

Figure 52: (Key View 3) Existing and Proposed View of the Student Residence Hall (Not Visible) from the Southwest Corner of Turk Street and Masonic Avenue

Source: University of San Francisco, April 2017.

Key View #4 (**Figure 53** and **Figure 54**) shows the existing and proposed views of the dining commons from Anza Street between Wood Street and Collins Street looking southwest towards Loyola Village Housing. This view includes corridor views along Anza Street, the enhanced streetscape in front of Loyola Village, the colorful and well-articulated Loyola Village residential building, and just beyond the residential building, the Lone Mountain Main Building, including a glimpse of the spires associated with the Lone Mountain Main Building. Anza Street is not a street identified as important for urban design, views, or open space.

The dining commons pavilion building would be architecturally composed of a simple concrete, steel-and-glass structure that would be northeast of the existing café (**Figure 54,** p.98). The lower north and south elevations would be cast-in-place concrete with limited openings onto existing residential and academic buildings. The dining commons would consist of four large areas constructed as glass storefront systems, with large window areas facing northeast to take advantage of hillside and city views. The proposed dining commons would be integrated into the

existing Lone Mountain Main Building and would not block views along Anza Streets or change the general character of the existing visual environment.

Figure 53: (Key View 4) Existing View of the Dining Commons from Anza Street between Collins Street and Wood Street

Source: University of San Francisco, April 2017.

Figure 54: (Key View 4) Proposed View of the Dining Commons from Anza Street between Collins Street and Wood Street

Source: Field Paoli, April 2017.

Key View #5 (Figure 55 and Figure 56) shows the existing and proposed views of the recycling and waste facility looking south from Anza Street near Spruce Street. The view is primarily of street parking along Anza Street and the trees and vegetation covering the hillside leading to the Lone Mountain Main Building. The building is partially visible through the trees. Anza Street is not a street identified as important for urban design, views or open space.

The recycling and waste facility would be constructed with materials to complement adjacent buildings. The exterior elevations of the building would have cement stucco textured finish, extended eves and soffit, and a roofing system with form and finishes similar to the adjacent campus buildings.

As shown in the photo simulation (**Figure 56**) the proposed recycling and waste facility would be integrated into the existing facility site and would only be slightly visible from Anza Street. Views along Anza Street and surrounding residential streets would not be blocked. The proposed facility would fit the existing character of the campus and would not degrade the quality of views from this location.

Figure 55: (Key View 5) Existing View of the Recycling and Waste Facility from the Northeast Corner of Anza Street and Spruce Street

Source: University of San Francisco, April 2017.

Figure 56: (Key View 5) Proposed View of the Recycling and Waste Facility from the Northeast Corner of Anza Street and Spruce Street

Source: Oculus Architects Inc., March 2017.

Key View #6 (Figure 57 and **Figure 58)** shows the existing and proposed views of the ROTC program relocation addition from Stanyan Street near Paramount Terrace looking southwest towards the Koret Health and Recreation Center. The view shows the proposed site for the ROTC program relocation addition, which would be located above the natatorium portion of the existing Koret Health and Recreation Center, adjacent to the Hagan Gymnasium. The view is of the west side of the Koret Health and Recreation Center showing limited setbacks, landscaping or building articulation. The buildings appear slightly industrial in nature in contrast to the surrounding residential buildings.

The proposed ROTC program relocation addition would be integrated into the existing Koret Health and Recreation Center (**Figure 58)**. The proposed structure would be one- to two stories in height. The exterior walls would be a stucco textured finish painted to match with existing building elevations. All proposed external windows and door frames would be anodized aluminum to match by color and finish of those on the existing building. The building would have a roof with parapet and a perimeter metal flashing cap to match the roofs of the existing Main Building. The flat roof section of the proposed addition would be covered in a monolithic patented sheet roofing system to match the current flat roof sections of the existing building. The addition would be compatible with the character and scale of the existing campus buildings and would blend with the existing character and quality of structures within this view. The proposed addition would not change the existing visual character of views from this location.

Figure 57: (Key View 6) Existing View of the ROTC Program Relocation Addition from the Northwest Corner of Stanyan Street and Paramount Terrace

Source: University of San Francisco, April 2017.

Figure 58: (Key View 6) Proposed View of the ROTC Program Relocation Addition from the Northwest Corner of Stanyan Street and Paramount Terrace

Source: Oculus Architects Inc., March 2017.

Key View #7 (Figure 59 and **Figure 60)** shows the existing and proposed views of the student residence hall looking west from the public right-of-way within the Ewing Terrace residential neighborhood located east of the Upper Campus, specifically from the southeast corner of the Ewing Terrace cul-de-sac. The existing view includes mature vegetation that defines the edge of campus and partially screens views of the Lone Mountain Main Building. The student residence hall would replace the existing Underhill Building, Loyola parking lot, and tennis courts.

The student residence hall would represent a more intense use than currently exists; however, it would replace existing campus uses and would not convert open space to university facilities. To reduce the building mass, the student residence hall would be broken up into two components: the east building and west building. The scale would be consistent with the scale of the Upper Campus. The student residence hall buildings would step down the slope, fitting within the land form, and would be set back from the public right-of-way and therefore would not affect the open setting of the campus. The structure would not block views currently visible from the Ewing Terrace public right-of-way. The proposed student residence hall would minimally affect existing views from the Ewing Terrace public right-of-way, in large part due to the steep hill on which the student residence hall would be located **(Figure 60)**. The project proposes additional trees and new landscaping between the Ewing Terrace neighborhood and the student residence hall to create a visual buffer and to reduce visibility of the student residence hall from Ewing Terrace residences. The rendering in **Figure 60** below is shown with the existing foliage; although trees would be removed, it would not change the overall foliage and view from Ewing Terrace.

Figure 59: (Key View 7) Existing View of the Rossi Wing from Ewing Terrace

Source: University of San Francisco, November 2017.

Figure 60: (Key View 7) Proposed View of the Student Residence Hall from Ewing Terrace

Source: MVE+Partner, November 2017.

The proposed project components (student residence hall, dining commons, recycling and waste facility, and ROTC program relocation addition) would include expansions or replacements of existing post-secondary educational institutional uses on the USF Hilltop Campus within proximity to other post-secondary educational institutional buildings, which would be consistent and compatible with the existing uses. The height and massing of the proposed project components also would be in keeping with the existing character of the post-secondary educational institutional buildings on the USF Hilltop Campus and in the vicinity. All the proposed project components would be designed to be compatible with the character, use, and scale of existing USF Hilltop Campus buildings, as well as the surrounding neighborhood. The proposed project components would not substantially affect the existing visual character or quality of views within or of the campus or the sense of visual openness and spaciousness that contributes to the campus setting. The impact would be ***less than significant***. No mitigation is required.

Impact AE-4: The proposed project would not create a substantial adverse effect on light and glare. (Less than Significant)

Existing sources of illumination on campus include lighting along roadways and pathways, safety lighting, and lighting on and within buildings. General sources of urban lighting off

campus include street lights, intersection signalization, residential lighting, and some limited commercial lighting.

Most of the proposed project would be an extension of existing uses on campus that already represent sources of light and glare; including the dining commons, the recycling and waste facility, and the ROTC program relocation addition. The proposed student residence hall would create a new use with associated light and potential glare. Sources of light would include interior lighting, exterior safety lighting, and pathway lighting. Sources of glare may include windows, exterior facades, and paving. Lighting associated with all project components would be similar in nature to what currently exists on campus. Exterior lighting would be limited to what is necessary for safety and would primarily be directed downward or towards areas needing illumination. To reduce potential glare impacts, landscaping and replacement plantings would be used to screen uses and reduce potential glare.

The project is located in an urban environment that includes substantial sources of light and glare and is not expected to increase the intensity or amount of illumination that currently exists. Per San Francisco Planning Commission resolution no. 9212, the proposed project would be prohibited from the use of highly reflective or mirrored glass in new construction. Additionally, the proposed project would be required to adhere to San Francisco Planning Code section 139, which addresses topics such as light and glare minimization through building façade treatments in the context of bird safety. Section 139 requires 90 percent of glazing in the Bird Collision Zone (i.e., 60 feet above grade, plus 60 feet above an adjacent vegetated roof, 2 acres or larger) to be treated (i.e., fritted, stenciled, frosted, or covered with netting, screens, grids, or bird-visible ultraviolet patterns, as defined in section 139). The Bird-Safe Building Ordinance specifies façade treatments for glazing and lighting design, as outlined above. Areas that represent a high potential for glare and light include those that are facing the sun or which are in the path of vehicle lights. Most of the proposed project components are located within the interior of the campus and would include replacement plantings to reduce potential glare or visibility from exterior locations. The ROTC program relocation addition would not include street-facing windows or highly reflective materials. Implementation of the city's Planning Commission resolution no. 9212 and Planning Code section 139 would ensure that all light and glare impacts on surrounding areas would be ***less than significant.*** No mitigation is required.

Impact C-AE: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area would not have a significant cumulative impact on visual character or the quality of scenic vistas or public view corridors and would not cumulatively contribute to new sources of light, glare, or shadows. (Less than Significant)

As discussed in the Section B, Project Setting, cumulative projects include ongoing campus facility improvements of the USF Hilltop Campus as detailed in **Table 6**, p. 66, as well as residential, office and commercial development projects in the vicinity, shown in **Table 7**, p. 67. These development projects may result in changes to the existing visual environment and may result in limited effects on identified visual resources. However, the projects would be required to be reviewed for compliance with local policies and guidelines for compatibility of design with existing visual character of the urban environment. These policies also focus on protecting structures, sites, and trees of special character and/or history; and conserving protected trees; protecting significant visual features, and the aesthetic value of urban character. Local policy objectives address aesthetics and visual resources and identify areas of particular scenic value and therefore guide design of new development and work to maintain the desired character and quality of the existing urban environment. In addition, the proposed project improvements would be consistent with these policies and therefore would not have a significant impact on visual character or the quality of scenic vistas or public view corridors.

The USF Hilltop Campus is located in a dense urban setting adjacent to commercial retail, residential neighborhoods, and offices that emit relatively high levels of ambient nighttime lighting. Streets around and on the campus would also have existing forms of street lights along sidewalks, and existing buildings would also emit light from windows and building entrance lights. Vehicle lighting on the roads would also be an existing source of light and glare in the area. Glare is a common phenomenon due mainly to the occurrence of a high number of days per year with direct sunlight and the highly urbanized nature of the region, which result in a large concentration of potentially reflective surfaces, such as windows and vehicles. The other cumulative projects would involve redevelopment or infill of urban sites that already generate light and glare or receive light and glare from surrounding existing sources. Therefore, these buildings are not anticipated to be large enough in scale to result in a substantial increase in nighttime lighting and glare conditions in the area. The proposed project components are all located within close proximity to existing sources of light and glare. New structures would be designed to minimize reflective surfaces consistent with Planning Code section 139. The project would include replacement plantings to reduce potential glare and limit visibility from adjacent uses, which would reduce potential light spill-over. The proposed project would be required to comply with Planning Commission resolution 9212 and Planning Code section 139, which would ensure that the project's impact related to light and glare is less than significant.

Therefore, cumulative impacts to visual and aesthetic resources would be ***less than significant***. No mitigation is required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
3. POPULATION AND HOUSING. Would the project:					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐	☐
b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing?	☐	☐	☒	☐	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐	☐

Impact PH-1: The proposed project would not directly or indirectly induce substantial population growth in San Francisco. (Less than Significant)

In general, a project would be considered growth-inducing if its implementation would result in substantial population increases or new development that might not occur if the project is not implemented.

Housing and employment projections forecasted for the San Francisco Bay Area through 2040 are provided in Plan Bay Area, which is the current regional transportation plan and Sustainable Communities Strategy adopted by the Metropolitan Transportation Commission and ABAG in July 2013. An increasing percentage of Bay Area growth is projected to occur as infill development in areas with good transit access and where services necessary to daily living are provided in proximity to housing and jobs. With its abundant transit service and mixed-use neighborhoods, San Francisco is expected to accommodate an increasing share of future regional growth. However, in the past few years, the supply of housing has not met the demand for housing in San Francisco. In July 2013, the association projected regional housing needs in the Regional Housing Need Allocation. The allocation is the process by which each community is assigned its share of the region's housing need for an eight-year period. Students living in college dormitories (known as "group quarters") are not included as part of the household population

and are not considered as part of the *Regional Housing Need Plan for the San Francisco Bay Area (2014-2022)* process.[30]

The proposed student residence hall would provide 600 beds for students and six beds for staff, increasing the on-campus resident population by an estimated 606 persons. The addition of 600 students and six staff to the USF on-campus resident population would not result in a substantial increase to the population of the larger neighborhood or to the City and County of San Francisco. The 2010 U.S. Census indicates that the population of the census tract in which the student residence hall is located (Census Tract 157[31]) is approximately 7,832 persons.[32] The proposed project would increase the population in Census Tract 157 by approximately 8 percent[33] and the overall population of San Francisco by less than 0.1 percent.[34] The student residence hall would be used to house some of the USF campus student enrollment of 8,901 students.[35] USF has committed to limit its population growth on the USF Hilltop Campus to less than one percent per year on average to limit impacts on the neighborhood.[36] Therefore, the student residence hall would accommodate the existing student population and would not accommodate increased enrollment growth of the campus.

Institutions of higher learning have typically been unable to provide sufficient housing for their student population. As noted in the housing element of the general plan, students generally require smaller housing units near their school. Without dedicated housing, students often must resort to overcrowded and/or costly accommodations. Policy 1.9 of the housing element of the

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30 Association of Bay Area Government, *Regional Housing Need Plan - San Francisco Bay Area, 2014-2022*, https://abag.ca.gov/files/ABAG_Final_RHNA_Publication.pdf accessed on November 8, 2017.

31 The project site is located in Census Tract 157, which is generally bounded by Geary Boulevard to the north, Fulton Street to the south, St. Joseph Avenue and Baker Street to the east, and Parker Avenue and Stanyan Street to the west.

32 U.S. Census, *DP-1- Geography-Census Tract 157, San Francisco County, California: Profile of General Population and Housing Characteristics: 2010*, 2010.

33 According to *Residence Rule and Residence Situation for the 2010 Census*, "College students living away from their parental home while attending college in the U.S. (living either on campus or off campus) are counted at the on-campus or off-campus residence where they live and sleep most of the time." http://www.census.gov/population/www/cen2010/resid_rules/resid_rules.html, accessed on February 8, 2017.

34 The population is based on the 2010 Census Data that estimate a population for the city and county of San Francisco of 805,235 persons. (U.S. Census, *DP-1- Geography, San Francisco County, California: Profile of General Population and Housing Characteristics: 2010*, 2010). This calculation assumes that the 600 students are not currently living in San Francisco. It is more likely that many will move to campus from another San Francisco location.

35 USF Student Census for Fall 2016. The University 2014 Institutional Master Plan proposed a 1 percent growth of the Hilltop Campus Enrollment per year for 10 years. Student enrollment in 2011 of 8,731 serves as the baseline. Actual enrollment since 2011 has been less than the projected 1 percent per year.

36 University of San Francisco, *University of San Francisco Institutional Master Plan*, August 2013, p. 58, https://www.usfca.edu/neighborhood-relations/planning-documents, accessed on November 5, 2017.

general plan requires "new commercial developments and higher educational institutions to meet the housing demand they generate, particularly the need for affordable housing for lower-income workers and students."[37]

In fall 2016, USF provided 2,123 beds of student housing on the USF Hilltop Campus, and an additional 98 student beds off campus at Pedro Arrupe Hall at 490 6th Avenue. All housing facilities are operating at full capacity.[38] When the institutional master plan was released, the USF undergraduate population on the Hilltop Campus totaled 5,497 undergraduates[39] and the housing facilities accommodated approximately 39 percent of the undergraduate student population. In 2016, the undergraduate population on the USF Hilltop Campus increased to 6,425 undergraduates[40] reducing the percentage of undergraduate student population served by these facilities to about 34 percent. The proposed 600 beds would increase the number of student beds to 2,723, which would accommodate approximately 42 percent of the undergraduate student population. The student residence hall would accommodate existing students only and would not include an expansion of the student population. The renovation of the Wolf & Kettle Café and the construction of the dining commons would accommodate the residents of the Upper Campus, including the proposed new residents of the student residence hall, as well as other students, faculty and staff, and reduce the need to travel to the Lower Campus and off-campus for dining services.

The proposed dining commons would create approximately 13 new full-time jobs and eight part-time jobs[41] and the student residence hall would create an estimated one new maintenance job.[42] The ROTC program relocation addition and the recycling and waste facility would not generate new jobs or result in a loss of jobs since the two facilities would continue their existing operations

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37 City and County of San Francisco, *San Francisco General Plan Housing Element*, 2014, p.11, *http://www.sf-planning.org/ftp/General_Plan/2014HousingElement-AllParts_ADOPTED_web.pdf*, accessed on January 25, 2017.

38 University of San Francisco, *University of San Francisco Institutional Master Plan,* August 2013, p. 64, *https://www.usfca.edu/neighborhood-relations/planning-documents*, accessed on January 8, 2017.

39 University of San Francisco Student Census for fall 2011, University of San Francisco, *University of San Francisco Institutional Master Plan,* August 2013, p.16, *https://www.usfca.edu/neighborhood-relations/planning-documents*, accessed on January 8, 2017.

40 University of San Francisco, *Facts and Statistics - Student Body Statistics for 2016*, *https://www.usfca.edu/about-usf/what-you-need-to-know/facts-statistics*, accessed on January 25, 2017.

41 This analysis is using a conservative approach regarding jobs creation. This approach is elaborated in the transportation impact study (Nelson Nygaard. *University of San Francisco Transportation Impact Study, p.1-4,* January 2018). However, the project sponsor is planning to hire 12 new employees instead of 13 full-time and eight part-time employees for the dining commons. (Miles, Elizabeth, Master Plan Manager, University of San Francisco, e-mail correspondence with Lyne-Marie Bouvet, Environmental Planner, WSP, June 6, 2017).

42 Miles, Elizabeth, Master Plan Manager, University of San Francisco, e-mail correspondence with Lyne-Marie Bouvet, Environmental Planner, WSP, June 6, 2017.

at the proposed locations. The retail/restaurant and maintenance employment created by the proposed project would not likely attract new residents to San Francisco as these jobs would typically be filled by existing area residents. Therefore, it can be anticipated that most of the employees would live in San Francisco (or nearby communities), and the proposed project would generate negligible demand, if any, for new housing. Furthermore, employment in San Francisco is forecast to increase by 34 percent (191,000 jobs) between 2010 and 2040, for a total of approximately 760,000 jobs.[43] As employees generated by the proposed project would constitute a negligible increase in the number of jobs in the project vicinity and San Francisco as a whole, this increase would be accommodated within the planned employment growth in San Francisco.

There would be an overall increase in the number of students and employees residing on the Upper Campus property as a result of the proposed project; however, the project-related student population and employment increases would not be substantial relative to the existing number of residents and employees in the project vicinity, nor would the increase in residents and/or employees exceed the projections for growth and employment in the ABAG projections, the housing element of the general plan,[44] or Plan Bay Area.[45] Therefore, the proposed project would not directly or indirectly induce substantial population growth in the area, which would be a ***less-than-significant*** impact. No mitigation is required.

Impact PH-2: The proposed project would not displace existing housing units or substantial numbers of people, or create substantial demand for additional housing, necessitating the construction of replacement housing. (Less than Significant)

The proposed project would not displace existing housing units or people and would create a minimal demand for additional housing elsewhere. As noted above, the proposed student residence hall would be constructed on a site currently occupied by a parking lot, a tennis court and the Underhill Building, which houses the ROTC program. The proposed project would relocate the ROTC program as an addition to the Koret Health and Recreation Center building.

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[43] Association of Bay Area Government and Metropolitan Transportation Commission, *Jobs-Housing Connection Strategy,* Table 3.1 *Employment and Housing Growth by County*, revised in 2012, *http://www.planbayarea.org/sites/default/files/pdf/JHCS/May_2012_Jobs_Housing_Connection_Strategy_Main_Report.pdf*, accessed on January 12, 2017.

[44] Association of Bay Area Government projects continued population growth from 807,755 persons in 2012 and 981,800 by 2030, which represents a 21 percent increase. 2014 Housing Element Part I: Data and Need Analysis, p. I-4, *http://208.121.200.84/ftp/files/plans-and-programs/planning-for-the-city/housing-element/2014HousingElement-Part_I_ADOPTED_web.pdf*, accessed on September 8, 2017.

[45] Plan Bay Area 2040, Table 3.1, is forecasting a growth of 2,400,000 persons in the Bay Area between 2010 and 2040, which represents a 33 percent increase. Plan Bay Area 2040 Final Plan, *Forecasting the future, http://2040.planbayarea.org/forecasting-the-future*, accessed on September 8, 2017.

The dining commons expansion and the recycling and waste facility would be located on currently vacant sites. The proposed project would increase the amount of on-campus housing available to undergraduate students, thereby reducing the demand for student housing elsewhere. The proposed project also would not displace existing employees. An estimated 21 new jobs would be created with the establishment of the dining commons and one new maintenance job would be generated by the proposed student residence hall. As this is a minimal number of new jobs, the project would not be anticipated to attract new employees to San Francisco. Therefore, the proposed project would have a ***less-than-significant*** impact related to the displacement of housing units, people, or employees, or create a substantial demand for new housing elsewhere. No mitigation is required.

Impact C-PH-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not make a considerable contribution to any cumulative population and housing impacts. (Less than Significant)

The geographic area of impact for potential cumulative population and housing impacts encompasses the people living and working within the Bay Area region, generally including: the San Francisco Peninsula, adjacent areas in the North Bay, East Bay, and South Bay. As noted above, Plan Bay Area is the current regional transportation plan and Sustainable Communities Strategy that was adopted by the transportation commission and the ABAG in July 2013, and contains housing and employment projections anticipated to occur in San Francisco through 2040. The population of San Francisco is projected to increase by approximately 280,490 persons for a total of 1,085,725 persons by 2040.[46] The number of housing units in San Francisco is expected to grow by 25 percent by 2040.[47]

As described above, the proposed project would not induce substantial direct or indirect population growth or displace a substantial number of existing housing units, people, or employees, or create demand for additional housing elsewhere. The approved and proposed projects identified in **Table 7**, p. 67, and mapped on **Figure 40**, p. 68, would add approximately 2,090 new residents[48] within 972 dwelling units in the vicinity of the project site. When these

[46] Association of Bay Area Governments and Metropolitan Transportation Commission, *Plan Bay Area*, July 2013, p. 40, *http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf*, accessed on November 5, 2017.

[47] Association of Bay Area Governments and Metropolitan Transportation Commission, *Plan Bay Area Chapter 3: Where we live, where we work*, p. 55, *http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/3-Where_We_Live_Where_We_Work.pdf*, accessed on January 12, 2017.

[48] Approved and proposed projects located in the vicinity of the proposed student residence hall are not exclusively located in the census tract of the proposed project. Cumulative projects are located in a half-mile radius of the project site and thus, ten census tracts were combined to evaluate the population increase. Census tracts considered for the

approved and proposed projects are combined with the 606 beds proposed as part of the project, a total of 2,696 new residents would be added to the project vicinity (generally within a half-mile radius of the project site), representing a residential population increase of approximately 6 percent.

Because San Francisco's housing supply has not met the demand for housing, the city identified Priority Development Areas as part of the planning process for Plan Bay Area to identify existing neighborhoods near transit that are appropriate places to concentrate future growth. Two projects listed in **Table 7**, p.67, of the cumulative list (2670 and 2675 Geary Boulevard) are located at the limit of the Downtown-Van Ness Geary Priority Development Area. The population growth in the project vicinity generated by the cumulative projects would not represent substantial unplanned growth. This population growth has been anticipated and accounted for in the association's and the city's projections and therefore would accommodate planned population growth that, in and of itself, would not result in a significant impact on the physical environment. Other sections of this document that address physical environmental impacts related to cumulative growth with regard to specific resources can be found in Topic 5, Transportation and Circulation; Topic 6, Noise; Topic 7, Air Quality; Topic 10, Recreation; Topic 11, Utilities and Service Systems; and Topic 12, Public Services.

In addition, the approved and proposed projects near the project site would be required to comply with the San Francisco's Inclusionary Housing Program (Planning Code section 415 et. seq.) and, therefore, would be required to contribute towards the creation of affordable housing.

Based on the conservative assumption that all new employees in the city created by the cumulative projects would be new San Francisco residents, an estimated 740 new employees[49]

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evaluation of the cumulative impacts are the following: 153, 154, 155, 156, 157, 158.01, 158.02, 164, 165, and 166. The population calculation was made by doing a weighted average of the number of people/household for the ten census tracts. The estimation is 2.15 persons per household that are smaller households than the citywide average of 2.32 persons per household.

[49] Uses associated with the projects of the cumulative setting are: residential, office, commercial, childcare services, classroom. Estimation of number of employees is based on the San Francisco Planning Department's Transportation Impact Analysis Guideline for Environmental Review. It assumes an average of:

- one employee per 350 square feet for retail and restaurant uses (294 employees)
- one employee per 276 square feet of office use (415 employees).

For other uses, estimation is based on the Candlestick Point- Hunter Point Shipyard Phase II Development Project, Section III.C Population, Housing and Employment, Table III.C-7

- 25 units/jobs for residential uses (39 employees);
- 0.26 jobs per acres (1 employee)

(including the 22 net new employees associated with the proposed project) would be added within the vicinity of the project site. The 740 new employees would generate a potential demand for 583 new dwelling units.[50] Based on ABAG's projected housing needs in San Francisco, the employment-related housing demand associated with the proposed project, as well as nearby cumulative development projects could be accommodated by the city's projected housing growth of 28,869 units.[51] Furthermore, nearby cumulative development projects would add to the city's housing stock (972 dwelling units) and could potentially accommodate some of the new employment-related housing demand. In combination with the past, present, and reasonably foreseeable projects, the estimated employment growth would account for only approximately 1.9 percent of projected citywide household growth.

For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would have a less than considerable contribution to cumulative impacts related to population and housing. The impact would be ***less than significant.*** No mitigation is required.

For childcare services, since the number of children was not available, the retail and restaurants ratio was used to estimate the number of employees:

- - 350 square feet per employee for the childcare facility) (42 employees).

Change of use from a community facility to a performing arts school was not assumed to be a net new number of employees. Total of new employees in the area is (including the 22 net new employees associated with the proposed project): 740 employees.

[50] Assumes the 2014 Housing Element figure of 1.27 workers per household for San Francisco in 2015.

[51] Association of Bay Area Governments and Metropolitan Transportation Commission, *Regional Housing Need Plan for the San Francisco Bay Area, p. 24, https://abag.ca.gov/files/ABAG_Final_RHNA_Publication.pdf* accessed on November 8, 2017.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
4. CULTURAL RESOURCES. Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco *Planning Code*?	☐	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐
d) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074?	☐	☐	☒	☐	☐

Project effects to historic architectural resources and campus landscape features were analyzed in a two-part *historic resources evaluation* report in 2015 and 2017 (details below). A historic resource evaluation response was prepared by the historic preservation planning staff of the San Francisco Planning Department on August 7, 2017. Planning department staff concurred with the findings of the evaluation, except for minor boundary adjustments for an identified potential historic district.

The following information is from the *Historical Evaluation of the Underhill Building on the Lone Mountain Campus*,[52] and the *Historical Evaluation of Landscape Features and Buildings on the Lone Mountain Campus of USF*,[53] prepared by William Kostura, and the historic resource evaluation response,[54] prepared by the historic preservation planning staff.

[52] Kostura, William, *Historical Evaluation of the Underhill Building on the Lone Mountain Campus, USF*, 2015.

[53] Kostura, William, *Historical Evaluation of Landscape Features and Buildings on the Lone Mountain Campus of USF*, 2017.

[54] McMillen, Frances, Historic Resource Evaluation Response. Case No: 2015-000058ENV, prepared August 7, 2017.

Impact CP-1: Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5, including those resources listed in article 10 or article 11 of the San Francisco Planning Code. (Less than Significant)

Regulatory Background

Historical resources are those properties that meet the definitions in CEQA section 21084.1 and CEQA Guidelines section 15064.5. Historical resources include properties listed in, or formally determined eligible for listing in, the California Register of Historical Resources or in an adopted local historic register. Historical resources also include resources identified in a historical resource survey meeting certain criteria. Additionally, properties that are not listed but are otherwise determined to be historically significant, based on substantial evidence, would also be considered historical resources. A historic resource is defined "as any building, structure, site, or object listed in or determined to be eligible for listing in the California Register, or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California."

A resource is considered "historically significant" if it meets at least one the following criteria for listing in the California Register:

1) **Criterion 1 (Events):** Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2) **Criterion 2 (Persons):** Is associated with the lives of persons important in our past;
3) **Criterion 3 (Design/Construction):** Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic value; or
4) **Criterion 4 (Information Potential):** Has yielded, or may be likely to yield, information important in prehistory or history [14 California Code of Regulations section 4852(b)].

The California Register generally follows the age requirement set forth in the National Register; that is, resources may be considered for evaluation if they are more than 50 years old. Historical resources achieving significance in less than 50 years may also be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance (California Code of Regulations, title 14, chapter 11.5, 4852(d)(2)).

For this reason, and to give sufficient time for reporting and review, resources more than 45 years of age can be considered. A resource eligible for listing in the California Register must meet one

of the criteria of significance described above, must be 45 years old or older, and must retain enough of its historic character or appearance (integrity) to be recognizable as an historical resource and to convey the reason for its significance. There are seven aspects of integrity—location, design, setting, materials, workmanship, feeling and association.

A project that would cause a substantial adverse change in the significance of a historical resource is one that would materially impair the resource. Material impairment is defined as the demolition or substantial alteration of those physical characteristics that convey the resource's historical significance and that justify its eligibility for inclusion in the California Register.[55]

Project Site History and Context

As described in the historic resources evaluation, the Upper Campus is composed of Gothic Revival style buildings constructed between 1932 and 1968: a six-story high-rise dormitory tower erected in 1961, a 1999 residential building, and a 2001 residential complex designed in a contemporary style. The Upper Campus landscape consists of hilly and steep terrain, expansive lawns, and thick vegetation on its eastern and northern borders. The earliest building, the original Lone Mountain Main Building (the former San Francisco College for Women, constructed in 1932), was designed by Henry A. Minton in a Collegiate Gothic style. That building is prominently sited on the property's high point allowing it to be the focal point of the campus. The Spanish Steps, a Baroque style formal entrance to the campus, is located at the base of the hill along Turk Street. A series of staircases, ornamented with a fountain, balustrades, an arch and other decorative features climb the hill towards the Lone Mountain Main Building, further emphasizing its importance. A summary of the Underhill Building and potential USF Lone Mountain Campus Historic District are included below, with additional detail provided in the historic resources evaluations and historic resources evaluation response. The following discussion summarizes the significance evaluation under the California Register for the historic resources present in the project area, as adapted from the evaluations and evaluation response.

Lone Mountain Campus Potential Historic District

The historic resources evaluation determined that there is a potential historic district on the Upper Campus that appears to be eligible for listing on the California Register under Criteria 1 (events) and 3 (architecture).

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[55] CEQA Guidelines section 15064.5(b)(C), *https://www.califaep.org/images/ceqa/statute-guidelines/2017/CEQA_Handbook_2017_with_covers.pdf,* accessed on October 27, 2017.

The historic resources evaluation identified this potential historic district as the USF Lone Mountain Campus Historic District. Additionally, the evaluation response concurred with the historic resources evaluation findings and included a modification to the suggested boundaries of the potential historic district. Specifically, the suggested boundary provided by the historic resources evaluation includes Anza Street to the north, Turk Street on the south, and Parker Avenue on the west. The suggested eastern boundary spans the property line from Anza Street to Turk Street and borders Ewing Terrace and the former Presentation High School. Boundaries of the potential historic district are shown on **Figure 61**.

Figure 61: Lone Mountain Campus Potential Historic District

Source: WSP, November 2017, adapted from McMillen, Frances, *Historic Resource Evaluation Response. Case No: 2015-000058ENV*, prepared August 7, 2017.

The USF Upper Campus was originally the San Francisco College for Women. That institution dates to 1921, when a college was added to the Religious of the Sacred Heart's high school in Menlo Park. The USF Upper Campus was built beginning in 1932. It was one of only a small number of colleges in the San Francisco Bay Area that was a women's college. Therefore, it

possesses significance as a rare women's college in the Bay Area and therefore would be significant under Criterion 1.[56]

The historic resources evaluation and the evaluation response include a list of contributing character-defining features and non-contributing features, including the Underhill Building, to the potential USF Lone Mountain Campus Historic District. The evaluation response concludes the potential historic district encompasses the original boundaries of the former San Francisco College for Women campus dating to 1932. The period of significance of the potential historic district is 1931-1968, which starts at the construction of the Lone Mountain Main Building.

Several buildings and landscape features constructed on the USF Lone Mountain campus during the period of significance possess common stylistic details and view corridors. The Main Building and Nurses' Wing are examples of the Collegiate Gothic style, while the Rossi Wing presents ornamental details similar to the Main Building. The Spanish Steps, including the streetlights and pedestals, constructed in the Baroque style, provide a level of detail, care of composition, use of historic imagery, and materials compatible with the buildings. Additionally, the three driveways constructed as part of the original development, provide views of the Main Building, especially its tower, from vantage points to the southeast and southwest. Collectively, these buildings and landscapes form a compact area that retains integrity in location, design, materials, workmanship, association, feeling, and setting that are contributing features of the historic property under California Register Criterion 3. Other contributing features are the trees planted in the 1930s and 1940s, the open grassy areas between them, the steep slope of the hillside, and the view corridor looking north up the Spanish Steps from Turk Street to the Main Building. The potential historic district includes various non-contributing buildings and features that have been modified over time, but the changes have not compromised the site's integrity of location, design, workmanship, setting, feeling and materials. The campus retains sufficient integrity to be eligible for listing in the California Register under Criterion 3.[57] Therefore, the potential USF Lone Mountain Campus Historic District is a historic resource under CEQA.

The 2015 and 2017 historic resources evaluations determined that the following buildings and features are character-defining features of the potential USF Lone Mountain Campus Historic District.

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[56] Kostura, William, *Historical Evaluation of the Underhill Building on the Lone Mountain Campus, USF*, 2015, p.45.

[57] Ibid, pp.47-48

Buildings

- The Lone Mountain Main Building (1932)
- The Nurses' Wing (1963 addition to the west side of the Lone Mountain Main Building)
- The Rossi Wing (1967-1968 addition to the east side of the Lone Mountain Main Building)

Landscape Features

- *Structures*
  - The Spanish Steps
  - Retaining wall along Turk Street from Parker Avenue to East Drive
  - Two lanterns on round columns located at West Drive and Middle Drive
  - Two lanterns on square columns located at the foot of the Spanish Steps
  - Two pedestals with lions located at East Drive
- *Vegetation and Open Space*
  - West Lawn
  - Middle Lawn
  - East Lawn
  - Cypress trees, pine trees, deodar cedar trees, and other evergreen trees dating to the period of significance located in the three identified lawns
  - Planting beds within the Spanish Steps
  - Lawns and cypress trees in the Parker Avenue Landscape
  - Small lawns in front of the Lone Mountain Main Building, both west and east of the tower
- *Topography*
  - The slope of the West, Middle, and East lawns, and the slope of the Spanish Steps (running uphill from Turk Street northward)
  - The slope of the Park Avenue Landscape (running uphill from Parker Avenue eastward)
  - The top of the hill, where the Lone Mountain Main Building is situated
- *View corridors*
  - Spanish Steps: View north from Turk Street near Chabot Terrace up the Spanish Steps to the tower of the Lone Mountain Main Building
  - Views of the campus, including buildings, lawns and other landscape features, from vantage points along the West, Middle and East drives
- *Circulation*
  - Spanish Steps (also listed as a contributing structure)
  - West Drive
  - Middle Drive
  - East Drive

    Sidewalks dating to the Period of Significance surrounding the small lawns in front of the Main Building

The following buildings and features were determined to be non-contributing features of the potential USF Lone Mountain Campus Historic District:

Non-Contributing Buildings

- Underhill Building (1947-1948)
- Lone Mountain North dormitory (1961)
- Loyola Hall (1999)
- Loyola Village (2001)

Non-Contributing Landscape Features

- *Structures*
  - Streetlights with fiberglass housing
  - Sign at the south end of Parker Avenue landscape
  - Waterfalls, stonework, and plantings adjacent to the southwest corner of the west parking lot in front of the Main Building installed in 2017
  - Semicircular terrace in the small lawn east of the Main Building's entrance tower adjacent to the building's east wing
- *Circulation*
  - North Drive
  - Northward extension of West Drive
  - Driveway from Middle Drive to Loyola House
  - Driveway from East Drive north to parking lot
  - Enlarged parking area at the front of the Main Building
- *Vegetation*
  - Palm trees throughout the campus (see the 2017 historic resources evaluation for detailed locations)
  - Juniper plantings along the Spanish Steps
  - Hedges planted atop the Turk Street retaining wall
  - The two palms trees directly in front of the main entrance in the tower of the Main Building
  - The two rows of three palm trees (six in all) running between the Spanish Steps and the tower entrance
  - The two palms at the top of the Spanish Steps.

Several campus features were not evaluated as a part of the 2015 and 2017 historic resource evaluations. Further research and evaluation of these features is necessary to determine their significance. They are identified in the *Historical Evaluation of Landscape Features and Buildings on the Lone Mountain Campus of USF* as:

- 1961 Chapel Addition
- Anza Street landscape
- Landscape of mature trees east and west of a staircase running from North Drive south to Loyola House

- Eucalyptus trees in the Parker Avenue Landscape

These features were not evaluated in the 2015 and 2017 historic resource evaluations because they would not be affected by construction of the proposed project. Therefore, if these features are later determined to be contributing features to the potential USF Lone Mountain Campus Historic District, the development of the proposed project would not result in any further impacts to the potential district.

The potential historic district property does not appear to be associated with any significant persons, and therefore is not eligible for the California Register under Criterion 2. The property is generally not considered to be eligible for the California Register for its association with Henry Minton because his role as an architect was to design specific buildings or structures and his association ended when construction was complete. Henry Minton was a San Francisco architect who specialized in designing buildings for the Roman Catholic Church and for the Bank of Italy. He designed the Lone Mountain Main Building, the Spanish Steps, and participated in the design of the Underhill Building, as well as other campus structures as further described in the historic resources evaluations.

For similar reasons, this property does not appear to be eligible for the California Register under Criterion 2 for its association with Mother Rosalie Hill because her role was in planning, conferring with architects regarding architectural aesthetics, and overseeing construction of the Lone Mountain Main Building during the late 1920s and early 1930s. She directed this work from Chicago and sent specifications to the architect, Henry Minton during construction. Mother Hill also oversaw the construction of the San Diego College for Women from 1949 to 1952. It is not known whether Mother Hill was involved with the San Francisco College for Women administratively after its first phase of construction was completed in 1932, due to lack of documentation.

Therefore, based on the foregoing, the potential USF Lone Mountain Campus Historic District is not significant under Criterion 2.[58]

Because the Koret Health and Recreation Center built in 1990 has undergone considerable modifications and retains little of its original form and materials, and is located outside of the potential USF Lone Mountain Campus Historic District, it was not formally evaluated as part of the evaluation.

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[58] Kostura, William, *Historical Evaluation of Landscape Features and Buildings on the Lone Mountain Campus of USF,* 2017, p.63.

Underhill Building

The Underhill Building was constructed in 1947 and is proposed to be demolished to construct the student residence hall. The Underhill Building was evaluated against the California Register criteria as both a potential individual resource and as a potential contributor to the potential USF Lone Mountain Campus Historic District. The evaluation determined, and evaluation response concurred, that the Underhill Building is not individually eligible for inclusion on the California Register under any criterion.

The Underhill Building does not appear to be associated with any historically significant events, nor was it connected with broader patterns of development in the area; therefore, the building is not significant under California Register Criterion 1. Two possible historical themes associated with the building are as a medical school building and as a classroom for women. The Underhill Building is a very minor example of a medical school building. The older medical buildings at USF, constructed in 1917 and 1933, are much larger than the Underhill Building and would have had a greater capacity as a medical school. The Life Sciences Building at the University of California, Berkeley (1929-1930) is also much greater in scale and offered a greater depth of medical science instruction than at the Underhill Building. As a classroom building for women, the Underhill Building is a very late and modest example of this historic theme compared to the Lone Mountain Main Building (1932) and buildings at Mills College, which dates from 1871 through the 1920s. The Underhill Building lacks significance compared with these larger and older buildings. As a minor structure, the building is not significant as a part of a larger property or as a part of the potential historic district under California Register Criterion 1.

The Underhill Building does not appear to be associated with any significant persons, as an individual structure or as a part of a larger property or historic district and therefore, is not significant under California Register Criterion 2. Planning Department Historic Preservation staff concur with the evaluations' assessment that the Underhill Building is not eligible under Criterion 2, persons, because it was not found to be associated with people significant to the San Francisco College for Women or USF.

The Underhill Building lacks a distinctive style, and is limited in integrity, and therefore is not significant under California Register Criterion 3. Due to alterations over time, including the removal of several the original entrances and the introduction of seven new entrance openings, along with the replacement of most the original doors and windows, the Underhill Building has greatly diminished integrity, does not contribute to the character of the campus, and is not eligible for individual listing in the California Register under Criterion 3.

Therefore, based on the foregoing, it is not an individual historic resource under CEQA.

The Underhill Building is also not a contributing character-defining feature of the potential USF Lone Mountain Campus Historic District. Although it was constructed during the period of significance of the potential historic district (1931-1968), it is not in keeping with the Collegiate Gothic and Baroque style buildings and structures that characterize the campus, and alterations over time have greatly diminished its integrity. The evaluation response therefore concludes that while the Underhill Building is within the boundaries of the potential historic district, it is a non-contributor (i.e., it is not a contributing character-defining feature of the potential historic district, which, as discussed above, appears to be eligible for listing on the California Register).

Compatibility with the Lone Mountain Campus Potential Historic District

The historic resources evaluation considered the other Upper Campus buildings and features, including landscape features, for the purpose of determining whether there is a potential historic district on the Upper Campus and if so, whether the proposed project would have a significant impact on that potential historic district.

The proposed project would not have a significant impact on the potential USF Lone Mountain Campus Historic District. The demolition of a non-contributing building (the Underhill Building) would also not impact the potential district.

The new construction of the student residence hall would be located on sections of the Upper Campus that have previously been developed or sited where they would not impact the historic Lone Mountain Main Building and landscape configuration. The proposed student residence hall would be recessed from the private Lone Mountain Drive and would not encroach on the expansive lawns that characterize the campus and have historically remained open and undeveloped. Planning Department Historic Preservation staff determined that the proposed student residence hall would be set back sufficiently from Lone Mountain Drive preserving views and maintaining the prominence of the Lone Mountain Main Building. The façade of the student residence hall's west building would be recessed 56 feet from Lone Mountain Drive at its southwest corner leaving a swath of lawn as a buffer between the drive and the student residence hall at both the face of the building and its western wall. The student residence hall would also be recessed 76 feet from the drive at the southeast corner of the building. The fenestration, details, and materials selected for the student residence hall would be in keeping with the character of the nearby historic buildings, but would be distinguishable from the contributing buildings to the potential historic district, due in part to the differentiated configuration of window openings and glazing, as well as the roof structure and tile. Furthermore, the proposed project would not involve removing trees, hedges or landscaping that are character-defining landscape features of the potential historic district. The character-defining landscaping features are located far from the proposed project sites.

The recycling and waste facility and the dining commons would not have an impact on the potential USF Lone Mountain Campus Historic District. The recycling and waste facility would be a modest structure that would relocate an existing outdoor recycling and waste function to a service area next to the Lone Mountain North Residence Hall (a non-contributing building to the potential historic district), and would be accessed by Lo Schiavo Drive. Similarly, the dining commons would be located in an underutilized section of the campus concealed behind the main campus building.[59] The proposed ROTC program relocation addition to the Koret Health and Recreation Center is outside the boundaries of the potential historic district. Additionally, because the Koret Health and Recreation Center was constructed in 1990, the building is less than 45 years old and would not be considered a potential historic resource under CEQA.

Accordingly, based on the foregoing, the proposed project would not have an adverse impact on the potential historic district or any other historical resource under CEQA, and the impact would be ***less than significant***. No mitigation is required.

Impact CR-2: The proposed project could result in a substantial adverse change in the significance of an archeological resource pursuant to section 15064.5. (Less than Significant with Mitigation)

This section discusses archeological resources, both as historical resources per CEQA Guidelines section 15064.5 as well as unique archeological resources as defined in CEQA section 21083.2(g).

The potential for encountering archeological resources is determined by several relevant factors including archeological sensitivity criteria and models, local geology, site history, and the extent of a potential project's soils disturbance/modification, as well as any documented information on known archeological resources in the area. A planning department archeologist completed a *preliminary archeological review* for the proposed project, which is summarized below.[60]

The archeological review determined that the project site has a generally low potential for prehistoric archeological resources due to the distance to the shoreline, steep and unstable slopes of Lone Mountain, and the limited number of prehistoric sites found in this area of San Francisco. Based on the geotechnical reports,[61] the Upper Campus generally consists of 10 to 25 feet of

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[59] McMillen, Frances, *Historic Resource Evaluation Response. Case No: 2015-000058ENV*, Prepared August 7, 2017, p.8.

[60] Vanderslice, Alison, *Environmental Planning Preliminary Archeological Review: Checklist. Case No: 2015-000058ENV*, Prepared June 15, 2017.

[61] Rollo & Ridley, *Geotechnical Investigation Lone Mountain Sobrato Hall Project University of San Francisco (USF) San Francisco, California,* August 9, 2016.

sandy fill and dune sand above bedrock. The 1899 Sanborn maps (vol. 4, sheets 431 and 432) show the project site as vacant. A review of the 1914 Sanborn maps (vol, 4, sheets 396 and 402) show very limited development within the subject blocks.

There would be a greater likelihood of encountering historical archeological remains. Although archival research found that limited recorded development occurred within the Upper Campus area during the 19th and early 20th centuries, the archival information may not document all development that may have occurred. The project area was owned by the Catholic Archdiocese, and archeological research indicates that this area was not used as a cemetery, despite previous records indicating it was used as a cemetery (see below). Further, the top of Lone Mountain hill was graded for the construction of the Lone Mountain Main Building in the early 1930s. Therefore, the dining commons proposed area was likely graded at that time and any archeological features would have been removed. The proposed ROTC program relocation would consist of a vertical addition to an existing building, and would include limited excavation in an area that was primarily disturbed by the construction of the existing building in the 1980s. Geotechnical information for the ROTC program relocation addition[62] indicates backfill associated with the construction for the existing building extends down 10 feet in the proposed footprint. As there is also low sensitivity for prehistoric resources within the project area, the proposed foundations are unlikely to impact significant archeological resources, either historic or prehistoric. However, limited previous disturbance was identified in the areas of the student residence hall and the recycling and waste facility replacement. Therefore, there is a potential for significant archeological resources within these project component areas, specifically the student residence hall. However, this impact would be reduced to a ***less-than-significant*** level with implementation of **Mitigation Measure M-CR-2: Archeological Monitoring** for the student residence hall and recycling and waste facility replacement components of the project**.**

Implementation of **Mitigation Measure M-CR-2: Archeological Monitoring** is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in CEQA Guidelines section 15064.5(a)(c). This

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Rollo & Ridley, *Geotechnical Investigation Upper Campus Dining Hall, Lone Mountain Campus, University of San Francisco (USF) San Francisco, California,* November 10, 2016.

Rollo & Ridley, *Geotechnical Investigation, Trash Enclosure Facility, Lone Mountain Campus, University of San Francisco (USF) San Francisco, California,* November 11, 2016.

Rollo & Ridley, *Geotechnical Investigation, ROTC Relocation, Koret Recreation Center, University of San Francisco (USF) San Francisco, California,* November 14, 2016.

[62] Rollo & Ridley, *Geotechnical Investigation, ROTC Relocation, Koret Recreation Center, University of San Francisco (USF) San Francisco, California,* November 14, 2016.

measure requires that archeological resources be avoided and, if accidentally discovered, that they be treated appropriately.

> **Mitigation Measure M-CR-2: Archeological Monitoring.** Based on the reasonable potential that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of an archeological consultant from the rotational department qualified archeological consultants list maintained by the planning department archeologist. The project sponsor shall contact the department archeologist to obtain the names and contact information for the next three archeological consultants on the qualified list. The archeological consultant shall undertake an archeological monitoring program. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer (ERO) for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archeological resource as defined in CEQA Guidelines sections 15064.5(a) and (c).
>
> *Consultation with Descendant Communities:* On discovery of an archeological site[63] associated with descendant Native Americans or the Overseas Chinese an appropriate representative[64] of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to consult with ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the *final archeological resources report* shall be provided to the representative of the descendant group.

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[63] The term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

[64] An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America.

Archeological monitoring program. The archeological monitoring program shall minimally include the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the monitoring program reasonably prior to any project-related soils-disturbing activities commencing. The ERO in consultation with the project archeologist shall determine what project activities shall be archeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the potential risk these activities pose to archaeological resources and to their depositional context.
- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archeological resource.
- The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with the archeological consultant, determined that project construction activities could have no effects on significant archeological deposits.
- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis.
- If an intact archeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/construction crews and heavy equipment until the deposit is evaluated. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, present the findings of this assessment to the ERO.

If the ERO in consultation with the archeological consultant determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- The proposed project shall be re-designed to avoid any adverse effect on the significant archeological resource; or

- An archeological data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

If an archeological data recovery program is required by the ERO, the archeological data recovery program shall be conducted in accord with an archeological data recovery plan. The project archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the recovery plan. The archeological consultant shall prepare a draft recovery plan that shall be submitted to the ERO for review and approval. The recovery plan shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the recovery plan will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.

The scope of the recovery plan shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an onsite/offsite public interpretive program during the course of the archeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains, Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils-disturbing activity shall comply with applicable state and federal laws, including immediate notification of the coroner of the City and County of San Francisco and in the event of the coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission who shall appoint a Most Likely Descendant (MLD) (Public Resources Code section 5097.98). The ERO shall also be immediately notified upon discovery of human remains. The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond six days after the discovery to make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing state regulations or in this mitigation measure compels the project sponsor and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO. If no agreement is reached, state regulations shall be followed, including the reinternment of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Public Resources Code section 5097.98).

Final Archeological Resources Report. The archeological consultant shall submit a draft final archeological resources report to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the draft final report.

Copies of the draft final report shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the final report shall be distributed as follows: California Archaeological Site Survey Northwest Information Center shall receive one copy and the ERO shall receive a copy of the transmittal of the final report to the information center. The environmental planning division of the planning department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the final report

along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

With implementation of **Mitigation Measure M-CR-2**: **Archeological Monitoring**, project construction would have a ***less-than-significant impact with mitigation*** on prehistoric or historical archeological resources.

Impact CR-3: The proposed project could potentially disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)

The project is subject to the provisions of the California Health and Safety Code section 7050.5 with respect to the discovery of human remains. Public Resources Code section 5097.98 regulates the treatment and disposition of human remains encountered during project grading and construction.

Proposed excavation for the student residence hall would be 20 feet for the underground garage level and the building would require deep foundations. For the dining commons, minimal excavation and a deep foundation system is proposed. For the recycling and waste facility, excavation to 15 feet is required for an approximately 300-foot area and drilled, cast-in-place concrete piers that extend into bedrock are proposed. For the ROTC program relocation addition, no excavation is anticipated. Drilled, cast-in-place concrete piers may be used to upgrade the existing foundations if necessary.

The USF Upper Campus is within an area identified on both the 1869 U.S. Coast Survey and the 1869 Goddard survey map as the Calvary Cemetery, which is shown between Geary Street and approximately Baker, Turk, and Parker streets. The Calvary Cemetery was opened by Catholic Archdiocese in 1860. San Francisco Morning Call describes the cemetery on March 27, 1887:

> *Calvary is the most populous cemetery of San Francisco at the present time. When first opened it was in the country; it is now between Parker and Masonic avenues and Geary and Turk streets. It has been gradually filling up with coffins for these twenty-six years, and now the headstones in some parts of the grounds seem as thick as standing corn.*

Hardly a day passes that three or four funeral processions do not climb the hillside leading to the entrance gate. It is indeed a city of the dead…[65]

However, later and more detailed maps only identify the Calvary Cemetery as east of Masonic Avenue, and not including the Upper Campus area. For example, the 1889 Sanborn maps (vol. 3) do not include sheets for this area but show that the Calvary Cemetery is east of Masonic Avenue only. The 1899 Sanborn maps (vol. 4, sheets 431 and 432) show the project site as vacant. The 1914 Sanborn maps (vol. 4, sheets 396 and 402) show very limited development within the subject blocks, including a tombstone cutter and several scattered houses prior to the development of the ballpark known as Ewing Field. Ewing Field opened in 1914 to the east of the project site and historic photographs of the field show the project site primarily undeveloped.

Although no known human burials have been documented on the project site or within its general vicinity, and the likelihood is low, the possibility of encountering human remains cannot be entirely discounted, as human remains could be buried with no surface indicators. Earthmoving activities associated with project construction could directly affect previously undiscovered human remains. Therefore, the potential impact regarding disturbance to human remains could be significant. **Mitigation Measure M-CR-2** also contains language to ensure the sound handling of any encountered human remains. With implementation of **Mitigation Measure M-CR-2**, as described above, the impact on human remains would be ***less than significant with mitigation***.

Impact CR-4: The proposed project would not result in a substantial adverse change in the significance of a tribal cultural resource. (Less than Significant)

CEQA section 21074.2 requires the lead agency to consider the effects of a project on tribal cultural resources. As defined in CEQA section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, on the national, state, or local register of historical resources. Based on discussions with Native American tribal representatives, in San Francisco, prehistoric archeological resources are presumed to be potential tribal cultural resources. A tribal cultural resource is adversely affected when a project causes a substantial adverse change in the resource's significance.

[65] San Francisco Genealogy, *Calvary Cemetery*, *http://www.sfgenealogy.com/sf/history/hcmcal.htm,* accessed on June 14, 2017.

Pursuant to CEQA section 21080.3.1(d), within 14 days of a determination that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency is required to contact the Native American tribes that are culturally or traditionally affiliated with the geographic area in which the project is located. Notified tribes have 30 days to request consultation with the lead agency to discuss potential impacts on tribal cultural resources and measures for addressing those impacts. On January 6, 2016, the planning department contacted Native American individuals and organizations for the San Francisco area, providing a description of the project and requesting comments on the identification, presence and significance of tribal cultural resources in the project vicinity.

No Native American tribal representatives have contacted the planning department to request consultation. Department staff has determined that the proposed project would not be expected to affect tribal cultural resources, including prehistoric archeological resources. Therefore, the proposed project would have a ***less-than-significant*** impact on previously unknown tribal cultural resources. No mitigation is required.

Impact C-CR-1: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, could result in significant adverse cumulative cultural resource impacts. (Less than Significant with Mitigation)

The geographic scope of potential cumulative impacts on cultural resources is the potential USF Lone Mountain Campus Historic District. As described above, while the student residence hall, dining commons, and recycling and waste facility would be constructed within the potential USF Lone Mountain Campus Historic District there would be a less than significant impact to historic architectural resources. Other **c**umulative projects located within the boundaries of the potential historic district include the mechanical, electrical and plumbing, and window replacement on Lone Mountain Main which involve upgrading the existing heating and piping systems as well as the windows to improve energy efficiency. These cumulative projects would have a ***less-than-significant*** impact on the potential historic district, and therefore, the proposed project would not combine with other cumulative projects to result in significant cumulative impacts to the potential USF Lone Mountain Campus Historic District.

Project-related impacts on unknown archeological resources, tribal cultural resources, and human remains that may be discovered during project construction are site-specific and generally limited to a project's construction area. Cumulative projects identified in the vicinity are assumed to cause some degree of ground disturbance during construction and thus could contribute to a potential significant cumulative impact on buried cultural resources. As discussed above, the project could have a significant impact related to archeological resources and disturbance of human remains, and the projects contribution would be cumulatively considerable. This impact

would be reduced to a less than significant level with mitigation through implementation of **Mitigation Measure M-CR-2**.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
5. TRANSPORTATION AND CIRCULATION. Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	☐	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐	☐

The project is not located within an airport land use plan area nor is it located near a private airstrip. Therefore, Question 5c is not applicable to the project.

A *transportation impact study* was prepared for the proposed project.[66] The following discussion is

[66] Nelson\Nygaard, *University of San Francisco Transportation Impact Study*, January 2018.

based on information provided in the transportation study prepared for the project.

Setting

The project site is located in the eastern portion of San Francisco's Inner Richmond District at the USF Hilltop Campus.

Access to the project site by vehicle, transit, walking, or bicycling is available through the existing public street network, campus access roads, bus transit service, sidewalks, and bicycle routes. The study area for the assessment of project effects on various transportation modes includes the blocks bounded by Turk Street to the south, Parker Avenue to the west, Anza Street to the north, and Masonic Avenue to the east. Turk Street and Masonic Avenue are both designated as major arterials in the Congestion Management Plan and residential throughway streets in the San Francisco Better Streets Plan. Turk Street is providing east-west access between the neighborhoods and Civic Center, downtown, and South of Market employment centers and Masonic Avenue is providing north-south access with connections to Market Street and north to the Presidio and U.S. 101 via Presidio and Lincoln boulevards.

Parker Avenue and Anza Street are neighborhood residential streets in the Better Streets plan. Access to the site of the student residence hall would be via Lone Mountain Drive opposite Temescal Terrace, which is a one-way campus access road with off-campus exits at Kittredge Terrace and between Roselyn and Tamalpais terraces to the east. Access to the proposed recycling and waste facility would be via Lo Schiavo Drive, while the proposed ROTC program relocation addition would be accessed from Parker Avenue or by walking from the internal campus pedestrian network.

USF faculty and staff members who live outside half-mile radius from the campus may purchase a parking permit. USF parking policy prohibits students who live in residence halls from bringing and storing vehicles on campus. One exception is the Loyola Village Residence Hall that is geared toward upperclassmen, graduate students, faculty, and staff and features its own garage that provides 129 parking stalls. Loyola Village resident parking permits are valid only for the Loyola Village lot. Students who live off-campus beyond a 3-mile radius are eligible to participate in a lottery for allocation of 150 student parking permits. Beyond the lottery, qualifying off-campus students may purchase evening, one day, or motorcycle permits within the first three weeks of each semester.

Off-street parking facilities on the Upper Campus are provided at three existing surface parking lots (Lone Mountain Fee Lot, Loyola Lot, and School of Education Lot) and permit-only on-street parking spaces located adjacent to the project site. Off-street parking surveys were conducted on

Tuesday, March 29, 2016 during a typical weekday morning at 8 a.m. and evening at 7 p.m. Observed occupancies were low to moderate with the highest utilization rate of spaces observed in the Loyola Lot in the morning at 51 percent and in the School of Education Lot in the evening at 72 percent; below the 90 percent peak occupancy industry standard. In general, on-street parking occupancies for block faces abutting the perimeter of the Upper Campus were high, with all segments directly adjacent to the property above 95 percent during both morning and evening periods.

Most deliveries on the Upper Campus are made at the Pacific Wing loading dock of the Lone Mountain Main building, which is located away from the majority of the vehicular, bicycle, and pedestrian activity. The primary location for student and faculty loading activities is a yellow curb in front of the Lone Mountain Main building (less than 200 feet from the project site), that is reserved for loading and unloading from 7 a.m. to 7 p.m. daily. During an on-site visit Wednesday, March 30, 2016, there was no truck loading activity, but the yellow curb was used consistently for passenger pick-up and drop-off activities.[67]

A total of eight San Francisco Municipal Railway (Muni) bus routes operate within a two-block walkshed of the project site (5-Fulton, 5R-Fulton Rapid, 31-Balboa, 31BX-Balboa B Express, 38-Geary, 38BX-Geary B Express, 38R-Geary Rapid, and 43-Masonic) serving the site. These transit routes generally operate at below 85 percent of capacity during both morning and evening weekday peak periods.[68] The local transit service can be used to access regional transit operators (e.g., bus routes 5, 31, and 38 travel to the Powell Street Bay Area Rapid Transit (BART) Station, with the 5 and 38 continuing to the Temporary Transbay Terminal and the 31 continuing to the Ferry Building). The Muni bus routes that serve the project area provide connections (transfers) to other regional transit providers, including Caltrain, Alameda-Contra Costa Transit District (AC Transit), Golden Gate Transit, San Mateo County Transit District (SamTrans), and Western Contra Costa Transit Authority (WestCAT) Lynx. In addition, USF provides subsidized shuttle peak period service between the USF Hilltop Campus and the Temporary Transbay Terminal for full-time and adjunct faculty and full-time staff. The Department of Student Leadership and Engagement and the Department of Public Safety co-sponsor an American with Disabilities Act (ADA) Shuttle and Night Safety Program that provides transportation to classes, on campus locations, and off-campus residences near USF. All undergraduate students are also provided a Muni pass every year.

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[67] Nelson/Nygaard, *University of San Francisco Transportation Impact Study*, January 2018, pp. 1-14, 2-22.

[68] Nelson\Nygaard, *University of San Francisco Transportation Impact Study*, January 2018.

Bicycle facilities serve the Upper and Lower campuses. There are *class II* bicycle lanes that operate along Turk Street, Golden Gate Avenue, and Arguello Boulevard; and *class III* signed bicycle routes that operate along Turk Street, Parker Avenue, Masonic Avenue, and McAllister Street.

The project site is located within an established pedestrian network with continuous sidewalks, curb-ramps, and painted, high-visibility crosswalks at most area intersections. The highest levels of pedestrian activity occur along Turk Street, accessing the Upper Campus via the Spanish Steps. During the morning and evening commute periods, there are high pedestrian volumes north-south along Masonic Avenue at Anza Street and at Turk Street.

Approach to the Analysis

Trip Generation

The proposed project involves the demolition of the existing Underhill Building, a 78-space surface parking lot, and two tennis courts and construction of a new 606-bed student residence hall, a 156-space underground parking garage, a dining commons, replacement of the recycling and waste facility, and relocation of the ROTC program. The proposed residential units would accommodate undergraduate on-campus housing demand from the existing student population, rather than an increase in student population.

To determine project trip generation of the proposed project, the San Francisco Planning Department's Transportation Impact Analysis Guidelines for Environmental Review[69] were used and calculated using a conservative scenario. The project is anticipated to eliminate the commute from home to campus for the 600 students currently residing off-campus, who would instead reside on campus at the proposed student residence hall. However, to conservatively estimate travel demand characteristics, the standard trip generation presented in the transportation guidelines, including the number of estimated person- and vehicle-trips associated with the proposed number of residential units (i.e., 155 units), were used. The student residence hall was assumed to comprise two or more beds per unit, and therefore, standard trip generation for two bedrooms plus residential units were applied. The proposed student residence hall is expected to generate approximately 1,550 total daily person trips (10 trips/unit), which include 268 person trips (178 inbound and 90 outbound) occurring during the weekday p.m. peak hour. The relocation of the recycling and waste facility and ROTC program addition would not increase staff or services at these facilities and thus, no measurable increase or decrease in trips would be

[69] City and County of San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, *http://default.sfplanning.org/publications_reports/Transportation_Impact_Analysis_Guidelines.pdf* accessed on November 8, 2017.

generated from their relocation. For this reason, the trip generation analysis evaluates the new trips that would be generated by the student residence hall and dining commons, and not the recycling and waste facility and the ROTC program relocation.

Based on mode split rates for residential uses obtained from the 2010-2015 American Community Survey for Census Tract 157, the project person trip generation rates were assigned to different transportation modes to determine the number of person trips by mode - transit, pedestrian, and other - to and from the project site. The project would generate approximately 519 auto person trips (including 110 carpool trips), 500 transit trips, 223 walk trips, and 309 other trips (bike, etc.) on a typical day. During the p.m. peak hour, the project would generate 88 auto person trips (including 18 carpool trips), 88 transit trips, 38 walk trips, and 54 "other mode" trips.

The travel demand analysis is a conservative estimate of new person trips (including vehicle trips) generated by students and employees associated with the new on-campus housing development and expanded dining commons development. USF distributes a commute travel survey approximately every two years to all current students (including on- and off-campus students), faculty, and staff. The most recent commute travel survey was conducted between April and July 2014. Survey results indicated that the majority of on-campus students typically walk (78 percent), take public transit (18 percent), bike or take other means (4 percent) as their primary mode of transportation due to the USF parking policy which prohibits students living on campus from bringing their vehicle to campus or parking on campus. For off-campus students, the survey indicated that 44 percent of off-campus students took public transit, 33 percent drive or carpool, and 23 percent used a bike, walked, or other means to access campus.[70] As such, existing students who move into the residence hall—and who would have otherwise lived off-campus—would likely shift their non-walking commute trips from primarily auto and transit to and from the campus to primarily walking and biking from on-campus housing.

The proposed project would add up to 13 new full-time employees and up to eight part-time employees to service the proposed dining commons.[71] Not all of the estimated full-time and part-time employees would be at the dining commons at the same time each day as employee shifts would vary on a daily basis. Approximately 11 employees would be scheduled to work any

[70] Based on survey findings, the majority (75 percent) of off-campus students live greater than one mile from campus. For students that live closer to campus (within 0.50 miles), the walk and public transit mode share is predominant (64 – 80 percent walk mode and 10 – 23 percent transit mode), as opposed to other modes. However, for students that live beyond 0.50 miles from campus, there is a larger use of public transit (45 – 49 percent) and private auto/carpool (up to 44 percent) than walk or other modes.

[71] For the purposes of trip generation, the estimated employee numbers were derived from the San Francisco Planning Department *Transportation Guidelines for Environmental Review*.

given day with up to six employees arriving between 6 a.m. and 9 a.m. and departing by 3 p.m., while an additional three employees would work from late morning to early evening (9 a.m. and 5:30 p.m.) and up to two employees would work between 1 p.m. and 9:30 p.m. It is assumed that up to three employees would depart the campus during the weekday p.m. peak hour, adding up to three vehicle trips during the peak period.

The 2014 commute travel survey indicated that most faculty/staff drive their own vehicle or carpool to the campus daily, while about a third use public transit, walk, or bike. According to the survey, about 35 percent of faculty/staff respondents indicated that they drive, and park along neighboring streets daily. The proposed on-site parking spaces would only be for faculty/staff members and therefore, these existing auto trips would shift from on-street to on-site parking, reducing current on-street parking demand along neighborhood streets. Even if the number of faculty/staff driving to/from campus increased in response to the net increase in parking spaces, the overall demand for on-street parking in the neighborhood would still be reduced.

Vehicles Miles Traveled (VMT) Analytical Approach

Policy 10.4 of the transportation element of the general plan directs city decision-makers to "consider the transportation system performance measurements in all decisions for projects that affect the transportation system." In January 2016, the Governor's Office of Planning and Research published a Revised Proposal on Updates to CEQA Guidelines on Evaluating Transportation Impacts recommending that analysis of transportation impacts be measured using a vehicle miles traveled (VMT) metric. The Governor's Office of Planning and Research guidelines provide substantial evidence that VMT is an appropriate standard to use to analyze transportation impacts to protect environmental quality and that it is a better indicator of impacts to greenhouse gas, air quality, and energy than automobile delay (e.g., level of service (LOS)). On March 3, 2016, the San Francisco Planning Commission adopted Resolution 19579, which directed the Environmental Review Officer to remove automobile delay as a factor in determining significant impacts and replace it with VMT criteria.

Vehicle Mile Travel Patterns in San Francisco and the Bay Area

Many factors affect travel patterns and behavior. These factors include density, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development at great distance from other land uses, located in areas with poor access to non-private vehicular modes of travel, generates more automobile travel compared to

development located in urban areas, where a higher density, mix of land uses, and travel options other than private vehicles are available.

As a dense urban environment, San Francisco has a lower VMT ratio than the nine-county San Francisco Bay Area region. In addition, some areas of the city have lower VMT ratios than other areas of the city. These areas of the city can be evaluated through data collection and modeling of travel patterns in transportation analysis zones, which vary in size from single city blocks in the downtown core to multiple blocks in outer neighborhoods.

The San Francisco County Transportation Authority uses the San Francisco Chained Activity Model Process (SF-CHAMP) to estimate and forecast VMT by private automobiles and taxis for different land use types. Travel behavior in the model is calibrated based on observed travel behavior from the California Household Travel Survey 2010-2012, Census data regarding automobile ownership rates, county-to-county worker flows, and observed vehicle counts and transit boardings. The model uses a synthetic population, which is a set of individual actors that represents the Bay Area's actual population, who make simulated travel decisions for a complete day. The transportation authority uses tour-based analysis for office and residential uses, which examines the entire chain of trips over the course of a day. For retail uses, the transportation authority uses trip-based analysis, which counts VMT for individual trips to and from the starting point. A trip-based approach is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations and would over-estimate VMT.[72]

Impact TR-1: The proposed project would not cause substantial additional VMT nor substantially induce automobile travel. (Less than Significant)

VMT Analysis

A proposed project would have a significant effect on the environment if it would cause substantial additional VMT. The Governor's Office of Planning and Research recommends screening criteria to identify types, characteristics, or locations of projects that would not result in significant impacts to VMT.[73] If a project meets screening criteria, then it is presumed that VMT

[72] San Francisco Planning Department, Executive Summary: Resolution Modifying Transportation Impact analysis, Appendix F, Attachment A, March 3, 2016, *http://commissions.sfplanning.org/cpcpackets/Align-CPC%20exec%20summary_20160303_Final.pdf* accessed on November 8, 2017.

[73] State Office of Planning and Research. January 2016. *Revised proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, *http://www.opr.ca.gov/docs/Revised_VMT_CEQA_Guidelines_Proposal_January_20_2016.pdf* accessed on November 8, 2017.

impacts would be less than significant for the project and a detailed VMT analysis is not required. The screening criteria for different land uses in the proposed project are summarized below:

- Residential projects - The project would cause substantial additional VMT, if it exceeds both the existing city household VMT per capita minus 15 percent and existing regional household VMT per capita minus 15 percent.

- Office and retail projects – The project would cause substantial additional VMT if it exceeds the existing regional VMT per office or retail employee minus 15 percent.[74]

The targets for VMT reduction for the region and San Francisco were estimated from existing VMT for the San Francisco Bay Area (regional), San Francisco (local), and the project study area (zone 658) based on information provided in the San Francisco Transportation Information Map.[75] As shown on **Table 8**, the target for regional average daily residential household VMT is 14.6 per capita (existing regional average VMT of 17.2 minus 15 percent).[76] The target for San Francisco average daily residential household VMT is 7.2 per capita (existing city average of 8.4 minus 15 percent). The project study area (zone 658) average residential VMT is 6.3 per capita, which is less than both the city and regional averages.

Similarly, the study area average VMT per capita for office and retail employment is 9.0 and 5.2, respectively, and substantially lower than the regional targets of 16.2 average daily office VMT per capita for the region and 12.6 average daily retail VMT per capita.

The project site is located within an area of the city where the existing VMT per capita is more than 15 percent below the relevant city and regional average VMT per capita for residential, office, and retail. Accordingly, the proposed project is not anticipated to generate substantial additional VMT and the impact would be ***less than significant***.

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[74] Although the non-residential components of the proposed project (dining commons, recycling and waste facility, ROTC program relocation addition, and the USF program space within the student residence hall) are considered post-secondary educational institutional uses under the planning code, for purposes of VMT transportation analysis these uses are treated as office and/or retail employment uses, given that they would be expected to generate employment-related vehicle trips, if any. *See* San Francisco Planning Department, Executive Summary: Resolution Modifying Transportation Impact analysis, Attachment F, p.F-4, March 3, 2016, *http://commissions.sfplanning.org/cpcpackets/Align-CPC%20exec%20summary_20160303_Final.pdf* (accessed on November 8, 2017).

[75] San Francisco Planning Department, *San Francisco Transportation Information Map*, *http://www.sftransportationmap.org/*, accessed in April 2016.

[76] The California Department of Transportation (Caltrans) has developed a statewide VMT reduction target per the *Strategic Management Plan* that specifically calls for a 15 percent reduction in per capita VMT, compared to 2010 levels, by 2020.

Table 8: Existing VMT per Capita

	General Location				
	Bay Area		*San Francisco*		*Project Study Area*
	VMT Screening Criteria				
Land Use	Regional Average	Regional Average minus 15%	City Average	City Average minus 15%	TAZ 658 Average
Households (Residential)	17.2	14.6	8.4	7.2	6.3
Employment (Office)	19.1	16.2	n/a	n/a	9.0
Employment (Retail)	14.9	12.6	n/a	n/a	5.2

n/a: not applicable

Sources: Nelson\Nygaard, *University of San Francisco Transportation Impact Study,* January 2018 and *San Francisco Transportation Information Map (Property Search 2500 Turk Street),* April 2016.

Induced Automobile Travel Analysis

The project is not a transportation project, but would propose on-site student housing and additional campus facilities, including parking. The construction of the new parking garage would provide a net increase of 78 spaces for existing faculty/staff at the Upper Campus and 200 new bicycle parking spaces for student and faculty use. The conservatively estimated 11 net new daily vehicle trips (one-way) generated by the new employees of the dining commons would most likely travel along Turk Street to access the new on-campus underground parking garage. These trips would be dispersed through the day due to varying work schedules with only about six employees arriving during the weekday a.m. peak hour and an estimated three employees departing during the weekday a.m. peak hour.

The net increase of 78 parking spaces from the construction of the new underground parking garage would increase parking on Upper Campus to about 240 spaces. The additional on-site parking could induce auto travel by other USF faculty/staff, due to the presence of additional parking. The 2014 USF commuter survey findings indicated that between 200 and 250 faculty/staff drive and park on neighborhood streets. The new on-campus parking spaces would be expected to attract a substantial portion of faculty/staff who currently (or would otherwise) park in the neighborhood and would be expected to reduce the demand for on-street parking in the neighborhood.

The introduction of 200 bicycle parking spaces could also encourage bicycle travel and would encourage the use of bicycling by students for trips to and from campus.

The increase in parking supply on campus, even with a modest net change in total faculty and staff driving to and from the campus (approximately 11 trips per day), is expected to result in a reduced number of faculty/staff parking on neighborhood streets. This would result in increased availability of on-street parking within the neighborhood. Because the proposed project would primarily include on-campus housing for students, who typically walk, take transit, or bike as their primary mode of transportation, and expanded parking supply that would shift faculty/employee parking away from the neighborhood streets, increased auto travel associated with the additional on-site parking spaces would not substantially increase VMT rates beyond the current VMT thresholds and the impacts would be ***less than significant.***

As noted under "Regulatory Background," the city established a citywide Transportation Demand Management (TDM) Program. Planning code amendments to implement the TDM Program were approved by the Board of Supervisors on February 7, 2017, and signed by the Mayor on February 17, 2017 (Ordinance 34-17). This ordinance added Planning Code section 169, Transportation Demand Management. Planning Code section 169.6 gives the Planning Commission authority to establish and amend TDM program standards, which define the specifics of the TDM plans required under section 169. The proposed project would be subject to the requirements of the TDM program and the project sponsor has agreed to implement several TDM measures, which are identified on **Table 9.**

While general traffic and VMT impacts would be ***less than significant***, the following TDM measures would further reduce these ***less-than-significant*** impacts and further promote the use of alternative modes of transportation as recommended in the requirements set forth in the City's Transportation Sustainability Program.

The San Francisco TDM Ordinance adopted in February 2017 includes "point targets" aimed at reducing VMT for proposed projects. Each TDM measure is assigned a point value based upon the relative efficacy of each measure to reduce vehicle miles traveled with a maximum number of points allowed for certain categories. Though the proposed project would not result in any impact to VMT, the net increase of 78 off-street parking spaces (156 total parking spaces, including 78 replacement spaces) would require the proposed project to achieve a TDM target goal of 27 points. However, under the provisions of Planning Code section 169.3(e) , projects with an environmental evaluation application filed on or before September 4, 2016 are subject to 50

percent of the applicable target. Such conditions would apply to the proposed project; therefore, the TDM goal is 14 points.[77]

USF already provides and administers several TDM-related measures, including on-site bicycle parking, shuttle bus service, and charging guests, visitors, and employees for parking. In addition, USF provides transportation information on their website and transportation packets for all students and employees. USF would exceed the applicable requirements of the TDM ordinance through the continued application of existing TDM measures summarized in **Table 9**.

Table 9: USF TDM Ordinance Measures and Points

TDM Measure	*Description*	*Points*
ACTIVE-1	Improve Walking Conditions (Option A)	1 point
ACTIVE-2	Bicycle Parking	1 point
ACTIVE-5A	Bicycle Repair Station	1 point
CSHARE-1	Car-share Parking and Membership (Option A)	1 point
DELIVERY-1	Delivery Supportive Amenities	1 point
HOV-1	Contributions or Incentives for Sustainable Transportation (Option A)	2 points
HOV-2	Shuttle Bus Service (Option B)	14 points
INFO-1	Multimodal Wayfinding Signage	1 point
INFO-3	Tailored Transportation Marketing Services (Option A)	1 point
	Total Points	**23 points**
	Required Points	**14 points**

Source: Nelson\Nygaard, *University of San Francisco Transportation Impact Study*, January 2018, p.5-3.

Impact TR-2: The proposed project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system and would not conflict with an applicable congestion management program. (Less than Significant)

Construction Traffic

To minimize impacts to transportation and circulation, the construction zone and staging area would be fenced off and access into the area would only be permitted for construction workers

[77] The environmental evaluation application for the proposed project was first filed for the student residence hall on December 23, 2014 and was updated to include the dining commons, the recycling and waste facility and the ROTC program relocation addition on September 16, 2016.

and equipment. No equipment or related materials would be stored within the public right-of-way. Construction vehicles would only be permitted to use the eastern-most campus driveway on Turk Street; while public access would be directed to use the other two driveways along the north side of Turk Street. No road closures and sidewalk closures are anticipated in or around the project site.

It is assumed that on average, approximately 114 construction workers would be on site during the day, but would vary depending on the construction phase. It is anticipated that most of the workers would drive, but would park at a remote site outside USF Hilltop Campus such as the Kezar Stadium (670 Kezar Drive, San Francisco) or Wallenberg High School (40 Vega Street, San Francisco), depending on availability, and would be shuttled to and from the project site. Workers would not be permitted to park within the project site or nearby neighborhoods. It is reasonable to assume that some workers would carpool and take transit.

The number of haul trucks traveling to/from the project site would vary each day with concentrated periods during site excavation. Approximately 60,000 cubic yards of spoils would be removed from the project site. This would require about 5,217 trucks over a period of up to 60 days, and average about 87 haul trips (roundtrips) per day. A small number of trucks would continue to enter and exit the project site throughout the construction period, which would temporary impact traffic flow on local streets due to slower vehicular speeds and larger turning radii.

Combining trips generated by the construction trucks and construction workers, the project would conservatively generate an average of approximately 216 two-way trips (432 one-way trips) per day. It is anticipated that the addition of the worker-related vehicle or transit trips would not substantially affect transportation conditions, as any impacts would be similar to, or less than, those associated with the new student residence hall following construction (based on a conservative analysis) and would occur on a temporary and limited basis. Requiring workers to park at an off-site location and be shuttled in/out of the site, as proposed, would substantially reduce the temporary daily influx in vehicle trips to/from the project site. In addition, designating truck access to the eastern-most driveway on the north side of Turk Street, as proposed, would minimize potential conflicts with other traffic, pedestrians, and bicyclists.

Since construction-related impacts generally would not be considered significant due to their temporary and limited duration, the proposed project would result in ***less-than-significant*** construction-related transportation impacts. No mitigation is required.

Improvement Measures

Improvement measures could be implemented to further reduce less-than-significant impacts from construction. **Improvement Measure I-TR-2a: Limit Construction Truck Deliveries to Off-Peak Periods** and **Improvement Measure I-TR-2b: Prepare and Implement a Construction Management Plan** would further minimize disruption of the general traffic flow in the project area during the morning and evening peak commute period.

Improvement Measure I-TR-2a: Limit Construction Truck Deliveries to Off-Peak Periods

Limiting truck movements to the hours between 9 a.m. and 3:30 p.m. (or other times, if approved by the municipal transportation agency) would further minimize disruption of the general traffic flow on adjacent streets during the a.m. and p.m. peak periods. As required, USF and construction contractor(s) would meet with the Sustainable Streets Division of the municipal transportation agency, police department, Muni, and the planning department to determine feasible measures to reduce traffic congestion, including potential disruption to transit and pedestrian circulation. USF would also coordinate with contractor(s) of any nearby concurrent construction projects.

Improvement Measure I-TR-2b: Prepare and Implement a Construction Management Plan

To address potential construction traffic impacts, the Construction Management Plan will include the following:

Active Modes, Carpool and Transit Access for Construction Workers: To further minimize parking demand and vehicle trips associated with construction workers, the construction contractor will provide incentives to encourage carpooling and transit use by construction workers in the Construction Management Plan contracts.

Project Construction Updates: To further minimize construction impacts on nearby businesses, USF will provide regularly-updated information (typically in the form of website, news articles, on-site posting, etc.) regarding project construction activities, schedule, as well as contact information for specific construction inquiries or concerns.

Loading

Under the Planning Code section 152.1, development projects with 200,001 to 500,000 square feet of residential uses are required to provide two off-street freight loading spaces; institutional uses under 100,000 square feet are not required to provide off-street freight loading spaces. The project

would provide two off-street loading spaces for the student residence hall along the north side of Lone Mountain Drive, interior to the Upper Campus and located within close proximity to the garage entrances and paseo walkway, consistent with planning code requirements as modified by the PUD and with the estimated loading demand for the project.

The project, including the student residence hall and dining commons, is estimated to result in up to eight truck freight and/or delivery vehicle trips per day and a demand for less than one freight/delivery loading space during both the average and peak hour of loading activities. The new dining commons would be an expansion of the existing campus dining facilities at the Lone Mountain Main Building where most existing deliveries to the Upper Campus are currently received. USF estimates that deliveries to the new dining commons would not exceed three daily trips. Given the temporal distribution of delivery vehicles traveling to and from the university and that most trips would occur outside the peak hour, the potential increase in daily trips for the new dining commons would not substantially affect current auto circulation and loading activities.

The proposed project does not include any additional changes to existing loading facilities on campus. Passenger loading activities for residents, visitors, or employees would continue to occur within available on-street parking spaces along Lone Mountain Drive or the yellow curb area in front of the Lone Mountain Main building. The proposed relocation of the recycling and waste facility would be to a location that is already being used for waste collection. While this would shift trips from Lone Mountain Drive to Lo Schiavo Drive, fewer trips would be required from the existing location. Consolidation of the waste collection facilities would not result in an increase in trips for waste collection or a change in the schedule for collection.

The loading activities at the new student residence hall associated with student residential move-in and move-out activities would continue to occur consistent with USF's move-in-day plan, which aims to stagger and assist student arrivals to prevent impacts on neighborhoods, local traffic, pedestrians, and bicyclists. For the past several years, USF has hosted a "Student Move-In-Day" which involves the arrival of approximately 2,220 student residents in a single day between the Upper and Lower Campuses. Most of the students arrive by car, with family members, and require the unloading of the possessions that they intend to bring to campus for the school year. USF has made a concentrated effort to create a system where arrivals are staggered to prevent traffic backups and so that staff and volunteers are positioned to move students and belongings from vehicles to residence halls quickly. The plan, which is reviewed and adjusted with the assistance of the police department and municipal transportation agency each year, would be updated in the months prior to the building's opening to ensure that the loading and unloading

of student belongings would occur efficiently at the project site, and with minimal impact on neighbors and local traffic.

USF would continue to work with the municipal transportation agency to block off parking on the campus perimeter to create restricted traffic lanes that allow arriving students to queue around campus without blocking regular traffic. Staff from both the police department and municipal transportation agency would continue to be on site during move-in-day to assist with enforcement and traffic control. Based on the success of existing move-in/move-out operations, the project would not be expected to cause any adverse effects to traffic, bicycle, or pedestrian flow along adjacent streets nor would such activities hinder or obstruct access to the project site.[78] While impacts associated with residential move-in/move-out activities would not be considered significant, specific measures, such as existing rules that prohibit oversized vehicles and overhead storage containers, would reduce potential traffic-related impacts and conflicts between delivery operations, movers, and pedestrians.

Based on these findings regarding potential changes to loading and loading demand, the proposed project's impacts would be ***less than significant***. No mitigation is required.

Impact TR-3: The proposed project would not substantially increase traffic hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. (Less than Significant)

The project could result in up to an estimated 83 vehicle trips during the weekday p.m. peak hour (54 inbound and 29 outbound) associated with the proposed on-campus housing development and dining commons based on a conservative traffic analysis. Due to the USF parking policy the vehicle trips rates from the student residence hall-related are anticipated to be lower.

Field observations conducted by Nelson\Nygaard on Wednesday, March 30, 2016 indicated that most vehicle traffic is concentrated along Masonic Avenue, which handles a significant number of north-south regional trips. No considerable queues at surrounding intersections were observed, indicating that most vehicles could clear the intersection during each signal phase with minimal delay. The project would not result in any considerable effect to current auto circulation conditions in and around the project site or nearby streets. There could be a marginal increase in vehicle trips to adjacent intersections and roadways during the weekday p.m. peak hour (about

[78] University of San Francisco, *Student Housing and Residential Education*, https://www.usfca.edu/housing, accessed on November 8, 2017.

two percent); however, it is reasonable to assume that this estimated increase in trips would not result in a degradation in traffic operations, including traffic flow and vehicle delay.

The potential increase in vehicle trips could result in 54 inbound trips into the main driveway located east of Parker Avenue (Lone Mountain Drive) from Turk Street; this equates to approximately one new inbound vehicle trip per minute within the weekday p.m. peak hour. Inbound traffic from westbound Turk Street (about 50 vehicle trips spread out during the p.m. peak hour) would have adequate lane capacity and sight distances to enter Lone Mountain Drive without resulting in any conflicts with other vehicles (including Muni buses) and bicyclists, parked vehicles. The addition of these new vehicle trips would not result in excessive queues or blockages, and would not result in conflicts with pedestrians traversing Turk Street. Inbound traffic from eastbound Turk Street (about four vehicles spread out during the p.m. peak hour) would also have adequate lane capacity and storage to slow, stop and turn left into the main driveway. Any potential queues from the estimated four vehicles would not be extensive, as the current lane storage along Turk Street is approximately 180 feet from the Parker Avenue intersection, which can store up to approximately nine vehicles at any given time, considerably less than the number of estimated inbound vehicles from eastbound Turk Street (about four vehicles).

Further, the project could also generate approximately 29 outbound vehicle trips from the two egress driveways (north of Turk Street) during the weekday p.m. peak hour, which equates to approximately one outbound vehicle about every two minutes. Based on current travel patterns, the majority, if not all, of these trips would proceed to exit the campus and head westbound along Turk Street, as crossing over more than two lanes of traffic and navigating opposing traffic would not be as convenient as making a right turn when there is a gap in the traffic stream in the westbound direction. Exiting vehicles would continue to have adequate sight distance of moving auto traffic, bicyclists and crossing pedestrians, and would not result in any potential conflicts with other modes or cause a substantial traffic hazard.

The proposed project would not reconfigure Upper Campus driveways or introduce new features that would impede or hinder circulation in the project area. The proposed project buildings, facilities, and associated infrastructure would be designed in compliance with all applicable building and roadway local and state regulations. These regulations would prevent the construction of project buildings or roadways with design features that would create hazardous conditions for motorists, pedestrians, transit patrons, or bicyclists. The new student residence hall, dining commons, and ROTC program relocation addition would not substantially change the design of interior campus access roadways or sidewalks nor would it result in any

changes to adjacent public roadways, sidewalks, bike or transit routes. The recycling and waste facility would be relocated to an area with primarily truck access, interior to the Upper Campus.

Overall, because the project would generate a limited increase in vehicle traffic to and from the main driveways and adjacent streets/intersections and would not result in any evident traffic hazards related to queuing, blockages, reduction in sight distances, or potential conflicts with other modes (including pedestrians and bicyclists), the project would result in a ***less-than-significant*** impact to traffic hazards within the study area. No mitigation is required.

Impact TR-4: The proposed project would not result in inadequate emergency access. (Less than Significant)

Emergency access to the project site would mostly remain unchanged from existing conditions. The street network serving the project area currently accommodates the movements of emergency vehicles traveling to the project site. In the event of an emergency, vehicles could access the campus and campus access roads as under existing conditions from Lone Mountain Drive via Turk Street and the internal access road, Lo Schiavo Drive directly to the north. Emergency vehicle access to the student residence hall would also be provided in the central paseo from Lone Mountain Drive to the northern edge of the buildings with a hammerhead turnaround at the end. Firefighter access would be provided around all sides of both student residence hall buildings. Furthermore, the proposed project would not reconfigure Upper Campus driveways or result in increased traffic to the area; resulting in no evident impedance or hindrance to the movement of emergency vehicles in the project area from the neighboring fire stations (Fire Station No. 21, Fire Station No. 10, and Fire Station No. 5). During construction, emergency access to Upper Campus would be largely the same as under both existing and future project conditions, with the exception of the closure of the eastern part of Lone Mountain Drive and the exit from Lone Mountain Drive onto Turk Street at that location. Because emergency vehicles will still have access to Upper Campus via Lone Mountain Drive from two Turk Street driveways, as well as via the internal access road, Lo Schiavo Drive, directly to the north, there would still be adequate emergency vehicle access during the period of construction.

Based on these findings, the proposed project's impact to emergency vehicle access would be ***less than significant.*** No mitigation is required.

Impact TR-5: The proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such features. (Less than Significant)

Transit

The proposed project would result in a limited increased demand for transit services. The small increase in employees associated with the construction of the dining commons would be expected to mostly drive to work, rather than take transit, due to off-peak hour shift schedules. The construction of the new 606-bed student residence hall, however, would relocate existing off-campus students to live on-campus. This would shift student mode choice for travel to/from the campus from an estimated 44 percent transit trips for off-campus to 18 percent transit and 78 percent walking for on-campus students traveling to/from the campus. Using the transportation guidelines, the on-campus student transit trips associated with the new residence hall would conservatively generate about 500 daily transit trips, with 88-person transit trips occurring during p.m. peak hour travel. If existing transit use patterns as estimated from surveys of on-campus trip making, then the actual number of transit trips would be expected to be less than the 88-person p.m. peak hour transit trips calculated under the transportation guidelines.

The impacts to transit services are anticipated to be limited for several reasons. The majority of resident student trips would most likely occur during non-peak periods as most of the students would walk to/from campus. The Muni bus routes that serve the project area during the p.m. peak hour (outbound) direction, have aggregate screenline (i.e., northwest and southwest screenlines) and sub-corridor (i.e., Geary, Haight/Noriega) capacity utilization of less than 85 percent (the Muni capacity utilization performance standard), such that the transit routes could accommodate additional transit trips (**see Table 10).** The exception is the 5-Fulton outbound bus route on the Fulton/Hayes sub-corridor during the p.m. peak hour, which currently operates at 104 percent of capacity at its maximum load point of McAllister Street and Lyon Street; this means that the number of passengers riding the route at that time exceeds seating capacity. Analysis of the likely distribution of the anticipated conservative 88 student transit trips during the p.m. peak hour, however, estimates the student trips would not increase ridership levels by more than two percent on any sub-corridor level, and would contribute two percent to the Fulton-Hayes sub-corridor, which currently operates above the 85 percent utilization standard, i.e., the Fulton/Hayes sub-corridor.

Table 10: Projected Transit Demand among Muni Screenlines: p.m. Peak Hour

Screenline	p.m. Peak Hour (Outbound)			p.m. Peak Hour (Outbound)		
	Ridership	Capacity	Utilization	Project Trips	Existing+ Project	Utilization
Northeast						
Kearny/Stockton	2,245	3,327	68%	--	2,245	68%
All Other Lines	683	1,078	63%	--	683	63%
Screenline Total	*2,928*	*4,405*	*66%*	--	*2,928*	*66%*
Northwest						
Geary	1,964	2,623	75%	30	1,994	76%
California	1,322	1,752	75%	--	1,322	75%
Sutter/Clement	425	630	68%	--	425	68%
Fulton/Hayes	1,184	1,323	**90%**	29	1,213	**92%**
Balboa	625	974	64%	--	625	64%
Screenline Total	*5,519*	*7,302*	*76%*	59	5,578	76%
Southeast						
Third Street	782	793	**99%**	--	782	**99%**
Mission	1,407	2,601	54%	--	1,407	54%
San Bruno/Bayshore	1,536	2,134	72%	--	1,536	72%
All Other Lines	1,084	1,675	65%	--	1,084	65%
Screenline Total	*4,810*	*7,203*	*67%*	--	*4,810*	*67%*
Southwest						
Subway Lines	4,904	6,164	80%	--	4,904	80%
Haight/Noriega	977	1,554	63%	29	1,006	65%
All Other Lines	555	700	79%	--	555	79%
Screenline Total	6,435	8,418	77%	29	6,464	77%
Muni Screenline Total	**19,693**	**27,328**	**72%**	**88**	**19,781**	**72%**

Note: **BOLD** indicates line operates at capacity utilization of 85 percent or greater.

Sources: San Francisco Planning Department, *Transit Data for Transportation Impact Studies Memorandum*, (updated May 15, 2015); Nelson\Nygaard, January 2018.

The proposed project would not be expected to adversely affect transit operations or require any permanent relocation of existing Muni bus stops. The location of access driveways to the campus would not change. The anticipated net new vehicular traffic along Turk Street by new dining commons employees, mostly during non-peak hours, would likely be offset by the anticipated reduction in student commuting vehicular trips. Regardless, the 11 net new employee trips and

potential 11 net new (induced) faculty/staff trips conservatively assumed would not substantially conflict with transit operations, due in part to the existing travel lanes that would allow transit vehicles to bypass any vehicles slowing on Turk Street to access the campus driveways.

Based on these findings, the proposed project impacts to existing transit capacity utilization, transit facilities, or transit operations would be ***less than significant***. No mitigation required.

Bicycle

The proposed project, primarily the student residence hall, is estimated to generate 309 daily and 54 p.m. peak hour person trips by other mode choices, including bicycles. These would include both on-campus and off-campus trips. Qualitative field observations of key intersections in the surrounding neighborhood during peak periods indicated a low level of bicycle activity despite class II bike lanes and class III signed bike routes on Masonic Avenue, Golden Gate Avenue, and Turk Street.[79] As such, it would be expected that the number of bicycle trips generated by the proposed project could be accommodated by existing bicycle facilities.

The proposed project would not result in changes to neighborhood streets, campus driveways, or otherwise eliminate or impede access to bicycle routes or facilities.

To accommodate anticipated bicyclists, the proposed project includes 200 bicycle parking spaces, comprising approximately 171 class 1 spaces in the underground parking garage, 23 class 2 spaces in the central paseo located between the two new residence hall buildings, and six to ten class 2 spaces at Lone Mountain Main near the dining commons. The number of bicycle parking spaces proposed exceeds the Planning Code (sections 155.1, 155.2, and 155.3), which requires 185 bicycle parking spaces based on student residential uses (183 spaces) and post-secondary educational uses (two spaces).

Based on these findings, the proposed project impacts would not eliminate or impede access to existing bicycle routes, would not create safety conditions for bicyclists, nor substantially interfere with bicycle accessibility; and therefore, the proposed project would have a ***less-than-significant*** impact on bicycle activity. No mitigation is required.

Pedestrian

The proposed project, primarily the new student residence hall, would generate an estimated 223 daily net new pedestrian trips, including 38 trips during the p.m. peak hour based on the

[79] Field observations by Nelson\Nygaard on Wednesday, March 30, 2016.

transportation guidelines. The majority of pedestrian trips would be generated by the students living at the new residence hall and would primarily occur between the Upper and Lower campuses, in which case pedestrian traffic would flow through the proposed central paseo between the two student residence hall buildings and across Turk Street. The conservatively assumed daily net new pedestrian trips would not result in overcrowding of public sidewalks or creating potentially hazardous conditions for pedestrians, in part because the existing sidewalks would sufficiently handle the anticipated pedestrian volume, which would be spread throughout the day with a maximum of about 38 trips during the p.m. peak hour, some of which would be internal to the campus.

Pedestrian access to the student residence hall would be provided by two secured pedestrian entrances, one at each building (including ADA-accessible ramps) to accommodate residents, faculty, staff, and other visitors. The existing asphalt path linking Loyola Village on Anza Street to Turk Street and the Lower Campus would be reconfigured to incorporate the new paseo. The eastern perimeter of the site would include a landscaped buffer to discourage pedestrian traffic adjacent to Ewing Terrace.

No changes to the surrounding sidewalks or roadways are proposed as part of the proposed project, though internal pathways would be upgraded and a new connection would be provided between Lone Mountain Drive and Loyola Village.

Based on the foregoing, the new pedestrian trips generated by the project would not result in an increase in the amount of overcrowding on public sidewalks, including local streets such Tamalpais Terrace, Temescal Terrace, Chabot Terrace, Kittredge Terrace, and Roselyn Terrace, which connect the upper and lower campus, interfere with pedestrian circulation to nearby areas and buildings, or create potentially hazardous conditions for pedestrians. The project would not introduce any design features that would conflict with current city plans to improve the pedestrian network in and around the proposed project site (e.g., Better Streets Plan, San Francisco "Walk First" project).

Based on these findings, the proposed project impacts on pedestrians, pedestrian walkways, and overall safety would be ***less than significant***. No mitigation is required.

Impact TR-6: The proposed project would not result in a substantial parking deficit that would create hazardous conditions or significant delays affecting transit, bicycles, or pedestrians and where particular characteristics of the project or its site demonstrably render use of other modes infeasible. (Less than Significant)

The USF Hilltop Campus can be accessed by vehicle, transit, walking, or bicycling through the existing public street network, campus access roads, bus transit service, sidewalks, and bicycle routes. Eight Muni bus routes operate within a two-block walkshed of the project site and provide connections (transfers) to other regional transit providers. USF also provides subsidized shuttle peak period service between the USF Hilltop Campus and the Temporary Transbay Terminal for full-time and adjunct faculty and full-time staff. Several bicycle facilities serve the Upper and Lower campuses including bicycle lanes along Turk Street, Golden Gate Avenue, and Arguello Boulevard; and bicycle routes along Turk Street, Parker Avenue, Masonic Avenue, and McAllister Street. The project site also is located within an established pedestrian network with continuous sidewalks, curb-ramps, and painted, high-visibility crosswalks at most area intersections.

Off-street parking facilities on the Upper Campus are provided at three existing surface parking lots (Lone Mountain Fee Lot, Loyola Lot, and School of Education Lot) and permit-only on-street parking spaces located adjacent to the project site. Off-street parking surveys observed low to moderate occupancies at these lots with the highest utilization rate of spaces observed in the Loyola Lot in the morning at 51 percent and in the School of Education Lot in the evening at 72 percent; below the 90 percent peak occupancy industry standard.

On-street parking near the Upper Campus is primarily regulated as 2-hour/residential parking permit zones, which are enforced as 2-hour parking between 8:00 a.m. and 6:00 p.m. on weekdays with the exception of local resident permit holders.[80] Four -hour/residential parking permit zones along Parker Avenue and Turk Street, directly adjacent to the Upper Campus were introduced in August 2016. On-street parking occupancies for block faces abutting the perimeter of the Upper Campus are generally high, with many segments directly adjacent to the property above 95 percent during both morning and evening periods; on-street parking occupancies located on the Upper Campus were observed with a much greater availability of spaces during both periods, with only the road behind the Lone Mountain North residence hall between Parker Avenue and Anza Street showing an occupancy rate above 50 percent (in the evening). Lower

[80] The RPP zones along the western block faces of Masonic Avenue restrict all parking on weekdays from 4:00 p.m. to 6:00 p.m. to open the lane for southbound peak hour travel.

Campus also were observed with many segments' occupancies above 95 percent during both periods.

The proposed project would increase the existing off-street parking supply by approximately 78 net new parking spaces, while generating a demand for up to 11 parking spaces to serve the new dining commons employees. Parking in the student residence hall garage would be available for faculty and staff only. The net increase of 78 parking spaces from the construction of the new underground parking garage would increase permit lot parking on the USF Upper Campus to about 240 spaces. The provision of an additional 78 spaces would allow faculty/staff, and other employees who normally park on nearby residential streets to park on campus, therefore shifting parking demand away from the surrounding neighborhoods.

The project would not result in a parking shortfall, in part because it would include 78 net new parking spaces and would replace the existing spaces that currently exist on the project site by including an underground parking garage in the student residence hall that would be available to staff/faculty only. The provision of an additional 78 spaces would be expected to allow faculty/staff, and other employees who would otherwise park on nearby residential streets, to park on campus, therefore shifting parking demand from on street to off street. The provision of on-site housing for students as part of the student residence hall component of the project would be expected to further reduce off-site parking demand generated by students who currently drive to campus. The students housed in the proposed student residential hall would not be permitted to park on campus or in the surrounding neighborhood per USF policy while living on campus.

Because the project would increase the on-campus parking supply and reduce potential parking demand by increasing on-site housing for students who would otherwise drive to campus, and because of the robust sustainable transportation options available in the project area, the project would not result in a parking shortfall and impacts would be ***less than significant***. No mitigation is required.

Impact C-TR-1: The proposed project in combination with past, present, and reasonably foreseeable future projects, would not result in substantial cumulative regional VMT. (Less than Significant)

Cumulative VMT Analysis

San Francisco 2040 cumulative conditions were projected using the SF-CHAMP model, which analyzes anticipated residential and job growth estimates and reasonably foreseeable transportation investments through 2040. Cumulative traffic conditions focus on the projected VMT of the proposed project relative to the San Francisco Bay Area (regional), San Francisco

(local), and project study area (TAZ 658). The analysis uses information provided in the San Francisco Transportation Information Map. As shown in **Table 11**, the 2040 regional average daily household VMT per capita is 16.1 and the VMT reduction goal for the region is 13.7 (minus 15 percent). For the project study area (TAZ 658), the 2040 average daily VMT per capita is 5.7.

Table 11: 2040 Future VMT per Capita

Land Use	*Regional Average*	*Regional Average minus 15%*	*Project Study Area (TAZ 658) Average*
Household (Residential)	16.1	13.7	5.7
Employment (Office)	17.1	14.5	8.3
Employment (Retail)	14.6	12.4	5.1

Source: Nelson\Nygaard, *University of San Francisco Transportation Impact Study,* January 2018, p.4-24.

Similarly, for employment (offices and retail),[81] the 2040 average VMT per capita at the project study area is 8.3 and 5.1, respectively, which is substantially lower than the 2040 average VMT per capita for the region and the value is proportionately lower than the existing VMT value compared to the regional average. Based on these findings, the proposed project would not cause substantial additional VMT and cumulative impacts would be ***less than significant***. No mitigation is required.

Impact C-TR-2: The proposed project in combination with past, present, and reasonably foreseeable future projects, would not result in substantial cumulative transportation impacts. (Less than Significant)

Cumulative Traffic Hazards

The potential future increase in traffic levels along Turk Street and adjacent streets (i.e., up to 83 weekday p.m. peak hour vehicle trips) from the project would not be cumulatively considerable nor would such traffic increases result in a substantial (or noticeable) degree that would result in adverse congestion, vehicle queuing effects in adjacent streets or result in a hazardous condition.

USF is currently working with nearby neighborhood organizations to improve pedestrian safety by developing the USF Traffic Calming Plan, which includes crosswalk upgrades on Turk Street

[81] Although the non-residential components of the proposed project (dining commons, recycling and waste facility, ROTC program relocation addition, and the USF program space within the student residence hall) are considered post-secondary educational institutional uses under the planning code, for purposes of VMT transportation analysis these uses are treated as office and/or retail employment uses, given that they would be expected to generate employment-related vehicle trips, if any.

between Parker Avenue and Masonic Avenue and median treatments on Golden Gate Avenue. USF would continue to coordinate with these neighborhood groups and the municipal transportation agency to plan for, and implement appropriate traffic calming devices along adjacent streets that would further reduce and/or eliminate any potential impacts to localized circulation (including vehicle, bicycle, and pedestrian traffic) along local streets.

Therefore, the proposed project, in combination with past, present, and reasonably foreseeable development projects, would not contribute considerably to a significant cumulative traffic hazard impacts and this impact would be ***less than significant***. No mitigation is required.

Cumulative Transit Impacts

The analysis of future year 2040 cumulative transit utilization considers foreseeable changes in local and regional transit service and the change in transit ridership based on changes in land use. **Table 12,** below presents projected p.m. peak hour transit demand, capacity, and utilization among the Muni screenlines (i.e., northwest) with implementation of the proposed project. By 2040, ridership levels on Muni lines are projected to generally grow faster than increases in capacity, and overall p.m. peak-hour ridership, as a percentage of overall capacity, would increase from existing conditions. In some instances, however, total capacity is expected to increase enough that utilization would be below the 85 percent performance standard.

In the project area, ridership growth on the California, Sutter/Clement, and Fulton/Hayes sub-corridors within the northwest screenline is projected to create ridership levels at 87 percent, 99 percent, and 94 percent, respectively; above the 85 percent Muni utilization standard. The proposed project, however, would contribute less than two percent to Fulton/Hayes sub-corridor ridership, and less than one percent to any other screenline or sub-corridor that would exceed the established capacity utilization threshold.

Table 12: Muni Screenline Capacity Utilization (2040) – Weekday p.m. Peak Hour

Screenline	***p.m. Peak Hour (Outbound)***			***p.m. Peak Hour (Outbound)***		
	Ridership	***Capacity***	***Utilization***	***Project Trips***	***Cumulative+ Project***	***Utilization***
Northeast						
Kearny/Stockton	6,295	8,329	76%	--	6,295	76%
All Other Lines	1,229	2,065	60%	--	1,229	60%
Screenline Total	*7,524*	*10,394*	*72%*	--	*7,524*	*72%*
Northwest						
Geary	2,996	3,621	83%	30	3,026	84%
California	1,766	2,021	**87%**	--	1,766	**87%**

Screenline	*p.m. Peak Hour (Outbound)*			*p.m. Peak Hour (Outbound)*		
	Ridership	*Capacity*	*Utilization*	*Project Trips*	*Cumulative+ Project*	*Utilization*
Sutter/Clement	749	756	**99%**	--	749	**99%**
Fulton/Hayes	1,762	1,878	**94%**	29	1,791	**95%**
Balboa	776	974	80%	--	776	80%
Screenline Total	*8,049*	*9,250*	***87%***	59	8,108	**88%**
Southeast						
Third Street	2,300	5,712	40%	--	2,300	40%
Mission	2,673	3,008	**89%**	--	2,673	**89%**
San Bruno/Bayshore	1,817	2,134	**85%**	--	1,817	**85%**
All Other Lines	1,582	1,927	82%	--	1,582	82%
Screenline Total	*8,372*	*12,781*	*66%*	--	*8,372*	*66%*
Southwest						
Subway Lines	5,692	6,804	84%	--	5,692	84%
Haight/Noriega	1,265	1,596	79%	29	1,294	81%
All Other Lines	380	840	45%	--	380	45%
Screenline Total	7,337	9,240	79%	29	7,366	78%
Muni Screenline Total	**31,282**	**41,665**	**75%**	**88**	**31,370**	**75%**

Note: **BOLD** indicates line operates at capacity utilization of 85 percent or greater.

Sources: San Francisco Planning Department, *Transit Data for Transportation Impact Studies Memorandum,* updated May 15, 2015; Nelson\Nygaard, 2016.

Under 2040 cumulative conditions, regional transit ridership is not projected to exceed the available capacity along most the transit screenlines, except for the East Bay BART screenline. The bulk of the conservatively estimated 88 student transit trips would be anticipated to be local trips within San Francisco for shopping or entertainment and would therefore not be expected to cross regional screenlines. Should a conservative estimate of 10 percent (eight student transit trips) cross regional screenlines, the corresponding increase in ridership on regional screenlines where capacity is exceeded would be significantly less than one percent, with no cumulatively considerable effect. Given that no substantial change in mode choice for faculty/staff is anticipated and that these regional trips are already accounted for in the Year 2040 ridership projections, the project would not result in a considerable increase in ridership levels or contribute to excessive ridership levels for regional lines operating above the capacity utilization threshold.

Based on these findings, the proposed project would not have a cumulatively considerable effect on future local or regional transit service or performance standards, would not result in overcrowding conditions, and would not substantially contribute to future ridership levels. Overall, the proposed project would not contribute considerably to these corridors and screenlines, and therefore, the proposed project in combination with past, present and reasonably foreseeable development in San Francisco, would result in ***less-than-significant*** cumulative transit impacts. No mitigation is required.

Cumulative Pedestrian Impacts

Pedestrian circulation impacts by their nature are site-specific and generally do not contribute to impacts from other development projects. The project would not result in overcrowding of sidewalks or create new potentially hazardous conditions for pedestrians under cumulative conditions. Moreover, USF is proposing to enhance the pedestrian network in and around the campus by implementing the USF Traffic Calming Plan, which includes plans for safer crossings and traffic calming design features—all of which would improve pedestrian conditions under cumulative conditions. The pedestrian improvements at and near the project site would include upgrades to existing crosswalks (i.e., from striped to high-visibility, continental design) at four intersections on Turk Street: Tamalpais, Chabot, Parker, and Annapolis terraces. Along Golden Gate Avenue, there would be upgrades to existing crosswalks at three intersections: Chabot Terrace, Parker Avenue, and Kittredge Terrace and new crosswalks at the intersections at Tamalpais, Roselyn, Annapolis, and Temescal terraces. Upgrades to curb ramps along Golden Gate Avenue at Tamalpais, Annapolis and Temescal terraces would be included.

The increase in project trips or proposed design of the project would not create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas. Based on these findings, the project, in combination with past, present and reasonably foreseeable developments in San Francisco, would result in ***less-than-significant*** cumulative pedestrian impacts.

Cumulative Bicycle Impacts

The project would not substantially contribute to cumulative bicycle circulation or conditions in the project area. Bicycle trips in the area may increase between the completion of the project and the cumulative scenario due to general growth in the area. The project would maintain adequate points of access to bicycle parking and is designed to reduce potential conflicts with private cars and delivery/freight vehicles. As part of the USF Traffic Calming Plan, proposed bicycle improvements also include additional sharrows along Golden Gate Avenue (indicating to drivers and bicyclists that lanes can be shared between both modes) and a new bike box at the

intersection at Masonic Avenue (in the eastbound approach of the intersection), allowing for adequate storage for bicyclists while they are stopped at the intersection, and with ample spacing between bicyclists and vehicles. The presence of a bike box would also allow for "No Right Turn on Red" for drivers, therefore, eliminating potential conflicts between moving vehicles and bicyclists.

Additionally, the project would not reduce access to the existing bicycle routes along Turk Street, McAllister Street, Masonic Avenue, Golden Gate Avenue, or Arguello Boulevard and these facilities would be able to accommodate potential increase in bicycle trips over time. The anticipated increase would not reach a level that would create potentially hazardous conditions for bicycles. The increase in vehicle trips generated by the project would not be cumulatively considerable and would not result in hazardous conditions that would potential conflict with, or reduce access to bicyclists under cumulative conditions.

USF is proposing to enhance the bicycle network in and around the campus, including increased connectivity along external/internal streets with bike sharrows and traffic calming design features—all of which would improve bicycle conditions under cumulative conditions. Based on these findings, the project, in combination with past, present and reasonably foreseeable developments in San Francisco, would result in ***less-than-significant*** cumulative impacts on bicyclists. No mitigation is required.

Cumulative Loading Impacts

The project would not contribute to, or result in any potential elimination and/or modification to existing off-street loading spaces within the campus, nor contribute to such adverse conditions in combination with other planned projects. The project would not result in any considerable changes to the current USF move-in-day operations, which is coordinated among USF staff, the transportation agency and police department staff to assure that there are no adverse effects to public safety or traffic during this temporary period.

As such, the project would not result in any cumulative loading impacts, as the estimated loading demand would be met on-site. Therefore, the project, in combination with past, present and reasonably foreseeable developments in San Francisco, would result in ***less-than-significant*** cumulative loading impacts. No mitigation is required.

Cumulative Construction Impacts

The construction of the project may overlap with the construction of other projects or other planned cumulative development projects. Consequently, construction activities associated with

future projects could affect access, traffic, and pedestrians on streets used as access routes to and from the project site (e.g., Turk Street, Masonic Avenue, etc.). Overall, localized cumulative construction-related transportation impacts could occur from cumulative projects that would generate increased traffic at the same time and on the same roads as the proposed project. The construction manager for each individual project would work with the various departments of the city to develop a detailed and coordinated plan that would address construction vehicle routing, traffic control, and pedestrian movement adjacent to the construction area for the temporary duration of any overlap in construction activity.

Improvement measures (see improvement measures I-TR-2 and I-TR-3) would further reduce the proposed project's ***less-than-significant*** impacts related to potential conflicts between construction activities and pedestrians, transit, and autos, including construction truck traffic management, project construction updates for adjacent businesses and residents, and carpool and transit access for construction workers.

The cumulative impacts of multiple nearby construction projects would not be considerable, as the construction of the proposed project and other projects would be temporary and not likely for the entire duration of the project construction schedule. City transportation and public works departments through the Transportation Advisory Staff Committee would develop coordinated plans to address construction-related vehicle routing and pedestrian/bicycle movements adjacent to the construction area for the duration of construction overlap. Based on these findings, the proposed project, in combination with past, present, and reasonably foreseeable development in San Francisco, would result in a ***less-than-significant*** cumulative construction-related transportation impact. No mitigation is required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
6. NOISE. Would the project result in:					
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐	☐
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☐	☒
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☒

An *environmental noise assessment* was prepared for the proposed project and was used as a resource in determining the potential significance of noise impacts and identifying any needed mitigation measures.[82]

The project site is not within an airport land use plan area,[83] or in the vicinity of a private airstrip. Therefore, Topics 5e and 5f are not applicable to the proposed project.

[82] Charles M. Salter Associates, Inc., *University of San Francisco Projects Environmental Noise Impact Assessment*, October 27, 2017.

Setting

Overview

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. Consequently, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA).[84] Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

Noise and Community Exposure

An individual's noise exposure is a measure of the noise experienced by the individual over a period of time. A noise level is a measure of noise at a given instant in time; however, noise levels rarely persist consistently over a long period of time. Rather, community noise varies continuously over time because of the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but typically does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and

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[83] City/County Association of Governments of San Mateo County, *Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport*, November 2012. See also, Alameda County Community Development Agency, *Oakland International Airport, Airport Land Use Compatibility Plan*, December 2012.

[84] All noise levels reported herein reflect A-weighted decibels unless otherwise stated.

wind. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short-duration single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment result in variation in the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to accurately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: The equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The Leq is the constant sound level that would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

L_{max}: The instantaneous maximum noise level for a specified period of time.

L_{50}: The noise level that is equaled or exceeded 50 percent of the specified time. This is the median noise level during the specified time.

L_{90}: The noise level that is equaled or exceeded 90 percent of the specified time. The L_{90} is often considered the background noise level averaged over the specified time.

DNL: The Day/Night Average Sound Level is the 24-hour day and night A-weighted noise exposure level, which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night. Noise between 10 p.m. and 7 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance from nighttime noise. (DNL is also referred to as "Ldn.")

CNEL: Similar to the DNL, the Community Noise Equivalent Level (CNEL) adds a 5-dBA "penalty" for the evening hours between 7 p.m. and 10 p.m. in addition to a 10-dBA penalty between the hours of 10 p.m. and 7 a.m.

Effects of Noise on People

The effects of noise on people can be placed in three general categories:

- Subjective effects of annoyance, nuisance, dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as startle, hearing loss

Environmental noise typically produces effects in the first two categories. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. Regarding increases in A-weighted noise levels, the following relationships occur:

- Under controlled conditions in an acoustics laboratory, the trained healthy human ear can discern changes in sound levels of 1 dBA.
- Outside these controlled conditions, the trained ear can detect changes of 2 dBA in normal environmental noise.
- It is widely accepted that the average healthy ear, however, can barely perceive changes in the noise level of 3 dBA.
- A change in level of 5 dBA is a readily perceptible increase in noise level.
- A 10 dBA change is recognized as twice as loud as the original source.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 to 7.5 dBA per doubling of distance from the source, depending on the topography of the area and environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noise, such as a large

industrial facility spread over many acres or a street with moving vehicles (known as a "line" source), typically attenuates at a lower rate, approximately 3 to 4.5 dBA each time the distance doubles from the source, which also depends on environmental conditions.[85] Noise from large construction sites exhibits characteristics of both "point" and "line" sources, and attenuates generally between 4.5 and 7.5 dBA each time the distance doubles.

Sources of Noise

Transportation sources, such as automobiles, trucks, trains, and aircraft, are the principal sources of noise in the urban environment. Along major transportation corridors, noise levels can reach 80 DNL (dBA), while along arterial streets, noise levels typically range from 65 to 70 DNL (dBA). However, noise levels on roadways, like all areas, can be affected by intervening development, topography, or landscaping. According to the environmental noise assessment, the existing noise environment surrounding the project site ranges from 57 to 72 DNL (dBA)[86] and is discussed in the "Existing Ambient Noise Levels."

Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others because of the amount of noise exposure, in terms of both duration and insulation from noise, and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas generally are more sensitive to noise than are commercial and industrial land uses.

The Upper Campus, site of the proposed student residence hall, dining commons, and relocated recycling and waste facility, is surrounded on four sides by predominantly single-family and multi-family residential uses, which would be considered sensitive receptors. The proposed location for the ROTC program relocation addition on the Lower Campus is bordered on one side by single-family residential uses. Nearby uses on Masonic Boulevard and Turk Street are more varied, and include commercial, residential, and mixed-use buildings. The noise-sensitive land uses bordering the project site are located as follows:

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[85] California Department of Transportation. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013, *http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf,* accessed on November 8, 2017.

[86] Charles M. Salter Associates, *University of San Francisco Projects Environmental Noise Impact Assessment*, October 27, 2017, p. 10.

- Ewing Terrace is adjacent to the east building grounds of the student residence hall. On average, the distance of Ewing Terrace from the east building grounds is approximately 60 feet.
- Residences along Anza Street are as close as 350 feet from the east building grounds of the student residence hall, 360 feet from the dining commons, and 200 feet from the recycling and waste facility replacement location.
- Residences along Turk Street are as close as 250 feet from the student residence hall.
- Residences along Parker Avenue are as close as 250 feet from the recycling and waste facility replacement.
- Residences along Stanyan Street are as close as 60 feet from the ROTC program relocation.

Regulatory Setting

The proposed project could expose persons to noise levels that exceed established noise standards by generating noise levels that could result in the exposure of existing or proposed noise-sensitive receptors on and around the project site to levels above established standards or thresholds. The noise standards applicable to the project site are discussed below, followed by impact analyses as they apply to the construction and operation of the proposed project.

California Building Code Standards (Title 24)

The California Building Standards Code (Title 24) establishes uniform noise insulation standards. The Title 24 acoustical requirement for residential structures is incorporated into section 1207 of the San Francisco Building Code and requires these structures be designed to prevent the intrusion of exterior noise so that the noise level with windows closed, attributable to exterior sources, shall not exceed 45 dBA in any habitable room. Title 24 allows the project sponsor to choose between a prescriptive- or performance-based acoustical requirement for non-residential uses. Both compliance methods require wall, floor/ceiling, and window assemblies to meet certain sound transmission class ratings or outdoor-indoor sound transmission class ratings to ensure that adequate interior noise standards are achieved. In compliance with Title 24, the building department would review the final building plans to ensure that the building wall, floor/ceiling, and window assemblies meet Title 24 acoustical requirements. If determined necessary by the building department, a detailed acoustical analysis of the exterior wall and window assemblies may be required.

San Francisco General Plan

Policy 11.1 of the *Environmental Protection Element of the City and County of San Francisco General Plan*[87] provides land-use compatibility guidelines for community noise in terms of DNL. Compatibility levels are defined as follows:

- *Satisfactory* – There are no special noise insulation requirements.
- *Conditionally Acceptable* – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design.
- *Conditionally Unacceptable* – New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Table 13 summarizes these guidelines for residential, commercial, and office building uses. These guidelines are considered when evaluating the potential impact of project noise sources on existing land uses.

Table 13: Summary of Land-Use Compatibility Guidelines for Community Noise

	Land-Use Compatibility and Noise Levels (DNL)[88]		
Land Use Category	*Satisfactory*	*Conditionally Acceptable*	*Conditionally Unacceptable*
Residential	Less than DNL 60 dB	DNL 60 to 70 dB	Greater than DNL 65 dB
School Classrooms	Less than DNL 65 dB	DNL 63 to 70 dB	Greater than DNL 65 dB
Office Buildings	Less than DNL 70 dB	DNL 65 to 75 dB	Greater than DNL 72 dB
Commercial - Restaurants	Less than DNL 70 dB	DNL 67 to 80 dB	Greater than DNL 77 dB

Source: Charles M. Salter and Associates, Inc., *Environment Noise Impact Assessment*, October 2017.

Policy 11.3 of the *Environmental Protection Element of the City and County of San Francisco General Plan* discourages developments that would bring appreciable traffic into or through noise-sensitive areas if there are appropriate alternative locations where the noise impact would be less.

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[87] City and County of San Francisco, *San Francisco General Plan*, http://generalplan.sfplanning.org, accessed December 29, 2016.

[88] "DNL: Average Sound Level is the 24-hour day and night A-weighted noise exposure level (dBA)"

Where it is infeasible to or undesirable to relocate such development, special noise-suppressing design features should be incorporated into the facilities so that the noise impact is reduced.

San Francisco Noise Ordinance (Article 29, San Francisco Police Code)

The noise ordinance identifies noise from transportation, construction, mechanical equipment, entertainment, and humans as having adverse effects on a community. The noise ordinance contains noise regulations that limit the maximum noise levels due to "fixed noise sources." Noise limits are dependent on local ambient noise levels and the property type where the noise source is located. The following noise ordinance provisions address and limit disruptive noise intrusions.

Construction Noise (Section 2907 and 2908)

The noise ordinance states that construction equipment shall not emit noise in excess of 80 dBA at a distance of 100 feet, or an equivalent sound level at some other convenient distance. This noise level limit is not applicable to impact tools and equipment, which would need to have the manufacturer-recommended noise-attenuating intake and mufflers. Pavement breakers and jackhammers shall be equipped with manufacturer-recommended acoustically attenuating shields or shrouds. The impact tools and equipment, as well as the noise-attenuating devices, would need to be approved by the Director of Public Works or the Director of Building Inspection.

The noise ordinance prohibits construction between the hours of 8 p.m. of any day and 7 a.m. of the following day if the noise level that would be created would exceed the ambient noise level by 5 dBA at the nearest property line, unless a special permit has been applied for and granted by the Director of Public Works or the Director of Building Inspection.

Fixed Source Noise Limits (Section 2909)

The noise ordinance establishes a not-to-exceed noise standard for fixed sources of noise, such as building mechanical equipment and industrial or commercial processing machinery. The standards in sections 2909(a) and (b) are applicable outdoors, at the property line of the affected use, and vary based on the residential or commercial nature of the noise generator's use. For residential properties, the noise limits are 5 dBA above the ambient level at any point outside of the property plane. For commercial and industrial properties, the noise limits are 8 dBA above the local ambient at any point outside of the property plane.

The standards in section 2909(d) also limit interior noise from a fixed source (e.g., machinery, mechanical equipment) from causing the noise level measured inside any sleeping or living room in any dwelling unit located on residential property to 45 dBA from 10 p.m. to 7 a.m. or 55 dBA

from 7 a.m. to 10 p.m. with windows open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

Waste Disposal Services (Section 2904)

The noise ordinance makes it unlawful for any person authorized to engage in waste removal, collection, or disposal services, or recycling-removal or garbage-collection services to generate noise by a waste disposal truck's mechanical processing system. The ordinance also makes it unlawful to operate hydraulic compaction on any truck-mounted waste, recycling, or garbage loading and/or compacting equipment or similar mechanical device exceeding 75 dBA when measured at a distance of 50 feet from the truck or equipment.

Impact NO-1: Operation of the proposed project could result in the exposure of persons to or generation of noise levels that exceed standards established in the noise ordinance, and could result in a substantial permanent increase in ambient noise levels in the project vicinity, but the proposed project's residential uses would not be substantially affected by existing or project-generated noise levels. (Less than Significant with Mitigation)

This impact evaluates the proposed project's operational noise sources to determine compliance with the requirements of the city's noise ordinance, and examines whether the proposed project would substantially increase ambient noise levels in the project vicinity. In the *California Building Industry Association v. Bay Area Air Quality Management District*[89] case decided in 2015, the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing environmental conditions might impact a proposed project's future occupants, except where the project would significantly exacerbate an existing environmental hazard or condition. Accordingly, the noise analysis related to exposure of people to noise levels that exceed standards specified in the city's general plan or the noise ordinance, exposure of people to excessive groundborne vibration or groundborne noise levels, and people being substantially affected by existing noise levels are relevant only to the extent that the project significantly exacerbates the existing noise and vibration environment. Thus, the analysis below evaluates whether the proposed project could significantly exacerbate the existing or future noise environment. An impact is considered significant if implementation of the proposed project would significantly exacerbate existing or future noise and vibration levels above the levels that would occur without the project.

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[89] *California Building Industry Association v. Bay Area Air Quality Management District (2015)* Cal. App. 4th (Case No. S213478).

Operation of the proposed project could generate noise from the following sources: (1) mobile sources, (2) mechanical equipment, and (3) activity noise. Each of these noise sources are evaluated below after the discussion of the existing ambient noise levels.

Existing Ambient Noise Levels

To characterize existing noise levels in the vicinity of the project site, a total of six continuous long-term measurements were taken at the eastern portion of the proposed student residence hall site and along Lone Mountain Drive, Anza Street, Turk Street, and Kittredge Terrace between October 28, 2015 and November 10, 2015, and between October 7, 2016 and October 11, 2016. The noise measurement locations are identified on **Figure 62,** p. 174. The long-term measurements were taken at a height of about 12 feet above grade using class 1 *Rion* sound level meters. Noise levels at these locations ranged from 57 to 72 DNL (dBA). The primary noise source in the vicinity was traffic noise.

A total of two short-term (15-minute) measurements were taken at the western portion of the proposed student residence hall site and along Parker Avenue on November 10, 2015, October 7, 2016, and October 11, 2017. The short-term measurements were taken at a height of about 5 feet above grade. Noise levels at these locations ranged from 54 dBA to 72 dBA. The primary noise source was traffic noise along Parker Avenue.

These measurements as shown in **Table 14** represent typical existing noise levels along the project site frontages and noise levels at the interior of the site that are expected to be lower than at the frontages. As is the case with most urban environments, noise from traffic on the surrounding roadway network primarily contributed to the noise levels. Measurement locations are shown on **Figure 62,** p. 174.

Table 14: Existing Noise Environment Surrounding the Project Site

No.	*Measurement Location*	*DNL (dBA)*	*Daytime [a] Ambient Level, Lowest Hourly L_{90} [b] (dBA)*	*Nighttime [c] Ambient Level, Lowest Hourly L_{90} (dBA)*
LT-1	Ewing Terrace North Residences	57	37	35
LT-2	Ewing Terrace South Residences	57	38	37
LT-3	Anza Street East Residences	69	40	37
LT-4	Turk Street Residences	72	38	35
LT-5	Anza Street West Residences	70	48	44
LT-6	Lone Mountain Drive	64	38	35
ST-1	Parker Avenue Residences	66 [d]	43 [d]	40 [d]
ST-2	Student Residence Hall Site	54 [d]	35 [d]	32 [d]

Notes:

a. Daytime hours are 7 a.m. to 10 p.m.

b. Ln – The sound level exceeded for a stated percentage (n) of a specified measurement period as described in American Standard Test Method E1686. L_{10}, L_{50}, and L_{90} are the levels exceeded 10, 50, and 90 percent of the time, respectively.

c. Nighttime hours are 10 p.m. to 7 a.m. for and 8 p.m. to 7 a.m. for construction noise. Measured L90s were the same for both time periods.

d. Noise level at this location is estimated and based on correlation with simultaneous measurement at long-term locations.

Source: Charles M. Salter and Associates, Inc., *Environment Noise Impact Assessment*, October 2017.

Figure 62: Noise Measurements Locations

Source: Charles M. Salter and Associates, *Environment Noise Impact Assessment*, October 2017.

Mobile Source Noise Analysis

As discussed above, noise increases of less than 3 dBA are barely perceptible to people, while a 5-dBA increase is readily noticeable. Therefore, permanent increases in ambient noise levels of less than 3 dBA are typically considered to be less than significant. Generally, traffic volumes on area streets would have to approximately double for the resulting traffic noise levels to increase by 3 dBA.[90]

The proposed project would not result in a substantial increase in traffic volumes because the proposed project would add new onsite student housing to accommodate some of the existing student population currently residing offsite and would not double the traffic volumes. Additionally, the ROTC program relocation addition and recycling and waste facility would relocate existing uses, and the dining commons' addition would not be expected to generate a substantial number of new vehicular trips. The proposed infiltration facility may result in a nominal number of trips associated with USF and SFPUC vehicles for monitoring and/or maintenance purposes and thus, mobile noise impacts would not significantly increase.

As the proposed project is not expected to substantially increase traffic volume, the project would not be expected to result in a measurable or even perceptible increase in traffic noise levels along roadways in the vicinity of the project site. Therefore, the proposed project's mobile sources would not have a noticeable effect on ambient noise levels in the vicinity of the project site, and this impact would be ***less than significant***. No mitigation is required.

Mechanical Equipment Noise Analysis

The proposed project would include fixed noise-generating mechanical equipment. Mechanical noise sources would include rooftop and garage exhaust fans, the proposed microturbine energy system, mechanical equipment, an emergency generator, and compacting activity associated with the proposed recycling and waste facility. Each of these noise sources are analyzed below and grouped by project component. The project does not propose any mechanical equipment for the ROTC program relocation addition as this building would be naturally ventilated with operable windows and skylights. Therefore, the ROTC program relocation addition would not result in mechanical equipment noise, and this component is not discussed below.

[90] California Department of Transportation. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013, *http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf,* accessed on November 8, 2017.

Fixed noise sources are regulated by Police Code section 2909. The requirements of the noise ordinance are designed to prevent sleep disturbance, protect public health, and prevent the acoustical environment from progressive deterioration. Therefore, if noise generated by fixed noise sources meets the requirements of the noise ordinance, the project would not result in a significant noise impact.

Student Residence Hall

The student residence hall would include rooftop and garage exhaust fans, a mechanical room, an emergency generator, and a microturbine energy system, which would be located in the below-grade garage. Noise from these fixed noise sources are discussed below.

Rooftop Exhaust Fans

At the student residence hall, the project is anticipated to require 30 small one-quarter horsepower (HP) rooftop exhaust fans. These fans would be situated behind an approximately 6-foot-high parapet, which would serve as a noise barrier between the fans and neighboring sensitive receptors. At the nearest sensitive receptors located to the east at Ewing Terrace (approximately 80 feet away from the proposed fans), all 30 fans are expected to generate an overall outdoor noise level of 35 dBA with an average noise level of 40 dBA. The exhaust fan noise at the residence interiors would be 20 dBA, with the windows open. Therefore, exhaust fan noise would meet the requirements of Police Code sections 2909(a) and 2909(d). In addition, the expected outdoor fan noise of 35 dBA would also be similar to the existing ambient noise levels at the surrounding residences. Therefore, the fans would also not be expected to cause a substantial increase in ambient noise levels, and noise impacts associated with rooftop exhaust fans would be ***less than significant***. No mitigation is required.

Garage Exhaust Fans

The project is anticipated to include a single 7.5 HP garage exhaust fan for both the west and east buildings. Although the location of the exhaust outlet is currently unknown, the environmental noise assessment conservatively assumed that the outlet would be located at the east façade facing the Ewing Terrace neighborhood. Under this configuration, the noise analysis concluded that the property line noise would be 62 dBA, which exceeds the section 2909(a) outdoor noise limit of 50 dBA.[91] At the closest Ewing Terrace residence interiors, fan noise transmitted through

[91] As discussed above, the ambient noise as calculated pursuant to the noise ordinance is no less than 45 dBA. Section 2909(a) requires that noise generated at residential property lines not exceed 5 dBA for residential uses above the ambient, which would be 50 dBA in this case.

open windows would be 47 dBA, which would exceed the Police Code section 2909(d) nighttime limit of 45 dBA. The garage exhaust fan would be required to be designed to reduce the property line noise levels to comply with the Police Code; however, that design is not yet complete for the proposed project. Therefore, because the proposed project's garage fans under this configuration would exceed the requirements of sections 2909 (a) and (d), this impact would be significant. **Mitigation Measure M-NO-1a** shall ensure that the garage fan meets the noise ordinance requirements and shall reduce potential noise impacts from the garage exhaust fan to ***less than significant with mitigation***.

> **Mitigation Measure M-NO-1a: Reduce Garage Exhaust Fan Noise.** To meet the Police Code section 2909 noise requirement, the project sponsor shall construct 15 feet of 2-inch-thick acoustically lined duct at the fan discharge location. Alternatively, a combination of measures (e.g., quiet fan selection, relocation of exhaust outlet, acoustical louvers, duct silencer) could be implemented instead of the acoustically lined duct to meet the Police Code standards. Implementation of either of the above noise reduction measures would reduce fan noise by at least 2 dBA to meet the Police Code section 2909(d) interior noise requirement in neighboring residences. The final garage exhaust fan configuration shall demonstrate that noise levels at the property plane are reduced to 50 dBA.

Mechanical Room

The project proposes a mechanical room, expected to be located in the west building. The mechanical room is expected to contain three 2,000 MBH[92] boilers, two 15 HP pumps, and three 1.5 HP pumps with outdoor vents. The noise assessment estimates that the boilers and pumps would typically generate noise levels between 70 dBA to 85 dBA near the equipment. This equipment would be enclosed and would be sufficiently reduced from transmission through exterior walls. However, noise transmitted through vents or boiler flues could increase outdoor ambient noise levels, potentially above limits specified in the noise ordinance, resulting in a significant impact. The noise assessment provides design criteria needed to meet the requirements of the noise ordinance. This design criteria as specified in **Mitigation Measure M-NO-1b: Reduce Mechanical Noise** shall ensure that the proposed project mechanical room equipment noise shall meet the requirements of the noise ordinance. Therefore, noise impacts from the boilers, and pumps would be ***less than significant with mitigation.***

> **Mitigation Measure M-NO-1b: Reduce Mechanical Noise.** To meet the Police Code section 2909(a) property plane noise requirement, exterior vents and boiler flues (e.g.,

[92] Thousand British Thermal unit per hour.

acoustical louvers or silencers) shall be located and attenuated such that noise from these sources do not exceed 50 dBA at the property plane, which shall also meet the interior noise requirement of section 2909(d) for neighboring residences. The pumps and boilers shall demonstrate that noise levels at the property plane are reduced to 50 dBA.

Emergency Generator

An emergency generator, using diesel combustible fuel to provide 800 kW of electricity, is proposed to be installed at the southwest corner of the west building. The nearest sensitive receptors to this location are residences located approximately 300 feet away to the south across Turk Street. Noise from the emergency generator could exceed 74 dBA,[93] which is the maximum noise level required to meet the property plane noise requirement of 50 dBA pursuant to Police Code section 2909(a). Therefore, the potential exists for the proposed emergency generator to exceed the noise ordinance requirements, resulting in a significant impact. **Mitigation Measure M-NO-1c: Reduce Generator Noise** would ensure that the proposed emergency generator meets the noise ordinance requirements, and noise impacts from the emergency generator would be reduced to ***less than significant with mitigation***.

Mitigation Measure M-NO-1c: Reduce Generator Noise. To meet the Police Code section 2909(a) property plane noise requirement, the proposed emergency generator shall be located in an attenuated enclosure that is rated to reduce emergency generator system noise to a maximum of 74 dBA (as measured at a standard distance of 23 feet or 7 meters). Alternatively, if the emergency generator is located behind a noise barrier wall or building that provides at least 10 decibels of noise reduction, the emergency generator shall be rated at 84 dBA.

Microturbine Energy System

The microturbine energy system would be installed in the mechanical room at the garage level of the west building. There would be a louvered vent at the south exterior wall of the building and a flue vent that exits at the roof. Sound data provided by microturbine energy system vendor indicates that the Capstone Model C65 ICHP Microturbine with the "optional acoustics inlet hood kit" would generate a noise level of 60 dB at a distance of 33 feet (or 10 meters). The vendor also indicated that the exhaust flue would generate less noise than the noise radiated at the cabinet and its air intake.[94]

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[93] Location where the emergency generator could exceed 74 dBA is at the measurement location LT-4.

[94] Marr, Andrea, PE, CEM, Vice President of Energy Solutions, Regatta Solutions, September 12, 2017, email correspondence with Jeremy Decker, PE, at Charles Salter Associates.

The nearest sensitive receptors to the microturbine energy system are residences located approximately 300 feet away to the south across Turk Street. Noise from the microturbine energy system through the air intake louvers and though the exhaust flue at the roof is expected to generate a noise level of 35 dBA, which meets the Police Code section 2909(a) outdoor noise requirement. At residence interiors transmitted through open windows, the fan noise would be 20 dBA, which meets the Police Code section 2909(a) interior noise requirement. Additionally, the projected fan noise of 35 dBA would be similar to the existing ambient noise levels at the surrounding residences. Therefore, noise impacts associated with the microturbine energy system would be ***less than significant.*** No mitigation is required.

Dining Commons

It is anticipated that some of the existing kitchen equipment would be reused at the dining commons. However, new inline exhaust fans would be installed within the building with outdoor vents, and the size of this equipment is not yet known. Therefore, the noise assessment analyzes the equipment noise level that would be required to meet the noise ordinance. At this location, the measured ambient noise level is as low as 40 dBA. The noise limit, determined by section 2909(b) of the noise ordinance, would be 53 dBA at the property plane.

To assess equipment noise levels, operational noise was measured from kitchen exhaust equipment at the existing Wolf & Kettle Café. New kitchen equipment would generate similar noise levels (or quieter) than the existing equipment. The noisiest equipment used within the dining commons would be the kitchen exhaust fan, which is anticipated to have a noise level of approximately 61 dBA at 15 feet away. The nearest sensitive noise receptors are located approximately 200 feet away to the north along Anza Street.

The outdoor noise level from the exhaust fan at those the sensitive receptors was calculated to be 28 dBA, and an indoor noise level would be 13 dBA with transmission through open windows. The outdoor and indoor noise levels would meet both noise ordinance sections 2909(b) and (d) requirements. In addition, expected fan noise would also be quieter than the existing ambient noise levels at the nearest residences. Therefore, the fans would not be expected to cause a substantial increase in ambient noise levels. For these reasons, noise impacts associated with any new inline exhaust fans would be ***less than significant***. No mitigation is required.

Recycling and Waste Facility

Three trash compactors would be the main noise source at the proposed recycling and waste facility. The compactors would be located inside large roll-up doors that would be opened during operations. The nearest residential receptors are located along Anza Street. If all three compactors were used simultaneously with the large, roll-up access doors to the facility opened, the noise

levels generated by the compactors would range between 39 dBA and 55 dBA at the nearest residences. The noise levels would meet the section 2904 limit of 75 dBA at 50 feet. The DNL (dBA) would also fall below the general plan land-use compatibility noise standard of 60 dBA for residences. The noise impacts associated with the trash compactors would be ***less than significant***. No mitigation is required.

Activity Noise Analysis

Activity noise by dormitory residents that could potentially impact neighboring residences was determined to be amplified music and voices. As a fixed noise source, amplified music noise levels are limited by section 2909(a) of the noise ordinance; however, unamplified voices are not. The unamplified voices would mainly be from the dormitory residents' use of outdoor courtyards, dormitory rooms with windows opened, use of the dining commons, and use of the ROTC program relocation addition.

Amplified Music

Noise ordinance section 2909(a) limits amplified noise, such as that from music, to a maximum of 50 dBA. Section 2909(d) requires that interior residence noise levels not exceed 45 dBA between the hours of 10 p.m. and 7 a.m. or 55 dBA between the hours of 7 a.m. and 10 p.m. Noise from amplified music can vary widely; therefore, maximum allowable noise levels for music were determined based on this criteria. Ewing Terrace is the nearest neighboring property, located approximately 60 feet east of the student residence hall. At this distance, noise would be reduced by approximately 24 dBA. **Table 15** establishes the maximum limits of allowable amplified noise that would be required to meet section 2909(a), property plane noise limits, and section 2909(d), interior noise requirements, at the nearest noise-sensitive receptors at Ewing Terrace. This analysis assumes two adjacent rooms at the student residence hall generating amplified noise of similar noise levels.

Table 15: Maximum Allowable Amplified Music Levels

Outdoors/Courtyards	*Inside Nearest Dormitory with Windows Open*	*Inside Nearest Dormitory with Windows Closed*
74 dBA (at 3 feet away)	90 dBA	100 dBA

Source: Charles M. Salter and Associates, Inc., *Environment Noise Impact Assessment*, October 2017

Amplified music noise in excess of the maximum levels in **Table 15** would exceed the standards in the noise ordinance, and would constitute a significant impact. Existing USF mechanisms to manage the noise levels generated on-campus include the student conduct policy that directs students to operate stereos or other electronic equipment at reasonable sound levels, especially late at night or early in the morning and in line with Noise Ordinance section 2909, and establishment of "quiet hours" at the student residence halls. Quiet hours are between 10 p.m. and 8 a.m. Sunday through Thursday, and between 12 a.m. and 8 a.m. on Friday and Saturday

evenings. During the quiet-hour period, sound from a room should not be audible outside the room door or in surrounding rooms. Twenty-four hour quiet hours are enforced during exam periods beginning at 10 p.m. on the final day of classes of the semester.[95]

The student residence hall staff would be responsible for enforcing residence hall policies and referring disciplinary cases to Student Conduct. Seventeen staff would be assigned to the proposed student residence hall: a residence hall director, two assistant residence hall directors, two residence hall ministers, and twelve student resident assistants. Student residence hall rooms would be organized into "neighborhoods" and each neighborhood would be assigned a resident assistants whose room would be in that neighborhood.

Additionally, USF provides several venues through which neighbors can report a complaint including calling the USF Public Safety office at any time, using the USF Neighborhood Relations website,[96] and USF's Community Relations website.[97]

Mitigation Measure M-NO-1d shall ensure that amplified noise meets the limits in the noise ordinance, and shall thereby reduce this potentially significant impact to ***less than significant with mitigation.*** Additionally, USF will continue to limit amplified noise levels via administrative restrictions.[98] The USF Neighborhood Relations website currently has existing policies and procedures to regulate noise and enforce compliance.[99]

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[95] University of San Francisco, *The Fogcutter Student Handbook*, *https://myusf.usfca.edu/fogcutter/student-resident-policies*, accessed on October 25, 2017.

[96] University of San Francisco, *Neighborhood Relations website*, *www.usfca.edu/neighborhood-relations*, accessed on October 25, 2017.

[97] University of San Francisco, *USF Community Relations*, *https://www.usfca.edu/neighborhood-relations/reporting-student-behavior*, accessed on October 25, 2017.

[98] The USF's Student Conduct Code includes information about disciplinary action related to excessive or prolonged noise, and is available at: *https://myusf.usfca.edu/student-health-safety/student-conduct/student-conduct-code*, accessed on January 24, 2018.
USF's Student Residential Policies includes information about quiet hours and is available at: *https://myusf.usfca.edu/fogcutter/student-resident-policies*, accessed on January 24, 2018.

[99] University of San Francisco, *USF Community Relations*, *https://www.usfca.edu/neighborhood-relations/reporting-student-behavior*, accessed on October 25, 2017.

Mitigation Measure M-NO-1d: Reduce Amplified Noise. The following measures are required to ensure that amplified noise meets the requirements of the noise ordinance (article 29 of the Police Code).

- Establish the following maximum noise levels for amplified music for residents of the student residence hall:
  - 100 dB indoors, with windows closed
  - 90 dB indoors, with windows open
  - 74 dB outdoors (at 3 feet from the source) from 7 a.m. to 10 p.m.
  - Do not allow outdoor amplified sound between 10 p.m. and 7 a.m.

Unamplified Voices

There are no specific noise ordinance limits for unamplified voices and unamplified voices are not considered an impact under CEQA unless the noise could rise to a level of substantial interference with activities such as sleep, speech, and learning; or physiological effects such as hearing loss. The project's noise assessment assessed potential noise impacts of the student residence hall on the nearest sensitive receptors, through a quantitative analysis of voice levels that might disturb existing residential neighbors. An important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. This analysis was conducted to determine whether the proposed project would result in a substantial increase in ambient noise.

The noise assessment concluded that with respect to the student residence hall use, voice levels at the nearest residences may at times be higher than existing ambient noise levels, but would be compatible with those land uses. The noise assessment also determined that activity noise from the dining commons and ROTC program relocation addition would not be expected to result in substantial increases in noise that could affect neighboring properties because activity associated with these facilities would be primarily indoors and include typical activities consistent with dining and existing activities at the Koret Health and Recreation Center. Furthermore, outdoor ROTC activities would be expected to be similar to existing ROTC activities and would not be substantially closer to any sensitive receptors. Activity noise is not anticipated to result from the recycling and waste facility (other than the equipment noise addressed above). For these reasons, activity noise from unamplified voices would not substantially increase ambient noise levels above existing conditions. Accordingly, the noise from unamplified voices would not rise to a level of interference with activities such as sleep, speech, and learning, or physiological effects such hearing loss. The impact would be ***less than significant***. No mitigation is required. The

results from the quantitative analysis of voice levels are presented below for informational purposes.

The noise assessment assumes that typical speech levels for males and females (from casual to loud conversations) can vary between about 50 dBA to 76 dBA at a distance of one meter. The analysis also assumes that groups of people may be located as close as 70 feet from neighboring residential uses. This scenario represents students from the student residence hall congregating at the eastern boundary of the student residence hall's east building, approximately 70 feet from neighboring residences at Ewing Terrace. Over this distance noise would attenuate (or be reduced) by approximately 24 dB.

The noise assessment evaluates three scenarios, with one, five and 10 people talking simultaneously. With 10 people talking simultaneously, the noise level 70 feet away would be approximately 46 dBA, which is below the 50 dBA property line limit for residential uses pursuant to section 2909(a) requirements in the noise ordinance.

Exposure of Sensitive Receptors to Noise Levels in Excess of Standards

In a decision issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents except where a project or its residents may exacerbate existing environmental hazards.[100] Incremental increases in traffic-related noise attributable to implementation of the proposed project would be ***less than significant***, and thus would not exacerbate the existing noise environment.

Existing ambient noise levels in the location of the student residence hall are well below 60 dBA DNL and are considered satisfactory for residential uses pursuant to the general plan's noise compatibility guidelines. The general requirements for adequate interior noise levels are met by compliance with the acoustical standards required under the California Building Standards Code (California Code of Regulations Title 24)." Title 24 (Part 2, Volume 1) of the California Code of Regulations requires interior noise levels that are attributable to exterior noise sources to have a

[100] *California Building Industry Association v. Bay Area Air Quality Management District (2015) Cal. App. 4th (Case No. S213478)*

DNL (Ldn) of 45 or less in any habitable room.[101] The project would be required to comply with Title 24 standards.

Summary

In summary, traffic-generated noise, mechanical equipment noise generated from the proposed rooftop exhaust fans and exhaust fans required for the dining commons, trash compacting operations associated with the recycling and waste facility, and noise from unamplified voices from students of the proposed student residence hall would be ***less than significant***.

Noise from the proposed student residence hall's garage exhaust fans, boilers, mechanical pumps, microturbine energy system, and emergency generator have the potential to exceed the limits set by the noise ordinance and permanently increase the ambient noise environment. These impacts would be reduced to ***less than significant*** with implementation of **Mitigation Measures M-NO-1a** through **M-NO-1c**. Additionally, amplified music from residents at the student residence hall could exceed noise ordinance requirements as well, but would be mitigated to ***less than significant*** with implementation of **Mitigation Measure M-NO-1d**. Overall, with implementation of mitigation measures identified above, operational noise impacts of the proposed project would be ***less than significant with mitigation***.

Impact NO-2: Construction activities associated with the proposed project could result in a substantial temporary or periodic increase in ambient noise levels and vibration in the project vicinity above levels existing without the project and expose persons to or generate noise levels in excess of standards in the noise ordinance (Police Code article 29). (Less than Significant with Mitigation)

This impact evaluates the potential noise effects associated with the construction of the proposed project. Noise impacts from construction generally result when construction activities occur during the noise-sensitive times of the day (early morning, evening, or nighttime hours), in areas immediately adjacent to noise-sensitive receptors (primarily residential uses), or when construction noise lasts over extended periods of time.

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[101] California Building Standards Commission. *Title 24, California Code of Regulations, Section 1207.4, www.documents.dgs.ca.gov/bsc/prpsd_chngs/2013/AD-HOC/HCD-02-13-ET-Pt2-ADDENDUM-SRV.doc*, accessed on December 11, 2017.

Compliance with Noise Ordinance

The noise ordinance (article 29 of the police code) regulates construction-related noise. Section 2907 limits noise levels from individual pieces of equipment to 80 dBA at 100 feet, which is equivalent to 86 dBA at 50 feet. Impact tools, such as jackhammers and pile drivers, are exempt from this noise limit if they are equipped with intake and exhaust mufflers approved by the Director of Public Works. Construction hours are restricted to the hours between 7 a.m. and 8 p.m. **Table 16** lists the expected noise levels from typical activities during various construction phases. The proposed project would not involve pile driving. The construction of the proposed project would be restricted to daytime hours. No construction activities are expected at nighttime hours. As shown in **Table 16** the project's anticipated construction equipment would meet the noise ordinance standards of 80 dBA at 100 feet; therefore the impact, as it relates to exposure of sensitive receptors in excess of standards in the noise ordinance, would be ***less than significant***.

Table 16: Expected Construction Noise Levels from Typical Construction Activities

Phase	*Equipment*	*Noise Level (dBA at 100-feet)*[A]
Excavation/Grading/Off Haul	Scraper, Compactor, Water Truck, Blade/Grader, Excavator, Dump Trucks, Soldier Piles/Shoring	79
Utilities	Excavator, Rubber Tire Loader, Water Truck, Backhoe, Dump Truck	74
Foundation/Concrete Garage Structure	Crane, Augercast Piles, Forklift, Compressor, Cement Mixer/Truck, Concrete Finisher, Concrete Boom Pump	79
Building Exterior	Gradall/Crane, Hand/PowerTools	79
Building Interior	Gradall, Metal Stud Saw (indoors), Paint Sprayer	74
Hardscape and Landscape	Backhoe, Compactor, Dump Truck, Cement Mixer/Truck, Bobcat	74

Note:

a. Equipment noise levels are based on data in Section 9 of the Federal Highway Administration Highway Traffic Noise Construction Noise Handbook (August 2006).

Source: Charles M. Salter and Associates, Inc., Environment Noise Impact Assessment, October 2017.

Temporary Increase in Ambient Noise Levels

Demolition, excavation, and building construction would cause a temporary increase in noise levels within the project vicinity. Construction equipment would generate noise that could be considered an annoyance by occupants of nearby properties. Project construction activities would occur over a period of time, which would vary by component. Construction for the student residence hall would occur over approximately 24 months, for the dining commons,

approximately 10 months, for the recycling and waste facility, approximately 10 months, and for the ROTC program relocation addition, approximately six months. Construction for the infiltration trenches would occur over approximately two months.

The nearest sensitive receivers from the proposed project would be the Ewing Terrace residences (approximately 60 feet east of the student residence hall), the Anza Street residences (approximately 200 feet north from the recycling and waste facility, and approximately 360 feet north from the dining commons), and residences along Stanyan Street (approximately 60 feet west from the ROTC program relocation addition). In the worst-case scenario, where construction could be approximately 60 feet away from residences, construction noise could reach levels as high as 83 dBA, which would not comply with the noise ordinance limit of 80 dBA. The 83 dBA noise level is expected to occur during the excavation, grading and off-haul phase, the foundation and garage structure construction phase and during the building exterior construction phase. These exceedances would not occur throughout the entire construction period. Given that construction activities would substantially exceed ambient noise levels and the noise ordinance limits for the two-year construction duration, the proposed project could result in a significant impact with respect to exposing sensitive receptors to a substantial temporary increase in noise levels. With implementation of **Mitigation Measure M-NO-2: Construction Noise Reduction,** construction noise impacts would be reduced to ***less than significant with mitigation***.

> **Mitigation Measure M-NO-2: Construction Noise Reduction.** Incorporate the following practices into the construction contract agreement documents to be implemented by the construction contractor:
>
> - Post signs at the construction site pertaining to permitted construction days and hours, and complaint procedures and who to notify in the event of a problem, with telephone numbers listed.
> - Notify the city (Department of Building Inspection)and neighbors in advance of the schedule for construction and expected loud activities.
> - Designate a point of contact to ensure coordination between construction staff and neighbors to minimize disruptions due to construction noise and respond to noise complaints. Notify neighboring property owners in writing of the contact information for the point of contact. The point of contact must have the authority to modify construction noise-generating activities to address complaints. Upon receipt of a noise complaint, the point of contact shall implement feasible measures to reduce construction noise. Measures may include but are not limited to plywood barriers, suspended construction blankets, or other screening devices to break the line of sight to noise-sensitive receivers.
> - Additional measures that might be considered include noise monitoring and temporary local noise barriers around specific construction equipment or property

line barriers. The location, height, and extent of the barriers shall be determined once a detailed construction plan is developed for the project.

- When feasible, select "quiet" construction methods and equipment (e.g., improved mufflers, use of intake silencers, engine enclosures).
- Locate stationary noise sources, equipment, material stockpiles, and vehicle staging areas as far as is feasible from existing sensitive receptors. Locating stationary nose sources near existing roadways away from adjacent properties is preferred. Avoid placing stationary noise-generating equipment (e.g., generators, compressors) within noise-sensitive buffer areas (measured at 20 feet) from immediately adjacent neighbors. Stationary noise sources shall be enclosed or shielded from neighboring noise-sensitive properties with noise barriers to the extent feasible.
- All construction equipment is required to be in good working order, and mufflers are required to be inspected proper functionality.
- Prohibit unnecessary idling of equipment and engines.
- Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used where feasible.

Impact NO-3: The proposed project would not result in exposure of persons to or generation of excessive groundborne noise or groundborne vibration levels during construction or operation of the project. (Less than Significant)

The proposed project includes the construction of a student residence hall, a dining commons, a recycling and waste facility, ROTC addition and an infiltration facility. These types of land uses typically do not generate perceptible groundborne noise or vibration during operations. Therefore, operation of the proposed project would not expose persons to perceptible groundborne noise or vibration, and this impact would be ***less than significant.***

Construction activities generate both groundborne noise and vibration, especially during groundbreaking activities such as excavation, trenching and jack hammering. Construction activities would not include pile driving. Even where vibration levels are low or imperceptible, vibrations can nonetheless produce groundborne noise. Groundborne noise and vibration can cause impacts to people (disturbance and annoyance), buildings (structural or architectural damage), and to vibration-sensitive equipment located within affected buildings.

Although the perceptibility threshold for ground-borne vibration is about 65 vibration decibels (VdB), human response to vibration is not usually substantial unless the vibration exceeds 70 VdB. In terms of vibration during construction, vibration is described in peak particle velocity based on Federal Transit Administration guidelines,[102] which is the maximum instantaneous peak of the vibration signal, and is often used in evaluating the potential for building damage. Groundborne vibration from most construction activities rarely reaches the levels that can damage structures, but can achieve the audible and sensible ranges in buildings close to the site. Most project-related construction activities would generate vibration levels well below the 0.5-inch per second peak particle velocity vibration thresholds for building damage.

Construction-related vibration effects would not be perceptible to the off-site receptors, including surrounding residential uses, because those offsite receptors are all located a minimum of 60 feet from the project's four construction footprints. However, as construction is proposed to occur adjacent to and connecting to the existing Lone Mountain Main, Loyola House, and USF Rossi Wing buildings, groundborne noise vibration from construction activities, particularly those that involve ground breaking (e.g., excavation, jack hammering, etc.) could be perceptible to the occupants of these buildings. However, vibration levels are not likely to exceed 70 VdB; therefore, construction-related vibration impacts potentially affecting on-campus occupants would be ***less than significant***. No mitigation is required. It should be noted that implementation of **Mitigation Measure M-NO-2**, which reduces construction noise, would also reduce groundborne noise and vibration impacts.

Impact C-NO-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in cumulative noise impacts. (Less than Significant)

With regards to cumulative operational noise, cumulative projects would be required to comply with the fixed noise source requirements of the noise ordinance, similar to the proposed project. Furthermore, because noise attenuates with distance, noise from the proposed project's operations is not likely to combine with noise generated from cumulative projects. As discussed under Impact C-NO-1, the proposed project would not generate vehicle trips that would measurably increase traffic noise. Therefore, the proposed project would not have the potential to combine with cumulative projects to result in cumulative traffic noise. For these reasons, the

[102] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006, Chapter 7, p. 7-3, *https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf,* accessed on November 8, 2017.

project in combination with reasonably foreseeable projects would not result in cumulative noise impacts and this impact would be ***less than significant***.

Furthermore, the proposed project, along with existing and future planned projects in the area, would be required to comply with construction-related noise limits in article 29 of the noise ordinance. In addition, noise impacts from construction are temporary, localized and noise levels attenuate rapidly with distance. Given the distance between the project's construction activities and other cumulative projects as shown on **Figure 37, p.57**, the proposed project's construction noise would not likely combine with construction noise from cumulative projects in a cumulatively considerable manner. Therefore, the proposed project in combination with reasonably foreseeable cumulative projects would not result in significant cumulative construction noise impacts, and this impact would be ***less than significant***.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
7. AIR QUALITY. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐	☐

An *air quality technical report* was prepared for the proposed project to evaluate the potential for air quality impacts from construction sources and operational sources.[103]

Setting

Overview

The Bay Area Air Quality Management District (air district) is the regional agency with jurisdiction over the nine-county San Francisco Bay Area Air Basin (air basin), which includes San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa counties and portions of Sonoma and Solano counties. The air district is responsible for attaining and maintaining air quality in the air basin within federal and state air quality standards, as established by the federal Clean Air Act and the California Clean Air Act, respectively. Specifically, the air district has the responsibility to monitor ambient air pollutant levels throughout the air basin and to develop and implement strategies to attain the applicable federal

[103] Ramboll Environ, *Air Quality Technical Report, University of San Francisco,* San Francisco, California, June 21, 2017.

and state standards. The federal and state clean air acts require plans to be developed for areas that do not meet air quality standards, generally. The most recent air quality plan, the *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan), was adopted by the air district on April 19, 2017. The 2017 Clean Air Plan updates the 2010 Clean Air Plan in accordance with the requirements of the state clean air act to implement all feasible measures to reduce ozone; provide a control strategy to reduce emissions of ozone, particulate matter, and toxic air contaminants; serve as a regional climate protection strategy by reducing greenhouse gases in a single, integrated plan; and establish emission-control measures to be adopted or implemented. The 2017 Clean Air Plan focuses on two primary goals:

- Protect air quality and health at the regional and local scales
    - Attain all state and national air quality standards.
    - Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants.
- Protect the climate
    - Reduce Bay Area greenhouse gas (GHG) emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

The 2017 Clean Air Plan represents the most current applicable air quality plan for the air basin. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of air quality plans.

Criteria Air Pollutants

In accordance with the state and federal clean air acts, air pollutant standards are identified for the following six criteria air pollutants: ozone, carbon monoxide (CO), particulate matter, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. These air pollutants are termed criteria air pollutants because they are regulated by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. In general, the air basin experiences low concentrations of most pollutants when compared to federal or state standards. The air basin is designated as either in attainment[104] or unclassified for most criteria pollutants except for ozone, $PM_{2.5}$, and PM_{10}, for which these pollutants are designated as non-attainment for either the state or federal standards. By its very nature, regional air pollution is largely a cumulative impact in

[104] "Attainment" status refers to those regions that are meeting federal and/or state standards for a specified criteria pollutant. "Non-attainment" refers to regions that do not meet federal and/or state standards for a specified criteria pollutant. "Unclassified" refers to regions where there is not enough data to determine the region's attainment status for a specified criteria air pollutant.

that no single project is sufficient in size to, by itself, result in non-attainment of air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality impacts. If a project's contribution to a cumulative impact is considerable, then the project's impact on air quality would be considered significant.[105]

Land use projects may contribute to regional criteria air pollutants during the construction and operational phases of a project. **Table 17** identifies air quality significance thresholds followed by a discussion of each threshold. Projects that would result in criteria air pollutant emissions below these significance thresholds would not violate an air quality standard, contribute substantially to an air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants within the air basin.

Table 17: Criteria Air Pollutant Significance Thresholds

Pollutant	*Construction Thresholds*	*Operational Thresholds*	
	Average Daily Emissions (lbs./day)	*Average Daily Emissions (lbs./day)*	*Maximum Annual Emissions (tons/year)*
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	

Source: Bay Area Air Quality Management District, *CEQA Air Quality Guidelines,* May 2017.

Ozone Precursors. As discussed previously, the air basin is currently designated as non-attainment for ozone and particulate matter. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x). The potential for a project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, is based on the state and federal clean air acts emissions limits for stationary sources. To ensure that new stationary sources do not cause or contribute to a violation of an air quality standard, the air district regulation 2, rule 2, requires that any new source that

[105] Bay Area Air Quality Management District, *California Environmental Quality Act (CEQA) Air Quality Guidelines,* May 2017, page 2-1, *http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en,* accessed on November 8, 2017.

emits criteria air pollutants above a specified emissions limit must offset those emissions. For ozone precursors ROG and NO_x, the offset emissions level is an annual average of 10 tons per year (or 54 pounds per day).[106] These levels represent emissions below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

Although this regulation applies to new or modified stationary sources, land use development projects result in ROG and NO_x emissions as a result of increases in vehicle trips, architectural coating, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of land use projects and those projects that result in emissions below these thresholds, would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in ROG and NO_x emissions. Due to the temporary nature of construction activities, only the average daily thresholds are applicable to construction-phase emissions.

Particulate Matter (PM_{10} and $PM_{2.5}$).[107] The air district has not established an offset limit for $PM_{2.5}$. However, the emissions limit in the federal *New Source Review* for stationary sources in non-attainment areas is an appropriate significance threshold. For PM_{10} and $PM_{2.5}$, the emissions limit under *New Source Review* is 15 tons per year (82 pounds per day) and 10 tons per year (54 pounds per day), respectively. These emissions limits represent levels below which a source is not expected to have an impact on air quality.[108] Similar to ozone precursor thresholds identified above, land use development projects typically result in particulate matter emissions as a result of increases in vehicle trips, space heating and natural-gas combustion, landscape maintenance, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of a land use project. Again, because construction activities are temporary in nature, only the average daily thresholds are applicable to construction-phase emissions.

Fugitive Dust. Fugitive dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices at construction sites

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[106] Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, CEQA Thresholds of Significance,* October 2009, p. 17.

[107] PM_{10} is often termed "coarse" particulate matter and is made of particulates that are 10 microns in diameter or smaller. $PM_{2.5}$, termed "fine" particulate matter, is composed of particles that are 2.5 microns or less in diameter.

[108] Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, CEQA Thresholds of Significance,* October 2009, p. 16.

significantly control fugitive dust,[109] and individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.[110] The air district has identified a number of management practices to control fugitive dust emissions from construction activities.[111] The *San Francisco Construction Dust Control Ordinance* (Ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust and the management measures employed in compliance with the Construction Dust Control Ordinance is an effective strategy for controlling construction-related fugitive dust.

Other Criteria Pollutants. Regional concentrations of CO in the Bay Area have not exceeded the state standards in the past 11 years, and SO_2 concentrations have never exceeded the standards. The primary source of CO emissions from development projects is vehicle traffic. Construction-related SO_2 emissions represent a negligible portion of the total basin-wide emissions and construction-related CO emissions represent less than 5 percent of the Bay Area total basin-wide CO emissions. As discussed previously, the Bay Area is in attainment for both CO and SO_2. Furthermore, the air district has demonstrated, based on modeling, that to exceed the California ambient air quality standard of 9.0 parts per million (8-hour average) or 20.0 parts per million (1-hour average) for CO, project traffic in addition to existing traffic would need to exceed 44,000 vehicles per hour at affected intersections (or 24,000 vehicles per hour where vertical and/or horizontal mixing is limited). Therefore, given the Bay Area's attainment status and the limited CO and SO_2 emissions that could result from development projects, development projects would not result in a cumulatively considerable net increase in CO or SO_2, and quantitative analysis is not required.

Local Health Risks and Hazards

In addition to criteria air pollutants, individual projects may emit toxic air contaminants, which collectively refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but short term) adverse effects to human health, including carcinogenic effects. Human health effects of toxic air contaminants include birth defects, neurological damage, cancer, and mortality. There are hundreds of different types of contaminants with varying degrees of toxicity. Individual toxic air contaminants vary greatly in

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[109] Western Regional Air Partnership. *2006. WRAP Fugitive Dust Handbook.* September 7, 2006, *http://www.wrapair.org/forums/dejf/fdh/content/FDHandbook_Rev_06.pdf*, accessed February 16, 2012.

[110] Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, CEQA Thresholds of Significance*, October 2009, p. 27.

[111] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines,* May 2017.

the health risk they present; at a given level of exposure, one toxic air contaminant may pose a hazard that is many times greater than another.

Unlike criteria air pollutants, toxic air contaminants do not have ambient air quality standards but are regulated by the air district using a risk-based approach to determine which sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated, and considered together with information regarding the toxic potency of the substances, to provide quantitative estimates of health risks.[112]

Air pollution does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Land uses such as residences, schools, children's day care centers, hospitals, and nursing and convalescent homes are considered to be the most sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress or, as in the case of residential receptors, their exposure time is greater than that for other land uses. Therefore, these groups are referred to as sensitive receptors. Exposure assessment guidance typically assumes that residences would be exposed to air pollution 24 hours per day, 350 days per year, for 70 years. Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

Exposures to fine particulate matter ($PM_{2.5}$) are strongly associated with mortality, respiratory diseases, and lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.[113] In addition to $PM_{2.5}$, diesel particulate matter is also of concern. The California Air Resources Board identified diesel exhaust as a toxic air contaminant in 1998, primarily based on evidence demonstrating cancer effects in humans.[114] The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other toxic air contaminant routinely measured in the region.

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[112] In general, a health risk assessment is required if the air district concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. The applicant is then subject to a health risk assessment for the source in question. Such an assessment generally evaluates chronic, long-term effects, estimating the increased risk of cancer as a result of exposure to one or more toxic air contaminants.

[113] San Francisco Department of Public Health, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review,* May 2008.

[114] California Air Resources Board, Fact Sheet, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," October 1998.

In an effort to identify areas of San Francisco most adversely affected by sources of toxic air contaminants, San Francisco partnered with the air district to conduct a citywide health risk assessment based on an inventory and assessment of air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed the "*air pollutant exposure zone*,"[115] were identified based on health-protective criteria that considers estimated cancer risk, exposures to fine particulate matter, proximity to freeways, and locations with particularly vulnerable populations. The project site is not located within the *air pollutant exposure zone*. Each of the *air pollutant exposure zone* criteria is discussed below.

Excess Cancer Risk. The *air pollutant exposure zone* includes all areas where the modeled excess cancer risk is 100 per one million persons or greater. The 100 per one million persons (100 excess cancer risk) criteria is based on United States Environmental Protection Agency (U.S. EPA) guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.[116] As described by the air district, the U.S. EPA considers a cancer risk of 100 per million to be within the "acceptable" range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants rulemaking,[117] the U.S. EPA states that it "…strives to provide maximum feasible protection against risks to health from hazardous air pollutants by (1) protecting the greatest number of persons possible to an individual lifetime risk level no higher than approximately one in one million and (2) limiting to no higher than approximately one in ten thousand [100 in one million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years." The 100 per one million excess cancer cases is also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on air district regional modeling.[118]

Fine Particulate Matter. In April 2011, the U.S. EPA published *Policy Assessment for the Review of the Particulate Matter National Ambient Air Quality Standards*. In this document, U.S. EPA staff concludes that the then current federal annual $PM_{2.5}$ standard of 15 $\mu g/m^3$ should be revised to a level within the range of 13 to 11 $\mu g/m^3$, with evidence strongly supporting a standard within the range of 12 to 11 $\mu g/m^3$. The *air pollutant exposure zone* for San Francisco is based on the health-

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115 San Francisco Department of Public Health, Environmental Health, *Air Pollutant Exposure Zone Map*, https://www.sfdph.org/dph/files/EHSdocs/AirQuality/AirPollutantExposureZoneMap.pdf, accessed on April 13, 2017.

116 Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, CEQA Thresholds of Significance,* October 2009, p. 67.

117 54 Federal Register 38044, September 14, 1989.

118 Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, CEQA Thresholds of Significance,* October 2009, p. 67.

protective $PM_{2.5}$ standard of 11 μg/m^3, as supported by the U.S. EPA's particulate matter policy assessment, although lowered to 10 μg/m^3 to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

Proximity to Freeways. According to the California Air Resources Board, studies have shown an association between the proximity of sensitive land uses to freeways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children. Siting sensitive uses in close proximity to freeways increases both exposure to air pollution and the potential for adverse health effects. As evidence shows that sensitive uses in an area within a 500-foot buffer of any freeway are at an increased health risk from air pollution,119 lots that are within 500 feet of freeways are included in the air pollutant exposure zone.

Health Vulnerable Locations. Based on the air district's evaluation of health vulnerability in the Bay Area, those zip codes (94102, 94103, 94105, 94124, and 94130) in the worst quintile of Bay Area health vulnerability scores as a result of air pollution-related causes were afforded additional protection by lowering the standards for identifying lots in the *air pollutant exposure zone* to: (1) an excess cancer risk greater than 90 per one million persons exposed, and/or (2) $PM_{2.5}$ concentrations in excess of 9 μg/m^3.[120]

The above citywide health risk modeling was also used as the basis in approving a series of amendments to the San Francisco Building and Health Codes, generally referred to as the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments or Health Code, article 38 (Ordinance 224-14, effective December 8, 2014) (Article 38). The purpose of article 38 is to protect the public health and welfare by establishing an *air pollutant exposure zone* and imposing an enhanced ventilation requirement for all urban infill sensitive use development within the *air pollutant exposure zone*. In addition, projects within the *air pollutant exposure zone* require special consideration to determine whether the project's activities would add a substantial amount of emissions to areas already adversely affected by poor air quality.

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[119] California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective,* accessed at *http://www.arb.ca.gov/ch/landuse.htm*, April 2005.

[120] San Francisco Planning Department and San Francisco Department of Public Health, *2014 Air Pollutant Exposure Zone Map (Memo and Map),* April 9, 2014. These documents are part of San Francisco Board of Supervisors File No. 14806, Ordinance No. 224-14 Amendment to Health Code Article 38.

Construction Air Quality Impacts

Project-related air quality impacts fall into two categories: short-term impacts from construction and long-term impacts from project operation. The following addresses construction-related air quality impacts resulting from the proposed project.

Impact AQ-1: The proposed project's construction activities would generate fugitive dust and criteria air pollutants, but would not violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. (Less than Significant)

Construction activities (short term) typically result in emissions of ozone precursors and particulate matter in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and particulate matter are primarily a result of the combustion of fuel from onroad and offroad vehicles. However, ROGs are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving.

The proposed project includes the demolition of a one-story approximately 8,500-square-foot building; the construction of a 234,450-square-foot student residence hall (above ground); the renovation of an existing dining facility and creation of a new freestanding pavilion building (adding approximately 4,000 square feet to the dining commons); the construction of a 3,700-square-foot recycling and waste facility; a 3,740-square-foot addition to the Koret Health and Recreation Center for the ROTC program relocation; and a 4,400 square foot flow diversion structure to four infiltration trenches. The proposed student residence hall is a 155-unit residential dormitory with approximately 1,835 square feet of classrooms, approximately 21,160 square feet of administrative and common areas, and an approximately 73,846-square-foot underground parking facility.[121]

The construction of the student residence hall would last 24 months, the construction of the dining commons would last 10 months, the construction of the recycling and waste facility would last 10 months, the construction of the ROTC program relocation addition would last six months, and the construction of the infiltration trenches would last two months. Construction of the student residence hall, recycling and waste facility, and ROTC program relocation addition would commence in summer 2018. Construction of the dining commons would commence in

[121] Exact land use sizes may change slightly after this analysis is completed. However, land uses analyzed in this report are larger than land uses that would ultimately be proposed; thus, this analysis produces conservative (i.e., overestimates of) results.

summer 2019 to coincide with completion of the student residence hall. Construction of the infiltration trenches would commence in spring 2020. These construction activities would have the potential to result in emissions of ozone precursors and particulate matter, as discussed below.

Fugitive Dust

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. Although there are federal standards for air pollutants and implementation of state and regional air quality control plans, air pollutants continue to have impacts on human health throughout the country. California has found that particulate matter exposure can cause health effects at lower levels than national standards. The current health burden of particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. According to the air resources board, reducing $PM_{2.5}$ concentrations in the San Francisco Bay Area to state and federal standards of 12 $\mu g/m^3$ would prevent between 200 and 1,300 premature deaths.[122]

Dust can be an irritant, causing watering eyes or irritation to the lungs, nose, and throat. Demolition, excavation, grading, and other construction activities can cause wind-blown dust that adds particulate matter to the local atmosphere. Depending on exposure, adverse health effects can occur due to this particulate matter in general and due to specific contaminants, such as lead or asbestos that may be constituents of soil.

In response, the San Francisco Board of Supervisors approved amendments to the San Francisco Building and Health Codes referred to as the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) with the intent of reducing the quantity of dust generated during site-preparation, demolition, and construction work in order to protect the health of the general public and of onsite workers, minimize public nuisance complaints, and to avoid orders to stop work by the building department.

The ordinance requires that all site-preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures whether or not the activity requires a permit from the building department. The director of the building

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[122] Air Resource Board, *Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California*, Staff Report, Table 4c, October 24, 2008.

department may waive this requirement for activities on sites less than one-half acre that are unlikely to result in any visible wind-blown dust.

In compliance with the ordinance, the project sponsor and the contractor responsible for construction activities at the project site would be required to use the following practices to control construction dust on the site or other practices that result in equivalent dust control that are acceptable to the director. Dust suppression activities may include watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 square feet of excavated material, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10 mil (0.01 inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil-stabilization techniques. City Ordinance 175-91 restricts the use of potable water for soil compaction and dust control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of San Francisco, unless permission is obtained from the San Francisco Public Utilities Commission (SFPUC). Non-potable water must be used for soil compaction and dust control activities during project construction and demolition. The SFPUC operates a recycled water truck-fill station at the southeast water pollution control plant that provides recycled water for these activities at no charge.

For projects over one-half acre, such as the proposed project, the dust control ordinance requires that the project sponsor submit a dust control plan for approval by the San Francisco Department of Public Health. The building department will not issue a building permit without written notification from the director of public health that the applicant has a site-specific dust control plan, unless the director waives the requirement. Interior-only tenant improvement projects that are over one-half acre in size that will not produce exterior visible dust are exempt from the site-specific dust control plan requirement.

The site-specific dust control plan would require the project sponsor to submit of a map to the director of public health showing all sensitive receptors within 1,000 feet of the site; wet down areas of soil at least three times per day; provide an analysis of wind direction and install upwind and downwind particulate dust monitors; record particulate monitoring results; hire an independent, third party to conduct inspections and keep a record of those inspections; establish shut-down conditions based on wind, soil migration, etc.; establish a hotline for surrounding community members who may be potentially affected by project-related dust; limit the area subject to construction activities at any one time; install dust curtains and windbreaks on the

property lines, as necessary; limit the amount of soil in hauling trucks to the size of the truck bed and securing with a tarpaulin; enforce a 15-miles-per-hour speed limit for vehicles entering and exiting construction areas; sweep affected streets with water sweepers at the end of the day; install and utilize wheel washers to clean truck tires; terminate construction activities when winds exceed 25 miles per hour; apply soil stabilizers to inactive areas; and sweep off adjacent streets to reduce particulate emissions. The project sponsor would be required to designate an individual to monitor compliance with these dust control requirements. Compliance with the regulations and procedures set forth by the dust control ordinance would ensure that potential dust-related air quality impacts would be reduced to a ***less than significant*** level. No mitigation is required.

Naturally Occurring Asbestos

Naturally occurring asbestos was encountered at 15 feet to the termination of the boring at 15.75 feet below ground surface (bgs) at the site of the ROTC program relocation addition, at levels below laboratory detection limits. Effects of naturally occurring asbestos are discussed in Topic 16, Hazards and Hazardous Materials.

Criteria Air Pollutants

As discussed above, construction activities would result in emissions of criteria air pollutants from the use of off- and onroad vehicles and equipment. The air district, in its CEQA Air Quality Guidelines, developed screening criteria to assist lead agencies in determining whether short-term construction-related air pollutant emissions require further analysis to determine whether the project may exceed the criteria air pollutant significance thresholds shown in **Table** *17*, p. 192**.** If a proposed project meets the screening criteria, then construction of the project would result in less than significant criteria air pollutant impacts. A project that exceeds the screening criteria may require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds. The CEQA Air Quality Guidelines note that the screening levels are generally representative of new development on greenfield[123] sites without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions.

The proposed project exceeds the criteria air pollutant screening criteria; therefore, a quantitative analysis was conducted. Construction-related criteria air pollutants generated by the proposed

[123] A greenfield site refers to agricultural or forest land or an undeveloped site earmarked for commercial, residential, or industrial projects.

project were quantified using the California Emissions Estimator Model (CalEEMod) and provided within the air quality technical report. The model was developed, including default data (e.g., emission factors, meteorology, etc.), in collaboration with California air districts' staff. Default assumptions were used where project-specific information was unknown. The demolition and construction activities for the student residence hall are estimated to take approximately 24 months and approximately 60,000 cubic yards of soil would be excavated in an approximately 135,000-square-foot excavation area. Construction activities for the dining commons are estimated to take approximately 10 months, and approximately 200 to 250 cubic yards of soil would be excavated. Construction activities for the recycling and waste facility are estimated to take approximately 10 months with a total excavation of approximately 800 cubic yards of soil. The construction activities for the ROTC program relocation addition are estimated to take approximately six months with no excavation being anticipated. Construction activities for the infiltration trenches are estimated to take approximately two months with excavation of approximately 3,000 cubic yards of soil. Consistent with air district guidelines, emissions associated with excavation and ground movement are solely from exhaust of the heavy equipment and trucks moving material. The associated truck trips and equipment use for excavation were provided by USF. As shown in **Table 18,** unmitigated project construction emissions would be below the threshold of significance for all pollutants. Therefore, construction criteria air pollutant impacts would be ***less than significant***. No mitigation is required.

Table 18: Daily Project Construction Emissions

	Pollutant Emissions (Average Pounds per Day)			
	ROG	**NOx**	**Exhaust PM_{10}**	**Exhaust $PM_{2.5}$**
Unmitigated Project Emissions	4.1	35	2.3	2.0
Significance Threshold	54.0	54.0	82.0	54.0

Source: Bay Area Air Quality Management District, *CEQA Air Quality Guidelines,* May 2017.

Impact AQ-2: The proposed project's construction activities would generate toxic air contaminants, including diesel particulate matter, but would not expose sensitive receptors to substantial pollutant concentrations. (Less than Significant)

As discussed above, the project site is not within an *air pollutant exposure zone*. With regards to construction emissions, offroad equipment (which includes construction-related equipment) is a large contributor to diesel emissions in California, although since 2007, the California Air

Resources Board has found the emissions to be substantially lower than previously expected.[124] Newer and more refined emission inventories have substantially lowered the estimates of diesel particulate matter emissions from offroad equipment such that offroad equipment is now considered the sixth-largest source of diesel emissions in California.[125]

Additionally, a number of federal and state regulations are requiring cleaner offroad equipment. Specifically, both the U.S. EPA and California have set emissions standards for new offroad equipment engines, ranging from *tier 1* to *tier 4*. Tier 1 emission standards were phased in between 1996 and 2000, and tier 4 Interim and Final emission standards for all new engines would be phased in between 2008 and 2015. To meet the tier 4 emission standards, engine manufacturers will be required to produce new engines with advanced emission-control technologies. Although the full benefits of these regulations will not be realized for several years, the U.S. EPA estimates that by implementing the federal tier 4 standards, NO_x and particulate matter emissions will be reduced by more than 90 percent.[126]

In addition, construction activities do not lend themselves to analysis of long-term health risks because of their temporary and variable nature. As explained in the air district's CEQA Air Quality Guidelines:

> *"Due to the variable nature of construction activity, the generation of toxic air contaminant emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (ARB 2005). In addition, current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of health risk."*[127]

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[124] California Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements,* p. 1 and p. 13 (Figure 4), October 2010.

[125] California Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements,* October 2010.

[126] United State Environmental Protection Agency, "Clean Air Nonroad Diesel Rule: Fact Sheet," May 2004.

[127] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines,* May 2017, page 8-7.

Therefore, project-level analyses of construction activities tend to produce overestimated assessments of long-term health risks. However, within the *air pollutant exposure zone*, as discussed above, additional construction activity may adversely affect populations that are already at a higher risk for adverse long-term health risks from existing sources of air pollution.

Although onroad heavy-duty diesel vehicles and offroad equipment would be used during the 24-month construction duration, emissions would be temporary and variable in nature and would not be expected to expose sensitive receptors to substantial air pollutants. Furthermore, the proposed project would be subject to, and would comply with California regulations limiting idling to no more than five minutes,[128] which would further reduce nearby sensitive receptor exposure to temporary and variable diesel emissions. Therefore, because the project site is not within the *air pollutant exposure zone* and construction activities would be temporary and variable over the 24-month construction period, contaminant emissions would result in a ***less-than-significant*** impact to sensitive receptors. No mitigation is required.

Operational Air Quality Impacts

Land use projects typically result in emissions of criteria air pollutants and toxic air contaminants primarily from an increase in motor vehicle trips. However, land use projects may also result in criteria air pollutants and toxic air contaminants from combustion of natural gas, landscape maintenance, use of consumer products, and architectural coating. The following addresses air quality impacts resulting from operation of the proposed project.

Impact AQ-3: During project operations, the proposed project would result in emissions of criteria air pollutants, but not at levels that would violate an air quality standard, contribute to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. (Less than Significant)

As discussed above in Impact AQ-1, the air district, in its CEQA Air Quality Guidelines, has developed screening criteria to determine whether a project requires an analysis of project-generated criteria air pollutants. If all the screening criteria are met by a proposed project, then the lead agency or applicant does not need to perform a detailed air quality assessment.

The proposed project would generate criteria pollutant emissions associated with vehicle traffic (mobile sources), onsite area sources (i.e., natural-gas combustion for space and water heating, microturbine combustion, and combustion of other fuels by building and grounds maintenance

[128] California Code of Regulations, Title 13, Division 3, § 2485 (onroad) and § 2449(d)(2) (offroad).

equipment), energy usage, and testing of a backup diesel generator. Operational-related criteria air pollutants generated by the proposed project were also quantified using CalEEMod, with the exception of the microturbine energy system and emergency generator, which quantified criteria air pollutant emissions using equipment specific data,[129] and provided within the air quality technical report. Default assumptions were used where project-specific information was unknown.

The daily and annual emissions associated with operation of the proposed project are shown in **Table 19**. **Table 19** also includes the thresholds of significance the City utilizes.

Table 19: Summary of Operational Criteria Air Pollutant Emissions

	ROG	**NOx**	**PM_{10}**	**$PM_{2.5}$**
Project Average Daily Emissions (Lbs/Day[a])	7.7 to 7.8	4.6 to 5.3	0.45 to 0.51	0.45 to 0.51
Significance Threshold (Lbs/Day)	54	54	82	54
Project Maximum Annual Emissions (TPY)[b]	1.41 to 1.43	0.84 to 0.97	0.082 to 0.093	0.082 to 0.092
Significance Threshold (TPY)	10.0	10.0	15.0	10.0

Notes:

a. Lbs/day = Pounds Per Day

b. TPY = Tons Per Year

Source: Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

The ranges shown above represent the uncertainty of the reduction in natural-gas usage drawn from PG&E due to heat generated by the microturbine energy system. As shown in **Table 19**, the proposed project would not exceed any of the significance thresholds for criteria air pollutants, and would result in a ***less-than-significant*** impact with respect to criteria air pollutants. No mitigation is required.

Impact AQ-4: During project operations, the proposed project would generate toxic air contaminants, including diesel particulate matter, but would not expose sensitive receptors to substantial air pollutant concentrations. (Less than Significant)

[129] For the microturbine combustion, the air quality technical report used equipment-specific data where available, and the Bay Area Air Quality Management District Permit Handbook for microturbines, the California Air Toxics Emission Factor database, and the Distributed Generation Certificate Program where equipment-specific data was not available. For the emergency generator, emissions limits for *tier 2* engines were used to estimate emissions, providing a conservative analysis for non-emergency operations such as required, scheduled testing.

As discussed above, the project site is not within an *air pollutant exposure zone*. However, the proposed project would generate toxic air contaminants, as discussed below.

Sources of Toxic Air Contaminants

Vehicle Trips. Individual projects result in emissions of toxic air contaminants primarily as a result of an increase in vehicle trips. The air district considers roads with less than 10,000 vehicles per day "minor, low-impact" sources that do not pose a significant health impact, even in combination with other nearby sources, and recommends that these sources be excluded from the environmental analysis. The proposed project would add new onsite student housing that is intended to accommodate some of the existing student population currently residing offsite. The existing population living offsite generates person trips via various modes, including vehicles. By accommodating student housing onsite, the portion of person trips that arrive to the campus by vehicles are expected to shift primarily to walk trips. Furthermore, it is USF policy that all students living onsite are prohibited from having a vehicle at campus. Additionally, the proposed infiltration facility may result in occasional vehicle trips associated with USF and SFPUC monitoring and/or maintenance activities and thus, would not significantly increase vehicle trips. Therefore, the proposed project would not substantially increase vehicle trips. Therefore, a quantitative assessment of project-generated toxic air contaminants resulting from vehicle trips is not required, and the proposed project would not generate a substantial amount of toxic air contaminant emissions from vehicle trips that could affect nearby sensitive receptors.

Microturbine Energy System. The proposed project would include a microturbine energy system located in the west building garage of the student residence hall. Combustion of natural gas associated with the microturbine energy system would also release toxic air contaminants. The air quality technical report evaluates microturbine toxic air contaminant emissions against air district "Trigger Levels" for toxic air contaminants in Table 1 of air district rule 2-1. The toxic air contaminant trigger levels are considered to be reasonable de minimis emission rates for use at a project level. Projects with emissions below the toxic air contaminant trigger levels are unlikely to cause, or contribute significantly to, adverse health risks. Therefore, because the air district trigger levels were not exceeded, meaning that the excess cancer risk from the turbines would be less than one per one million persons exposed, the health risk from the microturbine energy system would not be substantial.

Onsite Diesel Generator. The proposed project would include a backup diesel emergency generator to be located at the southwestern corner of the student residence hall. The generator would use diesel combustible to provide 800 kW of electricity in case of emergency. A screening-level health risk assessment was performed as part of the air quality technical report to assess toxic air contaminant emissions from the emergency generator. The cancer and chronic non-

cancer analyses are based on diesel exhaust concentrations, and are evaluated for the closest sensitive receptor, including both student residents and offsite residents. To estimate air concentrations of diesel exhaust, the U.S. EPA SCREEN3 air dispersion model was used. The concentration for the student resident is assumed to be the maximum concentration SCREEN3 estimated as the closest student resident who is almost adjacent to the generator. The concentration for the offsite resident is the concentration SCREEN3 estimated at 100 meters away as the closest offsite residences are located 100 meters south from the expected location of the emergency generator, the southwest corner of the student residence hall west building.

The air quality technical report determined that the emergency generator would result in a chronic hazard index of 0.012 for the student resident and 0.003 for the offsite resident and an excess lifetime cancer risk of 1.0 in a million for the student resident and 9.7 in a million for the offsite resident. Additionally, the proposed generator would result in an annual $PM_{2.5}$ concentration for the student resident of 0.058 $\mu g/m^3$ and 0.013 $\mu g/m^3$ for the offsite resident. These estimated health risks are conservative as the emissions from the emergency generator are assumed to be at the maximum allowable emission rate; the emergency generator is assumed to operate at the maximum hours of operation every year; and the SCREEN3 model overestimates ground-level pollutant concentrations to provide a worst-case analysis. The use of a refined dispersion model would result in lower estimated health risks.

Additionally, emergency generators are regulated by the air district through its new source review (regulation 2, rule 5) permitting process. The project sponsor would be required to obtain applicable permits to operate an emergency generator from the air district. Although emergency generators are intended only to be used in periods of power outages, monthly testing of the generator would be required. The air district limits testing to no more than 50 hours per year. Additionally, as part of the permitting process, the air district limits the excess cancer risk from any facility to no more than 10.0 per one million population and requires any source that would result in an excess cancer risk greater than 1.0 per one million population to install best available control technology for toxics.

As shown above, the health risk impact to both the student population and nearby residents would not be substantial; therefore, toxic air contaminant emissions would be ***less than significant***. The proposed project would therefore not expose sensitive receptors to substantial air pollutant concentrations. No mitigation is required.

Siting Sensitive Land Uses

As discussed in Topic 6, Noise, the impact of the existing environment on a project's users is generally not a CEQA issue unless the project would exacerbate the existing environmental

conditions.[130] As discussed above, the proposed project would not result in substantial levels of toxic air contaminants and thus, this CEQA analysis need not consider the existing air quality effects on the project's users. Moreover, because the project site is not located within an *air pollutant exposure zone*, health risks to the project's users would not be substantial.

Impact AQ-5: The proposed project would not conflict with, or obstruct implementation of, the 2017 Clean Air Plan. (Less than Significant).

The most recently adopted air quality plan for the air basin is the 2017 Clean Air Plan. The 2017 Clean Air Plan is a road map that demonstrates how the San Francisco Bay Area will achieve compliance with the state ozone standards as expeditiously as practicable and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. In determining consistency with the 2017 Clean Air Plan, this analysis considers whether the project would: (1) support the primary goals of the 2017 Clean Air Plan, (2) include applicable control measures from the plan, and (3) avoid disrupting or hindering implementation of control measures identified in the plan.

The primary goals of the 2017 Clean Air Plan are to: (1) protect air quality and health at the regional and local scale by attaining all state and national air quality standards and eliminating disparities among Bay Area communities in cancer health risk from toxic air contaminants; and (2) protect the climate by reducing GHG emissions. To meet the primary goals, the 2017 Clean Air Plan recommends specific control measures and actions. These control measures are grouped into various categories and include stationary and area source measures, mobile-source measures, transportation control measures, land use measures, and energy and climate measures. The 2017 Clean Air Plan recognizes that to a great extent, community design dictates individual travel mode, and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and GHGs from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand, and people have a range of viable transportation options. To this end, the 2017 Clean Air Plan includes 85 control measures aimed at reducing air pollution in the air basin.

The measures most applicable to the proposed project are transportation control measures and energy and climate control measures. The proposed project's impact with respect to GHGs are discussed in Topic 8, Greenhouse Gas Emissions, which demonstrates that the proposed project

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[130] *California Building Industry Association v. Bay Area Air Quality Management District,* 62 Cal.4th 369. Opinion Filed December 17, 2015.

would have a ***less than significant*** impact and would comply with the applicable provisions of the City's greenhouse gas reduction strategy.[131]

Development of the proposed project and high availability of viable transportation options ensure that students, employees, and residents could bicycle, walk, and ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the project would avoid substantial growth in automobile trips and VMT. The proposed project would add new onsite student housing that is intended to accommodate some of the existing student population currently residing offsite. The existing student population living offsite generates person trips via various modes, including vehicles. By accommodating student housing onsite, the portion of person trips that arrive to the campus by vehicles is expected to shift primarily to walk trips. Furthermore, it is USF policy that all students living on campus are prohibited from having a vehicle at campus. Therefore, the proposed project would not substantially increase vehicle trips. Transportation control measures that are identified in the 2017 Clean Air Plan are implemented by the *g*eneral plan and the planning code, for example, through the City's Transit-First Policy, bicycle parking requirements, and the Transportation Demand Management Program. Compliance with these requirements would ensure the project includes relevant transportation control measures specified in the 2017 Clean Air Plan. Therefore, the proposed project would include applicable control measures identified in the 2017 Clean Air Plan to the meet the plan's primary goals.

Examples of a project that could cause the disruption or delay of 2017 Clean Air Plan control measures are projects that would preclude the extension of a transit line or bike path, or projects that propose excessive parking beyond parking requirements. The proposed project would increase student housing and dining to a walkable urban area near a concentration of regional and local transit service. It would not preclude the extension of a transit line or a bike path or any other transit improvement, and thus would not disrupt or hinder implementation of control measures identified in the 2017 Clean Air Plan.

For the reasons described above, the proposed project would not interfere with implementation of the 2017 Clean Air Plan, and because the proposed project would be consistent with the applicable air quality plan that demonstrates how the region will improve ambient air quality and achieve the state and federal ambient air quality standards, this impact would be ***less than significant***. No mitigation is required.

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[131] *Compliance Checklist Table for Greenhouse Gas Analysis, Table 1 Private Development Projects*, University of San Francisco 2500-2698 Turk Street & 222 Stanyan Street, Case No. 2015-00058ENV, January 5, 2017.

Impact AQ-6: The proposed project would not create objectionable odors that would affect a substantial number of people. (Less than Significant)

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities. During construction, diesel exhaust from construction equipment would generate some odors. However, construction-related odors would be temporary and would not persist upon project completion. Observation indicates that the project site is not substantially affected by sources of odors.[132] Additionally, the proposed project includes the construction of the student residence hall, the renovation and expansion of the dining commons, the replacement of an existing recycling and waste facility, the relocation of the ROTC program as an addition to the Koret Health and Recreation Center, and the infiltration trenches, none of which would create significant sources of new odors. Any proposed new kitchen equipment for the dining commons would be required to meet regulations regarding proper venting of stove and other kitchen equipment. The proposed project would include the replacement of an existing recycling and waste facility, which would produce no uncontrolled odors. Therefore, odor impacts would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Impact C-AQ-1a: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area would result in less–than-significant cumulative air quality impacts. (Less than Significant)

As discussed above, regional air pollution is by nature largely a cumulative impact. Emissions from past, present, and future projects contribute to any regional adverse air quality on a cumulative basis. No single project by itself would be sufficient in size to result in regional non-attainment of ambient air quality standards. Instead, a project's individual emissions would contribute to any existing cumulative adverse air quality impacts.[133] The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project's construction (Impact AQ-1) and operational (Impact AQ-3) emissions would not exceed the project-level thresholds for criteria air pollutants,

[132] Environmental Planning staff visited the project site on June 24, 2016, July 22, 2016, and June 22, 2017.

[133] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines,* May 2017, page 2-1.

the proposed project would not be considered to result in a cumulatively considerable contribution to regional air quality impacts.

Although the project would include the construction of the student residence hall, the renovation and expansion of the dining commons, the replacement of an existing recycling and waste facility, the relocation of the ROTC program as an addition to the Koret Health and Recreation Center, and the infiltration trenches, the project site is not located within an air pollutant exposure zone. The project's incremental increase in localized toxic air contaminant emissions resulting from a backup diesel emergency generator would be minor and would not contribute substantially to cumulative toxic air contaminant emissions that could affect nearby and/or proposed sensitive land uses. Therefore, cumulative air quality impacts would be considered ***less than significant***. No mitigation is required**.**

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
8. GREENHOUSE GAS EMISSIONS. Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	☐

Greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects have contributed and will continue to contribute to global climate change and its associated environmental impacts.

The air district has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines, sections 15064.4 and 15183.5, which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA guidelines, section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. Accordingly, San Francisco has prepared Strategies to Address Greenhouse Gas Emissions,[134] which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's qualified GHG reduction strategy in compliance with the CEQA guidelines. These GHG reduction actions have resulted in a 28 percent reduction in GHG emissions in 2015 compared to 1990 levels,[135] exceeding the year 2020 reduction goals outlined in the air district's Bay Area 2017

[134] San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco,* 2010, *http://sfmea.sfplanning.org/GHG/GHG_Strategy_October2017.pdf*, accessed on November 8, 2017.

[135] SF Environment, *San Francisco's Carbon Footprint*, 2016, *https://sfenvironment.org/carbon-footprint*, accessed August 15, 2017.

Clean Air Plan, Executive Order (EO) S-3-05, and Assembly Bill (AB) 32 (also known as the Global Warming Solutions Act).[136]

Given that the city has met the state and region's 2020 GHG reduction targets and San Francisco's GHG reduction goals are consistent with, or more aggressive than, the long-term goals established under EO S-3-05,[137] EO B-30-15,[138,139] and SB 32[140,141] the City's GHG reduction goals are consistent with EO S-3-05, EO B-30-15, AB 32, SB 32, and the Bay Area 2017 Clean Air Plan. Therefore, proposed projects that are consistent with the City's GHG reduction strategy would be consistent with the aforementioned GHG reduction goals, would not conflict with these plans or result in significant GHG emissions, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

The following analysis of the proposed project's impact on climate change focuses on the project's contribution to cumulatively significant GHG emissions. Because no individual project could emit GHGs at a level that could result in a significant impact on the global climate, this analysis is in a cumulative context, and this section does not include an individual project-specific impact statement.

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136 Executive Order S-3-05, Assembly Bill 32, and the *Bay Area 2017 Clean Air Plan* set a target of reducing GHG emissions to below 1990 levels by year 2020.

137 Office of the Governor, Executive Order S-3-05, June 1, 2005, *https://www.gov.ca.gov/news.php?id=1861*, accessed July 12, 2017. Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million metric tons of carbon dioxide equivalents ($MTCO_2E$)); by 2020, reduce emissions to 1990 levels (approximately 427 million $MTCO_2E$); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million $MTCO_2E$). Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

138 Office of the Governor, *Executive Order B-30-15,* April 29, 2015, *https://www.gov.ca.gov/news.php?id=18938*, accessed March 3, 2016. Executive Order B-30-15, issued on April 29, 2015, sets forth a target of reducing GHG emissions to 40 percent below 1990 levels by 2030 (estimated at 2.9 million $MTCO_2E$).

139 San Francisco's greenhouse gas (GHG) reduction goals are codified in Section 902 of the Environment Code and include: (i) by 2008, determine city GHG emissions for year 1990; (ii) by 2017, reduce GHG emissions by 25 percent below 1990 levels; (iii) by 2025, reduce GHG emissions by 40 percent below 1990 levels; and by 2050, reduce GHG emissions by 80 percent below 1990 levels.

140 Senate Bill 32 amends California Health and Safety Code Division 25.5 (also known as the California Global Warming Solutions Act of 2006) by adding Section 38566, which directs that statewide GHG emissions to be reduced by 40 percent below 1990 levels by 2030.

141 Senate Bill 32 was paired with Assembly Bill 197, which would modify the structure of the State Air Resources Board; institute requirements for the disclosure of greenhouse gas emissions criteria pollutants, and toxic air contaminants; and establish requirements for the review and adoption of rules, regulations, and measures for the reduction of greenhouse gas emissions.

Impact C-GG: The proposed project would not generate GHG emissions at levels that would result in a significant impact on the environment but may conflict with a policy, plan, or regulation adopted for the purpose of reducing GHG emissions. (Less than Significant)

Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during construction and operational phases. Direct operational emissions include GHG emissions from new vehicle trips and area sources (natural-gas combustion). Indirect emissions include emissions from electricity providers; energy required to pump, treat, and convey water; and emissions associated with waste removal, disposal, and landfill operations.

The proposed project would increase the intensity of use of the site by constructing the student residence hall and increasing the number of individuals living on-campus by approximately 606 persons. In addition, the dining commons would be remodeled and expanded to provide dining services for additional students and employees on campus. The addition for the ROTC program and the recycling and waste facility would not intensify the uses of the site since these uses already exist and would only be relocated. The infiltration system would not intensify the use of the site as it removes existing grass and vegetation and would allow runoff to fall directly into the infiltration trenches. Because USF does not allow students living on campus to have a car, the increase in on-campus residents would not generate substantial increased vehicle trips. Therefore, the proposed project would contribute to annual long-term increases in GHGs as a result of new residential and increased dining operations that result in an increase in energy use, water use, wastewater treatment, and solid-waste disposal. Construction activities would also result in temporary increases in GHG emissions.

The proposed student residence hall would include a microturbine energy system facility in the underground parking structure to reduce costs associated with energy consumption. The project is expected to include three 65 kW natural-gas-fired cogeneration microturbines. Microturbines release GHG emissions through the combustion of natural gas. GHG emissions were estimated as part of the air quality technical report analysis and were based on the microturbine rating, expected operation, and natural-gas combustion emission factors. The microturbine energy system would generate power for the student residence hall and reduce the amount of electricity and natural gas that the student residence hall would need to obtain from PG&E. The City has a checklist to confirm compliance with its GHG reduction strategy, so GHG emissions from project operations do not need to be quantified or compared against a quantitative threshold. However, stationary sources, like the proposed microturbine energy system , are not addressed in the GHG reduction strategy, so emissions from the operation of the microturbine energy system were

quantified.[142] The emissions from energy use in CalEEMod reflect energy that is drawn from PG&E. The actual amount of energy reduced is dependent on many variables, including the alignment in time of the heat demand and capacity for the microturbine energy system to generate heat. Thus, the actual amount of PG&E energy reduced is not definitively known at this time. Results in the air quality technical report are presented with and without PG&E energy to provide the best and worst-case emissions from natural-gas combustion. As detailed in the air quality technical report, GHG emissions from the microturbine energy system are 1,493 million tons (MT) CO_2e/year. The GHG emissions that would be displaced due to the microturbine energy system range from 866 to 1,827 MT CO_2e/year. Thus, the net GHG emissions from the use of the microturbine energy system are between a decrease of 344 MT CO_2e/year to an increase of 627 MT CO_2e/year. The lower end of the range represents displaced electricity generated by the PG&E annual average mix and would be the minimum value for displaced GHG emissions. However, the microturbine energy system would likely displace electricity generated from fossil-fuel-generated sources instead of the average mix of generation sources. PG&E's electricity generation mix includes a large fraction of sources that does not emit GHGs, such as wind, solar, and nuclear. Due to the energy generation characteristics of these sources, these sources supply the baseload of demand and run at capacity even when electricity demand is reduced. The natural-gas power plants tend to be the first to be ramped down if electricity demand is decreased due to the cost of natural gas and the ability to control and fluctuate their generation. The microturbine energy system would reduce the electricity demand on PG&E's grid. This reduced demand would reduce natural-gas power plant generation instead of reducing the amount of electricity generation from renewable sources, such as wind. Accordingly, two comparisons for fossil fuel plants are provided above, including the clean baseload fossil fuel plants and the existing fossil fuel mix owned by PG&E.

Additionally, the proposed project would be subject to regulations adopted to reduce GHG emissions as identified in the GHG reduction strategy. As discussed below, compliance with the applicable regulations would reduce the proposed project's GHG emissions related to transportation, energy use, waste disposal, wood burning, and use of refrigerants.

The proposed project would be required to comply with the applicable energy efficiency requirements of the City's Green Building Code, Stormwater Management Ordinance, Water Conservation and Irrigation ordinances, and Energy Conservation Ordinance, which would promote energy and water efficiency, thereby reducing the proposed project's energy-related

[142] Ramboll Environ, *Air Quality Technical Report, University of San Francisco,* San Francisco, California, June 21, 2017.

GHG emissions.[143] The project would use low-impact design features to decrease stormwater flow to match the existing condition. Stormwater will be managed by an infiltration trench that complies with SFPUC Stormwater Design Guidelines. The project would comply with current water fixture and fitting efficiency requirements, through installation of water fixtures that provide 30 percent water reduction.[144] Additionally, the proposed project would be required to meet the applicable renewable energy criteria of the Green Building Code, further reducing the proposed project's energy-related GHG emissions.

The proposed project's waste-related emissions would be reduced through compliance with the City's Recycling and Compositing Ordinance. The project would provide storage, collection, and loading of recyclables, compost, and solid waste. The proposed project would also comply with the Construction and Demolition Debris Recovery Ordinance, and Green Building Code requirements. The construction and demolition material associated with the proposed project would be transported by a registered hauler for recycling, and a waste diversion plan documenting a minimum of 75 percent diversion of construction and demolition debris from landfills would be required. These regulations reduce the amount of materials sent to a landfill, reducing GHGs emitted by landfill operations. These regulations also promote reuse of materials, conserving their embodied energy[145] and reducing the energy required to produce new materials.

The project would comply with the City's street tree planting requirements by planting nine out of the 20 street trees required, and USF therefore would pursue the waiver option under public works code section 806(d)(4), and would pay an in-lieu fee for the 11 street trees that cannot be provided. Although the project construction would remove trees, trees would be replaced on a one-for-one basis and would serve to increase carbon sequestration. Other regulations, including those limiting refrigerant emissions, and the Wood Burning Fireplace Ordinance would reduce emissions of GHGs and black carbon, respectively. Regulations requiring low-emitting finishes

[143] Compliance with water conservation measures reduces the energy (and GHG emissions) required to convey, pump and treat water required for the project.

[144] *Compliance Checklist Table for Greenhouse Gas Analysis, Table 1 Private Development Projects*, University of San Francisco 2500-2698 Turk Street & 222 Stanyan Street, Case No. 2015-00058ENV, January 5, 2017.

[145] Embodied energy is the total energy required for the extraction, processing, manufacture and delivery of building materials to the building site.

would reduce volatile organic compounds (VOCs).[146] Thus, the proposed project was determined to be consistent with San Francisco's GHG reduction strategy.[147]

The project sponsor is required to comply with these regulations, which have proven effective as San Francisco's GHG emissions have measurably decreased when compared to 1990 emissions levels, demonstrating that the City has met and exceeded EO S-3-05, AB 32, and the 2017 Clean Air Plan GHG reduction goals by the year 2020. Other existing regulations, such as those implemented through AB 32, will continue to reduce a proposed project's contribution to climate change. In addition, San Francisco's local GHG reduction targets are consistent with the long-term GHG reduction goals of EO S-3-05, EO B-30-15, AB 32, SB 32, and the 2017 Clean Air Plan. Therefore, because the proposed project is consistent with the City's GHG reduction strategy, it is also consistent with the GHG reduction goals of EO S-3-05, EO B-30-15, AB 32, SB 32, and the 2017 Clean Air Plan, would not conflict with these plans, and would therefore not exceed San Francisco's applicable GHG threshold of significance. As such, the proposed project GHG emissions would be ***less than significant.*** No mitigation is required.

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[146] While not a greenhouse gas, volatile organic compounds (VOCs) are precursor pollutants that form ground-level ozone. Increased ground-level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

[147] *Compliance Checklist Table for Greenhouse Gas Analysis, Table 1 Private Development Projects*, University of San Francisco 2500-2698 Turk Street & 222 Stanyan Street, Case No. 2015-00058ENV, January 5, 2017.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
9. WIND AND SHADOW. Would the project:					
a) Alter wind in a manner that substantially affects public areas?	☐	☐	☒	☐	☐
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	☐	☐	☒	☐	☐

Impact WS-1: The proposed project would not alter wind in a manner that substantially affects public areas. (Less than Significant)

A proposed project's wind impacts are directly related to building heights, orientation, design, location, and surrounding development context. Based on wind analyses for other development projects in San Francisco, a building that does not exceed a height of 80 feet generally has little potential to cause substantial changes to ground-level wind conditions. The maximum building height of the tallest proposed structure, the west building of the student residence hall, would be 40 feet (up to 60 feet at the top of the roof with ornamental tower), and would be lower in height than adjacent buildings such as Lone Mountain Main and Loyola House. The dining commons would be 40 feet tall, the recycling and waste facility would be 37 feet tall, and the ROTC program relocation addition would be 38 feet tall. Neither the student residence hall buildings nor any other proposed structures have a height, orientation, design, location, or surrounding development context that create a potential to cause substantial changes to ground-level wind conditions adjacent to and near the project site. For these reasons, the proposed project would not alter wind in a manner that substantially affects public areas, and the impact would be ***less than significant.*** No mitigation is required.

Impact WS-2: The proposed project would not create shadow in a manner that substantially affects outdoor recreation facilities or other public areas. (Less than Significant)

In 1984, San Francisco voters approved an initiative known as "Proposition K, The Sunlight Ordinance," which was codified as Planning Code section 295 in 1985. Planning Code section 295 generally prohibits new structures above 40 feet in height that would cast additional shadows on open space that is under the jurisdiction of the San Francisco Recreation and Park Commission between one hour after sunrise and one hour before sunset, at any time of the year, unless that shadow would not result in a significant adverse effect on the use of the open space. Public open

spaces that are not under the jurisdiction of the Recreation and Park Commission as well as private open spaces are not subject to Planning Code section 295. The student residence hall would be 40 feet tall, the dining commons would be 40 feet tall, the recycling and waste facility would be 37 feet tall, and the ROTC program relocation addition would be 38 feet tall.

The open space close to these buildings is part of the USF Hilltop Campus and is not subject to jurisdiction under the Park and Recreation Commission. Any shadow cast by the student residence hall, the dining commons, the recycling and waste facility and other existing building would be interior to the campus. The ROTC program relocation addition on the Lower Campus would be located on the one- to two-story Koret Health and Recreation Center. The proposed addition would construct a new second floor with a comparable height of the existing Hagan Gymnasium. The proposed project is not subject to Planning Code section 295 because the four proposed project components would not exceed 40 feet (except for permitted height exemptions per planning code). No city parks or other publicly accessible open spaces exist within the potential shadow area of the proposed project, given the relatively low building heights and their placement interior to the USF campus; therefore, no parks or open spaces would be affected by project shadow. This impact would be ***less than significant***. No mitigation is required.

Impact C-WS-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative wind or shadow impact. (Less than Significant)

As discussed above, buildings shorter than 80 feet have little potential to cause substantial changes to ground-level wind conditions. Nearby cumulative projects would be within the two- to three-story scale of the existing neighborhoods, which would not be tall enough to alter wind in a manner that substantially affects public areas. Furthermore, the cumulative projects are located far enough from each other to not alter the wind conditions. The scale and location of the project in combination with reasonably foreseeable projects would not have the potential to generate a cumulative shadow impact upon city parks and public open spaces. As described above, the proposed project would not cast any net new shadows on any park protected by Planning Code section 295, nor would it add new shadow to any publicly accessible open space. Accordingly, the proposed project could not contribute considerably to any cumulative shadow effects that would result from the combination of the proposed project and other projects. For these reasons, and given project-level wind and shadow impacts are considered less than significant, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative wind or shadow impact. This impact would be ***less than significant***. No mitigation is required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
10. RECREATION.					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☒	☐	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐	☐

Impact RE-1: The proposed project would not increase the use of existing neighborhood parks or other recreational facilities to the extent that substantial physical deterioration or degradation of the facilities would occur or be accelerated. (Less than Significant)

As shown on Map 07 of the general plan's Recreation and Open Space Element,[148] the project site is not located in an area with a greater need of open spaces. The four proposed project components would include construction of a new student residence hall, a dining commons, and relocation and construction of the recycling and waste facility and ROTC program. The student residence hall site currently contains a parking lot, two tennis courts, and one-story institutional building. The proposed sites for the recycling and waste facility and ROTC program relocation addition are vacant. The proposed student residence hall would remove the two tennis courts that are currently used for the USF intercollegiate tennis team and tennis camps for youths between eight and 16 years old.[149] These activities would be relocated to a tennis court next to USF School of Education (along Turk Street) and the tennis courts located in Golden Gate Park with implementation of the proposed project. The new on-campus residents would have access to public off-campus open spaces managed by the San Francisco Recreation and Parks Department.

The department administers more than 220 parks, playgrounds, and open spaces throughout the city, as well as recreational facilities including recreation centers, swimming pools, golf courses,

[148] According to San Francisco General Plan: Recreation and Open Space Element, *Map 07: High Needs Areas: Priority Acquisition & Renovation Areas*, April 2014, p.13, http://openspace.sfplanning.org/, accessed on February 8, 2017.

[149] As described in the University of San Francisco Institutional Master Plan, the tennis courts would likely be moved to a new site on Anza Street, east of Parker Avenue. The two replacement tennis courts are not part of the proposed project. There is no application on file to replace the tennis court at the San Francisco Planning Department.

and athletic fields, tennis courts, and basketball courts. The project site is located on the USF Hilltop Campus, which also provides open space and recreation facilities for the students and employees.

There are several facilities managed by the department in the project vicinity:

- Laurel Hill Playground (located at the intersection of Euclid Avenue and Collins Street): an approximately 1.35-acre recreation park containing a clubhouse, basketball court, softball field, and tennis court located 0.26 miles north of the project site.
- Angelo J. Rossi Playground (located at the intersection of Anza Street and Arguello Boulevard): an approximately 6-acre recreation park containing a playground, tennis courts, baseball field, and an indoor swimming pool located 0.17 miles northwest of the project site.
- Golden Gate Park (delineated by Fulton Street to the north, Great Highway to the west, Lincoln way to the south and Stanyan Street to the east): an approximately 1,000-acre regional park containing lakes, picnic groves, trails, museums, gardens, playgrounds, sports fields, and an aquarium located approximately 0.12 miles southwest of the project site.
- The Panhandle (delineated by Fell Street to the north, Stanyan Street to the west, Oak Street to the south and Baker Street to the east): an approximately 28-acre park connected to the Golden Gate Park, containing grassy areas, trails, basketball courts, and a playground located approximately 0.30 miles south of the project site.

The Presidio of San Francisco is a federally owned property managed by the National Park Service and is located approximately 0.8 miles north of the project site. The approximately 1,000-acre area includes trails, beaches, observation points, large picnic areas, open lawn areas, and a bowling center and tennis courts.

The USF Hilltop Campus provides approximately 11 acres of vegetation and open space on the Upper Campus and an approximately 2-acre open space area (Welch Field and Gleeson Plaza) on the Lower Campus. New on-campus residents also would have access to the Koret Health and Recreation Center, which is available for students, alumni, personnel, teachers and a limited number of neighborhood residents. The Koret Health and Recreation Center offers a variety of sports facilities that include two levels of cardiovascular equipment, weight rooms, gymnasiums and an indoor swimming pool. It also supports 27 sports clubs and 10 intramural leagues.

The proposed project would provide on-campus housing for approximately 600 students currently living off campus. With the availability of open space and recreational facilities on the USF campus and in its immediate vicinity, and given that the new student residents already frequent the site on a daily basis, the existing local and regional recreational resources, such as

the Laurel Hill Playground, the Angelo J. Rossi Playground, Golden Gate Park, the Panhandle, and the Presidio of San Francisco, could accommodate the demand generated by the project. Therefore, the proposed project would not create a substantial increase in the use of existing parks and recreational facilities such that physical deterioration or degradation of existing facilities would occur or be accelerated. The proposed project would have a ***less-than-significant*** impact on existing recreational facilities. No mitigation is required.

Impact RE-2: The proposed project would not include the construction or expansion of recreational facilities that would have a significant effect on the environment. (Less than Significant)

The proposed student residence hall would include passive recreational spaces for the onsite residents, including four courtyards and other open space areas, as well as social lounges and other common areas inside both buildings. The four courtyard open spaces would be located on the interior of both buildings and would total approximately 15,950 square feet. Open space would also be provided in the paseo between the west and east buildings and would total approximately 16,560 square feet. Total usable open space proposed by the project is approximately 32,513 square feet, approximately 26,411 square feet of which would strictly comply with Planning Code section 135(g) horizontal dimension requirements, exceeding the 25,769 square feet of common usable open space[150] required under Planning Code section 135.

The proposed project would therefore not result in the construction of recreational facilities that would themselves have a physical environmental impact, and there would be ***less than significant***. No mitigation is required.

Impact C-RE-1: The proposed project, in combination with past, present, or reasonably foreseeable projects in the vicinity, would not result in a considerable contribution to cumulative recreation impacts. (Less than Significant)

The geographic area for potential cumulative recreation impacts encompasses the recreational facilities and parks in the vicinity of the USF Hilltop Campus, including Golden Gate Park, the Presidio of San Francisco, the Panhandle, Laurel Hill Playground, and the Angelo J. Rossi Playground. Similar to the proposed project, other planned projects in the vicinity would contribute to incremental demand for such recreation facilities and parks, which may increase the use of these facilities or result in physical deterioration of the facilities.

[150] Calculated by multiplying 166.25 square feet x 155 dwelling units.

Past, present, and reasonably foreseeable future projects located within the vicinity of the USF campus project site and on the USF campus itself are identified in **Table 7,** p. 67, and mapped on **Figure 40,** p. 68. As discussed in Topic 3, Population and Housing, these projects would add approximately 2,092 new residents in 972 dwelling units in a half-mile radius of the project vicinity. These approved and proposed projects, when combined with the proposed project, would add 2,698 new residents in the project vicinity, representing a population increase of approximately 5 percent.

Each residential project identified in **Table 7**, p.67 would be subject to the City's open space requirements, as defined in Planning Code section 135. Section 135 requires new residential projects to provide common (i.e., shared) and/or private usable open space to partially meet the demand for recreational needs of future residents. San Francisco voters passed two bond measures, in 2008 and 2012, to fund the acquisition, planning, and renovation of the city's network of recreational resources. Also, in June 2016, San Francisco voters approved Proposition B, which extends funding set aside in the city budget for the department until 2046. Thus, going forward, the department would have additional funding for programming and park maintenance. Furthermore, the project site and vicinity is not located in an area with a greater need for open spaces. For these reasons, physical deterioration of recreational facilities from development of new housing would not occur, resulting in a ***less-than-significant*** cumulative impact. No mitigation is required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
11. UTILITIES AND SERVICE SYSTEMS. Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐	☐
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐	☐
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒	☐

The project site is within an urban area served by utility service systems, including water, wastewater, and stormwater collection and treatment, and solid-waste collection and disposal. Water service, wastewater, and stormwater collection and treatment are provided by the San Francisco Public Utility Commision (SFPUC), and solid-waste collection and disposal is provided by Recology. The proposed project would add new residents, which would increase the demand for utilities and service systems on the site, as discussed in more detail below.

Impact UT-1: The proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. (Less than Significant)

The project site is served by the city's combined stormwater/sewer system, which handles both sewage and stormwater runoff. The Oceanside Water Pollution Control Treatment Plant[151] provides wastewater and stormwater treatment and management for the west side of San Francisco, which includes the project site and ranges from the Presidio to Lake Merced. The Oceanside Plant is managed by the SFPUC.

As further explained under Topic 13, Geology and Soils, groundwater was not encountered at the project site; however, the depth to groundwater at the project site is generally between 19 and 28 feet below ground surface, although it has been encountered as high as 8.5 feet and 12 feet below ground surface below Stanyan Street and the east side of the Hagan Gymnasium, respectively. Although encountering the groundwater table during construction is not anticipated, passive groundwater control with local dewatering may be necessary for those areas where seeping perched water may be encountered. Generally, if dewatering is expected, the contractor would be required to fully conform to the requirements specified in a batch wastewater discharge permit from the SFPUC. This permit regulates specified low-threat discharges of waste to land with underlying groundwater, including dewatering of construction sites; dewatering of wells drilled to investigate or mitigate a suspected contaminated site; power-washing of buildings or parking lots; or any other activity that generates wastewater, other than from routine commercial or industrial processes.

Campus activities associated with the proposed project would be like those currently being conducted on the campus. The proposed project would not introduce different types of pollutants or discharges, and no new pollutants of concern would be introduced into the wastewater system. This wastewater would be treated to the standards contained within the City's National Pollutant Discharge Elimination System Permit, mandated by the San Francisco Regional Water Quality Control Board, for the Oceanside Plant prior to discharge into the Pacific Ocean through the southwest ocean outfall. Therefore, the proposed project would not exceed the wastewater treatment requirements of the water quality board at the Oceanside Plant. This impact would be ***less than significant.*** No mitigation is required.

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[151] San Francisco Water Power Sever, *Oceanside Treatment Plant*, *https://sfwater.org/index.aspx?page=622*, accessed on November 29, 2016.

Impact UT-2: Implementation of the proposed project could require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects and could result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitment. (Less than Significant with Mitigation)

The student residence hall project site is served by an existing 8-inch city sewer main located on Turk Street at Tamalpais Terrace. A portion of the student residence hall site drains to the city's combined stormwater/sewer system located under Turk Street while the remainder of the student residence hall site sheet flows north and east to other branches of the combined stormwater/sewer system. The combined sewer main on Turk Street is at full system capacity downstream from the project site and no additional flows can be conveyed to the Turk Street sewer.[152] Therefore, in order for the student residence hall project to not result in additional flows to the combined stormwater/sewer system, the proposed project would construct a flow diversion structure to four infiltration trenches with each trench estimated to contain a 4-foot gravel storage depth and a total footprint of approximately 4,400 square feet. The proposed infiltration trenches would be required to either maintain existing flow conditions or reduce existing flows to the system. Additional flows to the combined stormwater/sewer system would result in the system operating over capacity, which could require a combination of approved stormwater controls with equivalent capability to meet the Stormwater Management Ordinance (SMO) requirements and the more stringent 5-year, 3-hour design storm event performance criteria.

To reduce or maintain existing flow conditions, the project sponsor would be required to construct the infiltration system in compliance with the SMO. The SMO requires the project to maintain or reduce the existing volume and rate of stormwater runoff at the site for 1- and 2-year, 24-hour design storms by retaining runoff onsite, promoting stormwater reuse, and/or limiting site discharges before entering the combined stormwater/sewer collection system, and the project would comply with the SMO. Given the Turk Street sewer main's existing full system capacity condition downstream from the project site, the student residence hall project component would be required to exceed the SMO's requirements for stormwater infiltration runoff rates and for required on-going monitoring and/or maintenance of the proposed infiltration trenches and/or a combination of approved stormwater controls. Therefore, the proposed project would result in a

[152] Michael Tran, San Francisco Public Utilities Commission, email correspondence with Alesia Hsiao, Senior Environmental Planner, San Francisco Planning Department November 14, 2017.

significant impact from the determination by the Public Utilities Commission that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitment and could require the construction of new water or wastewater treatment facilities, which could cause significant environmental effects.

To alleviate potential impacts related to additional flows conveyed to the combined stormwater/sewer system, implementation of **Mitigation Measure UT-2: Monitoring and Maintenance of Proposed Infiltration Trenches** would require the project sponsor to monitor and maintain the proposed infiltration facility, and/or a combination of other approved stormwater controls to meet performance requirements to maintain the stormwater runoff rate and volume at or below the existing 5-year, 3-hour design stormwater runoff in perpetuity storm event for the life of the project. Therefore, impacts to the combined stormwater/sewer system would be reduced to a less-than-significant impact.

Mitigation Measure M-UT-2: Monitoring and Maintenance of Proposed Infiltration Trenches

The proposed infiltration trenches shall be monitored and maintained to achieve the following performance criterion of no net increase of stormwater into the Turk Street combined sewer up to the 5-year 3-hour design storm event resulting from the project, in addition to all applicable requirements in the Stormwater Management Ordinance (SMO) and Stormwater Management Requirements and Design Guidelines. Additionally, prior to building permit issuance, the project sponsor shall submit a Stormwater Control Plan[153] and Hydrologic and Hydraulic Technical Memorandum[154] for review and approval by SFPUC. To meet the performance criterion of no net increase of stormwater into the Turk Street combined sewer up to the 5-year 3-hour design storm event, the project sponsor shall monitor and maintain the proposed infiltration facility, and/or a combination of other approved stormwater controls. The infiltration facility, and/or a combination of other SFPUC-approved stormwater controls are subject to the following performance requirements:

- The project sponsor shall complete a minimum of five infiltration tests (two tests for the first 1,000 square feet of infiltration footprint, with one additional test per each 1,000 square feet of additional footprint) per the SFPUC – Wastewater

153 BKF Engineers, *2500-2698 Turk Street San Francisco, CA Preliminary Stormwater Control Plan*, October 11, 2017.

154 BKF Engineers, *University of San Francisco Student Housing Project – 2500-2698 Turk St Hydrologic and Hydraulic Analyses Technical Memorandum*, December 6, 2017.

Enterprise (SFPUC-WWE) Determination of Design Infiltration Rate for the Sizing of Infiltration-based Green Infrastructure Facilities (infiltration guidance memorandum). Additional tests shall be performed as determined by SFPUC to meet all requirements of the infiltration guidance memorandum in connection with the final infiltration facility layout (i.e. test number, depth of test set at bottom of facility at proposed locations, etc.).

- The project sponsor shall monitor and maintain the proposed infiltration trenches, and/or a combination of approved stormwater controls with equivalent capability to meet the SMO requirements and the more stringent 5-year, 3-hour design storm event performance criteria.
- Due to the proposed scale of the infiltration facility and proximity to adjacent public right-of-way (ROW) and downstream existing structures, the final layout design and sizing is subject to SFPUC approval, and review by the San Francisco Public Works geotechnical engineering team. San Francisco Public Works would be limited to a determination that the infiltration facility and/or other approved stormwater controls do not unreasonably interfere with existing San Francisco Public Works infrastructure or adjacent structures.
- The project sponsor shall comply with all special conditions determined by the SFPUC to be required to meet the SMO requirements, and those requirements determined by the SFPUC to be necessary to maintain the stormwater runoff rate and volume at or below the existing 5-year, 3-hour design storm event stormwater runoff levels including but not limited to sizing of infiltration trenches or development of additional on-site stormwater controls.
    - The infiltration trenches were modeled with the following parameters:
        - Estimates at a total of 4,400 square foot (0.10 acre) footprint;
        - Estimates with 4 feet of gravel storage depth with 40% porosity (1.6 feet of effective storage depth);
        - Maximum infiltration rate of 5 inches per hour dependent on depth in the gravel storage trench.
- The project sponsor shall submit a monitoring and maintenance plan for SFPUC's review and approval. The plan shall determine how stormwater runoff (from a 5-year, 3-hour design storm event) can be retained by the infiltration trenches and/or approved stormwater controls at an infiltration rate of 5-inches per hour, and shall describe the on-going monitoring, maintenance, and inspections that shall be conducted by the project sponsor. The plan shall also include provisions for access rights for periodic inspections by SFPUC – WWE to determine the adequacy of the trench maintenance. The infiltration trenches

and/or approved stormwater controls shall be operated and maintained by the project sponsor per the SMO maintenance agreement.

- The diversion structure, stormwater infiltration trenches, and any other approved stormwater controls shall be operated and maintained by the project sponsor. The project sponsor shall develop and implement a permanent maintenance plan in perpetuity to ensure that the infiltration trenches and/or approved stormwater controls are maintained to perform at pre-development conditions (i) per the SMO requirements, and (ii) for the 5-year, 3-hour design storm event with respect to the Turk Street combined sewer.
- If maintenance is deemed ineffective to ensure that run-off volumes meet the SMO requirements and for the SMO 5-year, 3-hour design storm event are maintained to pre-development conditions, the project sponsor shall be required to perform additional maintenance or on-site improvements as determined by the SFPUC to be required to meet pre-development conditions, including, if necessary, complete replacement of the infiltration facility, and/or a combination of other SFPUC-approved stormwater controls.

The project sponsor shall coordinate with the SFPUC regarding the design, minimum sizing requirements, and construction of the new infiltration trenches. The final design shall be subject to approval by the SFPUC, specifically the Wastewater Enterprise – Collection System Division.

Additionally, the dining commons and recycling and waste facility would drain to an existing private 6-to 8-inch storm drain pipe network which runs northeast and connects into the city's combined sewer system located on Anza Street between Cook and Blake Street. The storm drain network includes an existing sand trap (located outside of the project area) prior to connection into the city's combined sewer system in Anza Street. The Anza Street combined sewer main has capacity to serve the anticipated increase in flows from the dining commons and recycling and waste facility for the 5-year, 3-hour design storm event of 0.47 cubic feet per second; of this increase, 0.22 cubic feet per second would be attributable to dining commons, and 0.25 cubic feet per second would be attributable to the recycling and waste facility.[155, 156]

[155]Michael Tran, San Francisco Public Utilities Commission, email correspondence with Alesia Hsiao, Senior Environmental Planner, San Francisco Planning Department November 14, 2017.

[156]Sherwood Design Engineers, *Lone Mountain Dining Commons & Recycling and Waste Facility Projects Technical Memorandum*, November 3, 2017.

Stormwater runoff from the dining commons site would be collected via a series of trench drains and area drains located within the proposed hardscape and landscape improvements. A new 4 to 6-inch storm drain pipe network would connect into the aforementioned existing private storm drain system at the northeast corner of the dining commons site and downspouts from the proposed pavilion building roof would connect into the proposed storm drain pipe network. The dining commons is required to submit a stormwater control plan and comply with the SMO requirement to maintain or reduce the existing volume and rate of stormwater runoff at the site for 1- and 2-year, 24-hour design storms. However, the dining commons project component is not proposing any stormwater management best management practices due to site constraints. Instead, the increased stormwater runoff rates and volumes would be addressed under the SMO for the 1- and 2-year, 24-hour storms by utilizing stormwater credits gained from the student residence hall component.[157]

The recycling and waste facility would be constructed over an area that is currently an undeveloped, vegetated slope. The recycling and waste facility would include a trench drain, floor drains and roof scuppers and connect into an existing private storm drain system that ultimately discharges into the City combined sewer system in Anza Street. The recycling and waste facility, as well as the ROTC program relocation addition, would replace or create less than 5,000 square-feet of impervious surfaces, and therefore these project components are not required to submit an stormwater control plan. The ROTC program relocation addition would add negligible additional stormwater and sanitary sewer flows to the combined sewer system, which has adequate capacity to serve these negligible additional flows.

The proposed project would incorporate water-efficient fixtures, as required by the San Francisco Green Building Code and Title 24 of the California Code of Regulations that would limit the amount of water consumption and wastewater generation levels. While the proposed project would increase sanitary sewage flows in the area, this increase would be incremental and as described above, would not cause collection or treatment capacity of the sewer system in San Francisco to be exceeded. As described in Topic 3, Population and Housing, the proposed project would add 606 residents and approximately 22 additional employees at the project site, which would increase the amount of wastewater generated at the project site by approximately 27,000 gallons per day (gpd).[158] The Oceanside Plant has a treatment capacity of 17 million

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[157] Sherwood Design Engineers, *Lone Mountain Dining Commons Preliminary Stormwater Control Plan,* October 11, 2017.

[158] San Francisco Public Utilities Commission, *Wastewater Service Charge Appeal, http://www.sfwater.org/index.aspx?page=132*, accessed on January 27, 2017. The calculation of the water use by the proposed project is described in Impact UT-4. The flow factor is the percentage of metered water use returned to the sewer system as wastewater. For purposes of

gpd,[159] and the project generated wastewater would increase the volume of wastewater treatment by 0.16 percent. This incremental increase would not exceed the capacity of the wastewater collection system or the Oceanside Plant.[160] In addition, an existing on-site utility map which displays sewer connections to sewers within the right of way, and the project generated wastewater would be provided to the SFPUC for their evaluation during the building permit review process.

The proposed project would require new or expanded wastewater or stormwater collection or treatment facilities that could cause significant environmental effects, or result in significant impacts to the combined stormwater/sewer system. With implementation of **Mitigation Measure M-UT-2** potential impacts would be reduced to ***less than significant with mitigation.***

Impact UT-3: The public utilities commission has sufficient water supply and entitlements to serve the proposed project, and implementation of the proposed project would not require expansion or construction of new water supply facilities. (Less than Significant)

Domestic water for San Francisco is supplied by both groundwater and imported surface water. Currently, 85 percent of the domestic water is from the Hetch Hetchy Reservoir. Surface water from the Hetch Hetchy Reservoir is treated prior to distribution. The remaining 15 percent is supplied by local water resources within the Alameda and Peninsula watersheds, which also are treated and filtered before delivery.[161]

Water for the proposed project is provided by the SFPUC, which provides both water supply and wastewater collection and treatment. The SFPUC's 2015 Urban Water Management Plan estimates future water demand to year 2040, compares available water supplies to meet demands, and presents water-demand management measures to reduce long-term water demand. Projection models rely on household and employment forecasts provided by the San Francisco Planning Department's Land Use Allocation, which is a city-specific refinement of the ABAG's population and employment forecast. Retail-demand projections are based on demographic data and growth forecasts prepared by the California Department of Finance,

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determining applicable charges, the percentage of water use returned to the sewers (flow factor) is assumed to be 95 percent for multifamily residential users. 95 percent x 28,390 (consumption without the loss) = 26,971 gpd.

159 San Francisco Public Utilities Commission, *San Francisco Wastewater Treatment Facilities*, *https://sfwater.org/index.aspx?page=622*, accessed on November 29, 2016.

160 San Francisco Public Utilities Commission, *San Francisco Wastewater Treatment Facilities*, *https://sfwater.org/index.aspx?page=622*, accessed on November 29, 2016.

161 San Francisco Public Utilities Commission, *Serving 2.6 million residential, commercial and industrial customers*, *http://www.sfwater.org/index.aspx?page=355*, accessed on February 17, 2017.

ABAG, and the San Francisco Planning Department. Per the Urban Water Management Plan, the retail demand (excluding water loss) is projected to increase by about 29 percent (with the presence of water conservation efforts), from 64.8 million gallons per day (mgd) to 83.9 mgd.[162]

The SFPUC's 2015 Urban Water Management Plan and 2013 Water Availability Study for the City and County of San Francisco uses 2040 and 2035 growth projections that were prepared by the planning department and ABAG to estimate future water demand, respectively.[163] The SFPUC estimates an additional 500,000 gallons of water per day[164] would be needed to meet future demand;[165] however, water supply of normal years and multiple dry years are adequate on existing supplies until 2030. In 2035, a water deficit is only expected if future water supplies are untapped.[166] The future water supplies include the Future North Westside Groundwater Basin Expansion and future recycled water projects.[167]

As the proposed project would accommodate 606 new residents and approximately 22 net new employees, the domestic water usage would increase commensurately. The new residents and employees would use an estimated 31,230 gallons of water per day,[168] which would account for 0.16 percent of the 29 percent projected retail-demand increase.[169] Therefore, while the proposed project would incrementally increase the demand for water in San Francisco, the estimated increase in demand could be accommodated within anticipated water supply forecasts.

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[162] San Francisco Public Utilities Commission, *2015 Urban Water Management Plan for the City and County of San Francisco*, *http://www.sfwater.org/Modules/ShowDocument.aspx?documentID=8839*, accessed on January 27, 2017, p. 4-4.

[163] San Francisco Public Utilities Commission, 2013 Water Availability Study for the City and County of San Francisco, May 2013, p. 16, *http://www.sfwater.org/modules/showdocument.aspx?documentid=4168*, accessed on February 10, 2017.

[164] 84.2 million gallons per day (year 2035) – 83.7 million gallons per day (year 2015) = 0.5 million gallons per day

[165] San Francisco Public Utilities Commission, 2013 Water Availability Study for the City and County of San Francisco, May 2013, p. 15, *http://www.sfwater.org/modules/showdocument.aspx?documentid=4168*, accessed on February 10, 2017.

[166] San Francisco Public Utilities Commission, 2013 Water Availability Study for the City and County of San Francisco, May 2013, p. 20, *http://www.sfwater.org/modules/showdocument.aspx?documentid=4168*, accessed on February 10, 2017.

[167] San Francisco Public Utilities Commission, 2013 Water Availability Study for the City and County of San Francisco, May 2013, p. 14 *http://www.sfwater.org/modules/showdocument.aspx?documentid=4168*, accessed on February 10, 2017.

[168] San Francisco Public Utilities Commission, *2015 Urban Water Management Plan for the City and County of San Francisco*, Public review draft, *http://www.sfwater.org/Modules/ShowDocument.aspx?documentID=8839*, accessed on January 27, 2017. The current consumption rate for residents in San Francisco is 45 gallons of water consumed per person per day (GPCD) and 53 gallons of water per retail employee-day (GED) according to the last update of the *Urban Water Management Plan* for the City and County of San Francisco in 2015, the plan was adopted on June 14, 2016. 606 new students x 45 GPCD + 21 new retail employees x 53 GED = 28,390 gpd + 10% loss = (28,390 x 0.10) + 28,390 = 31,230 gpd.

[169] The SFPUC projects an increase of 19.1 mgd in water consumption (83.9 mgd – 64.8 mgd = 19.1 mgd). 19.1 mgd is the equivalent of 19,100,000 gpd. The proposed project would use an estimated of 31,230 gpd. 31,230/19,100,000 = 0.16%.

Since the proposed project's water demand would be accommodated by the existing and planned supply and infrastructure, no expansion or construction of new water supply facilities would be required. The SFPUC has sufficient water supply available to serve the proposed project from existing entitlements and resources. The proposed project would be designed to incorporate water-conserving measures, such as low-flush toilets and urinals, as required by the San Francisco Green Building Code and California Code of Regulations title 24. Since the proposed project would have sufficient water supply available from existing water supply, it would not require new water supply or water treatment facilities, and this impact would be ***less than significant.*** No mitigation is required.

Impact UT-4: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs and construction and operation of the proposed project would comply with federal, state and local statues and regulations related to solid waste. (Less than Significant)

The California Integrated Waste Management Act of 1989 (AB 939) requires municipalities to adopt an integrated waste management plan to establish objectives, policies, and programs relative to waste disposal, management, source reduction, and recycling. The Board of Supervisors and the San Francisco Commission on the Environment have adopted a goal of zero waste by 2020.

The San Francisco Construction and Demolition Ordinance (Ordinance No. 27-06) requires a minimum of 65 percent of all construction and demolition debris to be recycled and diverted from landfills. This requirement has been augmented by the Green Building Ordinance, which requires that at least 75 percent of construction and demolition debris be diverted from landfills. Accordingly, during project construction, the contractor would be required to divert construction and demolition debris from the existing Underhill Building; the vegetation south of the Underhill Building and Lone Mountain Drive; the Wolf & Kettle Café; the Koret Health and Recreation Center; and the access ramp to the recycling and waste facility to a registered facility that would process and divert these materials.

San Francisco uses a three-cart collection program: residents and businesses sort solid waste into recyclables, compostable items such as food scraps and yard trimmings, and garbage. The city's Mandatory Recycling and Composting Ordinance (Ordinance 100-09) requires everyone in San Francisco to separate their refuse into recyclable, compostable, and trash. Recology provides solid-waste collection, recycling, and disposal services for residential and commercial garbage, recycling, and composting in San Francisco through its subsidiaries San Francisco Recycling and Disposal, Golden Gate Disposal and Recycling, and Sunset Scavenger. Materials collected are hauled to the Recology transfer station/recycling center on Tunnel Avenue, near the southeastern

city limit, for sorting and subsequent transportation to other facilities. Recyclable materials are taken to Recology's Pier 96 facility, where they are separated into commodities (e.g., aluminum, glass, and paper) and transported to other users for reprocessing. Compostables (e.g., food waste, plant trimmings, soiled paper) are transferred to a Recology composting facility in Solano County, where they are converted to soil amendment and compost. The remaining material that cannot otherwise be reprocessed ("trash") is transported to, and disposed of at, the Recology Hay Road Landfill in Solano County.

In September 2015, San Francisco entered into a landfill disposal agreement with Recology Inc. that commenced in January 2016. The agreement is for the disposal of all solid waste collected in San Francisco at the Recology Hay Road Landfill in Solano County for nine years or until 3.4 million tons have been disposed, whichever occurs first. The City would have an option to renew the agreement for a period of six years or until an additional 1.6 million tons have been disposed, whichever occurs first,[170] which would extend the termination date to 2031. At that point, the City will either further extend the Recology Hay Road Landfill contract or locate and entitle another landfill site. The Recology Hay Road Landfill has a permitted peak maximum daily disposal of 2,400 tons per day and currently receives an average of approximately 1,850 tons per day from all sources, with approximately 1,200 tons per day from San Francisco, which could be accommodated until 2041.[171]

In San Francisco, recycling, composting and waste reduction efforts are expected to increasingly divert waste from landfill. The Board of Supervisors and the San Francisco Commission on the Environment have adopted a goal of zero waste by 2020.[172] The City's ordinance 100-09, the Mandatory Recycling and Composting Ordinance, requires separation of refuse into recyclables, compostables, and trash. The proposed project building design provides space to accommodate separate containers for recycling, compost, and landfill-bound trash in accordance with ordinance 100-09. During operation of the proposed project, occupants of the student residence hall and the students and staff using the other facilities would be expected to participate in the city's recycling and composting programs and other efforts to reduce the solid-waste disposal stream at USF.

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[170] San Francisco Planning Department, *Agreement for Disposal of San Francisco Municipal Solid Waste at Recology Hay Road Landfill in Solano County Final Negative Declaration*, Planning Department Case No. 2014.0653, May 21, 2015, *http://sfmea.sfplanning.org/2014.0653E_Revised_FND.pdf*, accessed on February 8, 2017.

[171] San Francisco Planning Department, *Agreement for Disposal of San Francisco Municipal Solid Waste at Recology Hay Road Landfill in Solano County Final Negative Declaration*, Planning Department Case No. 2014.0653, May 21, 2015, *http://sfmea.sfplanning.org/2014.0653E_Revised_FND.pdf*, accessed on November 5, 2017.

[172] City and County of San Francisco, *Zero Waste*, *https://sfenvironment.org/zero-waste*, accessed on January 31, 2017.

The USF recycling program collects commingled recyclables including all grades of paper, cans, glass, cardboard, and all rigid plastics. Program highlights relevant to the proposed project include: recycling in all residence halls and common building areas (over 200 locations), composting at all dining service locations; and composting in all residence halls. USF also has a dedicated team, the Environmental Safety Office, that manages the education and outreach component of the USF Recycles Program. Residence hall recycling as well as campus-wide trash collection from external receptacles (from 32-gallon cans to 3-yard dumpsters) is staffed by a full-time crew with the Office of Waste Management. In 2013, USF diverted approximately 495 tons of recyclables and approximately 415 tons of compostables and sent approximately 410 tons of trash to the landfill, which equated to a landfill diversion rate of 70 percent.[173]

Although the proposed project would incrementally increase total waste generation by increasing the number of residents at the USF campus, the increasing diversion rate through recycling and composting would result in a decreasing share of total waste that requires deposition into the landfill. For these reasons, the solid waste generated by the proposed project during construction and operation would not result in the landfill exceeding its permitted capacity, construction and operation of the proposed project would comply with all applicable statutes and regulations related to solid waste and the impact would be ***less than significant***. No mitigation is required.

Impact C-UT-1: In combination with past, present, and reasonably foreseeable future development in the project site vicinity, the proposed project could make a considerable contribution to any cumulative significant effects related to utilities or service systems. (Less than Significant with Mitigation)

Like the proposed project, cumulative projects development projects in the area would commensurately increase the demand on citywide utilities and service systems such as domestic water supply, wastewater facilities and solid-waste services. The SFPUC has accounted for such increases in its water-demand projections, as noted in the 2015 Urban Water Management Plan. The SFPUC is also currently implementing a $7 billion, 20-year capital program called the Sewer System Improvement Program to address system-wide needs and update the aging combined stormwater and sewer system.[174] Cumulative projects identified in the vicinity could add additional flows to the combined stormwater and sewer that would result in the system operating over capacity, which could require the construction or upgrade to the city's existing

[173] University of San Francisco, *Recycling Overview*, https://myusf.usfca.edu/environmental-safety/recycling-overview, accessed on June 1, 2017.

[174] San Francisco Water Power Sewer, *Sewer System Improvement Program*, http://www.sfwater.org/index.aspx?page=116, accessed on February 3, 2017.

system. Therefore, the project could result in cumulatively considerable contribution to a significant cumulative impact to utilities. This impact would be reduced with implementation of **Mitigation Measure M-UT-2.** The City has also implemented various waste reduction programs to achieve 100 percent landfill diversion by 2020. Like the proposed project, cumulative projects in the city would be subject to the same water conservation and stormwater policies, and wastewater discharge, recycling, and composting ordinances applicable to the proposed project. Compliance with these requirements would reduce the effects of nearby cumulative development projects to less than significant levels. For these reasons the proposed project would not combine with past, present, and reasonably foreseeable future development in the project site vicinity to make a considerable contribution to cumulative utilities or service systems impacts. Therefore, the impact would be ***less than significant with mitigation***.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
12. PUBLIC SERVICES.					
a) Would the project result in substantial adverse physical impacts associated with the provision of, new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services such as fire protection, police protection, schools, parks, or other public facilities?	☐	☐	☒	☐	☐

The proposed project's impact to parks and open spaces are analyzed in Topic 10, Recreation. Impacts to other public services are discussed below.

Impact PS-1: The proposed project would not increase demand for police protection and fire protection to an extent that would require new or physically altered government facilities, the construction of which could cause significant environmental impacts. (Less than Significant)

Police Protection

Police protection for the project site is provided by the Park Police Station located at 1899 Waller Street (on Kezar Drive, in the southeast corner of Golden Gate Park),[175] approximately 0.85 miles south of the project site. Although the proposed project could increase the number of calls received from the area, the increase in services would not be substantial in light of the existing demand for police protection services. The Park Police Station would be able to provide the necessary police services and crime prevention in the area. Meeting this additional service demand would not require the construction of new police facilities that could cause significant environmental impacts. Given that the proposed project is located near, and already served by existing police services, and the proposed project would only incrementally increase permanent resident populations in the area, impacts to police services would be ***less than significant***. No mitigation is required.

[175] San Francisco Police Department, *Police District Map*, *http://sanfranciscopolice.org/police-district-maps*, accessed on December 26, 2017.

Fire Protection

The project site receives fire protection services from the San Francisco Fire Department.[176] The four closest stations are Station 10, Station 12, Station 21 and Station 31.[177]

- Station 10 is located at 655 Presidio Avenue, near the corner of Bush Streets, approximately 2,500 feet north of the Lone Mountain Campus and 3,900 feet northeast of the ROTC program relocation addition.
- Station 12 is located at 1145 Stanyan Street, at Grattan Street, approximately 5,000 feet south of the ROTC program relocation addition and 1.10 mile south of the Lone Mountain Campus.
- Station 21 is located at 1443 Grove Street, at Broderick Street, approximately 3,000 feet southeast of the residence hall, the dining commons and the recycling and waste facility and 4,500 feet east of the ROTC program relocation addition.
- Station 31 is located at 441 12th Avenue, at Geary Boulevard, approximately 5,000 feet west of the residence hall, the dining commons and the recycling and waste facility and 4,700 feet west of the ROTC program relocation addition.[178]

Although the proposed project could increase the number of calls received from the area, the increase in responsibilities would not be substantial considering existing demand for fire protection services. The proposed project structures would be subject to, and would comply with regulations of the California Fire Code, which establishes requirements pertaining to fire protection systems, including the provision of state-mandated smoke alarms, fire alarm and sprinkler systems, fire extinguishers, appropriate building access, and emergency response notification systems. Meeting this additional service demand would not require the construction of new fire department facilities that could cause significant environmental impacts, and the impact would therefore be ***less than significant***. No mitigation is required.

USF Department of Public Safety

USF operates a Department of Public Safety to ensure a safe learning, working, and living environment on the campus. The department provides a 24-hour communication center and uniformed public safety officers who respond to all reports of accidents, crimes, suspicious persons, hazards, and other emergencies. The Office of Student Housing and Residential

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176 San Francisco Fire Department, *Fire Station Locations*, *http://sf-fire.org/fire-station-locations*, accessed on January 25, 2017.

177 San Francisco Planning Department, *San Francisco Property Map*, *http://propertymap.sfplanning.org/?&name=SFFIND&search=655%20 PRESIDIO,* accessed on January 25, 2017.

178 The distances to the police stations were calculated approximately with Google Earth.

Education also hires students to work as community assistants in residence halls, where they are responsible for verifying student identification for building access and assisting the department by providing additional safety and security assistance. The department has a signed memorandum of understanding with the San Francisco Police Department.[179] As described in Topic 3, Population and Housing, the proposed project would provide new housing on the Upper Campus for 600 students and six permanent staff, and add 22 employees (13 full-time employees and eight part-time employees for the dining commons, and one maintenance employee for the student residence hall) on campus. The proposed project would result in a more intensive use of the project site than currently exists.

Given that the proposed project is located near, and already served by existing fire protection services, the proposed new structures would be required to comply with fire codes, and the proposed project would only incrementally increase the permanent resident population in the area, impacts to fire services would be ***less than significant***. No mitigation is required.

Impact PS-2: The proposed project would not substantially increase the population of school-aged children and would not require new or physically altered school facilities. (Less than Significant)

The San Francisco Unified School District provides school services to residents in the project vicinity. The proposed project would not result in the construction of new residential units for families with children. Residents of the proposed project would be undergraduate students and would not be allowed to have children in the proposed student residence hall. The approximately 22 additional employees at the project site are likely to be residents of San Francisco or the Bay Area, and the number of additional school-aged children associated with them would be very small compared to the total school district enrollment. Therefore, the proposed project would not increase the population of school-aged children to the extent that new school facilities would be required, and the project would have ***less-than-significant*** impacts to schools. No mitigation is required.

[179] Memorandum of understanding between the City and County of San Francisco and the University of San Francisco (USF), signed on November 29, 2011. Under the memorandum of understanding, USF public safety officers are authorized under Penal Code Section 830.7 (b) and Vehicle Code section 1808.25 to enforce applicable university, municipal, and state parking regulations on USF property (excluding all publicly maintained streets and sidewalks). Also, USF Department of Public Safety personnel who meet the requirements listed in Article 6 of the memorandum of understanding may exercise peace officer powers of arrest, as described in Penal Code Section 836, while performing duties within the geographical boundaries of the USF campus as well as off-campus buildings owned or controlled by USF.

Impact PS-3: The proposed project would not increase demand for other government services to the extent that it would require new or physically altered government facilities. (Less than Significant)

Implementation of the proposed project would add approximately 600 students, six staff, and 22 employees on the USF Hilltop Campus. However, the increase in population would not generate substantial new demand for libraries, community centers, and other public facilities to the extent that new or physically altered facilities would be required. USF currently provides a library and numerous recreational services serving the students and community members on campus. Although the proposed project could increase demand for governmental services such as public libraries, the library at the USF Hilltop Campus would be able to accommodate the increased demand for library services. Therefore, the proposed project would not require new governmental facilities, the construction of which could have a significant impact on the environment, and this impact would be ***less than significant***. No mitigation is required.

Impact C-PS-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not result in cumulatively considerable impact to public services. (Less than Significant)

The geographic area for potential cumulative public services impacts encompasses public service providers in the vicinity of the USF Hilltop Campus. Public services in the project vicinity include services provided by the police department, fire department, school district, and City and County of San Francisco. Similar to the proposed project, projects within the vicinity would utilize services provided by these departments. Development of the proposed project in conjunction with the cumulative projects identified in the vicinity of the project site in **Table 7,** p. 67, and projected population growth in the project area would increase overall demand for public services; however, this growth would not exceed growth projections for the area or the region, as discussed in Topic 3, Population and Housing. The police department, fire department, school district, and City and County of San Francisco have accounted and planned for such growth in order to continue to provide public services to San Francisco residents. The proposed project's increase in student population and employment would incrementally increase demand for public services, in combination with demands projected for other public services, but would not be beyond levels anticipated and planned for in the project site vicinity. For these reasons, the proposed project would not result in a considerable contribution to cumulative public service impacts, and this impact would be ***less than significant***. No mitigation is required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
13. BIOLOGICAL RESOURCES. Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐	☒

The project site is located within a built environment and does not include riparian habitat or other sensitive natural communities identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; therefore, Question 13b is not applicable to the proposed project.

A search of the U.S. EPA My Waters Mapper database confirms that the project areas do not include wetlands or streams as defined by Section 404 of the Clean Water Act, and thereby direct removal, filling, or other hydrological alterations as identified in Question 13c are not applicable.[180]

Additionally, none of the proposed project sites fall within any local, regional, or state habitat conservation plan, nor do they conflict with the provisions of any Habitat Conservation Plan or Natural Community Conservation Plan; therefore, Question 13f is not applicable.

Because the items listed above are not applicable to the proposed project, they are not discussed further in this section.

Impact BI-1: The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species, riparian habitat or sensitive natural communities. (Less than Significant)

The project site is located within a built environment and does not include riparian habitat, wetlands or streams identified in the U.S. EPA My Waters Mapper database, or other sensitive natural communities identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.[181] The project site contains mature trees, shrubs and grasses. Most of the species on the project site are non-native and were planted during the construction of the university.

A search of the California Natural Diversity database, maintained by the California Department of Fish and Wildlife, as well as the official species list from the U.S. Fish and Wildlife Service yielded a list of threatened, endangered, proposed, and candidate species and critical habitat that may occur within the general vicinity of the proposed project.[182, 183] A total of 39 special-status species were evaluated for their potential to occur in the project area based on their range and specific habitat requirements and associations. Based on these lists provided by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service, it was determined that

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[180] United States Environmental Protection Agency, *My Waters Mapper database*, https://watersgeo.epa.gov/mwm/, accessed on December 7, 2016.

[181] Ibid.

[182] California Department of Fish and Wildlife Biogeographic Information and Observation System, *California Natural Diversity Database*, https://map.dfg.ca.gov/bios/?tool=cnddbQuick, accessed on December 7, 2016.

[183] U.S. Fish and Wildlife Service, *IPaC Information for Planning and Conservation*, https://ecos.fws.gov/ipac/, accessed on December 7, 2016.

the project site does not provide habitat for any of these listed plant or animal species nor is there designated critical habitat located in the project vicinity, as defined by the service. A complete list of species and the rationale for elimination from further consideration is included in **Table 20**.

The habitat at the project site is mainly composed of non-native trees, shrubs, and grasses in an urban setting. As shown in **Table 20**, the project site does not support any rare, threatened, or endangered species. Therefore, the proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species, and riparian habitat, sensitive natural communities, native wildlife nursery sites nor would the project interfere with native resident or migratory fish species or impede the use of native wildlife nursery sites. This impact would be ***less than significant***. No mitigation is required.

Table 20: List of Species with No Potential to Occur in the Project Area

Element - Type	*Scientific Name*	*Common Name*	*Federal Status*	*State Status*	*CDFW Status*	*CA Rare Plant Rank*	*Habitat Associations[a, b, c]*	*Habitat in Project Area?*
Animals - Amphibians	*Rana draytonii*	California red-legged frog	Threatened	None	Species of Special Concern	-	Aquatic breeding areas and riparian habitats	No
Animals - Amphibians	*Dicamptodon ensatus*	California giant salamander	None	None	Species of Special Concern	-	Wet coastal forest, streams	No
Animals - Birds	*Rallus longirostris obsoletus*	California clapper rail	Endangered	Endangered	Fully Protected Species	-	Salt and brackish marshes	No
Animals - Birds	*Riparia riparia*	Bank swallow	None	Threatened	-	-	River, stream, ocean coast habitat, natural bluffs, eroding streamside banks	No
Animals - Birds	*Laterallus jamaicensis coturniculus*	California black rail	None	Threatened	Fully Protected Species	-	Coastal habitat, tidal marshes	No
Animals - Birds	*Melospiza melodia samuelis*	San Pablo song sparrow	None	None	Species of Special Concern	-	Coastal habitat, tidal marshes	No
Animals - Birds	*Falco peregrinus anatum*	American peregrine falcon	Delisted	Delisted	Fully Protected Species	-	Cliff habitat near water, artificial habitats such as towers, bridges	No
Animals - Birds	*Pelecanus occidentalis californicus*	California brown pelican	Delisted	Delisted	Fully Protected Species	-	Coastal areas, nesting on islands	No

Element - Type	*Scientific Name*	*Common Name*	*Federal Status*	*State Status*	*CDFW Status*	*CA Rare Plant Rank*	*Habitat Associations*[a, b, c]	*Habitat in Project Area?*
Animals - Birds	*Athene cunicularia*	Burrowing owl	None	None	Species of Special Concern	-	Grasslands, open habitat	No
Animals - Birds	*Sterna antillarum brownii*	California Least tern	Endangered	None			Coastal, open beach nesting habitat	No
Animals - Birds	*Phoebastria (diomedea) albatrus*	Short-tailed albatross	Endangered	None			Seabird, marine habitat	No
Animals - Birds	*Charadrius nivosus ssp. Nivosus*	Western snowy plover	Threatened	None			Vegetated sand beaches, salt flats, beach or dune habitat, ponds, river bars, reservoirs or ponds	No
Animals - Fish	*Spirinchus thaleichthys*	Longfin smelt	Candidate	Threatened	Species of Special Concern	-	Aquatic habitat	No
Animals - Fish	*Oncorhynchus tshawytscha*	Chinook salmon - Central Valley spring-run ESU	Threatened	Threatened	-	-	Aquatic habitat	No
Animals - Fish	*Oncorhynchus tshawytscha*	Chinook salmon - Central Valley fall / late fall-run ESU	None	None	Species of Special Concern	-	Aquatic habitat	No

Element - Type	*Scientific Name*	*Common Name*	*Federal Status*	*State Status*	*CDFW Status*	*CA Rare Plant Rank*	*Habitat Associations*[a, b, c]	*Habitat in Project Area?*
Animals - Fish	*Hypomesus transpacificus*	delta smelt	Threatened	None			Aquatic habitat	No
Animals - Fish	*Oncorhynchus (salmo) mykiss*	Steelhead	Threatened	None			Aquatic habitat	No
Animals - Fish	*Eucyclogobius newberryi*	Tidewater goby	Endangered	None			Aquatic habitat	No
Animals - Insects	*Plebejus icarioides missionensis*	Mission blue butterfly	Endangered	None	-	-	Coastal chaparral, coastal grasslands	No
Animals - Insects	*Euphydryas editha bayensis*	Bay checkerspot butterfly	Threatened	None	-	-	Typically occur along spine of San Francisco peninsula, shallow serpentine-derived soil, dwarf plantain host plant	No
Animals - Insects	*Speyeria callippe callippe*	Callippe silverspot butterfly	Endangered	None	-	-	Grassland habitat on hilltops and ridges	No
Animals - Insects	*Callophrys mossii bayensis*	San Bruno Elfin butterfly	Endangered	None			Rocky outcrop habitat, larval food is stonecrop	No
Animals - Mammals	*Enhydra lutris nereis*	Southern sea otter	Threatened	None	Fully Protected Species	-	Marine habitat	No
Animals - Mammals	*Corynorhinus townsendii*	Townsend's big-eared bat	None	Candidate Threatened	Species of Special Concern	-	Requires caves, mines, tunnels, bridge or other roosting structures, prefers mesic habitat	No

Element - Type	*Scientific Name*	*Common Name*	*Federal Status*	*State Status*	*CDFW Status*	*CA Rare Plant Rank*	*Habitat Associations*[a, b, c]	*Habitat in Project Area?*
Animals - Mammals	*Zapus trinotatus orarius*	Point Reyes jumping mouse	None	None	Species of Special Concern	-	Marshy, riparian areas, forests or alpine meadows	No
Animals - Mammals	*Taxidea taxus*	American badger	None	None	Species of Special Concern	-	Dry, open stages of shrub, forest, herbaceous habitat with friable soils for burrowing	No
Animals - Mammals	*Lasiurus blossevillii*	Western red bat	None	None	Species of Special Concern	-	Roosting habitat includes forests, woodlands; feeding habitat includes grasslands, shrublands, open woodlands, croplands	No
Animals - Mammals	*Reithrodontomys raviventris*	Salt Marsh Harvest mouse	Endangered	None			Saline emergent wetlands or grassland adjacent to marsh	No
Animals - Reptiles	*Emys marmorata*	Western pond turtle	None	None	Species of Special Concern	-	Aquatic habitat	No
Plants - Vascular	*Layia carnosa*	Beach layia	Endangered	Endangered	-	1B.1	Coastal sand dune habitat	No
Plants - Vascular	*Lessingia germanorum*	San Francisco lessingia	Endangered	Endangered	-	1B.1	Sand dunes, restricted to seven locations in the Presidio	No
Plants - Vascular	*Pentachaeta bellidiflora*	White-rayed pentachaeta	Endangered	Endangered	-	1B.1	Only a single population west of Redwood City	No
Plants - Vascular	*Arenaria paludicola*	Marsh sandwort	Endangered	Endangered	-	1B.1	Marshes, swamps, year-round moisture	No
Plants - Vascular	*Arctostaphylos franciscana*	Franciscan manzanita	Endangered	Endangered	-	1B.1	Northern coastal scrub, Serpetine soil	No

Element - Type	*Scientific Name*	*Common Name*	*Federal Status*	*State Status*	*CDFW Status*	*CA Rare Plant Rank*	*Habitat Associations*[a, b, c]	*Habitat in Project Area?*
Plants - Vascular	*Arctostaphylos montana ssp. ravenii*	Presidio manzanita	Endangered	Endangered	-	1B.1	Maritime chaparral-coastal prairie	No
Plants - Vascular	*Hesperolinon congestum*	Marin western flax	Threatened	Threatened	-	1B.1	Chaparral, valley grassland, Serpetine soil	No
Plants - Vascular	*Clarkia franciscana*	Presidio clarkia	Endangered	Endangered	-	1B.1	Valley grassland, northern coastal scrub, Serpetine soils	No
Plants - Vascular	*Sanicula maritima*	Adobe sanicle	None	Rare	-	1B.1	Valley grassland, northern coastal scrub, Serpetine soils	No
Plants - Vascular	*Plagiobothrys diffusus*	San Francisco popcornflower	None	Endangered	-	1B.1	Coastal prairie, valley grassland	No

Note:

a. U.S. Fish and Wildlife Service, *Environmental Conservation Online System*, December 7, 2016.
b. U.S. Fish and Wildlife Service, *Sacramento Fish and Wildlife Office, Endangered Species*, December 7, 2016.
c. California Department of Fish and Wildlife, *California Threatened and Endangered Plant Profiles*, December 7, 2016.

Impact BI-2: The proposed project would interfere with native resident or migratory wildlife species, with established native resident or migratory wildlife corridors, and would impede the use of native wildlife nursery sites. (Less than Significant with Mitigation)

Landscaped areas within urban environments provide habitat and refuge for resident birds and migratory birds passing through the area. Migratory birds, nesting birds, and nests and eggs of any bird are protected by California Fish and Game Code (sections 3503, 3503.5, and 3513) and the federal Migratory Bird Treaty Act (section 703 et seq.). Landscape plans for all four components of the project were reviewed and resulting impacts to trees that provide bird habitat are summarized below:[184]

- Student residence hall – Loss of 75 trees
- Dining commons – Loss of 10 trees
- Recycling and waste facility – Loss of 10 trees
- ROTC program relocation addition – No tree loss

The proposed project would remove a total of 95 trees and would plant 100 trees (including street trees), resulting in a gain of five trees and no net loss of associated landscaping.[185] These trees and the interconnecting ground-level and shrub-layer green spaces provide habitat for resident and migratory birds. Tree removal activities have the potential to disturb resident and migratory birds resulting in a short-term reduction in potential nesting and foraging habitat as well as directly destroying active nests; however, it is anticipated that resident and migratory bird species would resume nesting and foraging behavior once the construction is complete, and would utilize existing nearby nesting and foraging habitat during construction. Direct impacts to active nests would be a significant impact. To mitigate potential adverse impacts to these species, **Mitigation Measure M-BI-2: Pre-Construction Bird Surveys** has been identified to prevent the destruction of active nests or loss of birds. The implementation of **Mitigation Measure M-BI-2** would preserve habitat where feasible, and protect species by conducting pre-construction bird nesting surveys to identify active nests and to take recommended precautions to avoid and/or minimize adverse effects before construction.

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184 Quinn Landscape Architects, *Landscape Plan for Dining Commons, Recycling and Waste Facility Replacement, Reserve Officer Training Corps Program Relocation,* November 27, 2016.
The Guzzardo Partnership Inc, *Tree Disposition Plan, p. L-2,* USF Student Housing, November 3, 2017.

185 Ibid.

Mitigation Measure M-BI-2: Pre-Construction Bird Surveys

To facilitate compliance with state and federal laws (California Fish and Game Code and the Migratory Bird Treaty Act) and prevent impacts on nesting resident and migratory birds, the project sponsor shall avoid vegetation/structure removal, ground-disturbing activities, and elevated noise levels near suitable nesting habitat during the nesting season (February 1 through August 31) or conduct pre-construction surveys, as described below. If pre-construction surveys are implemented, nesting birds and their nests shall be protected during construction by implementation of the following measures:

- If construction does occur during the bird nesting season, a qualified biologist shall conduct pre-construction surveys within seven days prior to the initiation of construction or after any construction breaks of 14 days or more to identify active nests per the California Department of Fish and Wildlife nesting bird survey protocol.
- If active nests are located during the pre-construction bird nesting survey, the qualified biologist shall evaluate whether the schedule of construction activities could affect the active nest and the following measures shall be implemented based on their determination:
    - Construction determined not likely to affect the active nest may proceed without restriction; however, the qualified biologist shall regularly monitor the nest to confirm that there is no adverse effect, and may revise their determination at any time during the nesting season.
    - If construction may affect the active nest, the qualified biologist shall establish a no-disturbance buffer. The qualified biologist shall determine the appropriate buffer to be in compliance with the Migratory Bird Treaty Act and Fish and Game Code section 3503, taking into account the species involved, the presence of any obstruction—such as a building—within line-of-sight between the nest and construction, and the level of project and ambient activity (i.e., adjacent to a road or active trail). Active nests shall be monitored and exclusion buffer sizes increased if the monitoring biologist determines this is necessary based on disturbance behavior exhibited by nesting birds in proximity to project construction. For bird species of special concern, the sponsor, supported by the qualified biologist, shall consult with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife regarding nest buffers.

- Removing or relocating active nests shall be coordinated by the sponsor with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife, as appropriate, given the nests that are found at the site.
- Any birds that begin nesting within the proposed project areas and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels, and no work exclusion zones shall be established around active nests in these cases.

The proposed project would also be required to comply with the city's planning code standards for Bird-Safe Buildings, section 139, which contains building guidelines for reducing the negative impacts to birds resulting from bird strikes. The proposed project is located within the city's urban bird refuge areas (open spaces within the city limits that are greater than 2 acres in size), and as such are subject to building standards for location-related hazards as stated in section 139(c)1, which include façade and lighting requirements.[186,187] The proposed dining commons, student residence hall, recycling and waste facility, and ROTC program relocation addition would also be subject to compliance with building feature-related standards for structures with glass and skywalks, as detailed in section 139(c)2.[188]

The construction of the student residence hall, dining commons, and recycling and waste facility would not significantly reduce the total area of open space nor would it impact the status of the site as an urban bird refuge. It is anticipated that the USF Hilltop Campus would continue to provide nesting and foraging opportunities for resident and migratory birds by providing open space connectivity within the urban environment. The loss of trees for the construction of the proposed project would not be considered a potentially significant reduction in habitat, range or a threat to existing resident bird or migrating bird populations, and trees removed during construction would be replaced to ensure no net loss of trees. Additionally, compliance with the city standards would ensure that the proposed project would not have a substantial adverse impact to birds. In summary, the proposed project's impact would be ***less than significant with mitigation*** with incorporation of **Mitigation Measure M-BI-2.**

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[186] San Francisco Planning Department, *Urban Bird Refuge Map*, *https://data.sfgov.org/Energy-and-Environment/Urban-Bird-Refuge/v8rh-bhzp,* accessed on December 8, 2016.

[187] San Francisco Planning Department, *Standards for Bird-Safe Buildings*, as amended April 27, 2013, *http://library.amlegal.com/nxt/gateway.dll/California/publicworks/publicworkscode?f=templates$fn=default.htm$3.0$vid=amlegal:sanfrancisco_ca$sync=1*, accessed on December 8, 2016.

[188] Ibid.

Impact BI-3: The proposed project would not conflict with the city's local tree ordinance. (Less than Significant)

San Francisco's Urban Forestry Ordinance, Public Works Code article 16, provides for the protection of landmark, significant, and street trees. The department's jurisdiction includes hazard trees on private property as specified in section 809 and 810A, landmark trees on private property, and significant trees on privately owned property with any portion of the tree trunk located within 10 feet of the public right-of-way and meeting at least one of the criteria in section 810A(a).[189]

The proposed project components located within the Upper Campus, which include the student residence hall, dining commons, and recycling and waste facility, do not abut a public right-of-way and are completely sited on private property. Because none of these areas include hazard, landmark, or significant trees, tree removal activities are not subject to the ordinance.[190] There are no existing trees located within the site of the ROTC program relocation addition; however, the street trees fronting the Koret Health and Recreation Center are subject to the city's urban forestry ordinance. According to the project's landscaping plan (**Figure 23,** p. 36), the construction limits are located more than 25 feet from the nearest street trees and would not be impacted by the proposed construction activities.[191] Additionally, there are no existing trees that would be removed for the proposed construction staging areas that are described in "Section A. Project Description" and shown on **Figure 37,** p. 57.

The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as tree preservation or tree removal policies/ordinances; therefore, the proposed project would not conflict with the city's local tree ordinance and this impact would be ***less than significant***. No mitigation is required.

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[189] San Francisco Public Works Code, *Urban Forestry Ordinance*, *http://library.amlegal.com/nxt/gateway.dll/California/publicworks/publicworkscode?f=templates$fn=default.htm$3.0$vid=amlegal:sanfrancisco_ca$sync=1*, accessed on December 8, 2016.

[190] San Francisco Public Works, *Significant and Landmark Trees*, *http://sfpublicworks.org/services/significant-and-landmark-trees*, accessed on December 7, 2016.

[191] Quinn Landscape Architects, *Reserve Officer Training Corps Program Relocation Landscape Plan,* November 27, 2016.

Impact C-BI-1: The proposed project in combination with other past, present or reasonably foreseeable projects, could result in cumulatively considerable contribution to a significant cumulative impact to biological resources. (Less than Significant with Mitigation)

The cumulative area for biological resources includes the project site and other projects in the vicinity. The geographic scope for potential cumulative biological resources impacts encompasses land uses in the vicinity of the Upper Campus and Lower Campus. The area generally includes the Inner Richmond, Presidio Heights, Western Addition, Golden Gate Park, and Haight Ashbury neighborhoods. Similar to the project area, the project vicinity does not include riparian habitat or other sensitive natural communities. With the exception of trees (primarily street trees) and landscaped areas, the area does not support or provide habitat for any known rare or endangered species.

Ongoing development of the USF Hilltop Campus involves campus facility improvements as detailed in **Table 6**, p. 66, as well as other projects in the vicinity including residential, office and commercial development, shown in **Table 7**, p. 67. These development projects in the surrounding area may also result in the removal of existing trees and vegetation. While these projects would also be required to comply with the Migratory Bird Treaty Act, the California Fish and Game Code, as well as the city's bird-safe building and urban forestry ordinances, it is possible that cumulative impacts to nesting birds may result in a significant cumulative impact. As discussed, the removal of approximately 95 trees at the proposed student residence hall, dining commons, and the recycling and waste facility project sites could directly destroy active nests. This could result in cumulatively considerable contribution to a significant cumulative impact to biological resources. However, with implementation of **Mitigation Measure M-BI-2,** impacts to resident and migratory birds would be ***less than significant with mitigation*** and would not substantially interfere with the movement of any wildlife species or with established native resident or migratory wildlife corridors. Therefore, with implementation of **Mitigation Measure M-BI-2**, the proposed project's contribution to this impact would not be cumulatively considerable.

As previously stated, the project vicinity lacks riparian habitat, wetlands, streams, or other sensitive natural communities and does not support any species identified as candidate, sensitive, or special-status in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. Given the urban built environment of the project site and surrounding areas where cumulative projects are proposed, the project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species, riparian habitat or sensitive natural community; therefore, cumulative impacts to these resources would be ***less than significant.*** No mitigation is required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
14. GEOLOGY AND SOILS— Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐	☐
ii) Strong seismic groundshaking?	☐	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	☐
iv) Landslides?	☐	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	☐
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?[192]	☐	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☐	☒

[192] Note that the current California Building Code is no longer based on the Uniform Building Code but rather the International Building Code but nonetheless still contains relatively similar guidance on expansive soils.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐	☐

The proposed project would connect to the combined sewer system, which is the wastewater conveyance system for San Francisco, and would not use septic tanks or other onsite land disposal systems for sanitary sewage. Therefore, Topic 14e, pertaining to alternative wastewater disposal, is not applicable to the proposed project.

In the California Building Industry Association v. Bay Area Air Quality Management District case decided in 2015,[193] the California Supreme Court held that CEQA does not *generally* require lead agencies to consider how existing hazards or conditions might impact a project's users or residents, except where the project would significantly exacerbate an existing environmental hazard. Accordingly, hazards resulting from a project that places development in an existing or future seismic hazard area or an area with unstable soils are not considered impacts under CEQA unless the project would significantly exacerbate the seismic hazard or unstable soil conditions. Thus, the analysis below evaluates whether the proposed project would exacerbate future seismic hazards or unstable soils at the project site and result in a substantial risk of loss, injury, or death. The impact is considered significant if the proposed project would exacerbate existing or future seismic hazards or unstable soils by increasing the severity of these hazards that would occur or be present without the project.

This section describes the geology, soils, and seismicity characteristics of the project area as they relate to the proposed project. This section's analysis relies on the information and findings in the geotechnical investigations prepared for the proposed student residence hall,[194] dining commons,[195] recycling and waste facility,[196] and ROTC program relocation addition,[197] and on

193 *California Building Industry Association v. Bay Area Air Quality Management District,* 62 Cal.4th 369. Opinion filed December 17, 2015.

194 Rollo & Ridley, *Geotechnical Investigation Lone Mountain Sobrato Hall Project University of San Francisco (USF) San Francisco, California,* August 9, 2016.

195 Rollo & Ridley, *Geotechnical Investigation Upper Campus Dining Hall, Lone Mountain Campus, University of San Francisco (USF) San Francisco, California,* November 10, 2016.

196 Rollo & Ridley, *Geotechnical Investigation, Trash Enclosure Facility, Lone Mountain Campus, University of San Francisco (USF) San Francisco, California,* November 11, 2016.

previous geotechnical investigations at the sites and in the vicinity,[198] as well as associated published geologic maps. Subsurface data was obtained by drilling geotechnical soil borings and logging test pits at the project sites, and by reviewing subsurface data collected for previous geotechnical studies at the project site.

Potential geology and soil impacts related to the project include seismically induced groundshaking, as well as ground failures that could damage structures on the project sites. Construction-related impacts include potential erosion and instability due to excavation. The final features to be included in the project to avoid or withstand seismic and geologic effects would be determined based on a design-level geotechnical investigation required as part of the building permit review process administered by the building department, as discussed below.

Available information indicates the following subsurface conditions for each of the project component sites:

Student Residence Hall[199]

The student residence hall site is underlain by fill, consisting of loose to medium dense clayey sand, sand with gravel, sand, and gravel, at a depth of 43 feet, generally thicker in the northern area of the site. This fill is underlain by medium dense to dense dune sand at depths ranging from 20 to 67 feet below the existing ground surface. The dune sand is underlain by the Colma Formation, consisting of medium dense to very dense clayey sand and stiff to very stiff sandy clay to the maximum depth explored of approximately 101.5 feet. The Colma Formation is underlain by the Franciscan Complex bedrock consisting of shale and sandstone. Bedrock was encountered at depths of 36 and 74 feet with weathered rock encountered at depths of 92 feet, 85 feet, and 70.5 feet. A published geology map of the vicinity indicates the site is underlain by both dune sand and Franciscan Complex Melange, which is consistent with the geotechnical report findings.

Groundwater was not encountered within the footprint of the student residence hall site; however, groundwater was encountered at a depth of 34 feet near Turk Street at the southwest corner of the Upper Campus. The depth to groundwater corresponds to the contact between the

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197 Rollo & Ridley, *Geotechnical Investigation, ROTC Relocation, Koret Recreation Center, University of San Francisco (USF) San Francisco, California,* November 14, 2016

198 Treadwell & Rollo, *Geotechnical Investigation USF Housing, Parker & Anza Streets, San Francisco, California*, 1996. Treadwell & Rollo, *Geotechnical Evaluation Lone Mountain Dormitory Project, University of San Francisco (USF)*, San Francisco, California, 2004.

199 Rollo & Ridley, *Geotechnical Investigation Lone Mountain Sobrato Hall Project University of San Francisco (USF) San Francisco, California,* August 9, 2016.

dune sand and the Colma Formation overlying the bedrock. Seasonal fluctuations are likely with increased seepage occurring after prolonged rains or during the relatively wet season (winter/spring).

Dining Commons[200]

The dining commons site is underlain by up to 25 feet of sandy fill and dune sand. The fill consists of layers of loose to medium dense clayey sand, sand with gravel, and sand, while the dune sand consists of primarily clean sand. The fill and dune sand observed at the borings is underlain by Franciscan Complex bedrock consisting of shale and sandstone. Borings from prior geotechnical investigations[201, 202] encountered Hillslope Deposits consisting of dense clayey sand and hard sandy clay varying from about 10 feet at the southern limits to 25 feet at the northern limits of the proposed dining hall footprint. A published geology map of the vicinity indicates the site is underlain by Franciscan Complex bedrock at relatively shallow depths, which is consistent with the geotechnical report findings for the top of the Upper Campus, but not in agreement with the slopes to the north and west.

Groundwater was not encountered within the footprint of the dining commons. Perched water, however, may exist in seams, in the contacts between the fill and the dune sand and the dune sand and Hillslope Deposits, and within permeable factures of the bedrock.

Recycling and Waste Facility[203]

The recycling and waste facility site is underlain by Franciscan Complex bedrock consisting of shale and sandstone. Portions of the site are blanketed by dune sand up to approximately 5 feet thick and Hillslope Deposits ranging from 0 to 8 feet thick. A published geology map of the vicinity indicates the site is underlain by dune sand with Hillslope Deposits and Franciscan Complex bedrock at shallow depths, which is consistent with the geotechnical report findings. Groundwater was not encountered within the proposed recycling and waste facility footprint. Perched water, however, may exist in seams, at the contact between the dune sand and the bedrock or Hillslope Deposits or within permeable fractures of the bedrock.

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200 Rollo & Ridley, *Geotechnical Investigation Upper Campus Dining Hall, Lone Mountain Campus, University of San Francisco (USF) San Francisco, California,* November 10, 2016.

201 Treadwell & Rollo, *Geotechnical Investigation USF Housing, Parker & Anza Streets,* San Francisco, California, 1996.

202 Treadwell & Rollo, *Geotechnical Evaluation Lone Mountain Dormitory Project, University of San Francisco (USF)*, San Francisco, California, 2004.

203 Rollo & Ridley, *Geotechnical Investigation, Trash Enclosure Facility, Lone Mountain Campus, University of San Francisco (USF) San Francisco, California,* November 11, 2016.

ROTC Program Relocation[204]

The open area at the rear of the existing Hagan Gymnasium within the footprint of the proposed ROTC program relocation structure is underlain by fill, dune sand, residual bedrock and Franciscan Complex bedrock. The fill consists of medium dense sand with gravel to sandy gravel to a depth of 10 feet. The gravel appears to be bedrock fragments (used as fill) and consists of serpentine bedrock. Below the fill, medium dense dune sand was encountered at a depth of 15 feet. Below the dune sand, a thin layer of stiff clay (residual bedrock) was encountered. Below the residual bedrock, Franciscan Complex bedrock consisting of serpentinite rocks, which is green, intensely to closely fractured, moderately hard, moderately strong to strong, deep to moderately weathered was encountered to the maximum depth explored of about 16 feet. A published geology map of the vicinity indicates the site is underlain by dune sand with Hillslope Deposits and Franciscan Complex bedrock at shallow depths, which is consistent with the geotechnical report findings. No free groundwater was encountered during the 2016 field investigation.

As part of a previous geotechnical investigation,[205] two borings drilled in the immediate location of the proposed ROTC program relocation addition site indicated bedrock at relatively shallow depths. Dune sand and residual bedrock blanketed the bedrock with varying thicknesses across the general vicinity of the site. Groundwater was encountered at approximate depths of 8.5 feet and 15 feet below Stanyan Street and the east side of the Hagan Gymnasium, respectively. Groundwater was judged to travel toward the west along the contact between the dune sand and Hillslope Deposits or at the contact between the Hillslope Deposits and bedrock and within permeable fractures of the bedrock.

Impact GE-1: The project would not expose people or structures to risk of loss, injury, or death involving rupture of a known earthquake fault or seismic-related ground failure due to liquefaction hazard. (Less than Significant)

The project site is not located within an Alquist-Priolo Earthquake Fault Zone, and no active or potentially active faults exist on or in the immediate vicinity of the sites.[206] The nearest active fault is the San Andreas Fault, which is located approximately 6 miles west of the project site. Further, no components of the proposed project would cause or worsen rupture of any known or

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[204] Rollo & Ridley, *Geotechnical Investigation, ROTC Relocation, Koret Recreation Center, University of San Francisco (USF) San Francisco, California,* November 14, 2016.

[205] Lee and Praszker, *Geotechnical Investigation for the Proposed Health/Recreation Center University of San Francisco*, January 1985.

[206] C.W. Jennings, W.A. Bryan, *California Geological Survey, 2010, Fault Activity Map of California and Adjacent Areas,* http://maps.conservation.ca.gov/cgs/fam/, accessed on December 30, 2016.

unknown earthquake fault. Therefore, the potential for surface rupture is low for the project site, and this impact would be ***less than significant***. No mitigation is required.

Liquefaction is a phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced, strong groundshaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the granular sediments and the magnitude of earthquakes likely to affect the site. Saturated, unconsolidated silts, sands, silty sands, and gravels within 50 feet of the ground surface are most susceptible to liquefaction. The primary liquefaction-related phenomena include lateral spreading[207] and vertical settlement.[208]

The project site is not located in an area of liquefaction potential identified by the California Department of Conservation under the Seismic Hazards Mapping Act of 1990 (seismic hazard act).[209] Site borings were used to evaluate the potential for liquefaction, lateral spreading, and settlement from differential compaction. No groundwater was observed at the project site during recent subsurface investigations and any perched water would be within the Colma Formation at the student residence hall and within the surficial soil (Hillslope Deposits) at the other three project-component sites. The Colma Formation and Hillslope Deposits contain a large percentage of fine grained soil and are sufficiently dense to resist the potential for liquefaction. The potential for liquefaction and lateral spreading at the project site was determined to be very low because of the absence of groundwater and density of existing soils.

The student residence hall and dining commons sites would, however, be susceptible to earthquake-induced settlement. An anticipated 30 feet of medium dense to dense dune sand present below the base of the excavation for the student residence hall would be susceptible to about 0.5 to 3 inches of settlement from differential compaction beneath the east building and approximately 0.5 to 4 inches of settlement under the west building. At the proposed dining commons site, an anticipated 25 feet of loose to dense sandy fill and dune sand is present below existing site grades and during a major earthquake about 0.5 to 3 inches of settlement from

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[207] Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces.

[208] During an earthquake, settlement can occur as a result of the relatively rapid rearrangement, compaction, and settling of subsurface materials (particularly loose, non-compacted, and variable sandy sediments). Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). Areas are susceptible to differential settlement if underlain by compressible sediments, such as poorly engineered artificial fill or bay mud.

[209] California Governor's Office of Emergency Services, *MyHazards*, *http://myhazards.caloes.ca.gov/*, accessed on May 4, 2017.

differential compaction would occur under the site. Supporting the structures on deep foundations and structural floor slabs, as recommended in the geotechnical report, would prevent the earthquake-induced settlement. Flexible connections between the structures and utilities also are recommended.

The recycling and waste facility and ROTC program relocation addition would not be susceptible to earthquake-induced settlement because their foundations would be in bedrock. At the recycling and waste facility site, it is anticipated that excavation into the existing hillside would remove the majority of loose to dense sandy dune sand that is present below existing site grades and a drilled pier foundation would extend through any sandy layers and gain support in the underlying bedrock. At the ROTC program relocation addition site, all foundations bear or would bear in bedrock.

Implementing the recommended design and construction methods, as outlined in design-level geotechnical reports prepared in accordance with the seismic hazard act, California Geological Survey Special Publication 117A and state building code, and enforced through the building permit review process, would minimize the effects of ground failure. The building plans would be submitted as part of the building permit application(s) and reviewed by the building department to ensure compliance with all state and local building codes regarding structural safety and conformance with the recommendations in the geotechnical report. Therefore, this impact would be ***less than significant.*** No mitigation is required.

Impact GE-2: The project would not expose people or structures to risk of loss, injury, or death involving strong seismic groundshaking or seismic-related ground failure due to landslide hazard. (Less than Significant)

Development of the proposed project would involve the construction and occupancy of new buildings in a location where strong seismic groundshaking can be expected to occur over the life of the project. The student residence hall would be constructed on a deep foundation system consisting of augercast piles connected by reinforced-concrete-grade beams, which would achieve the desired reliable deep foundation for building support. The dining commons would be constructed on a deep foundation system consisting of either drilled piers, cast-in-place piers, or augercast piles connected by reinforced-concrete-grade beams that extend through the weak soil and gain support in the underlying Hillslope Deposits and bedrock and gain support from skin friction. The proposed recycling and waste facility would likely be constructed on drilled, cast-in-place concrete piers embedded in undisturbed bedrock. Where appropriate, the foundation system may also consist of a grid of interconnected, reinforced-concrete footings or a reinforced-concrete mat. Drilled, cast-in-place concrete piers may be used to upgrade the existing foundations if necessary, and to support the ROTC program relocation addition where its

proposed footprint would extend beyond the existing structure. The project buildings would be constructed on foundations designed to withstand seismic activity. The intensity of seismic shaking, or strong ground motion, at the project sites during an earthquake is dependent on the distance between the site and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the sites. The magnitude of an earthquake is characterized by moment magnitude.[210] Earthquakes occurring on faults closest to the sites would likely generate the largest ground motions.

The U.S. Geologic Survey concluded that there is a 63 percent likelihood that a strong earthquake (M6.7 or higher) will occur in the San Francisco Bay area in the next 30 years.[211] The faults that would be capable of causing strong groundshaking at the project sites are the San Andreas Fault, located within 6 miles; the Hayward Fault, located within 12 miles, and the San Gregorio fault, located within 9 miles. Based on shaking hazard mapping by the Association of Bay Governments,[212] the project site would experience strong to very strong groundshaking due to an earthquake along the North San Andreas Fault.

A portion of the dining commons[213] and the recycling and waste facility[214] sites are located within an area indicated as being susceptible to earthquake-induced landslides according to the State of California Seismic Hazard Zones Map for San Francisco.[215] Such areas are defined as "Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacement such that mitigation as defined in Public Resources Code section 2693 (c) would be required." The site vicinity is identified by local steep slopes towards the north and west on the Upper Campus. Historically, a landslide occurred to the west of the Lone Mountain Main Building above Parker Street. The map also shows potential for landslides along the northern border of the Upper Campus. For the dining commons and the recycling and waste facility, minor slope instability in the form of sloughing and erosion was observed. Therefore, the risk of

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[210] Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture.

[211] U.S. Geologic Service Earthquake Hazards Program, *2008 Bay Area Earthquake Probabilities*, *http://earthquake.usgs.gov/regional/nca/ucerf/*, accessed on January 5, 2017.

[212] Association of Bay Area Governments, *Resilience Program*, *http://gis.abag.ca.gov/website/Hazards/?hlyr=northSanAndreas*, accessed on January 5, 2017.

[213] Rollo & Ridley *Geotechnical Investigation - Upper Campus Dining Hall University of San Francisco,* San Francisco, California, November 10, 2016.

[214] Rollo & Ridley *Geotechnical Investigation - Trash Enclosure Facility Lone Mountain Campus University of San Francisco,* San Francisco, California, November 11, 2016.

[215] State of California, *Seismic Hazard Zones*, City and County of San Francisco, released on November 17, 2000.

earthquake-induced landslides at these two sites was assessed to be moderate in the geotechnical investigations performed for the proposed project.

For the student residence hall and the ROTC program relocation addition, there are no indications in the geotechnical reports that significant slope instability such as sloughing or erosion have developed at the sites and there is no evidence for incipient ground movement underlying the two sites.[216] The risk of earthquake-induced landslides at the student residence hall and the ROTC program relocation addition is low.

The seismic hazard act, located in Public Resources Code 2690 *et seq*, protects public safety from the effects of strong groundshaking, liquefaction, landslides, or other ground failures or hazards caused by earthquakes. For project sites located within a state-identified seismic hazard zone, the site design and construction must comply with the seismic hazard act, its implementing regulations, and the California Department of Conservation's guidelines for evaluating and mitigating seismic hazards. In addition to the seismic hazard act, adequate investigation and mitigation of failure-prone soils is also required by the mandatory provisions of the California Building Standards Code (state building code, California Code of Regulations title 24). The San Francisco Building Code has adopted the state building code with certain local amendments. The regulations implementing the seismic hazard act requires that a project be approved only when the nature and severity of the seismic hazards at the site have been evaluated in a geotechnical report and appropriate mitigation measures[217] have been proposed and incorporated into the project, as applicable.

The proposed project is required to conform to the state and local building codes, which ensure the safety of all new construction in the city. State Building Code chapter 18, Soils and Foundations, provides the parameters for geotechnical investigations and structural considerations in the selection, design and installation of foundation systems to support the loads from the structure above. Section 1803 sets forth the basis and scope of geotechnical investigations conducted. Section 1804 specifies considerations for excavation, grading and fill to protect adjacent structures and prevent destabilization of slopes due to erosion and/or drainage. In particular, section 1804.1, Excavation Near Foundations, requires that adjacent foundations be

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[216] Rollo & Ridley *Geotechnical Investigation - Upper Campus Dinning Hall University of San Francisco,* San Francisco, California, November 10, 2016.
Rollo & Ridley, *Geotechnical Investigation, ROTC Relocation, Koret Recreation Center, University of San Francisco (USF) San Francisco, California,* November 14, 2016.

[217] In the context of the seismic hazard act, "mitigation" refers to measures that reduce earthquake hazards, rather than the mitigation measures that were identified in this Preliminary Mitigated Negative Declaration, which are required by the California Environmental Quality Act to reduce or avoid environmental impacts of a proposed project.

protected against a reduction in lateral support as a result of project excavation. This is typically accomplished by underpinning or protecting said adjacent foundations from detrimental lateral or vertical movement, or both. Section 1807 specifies requirements for foundation walls, retaining walls, and embedded posts and poles to ensure stability against overturning, sliding, and excessive pressure, and water lift including seismic considerations. Sections 1808, Foundations), 1809, Shallow Foundations, and 1810, Deep Foundations, specify requirements for foundation systems such that the allowable bearing capacity of the soil is not exceeded and differential settlement is minimized based on the most unfavorable loads specified in Chapter 16, Structural, for the structure's seismic design category and soil classification at the project site. Building department staff will review the project plans for compliance with state and local building codes and for conformance with recommendations in the project-specific geotechnical report. In addition, the building department staff may require additional site-specific soils reports through the building permit application process, as needed.

Although the project site would be subject to very strong groundshaking in the event of a major earthquake, the project would not expose people or structures to substantial adverse effects related to groundshaking because the project would be designed and constructed in accordance with the current state and local building code requirements. The building department's requirement for a geotechnical report and review of the building permit application pursuant to the City's implementation of the local and state building code, local implementing procedures, and state laws, regulations and guidelines would ensure that the proposed project would have no significant impacts related to soils, seismic or other geological hazards. Therefore, impacts related to groundshaking would be ***less than significant***. No mitigation is required.

Although the dining commons and recycling and waste facility sites could be susceptible to seismically induced landslides, the building plans submitted as part of the building permit application and reviewed by the building department would ensure compliance with state and local building code provisions regarding structural safety. Specifically, as recommended in the geotechnical investigations, the dining commons foundation would consist of cast-in-place drilled piers or augercast piles, extending through the soil and gaining support in underlying Hillslope Deposits and bedrock, and the recycling and waste facility foundation buildings would utilize foundation systems consisting of footings and cast-in-place drilled piers with support in bedrock. Therefore, impacts at the dining commons and recycling and waste facility related to earthquake-induced landslides would be ***less than significant.*** No mitigation is required.

Impact GE-3: The proposed project would not result in substantial loss of topsoil or erosion. (Less than Significant)

In general, construction activities and pedestrian travel can disturb vegetation and ground cover that serves to stabilize surface soils, making the soils more susceptible to erosion. Without proper soil-stabilization controls, construction activities such as excavation, backfilling, and grading can also increase the potential for exposed soils to be eroded by wind or stormwater runoff, resulting in long-term soil loss. Some areas would receive more grading and earthwork activities than others with a maximum depth of 20 feet of excavation. Open space areas may require minor grading, and topsoils would be segregated and returned to their point of origin, where possible.

At the student residence hall, approximately 60,000 cubic yards of soil would be excavated to a depth of approximately 20 feet for the construction of the subterranean level. At the recycling and waste facility, located on a wooded steep hill, approximately 800 cubic yards of soil would be excavated to a depth of approximately 15 feet. Construction of the dining commons and ROTC program relocation addition would require grading and backfilling. Disturbance of site soils would be temporary during construction, and the project sponsor would be required to adhere to the requirements of the Construction Site Runoff Ordinance. The ordinance requires all land-disturbing activities to implement best management practices to reduce potential erosion impacts during construction.

In addition, the project sponsor would be required to implement an erosion and sediment control plan during construction activities in accordance with article 4.1 of the San Francisco Public Works Code and the Construction Site Runoff Ordinance to reduce the impact of runoff from the construction site. The public utility commission must review and approve the erosion and sediment control plan prior to implementation, and would conduct periodic inspections to ensure compliance with the plan. Therefore, impacts related to soil erosion would be ***less than significant***. No mitigation is required.

The proposed project would include vegetating exposed ground surface as well as drainage control during operation that would control stormwater runoff at the site. The proposed project would comply with the Stormwater Management Ordinance (discussed in Topic 15, Hydrology and Water Quality). Thus, the project would not result in the loss of topsoil, nor result in substantial soil erosion on the project site or surrounding properties. Therefore, impacts of the proposed project related to loss of topsoil would be ***less than significant.*** No mitigation is required.

Impact GE-4: The proposed project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. (Less than Significant)

Ground settlement could result from excavation for construction of buildings. Although groundwater was not encountered during the geotechnical investigations for the dining commons and the recycling and waste facility, perched water may exist in seams at the contact points between fill and dune sand, between the dune sand and Hillslope Deposits, and within permeable rock fractures in the bedrock. For the proposed ROTC program relocation addition, groundwater was not encountered during the investigation; however, the study indicated that groundwater flow could be expected towards the west. The investigation also concluded that while encountering the groundwater table during construction is not anticipated, passive groundwater control with local dewatering may be necessary for those areas where seeping perched water may be encountered. Seeping groundwater would likely be from rainfall infiltration or neighboring irrigation percolating through the site. Seasonal fluctuations are also anticipated with increased seepage occurring after prolonged rains or during the wet season in winter and spring. Should groundwater be encountered during construction activities, passive groundwater control with local dewatering could be necessary for those areas where seeping perched water was encountered. Implementation and monitoring of dewatering would be the responsibility of the sponsor and the registered design professional for the project.

The student residence hall site is underlain by approximately 10 to 43 feet of loose to medium dense sand fill. Excavation of the fill materials and the dune sand to a maximum of approximately 20 feet below ground surface would be necessary to construct the proposed basement level. The fill is unsuitable for foundation support since building loads would cause unacceptable amounts of settlement, therefore deep foundations using auger cast piles extending through the fill to the bedrock would be required for support of the proposed site improvements. The geotechnical report recommends a combination of cantilevered and tied-back soldier pile and shoring system be used during construction to prevent the dune sands from caving and to protect neighboring structures. Shoring installation would be required to retain portions of the excavation during construction for the subterranean level and the foundation installation to minimize caving and subsequent settlement and loss of ground outside the excavation limits in accordance with the recommendations of the geotechnical report.

The dining commons site is underlain by approximately 10 to 25 feet of loose to medium dense sandy fill and dune sand and adjacent to the north slope of the Upper Campus. The fill would not be capable of supporting the anticipated loads associated with the proposed structure without excessive and unpredictable settlement. The geotechnical report recommends that a deep foundation be used to support the dining commons, consisting of either drilled, cast-in-place

piers, or augercast piles that extend through the weak soil and gain support in the underlying Hillslope Deposits and bedrock and from skin friction. Minimal excavation would be required and no shoring and underpinning would be necessary.

The recycling and waste facility is located on a generally steep slope. The southern portion of the site would be subject to a slide cut and the bedrock would be exposed at the proposed subgrade level. The geotechnical report recommends using a shallow foundation system consisting of continuous interconnected footings or a thickened edge mat at the southern portion. Along the northern portion of the proposed structure where 7 feet of lateral cover between the face of footing/mat and the slope face cannot be maintained drilled, cast-in-place concrete piers are recommended.

The ROTC program relocation addition would be underlain by backfill in areas adjacent to the existing Hagan Gymnasium foundations. The fill is associated with backfill operations adjacent to the existing structures. The ROTC program relocation addition site is relatively level and the surrounding area does not include any substantive grades or cut slopes likely to be subject to landslide. Minor excavations are required for the site. The geotechnical report recommends using either shallow foundations or drilled, cast-in-place concrete piers to upgrade the existing foundation of 1-story building section and Hagan Gymnasium and to support the ROTC structure where its extends beyond the existing structure.

Compliance with state and local building code requirements would ensure that the project sponsor include analysis of the potential for unstable soils as part of the design-level geotechnical investigation prepared for the proposed project. With the review of the building permit application for compliance with state and local building codes, as well as conformance with the project-specific design-level geotechnical reports, impacts related to the potential for settlement and subsidence due to construction on soil that is unstable or could become unstable as a result of the project, would be ***less than significant***. No further mitigation is required.

Impact GE-5: The proposed project would not create substantial risks to life or property through location on expansive soil. (Less than Significant)

Typically, soils that exhibit expansive characteristics are found within the upper 5 feet of ground surface. Over long-term exposure to wetting and drying cycles, expansive soils can experience volumetric changes. The effects of expansive soils could damage foundations of aboveground structures, paved roads and streets, and concrete slabs. Expansion and contraction of soils, depending on the seasons and the amount of surface water infiltration, could exert enough pressure on structures to result in cracking, settlement, and uplift. As required by the state and local building codes, the design-level geotechnical investigation would analyze the potential for

soil expansion impacts and minimize any adverse effects through the recommendation of site preparations such as placement of engineered fill in accordance with the state and local building codes. The building department would review the application and plans for concurrence with those recommendations and compliance with the codes, reducing potential impacts to ***less than significant***. No mitigation is required.

Impact GE-6: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant with Mitigation)

Paleontological resources (i.e., fossils) are the buried remains and/or traces of prehistoric organisms (i.e., animals, plants, and microbes). Body fossils such as bones, teeth, shells, leaves, and wood, as well as trace fossils such as tracks, trails, burrows, and footprints, are found in the geologic deposits (formations) within which they were originally buried. The primary factor determining whether an object is a fossil or not is not how the organic remain or trace is preserved (e.g., "petrified"), but rather the age of the organic remain or trace. Although typically it is assumed that fossils must be older than ~10,000 years (i.e., the generally accepted end of the last glacial period of the Pleistocene Epoch), organic remains of early Holocene age can also be considered to represent fossils because they are part of the record of past life.

Fossils are considered important scientific and educational resources because they serve as direct and indirect evidence of prehistoric life and are used to understand the history of life on Earth, the nature of past environments and climates, the membership and structure of ancient ecosystems, and the patterns and processes of organic evolution and extinction. In addition, fossils are considered to be non-renewable resources because typically the organisms they represent no longer exist. Thus, once destroyed, a particular fossil can never be replaced.

From an operational standpoint, it is important to recognize that paleontological resources can be thought of as including not only actual fossil remains and traces, but also the fossil collecting localities and the geologic formations known to contain those localities. This view underscores the fact that it is not possible to know for certain where fossils are located without disturbing a potentially fossil-bearing geologic deposit (formation).

The Society of Vertebrate Paleontology has established guidelines for identifying, assessing, and mitigating adverse impacts to non-renewable paleontological resources.[218] Most practicing paleontologists in the United States adhere closely to the society's assessment, mitigation, and monitoring guidelines, which were approved through a consensus of professional vertebrate paleontologists. Many federal, state, county, and city agencies have either formally or informally adopted the society's standard guidelines for mitigating adverse construction-related impacts on paleontological resources.

The Society of Vertebrate Paleontology methodology ranks geologic deposits (formations) as having either (1) high, (2) undetermined, (3) low, or (4) no paleontological potential for containing significant paleontological resources. Geologic deposits of high paleontological potential are those from which vertebrate or significant invertebrate or significant suites of plant fossils have been recovered; that is, those that are represented in institutional collections. Sensitivity is determined based on two criteria: (1) the potential for yielding abundant or significant vertebrate fossils or a few significant fossils, large or small, that are vertebrate, invertebrate, plant, or trace fossils, and (2) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronological, or stratigraphic data.

Geologic units of low paleontological potential are those that are known to produce significant fossils only on rare occasions, produce only very common fossils (e.g., shell beds) in abundance, or are of Holocene age (less than about 10,000 years old). Geologic units of no paleontological potential are those that formed at high temperatures and/or pressures, deep within the earth, such as plutonic igneous rocks, and high–grade metamorphic rocks, and consequently do not contain fossils. Artificial fill materials also have no paleontological potential because any contained organic remains have lost their original stratigraphic and/or geographic context and thus are not scientifically significant. Geologic units with undetermined paleontological potential are those that have little to no information available concerning their geologic context (e.g., depositional environment, age) and/or contained paleontological resources.

Geologic units at the project site include artificial fill (no potential), Quaternary dune sands (low potential), the Pleistocene-aged (~130,000 to 17,000 years old) Colma Formation (high potential),

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[218] Society of Vertebrate Paleontology, *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, *http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx,* accessed on April 27, 2016.

and crystalline basement rocks of the Franciscan Complex (low potential).[219] Vertebrate fossils, including remains of mammoths and bison, have been found in the Colma Formation in San Francisco, near the base of Telegraph Hill.[220] In addition, a mammoth tooth was discovered in the Colma Formation during excavation for the Transbay Transit Center in downtown San Francisco in 2012.[221] Because fossil remains of Ice Age mammals have been found in the Colma Formation in two San Francisco locations, the Colma Formation is deemed to have a high potential to contain paleontological resources.

Earthwork activities associated with development of the student residence hall site would primarily involve excavations for underground structures (e.g., parking garage), as well as foundation drilling to anchor building foundations to bedrock. The proposed underground structure excavations would only directly impact artificial fill materials (no potential) and a portion of the Quaternary dune sand deposits (low potential). Thus, impacts to paleontological resources during excavations for underground structures would be ***less than significant*** and will not require mitigation. In contrast, the proposed foundation drilling (e.g., augercast piles) would extend through the artificial fill and Quaternary dune sand deposits into the underlying strata of the Colma Formation (high potential) and then into the crystalline bedrock of the Franciscan Complex (no potential). Drilling into the Colma Formation has the potential to adversely affect significant paleontological resources.

To mitigate potential adverse impacts to paleontological resources within the Colma Formation, **Mitigation Measure M-GE-6: Monitoring and Treatment Plan for Paleontological Resource** has been identified to prevent the destruction of significant paleontological resources. The implementation of **Mitigation Measure M-GE-6: Monitoring and Treatment Plan for Paleontological Resource**, would require the elaboration of a monitoring and treatment plan which would include pre-construction, during-construction, and post-construction paleontological mitigation procedures.

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[219] Department of Conservation, Geologic Map of California (2010) *http://maps.conservation.ca.gov/cgs/gmc/*, accessed on May 4, 2017.

[220] Rodda, Peter U. and Nina Baghai, *Late Pleistocene Vertebrates from Downtown San Francisco,* California, Journal of Paleontology, Vol. 67, No.6, November 1993, pp. 1058-1063, *https://www.jstor.org/stable/1306122?seq=1#page_scan_tab_contents*, accessed on May 4, 2016.

[221] Transbay Transit Center, *Archeology, http://www.transbaycenter.org/project/archaeology*accessedon May 4, 2017.

Mitigation Measure M-GE-6: Monitoring and Treatment Plan for Paleontological Resources

Given the potential for significant paleontological resources to be present in the subsurface at the student residence hall within strata of the Colma Formation and the potential for foundation drilling operations (e.g., augercast piles) to impact those strata, the following measures shall be undertaken to avoid any significant adverse effect from the proposed project on paleontological resources. Before the start of construction of the student residence hall, the project sponsor shall retain a qualified paleontologist, as defined by the Society of Vertebrate Paleontology. The qualified paleontologist shall prepare a project-specific paleontological monitoring and treatment plan that will include pre-construction, during-construction, and post-construction paleontological mitigation procedures. Pre-construction procedures shall address designation of a repository to receive any recovered fossils (e.g., California Academy of Sciences), development of research design questions that could be answered by recovered fossils, and presentation of a workers environmental awareness program to project construction personnel. During-construction procedures shall address paleontological monitoring of augercast pile drilling operations, stratigraphic data recovery, and construction site safety, as well as steps to be followed in the event of a fossil discovery (e.g., specimen evaluation, specimen recovery [for both macrofossils and microfossils], and specimen documentation). Post-construction procedures shall address fossil preparation (e.g., removing extraneous sediment from specimens and repairing and stabilizing specimens), fossil curation (e.g., taxonomic identification, database cataloguing, and specimen storage), and preparation of a final paleontological mitigation report.

When construction begins, the qualified paleontologist shall be prepared to implement the monitoring and treatment plan and ensure that a qualified paleontological monitor (defined as a person with a Bachelor of Science in geology or paleobiology with at least one year of actual paleontological field experience) is onsite on a full-time basis during the foundation drilling phase of construction to monitor augercast pile boreholes that penetrate strata of the Colma Formation. The qualified paleontological monitor shall work under the supervision of the qualified paleontologist and follow the procedures specified in the monitoring and treatment plan. Having procedures in place in the event of a fossil discovery would ensure that fossil recovery would not result in extended delays to the construction schedule. The San Francisco Planning Department shall be responsible for ensuring that the monitoring and treatment plan is implemented and completed.

Implementation of **Mitigation Measure M-GE-6: Monitoring and Treatment Plan for Paleontological Resources** for the proposed student residence hall**,** would reduce the impact to ***less than significant with mitigation***.

Impact C-GE-1: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a considerable contribution to cumulative impacts related to geologic hazards. (Less than Significant)

Geology, soils, and unique paleontological resources or site or unique geological feature impacts are generally site-specific and localized and not result in cumulative effects with other projects. Therefore, the proposed project would not make a considerable contribution related to cumulative impacts and cumulative impacts would ***less than significant***. No mitigation is required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
15. HYDROLOGY AND WATER QUALITY. Would the project:					
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?	☐	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite?	☐	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	☐	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☐	☒

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☐	☒
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☐	☒

The project site is not located in a 100-year flood hazard boundary, a dam failure area, or a tsunami flood hazard area.[222, 223, 224] A seiche is an oscillation of a water body, such as a bay, that may cause local flooding. A seiche could occur in the San Francisco Bay because of seismic or atmospheric activity. The project site is located 1.7 miles south from San Francisco Bay and would therefore not be subject to a seiche. Mudflow hazards typically occur where unstable hillslopes are located above gradient, where site soils are unstable and subject to liquefaction, and when substantial rainfall saturates soils causing failure. The proposed project is not located in a liquefaction zone.[225] Landslide hazards are discussed in Topic 14, Geology and Soil. Therefore, Topics 15g, 15h, 15i, and 15j are not applicable to the proposed project.

Impact HY-1: The proposed project would not violate water quality standards, provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality. (Less than Significant)

During construction, pollution sources include mortars, concrete, paint chips, and other debris that can discharge into storm drains. Thus, these toxic pollutants if discharged to local lakes and the ocean can trigger water quality degradation. Further, during site preparation and construction disturbed soils are susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the proposed project area. Sediment can clog

[222] Federal Emergency Management Agency Preliminary Flood Insurance Rate Map, San Francisco Interim Floodplain Map, NW San Francisco, *http://sfgsa.org/sites/default/files/Document/SF_NW.pdf*, accessed on November 12, 2016.

[223] San Francisco Planning Department. San Francisco General Plan. Community Safety Element, Map 6, *http://generalplan.sfplanning.org/Community_Safety_Element_2012.pdf*, accessed on July 14, 2017.

[224] San Francisco Planning Department. San Francisco General Plan. Community Safety Element, Map 5, http://generalplan.sfplanning.org/Community_Safety_Element_2012.pdf, accessed July 14, 2017.

[225] San Francisco Planning Department. San Francisco General Plan. Community Safety Element, Map 4, *http://generalplan.sfplanning.org/Community_Safety_Element_2012.pdf*, accessed July 14, 2017.

storm drains and reduce capacity, which can contribute to allowing stormwater and wastewater to spill onto the streets, causing property damage and exposure to the public. Sediments are also abrasive, and can degrade sewers, treatment plants, and pump stations.

Construction projects are subject to the Construction Site Runoff Ordinance (Public Works Code, Ordinance No. 260-13). Under this ordinance all construction projects must implement best management practices to prevent the discharge of sediment, non-stormwater and waste runoff from a site. Additionally, sites that are 5,000 square feet or more in size must submit an erosion and sediment control plan and project application prior to commencing construction-related activities. The control plan is a site-specific plan that details the use, location, and placement of sediment and erosion control devices. The type and location are planned to minimize erosion and substantive sediment transport offsite.

Per the geotechnical reports prepared for the proposed project, passive groundwater control with local dewatering may be necessary for those areas where seeping perched water may be encountered. Excavation activities could require removal of groundwater from excavations during construction if groundwater is encountered. If temporary excavations require dewatering, there is the potential of discharging pollutants primarily by entraining silt and clay through release of construction water directly to the environment. If dewatering is expected, the contractor would be required to fully conform to the requirements specified in a batch wastewater discharge permit from the SFPUC. This permit regulates specified low-threat discharges of waste to land with underlying groundwater, including dewatering of construction sites; dewatering of wells drilled to investigate or mitigate a suspected contaminated site; power-washing of buildings or parking lots; or any other activity that generates wastewater, other than from routine commercial or industrial processes. By complying with the permits and applicable terms and conditions any threat to existing surface or subsurface water quality would be minimized.

The existing impervious surface area is 1.7 acres and the proposed total impervious surface area is 2.6 acres, which equates to a 0.9 acre increase in new impervious surface area. Therefore, development of the proposed project could potentially increase stormwater runoff. Potential pollutants associated with the operation of the proposed facilities include: sediment from natural erosion; oil and grease; nutrients (e.g., phosphorus and nitrogen) and pesticides associated with landscaping; mineralized organic matter in soils; and litter associated with trash disposal. The proposed project would be required to comply with provisions set forth in the Stormwater Management Ordinance, including managing stormwater using green infrastructure (i.e., stormwater controls or best management practices) and to maintain that green infrastructure for the lifetime of the project. The stormwater management requirements for combined sewer areas set forth

a best management practices hierarchy for selecting best management practices that prioritize reuse (rainwater harvesting), infiltration, and vegetated roofs. The proposed project would be required to submit and have approved by the SFPUC a stormwater control plan that complies with the 2016 Stormwater Management Requirements and Design Guidelines using a variety of best management practices.

Compliance with the Construction Site Runoff Ordinance, the batch wastewater discharge permit, and the Stormwater Management Ordinance would reduce the risk of water degradation during construction and operation of the proposed project. Therefore, since violation of waste discharge requirements, water quality standards or degradation of water quality would be minimized, this impact would be ***less than significant,*** based upon compliance with regulatory requirements discussed herein. No mitigation is required.

Impact HY-2: The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table. (Less than Significant)

The proposed project is located in the Richmond urban watershed area, and the Lobos Groundwater Basin. Per the geotechnical reports prepared for the proposed project,[226] groundwater was not encountered during the geotechnical investigations, but the reports indicated that for the dining commons expansion area and the recycling and waste facility replacement area, perched water may exist in seams at the contact points between fill and dune sand, between the dune sand and Hillslope Deposits, and within permeable rock fractures in the bedrock. For the proposed ROTC program relocation addition structure, groundwater was not encountered during the investigation, but the study did indicate that groundwater flow is expected to be towards the west. The investigation also concluded that while encountering the groundwater table during construction is not anticipated, passive groundwater control with local dewatering may be necessary for those areas where seeping perched water may be encountered. Seeping groundwater would likely be from rainfall infiltration or neighboring irrigation percolating through the site. Seasonal fluctuations are also anticipated with increased seepage occurring after prolonged rains or during the wet season in winter and spring. Therefore, during

[226] Rollo & Ridley. *Geotechnical Investigation Lone Mountain Sobrato Hall Project University of San Francisco*, California. August 9, 2016.
Rollo & Ridley. *Geotechnical Investigation Trash Enclosure Facility Lone Mountain Campus University of San Francisco, California.* November 11, 2016.
Rollo & Ridley. *Geotechnical Investigation ROTC Relocation Koret Recreation Center University of San Francisco, California.* November 14, 2016.
Rollo & Ridley. *Geotechnical Investigation Dining Commons University of San Francisco, California*. November 14, 2016.

construction, excavation and other activities could potentially encounter groundwater. As excavation occurs, shoring would be installed to prevent soil collapse or groundwater seepage into the excavation area. Dewatering methods would be required at all times during construction, to promptly remove and dispose of all water from any source entering the excavation sites.

While the insertion of support and foundation structures in the groundwater basin could reduce the storage capacity, the displaced volume would not be substantial relative to the volume of the Lobos Groundwater Basin, which has a surface area of 2,400 acres. Likewise, the volume of water used during construction for dust control and other uses would be nominal, and would be unlikely to include groundwater unless encountered during excavation and reused as a water conservation measure; therefore, construction activities would not substantially deplete groundwater supplies.

Sources of recharge to the Lobos Groundwater Basin include infiltration of rainfall, infiltration of irrigation water and leakage from water and sewer pipes.[227] The addition of 0.9 acre new impervious surface resulting from implementation of the proposed project would only have a negligible impact on groundwater recharge within this basin because the increase in impervious surface area is minor when compared to the 4 square miles of surface area covered by the Lobos Groundwater Basin. Furthermore, because the unpaved land north of Lobos Creek is composed of northern sand dune sands, rainfall is readily absorbed into the ground to recharge the aquifer. In compliance with the Stormwater Management Ordinance, the project would be required to implement best management practices such as bioretention areas and infiltration devices. Best management practices, such as infiltration devices, augment groundwater by retaining stormwater runoff, which subsequently infiltrates into the groundwater regime. Therefore, impacts on groundwater supply and recharge during construction and operation of the proposed project would be ***less than significant***. No mitigation is required.

Impact HY-3: The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion, siltation or flooding on- or offsite. (Less than Significant)

Construction of the proposed project would involve stockpiling, grading, excavation, paving and other earth-disturbing activities resulting in the alteration of existing drainage patterns. These

[227] Department of Water Resources, *San Francisco Bay Hydrologic Region, Lobos Groundwater Basin*, California's Groundwater, Bulletin 118, *http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/2-38.pdf*, accessed on November 5, 2017.

types of activities would constitute a temporary alteration of drainage patterns. The project would be required to comply with the Construction Site Runoff Ordinance and develop an erosion and sediment control plan to minimize runoff during construction. Implementation of the plan would in turn, minimize runoff-induced erosion, siltation, and flooding on- or offsite. Compliance with the ordinance and implementation of construction site best management practices would minimize the potential for construction activities to alter natural drainages via the deposition of sediments and would therefore reduce the risk of short-term erosion, siltation and flooding resulting from drainage alterations during construction to a ***less-than-significant*** impact. No mitigation is required.

Development of the proposed project would result in alterations to drainage, such as construction of the infiltration trenches, changes in ground surface permeability via paving, and changes in topography via grading and excavation. The proposed project components located on Upper Campus would increase the impervious surface area by approximately 0.9 acre. The SFPUC's Stormwater Management Requirements and Design Guidelines includes a range of methods that would minimize flooding on- or offsite including rain gardens, swales, trenches, and basins. The Stormwater Management Requirements and Design Guidelines require preparation of a stormwater control plan; implementation of best management practices; construction of drainage facilities to minimize adverse effects on the rate or amount of surface runoff; and minimization of increases in impervious area. Implementation of these infiltration trenches would reduce the rate and amount of surface runoff discharging from the proposed project area to a ***less-than-significant impact***. No mitigation is required.

Compliance with the Stormwater Management Ordinance would reduce the risk of flooding on- or offsite resulting from drainage alterations during operation of the proposed project to a ***less-than-significant*** impact. No mitigation is required.

Impact HY-4: The proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (Less than Significant with Mitigation)

The proposed project would be constructed within the USF Hilltop Campus area, which is already developed with existing buildings and associated impervious surfaces. Development of some of the buildings would create new impervious surfaces, which could potentially increase stormwater runoff. Under the Stormwater Management Ordinance, however, the proposed project is required to reduce the stormwater runoff rate and volume by 25 percent relative to the pre-development conditions for the two-year, 24-hour design storm, which would minimize runoff volumes during these storm events. The project would be required to comply with the Stormwater Management Ordinance. However, given that the Turk Street sewer main's existing

full system capacity condition downstream from the project site, the proposed project would construct a flow diversion structure to four infiltration trenches with a total footprint of approximately 4,400 square feet. The student residence hall project component would be required to exceed the SMO's requirements for stormwater infiltration runoff rates. To alleviate potential impacts related to additional flows conveyed to the combined stormwater/sewer system, implementation of **Mitigation Measure UT-2: Monitoring and Maintenance of Proposed Infiltration Trenches** would require the project sponsor to monitor and maintain the infiltration facility, and/or a combination of other approved stormwater controls to meet performance requirements as required per the SMO and requirements to maintain the stormwater runoff rate and volume at or below the existing 5-year, 3-hour design storm event for the life of the project. The project's impact on the city's combined stormwater/sewer system is also further discussed in Topic 11, Utilities and Service Systems.

During construction and operation of the proposed project, all stormwater runoff from the project site would be treated at the Oceanside Water Pollution Control Plant. Treatment would be provided pursuant to the effluent discharge standards stipulated in the pollutant discharge permit for the water pollution control plant. Application of the effluent discharge standards would minimize the volume of stormwater runoff and prevent the discharge of untreated polluted runoff and therefore, this impact would ***less than significant***. The proposed project would require new or expanded wastewater or stormwater collection or treatment facilities that could cause significant environmental effects, or result in significant impacts to the combined stormwater/sewer system. With implementation of Mitigation Measure UT-2 and compliance with State and local regulatory requirements pertaining to stormwater drainage systems and wastewater collection or treatment facilities, potential impacts would be reduced to ***less than significant with mitigation.***

Impact C-HY-1: The proposed project, in combination with other past, present, or reasonably foreseeable projects, could result in a considerable contribution to cumulative impacts on hydrology and water quality. (Less than Significant with Mitigation)

Development of the proposed project, in combination with all other development that would occur in the Richmond urban watershed area, and the Lobos Groundwater Basin, would involve construction activities, increases in stormwater runoff from new impervious surface area, and possible reduction in groundwater recharge areas. Construction of new development throughout the watershed area could result in the erosion of soil, thereby cumulatively degrading water quality. In addition, the increase in impervious surface area resulting from future development may also adversely affect water quality by increasing the amount of stormwater runoff and project-related pollutants entering the combined storm sewer system and the groundwater basin.

Cumulative projects identified in the vicinity could add additional flows to the combined stormwater and sewer that would result in the system operating over capacity, which could require the construction or upgrade to the city's existing system. Therefore, the project could result in cumulatively considerable contribution to a significant cumulative impact to hydrology and water quality. This impact would be reduced with implementation of **Mitigation Measure M-UT-2.**

New development, however, would be required to comply with existing local requirements regarding construction practices that minimize risks of erosion and runoff. Among the various regulations are the applicable provisions of the Phase II municipal separate storm sewer system pollutant discharge permit and the SFPUC ordinances related to control of stormwater quality for new development and significant redevelopment. This would minimize degradation of water quality at individual project construction sites and would require that the volume of runoff does not exceed pre-development conditions. Compliance with applicable local ordinances would ensure cumulative hydrology and water quality impacts would be minimized during the construction and operational phases.

Likewise, the volume of water used during construction for dust control and other uses would be nominal, and would be unlikely to include groundwater unless encountered during excavation and reused as a water conservation measure; therefore, construction activities would not substantially deplete groundwater supplies nor interfere substantially with groundwater recharge. Although implementation of the proposed project would not have a considerable contribution to cumulative effects on groundwater recharge in the Lobos Groundwater Basin, the overall development associated with projects near the USF Hilltop Campus that are planned within the basin could directly and/or indirectly result in the loss of groundwater volume and recharge areas. This loss would be mitigated by the implementation of treatment best management practices to the maximum extent practicable. Specifically, best management practices, such as infiltration devices, augment groundwater by retaining stormwater runoff, which subsequently infiltrates into the groundwater regime.

Thus, the proposed project's contribution to any water quality degradation impact or groundwater depletion impact would not be cumulatively considerable. The impact would be ***less than significant with mitigation***.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
16. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐	☐

The project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, Topic 15d is not applicable. The project site is not located within an airport land use plan area or in the vicinity of a private airstrip. Therefore, Topics 15e and 15f are not applicable to the proposed project.

Impact HZ-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Less than Significant)

Construction activities would require the use of limited quantities of hazardous materials such as fuels, oils, solvents, paints, and other common construction materials. The City would require the project sponsor and its contractor to implement best management practices as part of their grading permit requirements, including hazardous materials management measures, which would reduce the hazards associated with short-term construction-related transport, and use and disposal of hazardous materials to ***less-than-significant*** levels. In addition, the handling and use of hazardous materials is governed by federal, state, and local laws.

Implementation of the proposed project would result in the use of relatively small amounts of hazardous materials, those typically used by residential (student residence hall) and post-secondary educational institutional (dining commons, ROTC program relocation and recycling and waste facility) land uses such as disinfectants, cleaners, fertilizers, and other types of hazardous materials. Because the materials are labeled to inform users of potential adverse effects as well as proper handling and care, it is unlikely that the use of such materials would create a significant hazard. Additionally, most of the hazardous components of disinfectants, cleaners, fertilizers, and other types of hazardous materials are consumed through use, resulting in little waste. Therefore, hazardous materials used during project operation would not pose any substantial public health or safety hazards related to hazardous materials. For the recycling and waste facility, transportation of the materials would be made by Recology at the current frequencies. Recology has specialized equipment and trucks to collect the waste and recycling items, and adequate site capacity to dispose of the waste and recycling materials. Their employees are trained to properly handle waste and recycling items. Thus, it is unlikely that the transportation of the waste and recycling would create a significant hazard. Therefore, hazardous materials used during project operation would not pose any substantial public health or safety hazards related to hazardous materials.

For these reasons, the proposed project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, and this impact would be ***less than significant***. No mitigation is required.

Impact HZ-2: The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable conditions involving the release of hazardous materials into the environment. (Less than Significant)

The project site is not located within an area of San Francisco governed by Article 22A of the San Francisco Health Code, also known as the Maher Ordinance. However, under section 22.A.5, the San Francisco Department of Public Health (the health department) has authority to require soil and/or groundwater analysis pursuant to the Maher Ordinance when the director has reason to believe that a hazardous substance may be present in the soil and/or groundwater at the property. The proposed project would disturb more than 50 cubic yards of soil and the health department had reason to believe that a hazardous substance may be present in the soil and/or groundwater at the property. Therefore, the project sponsor has submitted an application to the health department and prepared *phase I environmental site assessment* for the proposed project.[228]

As detailed below, the project sponsor retained the services of a qualified professional to prepare a phase I environmental site assessment that meets the requirements of San Francisco Health Code section 22.A.6. The environmental site assessment was prepared to determine the potential for site contamination and level of exposure risk associated with the project. Pursuant to the environmental site assessment reports, there are no recognized environmental conditions (i.e., no soil or groundwater contamination) on the project sites. At the ROTC program relocation addition site, naturally occurring chrysotile asbestos was detected at levels below lab detection limits, which is a relatively common occurrence in areas with bedrock. The project sponsor may nonetheless be required by the health department to conduct additional soil and/or groundwater sampling and analysis after the health department's review of the environmental site assessment reports. If such analysis were to reveal the presence of hazardous substances in excess of state or federal standards, the project sponsor would be required to submit a site mitigation plan to the health department or other appropriate state or federal agencies, and to remediate any site contamination in accordance with an approved site mitigation plan prior to the issuance of any building permit.

In September 2016, an environmental site assessment was prepared to assess the potential for site contamination on the Upper Campus at the student residence hall site[229] and a second environmental site assessment was prepared in December 2016 to assess the potential for site

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[228] Maher Ordinance Application, 2500-2698 Turk Street; 222 Stanyan Street, City and County of San Francisco, Department of Public Health, Environmental Health, September 18, 2017.

[229] PES Environmental, Inc. *Revised Phase I Environmental Site Assessment University of San Francisco Portion of Lone Mountain Campus*, San Francisco, California. September 24, 2016.

contamination at the location of the freestanding dining commons addition, the recycling and waste facility and the ROTC program relocation addition.[230]

Historical Site Use

The Lone Mountain site is first mapped within an area identified on both the 1869 U.S. Coast Survey and the 1869 Goddard survey map as the Calvary Cemetery. However, later and more detailed maps (1889 Sanborn maps (vol. 3) 1899 and Sanborn maps (vol. 4, sheets 431 and 432)) identify the Calvary Cemetery as east of Masonic Avenue, and not including the USF Hilltop Campus area. The 1914 Sanborn maps (vol. 4, sheets 396 and 402) show very limited development within the subject blocks, including a tombstone cutter and several scattered houses prior to the development of Ewing Field. Ewing Field opened in 1914 to the east of the project site and historic photographs of the field show the project site primarily undeveloped. More information on the historic uses of the project site is provided in the Topic 4, Cultural Resources.

Student Residence Hall

In 1950, the student residence hall site was developed in its current configuration by the construction of the Underhill Building on the eastern portion of the site and was utilized by the San Francisco College for Women. The storage structure for landscaping equipment located next to the Underhill Building (on the northeastern portion of the property) was developed around 1974 followed by the tennis courts in 1982. Records indicate that the Underhill Building was occupied by USF in 1987 and is currently used for ROTC classroom and office spaces.

Dining Commons

In 1938, an aerial photograph shows the Lone Mountain Main Building surrounding the dining commons Area. By 1967, the Lone Mountain North Building was completed.

Recycling and Waste Facility

The site has remained undeveloped since the 1930s.

ROTC Program Relocation

A Sanborn Fire Insurance Map from 1950 indicates that the property was redeveloped as part of the Saint Ignatius High School gym facility. The subject property area did not experience significant changes until the late 1980s, at which time the site was redeveloped as part of the current Koret

[230] PES Environmental, Inc. *Phase I Environmental Site Assessment, University of San Francisco, Portions of the Lone Mountain Campus and Koret Health and Recreation Center, San Francisco, California, APNs 1107008 and 1144001,* December 2. 2016.

Health and Recreation Center. No significant changes have occurred on the subject property areas since 1989.

No underground storage tanks were observed during the site inspection on all four components sites. One aboveground storage tank was observed in the vicinity of the recycling and waste facility; the tank was in apparent good condition with no indication of leaking or staining.

Surrounding Area

According to the environmental site assessment, there are no sites listed in the databases of the surrounding area that are expected to present significant environmental concerns to the subject property based on one or more of the following: (1) the listed property has received case closure by the appropriate regulatory agency; (2) the listed property is either cross gradient or down gradient of the subject property with respect to the inferred regional groundwater flow direction; (3) the listed property is a soils-only affected case; and (4) the listed property is located at too great of a distance to represent a significant environmental concern with respect to the subject property.

Asbestos-Containing Materials

Standards set by the Occupational Safety and Health Administration require building owners to presume that thermal system insulation and surfacing asbestos-containing materials found in buildings constructed before 1981, and floor tile installed in buildings through 1981, are asbestos-containing, unless demonstrated to be less than 1 percent asbestos through sampling. The rule does not permit an assumption to be made that a material does not contain asbestos in buildings constructed after 1980. However, since the late 1970s to early 1980s, asbestos has been removed or substituted for in all but a small number of construction products. For example, asbestos is still used, although at low concentrations, in various mastics and roofing materials.

- *Student residence hall* - Based on the 1947-48 construction date of the Underhill Building, there is potential for asbestos-containing materials to be present at the site.[231]
- *Dining commons* – Asbestos-containing materials may be present due to the 1950s' date of construction of the Lone Mountain Main Building.
- *Recycling and waste facility* - No structures to be demolished are present; therefore, asbestos-containing materials are not a concern.

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[231] PES Environmental, Inc. *Revised Phase I Environmental Site Assessment, University of San Francisco, Portion of Lone Mountain Campus, San Francisco, California.* September 24, 2016.

- *ROTC program relocation addition* – Asbestos-containing materials are not expected to be present due to the 1980s' date of construction for the Koret Health and Recreation Center.[232]

According to the environmental site assessment, based on the pre-1981 date of construction of portions of the Lone Mountain Main Building, building materials in the site buildings may contain asbestos. Therefore, prior to significant demolition or renovation activities, it is recommended that an asbestos-containing building materials survey be conducted so that affected materials, if present, can be properly managed.

The California Department of Toxic Substance Control considers asbestos hazardous and removal of asbestos-containing materials required prior to demolition or construction activities that could result in disturbance of these materials. Asbestos-containing materials must be removed in accordance with local and state regulations, air district, State Occupational Safety and Health Administration (Cal/OSHA), and California Department of Health Services requirements.

Specifically, section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The California legislature vests the air district with the authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and the air district is to be notified 10 days in advance of any proposed demolition or abatement work. Any asbestos-containing material disturbance at the project site would be subject to the requirements of air district Regulation 11, Rule 2: Hazardous Materials - Asbestos Demolition, Renovation, and Manufacturing.

The local office of the Cal/OSHA must also be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow state regulations contained in Title 8 of California Code of Regulations section 1529 and sections 341.6 through 341.14, where there is asbestos-related work involving 100 gross square feet or more of asbestos-containing material. The owner of the property where abatement is to occur must have a hazardous waste generator number assigned by and registered with the Office of the California Department of Health Services. The contractor and hauler of the material are required to file a hazardous waste manifest that details the hauling of the material from the site and the disposal of it. Pursuant to California law, the

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[232] PES Environmental, Inc. *Phase I Environmental Site Assessment, University of San Francisco, Portions of the Lone Mountain Campus and Koret Recreation and Health Center, San Francisco, California, APNs 1107008 and 1144001.* December 2. 2016.

building department would not issue the required permit until the applicant has complied with the requirements described above.

These regulations and procedures already established as part of the building permit review process would ensure that any potential impacts due to asbestos would be reduced to a ***less-than-significant*** level. No mitigation is required.

Naturally Occurring Asbestos

Results of subsurface investigation indicate that the site of the ROTC program relocation addition is underlain by weathered serpentine bedrock, which was encountered at 15 feet to the termination of the boring at 15.75 feet below ground surface.[233] The proposed project would involve construction throughout the project site, potentially releasing serpentinite into the atmosphere.

Health Effects of Serpentinite

Serpentinite commonly contains naturally occurring chrysotile asbestos or tremolite-actinolite, a fibrous mineral that can be hazardous to human health if airborne emissions are inhaled. In the absence of proper controls, naturally occurring asbestos could become airborne during excavation and handling of excavated materials. Onsite workers and the public could be exposed to airborne asbestos unless appropriate control measures are implemented. Exposure to asbestos can result in health ailments such as lung cancer, mesothelioma (cancer of the lungs and abdomen), and asbestosis (scarring of lung tissues that results in constricted breathing). The risk of disease depends upon the intensity and duration of exposure; health risk from naturally occurring asbestos exposure is proportional to the cumulative inhaled dose (quantity of fibers) and increases with the time since first exposure. A number of factors influence the disease-causing potency of any given asbestos (such as fiber length and width, fiber type, and fiber chemistry); however, all forms are carcinogens. Although the air resources board has not identified a safe exposure level for asbestos in residential areas, exposure to low levels of asbestos for short periods of time poses minimal risk.

Regulation Applicable to Serpentinite

To address health concerns from exposure to naturally occurring asbestos, the air resources board enacted an Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading,

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[233] Rollo & Ridley, *Geotechnical Investigation, ROTC Relocation, Koret Recreation Center, University of San Francisco (USF) San Francisco, California,* November 14, 2016.

Quarrying, and Surface Mining Operations in July 2001, which became effective for projects located within the San Francisco Bay Area Air Basin on November 19, 2002. The requirements established by the Asbestos ATCM are contained in California Code of Regulations Title 17, Section 93105, and are enforced by the air district.

The Asbestos ATCM requires construction activities in areas where naturally occurring asbestos is likely to be found to employ best available dust control measures. Additionally, as discussed in Impact AQ-1, the San Francisco Board of Supervisors approved the Construction Dust Control Ordinance in 2008 to reduce fugitive dust generated during construction activities. Dust suppression activities required by the Construction Dust Control Ordinance include: watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water must be used if required by article 21, section 1100 et seq. of the San Francisco Public Works Code. If not required, reclaimed water should be used whenever possible. Contractors shall provide as much water as necessary to control dust (without creating runoff in any area of land clearing, and/or earth movement). During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 square feet of excavated materials, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10 mil (0.01 inch) polyethylene plastic (or equivalent) tarp which would need to be braced down, or other equivalent soil-stabilization techniques could be used to stabilize stockpiles.

The requirements for dust control as identified in the Construction Dust Control Ordinance are as effective as the dust control measures identified in the Asbestos ATCM. Thus, the measures required in compliance with the Construction Dust Control Ordinance would protect the workers themselves as well as the public from fugitive dust that may also contain asbestos. The project sponsor would be required to comply with the Construction Dust Control Ordinance, which would ensure that significant exposure to naturally occurring asbestos would not occur. Therefore, the proposed project would not result in a significant hazard to the public or environment from exposure to naturally occurring asbestos and the proposed project would result in a ***less-than-significant*** impact. No mitigation is required.

Lead-Based Paint

The Consumer Products Safety Commission limited lead content in residential paint to 0.06 percent (600 parts per million) in 1978. The use of paint containing greater than 0.06 percent lead was also prohibited in areas where consumers have direct access to painted surfaces:

- *Student residence hall* - Lead-containing paint may be present due to the early 1950s' construction date of the Underhill Building, which would be demolished as part of the project.
- *Dining commons renovation and addition* - Lead-containing paint may be present due to the 1950s' date of construction of the Lone Mountain Main Building.
- *Recycling and waste facility* - No structures to be demolished or renovated are present; therefore, lead in paint is not a concern.
- *ROTC program relocation addition* - Lead-containing paint is not expected to be present due to the 1980s' date of construction for the Koret Health and Recreation Center.

Based on the construction dates of the Underhill Building and the Lone Mountain Main Building, the potential exists for lead-based paint to be present at the student residence hall and dining commons sites. Prior to significant renovation or demolition activities, a lead-paint survey should be conducted so that these materials, if present can be properly managed.

Work that could result in disturbance of lead paint must comply with *S*an Francisco Building Code section 3426, Work Practices for Lead-Based Paint on Pre-1979 Buildings and Steel Structures. Where there is any work that may disturb or remove lead paint on the exterior of any building built prior to 1979, section 3426 requires specific notification and work standards, and identifies prohibited work methods and penalties.

Building Code section 3426 applies to the exterior of all buildings or steel structures on which original construction was completed prior to 1979 (which are assumed to have lead-based paint on their surfaces, unless demonstrated otherwise through laboratory analysis), and to the interior of residential buildings, hotels, and child care centers. Building Code section 3426 contains performance standards, including establishment of containment barriers, at least as effective at protecting human health and the environment as those in the U.S. Department of Housing and Urban Development Guidelines (the most recent Guidelines for Evaluation and Control of Lead-Based Paint Hazards) and identifies prohibited practices that may not be used in disturbances or removal of lead-based paint. Any person performing work subject to the ordinance shall, to the maximum extent possible, protect the ground from contamination during exterior work; protect floors and other horizontal surfaces from work debris during interior work; and make all reasonable efforts to prevent migration of lead-paint contaminants beyond containment barriers during the course of the work. Clean-up standards require the removal of visible work debris, including the use of a high efficiency particulate air filter vacuum following interior work.

Building Code section 3426 also includes notification requirements and requirements for signs. Prior to the commencement of work, the responsible party must provide written notice to the director of the building department of the address and location of the project; the scope of work,

including specific location within the site; methods and tools to be used; the approximate age of the structure; anticipated job start and completion dates for the work; whether the building is residential or non-residential, owner-occupied or rental property; the dates by which the responsible party has fulfilled or will fulfill any tenant or adjacent property notification requirements; and the name, address, telephone number, and pager number of the party who will perform the work. Further notice requirements include a Posted Sign notifying the public of restricted access to the work area, a Notice to Residential Occupants, Availability of Pamphlet related to protection from lead in the home, and Notice of Early Commencement of Work (by owner, requested by tenant), and Notice of Lead Contaminated Dust or Soil, if applicable. Section 3426 contains provisions regarding inspection and sampling for compliance by the building department, as well as enforcement, and describes penalties for non-compliance with the requirements of the ordinance.

Demolition would also be subject to the Cal/OSHA Lead in Construction Standard (8 California Code of Regulations section 1532.1). This standard requires development and implementation of a lead compliance plan when materials containing lead would be disturbed during construction. The plan must describe activities that could emit lead, methods that will be used to comply with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. Cal/OSHA would require 24-hour notification if more than 100 square feet of materials containing lead would be disturbed.

Implementation of procedures required by San Francisco Building Code section 3426 and the lead in construction standard would ensure that potential impacts of demolition or renovation of structures with lead-based paint would be ***less than significant***. No mitigation is required.

Summary Conclusion

Based on mandatory compliance with the existing regulatory requirements and the information and conclusions from the environmental site assessment, the geotechnical report and the regulatory requirements of construction and operation, the proposed project would not result in a significant hazard to the public or environment from contaminated soil and/or groundwater, asbestos, naturally occurring asbestos, or lead-based paint. The proposed project would result in a ***less-than-significant*** impact with respect to these hazards.

Impact HZ-3: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter-mile of an existing or proposed school. (Less than Significant)

No schools are planned within a quarter mile of the project site. The following existing schools are in a quarter-mile radius of the project site:

- University of San Francisco (on project site)
- Raoul Wallenberg High School, 40 Vega Street (0.16 mile east of the project site)

As noted above, the proposed project would not result in the storage, handling, or disposal of significant quantities of hazardous materials and would not otherwise include any uses that would result in the emission of hazardous substances. Any hazardous materials currently on the site, such as asbestos and lead-based paint would be removed during, or prior to, demolition of the existing building and prior to project construction, and would be handled in compliance with applicable laws and regulations as described above. With adherence to these regulations, there would be no potential for such materials to affect the nearest school. Thus, the proposed project would have a ***less-than-significant*** impact related to hazardous emissions or the handling of hazardous materials within a quarter-mile of a school. No mitigation is required.

Impact HZ-4: The proposed project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. (No Impact)

The environmental site assessment reports prepared for the proposed project included a search of the environmental databases covered by Government Code section 65962.5. The environmental site assessment reports included databases maintained by the U.S. EPA, California Department of Toxic Substances Control and the State Water Resources Control Board pursuant to California Government Code section 65962.5. According to the environmental site assessment reports, the project sites were not included on any available environmental databases. Additionally, the project sites were not listed in database reports from state and federal regulatory agencies that identify businesses and properties that handle or have released hazardous materials and/or waste.[234] Therefore, the proposed project would have ***no impact*** related to this criterion. No mitigation is required.

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[234] PES Environmental, Inc. *Revised Phase I Environmental Site Assessment, University of San Francisco, Portion of Lone Mountain Campus, San Francisco, California,* September 24, 2016.
PES Environmental, Inc. *Phase I Environmental Site Assessment, University of San Francisco, Portions of the Lone Mountain Campus and Koret Health and Recreation Center, San Francisco, California, APNs 1107008 and 1144001,* December 2, 2016.

Impact HZ-5: The proposed project would not expose people or structures to a significant risk of loss, injury or death involving fires, nor interfere with the implementation of an emergency response plan. (Less than Significant)

San Francisco ensures fire safety primarily through provisions of the building and fire codes. In addition, fire department and building department review final building plans to ensure conformance with these provisions. In this way, potential fire hazards, including those associated with hydrant water pressures and emergency access, would be mitigated during the permit review process. Compliance with fire safety regulations would ensure that the proposed project would not impair implementation of, or physically interfere with an adopted emergency response or emergency evacuation plan or expose people or structures to a significant risk of loss, injury or death involving fires. This impact would be ***less than significant.*** No mitigation is required.

Impact C-HZ-1: The proposed project would not make a considerable contribution to any cumulative significant effects related to hazardous materials. (Less than Significant)

Impacts from hazards are generally site-specific, and typically do not result in cumulative impacts. The proposed project would not have a significant impact on hazardous material conditions at the project site or in the vicinity. Although the proposed project could result in potential impacts related to conducting construction activities within soil containing naturally occurring asbestos, compliance with the Asbestos ATCM and the Construction Dust Control Ordinance would reduce that potential impact to less than significant level. Furthermore, any potential impacts would be primarily restricted to the project site and the immediate vicinity. No other developments in the proposed project vicinity would contribute considerably to cumulative effects. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable hazards and hazardous materials impact and the impacts would be ***less than significant***. No mitigation is required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
17. MINERAL AND ENERGY RESOURCES Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☐	☒
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	☐	☐	☒	☐	☐

All land in San Francisco, including the project site, is designated Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology under the Surface Mining and Reclamation Act of 1975.[235] This designation indicates that there is inadequate information available for assignment to any other mineral resource zone, and thus, the project site is not a designated area of significant mineral deposits. The project site has previously been developed, and future evaluations of the presence of minerals at this site would therefore not be affected by the proposed project. The development and operation of the proposed project would not have an impact on any offsite operational mineral resource recovery sites. Furthermore, according to the San Francisco General Plan, no significant mineral resources exist in all of San Francisco.[236] Therefore, Topics 17a and 17b are not applicable to the proposed project.

[235] California Division of Mines and Geology. 1986. Open File Report 96 03 and Special Report 146, Parts I and II, *http://www.conservation.ca.gov/cgs/minerals/mlc/Pages/index.aspx*, accessed on November 8, 2017.

[236] San Francisco Planning Department, *San Francisco General Plan Environmental Protection Element*, *http://generalplan.sfplanning.org/I6_Environmental_Protection.htm*, accessed on March 30, 2017.

Impact ME-1: The proposed project would not encourage activities that would result in the use of large amounts of fuel, water, or energy, or use these resources in a wasteful manner. (Less than Significant)

The proposed project would include demolition of an existing building and add new residential, post-secondary education institutional uses, and infrastructure uses, although not to an extent that would exceed anticipated growth in the area. As new buildings in San Francisco, the proposed project would be subject to the energy conservation standards included in the *San Francisco Green Building Code* that require the project to meet a number of conservation standards, including installation of water-efficient fixtures and energy efficient appliances, and the proposed project would provide features that encourage alternative modes of transportation, such as bicycle racks and bicycle parking.

The project's energy demand would be typical for a development of this scope and nature. The proposed project would comply with current state and local codes concerning energy consumption, including California Code of Regulations title 24 enforced by the building department. The proposed student residence hall would include a microturbine energy system in the underground parking structure to reduce costs associated with energy consumption. The project is expected to include three 65 kW natural-gas-fired cogeneration microturbines. The microturbine energy system would generate power for the student residence hall and reduce the amount of electricity and natural gas that the student residence hall would need to obtain from PG&E.

In addition, San Francisco has a lower VMT ratio than the Bay Area region as a whole. The transportation analysis zone in which the project site is located (TAZ 658) has between 44 and 57 percent fewer daily VMT than the Bay Area regional average. Because the proposed project is an infill development in an area well served by transit, and would not create substantial net new vehicle trips, the proposed project's vehicle trips and associated fuel use would not constitute wasteful use of energy and therefore would be consistent with the Plan Bay Area land use strategy, which seeks to reduce per capita VMT.

Therefore, the proposed project would not result in the use of large amounts of fuel, water, or energy, or result in the use of these resources in a wasteful manner, and effects related to the use of these resources would be ***less than significant.*** No mitigation is required.

Impact C-ME: The proposed project, in combination with other past, present or reasonably foreseeable projects, would not result in cumulative impacts on mineral resources and energy resources. (Less than Significant)

As described above, no known mineral resources exist at the project site, and therefore the proposed project would not contribute to any cumulative impacts related to mineral resources. Compliance with current state and local standards regarding energy consumption and conservation, including California Code of Regulations title 24 and the San Francisco Green Building Code, would ensure that the project would not in and of itself require a major expansion of power facilities. The cumulative development projects identified in **Table 7,** p. 67, and all land use development projects in the city would be required by the building department to conform with California Code of Regulations title 24 and San Francisco Green Building Code regarding minimizing the use of large amounts of fuel, water, or energy by, for instance, installing energy efficient appliances and water-efficient fixtures, which would preclude cumulative significant impacts on fuel, water, or energy. Therefore, the proposed project in combination with reasonably foreseeable projects would not result in cumulative impacts related to energy resources. This impact would be ***less than significant*** and no mitigation measures would be required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
18. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or Timberland Production (as defined by Government Code Section 51104 (g))?	☐	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	☐	☐	☐	☐	☒

The project site is located within an urbanized area of the city and county of San Francisco. No land in San Francisco has been designated by the California Department of Conservation's

Farmland Mapping and Monitoring Program as agricultural land.[237] As the project site does not contain agricultural uses and is not zoned for such uses, the proposed project would not require the conversion of any land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.[238] The proposed project would not conflict with any existing agricultural zoning or Williamson Act contracts.[239] No land in San Francisco is designated as Forest Land, Timberland, or Timberland Production as defined in Public Resources Code section 12220(g), Public Resources Code Section 4526, and Public Resources Code section 51104(g), respectively. Therefore, the proposed project would not conflict with zoning for forest land, cause a loss of forest land, or convert forest land to a different use. For these reasons, Topics 18a, 18b, 18c, 18d, and 18e are not applicable to the proposed project.

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[237] California Department of Conservation, *California Important Farmland Finder*, *https://maps.conservation.ca.gov/DLRP/CIFF/*, accessed on October 2, 2017.

[238] San Francisco is identified as "Urban and Built-Up Land" on the California Department of Conservation Important, Farmland in California Map, 2008, *http://www.conservation.ca.gov/*, accessed on February 21, 2017.

[239] The Williamson Act is a California law enacted in 1965 that provides property tax relief to owners of farmland and open space land in exchange for a 10-year agreement that the land will not be developed or converted into another use.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
19. MANDATORY FINDINGS OF SIGNIFICANCE.					
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐

As described in Topic 13, Biological Resources, the proposed project would not substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community. The proposed project could interfere with nesting or migratory wildlife species; however, implementation of **Mitigation Measure M-BI-2: Pre-Construction Bird Surveys** would reduce impacts to a less-than-significant level. Therefore, the proposed project would not substantially reduce the habitat or range of the resident and migratory birds.

As described in Topic 4, Cultural Resources, the proposed project could result in a substantial adverse change on archeological resources; however, implementation of **Mitigation Measure M-CR-2: Archeological Monitoring** would reduce the impact to a ***less-than-significant*** level. Additionally, should human remains or tribal cultural resources be encountered during construction, implementation of **Mitigation Measure M-CR-2: Archeological Monitoring** would

reduce impacts on previously unknown human remains and tribal cultural resources to a ***less-than-significant*** level. As described in Topic 14, Geology and Soils, the proposed project could impact significant paleontological resources; however, implementation of **Mitigation Measure M-GE-6: Monitoring and Treatment Plan for Paleontological Resources** would reduce impacts to paleontological resources to a ***less-than-significant*** level. Therefore, the proposed project would not result in the elimination of important examples of major periods of California history or prehistory.

As discussed in Topic 6, Noise, the student residence hall's garage exhaust fans, boilers, mechanical pumps, and emergency generator have the potential to exceed the noise limits set by the noise ordinance and permanently increase the ambient noise environment. These impacts would be reduced to ***less-than-significant*** levels with implementation of **Mitigation Measure M-NO-1a: Reduce Garage Exhaust Fan Noise**, **Mitigation Measure M-NO-1b: Reduce Mechanical Noise and Mitigation Measure M-NO-1c: Reduce Generator Noise**. Additionally, amplified music from residents of the student residence hall could exceed noise ordinance requirements, but would be reduced to ***less-than-significant*** levels with implementation of **Mitigation Measure M-NO-1d: Reduce Amplified Noise.** Construction of the student residence hall could generate temporary noise levels that would affect nearby residents; however, implementation of **Mitigation Measure M-NO-2: Construction Noise Reduction** would reduce the impact to a ***less-than-significant*** level. For these reasons, the proposed project would not cause substantial adverse effects on human beings.

As described in Topic 11, Utilities and Service Systems and Topic 15, Hydrology and Water Quality, the proposed infiltration trenches would be required to either maintain existing flow conditions or reduce existing flows to the system. Additional flows to the combined stormwater/sewer system would result in the system operating over capacity, which could result in a determination by the SFPUC that it has inadequate capacity to serve the project's projected demand in addition to its existing commitment. This impact would be ***less-than-significant*** with implementation of **Mitigation Measure M-UT-2: Monitoring and Maintenance of Proposed Infiltration Trenches.**

Both long-term and short-term environmental effects, including substantial adverse effects on human beings, associated with the proposed project would be ***less than significant***, as discussed under each environmental topic. Each environmental topic area includes an analysis of cumulative impacts based on land use projects, compliance with adopted plans, statues, and ordinances, and currently proposed projects. For all impacts analyzed in this initial study, the proposed project would not have cumulatively considerable impacts, as discussed under each applicable environmental topic.

F. MITIGATION MEASURES AND IMPROVEMENT MEASURES

The following mitigation measures have been identified to reduce potentially significant environmental impacts resulting from the proposed project to less-than-significant levels. In addition, improvement measures have also been agreed to by the project sponsor to further reduce less-than-significant impacts.

Mitigation Measures

Mitigation Measure M-CR-2: Archeological Monitoring

Based on the reasonable potential that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of an archeological consultant from the rotational department qualified archeological consultants list maintained by the planning department archeologist. The project sponsor shall contact the department archeologist to obtain the names and contact information for the next three archeological consultants on the qualified list. The archeological consultant shall undertake an archeological monitoring program. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer (ERO) for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archeological resource as defined in CEQA Guidelines sections 15064.5(a) and (c).

Consultation with Descendant Communities: On discovery of an archeological site[240] associated with descendant Native Americans or the Overseas Chinese an appropriate representative[241] of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to

[240] The term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

[241] An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America.

consult with ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the *final archeological resources report* shall be provided to the representative of the descendant group.

Archeological monitoring program. The archeological monitoring program shall minimally include the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the monitoring program reasonably prior to any project-related soils-disturbing activities commencing. The ERO in consultation with the project archeologist shall determine what project activities shall be archeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the potential risk these activities pose to archaeological resources and to their depositional context.
- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archeological resource.
- The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with the archeological consultant, determined that project construction activities could have no effects on significant archeological deposits.
- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis.
- If an intact archeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/construction crews and heavy equipment until the deposit is evaluated. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, present the findings of this assessment to the ERO.

If the ERO in consultation with the archeological consultant determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- The proposed project shall be re-designed to avoid any adverse effect on the significant archeological resource; or
- An archeological data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

If an archeological data recovery program is required by the ERO, the archeological data recovery program shall be conducted in accord with an archeological data recovery plan. The project archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the recovery plan. The archeological consultant shall prepare a draft recovery plan that shall be submitted to the ERO for review and approval. The recovery plan shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the recovery plan will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.

The scope of the recovery plan shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an onsite/offsite public interpretive program during the course of the archeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains, Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils-disturbing activity shall comply with applicable state and federal laws, including immediate notification of the

coroner of the City and County of San Francisco and in the event of the coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission who shall appoint a Most Likely Descendant (MLD) (Public Resources Code section 5097.98). The ERO shall also be immediately notified upon discovery of human remains. The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond six days after the discovery to make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing state regulations or in this mitigation measure compels the project sponsor and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO. If no agreement is reached, state regulations shall be followed, including the reinternment of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Public Resources Code section 5097.98).

Final Archeological Resources Report. The archeological consultant shall submit a draft final archeological resources report to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the draft final report.

Copies of the draft final report shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the final report shall be distributed as follows: California Archaeological Site Survey Northwest Information Center shall receive one copy and the ERO shall receive a copy of the transmittal of the final report to the information center. The environmental planning division of the planning department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the final report along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

Mitigation Measure M-NO-1a: Reduce Garage Exhaust Fan Noise

To meet the Police Code section 2909 noise requirement, the project sponsor shall construct 15 feet of 2-inch-thick acoustically lined duct at the fan discharge location. Alternatively, a combination of measures (e.g., quiet fan selection, relocation of exhaust outlet, acoustical louvers, duct silencer) could be implemented instead of the acoustically lined duct to meet the Police Code standards. Implementation of either of the above noise reduction measures would reduce fan noise by at least 2 dBA to meet the Police Code section 2909(d) interior noise requirement in neighboring residences. The final garage exhaust fan configuration shall demonstrate that noise levels at the property plane are reduced to 50 dBA.

Mitigation Measure M-NO-1b: Reduce Mechanical Noise

To meet the Police Code section 2909(a) property plane noise requirement, exterior vents and boiler flues (e.g., acoustical louvers or silencers) shall be located and attenuated such that noise from these sources do not exceed 50 dBA at the property plane, which shall also meet the interior noise requirement of section 2909(d) for neighboring residences. The pumps and boilers shall demonstrate that noise levels at the property plane are reduced to 50 dBA.

Mitigation Measure M-NO-1c: Reduce Generator Noise

To meet the Police Code section 2909(a) property plane noise requirement, the proposed emergency generator shall be located in an attenuated enclosure that is rated to reduce emergency generator system noise to a maximum of 74 dBA (as measured at a standard distance of 23 feet or 7 meters). Alternatively, if the emergency generator is located behind a noise barrier wall or building that provides at least 10 decibels of noise reduction, the emergency generator shall be rated at 84 dBA.

Mitigation Measure M-NO-1d: Reduce Amplified Noise

The following measures are required to ensure that amplified noise meets the requirements of the noise ordinance (article 29 of the Police Code).

- Establish the following maximum noise levels for amplified music for residents of the student residence hall:
    - 100 dB indoors, with windows closed
    - 90 dB indoors, with windows open
    - 74 dB outdoors (at 3 feet from the source) from 7 a.m. to 10 p.m.
    - Do not allow outdoor amplified sound between 10 p.m. and 7 a.m.

Mitigation Measure M-NO-2 – Construction Noise Reduction

Incorporate the following practices into the construction contract agreement documents to be implemented by the construction contractor:

- Post signs at the construction site pertaining to permitted construction days and hours, and complaint procedures and who to notify in the event of a problem, with telephone numbers listed.
- Notify the city (Department of Building Inspection) and neighbors in advance of the schedule for construction and expected loud activities.
- Designate a point of contact to ensure coordination between construction staff and neighbors to minimize disruptions due to construction noise and respond to noise complaints. Notify neighboring property owners in writing of the contact information for the point of contact. The point of contact must have the authority to modify construction noise-generating activities to address complaints. Upon receipt of a noise complaint, the point of contact shall implement feasible measures to reduce construction noise. Measures may include but are not limited to plywood barriers, suspended construction blankets, or other screening devices to break the line of sight to noise-sensitive receivers.
- Additional measures that might be considered include noise monitoring and temporary local noise barriers around specific construction equipment or property line barriers. The location, height, and extent of the barriers shall be determined once a detailed construction plan is developed for the project.
- When feasible, select "quiet" construction methods and equipment (e.g., improved mufflers, use of intake silencers, engine enclosures).
- Locate stationary noise sources, equipment, material stockpiles, and vehicle staging areas as far as is feasible from existing sensitive receptors. Locating stationary nose sources near existing roadways away from adjacent properties is preferred. Avoid placing stationary noise-generating equipment (e.g., generators, compressors) within noise-sensitive buffer areas (measured at 20 feet) from immediately adjacent neighbors. Stationary noise sources shall be enclosed or shielded from neighboring noise-sensitive properties with noise barriers to the extent feasible.
- All construction equipment is required to be in good working order, and mufflers are required to be inspected proper functionality.
- Prohibit unnecessary idling of equipment and engines.

- Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used where feasible.

Mitigation Measure M-UT-2: Monitoring and Maintenance of Proposed Infiltration Trenches

The proposed infiltration trenches shall be monitored and maintained to achieve the following performance criterion of no net increase of stormwater into the Turk Street combined sewer up to the 5-year 3-hour design storm event resulting from the project, in addition to all applicable requirements in the Stormwater Management Ordinance (SMO) and Stormwater Management Requirements and Design Guidelines. Additionally, prior to building permit issuance, the project sponsor shall submit a Stormwater Control Plan[242] and Hydrologic and Hydraulic Technical Memorandum[243] for review and approval by SFPUC. To meet the performance criterion of no net increase of stormwater into the Turk Street combined sewer up to the 5-year 3-hour design storm event, the project sponsor shall monitor and maintain the proposed infiltration facility, and/or a combination of other approved stormwater controls. The infiltration facility, and/or a combination of other SFPUC-approved stormwater controls are subject to the following performance requirements:

- The project sponsor shall complete a minimum of five infiltration tests (two tests for the first 1,000 square feet of infiltration footprint, with one additional test per each 1,000 square feet of additional footprint) per the SFPUC – Wastewater Enterprise (SFPUC-WWE) Determination of Design Infiltration Rate for the Sizing of Infiltration-based Green Infrastructure Facilities (infiltration guidance memorandum). Additional tests shall be performed as determined by SFPUC to meet all requirements of the infiltration guidance memorandum in connection with the final infiltration facility layout (i.e. test number, depth of test set at bottom of facility at proposed locations, etc.).
- The project sponsor shall monitor and maintain the proposed infiltration trenches, and/or a combination of approved stormwater controls with equivalent capability to meet the

[242] BKF Engineers, *2500-2698 Turk Street San Francisco, CA Preliminary Stormwater Control Plan*, October 11, 2017.

[243] BKF Engineers, *University of San Francisco Student Housing Project – 2500-2698 Turk St Hydrologic and Hydraulic Analyses Technical Memorandum*, December 6, 2017.

SMO requirements and the more stringent 5-year, 3-hour design storm event performance criteria.

- Due to the proposed scale of the infiltration facility and proximity to adjacent public right-of-way (ROW) and downstream existing structures, the final layout design and sizing is subject to SFPUC approval, and review by the San Francisco Public Works geotechnical engineering team. San Francisco Public Works would be limited to a determination that the infiltration facility and/or other approved stormwater controls do not unreasonably interfere with existing San Francisco Public Works infrastructure or adjacent structures.
- The project sponsor shall comply with all special conditions determined by the SFPUC to be required to meet the SMO requirements, and those requirements determined by the SFPUC to be necessary to maintain the stormwater runoff rate and volume at or below the existing 5-year, 3-hour design storm event stormwater runoff levels including but not limited to sizing of infiltration trenches or development of additional on-site stormwater controls.
    - The infiltration trenches were modeled with the following parameters:
        - Estimates at a total of 4,400 square foot (0.10 acre) footprint;
        - Estimates with 4 feet of gravel storage depth with 40% porosity (1.6 feet of effective storage depth);
        - Maximum infiltration rate of 5 inches per hour dependent on depth in the gravel storage trench.
- The project sponsor shall submit a monitoring and maintenance plan for SFPUC's review and approval. The plan shall determine how stormwater runoff (from a 5-year, 3-hour design storm event) can be retained by the infiltration trenches and/or approved stormwater controls at an infiltration rate of 5-inches per hour, and shall describe the on-going monitoring, maintenance, and inspections that shall be conducted by the project sponsor. The plan shall also include provisions for access rights for periodic inspections by SFPUC – WWE to determine the adequacy of the trench maintenance. The infiltration trenches and/or approved stormwater controls shall be operated and maintained by the project sponsor per the SMO maintenance agreement.
- The diversion structure, stormwater infiltration trenches, and any other approved stormwater controls shall be operated and maintained by the project sponsor. The project sponsor shall develop and implement a permanent maintenance plan in perpetuity to ensure that the infiltration trenches and/or approved stormwater controls are maintained to perform at pre-development conditions (i) per the SMO requirements, and (ii) for the 5-year, 3-hour design storm event with respect to the Turk Street combined sewer.

- If maintenance is deemed ineffective to ensure that run-off volumes meet the SMO requirements and for the SMO 5-year, 3-hour design storm event are maintained to pre-development conditions, the project sponsor shall be required to perform additional maintenance or on-site improvements as determined by the SFPUC to be required to meet pre-development conditions, including, if necessary, complete replacement of the infiltration facility, and/or a combination of other SFPUC-approved stormwater controls.

The project sponsor shall coordinate with the SFPUC regarding the design, minimum sizing requirements, and construction of the new infiltration trenches. The final design shall be subject to approval by the SFPUC, specifically the Wastewater Enterprise – Collection System Division.

Mitigation Measure M-BI-2: Pre-construction Bird Surveys

To facilitate compliance with state and federal laws (California Fish and Game Code and the Migratory Bird Treaty Act) and prevent impacts on nesting resident and migratory birds, the project sponsor shall avoid vegetation/structure removal, ground-disturbing activities, and elevated noise levels near suitable nesting habitat during the nesting season (February 1 through August 31) or conduct pre-construction surveys, as described below. If pre-construction surveys are implemented, nesting birds and their nests shall be protected during construction by implementation of the following measures:

- If construction does occur during the bird nesting season, a qualified biologist shall conduct pre-construction surveys within seven days prior to the initiation of construction or after any construction breaks of 14 days or more to identify active nests per the California Department of Fish and Wildlife nesting bird survey protocol.
- If active nests are located during the pre-construction bird nesting survey, the qualified biologist shall evaluate whether the schedule of construction activities could affect the active nest and the following measures shall be implemented based on their determination:
    - Construction determined not likely to affect the active nest may proceed without restriction; however, the qualified biologist shall regularly monitor the nest to confirm that there is no adverse effect, and may revise their determination at any time during the nesting season.
    - If construction may affect the active nest, the qualified biologist shall establish a no-disturbance buffer. The qualified biologist shall determine the appropriate buffer to be in compliance with the Migratory Bird Treaty Act and Fish and Game Code section 3503, taking into account the species involved, the presence of any obstruction—such as a building—within line-of-sight between the nest and construction, and the level of project and ambient activity (i.e., adjacent to a

road or active trail). Active nests shall be monitored and exclusion buffer sizes increased if the monitoring biologist determines this is necessary based on disturbance behavior exhibited by nesting birds in proximity to project construction. For bird species of special concern, the sponsor, supported by the qualified biologist, shall consult with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife regarding nest buffers.

- Removing or relocating active nests shall be coordinated by the sponsor with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife, as appropriate, given the nests that are found at the site.
- Any birds that begin nesting within the proposed project areas and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels, and no work exclusion zones shall be established around active nests in these cases.

Mitigation Measure GE-6: Monitoring and Treatment Plan for Paleontological Resources

Given the potential for significant paleontological resources to be present in the subsurface at the student residence hall within strata of the Colma Formation and the potential for foundation drilling operations (e.g., augercast piles) to impact those strata, the following measures shall be undertaken to avoid any significant adverse effect from the proposed project on paleontological resources. Before the start of construction of the student residence hall, the project sponsor shall retain a qualified paleontologist, as defined by the Society of Vertebrate Paleontology. The qualified paleontologist shall prepare a project-specific paleontological monitoring and treatment plan that will include pre-construction, during-construction, and post-construction paleontological mitigation procedures. Pre-construction procedures shall address designation of a repository to receive any recovered fossils (e.g., California Academy of Sciences), development of research design questions that could be answered by recovered fossils, and presentation of a workers environmental awareness program to project construction personnel. During-construction procedures shall address paleontological monitoring of augercast pile drilling operations, stratigraphic data recovery, and construction site safety, as well as steps to be followed in the event of a fossil discovery (e.g., specimen evaluation, specimen recovery [for both macrofossils and microfossils], and specimen documentation). Post-construction procedures shall address fossil preparation (e.g., removing extraneous sediment from specimens and repairing and stabilizing specimens), fossil curation (e.g., taxonomic identification, database cataloguing, and specimen storage), and preparation of a final paleontological mitigation report.

When construction begins, the qualified paleontologist shall be prepared to implement the monitoring and treatment plan and ensure that a qualified paleontological monitor (defined as a person with a Bachelor of Science in geology or paleobiology with at least one year of actual

paleontological field experience) is onsite on a full-time basis during the foundation drilling phase of construction to monitor augercast pile boreholes that penetrate strata of the Colma Formation. The qualified paleontological monitor shall work under the supervision of the qualified paleontologist and follow the procedures specified in the monitoring and treatment plan. Having procedures in place in the event of a fossil discovery would ensure that fossil recovery would not result in extended delays to the construction schedule. The San Francisco Planning Department shall be responsible for ensuring that the monitoring and treatment plan is implemented and completed.

Improvement Measures

The project sponsor has agreed to implement the following improvement measures.

Improvement Measure I-TR-2a: Limit Construction Truck Deliveries to Off-Peak Periods

Limiting truck movements to the hours between 9 a.m. and 3:30 p.m. (or other times, if approved by the municipal transportation agency) would further minimize disruption of the general traffic flow on adjacent streets during the a.m. and p.m. peak periods. As required, USF and construction contractor(s) would meet with the Sustainable Streets Division of the municipal transportation agency, police department, Muni, and the Planning Department to determine feasible measures to reduce traffic congestion, including potential disruption to transit and pedestrian circulation. USF would also coordinate with contractor(s) of any nearby concurrent construction projects.

Improvement Measure I-TR-2b: Prepare and Implement a Construction Management Plan

To address potential construction traffic impacts, the Construction Management Plan will include the following:

Active Modes, Carpool and Transit Access for Construction Workers: To further minimize parking demand and vehicle trips associated with construction workers, the construction contractor will provide incentives to encourage carpooling and transit use by construction workers in the Construction Management Plan contracts.

Project Construction Updates: To further minimize construction impacts on nearby businesses, USF will provide regularly-updated information (typically in the form of website, news articles, on-site posting, etc.) regarding project construction activities, schedule, as well as contact information for specific construction inquiries or concerns.

G. PUBLIC NOTICE AND COMMENTS

The planning department mailed a Notification of Project Receiving Environmental Review on November 24, 2015. The notice was sent to property owners and tenants within 300 feet of the project site, neighborhood organizations, and local government representatives.

After the ROTC program relocation, the dining commons and the recycling and waste facility were also included in the project's environmental analysis, the planning department mailed a Notification of Project Receiving Environmental Review on August 18, 2017. The notice was sent to property owners and tenants within 300 feet of the project site, neighborhood organizations, and local government representatives. Comments received during a project sponsor held community meeting on August 24, 2017, and responses to the November 24, 2015, and August 18, 2017, notifications are identified below.

In response to the notices, community members submitted comments regarding:

- Height and bulk, density, size, and consistency with existing controls, neighborhood character and compatibility (discussed in Section C, Compatibility with Existing Zoning and Plans, and Topic 1, Land Use and Land Use Planning)
- Aesthetics and visual character (discussed in Topic 2, Aesthetics)
- Student generated noise (discussed in Topic 6, Noise)
- Removal of existing trees, replacement, and loss of vegetation (discussed in Topic 13, Biological Resources) and future landscaping (discussed in Section A, Project Description, Section C, Compatibility with existing Zoning and Plans, and Topic 13, Biological Resources)
- Wildlife and bird habitat (discussed in Topic 13, Biological Resources)
- Landslide hazards, hillside slope stability, groundshaking, erosion, and soil disturbance during construction and an earthquake (discussed in Topic 14, Geology and Soils)
- Land use (discussed in Topic 1, Land Use and Planning)
- Traffic, parking, access, and street infrastructure (discussed in Section A, Project Description and Topic 5, Transportation and Circulation)
- Pollution (discussed in Topic 6, Noise and Topic 7, Air Quality)
- Wind tunnel effects (discussed in Topic 9, Wind and Shadow)
- Construction-generated dust, dust pollution, release of particulates and gases, emission modelling, construction monitoring and measures to reduce air pollutants (discussed in Topic 7, Air Quality)
- Fire safety issues due to proximity of student residence hall building to neighborhood homes and emergency access (discussed in Topic 12, Public Services)

- Construction type, schedule, construction and operational noise, temporary roads for construction, and neighborhood impacts (discussed in Section A, Project Description and Topic 6, Noise)
- Construction debris and trash (discussed in Topic 11, Utilities and Service Systems)
- Open space (discussed in Section C, Compatibility with existing Zoning and Plans, and Topic 10, Recreation)
- Shadow effects (discussed in Topic 9, Wind and Shadow)
- Impacts on neighborhood views (discussed in Topic 2, Aesthetics)
- Construction vibration and neighborhood impacts (discussed in Section A, Project Description and Topic 6, Noise)
- Soils erosion control, runoff and hillside slope stability (discussed in Topic 14, Geology and Soils)
- Pile-driving concerns within a hillside (discussed in Section A, Project Description, Topic 6, Noise, and Topic 14, Geology and Soils)
- Odor (discussed in Topic 7, Air Quality)
- Possible damage to neighboring building due to construction that might only become apparent in the future (discussed in Topic 14, Geology and Soils)
- Removal of tennis courts (discussed in Topic 10, Recreation)
- Water runoff (discussed in Topic 11, Utilities and Service Systems and Topic 15, Hydrology and Water Quality)
- Shadow Effects (discussed in Topic 9, Wind and Shadow)
- Impacts on neighborhood views, vistas, and views from Ewing Terrace (discussed in Topic 2, Aesthetics)
- Operational noise impacts from the student residence hall, students, within the courtyard, dining commons, recycling and waste facility, ROTC program relocation, and impacts on surrounding neighborhoods (discussed in Topic 6, Noise)
- Bird safety standards (discussed in Topic 13, Biological Resources)
- Reflection from the dining commons glazing (discussed in Section A, Project Description and Topic 2, Aesthetics)
- Access and truck traffic pattern to recycling and waste facility (discussed in Section A, Project Description and in Topic 5, Transportation and Circulation)
- Transportation impacts on Turk Street and Tamalpais Terrace (discussed in Topic 5, Transportation and Circulation)
- Student residence hall and ROTC program relocation addition project information (discussed in Section A, Project Description)

- Property line boundaries (discussed in Section A, Project Description)
- Solar panels on top of dining commons (discussed in the GHG Checklist[244])

The planning department also received comments from the 2015 and 2017 community meetings and notifications regarding issues not addressed under CEQA. These are summarized as follows:

- Vermin migration and rodent infestation due to construction from the trash site to the neighboring backyards
- Privacy concerns and loss of property value
- Planned construction of a new driveway and road onto the Upper Campus (the new driveway project has been postponed indefinitely and was never part of this project)[245]
- Classroom size
- Smoking and loitering
- The status of the community garden

244 *Compliance Checklist Table for Greenhouse Gas Analysis, Table 1 Private Development Projects*, University of San Francisco 2500-2698 Turk Street & 222 Stanyan Street, Case No. 2015-00058ENV, January 5, 2018.

245 Miles, Elizabeth, Master Plan Manager, University of San Francisco, e-mail correspondence with Lyne-Marie Bouvet, Environmental Planner, WSP, January 19, 2018.

H. DETERMINATION

On the basis of this Initial Study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Lisa Gibson
Environmental Review Officer
for
John Rahaim
Director of Planning

DATE 1/31/18

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