1100 BROADWAY PROJECT

CEQA Analysis (Addendum #3)

Prepared for
City of Oakland

September 15, 2017

ESA

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550 Kearny Street
Suite 800
San Francisco, CA 94108
415.896.5900
www.esassoc.com

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1100 Broadway Project
CEQA Analysis (Addendum #3)

Pursuant to California Resources Code Sections 21083.3, 21094.5.5, and 21166 and CEQA Guidelines Sections 15162, 15164, 15183, 15183.3, 15168, and 15180

Date:	September 15, 2017
Project Address:	1100 Broadway
Case Number:	CMD07-390-R01; ER97-32
Zoning:	Central Business District Pedestrian Retail Commercial Zone (CBD-P)
General Plan:	Central Business District (CBD)
APN:	002-0051-006-02
Lot Size:	0.5 acres
Applicant:	1100 Broadway Owner, LLC (c/o Ellis Partners) 111 Sutter Street, Suite 800 San Francisco, CA 94104
Staff Contact:	Matthew Weintraub, Planner III Bureau of Planning – Historic Preservation mweintraub@oaklandnet.com (510) 238-6983

Table of Contents

		Page
1.0	Executive Summary	3
2.0	Background	5
3.0	Purpose and Summary of this Document	17
4.0	Project Description	20
5.0	Summary of Findings	38
6.0	CEQA Checklist	40
7.0	References	108

Tables

1	1100 Broadway Program Comparisons – 1998 to 2017	6
2	Proposed 2017 Office Project CEQA Development Program Compared to the Approved 2008 Office Project	22
AIR-1	Unmitigated Emissions from Operation	51
AIR-2	Unmitigated Emissions from Construction	53
AIR-3	Maximum Health Risks from Project Construction	55
GHG-1	GHG Emissions from Construction and Operation	71
NOI-1	Peak-Hour Traffic Noise Levels in the Vicinity of the Project	87
TRA-1	Daily Vehicle Miles Traveled Summary	96
TRA-2	Automobile Trip Generation	98
TRA-3	Bicycle Parking Requirements	100

Figures

1	Project Location and Site Context	4
2	Approved 2008 Office Building – Ground Floor Plan	8
3	Approved 2008 Office Building – Broadway Elevation	9
4	Approved 2008 Office Building – 12th Street Elevation	10
5	Approved 2008 Office Building –Rear (East) Elevation	11
6	Approved 2008 Office Building –11th Street Elevation	12
7	Approved 2008 Office Building –Typical Floor Plan / Key System Building Roof Garden	13
8	Approved 2008 Office Building –Basement Plan	14
9	Proposed New Office Building – Ground Floor Plan	24
10	Proposed New Office Building – Broadway and 12th Street Elevations	25
11	Proposed New Office Building – 11th Street and Rear (East) Elevations	26
12	Proposed New Office Building – Roof Terrace (Level 19)	27
13	Proposed Key System Building– Ground Floor Plan	28
14	Proposed Key System Building – Broadway Elevation (Floors 1-4)	29
15	Proposed Key System Building – Broadway Elevation (Floors 5-Roof)	30
16	Proposed Key System Building – 11th Street Elevation (Floors 1-4)	31
17	Proposed Key System Building – 11th Street Elevation (Floors 5-Roof)	32
18	Proposed Key System Building - Roof Terrace (Level 9)	33
19	Proposed Project – Full Basement Plan	34
20	Proposed Streetscape	36
21	2008 Office Project and 2017 Proposed Project - Illustrative Perspective	44

Attachments

A. Standard Conditions of Approval and Mitigation Monitoring and Reporting Program (SCAMMRP) ATT A-1
B. Criteria for Use of Addendum ATT B-1
C. Project Consistency with Community Plan or Zoning ATT C-

Appendices

A. 2008 Shadow Study APP A-1
B. 2008 Wind Hazards Study APP B-1
C. Air Quality and GHG Emissions Detail APP C-1
D. Evaluation of Consistency with the Secretary of the Interior's Standards for Rehabilitation APP D-1
D.1. Outline Scope for Treatment of Exterior Materials, 2006 APP D.1-1
E. Health Risk Assessment APP E-1
F. Draft GHG Reduction Plan APP F-1
G. Construction Management Noise Plan APP G-1
H. Draft Transportation Demand Management Program APP H-1
I. 1100 Broadway Application for Development Review Planset APP I-1

1.0 Executive Summary

The proposed Project at 1100 Broadway ("Proposed Project") would construct a new 18-story commercial office building on a vacant portion of a one-half acre site ("Project site") at 1100 Broadway in Downtown Oakland, adjacent to the existing eight-story historic Key System Building on the remainder of the Project site. The Proposed Project would also rehabilitate the historic Key System Building for commercial reuse. The Key System Building is a City of Oakland Landmark, and the Project site is located within Oakland's Downtown historic district. **Figure 1** on the following page shows the Project site location.

In May 1998, the City of Oakland certified the Keystone Hotel Environmental Impact Report (EIR) (**"1998 EIR"**), pursuant to the California Environmental Quality Act (CEQA). The **"1998 Hotel Project"** analyzed in the 1998 EIR considered development of the project site with a five- to seven-story 150-room hotel, rehabilitation of the historic Key System Building, and demolition of the historic addition to the Key System Building (the "Key System Building Annex" that previously occupied the now-vacant portion of the project site). The 1998 EIR also evaluated a 20-story commercial office building as a CEQA alternative. The City adopted two subsequent addenda to the 1998 EIR: a "**2006 Addendum"** that evaluated development of an 11-story commercial office building, which involved the rehabilitation of and addition to the historic Key System Building ("**2006 Office Project**"), and a " **2008 Addendum"** that evaluated construction of a 20-story commercial office building and rehabilitation of the historic Key System Building (**"2008 Office Project"**).[1] A comparison of the proposals addressed in each of the aforementioned CEQA documents is summarized in **Table 1** in the following section.

[1] Throughout this document, reference to the "1998 EIR" encompasses its Initial Study, Draft EIR, Final EIR, and the 2006 and 2008 addenda that evaluated new office development on the Project site.

SOURCE: ESA, 2017

1100 Broadway Addendum

Figure 1
Project Location and Context

ESA

sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 1 Proj Loc.ai

No substantial development or alterations have occurred on the Project site pursuant to, or since completion of, the 1998 EIR or its 2006 or 2008 addenda, except for the demolition of the Key System Building Annex was demolished for public safety reasons prior to preparation of the 2006 Addendum.

The Proposed Project involves modifications to the approved 2008 Office Project, involving a new office building design and refinements to the previously adopted rehabilitation plan for the historic Key System Building. The 1998 EIR and its subsequent 2006 and 2008 addenda analyzed the environmental impacts of construction and operation of commercial development and rehabilitation of the historic Key System Building. Specifically, the analysis in the 1998 EIR, as updated by its 2006 and 2008 addenda, provides the basis for use of an addendum to assess the current Proposed Project. In Section 6.0 (CEQA Checklist) of this document, the Proposed Project and its environmental effects are compared to the currently entitled 2008 Office Project analyzed in the 2008 Addendum to the 1998 EIR, given that the Proposed Project is a modification of the 2008 Office Project.

Separately and independently, qualified planning level documents, specifically program-level EIRs, that can be used as a basis to provide additional CEQA clearance of the Proposed Project (all or in part) under specific CEQA provisions include Oakland's *1998 General Plan Land Use and Transportation Element (LUTE) EIR*, and the *2011 Central District Urban Renewal Plan Amendments EIR* (or "Redevelopment Plan Amendments EIR"). These are referred to collectively throughout this document as "the Program EIRs" and discussed in detail in Section 2.4, below.

The Program EIRs and the prior CEQA documents adopted for development at 1100 Broadway (i.e., the 1998 EIR and its subsequent 2006 and 2008 addenda) are referred to collectively as "the Previous CEQA Documents." The Previous CEQA Documents are incorporated in this CEQA Analysis by reference and can be obtained from the City of Oakland Bureau of Planning at 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, California 94612.

2.0 Background

The following describes the previous development proposals on the Project site, and the environmental analysis prepared and certified/adopted for each, which is summarized in **Table 1** on the following page.

2.1 1998 Hotel Project

In May 1998, the City of Oakland certified the 1998 EIR for the 1998 Hotel Project (also referred to as the Keystone Hotel Project), which involved development of a five- to seven-story 150-room hotel, rehabilitation of the historic Key System Building, and demolition of the historic Key System Building Annex.

Mitigation measures were adopted for the 1998 Hotel Project to reduce potentially significant impacts related to **construction air quality emissions** (1998 EIR Impact C.1), **construction noise** (1998 EIR Impact D.1), and **historic resources impacts**, including the effect of the new construction design on the historic Key System Building (1998 EIR Impact E.2) and the Downtown Oakland Historic District (1998 EIR Impact E.4), as well as potential damage to the Key System Building (1998 EIR Impact E.3), to less than significant. The 1998 EIR identified a significant unavoidable impact resulting from the demolition of the historic Key System Building Annex (1998 EIR Impact E.1).

Although not adopted as a preferred alternative or analyzed in detail, the 1998 EIR also considered a 20-story office tower as a CEQA alternative. The 1998 EIR noted that this alternative was included in the analysis of the 1998 General Plan LUTE EIR.

TABLE 1
1100 BROADWAY PROGRAM COMPARISONS – 1998 to 2017

New Development Characteristics	1998 Hotel Project	2006 Office Project	2008 Office Project	2017 Proposed Project
Building Stories	5-7	11	20	18
Height to Building Roof (Penthouse Roof)	83 (98) ft.	165 (175) ft.	258 (283) ft.	240 (269) ft.
Cantilever Setback from 11th Street Façade of KSB	n/a	n/a	45 ft.(approx.)	24 to 27 ft. (approx.)
Cantilever Setback from Broadway Façade of KSB	n/a	n/a	20 ft. (approx.)	6 ft. (approx.)
Cantilever Vertical Clearance Above KSB	n/a	n/a	1 story	0 stories
Office	none	188,749 sf	312,605 sf [a]	312,415 sf [a]
Retail/Restaurant	2,400 sf	11,440 sf	9,810 sf [a]	10,000 sf [a]
Hotel	150 rooms	none	none	none
Ancillary Bldg Support & Tenant Use Space)	Undefined [b]	Undefined [c]	+/- 4,825 sf [d]	46,161 sf [e]
Historic Key System Building	Retain/Rehabilitate	Retain/Rehabilitate [f]	Retain/Rehabilitate	Retain/Rehabilitate
Historic Key System Building Annex	Demolish	n/a[g]	n/a[g]	n/a[g]

[a] Usable building floor area is used for the CEQA analysis; Building floor areas for non-usable building support service areas and utilities are presented for informational and comparative purposes only. To ensure conservative CEQA analysis of the Proposed Project, maximum usable building floor area by use is analyzed throughout the analysis, which exceeds the Project sponsor's 8/30/17 detailed floor area and building use spreadsheet which represents 309,890 total square feet of office use.

[b] Receiving, vehicular connection to adjacent garage, fitness/pool and storage space.

[c] Storage and utilities.

[d] 2008 Office Project includes ancillary building support uses including lobby, loading, utilities, mechanical, life-fire safety, rain/fire water storage, and undefined storage space.

[e] Proposed Project includes same ancillary building support uses as for the 2008 Project (footnote "d"), in addition to the tenant storage, the ground floor of the new office building, optional buildout space for fitness facilities, and meeting rooms for tenant-only use. These uses occur in the entire basement of the new office building and the KSB.

[f] Partial north wall, roof and penthouse proposed for removal.

[g] Historic Key System Building Annex demolished prior to 2006 Addendum.

SOURCE: 1998 Draft EIR; 2006 Final Addendum; 2008 Final Addendum; Ellis Partners Project Plans, 8/30/17

2.2 2006 Office Project

The following summarizes the two addenda to the 1998 EIR that the City prepared to consider modifications to the 1998 Hotel Project. Table 1 above compares the development programs for the proposals evaluated in the 1998 EIR, the 2006 Addendum, the 2008 Addendum, as well as the Proposed Project summarized below.

In August 2006, the City adopted the 2006 Addendum for the 2006 Office Project, including development of an 11-story office building and rehabilitation of the historic Key System Building, and superseding the previously approved 1998 Hotel Project. The historic Key System Building Annex was demolished for public safety reasons prior to the 2006 Addendum. Therefore, the associated impact to the Annex was not documented in the 2006 Addendum because the demolition did not occur as a result of the 2006 Office

Project. Demolition of the Key System Building Annex was previously analyzed in the 1998 EIR and approved under the 1998 Hotel Project.

As shown in Table 1, the 2006 Office Project was larger than the approved 1998 Hotel Project and it proposed a different land use. However, the resulting environmental impacts were found to be the same as those identified for the 1998 Hotel Project in the 1998 EIR, except for new less-than-significant effects on historical resources; no mitigation measures were required to address the less-then-significant effects of the proposed new construction on the historic Key System Building (1998 EIR Impact E.2) and Downtown Oakland Historic District (1998 EIR Impact E.4).

2.3 2008 Office Project

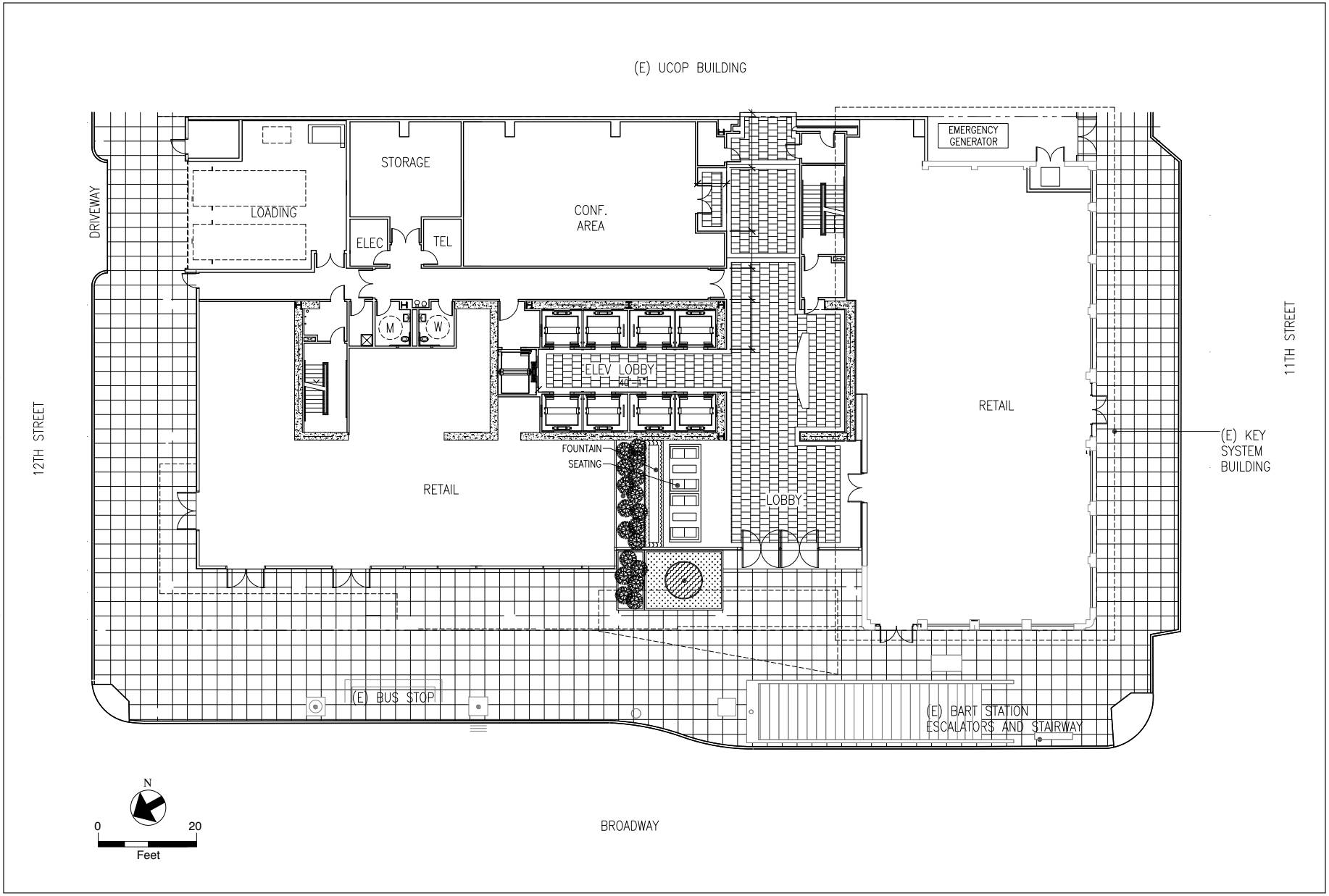
In February 2008, the City approved the 2008 Addendum for the 2008 Office Project, including development of a 20-story office building and rehabilitation of the historic Key System Building. As summarized in Table 1 below, and shown in **Figure 2** through **Figure 8** at the end of this Section 2.3, the 2008 Office Project included up to approximately 312,605 square feet of office use, including existing space in the Key System Building, and entailed up to approximately 9,810 square feet of ground-floor retail/restaurant uses.

A portion of the new office building and the entire new basement level of the Key System Building would be devoted to building operational services and storage (including a rainwater storage tank), as detailed in Table 2.

The 2008 Office Project proposed an approximately five-foot cantilever over the side of the historic Key System Building extending from the office building façade; the cantilever was set back from the front/Broadway building façade (front) of the Key System Building by approximately 20 feet (see **Figure 21**).

The 2008 Addendum included a thorough analysis of the 2008 Office Project, including the preparation of technical reports not previously prepared for any of the previous CEQA documents – all of which supported a conclusion that the 2008 Office Project would have only less-than-significant environmental effects. All impacts identified for the 2008 Office Project were the same or less severe than those identified in the 1998 EIR and/or the 2006 Addendum.

The 2008 Addendum included a greenhouse gas (GHG) analysis for development of the 2008 Office Project, which was the first GHG analysis prepared for any project on the site. The GHG analysis was prepared prior to the City's adoption of its current guidelines and significance thresholds for GHG emissions and climate change. The 2008 Addendum also modified/updated previously adopted mitigation measures for potentially significant construction air quality emissions and construction noise impacts to reflect the City's then-applicable uniformly applied development standards (generally referred to as "Standard Conditions of Approval [SCAs]"), although the requirements were still referred to as mitigation measures in the document.



SOURCE: Kaplan McLaughin Diaz

1100 Broadway Addendum

Figure 2
Approved 2008 Office Building - Ground Floor Plan

ESA

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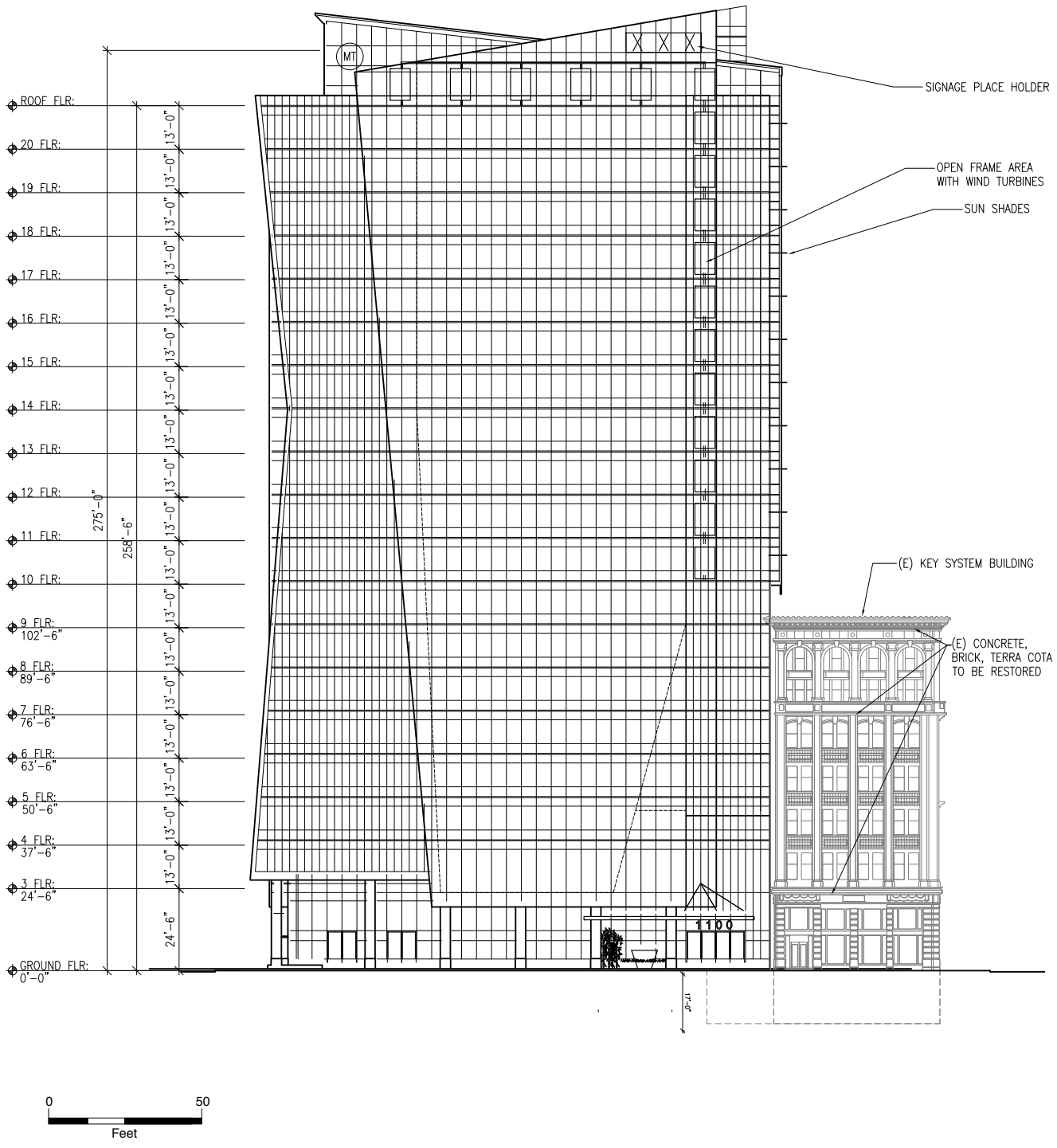


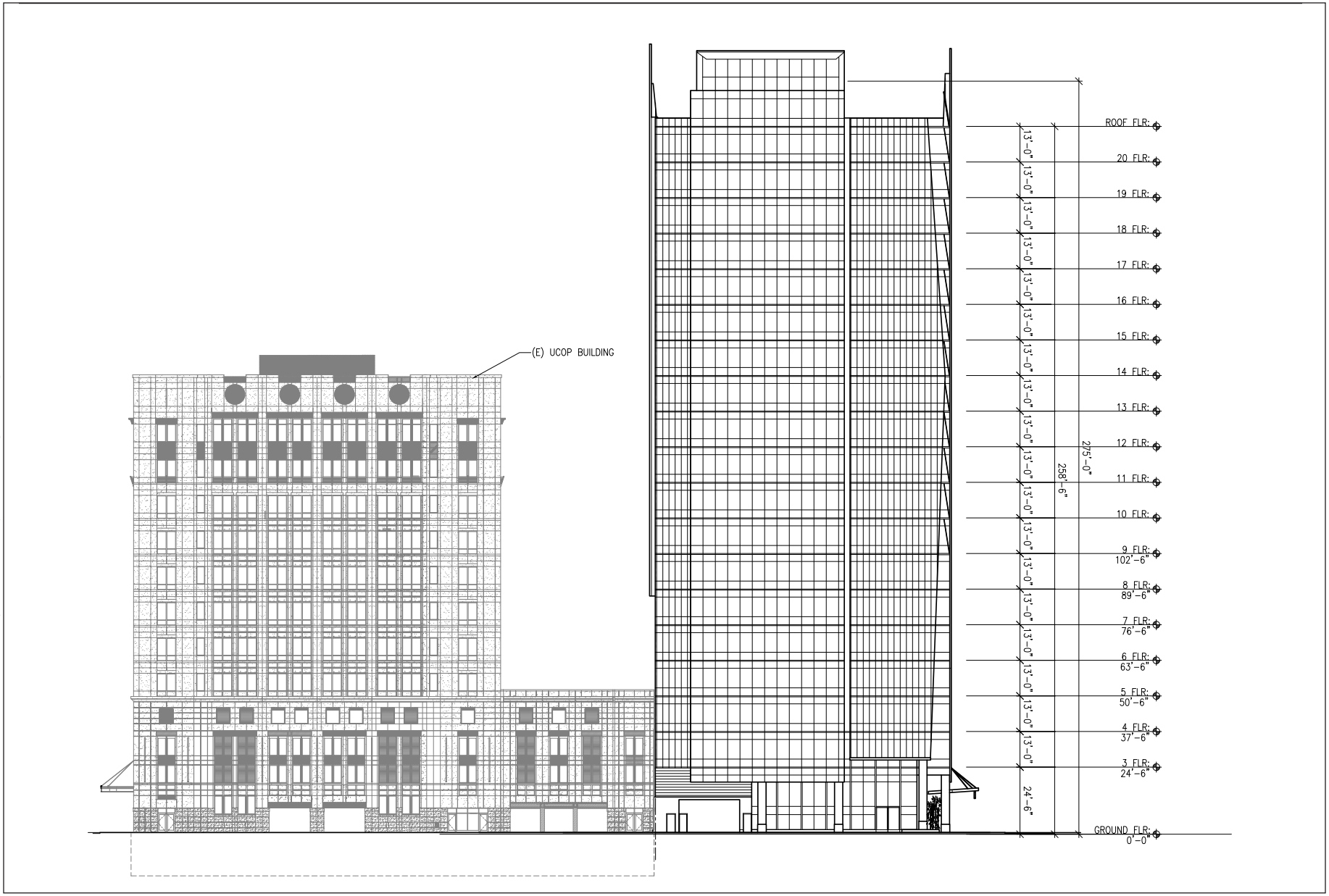
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 3 Elevation Broadway.ai

SOURCE: Kaplan McLaughin Diaz

1100 Broadway Addendum

Figure 3
Approved 2008 Office Building – Broadway Elevation

ESA



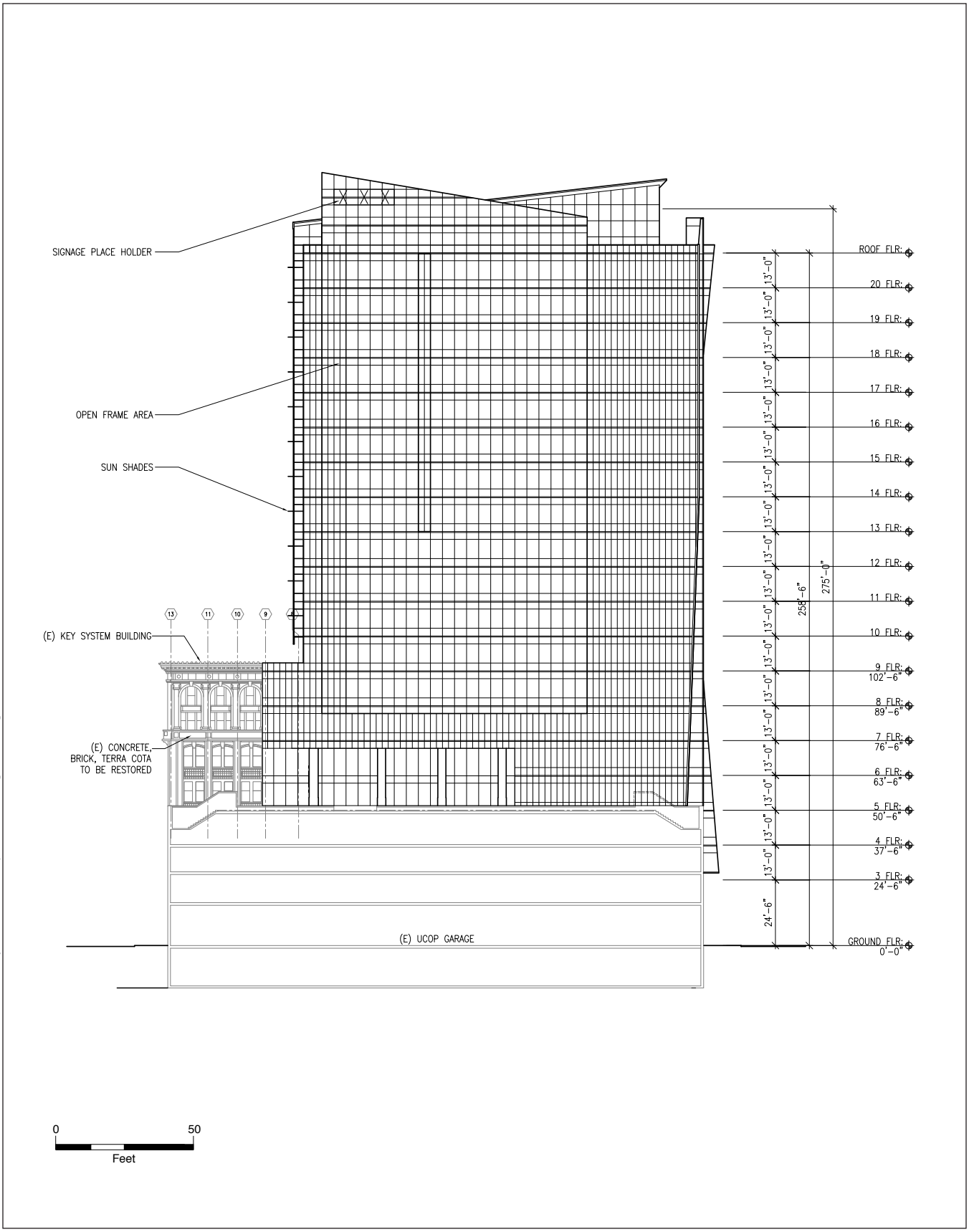
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 4 Elevation 12th St.ai

SOURCE: Kaplan McLaughin Diaz

1100 Broadway Addendum

Figure 4
Approved 2008 Office Building – 12th Street Elevation

ESA



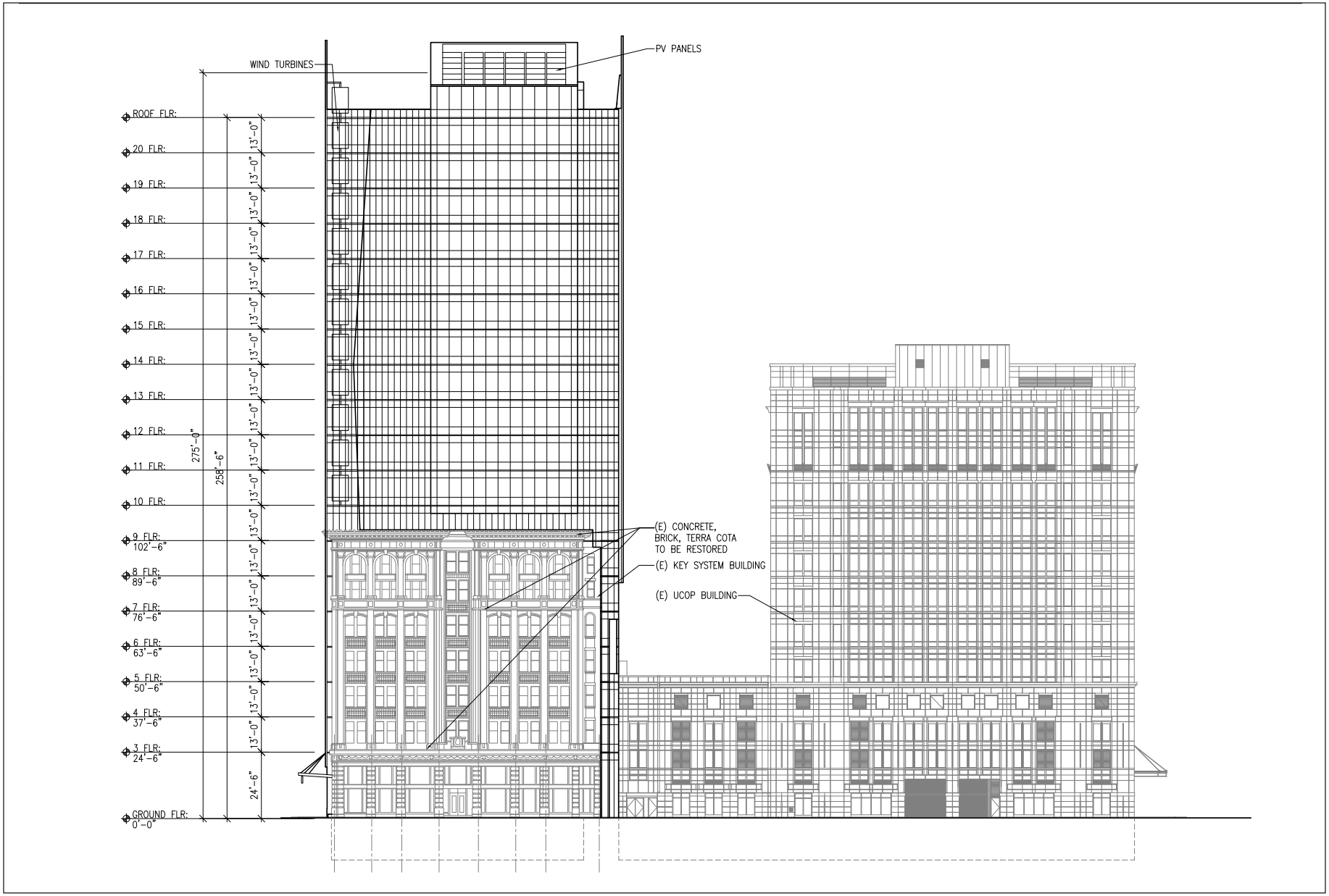
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 5 Elevation East.ai

SOURCE: Kaplan McLaughin Diaz

1100 Broadway Addendum

Figure 5
Approved 2008 Office Building –Rear (East) Elevation

ESA



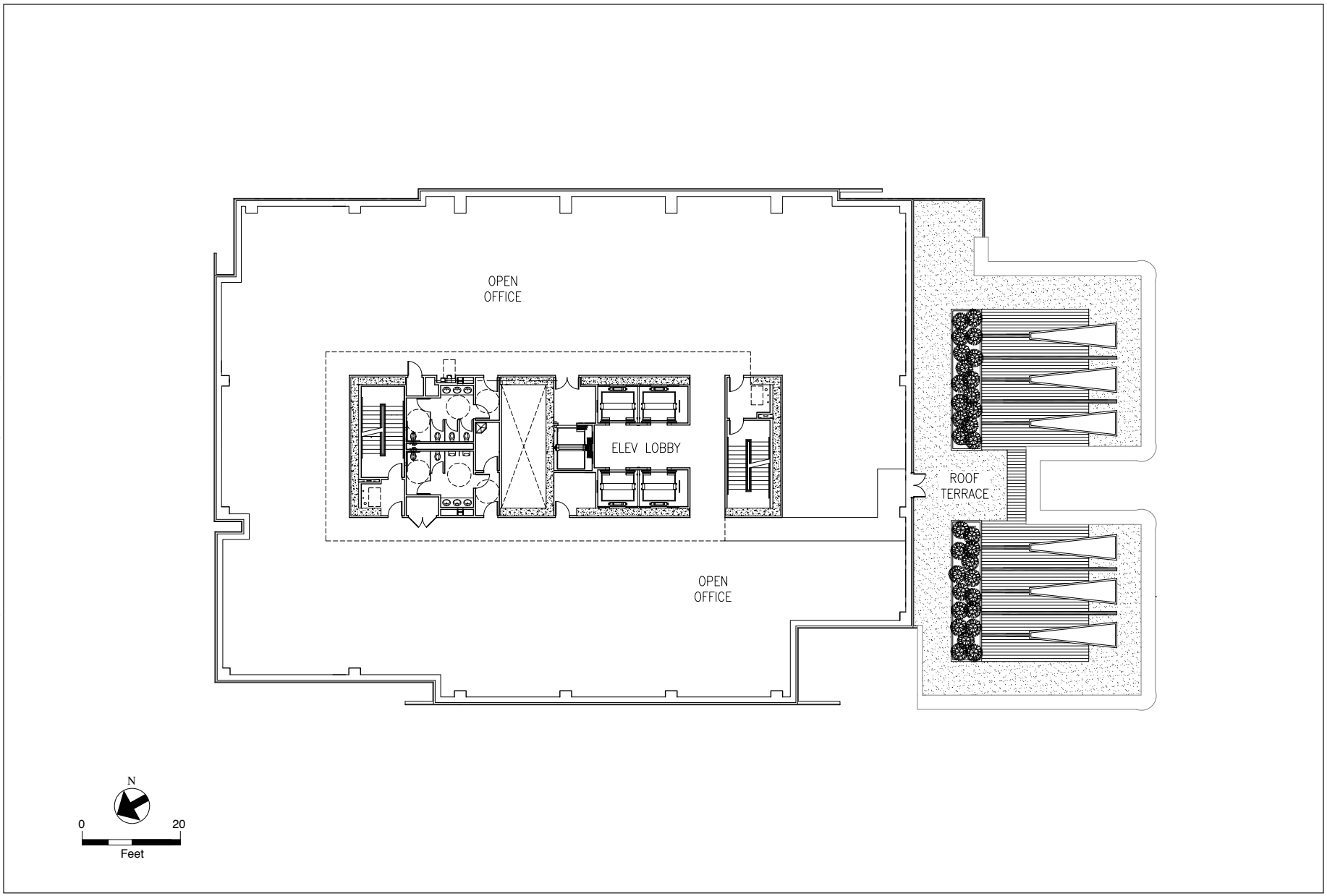
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 6 Elevation 11th St.ai

SOURCE: Kaplan McLaughin Diaz

1100 Broadway Addendum

Figure 6
Approved 2008 Office Building –11th Street Elevation

ESA



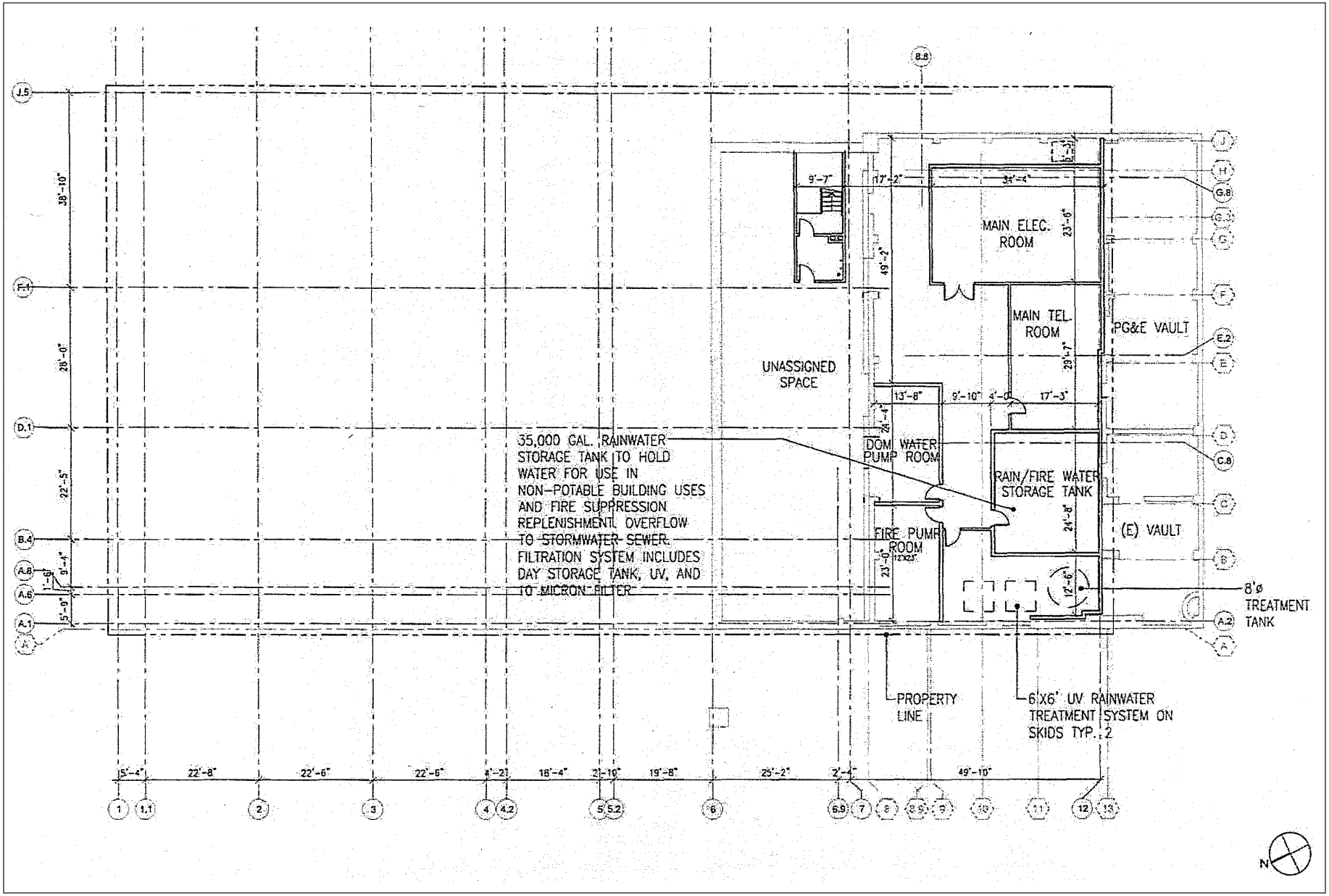
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 7 Roof Garden.ai

SOURCE: Kaplan McLaughin Diaz

1100 Broadway Addendum

Figure 7
Approved 2008 Office Building –Typical Floor Plan /
Key System Building Roof Garden

ESA



SOURCE: Kaplan McLaughin Diaz

1100 Broadway Addendum

Figure 8
Approved 2008 Office Building –Basement Plan

ESA

sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 8 Basement.ai

2.4 Applicable Program EIRs

The following describes the Program EIRs that are part of the "Previous CEQA Documents" considered in this CEQA Analysis.

General Plan Land Use and Transportation Element EIR

The City certified the EIR for its General Plan Land Use and Transportation Element (LUTE) in 1998. The LUTE of the General Plan identifies policies for utilizing Oakland's land as change takes place and sets forth an action program to implement the land use policy through development controls and other strategies. The LUTE identifies five "Showcase Districts" targeted for continued growth; the 1100 Broadway Project is located within the "Downtown Showcase District" (Downtown) intended to promote a mixture of vibrant and unique districts with around-the-clock activity, continued expansion of job opportunities, and growing residential population.

The 1998 LUTE EIR constitutes a "Program EIR" under CEQA Guidelines Sections 15183 and 15183.3. As such, subsequent activities under the LUTE are subject to requirements under each of the aforementioned CEQA Sections, which are described further in Section 3.1. Mitigation measures identified in the 1998 LUTE EIR are largely the same as those identified in the Program EIRs (discussed below) prepared *after* the 1998 LUTE EIR, either as mitigation measures or newer SCAs, the latter of which are described below in Section 3.2.

Summary of Environmental Effects in the General Plan LUTE EIR

The 1998 LUTE EIR (including its Initial Study Checklist) determined that development consistent with the LUTE would result in the following impacts being **reduced to a less-than-significant level with the implementation of mitigation measures**: aesthetics (views, architectural compatibility and shadow only); air quality (construction dust [including PM_{10}] and emissions Downtown, odors); cultural resources (except as noted below as less than significant); hazards and hazardous materials; land use (use and density incompatibilities); noise (use and density incompatibilities, including from transit/transportation improvements); population and housing (induced growth, policy consistency/Clean Air Plan); public services (except as noted below as significant)[2]; and transportation/circulation (intersection operations Downtown).

Less-than-significant impacts were identified for the following resources in the 1998 LUTE EIR and Initial Study: aesthetics (scenic resources, light and glare); air quality (Clean Air Plan consistency, roadway emissions in Downtown, energy use emissions, local/regional climate change); biological resources; cultural resources (historic context/settings, architectural compatibility); energy; geology and seismicity; hydrology and water quality; land use (conflicts in mixed use projects and near transit); noise (roadway noise Downtown and citywide, multifamily near transportation/transit improvements); population and housing (exceeding household projections, housing displacement from industrial encroachment); public services (water demand, wastewater flows, stormwater quality, parks services); and transportation/circulation (transit demand). **No impacts** were identified for agricultural or forestry resources, and mineral resources.

Significant unavoidable impacts were identified for the following environmental resources in the 1998 LUTE EIR: air quality (regional emissions, roadway emissions Downtown); noise (construction noise and vibration in Downtown); public services (fire safety); transportation/circulation (roadway segment operations); wind hazards, and policy consistency

[2] The 1998 LUTE EIR addressed effects on solid waste demand and infrastructure facilities for water, sanitary sewer and stormwater drainage under *Public Services*.

(Clean Air Plan). Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

Central District Urban Renewal Plan Amendments EIR (Redevelopment Plan Amendments EIR)

The 1100 Broadway Project site is located within the Central District Urban Renewal Plan Area, which generally encompasses the entire Downtown: approximately 250 city blocks (828 acres) in an area generally bounded by Interstate 980 (I-980), Lake Merritt, 27th Street and the Embarcadero. The Oakland City Council adopted the Central District Urban Renewal Plan (the "Redevelopment Plan") for the Project Area in June 1969. The City prepared and certified an EIR for proposed amendments to the Urban Renewal Plan in 2011, and amended or supplemented the Plan up to April 3, 2012.[3] 1100 Broadway was specifically identified and analyzed in the Central District Urban Renewal Plan Amendments EIR (or "Redevelopment Plan Amendments EIR") (May 2011) as part of the cumulative background.[4] Therefore, the Project has been factored into the cumulative traffic analysis for projects developed in the Downtown area since the City's certification of the 1998 EIR. The 2011 Redevelopment Plan Amendments EIR is designated a "Program EIR" under CEQA Guidelines Section 15180; as such, subsequent activities are subject to requirements under CEQA Section 15168.

Applicable mitigation measures and standard conditions of approval (described in Section 3.2) identified in the 2011 Redevelopment Plan Amendments EIR are considered in the analysis in this document and are also similar to those identified in the Program EIRs described in this section. The potential for significant unavoidable impacts identified for air quality, cultural resources, and traffic/circulation were identified in the Redevelopment Plan Amendments EIR, and all the impacts identified in that EIR are summarized throughout the CEQA Checklist in Section 6.0 of this document.

Summary of Environmental Effects in the 2011 Redevelopment Plan Amendments EIR

The 2011 Redevelopment Plan Amendments EIR determined that development facilitated by the Proposed Amendments, combined with cumulative development that specifically identified 1100 Broadway, would result in impacts to the following resources that would be **reduced to a less-than-significant level with the implementation of identified mitigation measures and/or standard conditions of approval** (described in Section 3.2): aesthetics (light/glare only); air quality (except as noted below as less than significant and significant); biological resources (except no impacts regarding wetlands or conservation plans); cultural resources (except as noted below as significant); geology and soils; greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality (stormwater and 100-year flooding only); noise (exceeding standards – construction and operations only); traffic/circulation (safety and transit only); utilities and service systems (stormwater and solid waste only).

[3] The 2011 EIR addressed two amendments. A 17th Amendment to the Redevelopment Plan to (1) extend the duration of the Plan from 2012 to 2022 and extend the time period that the then-Redevelopment Agency could receive tax increment funds from 2022 to 2032, as allowed by Senate Bill (SB) 211 (codified as Health and Safety Code Section 33333.10 et seq.); (2) increase the cap on the receipt of tax increment revenue to account for the proposed time extensions; and (3) renew the then-Redevelopment Agency's authority to use eminent domain in the Project Area. An 18th Amendment further extended the then-Redevelopment Plan time limit from 2022 to 2023 and extended the time period that the then-Redevelopment Agency could receive tax increment funds from 2032 to 2033, as allowed by Health and Safety Code Section 33331.5.

[4] Projects that were previously analyzed under CEQA and approved were referred to as "Other Projects and Programs supported by the Redevelopment Plan, but that may Occur Without the Proposed Amendments and Therefore Considered Only in the Cumulative Analysis."

Less-than-significant impacts were identified for the following resources in the 2011 Redevelopment Plan Amendments EIR: aesthetics (except as noted above as less than significant with standard conditions of approval); air quality (Clean Air Plan consistency); hydrology and water quality (except as noted above as less than significant with standard conditions of approval); land use and planning; population and housing; noise (roadway noise only); public services and recreation; traffic/circulation (air traffic and emergency access); and utilities and service systems (except as noted above as less than significant with standard conditions of approval). **No impacts** were identified for agricultural or forestry resources, and mineral resources.

The 2011 Redevelopment Plan Amendments EIR determined that the Proposed Amendments combined with cumulative development, including explicitly 1100 Broadway, would have **significant unavoidable impacts** on the following environmental resources: air quality (toxic air contaminant exposure and odors); cultural resources (historic); and traffic/circulation (roadway segment operations).[5] Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

3.0 Purpose and Summary of this Document

The purpose of this document is to demonstrate CEQA compliance of the Proposed Project, which proposes modifications to the approved 2008 Office Project. This CEQA Analysis is prepared to determine if the previous environmental analysis prepared in the 1998 EIR and its 2006 and 2008 addenda adequately addresses the potential environmental effects of the Proposed Project or if supplemental or environmental review is warranted. Specifically, in Section 6.0 (CEQA Checklist) of this document, the Proposed Project and its environmental effects are compared to the currently entitled 2008 Office Project analyzed in the 2008 Addendum to the 1998 EIR, given that the Proposed Project is a modification of the 2008 Office Project.

3.1 Applicable Provisions for CEQA Compliance

As described in Section 2.4, two addenda to the 1998 EIR were prepared and certified. An addendum is considered suitable for the Proposed Project, as demonstrated by the CEQA Checklist presented in Section 6.0 of this document. For comprehensive review and public information, the CEQA Checklist and its supporting attachments demonstrate that the Proposed Project would also qualify for certain other CEQA exemptions, as summarized below, which separately and independently provide a basis for CEQA compliances.

1. **Addendum.** Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15164 (Subsequent EIRs, Supplements and Addenda to an EIR or Negative Declaration), state that an addendum to a certified EIR is allowed when minor changes or additions are necessary, and none of the conditions for preparation of a subsequent EIR or Negative Declaration per Sections 15162 and 15164 are satisfied.

   The analysis in the 1998 EIR as updated by the 2006 and 2008 addenda addresses the environmental impacts of development upon the Proposed Project site, with the 2008 Addendum specifically analyzing a commercial office building of similar scale and characteristics to the Proposed Project, providing the basis for use of an Addendum.

[5] The 2011 Redevelopment Plan EIR also identified significant and avoidable noise effects specifically associated with the potential development of a new baseball stadium at Victory Court, and multimodal safety at at-grade rail crossings, both near the Oakland Estuary. These effects would not pertain to the 1100 Broadway Project given the distance and presumably minimal contribution of multimodal trips affecting these impacts.

2. **Community Plan Exemption.** Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan or Zoning) allow streamlined environmental review for projects that are "consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site." Section 15183(c) specifies that "if an impact is not peculiar to the parcel or to the proposed project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards…, then an EIR need not be prepared for the project solely on the basis of that impact."

   The analysis in the 1998 LUTE EIR is applicable to the Proposed Project and is the Program EIR providing the basis for use of the Community Plan Exemption.

3. **Program EIRs and Redevelopment Projects.** CEQA Guidelines Section 15168 (Program EIRs) and Section 15180 (Redevelopment Projects) provide that the 2011 Redevelopment Plan Amendments EIR can be used as a Program EIR in support of streamlining and/or tiering provisions under CEQA. The 2011 Redevelopment Plan Amendments EIR is a Program EIR for streamlining and/or tiering provisions by CEQA Section 15168. The section defines the "program EIR" as one prepared on a series of actions that can be characterized as one large project and are related geographically and by other shared characteristics. Section 15168 continues that "subsequent activities in the program EIR must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared." If the agency finds that pursuant to CEQA Guidelines Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR and no new environmental document would be required.

   Further, CEQA Guidelines Section 15180 specifies that if a certified redevelopment plan EIR is prepared, no subsequent EIRs are required for individual components of the redevelopment plan unless a subsequent EIR or supplement to the EIR would be required by Section 15162 or 15163.

3.2 Previous Mitigation Measures and Current Standard Conditions of Approval (SCAs)

The CEQA Checklist provided in Section 6.0 of this document evaluates the potential environmental effects of the Proposed Project, and evaluates whether such impacts were adequately covered by the 1998 EIR as updated by its 2006 and 2008 addenda (as well as the Program EIRs previously described in Section 2.3) to allow the above-listed provisions of CEQA to apply. The analysis conducted incorporates by reference the information contained in each of the previous Program EIRs. The Proposed Project is legally required to incorporate and/or comply with the applicable requirements of the mitigation measures identified in the 1998 EIR as updated by the 2006 and 2008 addenda. Therefore, the mitigation measures are herein assumed to be included as part of the Proposed Project, including those that have been modified to reflect the City's current standard language and requirements, as discussed below.

SCA Application - Generally

The City's SCAs are incorporated into and applied to new and changed projects as conditions of approval regardless of a project's environmental determination. The SCAs incorporate policies and standards from various adopted plans, policies, and ordinances, which have been found to substantially mitigate environmental effects; these adopted plan, policies, and ordinances include (without limitation) the Oakland Planning and Municipal Codes, Oakland Creek Protection Ordinance, Stormwater Water Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading

Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, California Building Code and Uniform Fire Code, among others. The SCAs are adopted as requirements of an individual project when the project is approved by the City and are designed to, and will, substantially mitigate environmental effects.

SCA Application in this CEQA Analysis

SCAs are mandatory City requirements for discretionary projects. Impact analyses for new and modified discretionary projects assumes that SCAs will be imposed upon and implemented for the projects in question. SCAs are applicable to the Proposed Project at 1100 Broadway because the City is considering renewed discretionary actions for the Proposed Project.

Mitigation measures identified in the 1998 EIR and its addenda and that would typically apply to the Proposed Project are referenced in Attachment A to this document. Certain mitigation measures identified in the 1998 EIR or addenda have since been adopted by the City as SCAs for all projects. Therefore, some of the currently proposed mitigation measures for the Proposed Project have been modified, and in some cases wholly replaced, to reflect the City's current standard language and requirements of its SCAs, which provide equally effective mitigation. All mitigation measures and applicable SCAs for the Proposed Project are listed in Attachment A to this document. Most of the SCAs that are identified in this document to apply to the Proposed Project were also identified in the 2011 Redevelopment Plan Amendments EIR; the 1998 LUTE EIR was developed prior to the City's application of SCAs.

3.3 Proposed Project CEQA Compliance

The Proposed Project qualifies under each of the following CEQA provisions described in Section 3.1, above:

- **Addendum.** The analysis conducted in this document indicates that an addendum to the 1998 EIR as updated by its addenda applies; therefore, this CEQA Analysis is considered to be the addendum. As discussed under *Project Description* (Section 4.0, below), the Proposed Project represents design modifications to the approved 2008 Office Project; as shown in Table 1, the maximum potential total building area is the same as the 2008 Office Project, and it would construct a building lower in height. The slight shift in the distribution of retail and office uses in the new office building (190 square foot *more* retail area and 190 square foot *less* office area), resulting in the Proposed Project generating fewer peak hour vehicle trips than identified in the 2008 Addendum. The Proposed Project, therefore, meets the requirements for an addendum, as evidenced in **Attachment B** to this document.
- **Community Plan Exemption.** Based on the analysis conducted in this document, the Proposed Project also qualifies for a community plan exemption. It is permitted in the zoning district where the Project site is located, and is consistent with the bulk, density, and land uses envisioned for the site. The analysis herein further reconsiders the analysis in the 1998 LUTE EIR for the overall project. This CEQA Analysis concludes that the Proposed Project would not result in significant impacts that (1) are peculiar to the project or project site; (2) were not identified as significant project-level, cumulative, or offsite effects in the 1998 EIR; or (3) were previously identified as significant effects, but are determined to have a more severe adverse impact than discussed in the EIR or its addendum. Findings regarding the Proposed Project's consistency with the zoning are included as **Attachment C** to this document.
- **Program EIRs and Redevelopment Projects.** The Proposed Project is one of several subsequent activities that are part of a series of actions specifically named in the cumulative

setting for the 2011 Redevelopment Plan Amendments EIR. The analysis in the 2011 Redevelopment EIR and in this CEQA Analysis demonstrates that the Proposed Project would not result in substantial changes or involve new information that would warrant preparation of a subsequent EIR, per CEQA Guidelines Section 15162.

Overall, based on an examination of the analysis, findings, and conclusions of the 1998 EIR (and last confirmed in the 2008 Addendum to that EIR, as well as the findings of the 1998 LUTE EIR and the 2011 Redevelopment Plan Amendments EIR – all of which are as summarized in the CEQA Checklist in Section 6.0 of this document – the potential environmental impacts associated with the Proposed Project have been adequately analyzed and covered in prior Program EIRs. Therefore, no further review or analysis under CEQA is required.

4.0 Project Description

4.1 Project Site and Conditions

Project Location

The Project site is located at 1100 Broadway in Downtown Oakland. The subject property is a 21,603-square-foot (0.50-acre) lot bounded by 11th Street to the south, 12th Street to the north, Broadway to the west, and private commercial property (the existing University of California Office of the President [UCOP]complex) to the east and within the same block and shown in **Figure 1** (on page 4 of this document).

Existing Site Conditions

Existing conditions on the Project site have not changed substantially from the conditions existing for the 1998 EIR or the 2006 and 2008 addenda except for the demolition of the Key System Building Annex for public safety reasons prior to preparation of the 2006 Addendum, which was consistent with the certified 1998 EIR and the approved 1998 Hotel Project. The southern portion of the property contains the existing historic Key System Building. The northern portion of the property is currently vacant, unpaved and partially excavated. The Project site is surrounded on the three street-facing sites by concrete sidewalks and the vacant portion of the site is surrounded by an eight-foot tall slatted chain link fence, with a pedestrian path running between the sidewalk along Broadway and a secondary entrance to the private commercial property to the east.

General Plan and Zoning

The General Plan land use designation of the Project site is Central Business District (CBD). The Project site is currently designated in the Central Business District Pedestrian Retail Commercial Zone (CBD-P).

4.2 Key System Building

The existing Key System Building (also known as the Security Bank & Trust Company Building) is an eight-story commercial office building (seven stories and mezzanine) with two street-facing architectural facades: Broadway on the front/west and 11th Street on the side/south. The building was originally constructed in 1911. The building has been vacant and boarded since 1989, and it was severely damaged by the Loma Prieta earthquake.

The building's shell comprised of structural steel frame and yellow brick curtain wall. The single story ground floor exterior, which was renovated by a previous owner, is exposed masonry columns, stucco and glass store front. The upper levels of the building façade are masonry pilasters separated by yellow brick

curtain wall elements, with the uppermost floors clad in terra-cotta topped by a renaissance ornamented cornice and cross sectional elements displaying intricate masonry carving. (*6.4, Cultural Resources*, in the CEQA Checklist in Section 6.0 of this document presents greater detail about the building.)

The Key System Building is listed on the National Register of Historic Places (National Register) and is a City of Oakland Landmark listed in the City's Local Inventory, with an Oakland Cultural Heritage Survey (OCHS) Rating of "A" indicating a property of the "Highest Importance". The Key System Building is an outstanding example of early 20th century commercial architecture with Baroque and Renaissance influences, and it is historically significant for its close associations with early corporate firms. The building also has an OCHS Rating of "1+" indicating that it is a contributor to an Area of Primary Importance (API), the Downtown District, and it is a designated contributor to the National Register-listed Downtown Oakland Historic District, as described further below (*4.2, Surrounding Context*).

4.3 Surrounding Context

Development and Uses

The area surrounding the Project Site consists primarily of dense, commercial land uses and development. The area is not uniformly developed. Heights of adjacent and nearby buildings to the north, south, and east of the Project site, including historic and contemporary buildings, generally range from six to ten stories, with the cupola of the historic Oakland Bank of Savings to the north rising to approximately 15 stories. Directly south across 11th Street is the six-story Trans-Pacific Center office complex. To the west across Broadway, the "Three Sisters" contemporary towers - 1111 through 1333 Broadway - range from approximately 10 to 24 stories tall, and the Marriott Hotel and Convention Center at 1001 Broadway is at approximately 20 stories. Directly east of the project site and within the same block is the 14-story UCOP building.

Site Access and Transit

An entrance to the Bay Area Rapid Transit District (BART) 12th Street City Center station entrance is at 11th and Broadway, directly adjacent to the front entrance of the existing Key System Building. Multiple transit routes serve the Project site, including Alameda-Contra Costa County Transit District (AC Transit) that provides lines and major transfer points along Broadway within three to five blocks of the project site. The Broadway Shuttle ("The Free B") that provides free service along Broadway from Jack London Square to approximately 20th Street also runs along Broadway. Access to and from ramps to I-980 is one block west (via 11th and 12th Streets) of the project site; access to I-880 South is approximately seven blocks southeast (at 5th Street and Broadway); access to I-880 North is approximately seven blocks southwest (at 6th and Brush Streets).

Historic District

As mentioned above, the Project site is located within the Downtown District API, a locally designated historic district, and within the National Register-listed Downtown Oakland Historic District, which is contained within the API boundary. As recorded in 1985, the API district generally includes blocks east of Broadway to Franklin Street, between 11th and 15th Streets, and blocks west of Broadway to Jefferson Street, between 14th and 17th Streets, with the Project site located near the southeast corner of the API. In 1998, a smaller, more consolidated Downtown Oakland Historic District, consisting of 11 blocks centered on Broadway and 14th Street, was listed on the National Register, with the Key System Building included as its southernmost property and contributor. The great majority of contributing buildings date from 1901 to 1929. (*4. Cultural Resources*, in Section 6.0 of this document presents greater detail about the District.)

4.4 Comparative Development Program

Table 2 shows the Proposed Project's development program as analyzed in this CEQA Analysis. The table compares the Proposed Project's program to that of the approved 2008 Office Project analyzed in the 2008 Addendum.

The overall Proposed Project entails two primary components: construction of a new office building and rehabilitation of the existing historic Key System Building. The Proposed Project will result in up to approximately 322,415 square feet of usable floor area, including up to approximately 312,415 square feet of office use and up to 10,000 square feet of retail and restaurant uses on the ground floor and mezzanine levels of the entire development. [6]

TABLE 2
PROPOSED 2017 OFFICE PROJECT CEQA DEVELOPMENT PROGRAM
COMPARED TO THE APPROVED 2008 OFFICE PROJECT

New Development Characteristics	2008 Office Project	2017 Proposed Project	Change from 2008
Building Stories	20	18	-2
Height to Building Roof (Penthouse Roof)	258 (283) ft.	240 (269) ft.	-18 ft.
Cantilever Setback from 11th Street Façade of KSB	45 ft. (approx.)	24 to 17 ft. (approx.)	-18 to 21 ft. (approx.)
Cantilever Setback from Broadway Façade of KSB	20 ft. (approx.)	6 ft. (approx.)	-14 ft. (approx.)
Cantilever Height Clearance Above KSB	1 story	0 stories	-1 story
Office [a]	312,605 sf	312,415 sf	-190 sf
Retail/Restaurant [a]	9,810 sf	10,000 sf	+190 sf
Ancillary Bldg. Support & Tenant Use Space	+/- 4,825 sf [b]	46,161 sf [c]	+41,336 [d]
Historic Key System Building	Retain/Rehabilitate	Retain/Rehabilitate	No change [e]

[a] Usable building floor area is used for the CEQA analysis; Building floor areas for non-usable building support service areas and utilities are presented for informational and comparative purposes only. To ensure conservative CEQA analysis of the Proposed Project, maximum usable building floor area by use is analyzed throughout the analysis, which exceeds the Project sponsor's 8/30/17 detailed floor area and building use spreadsheet which represents 309,890 total square feet of office use. The CEQA analysis analyzes 2,525 more square feet of office use than shown on the Project sponsor's submitted plans in Appendix I to this document.

[b] 2008 Office Project includes ancillary building support uses, including lobby, loading, utilities, mechanical, life-fire safety, rain/fire water storage, and storage space.

[c] Proposed Project includes same ancillary building support uses as for the 2008 Office Project (footnote "b"), in addition to the tenant storage, optional buildout space for fitness facilities, meeting rooms for tenant-only use, and the ground floor of the new office building. These uses occur in the entire basement of the new office building and the KSB.

[d] Non-usable floor area not factored into quantified CEQA analyses.

[e] More of the existing KSB exterior and interior will be retained and rehabilitated.

SOURCE: 2008 Final Addendum; Ellis Partners Project Plans, 8/30/17

[6] To ensure conservative CEQA, maximum usable building floor area by use is analyzed throughout the analysis, which exceeds the Project sponsor's 8/30/17 detailed floor area and building use spreadsheet which represents 309,890 total square feet of office use.

4.5 Project Components

New Office Building

The proposed new 18-story, 240-foot tall commercial office building would result in up to approximately 290,859 square feet of new usable floor area, incorporating approximately 286,525 square feet of new office space and approximately 4,334 square feet of new ground-floor retail/restaurant uses at the street level.[7] While not required to be considered for purpose of the CEQA Analysis, the new office building would also incorporate a 5,850 square-foot entrance lobby and approximately 35,915 square feet of building support uses.[8] Certain proposed plans for the new office building are shown in **Figure 9** through **Figure 12**, and **Figure 19**; the full set of Project plans are included in **Appendix I** to this document.

The new office building would abut and connect structurally to the north side of the existing historic building and incorporate an approximately 25-foot cantilevered section at the upper levels (floors 9-18) extending over the side of the existing eight-story historic building. The bottom of the cantilever is support above the roof of the existing historic building. Further, the cantilevered levels are setback from the front/Broadway façade of the new office building and the Key System Building by approximately 7.5 feet.

The architectural composition of the proposed new office building includes three primary stacked elements: (1) a rectangular, two-story base (ground level and mezzanine) containing building entrances and retail space; (2) a lower tower volume (floors 3-8) containing office space; and (3) an upper tower volume with cantilevered section (floors 9-18) containing office space; and a mechanical penthouse. The proposed building exterior is sheathed in curtain wall glazing, alternating between bays with fields of extruded vertical fins and those without.

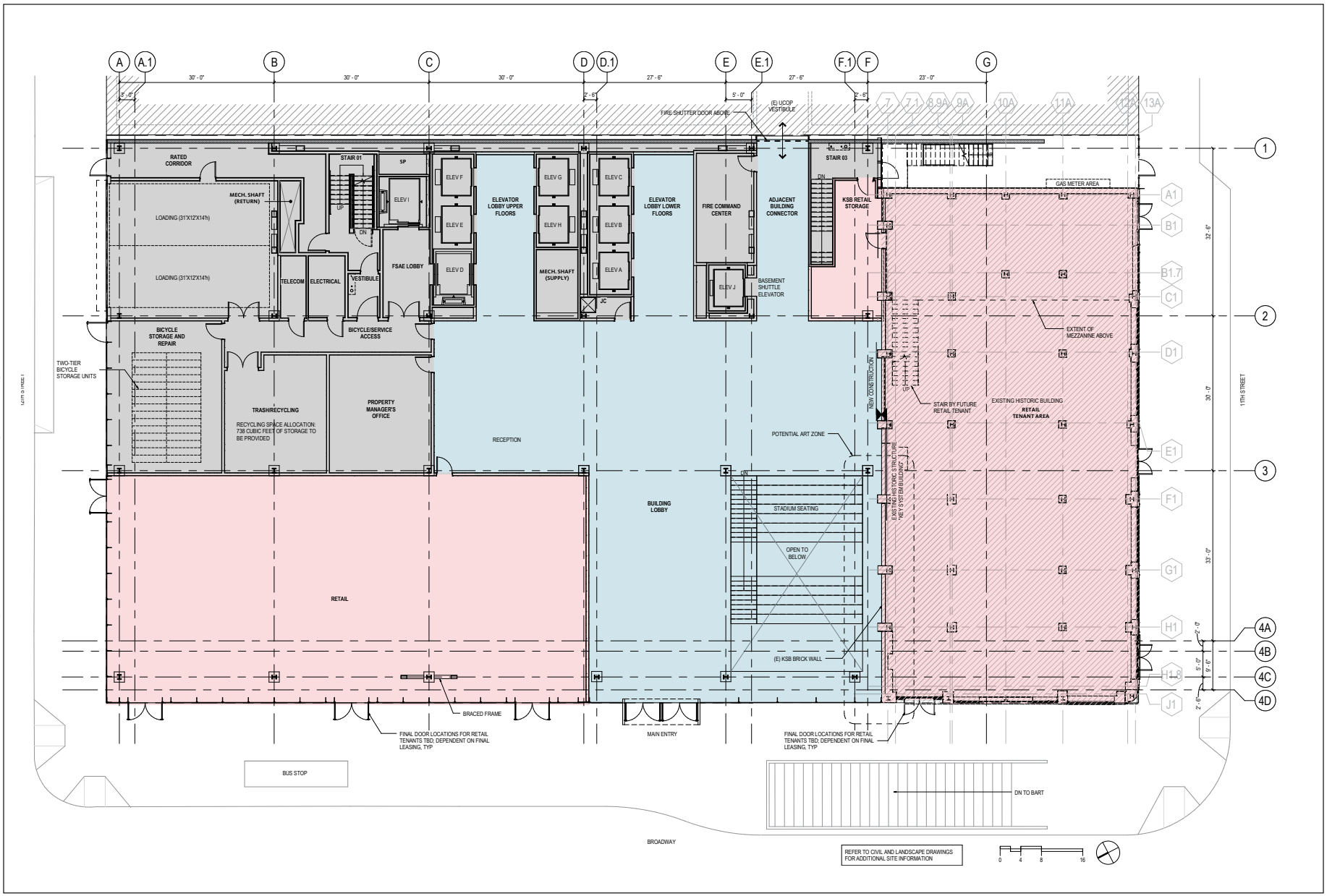
There would be one full basement level under both the new office building and the existing Key System Building. The design includes a below-grade connection to the adjacent parking structure, a connection at grade to the UCOP building, and a connection onto the UCOP roof garden at floor 5. In addition, the Proposed Project includes space for an optional approximately 8,100 square-foot rooftop terrace on the penthouse roof level (see **Figure 12**). Approximately 25 percent of the rooftop terrace would be landscaped with a variety of shrubs, groundcovers and trees and provide seating and tables with amenities and windscreens.

Rehabilitation of Key System Building

The Proposed Project involves the rehabilitation of the existing eight-story historic Key System Building for 31,556 square feet of new usable floor area, incorporating approximately 25,890 square feet of restored office space and approximately 5,666 square feet of retail/restaurant uses at the street and mezzanine levels. As mentioned above, while not required to be considered for purposes of the CEQA Analysis, the basement of the Key System Building will house approximately 6,921 square feet of building support uses. Certain, proposed plans for the Key System Building are shown in **Figure 13** through **Figure 19;** the full set of Project plans are included in Appendix I to this document.

[7] The CEQA analysis in this document conservatively analyzes 2,525 more square feet of office use than shown on the Project sponsor's submitted plans, included as Appendix I to this document.

[8] "Building Support Uses" includes mechanical, electrical, plumbing, fire-life safety, a potential conference center, fitness center, bike storage, and general storage and other uses.



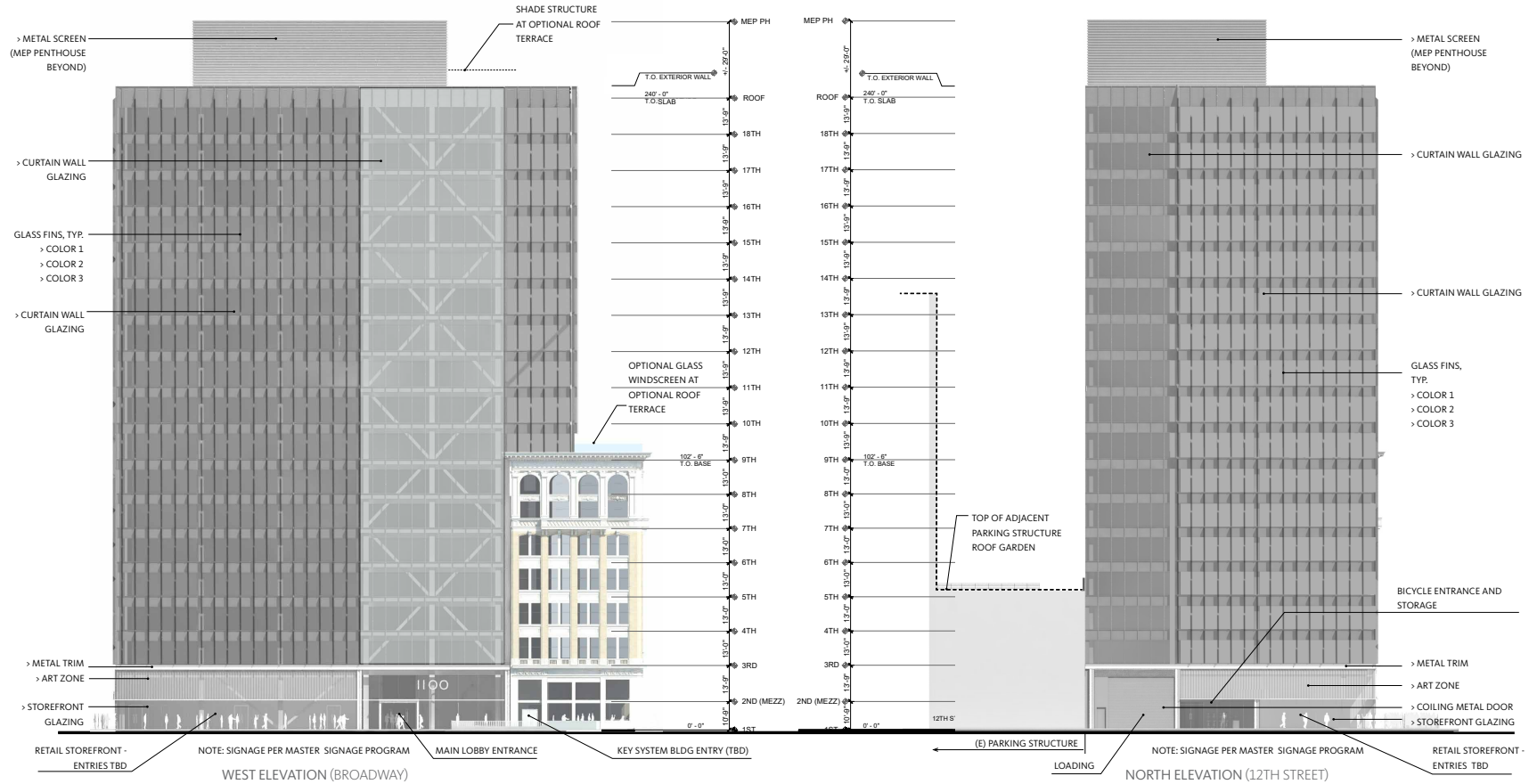
SOURCE: Ellis Partners

1100 Broadway Addendum

Figure 9
Proposed New Office Building – Ground Floor Plan

ESA

sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 9 Grnd Floor.ai

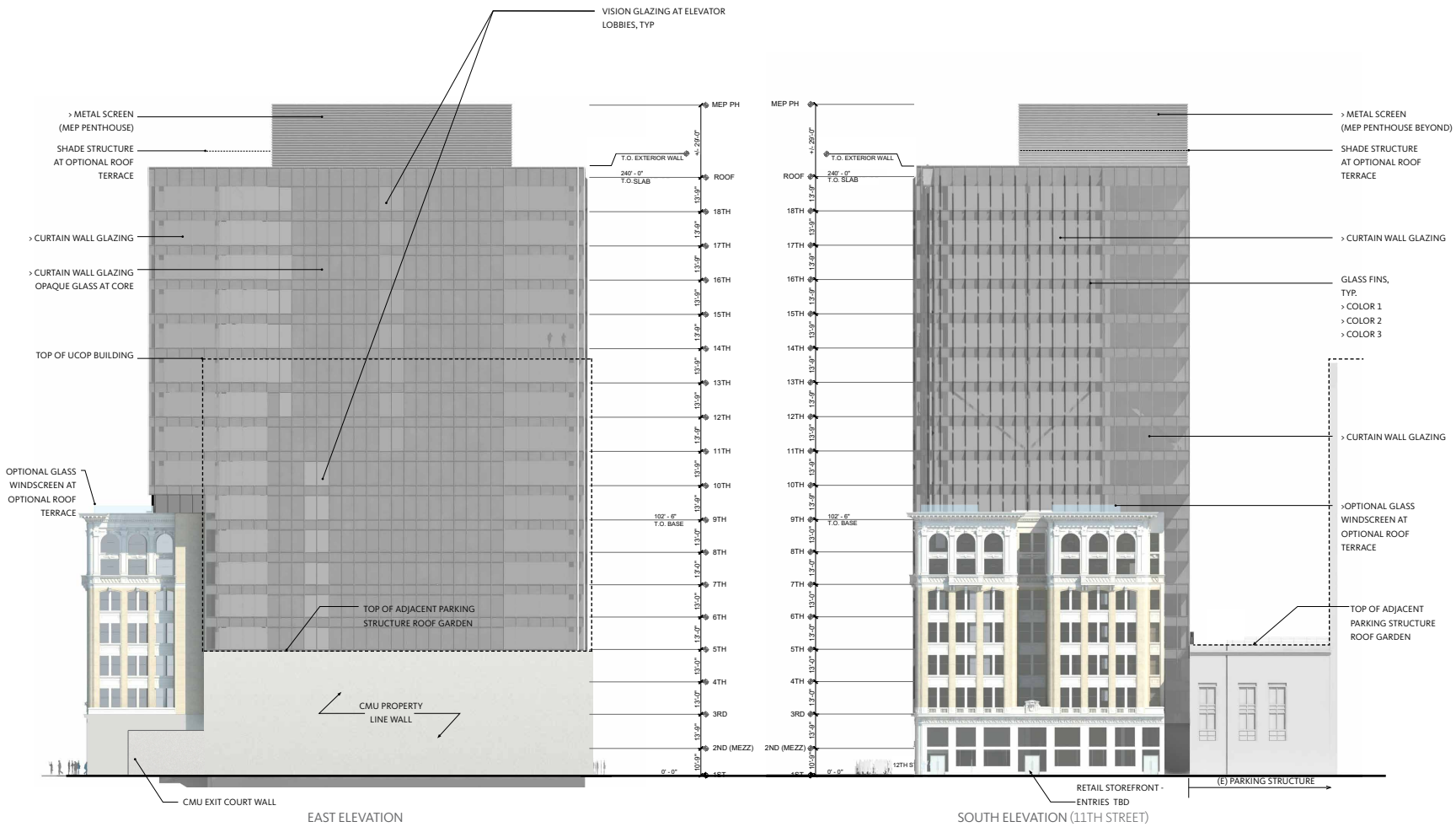


SOURCE: Kaplan McLaughin Diaz

1100 Broadway Addendum

Figure 10
Proposed New Office Building – Broadway and 12th Street Elevations

sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 10 Elevation 12th St.ai



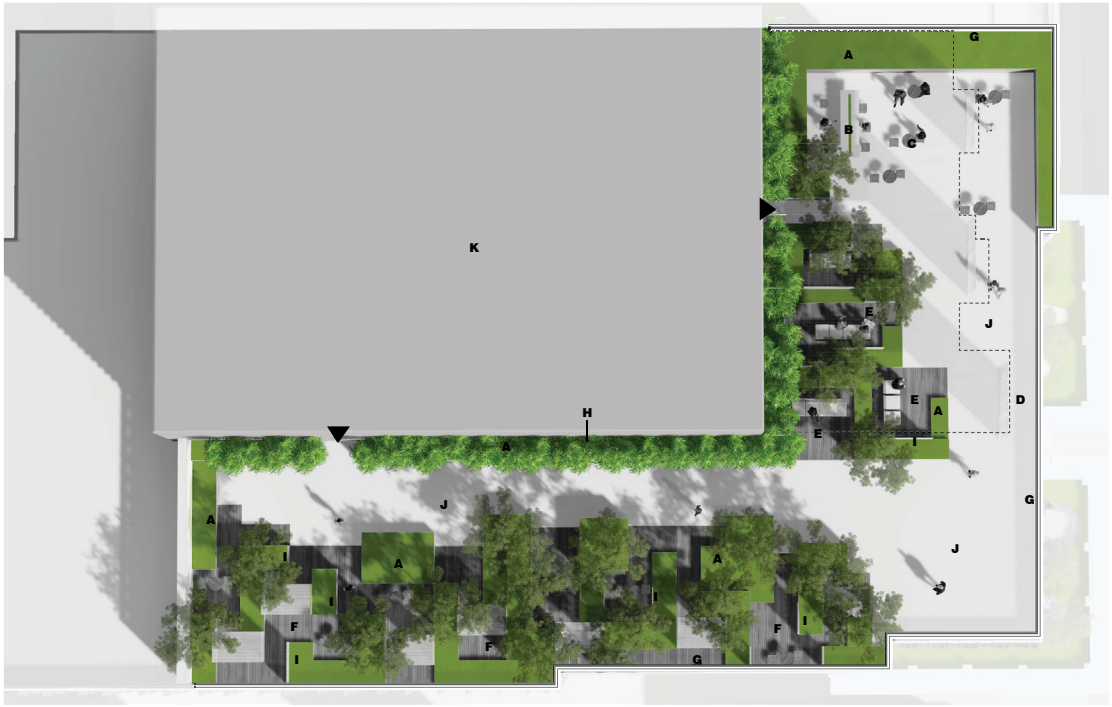
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 11 Elevations 11th St.ai

SOURCE: Ellis Partners

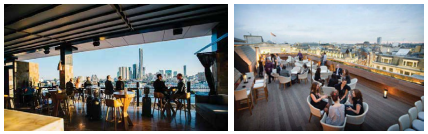
1100 Broadway Addendum

Figure 11
Proposed New Office Building – 11th Street and Rear (East) Elevations

ESA



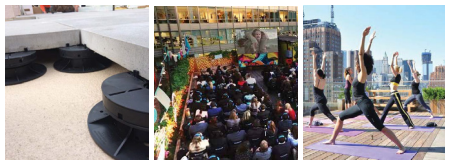
LEVEL 19 ROOF DECK - TOP VIEW



BAR AND CAFE

PLANTING/ SCREENING

WORK AREA



PEDESTAL PAVER

FLEXIBLE PROGRAM AREA

LOUNGE

NOTE: IF OPTIONAL ROOF TERRACE IS PURSUED, FINAL DESIGN SUBJECT TO TENANT FEEDBACK

LEGEND

A. Planter
B. Communal Table
C. Cafe Seating
D. Trellis
E. Lounge Area
F. Decking
G. Glass Windscreen / Railing
H. Planted Screen
I. Windscreen
J. Flexible Program Area (Pedestal Pavers)
K. Mechanical Area

NOTE:
SEE ARCHITECTURAL PLANS FOR FLOOR PLAN AND ROOF DRAINAGE.
DRIP IRRIGATION SHALL BE PROVIDED TO ALL PLANTING ZONES

AREA TABULATION

Roof Area: 7900 SF
Hardscape: 5900 SF (75%)
Softscape: 2000 SF (25%)
Occupancy: 390

PRELIMINARY PLANT SCHEDULE

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QUANTITY	SIZE	IRRIGATION
TREE					
	Olea europaea OR *Lagerstroemia indica 'Glendora White'*	Olive Tree OR Crepe Myrtle (White Flowering)	15	24" Box	Bubbler
PLANT FOR SCREENING					
H	*Himalayacalamus hookerianus*	Blue Bamboo	1,075 sq ft	24" Box	Bubbler

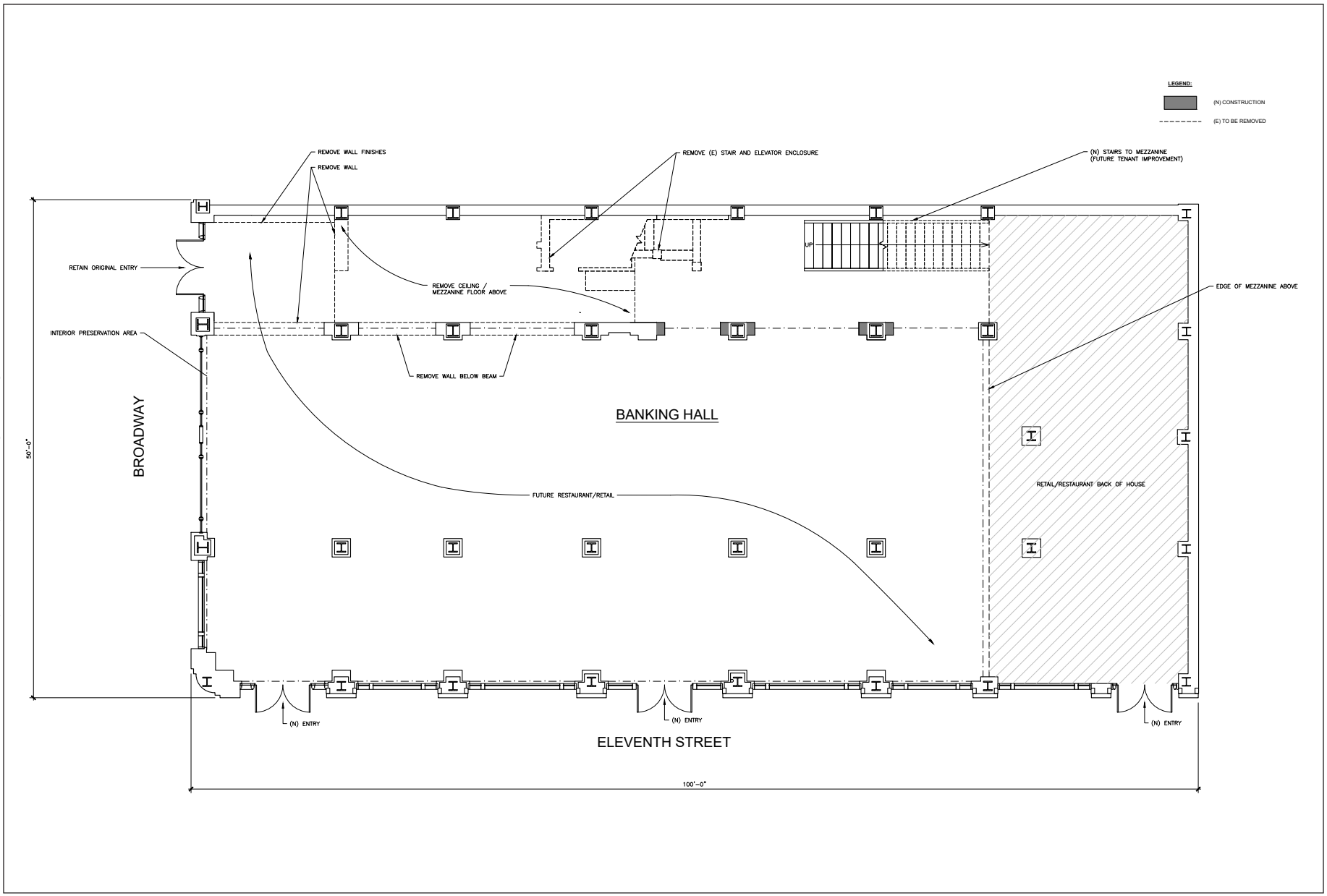
SYMBOL	SCIENTIFIC NAME	COMMON NAME	AREA (SQ FT)	SIZE	IRRIGATION
SHRUB / GROUNDCOVER					
	Agave Attenuata *Senecio mandraliscae* *Anigozanthos Flavidus* *Achillea millefolium* *Carex divulsa* *Lomandra longifolia "Breeze"* *Salvia apiana* *Heuchera sanguinea* *Agave spp.* *Arctostaphylos spp.* *Epilobium canum*	Fox Tail Agave Blue Chalk Sticks Kangaroo Paw Yarrow Berkeley Sedge Dwarf Mat Rush White Sage Coral Bells Agave Creeping Manzanita California Fuschia	2,000 sq ft	1 Gal	Drip Irrigation

sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 12 Roof Terrace.ai

SOURCE: Ellis Partners

1100 Broadway Addendum

Figure 12
Proposed New Office Building – Roof Terrace (Level 19)



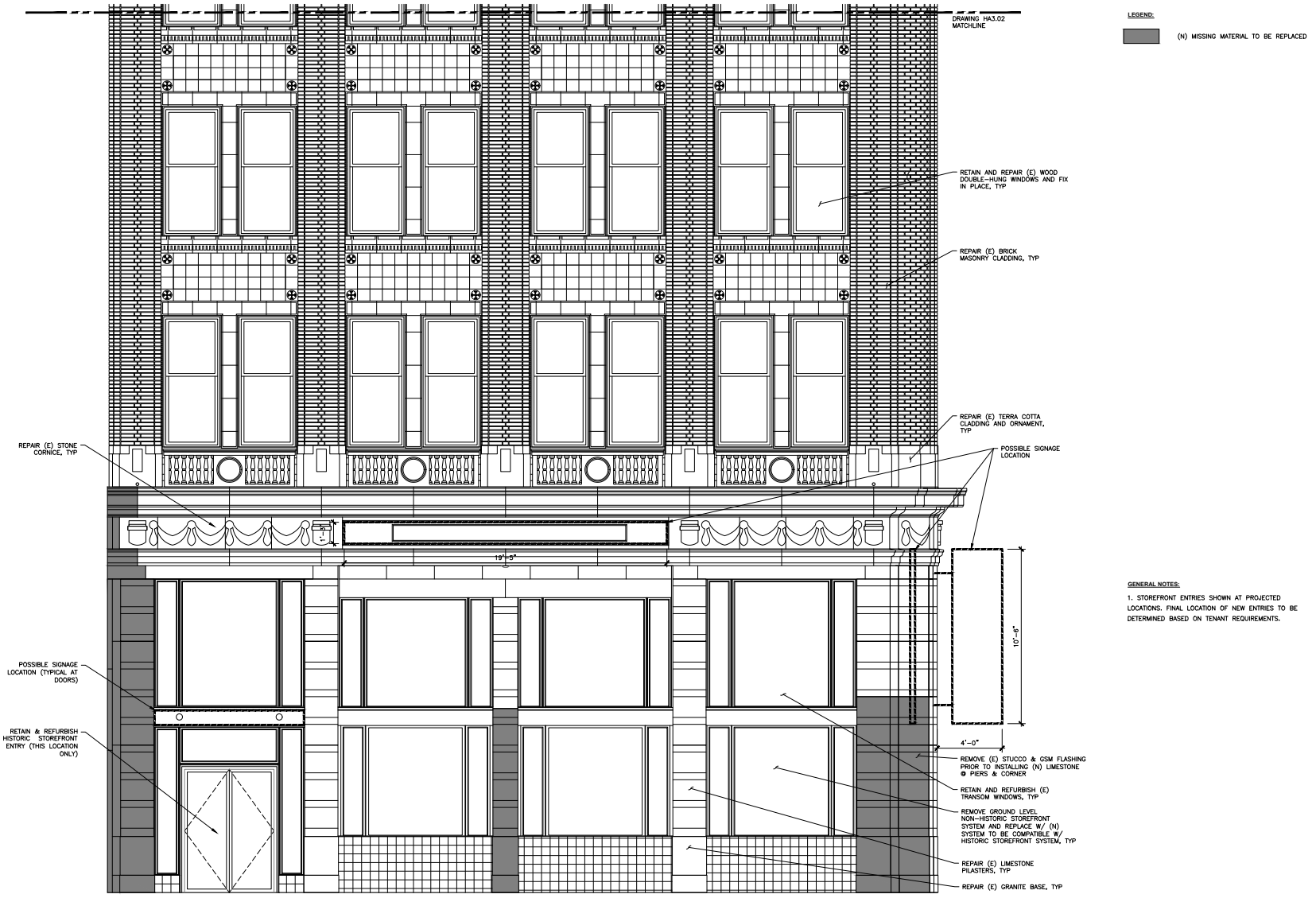
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 13 Grnd Floor.ai

SOURCE: Ellis Partners

1100 Broadway Addendum

Figure 13
Proposed Key System Building– Ground Floor Plan

ESA



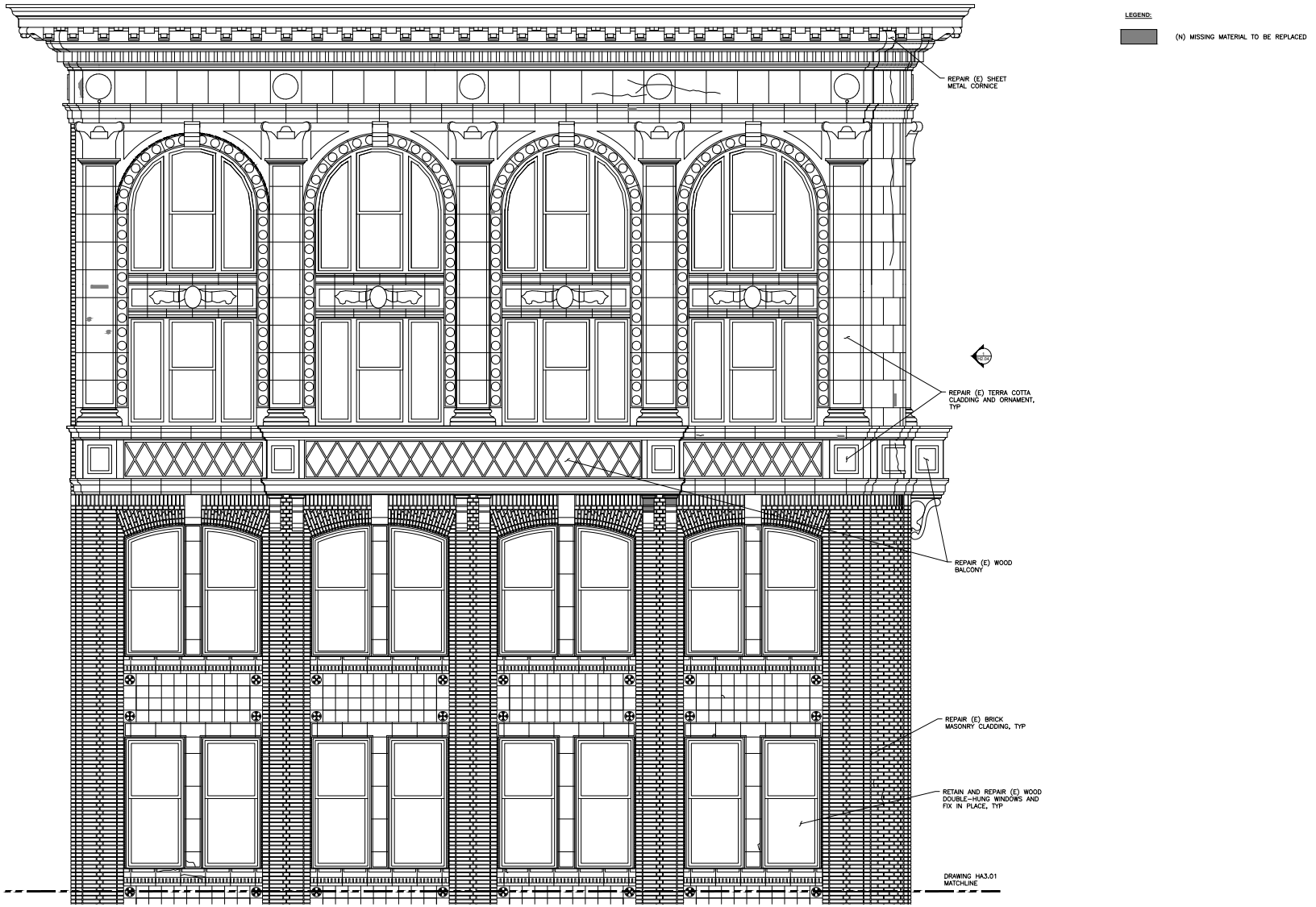
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 14 Elevation Broadway Flr 1-4.ai

SOURCE: Ellis Partners

1100 Broadway Addendum

Figure 14
Proposed Key System Building – Broadway Elevation (Floors 1-4)

ESA



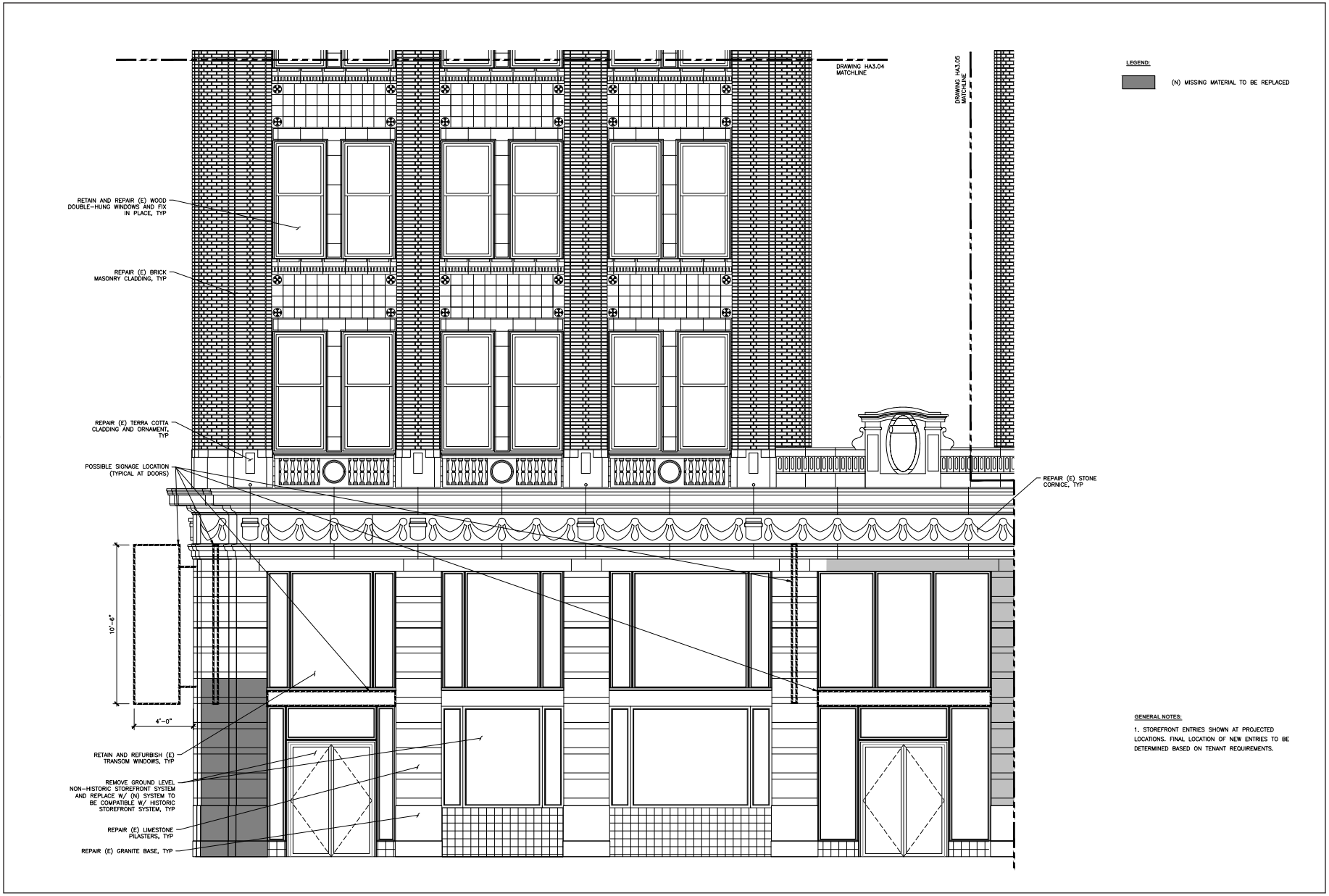
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 15 Elevation Broadway Flr 5-roof.ai

SOURCE: Ellis Partners

1100 Broadway Addendum

Figure 15
Proposed Key System Building – Broadway Elevation (Floors 5-Roof)

ESA



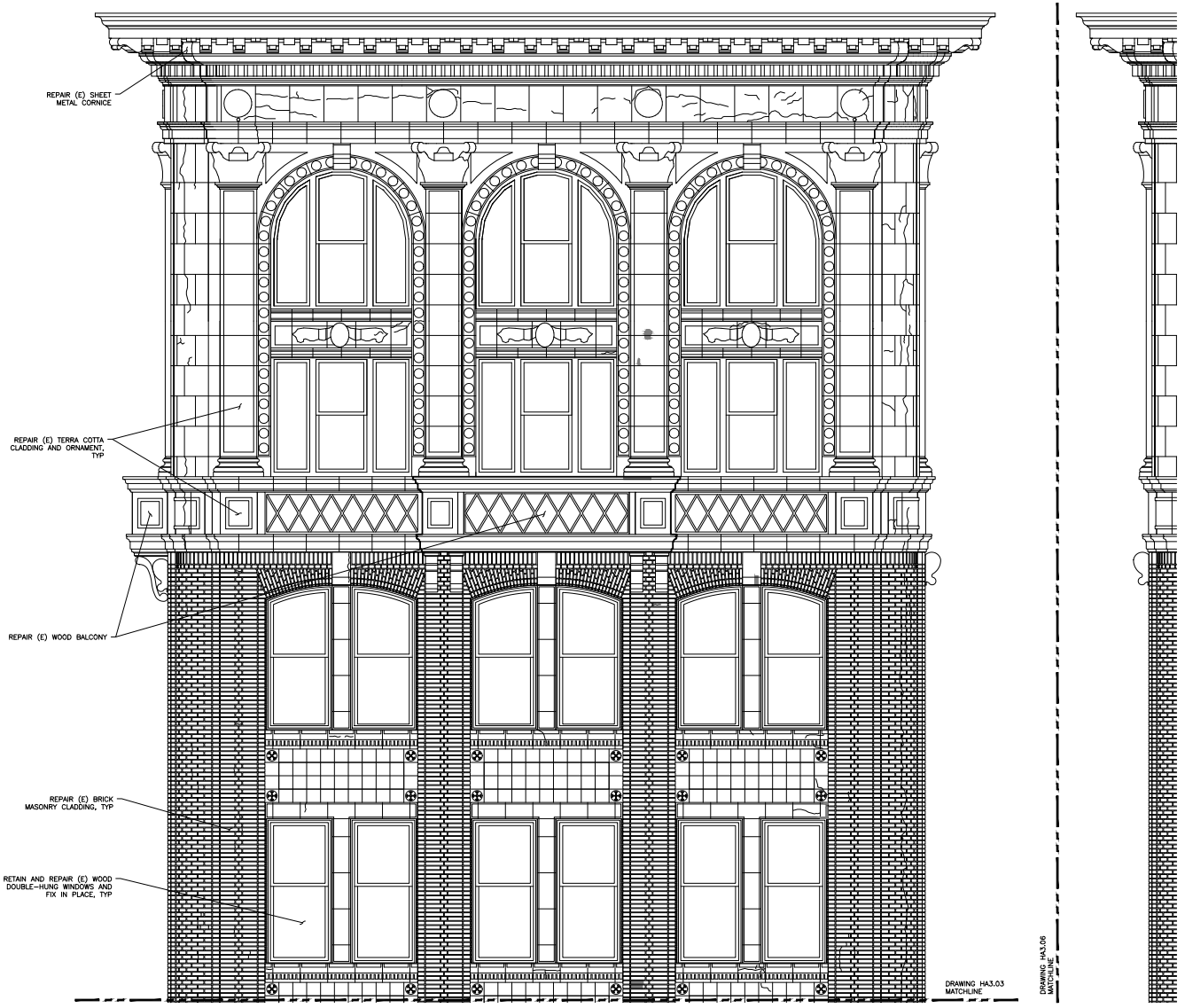
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 16 Elevation 11th St Flr 1-4.ai

SOURCE: Ellis Partners

1100 Broadway Addendum

Figure 16
Proposed Key System Building – 11th Street Elevation (Floors 1-4)

ESA



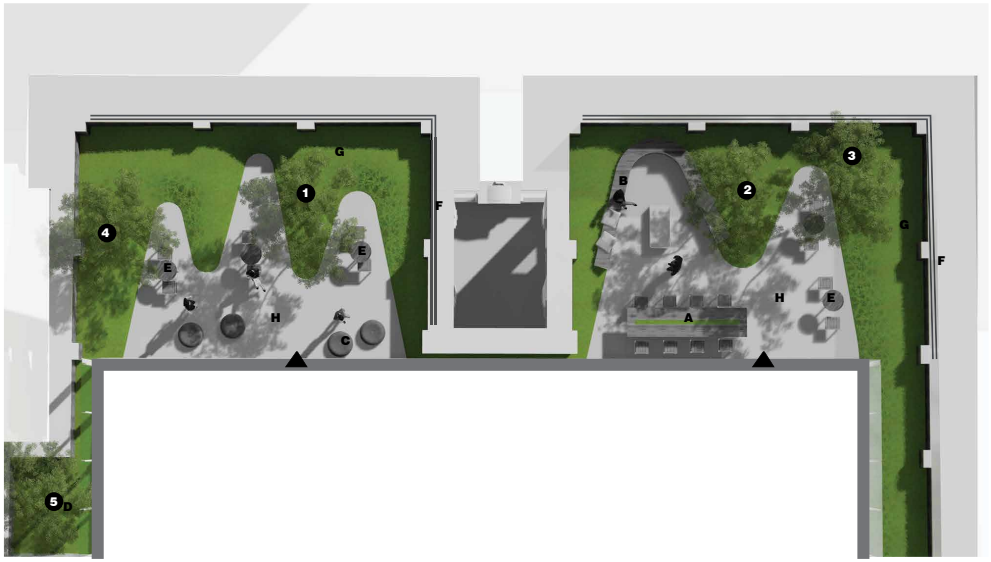
sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 17 Elevation 11th St Flr 5-roof.ai

SOURCE: Ellis Partners

1100 Broadway Addendum

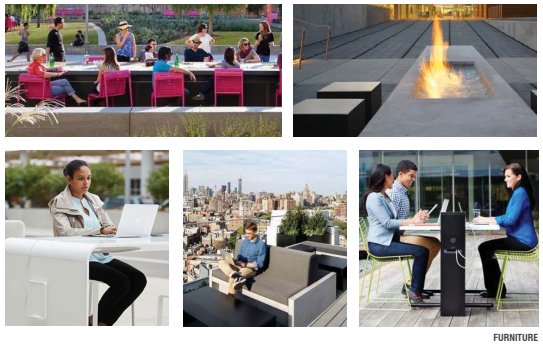
Figure 17
Proposed Key System Building – 11th Street Elevation (Floors 5-Roof)

ESA



0' 2' 4' 8' N

LEVEL 9 ROOF TERRACE - TOP VIEW



FURNITURE

LANDFORM / PLANTING

PEDESTAL PAVER

WIND SCREEN

LEGEND

A. Communal Table
B. Lounge
C. Seating
D. Specimen Tree (5)
E. Cafe Table
F. Glass Windscreen
G. Planted Landform
H. Pedestal Paver

AREA TABULATION

Roof Area: 2250 SF
Hardscape: 860 SF (38.5%)
Softscape: 1390 SF (61.5%)
Occupancy: 57

NOTE:
SEE ARCHITECTURAL PLANS FOR FLOOR PLAN AND ROOF DRAINAGE.
DRIP IRRIGATION SHALL BE PROVIDED TO ALL PLANTING ZONES

PRELIMINARY PLANT SCHEDULE

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QUANTITY / AREA (SQ FT)	SIZE	IRRIGATION
TREE					
(1)(2) (3)(4)	*Olea europaea* OR *Lagerstroemia indica* *'Glendora White'*	Olive Tree OR Crepe Myrtle (White Flowering)	4	24" Box	Bubbler
(5)	*Acer Palmatum*	Japanese Maple	1	24" Box	Bubbler
SHRUB / GROUNDCOVER					
	Agave Attenuata *Senecio mandraliscae* *Anigozanthos Flavidus* *Achiltea millefolium* *Carex divulsa* *Lomandra longifolia "Breeze"* *Salvia apiana* *Heuchera sanguinea* *Agave spp.* *Arctostaphylos spp.* *Epilobium canum*	Fox Tail Agave Blue Chalk Sticks Kangaroo Paw Yarrow Berkeley Sedge Dwarf Mat Rush White Sage Coral Bells Agave Creeping Manzanita California Fuschia	1,250 sq ft	1 Gal	Drip Irrigation

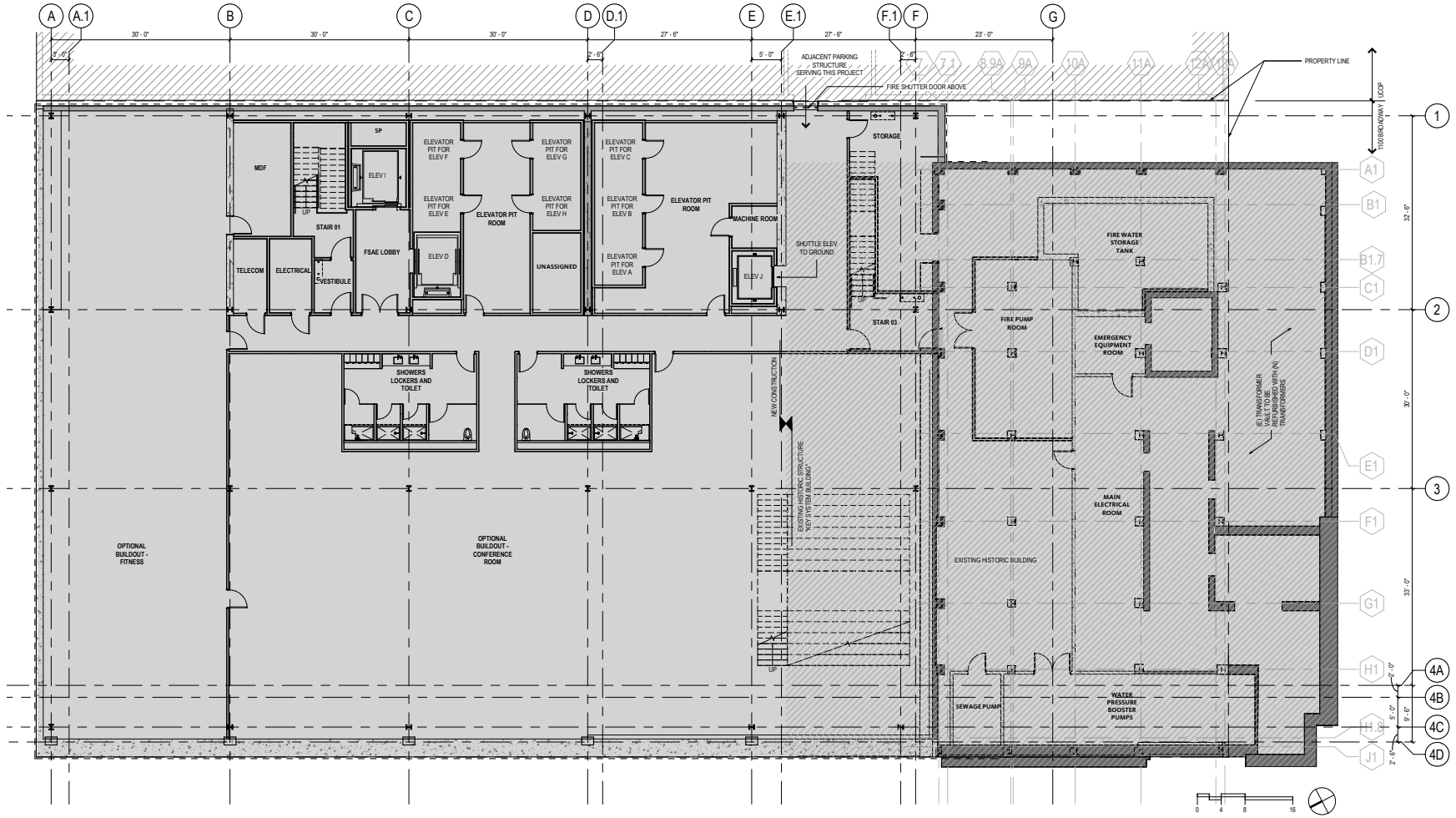
NOTE: IF OPTIONAL ROOF TERRACE IS PURSUED, FINAL DESIGN SUBJECT TO TENANT FEEDBACK

sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 18 Roof Terrace.ai

SOURCE: Ellis Partners

Figure 18
Proposed Key System Building - Roof Terrace (Level 9)

ESA



SOURCE: Kaplan McLaughin Diaz

1100 Broadway Addendum

Figure 19
Proposed Project – Full Basement Plan

sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 19 Basement.ai

The existing historic architectural facades on Broadway and 11th Street would be repaired, retained, and preserved. Proposed storefront alterations are limited to replacement of non-original storefront windows and doors and new signage. At the north side of the historic building, most of the existing north wall - a non-architectural facade that was originally planned to abut an adjacent building - would be removed and the south side of the revised office building would be structurally joined to the existing building and its existing floor plates, allowing for internally continuous new floor plates at floors 3-8. At the interior, the proposed ground floor renovation includes repair and retention of existing historic interior features and finishes, and renovation of the ground floor and mezzanine for restaurant/retail space.

A 2,250 square-foot landscaped rooftop terrace is proposed on the roof of the eight-story Key System Building, which would also be access from the 9th floor of the new office building. Approximately 62 percent of the terrace would be landscaped with a variety of shrubs, groundcovers and trees and provide seating and tables with amenities for communal use (see **Figure 18**).

Parking and Building Access

No on-site parking is proposed or required, and there is an option for the developer to secure 145 parking spaces in an existing adjacent underground garage. The Proposed Project includes a bicycle parking program that includes 33 long term spaces and 18 short term spaces. Site access through a bicycle/service access corridor is accessed from 12th Street, where two loading berths are also proposed.

Primary pedestrian access and egress points to the main lobby and reception area of each structure will be on the Broadway frontage, as are most of the entrances to the retail spaces.

Construction Activity

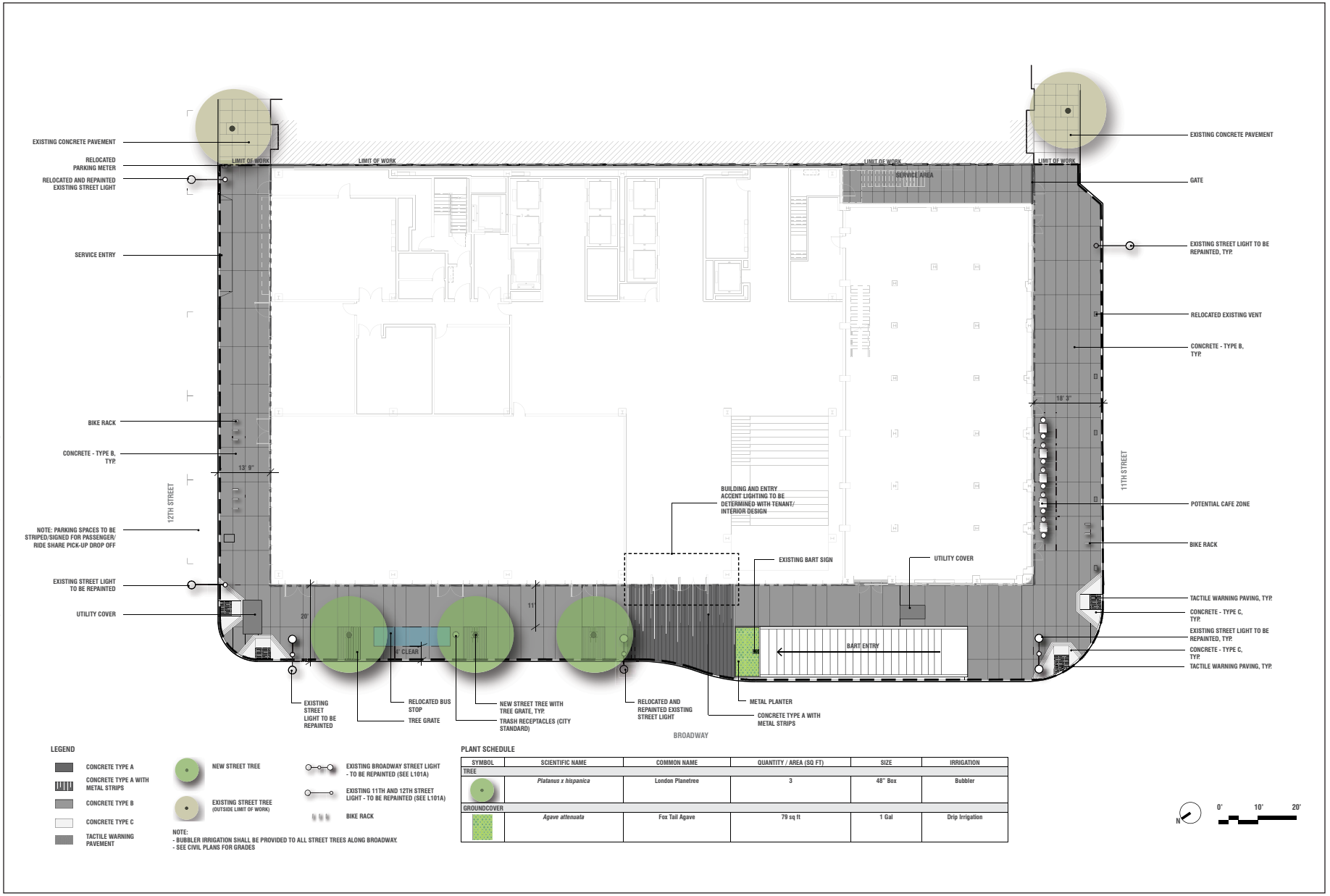
Construction activities on the project site would consist of excavation and shoring, foundation and below-grade construction, and construction of the office building and finishing interiors, as well as the interior and exterior rehabilitation of the Key System Building. A two-year construction period for the Proposed Project is projected to begin in January 2018, and the Project's first operational year is estimated to be 2020.

The Proposed Project will require the excavation and off haul of approximately 2,610 cubic yards of earth from the Project site, in addition to approximately 7,415 cubic yards of existing demolition rubble (for a total of approximately 10,000 cubic yards) to a depth of 14 feet on the Project site. The excavation activity is anticipated to use conventional earth-moving equipment, such as loaders and backhoes. No soils are anticipated to be imported to the site.

The Proposed Project will involve screw piles; no impact-driven piles will be used.

Streetscape and Landscaping

The Proposed Project streetscape and proposed changes to existing conditions are depicted in **Figure 20**. There are no trees located on the Project site. Two existing street trees on Broadway adjacent to the Project site are eight inches in diameter at breast height (dbh). These trees are in poor condition and will be removed and replaced with three replacement trees on in front of the proposed new office building. Other public streetscape improvements include new street tree grates and repainting existing streetlights along each street frontage. New concrete sidewalks will be installed with tactile pavement areas at crossing locations, and a new potential street café zone is designated near the corner of 11th Street and Broadway. Also, as mentioned above, the Proposed Project includes options for landscaped rooftop terraces on the new office building (see **Figure 12**) and the Key System Building (see **Figure 18**).



sfo-file01\PROJECTS\SFO\17xxxx\D170148.00 - 1100 Broadway Addendum 3\05 Graphics-GIS-Modeling\Illustrator\Fig 20 Streetscape.ai

SOURCE: Ellis Partners

1100 Broadway Addendum

Figure 20
Proposed Streetscape

ESA

Stormwater Management

The site currently has 8,600 square feet of impervious surface area, and with implementation of the Project will increase to approximately 21,000 square feet or the entire project site. Stormwater quality features will include directing stormwater to a media filter located in the basement, which will remove suspended solids and sediment from the stormwater before it leaves the Project site.

Green Building Features

The Project sponsor intends to meet the LEED V4 Core & Shell Rating System and anticipates achieving 64 points through the adherence to California Green Building Standards (CalGreen) and Title 24 Building Energy Efficiency Standards (Energy Standards). The Project proposes to incorporate certain Green Building features that exceed those in the aforementioned code requirements and thereby earn the Project additional points for LEED (which total the potential 64 points).

According to the Project's LEED V4 for New Construction Scorecard (compared to the applicable Oakland CalGreen Checklist), these include (1) indoor water efficiency measures that include water metering and use of low flow appliances and fixtures beyond CalGreen levels; (2) strategies that optimize energy performance (including heating, ventilation, air conditioning [HVAC] and lighting systems) beyond standards specified in the State Energy Standards; (3) use of no or low-impact refrigerants in HVAC and refrigeration equipment; (4) use of low volatile organic compound (VOC) emission materials that exceed the standards established by the Bay Area Air Quality Management District (BAAQMD) regulation 8 Rule 3 for low VOC paints and architectural coatings; and (5) renovation and reuse of a historic building structure. The Project also earns additional LEED credits for being an (6) urban infill development located within a historic district and adjacent to "quality" transit.

4.6 Discretionary Project Approvals

The Proposed Project requires the following discretionary actions and approvals, without limitation:

Actions by the City of Oakland

- **Major Conditional Use Permit:** The Proposed Project requires an amended Major Conditional Use Permit necessary for large-scale development, pursuant to Planning Code Section 17.58.030.
- **Regular Design Review**: The Proposed Project seeks a new Regular Design Review permit addressing the proposed new office building design and rehabilitation of the historic Key System Building.
- **Minor Variance**:
    - The Proposed Project requires a Minor Variance to allow for the minimum required number of off-street loading berths to be reduced from three (3) to two (2), for the length of off-street loading berths to be reduced from 33 feet to 31 feet, and for the width of the off-street loading berth with obstructing walls to be reduced from 15 to 12 feet, pursuant to Planning Code Section 17.116.140 and 17.116.220.
- **Tree Preservation and Removal Permit:** The Proposed Project would remove two existing trees, plant three new trees, and work in close proximity to two other existing trees outside the limits of work.

- **Tentative Parcel Map and Parcel Map:** The Proposed Project would also be required in order to merge the existing parcels into a single legal parcel, pursuant to Planning Code Section 16.24.010. The map is required prior to construction; it is not required for approval of the Project's entitlements.

Actions by Other Agencies

- **Bay Area Air Quality Management District (BAAQMD)**: Issuance of permits for installation and operation of the emergency generator.
- **East Bay Municipal Utility District (EBMUD)**: Approval of new service requests and new water meter installations.

5.0 Summary of Findings

An evaluation of the Proposed Project is provided in the CEQA Checklist in Section 6.0 of this CEQA Analysis document. This evaluation supports a determination that the Proposed Project qualifies for an addendum as well as an exemption from additional environmental review. It is consistent with the development density and land use characteristics established by the City of Oakland General Plan, and any potential environmental impacts associated with the Proposed Project were adequately analyzed and covered by the analysis in the 1998 EIR as updated by its 2006 and 2008 addenda, and in the applicable Program EIRs: the 1998 LUTE EIR and the 2011 Redevelopment Plan Amendments EIR.

The Proposed Project is required to comply with the applicable mitigation measures identified in the 1998 EIR, as specifically updated and amended by the 2008 Addendum for the 2008 Office Project and presented in **Attachment A** to this document. The Proposed Project is also required to comply with applicable City of Oakland SCAs that are presented in Attachment A to this document. With implementation of the existing applicable mitigation measures and SCAs, the Proposed Project would not result in a substantial increase in the severity of environmental impacts identified in the 2008 Addendum to the 1998 EIR, the applicable Program EIRs, or in any new significant impacts that were not previously identified in any of those CEQA documents.

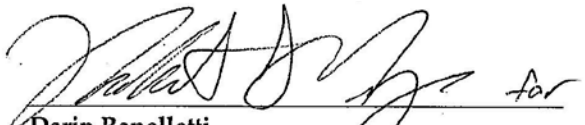
In accordance with California Public Resources Code Sections 21083.3 and 21166; and CEQA Guidelines Sections 15162, 15164, 15183, 15168, and 15180, and as set forth in the CEQA Checklist on Section 6.0 of this document, the Proposed Project qualifies for an addendum and one or more exemptions because the following findings can be made:

- **Addendum.** The analyses conducted and the conclusions reached in the certified 1998 EIR, and last confirmed by the City Council in the 2008 Addendum #2 to that EIR, remain valid. The Proposed Project would not cause new significant impacts not previously identified in the previously certified Program EIRs, nor result in a substantial increase in the severity of previously identified significant impacts. No new mitigation measures would be necessary to reduce significant impacts. No changes have occurred with respect to circumstances surrounding the approved 2008 Office Project that would cause significant environmental impacts to which the Proposed Project would contribute considerably, and no new information has been put forward that shows that the Proposed Project would cause significant environmental impacts. Therefore, no supplemental environmental review is required in accordance with Public Resources Code Section 21166, and CEQA Guidelines Sections 15162, 15164, as well as 15168 and 15180.
- **Community Plan Exemption.** The Proposed Project would not result in significant impacts that (1) are peculiar to the project or project site; (2) were not previously identified as significant project-level, cumulative, or offsite effects identified in the 1998 EIR and last confirmed in the 2008 Addendum to that EIR, or in the applicable Program EIR: the 1998

LUTE EIR; or (3) were previously identified as significant effects, but which—as a result of substantial new information not known at the time the 1998 EIR or its 2008 Addendum were prepared, or when the Program EIRs were certified—would increase in severity beyond that described in those CEQA documents. Therefore, the Proposed Project would meet the criteria to be exempt from further environmental review in accordance with Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183.

- **Program EIRs and Redevelopment Projects.** The Proposed Project would not result in substantial changes or involve new information not already analyzed in the 2011 Redevelopment Plan Amendments EIR, in which the Proposed Project is identified as part of the series of actions named in the cumulative analysis of that EIR. The effects of the Proposed Project have been addressed in that EIR and no further environmental documents are required in accordance with CEQA Guidelines Sections CEQA Guidelines Sections 15168 and 15180.

Each of the above findings provides a separate and independent basis for CEQA compliance.



for

Darin Ranelletti
City of Oakland Environmental Review Officer

September 15, 2017

Date

6.0 CEQA Checklist

6.1 Overview

The analysis in this CEQA Checklist provides a summary of the potential environmental impacts that may result from adoption and implementation of the Proposed Project, as updated from the previously approved 2008 Office Project evaluated in the adopted 2008 Addendum to the certified 1998 EIR. The analysis in this CEQA Checklist also summarizes the impacts and findings of Program EIRs that covered, specifically or as part of cumulative analyses, the environmental effects of development on the Project site and that are still applicable for the Proposed Project. As previously discussed in Section 2.4 of this document, the Program EIRs considered throughout this CEQA Analysis include the 1998 General Plan LUTE EIR and the 2011 Redevelopment Plan Amendments EIR. Given the lengthy timespan between the preparation of these two Previous EIRs and this analysis (19 and 6 years, respectively), there have been modifications to certain environmental topics addressed and significance criteria. However, as summarized above in Section 2.0 and throughout this CEQA Checklist, the overall environmental effects identified in each of the Previous CEQA Documents (which includes the Program EIRs and the 1998 EIR and its 2006 and 2008 Addenda) are the same as for the Proposed Project; any notable differences are disclosed.

When the 2008 Addendum was prepared, there were a number of mitigation measures relating to construction air quality and noise that the City considered to be development standards uniformly applied as condition of approval (i.e., SCAs), but that the City continued to apply as mitigation measures from the original 1998 EIR for convenience and simplicity. Pursuant to current City practice, all previous mitigation measures identified the 1998 EIR or its 2008 Addendum and that the City has since adopted as SCAs for all projects, are presented in this CEQA Analysis as such. All mitigation measures, as modified herein, and SCAs identified for the Proposed Project are presented in Attachment A to this document, which is incorporated by reference into this CEQA Analysis. Because the SCAs are mandatory City requirements, the impact analysis for the Proposed Project assumes that they will be imposed and implemented. (See *SCA Application-Generally* and *SCA Application in this CEQA Analysis* in Section 3.2 of this CEQA Analysis document.)

This CEQA Checklist hereby incorporates by reference the discussion and analysis of all potential environmental impact topics as presented in the certified 1998 EIR as updated by its 2006 and 2008 addenda, and the Program EIRs. The significance criteria from the 2008 Addendum have been consolidated and abbreviated in this CEQA Checklist for administrative purposes; where appropriate, the significance criteria are updated to reflect the current City of Oakland significance criteria that were established after the 2008 Addendum and that now apply to the Proposed Project.

6.2 Reading the CEQA Checklist

This CEQA Checklist provides a determination of whether the Proposed Project would result in:

- Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents;
- Substantial Increase in Severity of Previously Identified Significant Impact in the Previous CEQA Documents; or
- A New Significant Impact.

If the checkbox for "Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents" or "New Significant Impact" were checked, there would be significant impacts that are:

- Peculiar to project or project site (per CEQA Guidelines Sections 15183 or 15183.3);
- Not identified in the previous 1998 LUTE EIR (per CEQA Guidelines Sections 15183 or 15183.3), including offsite and cumulative impacts (per CEQA Guidelines Section 15183);
- Due to substantial changes in the project (per CEQA Guidelines Section 15162 and 15168);
- Due to substantial changes in circumstances under which the project will be undertaken (per CEQA Guidelines Sections 15162 and 15168); or
- Due to substantial new information not known at the time the Previous CEQA Documents were certified (per CEQA Guidelines Sections 15162, 15168, 15183, or 15183.3).

None of the aforementioned conditions were found for the Proposed Project, as demonstrated throughout the following CEQA Checklist and in its supporting Attachment B through Attachment D to this document that specifically describe how the Proposed Project meets the criteria and standards specified in the CEQA Guidelines sections identified above.

1. Aesthetics, Shadow, and Wind Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Have a substantial adverse effect on a public scenic vista; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings; or create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area;	☒	☐	☐
b. Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code sections 25980-25986); or cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;	☒	☐	☐
c. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or, cast shadow on an historical resource, as defined by CEQA Guidelines Section 15064.5(a), such that the shadow would materially impair the resource's historic significance;	☒	☐	☐
d. Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses; or	☒	☐	☐
e. Create winds that exceed 36 mph for more than one hour during daylight hours during the year. The wind analysis only needs to be done if the project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown.	☒	☐	☐

SCENIC VISTAS, SCENIC RESOURCES, AND VISUAL CHARACTER (CRITERION 1A)

Previous Program EIR Findings

Visual quality (scenic vistas, scenic resources, visual character, and light and glare) was analyzed in each of the Program EIRs considered throughout this CEQA Analysis. The 1998 LUTE EIR and the 2011 Redevelopment Plan Amendments EIR found that the effects to visual quality would be less than significant. The Redevelopment Plan Amendments EIR cited applicable SCAs that would ensure the less-than-significant visual quality effects. The LUTE EIR identified mitigation measures that would reduce the potential effects to less than significant, which are functionally equivalent to the SCAs.

2008 Addendum Findings

The 2008 Addendum determined that potential impacts on visual quality (scenic vistas, scenic resources, visual character, and light and glare) of the 2008 Office Project would be less than significant; no mitigation measures were necessary and no further environmental analysis was warranted.

The 2008 Addendum analyzed development of a 20-story office building and rehabilitation of the historic Key System Building. As shown in Figure 2 through Figure 8 (previously shown in Section 2.0), and illustrated in **Figure 21** on the following page, the new building would be up to 258 feet tall to its roofline (283 feet including rooftop mechanical penthouse) and sited to cover the entire undeveloped portion of the Project site. The 2008 Addendum found that the new office building would "fill a gap in the existing streetwall pattern in the area and would contribute to a pattern of high and low forms along the Broadway corridor…[and]would be a distinctive new presence in the skyline." The 2008 Addendum found that the new office building would not have a substantial adverse effect on any scenic vista; the view corridors in Oakland's downtown core are along existing streets, and the office building would be viewed in the context of dense downtown development along the existing street grid system. There are no scenic resources in the vicinity, nor any state or locally designated scenic highways. Further, the proposed landscaping and streetscape improvements with the 2008 Office Project complied with the Broadway Streetscape Improvements Project.

Proposed Project Analysis

The existing conditions and immediate surroundings of the Project site have remained unchanged since the 2008 Addendum evaluation. The north portion of the site remains largely a vacant, unpaved area, and the historic Keys System Building exists on the southernmost portion of the site. No pavement or landscaping exists on the vacant portion of the Project site except for a paved, landscaped pedestrian walkway providing access across the Project site between the Broadway right-of-way and the adjacent UCOP property; the three street-facing edges of the Project site have sidewalks and two existing street trees along Broadway.

Compared to the 2008 Office Project, the Proposed Project would construct a new office building of up to 240 feet tall to its roofline (269 feet including rooftop mechanical penthouse), which is a reduction in height of approximately 18 feet. Proposed Project Plans are provided in **Figures 9** through **Figure 21**. The general siting, orientation and massing of the new office building on the Project site and relative to the Key System Building would be the same as previously considered. However, notably, the Proposed Project would create an approximate 25-foot cantilever above the historic Key System Building at Floors 9

2008 APPROVED PROJECT

PROPOSED PROJECT

SOURCE: ESA, 2017

1100 Broadway Addendum

Figure 21
2008 Office Project and 2017 Proposed Project – Illustrative Perspective

ESA

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through 18; whereas the 2008 Office Project proposed a five-foot cantilever extension over the historic structure at Floors 10 through 20. The Proposed Project also incorporates more variation in façade design, with regards to volume arrangement, exterior materials, and wall features (see **Figure 21**).

While lower in height compared to the 2008 Office Project, the new office building would result in slightly less obstruction of views of the sky than previously estimated, and would still contribute to the varied building heights in Downtown viewed from distance locations. The 2008 Addendum acknowledged limited existing views in the area because of the dense, multi-story development in the area. This existing development still exists and continues to obscure substantial long-and short-range views of the Proposed Project from nearby locations. The Proposed Project would continue to increase lighting levels from the Project site, as would the 2008 Office Project, and it would be a source of daytime and nighttime light and glare common and accepted in this downtown commercial setting and which would not adversely affect views in the area. Also, like the 2008 Office Project, the Proposed Project would not use highly reflective mirrored coatings.

Overall, the impact to visual character, visual quality, and light and glare resulting with the Proposed Project would continue to be less than significant as the impacts discussed in the 2008 Addendum. This determination is due to the Proposed Project's reduced office building height and its similar siting, orientation, and massing to the 2008 Office Project. The impact would remain less than significant. These impacts of the Proposed Project would also be similar or less severe than those identified in the Previous CEQA Documents considered in this analysis.

Development of the Proposed Project would be required to comply with City of Oakland SCAs related to landscaping, graffiti control, landscaping, lighting plans, and utility undergrounding (detailed below and in Attachment A).

SHADOW (CRITERIA 1B THROUGH 1D)

Previous Program EIR Findings

The Redevelopment Plan Amendments EIR found less-than-significant shadow effects, assuming incorporation of applicable SCAs. The LUTE EIR identified mitigation measures to reduce potential shadow effects to less-than-significant levels.

2008 Addendum Findings

The 2008 Addendum determined that the 2008 Office Project would cast shadow to the west, north, and east of the four project blocks, and that potential shadow impacts would be less than significant; no mitigation measures were necessary and no further environmental analysis was warranted.

The analysis conducted for the 2008 Addendum used three-dimensional digital model modeling to depict existing and project-generated shadow patterns cast on the ground surface and on existing building rooftops in the project vicinity (see **Appendix A** to this document).[9] The assessment analyzed shadow cast for representative times of day (9 a.m., noon and 3 p.m.) for each of the four seasons of year, consistent with standard City of Oakland shadow analysis protocols. To address the applicable significance criteria "b" and "c", the assessment considered the potential effects of new shadow on solar collectors or photovoltaic (PV)

[9] Environmental Vision, *Shade and Shadow, 1100 Broadway*, Oakland, October 2007.

cells, nearby public open spaces, and historic resources. No solar panels were identified in the Project area when the 2008 Addendum was prepared. The nearby public open spaces considered in the 2008 Addendum were the Frank H. Ogawa and City Hall Plazas at 14th and Broadway, the Clorox Building Pedestrian Circulation Plaza near 13th and Broadway, and the 1111 Broadway Plaza directly west of the Project site. Also, the nearby historic resources considered were the Key System Building and 1212 Broadway. The 2008 Office Project was determined to have incremental and relatively minor changes in shadow cast on nearby solar panels, however it would not impair the use, enjoyment, or preservation of these sunlight-sensitive elements.

Proposed Project Analysis

There have been no changes or additions to the nearby public open spaces or historic resources considered in the 2008 Addendum with regard to shadow (described above). However, since the 2008 Addendum was prepared, the City has compiled and maintains a list of permitted solar collector facilities, and facilities at the following locations are near the Proposed Project site[10]:

- 835 Webster Street (approximately four blocks southeast)
- 394 12th Street (approximately 500 feet northeast)
- 1011 Broadway (approximately 400 feet southwest, Marriott Hotel)

The factor of new shadow cast from the Proposed Project is the location, height and massing of the proposed new construction. As discussed above, the Proposed Project would result in a new office building that is located on the same location within the Project site as the 2008 Office Project, and would be approximately 18 feet shorter. While the Proposed Project has more façade variation (described above), the overall tower massing remains columnar with the additional 10-story high south-side cantilevered extension (above the Key System Building) being the only change to the building's massing that could noticeably alter the shadow cast (whereas the 2008 Office Project included a 5-ft. deep, 11-story high cantilever). The Proposed Project's cantilever extends 20 feet further than the 2008 Office Building.

The shadow effects described in the 2008 Addendum included some new shadow on the 1111 Broadway Plaza during morning hours in spring and summer, and new shadow on the Clorox Building Pedestrian Circulation Plaza during the noon hour for most times of year except late spring/early summer (around the summer solstice analyzed in the 2008 shadow study). The reduced building height, and even considering the addition of a larger building element on the upper south façade of the proposed office building, the Proposed Project would not substantially change the duration or location of new shadow cast from the new office building compared to the 2008 Office Project. Referring to the shadow diagrams of the 2008 Office Project (Appendix A) that cast toward the west, northwest and southwest and thereby would capture the added bulk on the south façade of the building. This occurs in the morning (9 a.m.) nearly year round. In each of these instances, the potential additional shadow either would not occur because it would fall where existing shadow is already cast by other development, or it would not fall in the aforementioned nearby public open spaces.

Although not a public open space, the adjacent outdoor plaza on the on Floor 5 of the adjacent UCOP building (see **Figure 9** and **Figure 10**), would experience new shadow as the adjacent new office building

[10] City of Oakland, Inventory of Permitted Solar Collection Facilities, 2013.

would extend the length of the plaza and 13 stories above its level. This effect on the non-public open space is the same as would have occurred with the taller 2008 Office Project.

Development of the Proposed Project could result in additional shadow on the newly identified solar collector facilities nearby and could reduce the ability of those facilities to collect sun power. However, none of the facilities are located where the Proposed Project would permanently shade the equipment and substantially compromise their effectiveness due to a substantial loss of use or power or income from the collectors.

Overall, the shadow effects of the Proposed Project would be similar or less severe than those discussed in the 2008 Addendum and would remain less than significant. The shadow effects of the Proposed Project would also be similar or less severe than those identified in the Previous CEQA Documents considered in this analysis.

WIND (CRITERION 1E)

Previous Program EIR Findings

The LUTE EIR identified a significant wind hazards impact in the Downtown Showcase District with mitigation measures that would not reduce the impact to less than significant. The Redevelopment Plan Amendments EIR determined that future development projects of at least 100 feet tall and adjacent to the Oakland Estuary or Lake Merritt or within the Plan Area in Downtown Oakland would be subject to a project-specific detailed wind study, and if necessary, project-specific structural and landscape design features would be specified to reduce any potential significant wind hazards effects. Adherence to the measure requiring preparation of project-specific detailed wind studies for qualified developments would have also reduced the significant wind hazards impact identified in the LUTE EIR to less than significant.

2008 Addendum Findings

The 2008 Addendum determined that potential wind hazards impacts resulting from the 2008 Office Project would be less than significant; no mitigation measures were necessary and no further environmental analysis was warranted. The analysis included a Wind Study that predicted frequencies of wind speeds under existing conditions and with the 2008 Office Project, using standard City of Oakland wind hazards study protocols (see **Appendix B** to this document).[11] The Wind Study found that the 2008 Office Project would in fact eliminate or reduce five existing instances where the City's wind hazard threshold (exceeding 36 mph for more than 1 hour) occurs. The 2008 Office Project would increase wind speeds at sidewalks on both sides of 12th Streets along the Project site, but in neither case create a new exceedance of duration of exceedances. Overall, the 2008 Addendum did not identify any new locations exceeding the City's wind hazard threshold.

Design factors that contribute to the potential for hazardous wind speeds at the base (street level) of columnar structures include the degree of articulation and change of plane on the building's face, including the existence of a base or podium for the tower – building elements that "break" the downwind that can occur on tower structures. The 2008 Addendum describes that the "office tower volume would be

[11] Donald Ballanti, Certified Consulting Meteorologist, "Wind Tunnel Studies for the 11th and Broadway Project, Oakland, November 8, 2007.

articulated by varied facade planes into smaller-scaled, vertically-oriented sub-volumes on each façade" (2008 Addendum p. 11). As depicted in **Figure 21**, while the curtain walls of the 2008 Office Project would be "tilted and angled" on the building's street facades (north and west), there is no marked horizontal break or articulation on the building from roof to street level.

Proposed Project Analysis

As described above, relevant to the potential for wind hazards effects, the Proposed Project would construct a new columnar office building that incorporates a substantially greater variation in the plane on the two street facades as well as the south-facing elevation. The architectural approach that adds corners, recesses and protrusions, as well as decorative vertical fins, to the exterior building walls can also benefit /reduce the velocity of directional winds that can push down an unobstructed (flat) building face. No other changes relative to wind speeds or hazards exist with the Proposed Project. Therefore, it is reasonable to qualitatively conclude that given the similarity of the new office building and the 2008 Office Project, as well as the exterior design changes with the new office building, the Proposed Project would not materially affect the conclusions of 2008 Addendum.

Overall, the wind hazards effects of the Proposed Project would be similar or less severe than those discussed in the 2008 Addendum and would remain less than significant. It is likely that the Proposed Project would continue to avoid and/or reduce existing wind hazard exceedances that currently occur adjacent to the Project site. The wind effects of the Project would also be similar to or less severe than those identified in the Previous CEQA Documents considered in this analysis.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts related to visual quality and character, scenic vistas and resources, light and glare, shadow or wind that were not identified in the 2008 Addendum or the Program EIRs. The Proposed Project would be required to implement City of Oakland SCAs related to landscaping, graffiti control, landscaping, lighting plans, and utility undergrounding, as identified in Attachment A. For reference, these are **SCA AES-1, SCA AES-2, SCA AES-3**, and **SCA UTIL-2**, which incorporate and update requirements previously identified in the 2008 Addendum.

2. Air Quality Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. During project construction result in average daily emissions of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; during project operation result in average daily emissions of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$, or 82 pounds per day of PM_{10}; result in maximum annual emissions of 10 tons per year of ROG, NO_X, or $PM_{2.5}$, or 15 tons per year of PM_{10}; or	☒	☐	☐
b. For new sources of Toxic Air Contaminants (TACs), during either project construction or project operation expose sensitive receptors to substantial levels of TACs under project conditions resulting in (a) an increase in cancer risk level greater than 10 in one million, (b) a noncancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average $PM_{2.5}$ of greater than 0.3 microgram per cubic meter; or, under cumulative conditions, resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 microgram per cubic meter; or expose new sensitive receptors to substantial ambient levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 microgram per cubic meter.	☒	☐	☐

Since information on the above mentioned air quality issues was known, or could have been known, when the 2008 Addendum or the Program EIRs were being prepared, it is not legally "new information" as specifically defined under CEQA. However, an analysis of the Proposed Project relying on the currently recommended Bay Area Air Quality Management District (BAAQMD or District) CEQA Guidelines and City thresholds has been conducted in order to provide more information to the public and decision-makers, based on the background discussed below.

Regarding the thresholds of significance used for this analysis, on December 17, 2015, the California Supreme Court concluded that agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. (California Building Industry

Association (CBIA) v. BAAQMD (2015, 62 Cal.4th 369). This decision reversed the Court of Appeal's judgment on that issue. The case was then remanded back to the Court of Appeal on August 12, 2016, which concluded that "the challenged [District] thresholds are not invalid on their face, but may not be used for the primary purpose envisioned by District, namely, to routinely assess the effect of existing environmental conditions on future users or occupants of a project" (CBIA v. BAAQMD [2016, 1 Cal.App.5th 715). So for informational purposes and consistent with the current thresholds in Appendix G of the CEQA Guidelines, this CEQA Checklist also evaluates the environment's effect on the Project.

Moreover, in May 2017, the BAAQMD released an updated version of the 2010 Air Quality Guidelines, referred to as the *2017 BAAQMD CEQA Air Quality Guidelines*, to address the California Supreme Court's 2015 opinion. The analysis below uses the adopted thresholds as well as methodologies from the *2017 BAAQMD CEQA Air Quality Guidelines* to determine the potential impacts of the project on the environment. For the analysis that follows, the City will also impose its SCAs and previously adopted mitigation measures from the 2008 Addendum to the Proposed Project, as detailed below.

CONSTRUCTION AND OPERATIONAL EMISSIONS (CRITERION 2A)

Previous Program EIR Findings

The Redevelopment Plan Amendments EIR found that emissions associated with construction and operations resulting from increased criteria pollutants from resulting development would result in less-than-significant effects with adherence to mitigation measures or SCAs. Specifically, the Redevelopment Plan Amendments EIR cited applicable SCAs that would ensure these less-than-significant effects, including dust/PM_{10} and odors, as well as consistency with the applicable regional Clean Air Plan at that time – the *Bay Area 2010 Clean Air Plan*. The LUTE EIR identified mitigation measures that would address operational emissions effects to less than significant, including specifically in the Downtown area. However, the LUTE EIR found significant cumulative effects regarding increased criteria pollutants from increased traffic regionally, and the identified mitigation measures would not reduce the effect, which would remain significant and unavoidable after implementation of the mitigation.

2008 Addendum Findings

The 2008 Addendum found that the potential impact of proposed development would result in significant but mitigatable impacts from Project construction and less-than-significant operational and cumulative air quality emissions impacts.

Proposed Project Analysis

As analyzed below, the Proposed Project would result in similar construction and operational air emissions impacts as those previously identified in the 2008 Addendum. Supporting technical detail is included in **Appendix C** to this document. The thresholds applied here are based upon the BAAQMD 2017 CEQA Guidelines and Thresholds, as discussed above.

Construction Air Emissions

Assumptions for Construction Emissions

Average daily construction emissions from the Proposed Project were derived from CalEEMod (Version 2016.3.1) using the following assumptions:

1. Construction of 312,415 square feet of office space, 10,000 square feet of retail and 7,585 square feet of area for lobby, amenity space, and circulation on a site area of 0.5 acres;[12]

2. Construction was assumed to begin in January 2018 with 2020 being the first operational year;

3. The schedule and duration of the various construction phases (e.g., grading, building construction, paving, and architectural coating) were provided by the Project applicant;

4. The number and types of construction equipment used for each phase, their size and activity level during each phase were provided by the Project applicant;

5. The number of construction-related worker, vendor and hauling trips were based on CalEEMod defaults based on Proposed Project size; and

6. Off haul of 10,074 cubic yards of material during the grading phase.

Analysis of Construction Emissions

The average daily construction-related emissions for the Proposed Project, based on the assumptions above, are presented in **Table AIR-1**. As shown in the table, annual average daily construction emissions for the Proposed Project would not exceed the City's Thresholds for ROG, NO_X, PM_{10} or $PM_{2.5}$. These thresholds were developed to represent a cumulatively considerable contribution to regional air quality, and as such, represent not only a project level threshold but a cumulative threshold as well.

TABLE AIR-1
UNMITIGATED EMISSIONS FROM CONSTRUCTION (average lbs per day)[a]

Construction Year (phase)	ROG	NO_x	PM_{10}	$PM_{2.5}$
Project				
Average Daily Construction Emissions	7.4	8.7	0.3	0.3
City of Oakland Thresholds	54	54	82	54
Significant (Yes or No)?	**No**	**No**	**No**	**No**

[a] Project construction emissions estimates were made using CalEEMod, version 2016.3.1. Emissions are average daily pounds per day during the two-year construction period.

SOURCE: ESA, 2017.

The 2008 Addendum analyzed construction-related air emissions relative to the methodology and thresholds of the BAAQMD contained in its 1999 CEQA Air Quality Guidelines, which did not require quantification of construction-related emissions or identify quantitative thresholds for assessing

[12] To ensure conservative CEQA analysis of the Proposed Project, maximum usable building floor area by use is analyzed throughout the analysis, which exceeds the Project sponsor's 8/30/17 detailed floor area and building use spreadsheet which represents 309,890 total square feet of office use.

construction-related emissions. As previously stated, the 2008 Addendum identified a less-than-significant impact with respect to construction-related emissions, after the inclusion of mitigation measures (Mitigation Measure C.1 enforced as revised by the City's uniformly applied standard conditions of approval) to control fugitive dust and ensure equipment maintenance. These measures would continue to be implemented as current City of Oakland SCAs for all projects within the City of Oakland, and therefore would apply to the Proposed Project. Mitigation Measure C.1 is replaced with the current City of Oakland SCA AIR-1 (as shown in Attachment A to this document). Therefore, the construction-related air quality impact of the Proposed Project would be similar to that identified previously in the 2008 Addendum and not more severe than impacts identified in the Program EIRs.

Operational Air Emissions

Assumptions for Operational Emissions

The analysis below used the following assumptions to calculate the daily operational emissions associated with a worst-case construction scenario for the Proposed Project:

- 312,415 square feet of office space and 10,000 square feet of retail;
- The vehicle trip generation rates that were input into CalEEMod (Version 2016.3.1) account for the 2000 Bay Area Travel Survey (BATS) modal split adjustment factor that is required by the City of Oakland for near-transit developments (same as shown in Table TRA-2 in this document);
- Energy demand based on compliance with 2016 Title 24 energy standards (5 percent additional reduction in energy use over CalEEMod's default 2013 standards);
- All other inputs in CalEEMod were based on model default values; and
- A backup diesel generator was assumed pursuant to California Building Code Requirements for buildings of this height. The generator was assumed to have a rating of 750 hp, a Tier 2 engine and to be operated for maintenance purposes 50 hours per year or about 1 hour per test day.

Analysis of Operational Emissions

The daily operational emissions for the Proposed Project, based on the assumptions above, are presented in **Table AIR-2**. As shown in the table, annual average daily regional emissions for the Proposed Project would not exceed the City's thresholds for ROG, NO_X, PM_{10} or $PM_{2.5}$ (which incorporate the BAAQMD *2017 CEQA Guidelines and Thresholds*, discussed above). As with the construction thresholds, these thresholds were developed to represent a cumulatively considerable contribution to regional air quality and as such, represent not only a project level threshold but a cumulative threshold as well.

The 2008 Addendum analyzed operational air emissions relative to the methodology and thresholds of the BAAQMD contained in its 1999 CEQA Air Quality Guidelines which had less stringent thresholds for ROG and NO_x (80 pounds per day), a more stringent threshold for PM_{10} (80 pounds per day), and no threshold for $PM_{2.5}$. The 2008 Addendum identified a less-than-significant impact with respect to operational emissions, as all estimated emissions were less than the significance thresholds. The analysis in the 2008 Addendum did not consider emissions from testing and maintenance of the emergency backup generator, which is considered in the Proposed Project analysis reported in **Table AIR-2**. The operational impact of the Proposed Project would be less than significant and similar to that identified previously in the 2008 Addendum and not more severe than impacts identified in the Program EIRs.

TABLE AIR-2
UNMITIGATED EMISSIONS FROM OPERATION (lbs per day)[a]

	ROG	NO_x	PM_{10}	$PM_{2.5}$
Project				
Area Source Emissions	7.8	<0.01	<0.01	<0.01
Energy Emissions	0.2	1.6	0.1	0.1
Project Vehicle Emissions[b]	3.3	21.0	9.1	2.5
Backup Diesel Generator	0.2	0.8	0.02	0.02
Total Emissions	**11.3**	**22.6**	**9.2**	**2.7**
City of Oakland Thresholds	54	54	82	54
Significant (Yes or No)?	**No**	**No**	**No**	**No**

[a] Project operational emissions estimates were made using CalEEMod, version 2016.3.1.

[b] The vehicle trip rates used to calculate the emissions accounts for mode split and internal capture as recommended by the City of Oakland for projects located in dense, urban environments such as the Project site.

SOURCE: ESA, 2017.

Cumulative Air Emissions

The 2008 Addendum determined the Project's contribution to cumulative air quality impacts to be less than significant, as it was determined to be consistent with the provisions of the City's General Plan and would not individually result in exceedances of BAAQMD thresholds.

As shown in Table AIR-2, the Proposed Project would not result in project-level exceedances of criteria pollutants. Therefore, its contribution to cumulative air quality impacts in the area would also be less than significant.

TOXIC AIR CONTAMINANTS (CRITERION 2B)

Previous Program EIR Findings

The LUTE EIR (1998) did not quantify or address cumulative health risks, as such analysis was not required when that EIR was prepared. The Redevelopment Plan Amendments EIR (2011) did conduct cumulative health risk assessments and identified significant and unavoidable impacts, after the consideration of SCAs.

2008 Addendum Findings

The 2008 Addendum analyzed air emissions relative to the methodology and thresholds of the BAAQMD contained in its 1999 CEQA Air Quality Guidelines, which did not require quantification of project and cumulative health risks from toxic air contaminants (TACs). Screening tools for analyzing such cumulative risks were not available from BAAQMD at that time.

Proposed Project Analysis

As presented in the analysis below, the Proposed Project would not result in a new significant project or cumulative impact with respect to TACs, consistent with the findings of the 2008 Addendum.

Since the previous analysis in the 2008 Addendum did not address health risk associated with TACs, the following background is provided, and as addressed above, the analysis is based on the *2017 BAAQMD CEQA Air Quality Guidelines* that include revisions made to the Air District's 2010 Guidelines to address the California Supreme Court's 2015 opinion in CBIA v. BAAQMD, Dist., 62 Cal.4th 369.

TACs are types of air pollutants that can cause health risks. TACs do not have ambient air quality standards, but are regulated using a risk-based approach. This approach uses a health risk assessment to determine what sources and pollutants to control as well as the degree of control. The health risk assessment presented in the analysis below considers exposure to toxic substances and human health risks from exposure to toxic substances is estimated, based on the potency of the toxic substances. Such an assessment evaluates chronic, long-term effects, calculating the increased risk of cancer as a result of exposure to one or more TACs.

The City's SCA AIR-1 requires that new projects containing sensitive receptors (such as residences) be evaluated to determine whether those receptors would be exposed to health risks from existing nearby sources of TACs greater than the City's significance thresholds. Because the Proposed Project would include only office and retail uses, it is not considered a sensitive receptor. Therefore, health risk impacts of surrounding sources on the Proposed Project need not be evaluated.

City SCA AIR-2 requires that all projects that include a source of TAC emissions (such as backup generators) conduct an evaluation of the cumulative health risk from project, existing, and reasonably foreseeable TAC emissions sources in the vicinity to existing sensitive receptors. The Proposed Project would include a backup generator; therefore, the following presents the health risk assessment of existing receptors in the Project vicinity.

Project Construction Health Risk

Construction-related activities over the 24-month construction period would generate TACs, specifically diesel particular matter (DPM), from on-road haul trucks and off-road equipment. Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time on-road haul trucks and off-road 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).

Regarding construction TACs emissions, BAAQMD recommends that a Health Risk Assessment (HRA) be conducted when sensitive receptors are located within 1,000 feet of project construction activities. Sensitive receptors in the form of residential uses and the Oakland Charter High School are located within 500 feet of the Project site to the east. Consequently, a HRA was conducted to determine the level of risk at these and other nearby receptors generated by construction-related TACs (see Appendix E to this document).

In accordance with the Office of Environmental Health Hazard Assessment's (OEHHA) 2015 *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments,* the HRA applied the highest estimated concentrations of TACs at the receptors analyzed to established cancer potency factors and acceptable reference concentrations for non-cancer health effects. The maximum DPM concentrations as modeled using US Environmental Protection Agency's (EPA) atmospheric dispersion modeling system (AERMOD) dispersion model occurred at the residential receptors at St. Mark's Apartments at the corner of 12th and Franklin Streets, approximately 250 feet east of the Proposed Project site. This would be

considered the Maximum Exposed Individual Receptor (MEIR). Increased cancer risks were calculated using the modeled maximum DPM concentrations and OEHHA-recommended methodologies for infant (3rd trimester through 2 years of age), child and adult exposure. The 2015 OEHHA revisions recommend that statistical "age sensitivity factors" be incorporated into HRAs, and that children's relatively high breathing rates be accounted for. For calculation of residential cancer risks, the 2015 OEHHA guidelines recommend 30 years of exposure; however, for short term projects such as construction activities, OEHHA recommends using the actual project duration. To ensure that short-term projects do not result in unanticipated higher cancer impacts due to short duration high-exposure rates, the BAAQMD recommends that the cancer risk be evaluated assuming that the average daily dose for short-term exposure lasts a minimum of three years for projects lasting three years or less.[13]

Table AIR-3 shows the maximum cancer risk from construction emissions for residential infant, child and adult receptors. Cancer risk from uncontrolled Project construction emissions to infant and child receptors at the MEIR would exceed the City's CEQA significance thresholds. However, the Proposed Project would involve excavation of approximately 10,000 cubic yards of material and construct more than 277,000 square feet of office use, thus requiring implementation of enhanced construction-related air pollution controls pursuant to SCA AIR-1, which would reduce diesel PM exhaust emissions by requiring best available control technology of diesel off-road equipment. Implementation of SCA AIR-1 assumes use of engines that meet the Tier 4 Interim standards as the best available control technology for all construction equipment as required by the SCA. Table AIR-3 shows the mitigated health risk at the MEIR would be less than the City's significance thresholds.

TABLE AIR-3
MAXIMUM HEALTH RISKS FROM PROJECT CONSTRUCTION

Health Risk at MEIR	Maximum Cancer Risk (in a million)	Chronic Risk (Hazard Index)	Maximum $PM_{2.5}$ concentration
Uncontrolled Scenario			
Residential Receptor - Infant	68.8	0.044	0.207
Residential Receptor - Child	12	0.044	0.207
Residential Receptor - Adult	2	0.044	0.207
SCA Scenario (With Tier 4 Interim Equipment)			
Residential Receptor - Infant	2.8	0.0018	0.009
Residential Receptor - Child	0.5	0.0018	0.009
Residential Receptor - Adult	0.1	0.0018	0.009
Project-level Threshold	10	1.0	0.3
Significant?	**No**	**No**	**No**

SOURCE: ESA 2017 (see Appendix E)

[13] Bay Area Air Quality Management District, BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines, ages 4 & 5, January 2016.

Project Operational Health Risk

The backup diesel generator assumed for the Proposed Project (given its high-rise height), would be the only known new operational source of TACs associated with the Proposed Project. The 2008 Addendum did not envision the potential for back-up generators and no analysis was performed of health risk impacts associated with new sources of TACs. The BAAQMD would not issue a permit to operate to any new generators that would increase cancer risks at receptors in excess of 10 in one million after implementation of Best Available Control Technology for Toxics, so the Proposed Project's generators would not exceed acceptable risk levels. Therefore, the operational health risk impact of the Proposed Project on the environment would be less than significant and consistent with the findings of the 2008 Addendum.

Cumulative Health Risk

Appendix E details the screening level cumulative risk assessment conducted for the Project in compliance with SCA AIR-2. The analysis considered health risks from Project construction and operation in combination with risks from other existing and mobile sources within 1,000 feet of the Project site using BAAQMD's screening tools. As detailed in Appendix E, the estimated cumulative cancer risk, chronic Hazard Index and $PM_{2.5}$ concentration was below the City's cumulative significance thresholds for health risks. Therefore, this would be a less than significant cumulative impact.

Conclusion

Based on an examination of the analysis, findings, and conclusions presented above, the Proposed Project would not result in a new significant impact regarding construction or operational air quality emissions. These impacts would be less than significant, consistent with the findings of the 2008 Addendum. The analysis above also determines that, based on the health risk assessment conducted for the Project, implementation of the Proposed Project would not result in a new significant impact related to construction, operational or cumulative TAC emissions. TAC impacts were not quantitatively addressed in the 2008 Addendum, but were addressed in the subsequent Redevelopment Plan Amendments EIR and found to be significant and unavoidable.

Mitigation Measure C.1 from the 2008 Addendum is now replaced with current City of Oakland SCA AIR-1 regarding construction-related emissions controls. All current SCAs applicable to the Project are identified in Attachment A to this document. For reference, the SCAs applicable to air quality are **SCA AIR-1, SCA AIR-2, SCA AIR-3,** and **SCA TRA-4**, which incorporate and update requirements previously identified in the 2008 Addendum.

3. **Biological Resources** Would the project:	**Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents**	**Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents**	**New Significant Impact**
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 Wildlife or U.S. Fish and Wildlife Service; 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; Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means; Substantially interfere 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;	☒	☐	☐
b. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code [OMC] Chapter 12.36) by removal of protected trees under certain circumstances; or Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources.	☒	☐	☐

SPECIAL-STATUS SPECIES, WILDLIFE CORRIDORS, RIPARIAN AND SENSITIVE HABITAT, WETLANDS, TREE AND CREEK PROTECTION (CRITERIA 3A AND 3B)

Previous Program EIR Findings

Each of the Program EIRs considered in this analysis found that the effects to biological resources would be less than significant, specifically with the incorporation of City of Oakland SCAs identified in the Redevelopment Plan Amendments EIR. No mitigation measures were necessary.

2008 Addendum Findings

The 2008 Addendum identified that the potential impact of the 2008 Office Project on biological resources would also be less than significant, as originally identified in the Initial Study Checklist prepared for the 1998 EIR and evaluated for applicability in the 2008 Addendum. No mitigation measures were necessary; however, the project approvals included conditions of approval (COA) regarding tree removal and replacements, all of which the City now addresses with its SCAs, as discussed below and shown in Attachment A to this document.

Proposed Project Analysis

No changes have occurred with the Proposed Project, the Project site, or its surroundings that would alter the potential effect of development on the Project site on biological resources. The site is located in the fully developed urban area of Downtown, and does not contain vegetation or conditions suitable for sustaining wildlife. Nor are there any known special status species or sensitive habitats, including those that could support migratory fish or birds, located on the site. There are no natural sensitive communities in the area.

The Proposed Project will be required to adhere to SCAs that pertain to tree removal and replacement that update those identified in the 2008 Addendum. SCA BIO-3 ensures adequate permitting and procedures for removing, protecting, and replacing trees, which will apply to the Proposed Project's removal of two existing street trees and planting of three new street trees. SCA BIO-2 addresses the timing of tree removal relative to breeding bird season.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the Program EIRs considered in this analysis, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the Addendum or the Program EIRs. Nor would the Proposed Project result in new significant impacts related to biological resources that were not identified in the 2008 Addendum or the Program EIRs. The 2008 Addendum did not identify any mitigation measures related to biological resources, and none would be needed for the Proposed Project. City of Oakland SCAs related to bird protection, tree removal and replacement, as well as erosion control, stormwater management, and hazardous materials, identified in Attachment A to this document, would apply to the Proposed Project. For reference, these are **SCA BIO-2,** and **SCA BIO-3,** which incorporate and update requirements previously identified in the 2008 Addendum.

4. Cultural Resources Would the project:	**Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents**	**Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents**	**New Significant Impact**
a. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5. Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be "materially impaired." The significance of an historical resource is "materially impaired" when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance **and** that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register of Historical Resources, the National Register of Historic Places, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5);	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries.	☒	☐	☐

HISTORICAL RESOURCES (CRITERION 4A)

Previous Program EIR Findings

The Redevelopment Plan Amendments EIR, which addresses much of the oldest part of Downtown Oakland, identified a significant impact to historical resources that would occur as a result of anticipated development, even with the implementation of mitigation measures. Therefore, the impact to historic resources would be significant and unavoidable. No project-specific impact of the Redevelopment Plan Amendments was identified on the Project site in this programmatic document. However, the Key System Building is identified in the EIR (by its original name, the Security Bank and Trust Company Building) as being listed on the National Register of Historic Places (National Register), and the Redevelopment Plan Amendments EIR identifies development on the Project site, as described in the

Project Description and in Appendix B, as a cumulative project that could contribute to cumulative significant and unavoidable effects on cultural resources. Specifically, rehabilitation of the Key System Building and adjacent development of new office space (the project analyzed in the 2006 Addendum and described in the 2006 Outline Scope for Treatment of Exterior Materials, presented in **Appendix D.1**[14]), was identified as a cumulative project in that it could occur without the proposed Redevelopment Plan Amendments.

The LUTE EIR also identified mitigation measures to address the potentially significant impacts to historic resources, however, the identified mitigation measures, which included amending the Zoning Regulations to incorporate new preservation regulations and incentives, as well as developing and adopting design guidelines for Landmarks and Preservation Districts, would reduce the impact to less than significant, and individual development projects would still be subject to discretionary decisions which could result in impacts to historical resources. The City has implemented these measures with its adoption of the S-7 Preservation District Combining Zone Regulations, the S-20 Historic Preservation District Combining Zone Regulations, and its specific amendment to the Oakland Historic Preservation Element (HPE) of the General Plan that incorporated design guidelines for discretionary approvals involving historic properties (HPE Policy 3.5).

Existing Setting

This setting summarizes the historic significance and current historic status of the Key System Building, which has been the subject of numerous studies.

The Key System Building is an eight-story high commercial office building (seven stories plus mezzanine, with the ground floor and mezzanine appearing as two stories) with ornamented façades on Broadway and 11th Street, as well as on the front part of its eastern wall. The building was originally constructed in 1911 as a ground-floor banking hall with upper-story offices for the Security Bank and Trust Company, which was absorbed by the Bank of Italy; the latter became the Bank of America in 1929. It also later housed the offices of the Key Route System Transit Company. A two-story annex was constructed on the building's north side in 1924. The Key System Building and its annex were severely damaged by the Loma Prieta Earthquake in 1989, and the Key System Building has remained vacant since that time. The annex, which was deemed a safety hazard, was demolished in late 1998.

The Key System Building was individually listed on the National Register in 1982. It is significant as an outstanding example of early 20th-century commercial architecture in Downtown Oakland and for its associations with several Oakland businesses, as noted above. Although character-defining features of the Key System Building were not explicitly identified at the time it was nominated to the National Register, the following distinctive elements were described: tripartite vertical composition, Renaissance Revival and Baroque stylistic details, terra cotta ornamentation, yellow brick cladding, window patterns and forms, the U-shaped plan above the rectangular ground floor, and the crowning cornice.

The Key System Building was designated a City of Oakland Landmark in 1984. It is listed on the City of Oakland's Local Register of Historic Resources, with an OCHS rating of "A," indicating that it is a property of the "highest importance." The building also has an OCHS rating of "1+" indicating that it is a contributor to the Downtown District, a City of Oakland Area of Primary Importance (API). A separate

[14] Alan R. Dreyfuss, AIA, Security Bank and Trust Building, Outline Scope for Treatment of Exterior Materials, February 13, 2006.

Downtown Oakland Historic District, which includes the Key System Building as a contributor, was listed on the National Register in 1998.

2008 Addendum Findings

The 2008 Addendum found that the potential impact of development of the 2008 Office Project on historical resources would be less than significant, following implementation of mitigation measures that address potential damage to the Key System Building during construction. The 2008 Addendum discussed five potential impacts on historical resources that were identified in the 1998 EIR: (1) demolition of the Key System Building Annex (not applicable to the 2008 Office Project since the annex had already been demolished); (2) design relationship between the new construction and the Key System Building (not applicable as the design of the 2008 Office Project would be clearly differentiated from the Key System Building); (3) potential damage to the façades of the Key System Building during construction (identified as less-than-significant with mitigation); and (4) the design relationship between new construction and the Downtown Oakland Historic District (no mitigation identified). An additional impact was discussed that was not previously addressed in the 1998 EIR: (5) impact of the removal of interior features (no mitigation necessary).

Proposed Project Analysis

For the purposes of this analysis, the Proposed Project was evaluated for consistency with the Secretary of the Interior's Standards for Rehabilitation (Standards), which is provided in **Appendix D** to this document and The Standards evaluation aided in the analysis of potential effects on the significance of the historic Key System Building as well as potential effects on the significance of the Downtown Oakland Historic District and API. Generally, a project that is consistent with the Standards "shall be considered as mitigated to a level of less than a significant impact" on historical resources (CEQA Guidelines Section 15064.5(b)(3).

The evaluation analyzed the Key System Building's current historic status, identified the building's character-defining features (which had not been previously identified), and determined that the Proposed Project as designed and/or conditioned would be consistent with the Standards, to the extent that each Standard is applicable. As summarized below, the Proposed Project would result in similar impacts to historical resources as those previously identified in the 2008 Addendum.

Demolition of Key System Building Annex

As previously indicated, the Key System Building System Building Annex was demolished in 1998, and its absence on the project site has been considered a "substantial change to the circumstances" under which subsequent proposals on the Proposed Project site have been considered. Regarding the potential effect of demolition of the Key System Building Annex, the impacts would be the same as those identified in the 2008 Addendum. Mitigation Measure E.1a (COA 62a) is no longer applicable because the annex was demolished prior to 2008. As with the 2008 Addendum, the Project sponsor would rehabilitate the Key System Building in accordance with City design review criteria for Landmark Buildings.

Design Relationship Between New Construction and the Key System Building

For this analysis, the design relationship between the proposed new construction and the Key System Building refers to both the visual relationship between the two buildings as well as alterations to the Key

System Building that could result in significant impacts to historic resources. As described in detail below, the project would be consistent with the Standards, to the extent that each Standard is applicable. Because, in general, a project that is consistent with the Standards "shall be considered as mitigated to a level of less than a significant impact" on historical resources (CEQA Guidelines Section 15064.5(b)(3), and because the 2008 Addendum found that the impact of the 2008 project would, as with the 1998 EIR project, be mitigated to a level of less than significance, there would be no new or substantially more severe impact than identified in the 2008 Addendum with regard to the potential effect of the Proposed Project on the Key System Building. Therefore, Mitigation Measure E.2 (COA 64) is no longer required.

The Proposed Project would retain and preserve nearly all of the distinctive materials, features, and finishes that characterize the Key System Building. Only the interior iron balustrade, railing, and stair treads on the third through eighth floors would be removed. All other character-defining features, spaces, and spatial relationships would not be altered (Standards 2 and 5).

New construction would affect only the unornamented north (rear) wall, all or most of which would be removed as part of the Proposed Project. The existing property-line fenestration at the unadorned north and east walls—consisting of wood-sash windows of various sizes, one window per floor at the back of the east wall, and as many as six per floor on the north wall—is not distinctive or character defining and is proposed to be removed and infilled. At the north façade, an existing corner return of the upper cornice and entablature from the primary (Broadway) façade was also likely anticipated to remain visible with adjacent development. The project proposes a recess measuring approximately three feet of the new building from the Broadway façade above the second floor that would allow for retention of the original historic building form and massing from corner to corner, and retention of the corner return of the upper cornice and entablature (approximately the rear half of the existing cornice and entablature return would be removed). Additionally, the narrow segment of remaining red-brick north wall would be clad in new metal siding, while the distinctive yellow brick cladding on the Broadway (west) façade would remain visible (Standard 5).

At the roof level, non-character-defining features that would be removed include the penthouse and water tank structures and nearly all of the parapet on the north (rear) wall (Standard 6).

New construction on the first and second floors would extend the plane of the Key System Building's Broadway (west) façade northward, effectively restoring the ground-level street-wall that was historically created by the now-demolished annex. New construction would be slightly recessed from the historic building on its north wall above the second floor, allowing for the return of the cornice at the roofline to be partially retained, preserved, and showcased and for the thoughtful and complementary joining of the new construction with the old at the Broadway façade. The southernmost part of the tower addition would cantilever over the Key System Building and appear as if it is resting on the existing roof plane, although the cantilever would not be structurally supported by the historic building. According to the architectural drawings, the cantilever would be set back varying between 24 and 27 feet from the 11th Street façade of the Key System Building, a distance equal to nearly half the depth of the historic building footprint. The cantilever would be set back approximately six feet from the historic building's Broadway façade, thereby maintaining a respectful visual clearance above the historic building that does not detract from its intended vertical emphasis or affect its massing. The overall design of the Proposed Project would embody a clear vertical emphasis that is compatible with the Key System Building. The proposed addition would also exhibit a tripartite vertical organization that is characteristic of the Key System Building and is also a prevailing pattern in and around the locally designated API and the National Register-listed historic district, to which the Key System Building is a contributor (Standard 9). Mitigation

Measure E.1b (COA 63) that required the proposed rehabilitation of the Key System Building to meet the appropriate City design review criteria for Landmark Buildings is now a required Finding for compliance with the City's Regular Design Review involving Landmark buildings, and is therefore is a regulatory requirement applicable to the Project. Therefore, Mitigation Measure E.1b (COA 63) is no longer required.

Potential Damage to the Key System Building Façades During Construction

Regarding potential damage to the exterior of the Key System Building during construction, there would be no new or substantially more severe impact than identified in the 2008 Addendum. The Proposed Project includes preservation of the façades of the Key System Building and would comply with the requirement of 2008 Mitigation Measure E.3a (COA 65) that the structure be protected from debris, seismically strengthen, and have its foundation shored prior to adjacent excavation, is no longer required for the proposed Project because each of these requirements is otherwise mandated by standard City of Oakland construction and building requirements. Also Mitigation Measure E.3b (COA 66) that was identified in the 2008 Addendum and that required the Key System Building System be documented, has been addressed by the work conducted to evaluate the proposed Project's for consistency with the Standards in Appendix D to this document; Mitigation Measure E.3b is no longer for the Project.

The architectural drawings do not indicate that any potentially damaging physical or chemical treatments (such as sandblasting, high pressure water-blasting, paint stripping, etc.) are proposed, nor are there any known existing physical conditions which would require intensive or invasive treatments to historic fabric. The drawings (including previously approved plans and currently proposed plans) indicate that ordinary maintenance and repair to existing historic building materials, features, and elements is proposed to be undertaken in ways that are consistent with the Secretary's Standards (Standard 7).

Design Relationship Between New Construction and the Downtown Oakland Historic District and API

For this analysis, the design relationship between the proposed new construction and the Downtown Oakland Historic District and API was analyzed. When considering new construction within historic districts, it is important to take into account the effect a project would have on the district as well as the adjacent historic building(s) to ensure that the project does not demolish or materially and adversely alter the physical characteristics of the district that justify its listing on a national, state, and/or local register of historical resources. A Proposed Project that is compatible with the district in terms of design and does not create a false sense of historical development would not materially and adversely alter the physical characteristics of the district, and thus would have a less-than-significant effect (CEQA Guidelines Section 15064.5(b). Regarding the potential effect of the Proposed Project on the Downtown Oakland Historic District and API, the impacts would be less than significant, for the reasons described below, and thus there would be no new or substantially more severe impact than identified in the 2008 Addendum, which likewise found that effects on the district would be less than significant.

The Proposed Project would integrate new construction with the historic Key System Building in such a way that the new work would be clearly differentiated from the old. With its glass curtain wall construction, the proposed office building would be contemporary in its design. Furthermore, new construction would not replicate or emulate any of the distinctive elements that are identified with the Key System Building or other historic properties in the API or the Downtown Oakland Historic District. For these reasons it would not create a false sense of historical development in the context of the Key System Building, the API, or the Downtown Oakland Historic District (Standard 3).

The overall design of the Proposed Project embodies a clear vertical emphasis that is compatible with the built environment. The proposed addition would exhibit a tripartite vertical organization that is a prevailing pattern in and around the API and the historic district (Standard 9).

Impact of Removal of Interior Features

Regarding the potential effect of the removal of interior features from the Key System Building, the impacts would be less than significant, which is consistent with the conclusion of the 2008 Addendum.

The Proposed Project would retain and preserve nearly all of the distinctive materials, features, and finishes that characterize the interior of the Key System Building. Only the interior iron balustrade, railing, and stair treads on the third through eighth floors would be removed. All other character-defining features, spaces, and spatial relationships would not be altered (Standard 2).

Interior work at the ground floor would occur within the area designated as "preservation area," which is inclusive of the primary interior volume, and would include repairing all existing ornamental plaster at columns, capitals, walls, beams, and ceilings and replacing areas of missing plaster and replicating ornament as necessary to be compatible with the old (Standard 6).

The architectural drawings do not indicate that any potentially damaging physical or chemical treatments (such as sandblasting, high pressure water-blasting, paint stripping, etc.) are proposed, nor are there any known existing physical conditions which would require intensive or invasive treatments to historic fabric. The drawings (including previously approved plans and currently proposed plans) indicate that ordinary maintenance and repair to existing historic building materials, features, and elements is proposed to be undertaken in ways that are consistent with the Secretary's Standards (Standard 7).

In light of the foregoing, there would be no new or substantially more severe impact than identified in the 2008 Addendum with respect to the Key System Building's interior features.

Conclusion

Regarding historical resources, the Proposed Project would result in similar impacts to historical resources as those identified in the 2008 Addendum. Per CEQA Section 15162(a), the Proposed Project would not result in the need to prepare a subsequent EIR due to the proposed changes to the Key System Building. Moreover, the Proposed Project would be consistent with the Secretary of the Interior's Standards for Rehabilitation, to the extent that each Standard is applicable. Therefore, it is considered mitigated to a level of less than a significant impact pursuant to CEQA Guidelines Section 15064.5(b)(3). Overall, the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts.

ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES AND HUMAN REMAINS (CRITERIA 4B THROUGH 4D)

Previous Program EIR Findings

Each of the Program EIRs considered in this analysis found that the effects to archaeological and paleontological resources and human remains would be less than significant, specifically with the incorporation of City of Oakland SCAs, except that the LUTE EIR identified mitigation measures that would reduce the effects to archaeological resources to less than significant.

2008 Addendum Findings

The 1998 EIR reported that according to records at the Northwest Information Center at Sonoma State University, an archaeological site containing human remains (CA-Ala-22) is located across Broadway from the project site, however, the boundaries of this site have never been officially defined. The 1998 EIR analysis concluded that therefore that there is a "high possibility" of identifying historic cultural resources, including archaeological sites, in the area of the Project site, including since the Project site is situated on an alluvial fan near the historic bay margins where Native American archaeological sites in the Project area tend to be situated. Although the Project site is therefore considered "archaeologically sensitive," the 2008 EIR determined that the potential impact of development of the 2008 Office Project on archaeological and paleontological resources and human remains would be less than significant with the implementation of SCAs, which are updated to current SCA language as discussed below and shown in Attachment A to this document.

Proposed Project Analysis

Like the 2008 Office, the Proposed Project would involve grading and excavation activities to construct the new office tower and potentially connect to the adjacent off-site below-grade parking. Most of the excavation of the Project site has already occurred or would take place in the rubble of previous buildings on the site, as was the case in 2008. No changes with the Proposed Project or the Project site have occurred or are proposed that would change the potential effects identified to archaeological and paleontological resources or the classification of the Project site as archaeologically sensitive. SCA CUL-1 and SCA CUL-2 address how to avoid these resources, and specific procedures to take if such resources are encountered in the event of accidental discovery. The Project proposes to implement Provision B (Construction ALERT Sheet) option specified in SCA CUL-2. Similarly, the grading and excavation activities for the Proposed Project could continue to potentially impact human remains, which is addressed by the updated SCA CUL-3. The SCA language shown in Attachment A is updated from that shown in the 2008 Addendum and are the City's current SCAs. Adherence to the applicable City of Oakland SCAs would reduce potential risks of impact to these resources to less than significant.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the Program EIRs considered throughout this analysis, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts related to cultural resources that were not identified in the 2008 Addendum to the Program EIRs. Further, the Proposed Project has fulfilled the requirements of would implement City of Oakland SCAs that apply pre-construction measures in archaeologically sensitive areas and update SCAs previously identified that address the accidental discovery of archeological and paleontological resources and human remains identified in Attachment A to this document. For reference, these are **SCA CUL-1, SCA CUL-2,** and **SCA CUL-3,** in addition to **SCA NOI-6** to address potential vibration effects to historic structures, each of which incorporates and updates requirements previously identified in the 2008 Addendum.

5. Geology, Soils, and Geohazards Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Expose people or structures to substantial risk of loss, injury, or death involving: • Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; • Strong seismic ground shaking; • Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or • Landslides;	☒	☐	☐
b. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007, as it may be revised), creating substantial risks to life or property; result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways.	☒	☐	☐

SEISMIC HAZARDS, EXPANSIVE SOILS, AND SOIL EROSION (CRITERION 5A AND 5B)

Previous Program EIR Findings

Each of the Program EIRs considered in this analysis found that the effects to geology, soils, and geohazards would be less than significant with the incorporation of City of Oakland SCAs. No mitigation measures were necessary.

2008 Addendum Findings

The 2008 Addendum identified that the potential impact of the 2008 Office Project on geology, soils and geohazards would also be less than significant with the project sponsor's adherence to local and state regulations to ensure that all buildings are designed and built in conformance with state and local seismic requirements, as originally identified in the Initial Study Checklist prepared for the 1998 EIR and evaluated for applicability in the 2008 Addendum. No mitigation measures were necessary.

Project Analysis

No changes have occurred with the Proposed Project, the Project site, or its surroundings that would alter the potential effect of development on the Project site on geology, soils and geohazards. The site continues to be located outside of the geographical areas of the City that are most susceptible to landslides and severe erosion as disclosed in the previous environmental analyses. The site is located in an area designated as least susceptible to landslides; it does not have contributing factors such as slopes over 15 percent or a history of landslide problems. Moreover, the site is relatively flat and developed in the Downtown urban area that is built-out. Therefore, the Proposed Project would not result in significant impacts with respect to landslides or result in substantial risks to life or property.

As determined in the 2008 Addendum, the Proposed Project also would have less-than-significant impacts regarding substantial soil erosion or loss of topsoil because of the Project applicant's required compliance with standard City practices. These practices are now incorporated in current City of Oakland SCAs requiring the project applicant's preparation and submittal of an erosion control plan and landscaping plans to address erosion during and after construction. As described in the Project Description (Section 4.0 of this document), the Proposed Project would require excavation of approximately 10,000 cubic yards of excavation; therefore, a grading permit would be required from the City.

The soil characterization of the Project site has not changed since the 2008 Addendum and is in an area characterized as Urban Land-Danville complex, which has some development limitations. These limitations would be addressed pursuant to requirements specified in the site-specific Geotechnical Report for the Proposed Project which is required pursuant to SCAs that would minimize potential geohazards impacts and require the preparation of soils and geotechnical reports specifying generally accepted and appropriate engineering techniques and compliance with local and state regulations and codes.

Overall, the Proposed Project will be required to adhere to current City of Oakland SCAs that incorporate the regulatory compliance requirements assumed in the 2008 Addendum (and originally in the Initial Study Checklist for the 1998 EIR). Compliance with the SCAs will ensure that development of the Proposed Project would avoid and minimize potential geologic impacts through compliance specifically with local and state regulations governing design and construction practices, including the California Building Code. Implementation of SCA GEO-1 ensures that all required City construction-related permits and approval are obtained, including those to ensure structural integrity and safe construction. SCA GEO-2 requires the preparation of soils and geotechnical reports specifying generally accepted and appropriate engineering techniques. Together, the SCAs would reduce potential impacts to less-than-significant levels.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the Program EIRs considered in this analysis, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts related to geology, soils, and geohazards that were not identified in the 2008 Addendum or the Program EIRs. The Proposed Project would implement City of Oakland SCAs that incorporate the regulatory requirements identified for the 2008 Office Project to address soil erosion and sedimentation control in particular, as well as City of Oakland SCAs to address

other potential seismic and geotechnical hazards, as identified in Attachment A to this document. For reference, these are **SCA GEO-1, SCA GEO-2**, and **SCA HYD-1**, that latter of which incorporates and updates requirements previously identified in the 2008 Addendum.

6. Greenhouse Gas and Climate Change Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically: • For a project involving a land use development, produce total emissions of more than 1,100 metric tons of CO_2e annually AND more than 4.64 metric tons of CO_2e per service population annually. The service population includes both the residents and the employees of the project. The project's impact would be considered significant if the emissions exceed BOTH the 1,100 metric tons threshold and the 4.6 metric tons threshold. Accordingly, the impact would be considered less than significant if the project's emissions are below EITHER of these thresholds.	☒	☐	☐
b. Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.	☒		

Climate change and greenhouse gas emissions were not expressly addressed quantitatively in the 2008 Addendum nor in the 1998 LUTE EIR, for reasons described in this section. However, since information on climate change and greenhouse gas emissions was known, or could have been known when the 2008 Addendum was prepared, it is not legally "new information" as specifically defined under CEQA and thus is not legally required to be analyzed as a part of this addendum. Regardless, this analysis is provided in the interest of providing useful information to the public and decision-makers of the Proposed Project. This analysis is also prepared to determine whether or not the Project is subject to certain City of Oakland SCAs and complies with the City's energy policies. The results of the analysis are also compared to the significance determination in the 2008 Addendum, as warranted for this addendum.

As introduced under 2. *Air Quality* in this CEQA Checklist, in light of the invalidation of BAAQMD standards under CBIA v. BAAQMD (2015, 62 Cal.4th 369), BAAQMD is in the process of updating its GHG CEQA thresholds to align with the new 2030 target established by Senate Bill 32 (SB 32) (Pavley) in the State's 2017 Climate Change Scoping Plan Update (Scoping Plan Update) released on January 20, 2017. The Scoping Plan Update found that, "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32." In addition, the Scoping Plan Update establishes a proposed framework of action for California to meet a 40 percent reduction in GHG by 2030 compared to 1990 levels.

The BAAQMD has not yet adopted new GHG thresholds for identifying environmental impacts in light of the 2030 target in the Scoping Plan Update but has released a conceptual target, which is referenced in

the analysis below for informational purposes. The City will also impose its SCAs and previously adopted mitigation measures from the 2008 Addendum to the Proposed Project, as detailed below.

GREENHOUSE GAS EMISSIONS (CRITERION 6A)

Previous Program EIR Findings

The 2011 Redevelopment Plan Amendments EIR included GHG emissions and impacts analyses, as this document was prepared after former Governor Schwarzenegger's 2005 Executive Order S-3-05 that sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as well as California's landmark Assembly Bill 32 in 2006. That Program EIR identified less-than-significant impacts with the incorporation of numerous applicable City of Oakland SCAs. No mitigation measures were necessary.

2008 Addendum Findings

Though the 2008 Addendum acknowledged the impacts of increase in greenhouse gas emissions and climate change, as there were no statutes, regulations, guidelines, or case law decisions requiring analysis of climate change within a CEQA document, no analysis was conducted. The City had also determined that, lacking guidance from regulatory agencies on the control of GHG emissions and thresholds of significance, the assessment of the significance of an individual project's contribution to global climate change would be too speculative. Therefore, greenhouse gas emissions and climate change impacts of the Project were not expressly quantified in the 2008 Addendum.

Proposed Project Analysis

The Proposed Project would not result in a significant effect (cumulative) relating to GHG emissions, as analyzed below. Both BAAQMD and the California Air Pollution Control Officers Association (CAPCOA) consider GHG impacts to be exclusively cumulative impacts, in that no single project could, by itself, result in a substantial change in climate. Therefore, the evaluation of GHG emissions impacts evaluates whether the Proposed Project would make a considerable contribution to cumulative climate change effects. This analysis also is used to determine whether or not the Project is required to prepare a "GHG Reduction Plan" pursuant to SCA GHG-1.

Construction GHG Emissions

The CalEEMod model run for the construction emissions associated with the Proposed Project (under *2. Air Quality,* above) also calculated the GHG emissions that would be generated by construction activities of the Proposed Project (see Appendix C to this document). As shown in **Table GHG-1**, construction-related emissions would total 400 metric tons of CO_2 equivalents (CO_2e) over the duration of construction. Annualized over an assumed project life of 40 years, construction-related GHG emissions would be 10 metric tons per year of CO_2e. These emissions are factored into the total operational GHG emissions calculation below to determine significance.

Operational GHG Emissions

The Proposed Project would generate GHG emissions from many of the same sources as presented in air quality **Table AIR-2** (under *2. Air Quality*, above). Additionally, GHGs would be generated indirectly by increased electrical and water demand, and increased wastewater and solid waste generation. The total

operational GHG emissions for the Proposed Project are presented in Table GHG-1, below (also see Appendix C to this document). The table presents the Project-related GHG emissions from all sources and assesses the impact relative to City thresholds.

TABLE GHG-1
GHG EMISSIONS FROM CONSTRUCTION AND OPERATION (metric tons per year)[a]
(WITH AND WITHOUT TDM)

	CO_2e 2020 Baseline / Project Buildout (No TDM) [b]	CO_2e 2020 Baseline / Project Buildout (With TDM)
Project Component		
Area Source Emissions (Landscape Maintenance)	<0.01	<0.01
Energy Emissions (Natural Gas and Grid Electricity)	953.1	953.1
Mobile Emissions	2,039.8	1631.2
Backup Generator [c]	14.3	14.3
Solid Waste	18.2	18.2
Water and Wastewater Conveyance & Treatment	85.7	85.7
Annualized Construction Emissions (Over 40 Years)	10.0	10.0
Total Increase	**3,107**	**2,698**
City of Oakland Threshold	1,100	1,100
Exceedance of Project Threshold?	Yes	Yes
Total Emissions per Service Population (1,051 employees)	2.95	1.80
City Emissions per Service Population Threshold	4.6	4.6
Exceedance of Service Population (Efficiency) Threshold?	No	No
Significant?	**No**	**No**

[a] Project operational emissions estimates were made using CalEEMod, version 2016.3.1. Technical detail is presented in Appendix C to this document.

[b] Assumes 2020 energy and utility assumptions factoring in 2016 Title 24 standards and CalGreen compliance, actual PG&E data, vehicle trip reduction for proximity to transit/BART, and compliance with City's waste energy goals. Emissions reductions associated with LEED attainment are considered "potential GHG reduction measures" to be considered in the GHG Reduction Plan (per SCA GHG-1).

[c] Generator is a stationary source and is assessed separately against a threshold of 10,000 MT CO2e per year. Therefore, its emissions are not considered in the total with respect to other sources.

SOURCE: ESA, 2017

As shown in Table GHG-1, while the Proposed Project would exceed the threshold of 1,100 metric tons of CO_2e per year, it would not exceed the City's 4.6 metric tons of CO_2e per service population threshold.[15] Therefore, the GHG emission impact would be less than significant. However, the requirement for a GHG

[15] The Proposed Project's emissions also would not exceed the conceptual GHG emissions threshold of 2.7 metric tons of CO_2e per service population threshold, released but not yet adopted by BAAQMD to align with the new 2030 reduction target established in the State's 2017 Climate Change Scoping Plan Update.

Reduction Plan is triggered (pursuant to SCA GHG-1) since the Proposed Project is considered a very large project and one of the significance thresholds is exceeded. [16]

Numerous other City of Oakland SCAs that would contribute to minimizing potential GHG emissions from construction and operations of development projects would apply to the Proposed Project; they pertain to alternative transportation facilities (bicycles and BART), construction equipment, water efficient landscaping, construction waste reduction and recycling, transportation demand management (TDM) (discussed below), as well as California Green Building Standards (discussed below).

Pursuant to SCA TRA-4, a Draft TDM Plan has been prepared and is included in **Appendix H** to this document. The Draft TDM Plan focuses on measures to reduced peak-hour vehicle trips and thus parking demand. The effectiveness of the Draft TDM Plan is factored into the GHG emissions analysis summarized in Table GHG-1. Also, the Project would adhere to the California Green Building Standards (CalGreen) and Title 24 Energy Standards, pursuant to SCA UTIL-4, which are factored into the emissions shown in Table GHG-1.

As described under *Green Building Features* in Section 4.5 of this document, the Project intends to meet the LEED V4 Core & Shell Rating System and achieve 64 points through the inclusion of Green Building features in addition to certain features that exceed those mandatory or prerequisite LEED requirements. While compliance with baseline Green Building features is factored into the GHG emissions analysis summarized in Table GHG-1, additional voluntary sustainability features of the Proposed Project are discussed in the GHG Reduction Plan required by SCA GHG-1 and presented in **Appendix F** to this document.

CONSISTENCY WITH GHG EMISSIONS PLANS AND POLICIES (CRITERION 6B)

Previous Program EIR Findings

GHG Emissions Plans and Policies had not been established at the time the Program EIRs were prepared; therefore, consistency with such plans and policies was not addressed.

2008 Addendum Findings

There were no plans and policies addressing greenhouse gases and climate change established at the time of preparation of the 2008 Addendum. Therefore, the Addendum did not include a consistency determination.

Proposed Project Analysis

The Proposed Project would comply with the Oakland Energy and Climate Action Plan (ECAP), current City Sustainability Programs, and General Plan policies and regulations regarding GHG reductions and other local, regional and statewide plans, policies and regulations that are related to the reduction of GHG emissions and relevant to the Proposed Project. Specifically, the Proposed Project would also be consistent with the State's Updated Climate Change Scoping Plan and the City of Oakland's ECAP in that it will

[16] One definition of a "Very Large Project" includes a commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space. The Proposed Project would employ an estimated 1,051 persons and have a 368,576 square feet of gross floor space.

include a number of voluntary sustainability design features and has prepared a GHG Reduction Plan pursuant to SCA GHG-1.

The Proposed Project will comply with the mandatory Green Building ordinance and requirements (i.e., CalGreen and Title 24 Energy Standards, pursuant to SCA UTIL-4, which also requires LEED Silver attainment for Project (new non-residential development over 25,000 square feet). Therefore, the Project will optimize the efficiency of the building envelopes and, through use of efficient HVAC and lighting systems, reduce domestic energy use compared to traditional development. As discussed above, the Proposed Project also intends to include certain voluntary sustainability features that exceed the mandatory CalGreen requirements and would allow the Project to achieve LEED compliance. Specific features are listed under *Green Building Features* in Section 4.5 of this document and in the GHG Reduction Plan. Moreover, even without the voluntarily sustainability features proposed, the Project's buildout or "adjusted baseline" emissions align with Oakland's ECAP goal by achieving more than a 36 percent reduction from what the Project's emissions would be under a "2005 business-as-usual" emissions scenario (as presented in the GHG Reduction Plan).

Conclusion

Based on the analysis above, implementation of the Proposed Project would not result in a significant impact regarding GHG emissions or compliance with applicable plans, policies, or regulations adopted for the purposes of reducing greenhouse gas emissions. No mitigation measures are necessary to ensure a less-than-significant impact with the Proposed Project. However, City of Oakland SCA GHG-1 to reduce GHG emissions, as well as the implementation of other requirements and City of Oakland SCAs that apply to the construction and operation of the Proposed Project, would help minimize GHG emissions. For reference, applicable SCAs include **SCA AES-2, SCA AIR-1, SCA TRA-4, SCA UTIL-1, SCA UTIL-4,** and **SCA UTIL-7,** which incorporate and update requirements previously identified in the 2008 Addendum.

IMPLEMENTATION OF SCA GHG-1

Pursuant to SCA GHG-1 (listed in Attachment A to this document), a draft Project-specific GHG Reduction Plan has been prepared for the Proposed Project and is included in Appendix F to this document. As detailed in the GHG Reduction Plan, the Proposed Project would achieve estimated emissions reductions sufficient to achieve the 36 percent reduction goal of Oakland's ECAP.

7. Hazards and Hazardous Materials Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; 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; Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors; Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., the "Cortese List") and, as a result, would create a significant hazard to the public or the environment;	☒	☐	☐
b. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;	☒	☐	☐
c. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions; or Fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	☒	☐	☐

EXPOSURE TO HAZARDS, HAZARDOUS MATERIALS USE, STORAGE AND DISPOSAL (CRITERION 7A)

Previous Program EIR Findings

Each of the Program EIRs considered in this analysis found less-than-significant effects regarding hazards and hazardous materials with the incorporation of applicable City of Oakland SCAs. No mitigation measures were identified by the Redevelopment Plan Amendments EIR. However, the LUTE EIR

included mitigation measures specifically to address exposure to workers and the public during construction.

2008 Addendum Findings

2008 Addendum identified that the potential impact of the 2008 Office Project on hazards and hazardous materials would also be less than significant with the project sponsor's adherence to local and state regulations, as originally identified in the Initial Study Checklist prepared for the 1998 EIR and evaluated for applicability in the 2008 Addendum. No mitigation measures were necessary.

The 2008 Office Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. However, a Phase 1 Site Assessment was prepared for the site in June of 1995 to evaluate the potential environmental contaminants on the site. The findings of the Phase 1 Site Assessment revealed the potential for subsurface contaminants as well as numerous off-site sources of groundwater contamination within a one-quarter mile radius of the Project site, including upgradient sources. Additionally, asbestos may be present in the Key System Building. Through compliance with existing regulatory requirements, the 2008 Office Project would result in less than significant impacts

Project Analysis

No changes have occurred with the Proposed Project, the Project site, or its surroundings that would substantially alter the potential effect of development on the Project site regarding hazards and hazardous materials. To the extent the previous demolition of the historic Annex structure contained hazardous materials, appropriate regulatory requirements would have been implemented to address any potential adverse effects. As determined in the 2008 Addendum, the Proposed Project also would have less-than-significant impacts because of the Project applicant's required compliance with standard City practices. These practices are now incorporated in current City of Oakland SCAs.

The Proposed Project would involve similar activities as evaluated in the 2008 Addendum. The transportation, use, and storage of all hazardous materials involved with the Proposed Project would be the same as previously considered, and would be required to follow the applicable laws and regulations adopted to safeguard workers and the general public. The applicable City of Oakland's SCAs pertain to best management practices for hazardous materials; removal of asbestos and lead-based paint; and other hazardous materials and wastes, including those found in the soil and groundwater and which would reduce impacts to less-than-significant levels.

HAZARDOUS MATERIALS WITHIN A QUARTER MILE OF A SCHOOL (CRITERION 7B)

Previous Program EIR Findings

The Program EIRs all reported potential development in proximity to schools, which could create potential risk of upset conditions, and development that would occur under the Program EIRs will adhere to all City of Oakland SCAs and the effect will be less than significant. No mitigation measures were warranted.

1998 Addendum Findings

The 2008 Addendum reported that development of the 2008 Office Project would have a less-than-significant impact regarding the emissions or handle of hazardous or acutely hazardous materials, substances, or waste near a school, as identified originally in the Initial Study Checklist for the 1998 EIR. No school within one mile of the project site was identified in the 2008 Addendum or the previous environmental analyses for the site.

Proposed Project Analysis

Although no changes have occurred with the Proposed Project or the Project site regarding hazardous materials, as indicated in *2. Air Quality*, the Oakland Charter High School now exists within 500 feet of the Project site.

Overall, the Proposed Project will be required to adhere to current City of Oakland SCAs that incorporate the regulatory compliance requirements for the handling and use of hazardous materials. Specifically, the Proposed Project would be required to comply with existing local regulations that require hazardous material handlers within 1,000 feet of a school or other sensitive receptor to prepare a Hazardous Materials Assessment Report and Remediation Plan. Compliance with the SCAs will also ensure that development of the Proposed Project would be required to prepare a Hazardous Materials Management Plan and Hazardous Materials Business Plan, as required by Alameda County and a City of Oakland SCA; also preparation and implementation of Environmental Site Assessments (Phase I and Phase II) which combined would reduce impacts to less-than-significant regarding potential risk to nearby schools.

EMERGENCY ACCESS ROUTES (CRITERIA 7C)

Previous Program EIR Findings

Each of the Program EIRs found less-than-significant effects regarding the potential for interference with emergency response plans or evacuation plans. No mitigation measures were necessary.

2008 Addendum Findings

The 2008 Addendum similarly determined that construction of the 2008 Office Project would not significantly interfere with emergency response plans or evacuation plans; no impact was identified. Based on the analysis in the Initial Study Checklist for the 1998 EIR, development on the site would not significantly interfere with the emergency routes tentatively identified by the plan.

Project Analysis

There are no changes with the Proposed Project or its setting that would change the findings in the 2008 Addendum regarding emergency access routes. Construction in the urban Downtown setting may result in temporary road closures, which would require traffic control plans to ensure at least two emergency access routes are available for streets exceeding 600 feet in length, per the City of Oakland's Ordinances and General Plan Policies. The Project would adhere to this requirement through applicable City of Oakland SCAs that include requirements that would ensure emergency routes are not obstructed during construction. The Proposed Project would not alter existing roadway patterns after construction. The Proposed Project's compliance with all applicable requirements would reduce potential impacts to a less-than-significant level, as identified in the 2008 Addendum.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the applicable Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum and the Program EIRs, nor would it result in new significant impacts related to hazards and hazardous materials that were not identified in the 2008 Addendum or the Program EIRs. The Proposed Project will adhere to the requirements of current City of Oakland SCAs which relate to the management of hazardous materials used or encountered during construction and the hazardous materials business plan as identified in Attachment A to this document. For reference, these are **SCA HAZ-1, SCA HAZ-2, SCA HAZ-3, HAZ-5,** and **TRA-1,** which incorporate and update several requirements previously identified in the 2008 Addendum.

8. **Hydrology and Water Quality** Would the project:	**Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents**	**Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents**	**New Significant Impact**
a. Violate any water quality standards or waste discharge requirements; Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters; Create or contribute substantial runoff which would be an additional source of polluted runoff; Otherwise substantially degrade water quality; Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrologic resources.	☒	☐	☐
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 proposed uses for which permits have been granted);	☒	☐	☐
c. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems; Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river, or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or off-site	☒	☐	☐
d. Result in substantial flooding on- or off-site; Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, that would impede or redirect flood flows; Place within a 100-year flood hazard area structures which would impede or redirect flood flows; or Expose people or structures to a substantial risk of loss, injury, or death involving flooding.	☒	☐	☐

WATER QUALITY, STORMWATER, AND DRAINAGES AND DRAINAGE PATTERNS (CRITERIA 8A AND 8C)

Previous Program EIR Findings

The Program EIRs considered in this analysis all found less-than-significant impacts related to hydrology or water quality, primarily given required adherence to existing regulatory requirements, many of which are incorporated in the City of Oakland's SCAs. No mitigation measures were warranted.

2008 Addendum Findings

The 2008 Addendum determined that construction of the 2008 Office Project would have less than significant impacts regarding water quality and stormwater drainage. The 2008 Office Project would increase the area of the impervious surface on the site, although it would introduce project landscaping which will serve to absorb some surface runoff. Due to the relatively small size of the parcel, little or no increase in surface flow was expected as a result of the development. However, standard erosion control measures were identified for inclusion into the project. Requirements included preparation and submittal of a construction period erosion control plan to address construction period erosion as well as long-term erosion through the introduction of project landscaping and storm drainage facilities, both of which will be designed to meet applicable regulations.

Proposed Project Analysis

There are no changes with the Proposed Project or its setting that would change the findings in the 2008 Addendum regarding hydrology and stormwater drainage. The Proposed Project would involve the same construction activities described in the 2008 Addendum and the Program EIRs and would adhere to the several existing City of Oakland SCAs specified below that update and/or replace those identified in the previous analysis. The Proposed Project would continue to not result in any significant impacts related to water quality and storm drainage given required adherence to existing regulatory requirements.

Development on the Project Site would still involve ground disturbance and increase the amount of impervious surface area on the site, thereby increasing the amount of runoff to the City's stormwater drainage system, even with the introduction of landscaping on the proposed rooftop terraces on the new office building and the Key System Building. SCAs will require preparation and implementation of plans for erosion and sedimentation control, storm water pollution prevention plans (SWPPP), post construction stormwater management and treatment measures, and associated maintenance agreements. These measures were identified in the 2008 Addendum and are now incorporated in several City of Oakland SCAs identified below that would ensure impacts to a less-than-significant level by minimizing runoff and erosion, as well as sedimentation and contamination to stormwater and surface water during and after construction activities.

USE OF GROUNDWATER (CRITERION 8B)

Previous Program EIR Findings

The Program EIRs identified less-than-significant effects regarding use of groundwater, and recognized that subsequent development could involve dewatering. Compliance with existing City requirements and

practices imbedded in the City of Oakland SCAs were cited to ensure such activities do not substantially deplete groundwater resources, which is not anticipated since groundwater in the area is not a potable water source. No mitigation measures were warranted.

2008 Addendum Findings

As established in the Initial Study Checklist for the 1998 EIR, the 2008 Office Project would not involve any substantial subsurface excavation or grading onsite. The 2008 Office Project included provisions for a subsurface basement; however, the existing site was partially excavated already. The development was not anticipated to interfere with groundwater quantity or intercept an aquifer. Furthermore, the local groundwater is not considered potable and is not utilized in the public drinking water supply. The applicant was required to comply with all applicable City standards and regulations pertaining to project-related grading and excavation prior to issuance of grading and building permits, as applicable. Thus, the 2008 Addendum identified that the 2008 Office Project would result in less-than-significant impacts to groundwater.

Proposed Project Analysis

No aspect of the Proposed Project or the Project site has changed that would result in changes to the less than significant impact identified in the 2008 Addendum regarding groundwater supplies and quality. The Proposed Project would adhere to current SCAs that update, incorporate and/or replace those previously described in the 2008 Addendum. The impact would be less than significant, as identified in the 2008 Addendum and the Program EIRs.

FLOODING AND SUBSTANTIAL RISKS FROM FLOODING (CRITERIA 8D)

Previous Program EIR Findings

The Program EIRs found less-than-significant impacts related to flooding and risks from flooding. The LUTE EIR acknowledged that areas considered under that Program EIR could potentially occur within a 100-year flood boundary. Adherence to existing regulatory requirements that are incorporated in the City of Oakland's SCAs would address potentially significant effects regarding flooding. No mitigation measures were warranted.

2008 Addendum Findings

As reported in the 2008 Addendum and originally in the Initial Study Checklist for the 1998 EIR, the site is located in Zone C, which is not located in either a 100-year or 500-year flood boundary. In addition, the site is not located near a levee or a dam. Therefore, the 2008 Addendum found that development of the 2008 Office Project would not result in a significant impact with respect to flood-related risks.

Project Analysis

No aspect of the Proposed Project or the Project site has changed that would result in changes to the less-than-significant impact regarding flood-related risks identified in the 2008 Addendum. The Proposed Project would adhere to current SCAs that update, incorporate and/or replace those previously described in the 2008 Addendum to address flooding. Therefore, the impact would be the same with the Proposed Project.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts related to hydrology and water quality that were not identified in the 2000 EIR or the other Program EIRs. The 2008 Addendum identified measures related to hydrology and water quality and that would be required for the Proposed Project. The Proposed Project would be required to implement SCAs related to stormwater, drainages and drainage patterns, and water quality, as identified in the Attachment A to this document. For reference, these are **SCA HYD-1, SCA HYD-5, SCA GEO-1, SCA GEO-2,** and **SCA UTIL-6**, most of which incorporate and update several requirements previously identified in the 2008 Addendum.

9. **Land Use, Plans, and Policies** Would the project:		Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a.	Physically divide an established community;	☒	☐	☐
b.	Result in a fundamental conflict between adjacent or nearby land uses; or	☒	☐	☐
c.	Fundamentally 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 and actually result in a physical change in the environment.	☒	☐	☐

DIVISION OF EXISTING COMMUNITY, CONFLICT WITH LAND USES, OR LAND USE PLANS (CRITERIA 9A THROUGH 9C)

Previous Program EIR Findings

The Program EIRs considered in this analysis all found less-than-significant impacts related to land use, plans, and policies, and no mitigation measures were warranted. The LUTE EIR, however, identified a significant and unavoidable effect associated with inconsistencies with policies in the Clean Air Plan (resulting from significant and unavoidable increases in criteria pollutants from increased traffic regionally). It identified mitigation measures that align with current City of Oakland SCAs involving TDM and which apply to all projects within the City of Oakland.

2008 Addendum Findings

The 2008 Addendum discussed applicable land use plans and policies to the 2008 Office Project, which were from the Oakland General Plan, the Central District Urban Renewal Plan, and the Oakland Zoning Ordinance, and determined that the project would be consistent with Oakland's land use policies. Particular policies included those in the LUTE intended to enhance the Central District Core as a high-density, compact, diversified area, with offices and retailing as the predominant uses. LUTE Policy D8.1 encourages the development of "new large scale office development along the Broadway corridor…with concentrations at the 12th Street and 19th Street BART stations."[17] Further, the LUTE EIR analysis envisioned and assumed development of a 300,000-square-foot, 20-story office project on the Key System Building block as part of the Downtown Showcase District. Further, office use (with retail/restaurant use at the ground floor) was the predominant land use in the City's Central District Core and was among the

[17] General Plan Land Use and Transportation Element, pp. 63-74.

types of uses to be permitted and encouraged in the area, or allowable with Conditional Use Permit approval. The floor area ratio (FAR) was 15.27.

When the 2008 Addendum was prepared, the project site was within the C-55 Central Core Commercial / S-8 Urban Street Combining Zone / S-17 Downton Residential Open Space Combining Zone, which has since been changed (discussed below).

The 2008 Office Project would not physically divide an established community, would be compatible with existing and planned uses in the vicinity of the project site, and would not conflict with any habitat conservation plan or natural community. For these reasons, the 2008 Office Project would not result in a new significant impact related to land use. The impact was less than significant. No mitigation measures were identified.

Project Analysis

The Proposed Project would develop the same land uses in a similar high-rise building on the Project site as analyzed with the 2008 Office Project in the 2008 Addendum. Since preparation of the 2008 Addendum, the City has changed the zoning designation on the Project site to Central Business District Pedestrian Retail Commercial Zone (CBD-P), with which the Proposed Project aligns. The intent of the CBD-P Zone is to create, maintain, and enhance areas of the Central Business District for ground level, pedestrian-oriented, active storefront uses. Upper story spaces are intended to be available for a wide range of office and residential activities. The site is also located within the CBD-P Height/Bulk/Intensity Area 7, which allows 100 percent coverage of a project site area and no maximum building heights or elevation lengths. The FAR of the Proposed Project would total approximately 368,576 square feet of gross floor area on the 0.5-acre site, or 16.9 FAR.

Pursuant to the current CBD-P Zone and Height/Bulk/Intensity Area designation that were not established when the 2008 Addendum was prepared, the Proposed Project requires and has requested a Minor Variance to reduce the number and size of off-street loading berths (pursuant to Planning Code Section 17.116.140 and 17.116.220). The Proposed Project has also requested an amended Major Conditional Use Permit for large-scale development, pursuant to Planning Code Section 17.58.030.

As discussed under 13. *Transportation and Circulation* in this CEQA Checklist, the Proposed Project would not result in adverse environmental impact as a result of providing two 31-foot-long loading spaces rather than the three 33-foot-long spaces required by the Planning Code. Therefore, the Proposed Project does not include, require or request a variance, the approval of which would potentially affect the environment.

Overall, as disclosed in the 2008 Addendum, the Proposed Project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts related to land use, plans and policies that were not identified in the 2008 Addendum or the Program EIRs. The 2008 Addendum did not identify any mitigation measures related to land use, and no City of Oakland SCAs directly address land use and planning apply to the Proposed Project.

10. Noise Would the project:	**Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents**	**Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents**	**New Significant Impact**
a. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommend measures to reduce potential impacts. During the hours of 7 p.m. to 7 a.m. on weekdays and 8 p.m. to 9 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard; Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code Section 8.18.020) regarding persistent construction-related noise;	☒	☐	☐
b. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise;	☒	☐	☐
c. Generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3-dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project);	☒	☐	☐
d. Expose persons to interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single-family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24); Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval (see Figure 1); Expose persons to or generate noise levels in excess of applicable standards established by a	☒	☐	☐

10. Noise Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA]); or			
e. During either project construction or project operation expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA).	☒	☐	☐

CONSTRUCTION AND OPERATIONAL NOISE AND VIBRATION, EXPOSURE OF RECEPTORS TO NOISE (CRITERIA 10A, 10B, 10D, AND 10E)

Previous Program EIR Findings

The Program EIRs considered in this analysis all found less-than-significant impacts related to operational noise, primarily from roadway traffic, as well as noise compatibility. The LUTE EIR identified mitigation measures to address potential noise conflicts between different land uses.[18] Regarding construction noise, most of the Program EIRs found less-than-significant impacts, primarily with adherence to City of Oakland SCAs; the LUTE EIR identified a significant construction noise and vibration impact in Downtown, even after the incorporation of mitigation measures. The impact regarding construction noise and vibration in the LUTE EIR was significant and unavoidable.

CONSTRUCTION NOISE (CRITERIA 10A, 10D AND 10E)

2008 Addendum Findings

The 2008 Addendum determined that maximum noise levels during construction of the Project would exceed the speech interference criterion, which was used as the significance threshold. The analysis incorporated a project-specific construction noise study (*Key System Building*, *1100 Broadway – Construction Noise Analysis*, Geirer, 2008) which supported the 2008 Addendum conclusion that, with the implementation of standard conditions and performance standards, the severity of the construction noise and vibration impacts would be reduced to less than significant.

[18] The 2011 Redevelopment Plan EIR also identified significant and avoidable noise effects specifically associated with the potential development of a new baseball stadium at Victory Court, and multimodal safety at at-grade rail crossings, both near the Oakland Estuary. These effects would not pertain to the 1100 Broadway Project given the distance and presumably minimal contribution of multimodal trips affecting these impacts.

Proposed Project Analysis

Construction activities for the Proposed Project are expected to occur over approximately 24 months, and would entail excavation and shoring; foundation and below-grade construction; and construction of the building and finishing interiors. Implementation of City of Oakland SCAs, most of which update and/or replace conditions previously identified in the 2008 Addendum to address construction noise and vibration effects, would minimize construction noise impacts. The SCAs, listed below and in Attachment A to this document, would effectively reduce impacts; SCA NOI-1 limiting hours of construction activities; SCA NOI-2 and SCA NOI-3 require best available noise control technology; SCA NOI-3 requires notification of any property owners and residents within 300 feet of extreme noise-generating construction activities, and SCA NOI-5 requires the tracking and response procedures to noise complaints. The Proposed Project will involve screw piles to minimize associated noise during construction compared to traditional impact-driven proposed for construction of the 2008 Office Project, however, in response to SCA NOI-3 and SCA NOI-4, a Project-specific "Construction Noise Management Plan" appropriate to Project's proposed construction methods and the type and proximity of noise-sensitive receptors to the Project site has been prepared as part of this analysis and is presented in **Appendix G** to this document.

Overall, with implementation of the applicable SCAs listed above and in Attachment A, including implementation of the Construction Noise Management Plan for the Project, the construction noise impacts of the Proposed Project would be less than significant, same as identified in the 2008 Addendum.

OPERATIONAL NOISE (CRITERION 10B)

2008 Addendum Findings

The 2008 Addendum determined that the operational noise associated with the mechanical equipment of Project buildings would be a less-than-significant impact. The use of the proposed site for office and commercial uses was determined to be consistent with the City's noise compatibility guidelines. The 2008 Addendum also found the cumulative impact of noise to be less than significant.

Proposed Project Analysis

The Proposed Project would generate noise from the operation of HVAC mechanical equipment. The Proposed Project would involve the same types of standardized mechanical equipment, as well as an emergency generator, which was not previously considered in the 2008 Addendum. HVAC equipment would operate within the restrictions of the City's Noise Ordinance and the noise impact from their operation would be similar to that discussed in the 2008 Addendum. The Project would be required to implement SCA NOI-7, which would require mechanical equipment to comply with applicable noise performance standards and ensure that the operational noise impact from stationary equipment would be less than significant. No change is proposed to the office use previously proposed, therefore the Proposed Project remains consistent with City's noise compatibility guidelines in the General Plan, as concluded in the 2008 Addendum. The Project would not include any sources of operational vibration. Development of the Proposed Project would incorporate all applicable SCAs to ensure the less-than-significant impact identified in the 2008 Addendum.

TRAFFIC NOISE (CRITERION 10C)

2008 Addendum Findings

The 2008 Addendum determined that the 2008 Office Project would not result in a doubling of traffic in the project vicinity, nor contribute to a doubling of traffic under cumulative conditions. As a doubling of traffic on local roadways is required to cause a noticeable (3 dBA) increase in traffic-generated noise, the analysis concluded that the 2008 Office Project would not result in a significant permanent increase in ambient noise levels, nor would it introduce a new use that would be affected by cumulative noise increases.

Proposed Project Analysis

The Proposed Project would generate traffic and increase noise levels along roadways in the vicinity of the Project site. Additional vehicles traveling throughout the local roadway network as a result of the Project would increase noise levels adjacent to nearby roads. A quantitative traffic noise analysis was prepared for roadways used to access the Project site: Broadway, 12th Street, 11th Street, and Franklin Street. Noise levels were determined for this analysis using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model and the turning movements in the traffic section (see *13. Traffic and Circulation*) for Existing, Existing plus Project, and Cumulative (2040) conditions. Peak hour intersection turning data from the Proposed Project traffic study were analyzed to evaluate traffic volume increases and resulting traffic-generated noise increases on roadway links most affected by project-related traffic. The roadway segments analyzed and the results of the noise increases determined by modeling are shown in **Table NOI-1**, below.

TABLE NOI-1
PEAK-HOUR TRAFFIC NOISE LEVELS IN THE VICINITY OF THE PROJECT

Roadway Segment[a,b]	(A) Existing	(B) Existing Plus Project	(B-A) Difference between Existing Plus Project and Existing[c]	(C) Cumulative No Project (2040)	(D) Cumulative Plus Project (2040)	(D-A) Difference between Cumulative Plus Project and Existing	(D-C) Difference between Cumulative Plus Project and Cumulative No Project[d]
12th Street east of Broadway	63.8	64.8	1.0	64.7	65.6	1.8	0.9
12th Street west of Broadway	63.6	64.1	0.5	64.5	64.9	1.3	0.4
Franklin Street south of 12th Street	57.6	58.2	0.6	58.5	58.9	1.3	0.4
11th Street east of Broadway	64.1	64.4	0.3	64.9	65.2	1.1	0.3

[a] Road center to receptor distance is 10 meters (approximately 33 feet) for all roadway segments. Noise levels were determined using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model.
[b] The analysis considered the vehicle mix based on – cars 98 percent, medium trucks two percent, and heavy trucks one percent and a speed of 30 mph for all vehicle classes.
[c] Considered significant if the incremental increase in noise from traffic is greater than the existing ambient noise level by 5.0 dBA Leq, per City of Oakland, CEQA Thresholds/Criteria of Significance Guidelines.
[d] Considered a cumulatively considerable contribution to a significant noise increase if the incremental increase in noise is greater than 3 dBA.

SOURCE: ESA, 2017.

As shown in Table NOI-1, the increase in traffic noise from the Existing plus Project scenario compared to the Existing scenario would be less than 5.0 dBA for all roadway segments. The roadway segment of 12th Street east of Broadway would experience the greatest increase in traffic noise, which would be 1.0 dBA

above existing ambient noise levels, but would be well below the 5.0 dBA increase threshold for a significant impact. Therefore, overall, traffic noise impacts associated with the Project at all analyzed roadway segments in the project vicinity would be less than significant at the project-level.

Table NOI-1 also shows that the increase in traffic between the Cumulative Plus Project (2040) and Existing scenarios would increase peak hour noise levels by less than 5.0 dBA for all roadway segments. Thus, the cumulative roadway noise impact would also be less than significant.

Conclusion

Based on the analysis, findings and conclusions presented above, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts related to noise that were not identified in the 2008 Addendum or in the Program EIRs. SCAs identified in the 2008 Addendum to address construction noise impacts have been updated and/or replaced with equally or more effective conditions with which the Project will comply. The Proposed Project would be required to implement the City of Oakland SCAs to reduce construction noise, as well as SCAs to achieve interior noise standards, and require mechanical equipment to meet applicable noise performance standards. All of the applicable City of Oakland SCAs are identified in Attachment A to this document. For reference, these are **SCA NOI-1, SCA NOI-2, SCA NOI-3, SCA NOI-4, SCA NOI-5**, and **SCA NOI-7,** most of which incorporate and update several requirements previously identified in the 2008 Addendum.

11. Population and Housing Would the project:	**Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents**	**Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents**	**New Significant Impact**
a. Induce substantial population growth in a manner not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extensions of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed;	☒	☐	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element; or Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.	☒	☐	☐

POPULATION GROWTH AND DISPLACEMENT OF HOUSING AND PEOPLE (CRITERIA 11A AND 11B)

Previous Program EIR Findings

The Program EIRs considered in this analysis all found less-than-significant impacts related to population and housing; the LUTE EIR and Redevelopment Plan Amendments EIR also addressed employment. The impact identified in the LUTE EIR addressed unanticipated employment growth (compared to regional ABAG projections) which would create an increased demand for new housing. The effect was reduced to less than significant with identified mitigation measures. No other mitigation measures were warranted.

2008 Addendum Findings

The 2008 Addendum determined that impacts related to population growth and displacement of housing and people with the 2008 Office Project would be less than significant. No residential use exists on the site nor was residential proposed as part of the 2008 Office Project.

Proposed Project Analysis

Similar to the 2008 Office Project, development of the Proposed Project would not result in the addition of any new residential units to the Downtown area nor would it displace any existing residential units. The

Proposed Project would generate approximately 1,051 new employees at the project site, in addition to temporary construction employees. Moreover, infill growth from development of 1100 Broadway was anticipated in the Central District Urban Renewal Plan Amendment (2011) and the Oakland General Plan Land Use and Transportation Element (LUTE) (1998, as amended), and the CEQA documents to each of those program documents. The Proposed Project's impacts to population and housing would be less than significant, as identified in the 2008 Addendum.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum and the Program EIRs, nor would it result in new significant impacts related to population and housing that were not identified in the 2008 Addendum and Program EIRs. The 2008 Analysis did not identify any mitigation measures related to population and housing, and none would be required for the Proposed Project. Also no SCAs would apply.

12. Public Services, Parks and Recreation Facilities Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental 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 following public services: • Fire protection; • Police protection; • Schools; or • Other public facilities.	☒	☐	☐
b. Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or Include recreational facilities or require the construction or expansion of recreational facilities which might have a substantial adverse physical effect on the environment.	☒	☐	☐

PUBLIC SERVICES AND PARKS AND RECREATION (CRITERIA 12A AND 12B)

Previous Program EIR Findings

The Program EIRs considered in this analysis all found less-than-significant impacts related to public services and recreational facilities; no mitigation measures were warranted nor City of Oakland SCAs identified. The LUTE EIR identified a significant effect regarding increased student enrollment, particularly in Downtown (and the Waterfront), and identified mitigation measures would not reduce the effect to less than significant. Thus the impact was significant and unavoidable.[19]

[19] The 1998 LUTE EIR addressed effects on solid waste demand and infrastructure facilities for water, sanitary sewer and stormwater drainage under *Public Services*. These topics are addressed in this document under *14. Utilities and Service Systems*, consistent with current City approach.

2008 Addendum Findings

The 2008 Addendum determined that the 2008 Office Project impacts related to fire and police protection, schools, and other public facilities would be less than significant. As discussed for the 2008 Office Project, although development would increase daytime employment density and population in the Downtown area, this growth has been anticipated and factored into Oakland's General Plan, as previously discussed (see *11. Population and Housing* and *9. Land Use, Plans and Policies*). The development would occur in an urban area already served by public services and recreation facilities, and recent plan amendments and corresponding CEQA analyses have consistently determined that the anticipated growth would not impose a burden on existing public services to create a significant impact.

Proposed Project Analysis

No changes have occurred with the Proposed Project, the Project site, or its surroundings that would alter the less-than-significant impact identified in the 2008 Addendum with regards to public services and recreation. The proposed use and the estimated employment population and associated service demands of the Proposed Project workers would be the same as with the 2008 Office Project since the total square footage and land uses are the same. The impact would remain less than significant.

As assumed in the 2008 Addendum, City practices and requirements, such as the Oakland Fire Services' review of project plans, requiring all projects to implement safety features, and to comply with all applicable codes and regulations, or project applicants' required contribution amount to school impact fees to offset impacts to school facilities from new development; both would continue and contribute to the avoidance of significant impacts to public services.

Regarding recreation facilities, the Proposed Project includes options for landscaped rooftop terraces on the new office building (see **Figure 12**) and the Key System Building (see **Figure 18**). These spaces would likely be quasi-public, available to the public users of the office building and propose a variety of spaces and treatments (sitting areas, paved areas natural and planter landscaping, lawn). Neither the development nor use of these quasi-public roof terraces are expected to cause a significant impact. Further, the Proposed Project's adherence to the General Plan's Open Space, Conservation and Recreation Element Policies 3.1, 3.3, and 3.10 would reduce potential impacts to recreational facilities.

Overall, any increases in need for police protection, fire protection, schools, or other public facilities resulting from the increase population with the Proposed Project would be mitigated by adherence to General Plan Policies N.12.1, N.12.2, N.12.5, FI-1, and FI-2. The Proposed Project would result in a less-than-significant public services, parks and recreation impact.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts related to the provision of public services and parks and recreation facilities that were not identified in the 2008 Addendum or the Program EIRs. The 2008 Addendum did not identify any mitigation measures related to public services, parks and recreation facilities, and none would be required for the Proposed Project.

13. Transportation and Circulation Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile level of service or other measures of vehicle delay); or	☒	☐	☐
b. Cause substantial additional VMT per capita, per service population, or other appropriate efficiency measure; or	☒	☐	☐
i) For residential projects, a project would cause substantial additional VMT if it exceeds existing regional household VMT per capita minus 15 percent.			
ii) For office projects, a project would cause substantial additional VMT if it exceeds the existing regional VMT per employee minus 15 percent.			
iii) For retail projects, a project would cause substantial additional VMT if it results a net increase in total VMT.			
c. Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network.	☒	☐	☐

This transportation and circulation analysis evaluates the Proposed Project under the recently adopted City policies and practices, including the assessment of vehicle miles traveled (VMT), that did not apply when the 2008 Addendum was prepared. The Proposed Project is not expected to implicate new or changed traffic operations compared to those previously identified in the 2008 Addendum. While the City's current transportation thresholds no longer address traffic operations, the analysis is conducted for informational purposes (under *Non-CEQA Transportation)*, for the benefit of the public and decision-makers. The City will impose its SCAs and previously adopted mitigation measures from the 2008 Addendum to the Proposed Project, as detailed below.

TRANSPORTATION AND CIRCULATION

Previous Program EIR Findings

The Program EIRs considered for this analysis identified significant and unavoidable impacts regarding intersection and/or roadway segment operations. Various mitigation measures and City of Oakland SCAs are identified (except in the LUTE EIR, which does not identify SCAs). Other transportation/circulation effects identified in each of the document are reduced to less than significant with adherence to City of Oakland SCAs or mitigation measure, as follows.

The LUTE EIR identified impacts regarding degradation of the level of service (LOS) for several roadway segments citywide. A mitigation measure was identified for one Downtown intersection (12th Street and Brush Street) to reduce the impact to intersection operations to less than significant. All other topics were found to have less-than- significant impacts. The Redevelopment Plan Amendments EIR and Addendum identified significant and unavoidable effects to roadway segment operations as well as railroad crossing safety, after the implementation of identified mitigation measures.

2008 Addendum Findings

The 2008 Addendum evaluated the impacts of a project consisting of 312,605 square of office and 9,810 square feet of commercial space.[20] The 2008 Addendum evaluated the impacts of the project on traffic operations at eight intersections under existing (2008) and Cumulative (2025) conditions, and did not identify any significant impacts on transportation.

Proposed Project Analysis

This section of the CEQA Checklist presents the analysis and findings of the transportation analysis prepared by Fehr & Peers for the Proposed Project. The Proposed Project is consistent with the 2008 Addendum because it would not cause significant impacts to the transportation network. The Proposed Project would consist of 312,415 square feet of office and 10,000 square feet of commercial retail/restaurant space on a currently vacant site at the southeast corner of the 12th Street/Broadway intersection in Oakland. The Proposed Project would not create any new on-site parking spaces for use by residents, customers, or employees of the project, but has the option to secure up to 145 parking spaces in the underground parking garage in the adjacent building. The Project would provide two loading berths accessed from 12th Street. The Project would provide long-term bicycle parking, as well as bicycle repair, shower, and locker facilities in the building basement. Primary pedestrian access for the office component of the project would be through a main lobby midblock on Broadway. The retail components of the project would be along the project frontage on Broadway and 11th and 12th Streets.

The Proposed Project would generate fewer trips than the project evaluated in the 2008 Addendum (see Figure TRA-2, below). Similarly, the Proposed Project would not cause a significant impact on traffic operations, as discussed under the *Non-CEQA Transportation* discussion below. This analysis also evaluates and provides recommendations that improve multi-modal access, circulation, and safety.

[20] To ensure conservative CEQA analysis of the Proposed Project, maximum usable building floor area by use is analyzed throughout the analysis, which exceeds the Project sponsor's 8/30/17 detailed floor area and building use spreadsheet which represents 309,890 total square feet of office use.

CONFLICTS WITH PLANS, ORDINANCES, OR POLICIES RELATING TO SAFETY, OR PERFORMANCE OF THE CIRCULATION SYSTEM (CRITERION 13A)

The Proposed Project is consistent with applicable plans, ordinances, and policies, and would not cause a significant impact by conflicting with adopted plans, ordinances, or policies addressing the safety and performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile level of service or other measures of vehicle delay).

The LUTE, as well as the City's Public Transit and Alternative Mode and Complete Streets policies, states a strong preference for encouraging the use of non-automobile transportation modes, such as transit, bicycling, and walking. The Proposed Project would encourage the use of non-automobile transportation modes by providing office and retail uses with no new on-site parking in a dense, walkable urban environment that is well-served by local and regional transit.

The Proposed Project is consistent with both the City's Pedestrian Master Plan and Bicycle Master Plan as it would not make major modifications to existing pedestrian or bicycle facilities in the surrounding areas and would not adversely affect installation of future facilities.

Overall, the Proposed Project would not conflict with adopted plans, ordinances, or policies addressing the safety and performance of the circulation system. This is a less-than-significant impact; no mitigation measures are required.

VEHICLE MILES TRAVELLED (VMT) ASSESSMENT (CRITERION 13B)

VMT impacts would be less than significant for a project if any of the identified screening criteria are met:

1. Small Projects: The project generates fewer than 100 vehicle trips per day

2. Low-VMT Areas: The project meets map-based screening criteria by being located in an area that exhibits below threshold VMT, or 15 percent or more below the regional average

3. Near Transit Stations: The project is located in a Transit Priority Area or within a one-half mile of a Major Transit Corridor or Stop[21] and satisfies the following:

    - Has a Floor Area Ratio (FAR) of more than 0.75

    - Includes less parking for use by residents, customers, or employees of the project than other typical nearby uses, or more than required by the City (if parking minimums pertain to the site) or allowed without a conditional use permit (if minimums and/or maximums pertain to the site)

    - Is consistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Transportation Commission)

The Proposed Project would include 312,415 square feet of office and 10,000 square feet of retail. Since the Proposed Project would provide less than 80,000 square feet of retail space, the retail is considered to be

[21] Major transit stop is defined in CEQA Section 21064.3 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.

local serving and the VMT per worker criterion is used to screen the VMT for the commercial component of the project.

The Proposed Project satisfies the Criteria #2 (Low-VMT Area) and #3 (Near Transit Station), as detailed below.

Criterion #1: Small Projects

The project would generate more than 100 trips per day and therefore does not meet criterion #1.

Criterion #2: Low-VMT Area

Table TRA-1 describes the 2020 and 2040 VMT for TAZ 968, the TAZ in which the project is located as well as applicable VMT thresholds of 15 percent below the regional average.

As shown in Table TRA-1, the 2020 and 2040 average daily VMT per worker in the project TAZ is more than 15 percent below the regional averages. Therefore, it is presumed that the Proposed Project would not result in substantial additional VMT and project impacts with respect to VMT would be less-than-significant.

TABLE TRA-1
DAILY VEHICLE MILES TRAVELED SUMMARY

Land Use	Bay Area				TAZ 968	
	2020		2040			
	Regional Average	Regional Average minus 15%	Regional Average	Regional Average minus 15%	2020	2040
Commercial/Retail (VMT per worker)[1]	21.8	18.5	20.3	17.3	13.7	11.4

1. MTC Model results at analytics.mtc.ca.gov/foswiki/Main/PlanBayAreaVmtPerWorker and accessed in June 2017.

SOURCE: Fehr & Peers, 2017.

Criterion #3: Near Transit Stations

The Project site is located adjacent to the 12th Street Oakland City Center Station and is within one-half mile of several frequent bus routes along Broadway (Routes 6 and 51A with 10-minute peak headways, and Routes 72, 72M, and 72R, with 10 to 12 minute peak headways), 7th and 8th Streets (Routes 18 and 62 with 15 minute peak headways), and 11th and 12th Streets (Route 1 with 8 to 10 minute peak headways and Route 40 with 10 minute peak headways). The Proposed Project would satisfy Criterion #3 because it would meet the following three conditions for this criterion:

- The project has an FAR of 17, which is greater than 0.75
- The project would include no new on-site parking spaces, which is consistent with the City of Oakland Municipal Code Section 17.116.060 for the CBD-P zone, which has a minimum of zero parking spaces. Therefore, the project would not provide more parking for use by residents, customers, or employees of the project than allowed without a conditional use permit.

- The project is located within the Downtown Oakland Priority Development Area (PDA) as defined by Plan Bay Area, and is therefore consistent with the region's Sustainable Communities Strategy

VMT Impact Conclusion

The Proposed Project would satisfy the Low-VMT Area (#2) and Near Transit Stations (#3) criteria. This is a less-than-significant impact; no mitigation measures are required.

INDUCED AUTOMOBILE TRAVEL (CRITERION 13C)

The Proposed Project would not modify the roadway network surrounding the project site to increase physical capacity. Therefore, it would not increase the physical roadway capacity and would not add new roadways to the network, and would not induce additional automobile traffic. This is a less-than-significant impact; no mitigation measures are required.

NON-CEQA TRANSPORTATION ISSUES

The 2008 Addendum analyzed impacts on the transportation system using LOS, per the City of Oakland significance criteria at the time. Because the 2008 Addendum included an LOS analysis, this document provides an updated LOS analysis, even though it is no longer required, to confirm the applicability of the Addendum.

Trip Generation

Table TRA-2 summarizes the automobile trip generation for the Proposed Project. The trip generation estimates are based on data published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual* (9th Edition). The ITE data is based on data collected at mostly single-use suburban sites where the automobile is often the only travel mode. However, the project site is in a dense mixed-use urban environment where many trips are walk, bike, or transit trips. Since the Proposed Project is adjacent to the 12th Street Oakland City Center BART Station, this analysis reduces the ITE based trip generation by 46.9 percent to account for the non-automobile trips. This reduction is consistent with the City's Transportation Impact Study Guidelines and is based on US Census data which shows that the non-automobile mode share within 0.5-mile of a BART station in Alameda County is about 46.9 percent.

As shown in Table TRA-2 the Proposed Project is estimated to generate about 1,890 daily, 258 AM peak hour, and 247 PM peak hour trips, which is about 620 fewer daily, 52 fewer AM peak hour, and 68 fewer PM peak hour trips compared to the project evaluated in the 2008 Addendum. The vehicle trip generation for the Proposed Project would be substantially less than the trip generation estimated in the 2008 Addendum, which did not identify any significant impacts related to traffic operations. Therefore, the Proposed Project would not result in impacts on traffic operations in addition to those analyzed in the 2008 Addendum.

TABLE TRA-2
AUTOMOBILE TRIP GENERATION

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Office	312.4 KSF	710 [3]	3120	419	57	476	73	355	428
Retail	10.0 KSF	820 [2]	430	6	4	10	18	19	37
Subtotal			3,550	425	61	486	91	374	465
Non-Auto Reduction (-46.9%)[4]			*-1,660*	*-199*	*-29*	*-228*	*-43*	*-175*	*-218*
Net New Project Trips			**1,890**	**226**	**32**	**258**	**48**	**199**	**247**
Approved 2008 Project [5]			2,513	271	39	310	69	245	315
Net Difference			-623	-45	-7	-52	-21	-46	-68

1. KSF = 1,000 square feet.
2. ITE *Trip Generation (9th Edition)* land use category 820 (Shopping Center):
   Daily: T = 42.7 * X
   AM Peak Hour: T = 0.96* X (62% in, 38% out)
   PM Peak Hour: T = 3.71* X (48% in, 52% out)
3. ITE *Trip Generation (9th Edition)* land use category 710 (General Office Building):
   Daily: Ln(T) = 0.76*Ln(X) + 3.68
   AM Peak Hour: Ln(T) = 0.80*Ln(X) + 1.57 (88% in, 12% out)
   PM Peak Hour: T = 1.12*(X) + 78.45 (17% in, 83% out)
4. Reduction of 46.9% assumed. Based on City of Oakland *Transportation Impact Review Guidelines* using Census data for urban environments within 0.5 miles of a BART Station.
5. Source: 1100 Broadway Transportation Study, January 31, 2008

SOURCE: Fehr & Peers, 2017.

TRANSPORTATION AND PARKING DEMAND MANAGEMENT - IMPLEMENTATION OF SCA TRA-4

Because the Proposed Project would generate more than 50 peak hour trips (see Table TRA-2), preparation and implementation of a TDM Plan is required under SCA TRA-4, which is detailed in Attachment A to this document and updates and replaces previous TDM conditions identified in the 2008 Addendum. Appendix H to this document presents a Project-specific Draft TDM Plan that includes on-going operational strategies, as well as infrastructure improvements, that encourage the use of non-automobile travel modes. For purposes of CEQA, the Proposed Project will implement mandatory TDM strategies to achieve vehicle trip reduction (VTR) goals specified in SCA TRA-4 and the Draft TDM Plan in Appendix H to this document. The following TDM Measures summarize the TDM Plan commitments:

- Infrastructure Improvements, including
  - Consider relocating all or some of the long-term bicycle parking from the basement to a more convenient location on the ground level.

  - Implement a continuation of the existing Class 2 bicycle lanes on Webster and Franklin Streets between 11th and 14th Streets.
  - Explore the feasibility and if feasible, install directional curb ramps at all four corners of the 12th Street/Broadway and 11th street/Broadway intersections that the East Bay BRT project would not upgrade. Considering that fire hydrants, signal poles, light poles, and/or storm drain inlets may be present at these locations, construction of curb extensions (bulbouts) may also be required at some locations to accommodate the directional curb ramps.
  - Modify the existing median on Broadway to provide a pedestrian refuge island for the south crosswalk at the 11th Street/Broadway intersection.
- Alternative Work Schedule/Flexible Hours/Telecommuting
- Transit Fare Subsidy
- Pre-tax Commuter Benefit
- Carpool and Ride-Matching Assistance
- Preferential Parking for Carpoolers
- Bicycle Facility Monitoring
- Guaranteed Ride Home
- TDM Coordinator
- TDM Marketing and Employee Education

Additional detail on these measures is provided in Appendix H.

SITE PLAN REVIEW

An evaluation of access and circulation for all travel modes, based on the site plan dated May 11, 2017, is summarized below.

Automobile Access and Circulation

The Proposed Project would not provide any on-site parking. Motorists driving to the site would use other parking facilities in the project vicinity. Thus, the Proposed Project would not modify automobile access and circulation. The Proposed Project is expected to generate pick-up/drop off trips. There are currently no designated passenger loading spaces along the project frontage.

> **Recommendation 1:** While not required to address a CEQA impact, the following should be considered as part of the final design for the Project:
>
> - Consider designating curb space on 12th Street between Broadway and the project loading berths for short-term parking and/or passenger loading.

Also the Proposed Project would be required to adhere to City of Oakland SCA TRA-1 to obtain required permits and prepare a Traffic Control Plan to ensure adequate circulation and access during construction. As shown in Attachment A to this document, SCA TRA-1 updates and replaces previous conditions identified for the 2008 Office Project.

Bicycle Access and Bicycle Parking

Chapter 17.117 of the Oakland Municipal Code requires long-term and short-term bicycle parking for new buildings. Long-term bicycle parking includes lockers or locked enclosures and short-term bicycle parking includes bicycle racks. The Code requires one long-term space for each 10,000 square feet of floor area and one short-term space for each 20,000 square feet of floor area for offices. The Code requires the minimum level of bicycle parking, two long and short-term spaces, for the commercial component of the project.

Table TRA-3 presents the bicycle parking requirements for the project. Consistent with SCA TRA-2, the Proposed Project is required to provide 33 long-term parking spaces and 18 short-term spaces; as shown in Attachment A to this document, SCA TRA-2 updates and replaces conditions regarding bicycle parking as identified in the 2008 Addendum for the 2008 Office Project. The Project site plan identifies long-term bicycle parking in a secure bicycle room in the building basement. Although the site plan does not indicate the number of bicycles than can be accommodated in the bicycle room, it is expected to exceed the minimum code requirement. The bicycle room can be accessed either through the main building lobby on Broadway or through a secondary service access on 12th Street, and using the elevators or stairs.

The site plan identifies 18 short-term bicycle parking spaces along the sidewalks on 11th and 12th Streets. In addition, consistent with Code requirements, the project would also provide six showers and 24 lockers in the project basement. Thus, the Proposed Project would satisfy the City's bicycle parking requirements.

TABLE TRA-3
BICYCLE PARKING REQUIREMENTS

Land Use	Size[1]	Long-Term		Short-Term	
		Spaces per Unit[2]	Spaces	Spaces per Unit[2]	Spaces
Office	312.4 KSF	1:10 KSF	31	1:20 KSF	16
Commercial	10.0 KSF	Min.	2	Min.	2
Total Required Bicycle Spaces			33		18
Total Bicycle Parking Provided			>33		18
Bicycle Parking Met?			**Yes**		**Yes**

1. KSF = 1,000 square feet
2. Based on Oakland Municipal Code Sections 17.117.090 and 17.117.110

SOURCE: Fehr & Peers, 2017

Recommendation 2: While not required to address a CEQA impact, the following should be considered as part of the final design for the Project:

- Consider relocating all or some of the long-term bicycle parking from the basement to a more convenient location on the ground level.

Currently, no designated bicycle facilities are provided on the streets adjacent to the project site. The City of Oakland's Bicycle Master Plan designates Franklin and Webster Streets, just to the east of the project site, as proposed Class 2 bicycle lanes between 14th and 8th Streets. Currently, northbound Franklin Street and southbound Webster Street provide Class 2 bicycle lanes north of 14th Street.

Recommendation 3: While not required to address a CEQA impact, the following should be considered as part of the final design for the Project:

- Implement a continuation of the existing Class 2 bicycle lanes on Webster and Franklin Streets between 11th and 14th Streets.

Pedestrian Access and Circulation

Primary pedestrian access for the project would be through a main lobby midblock on Broadway, which would connect to the office levels through elevators and a stairwell. Additional pedestrian access would be provided through a service entrance on 12th Street. The main building lobby would also provide a pedestrian connection to the office building adjacent to the east side of the building. The commercial components of the project would be on the ground level on either side of the main lobby and would be directly accessed from the adjacent sidewalks.

Pedestrian facilities at the intersection adjacent to the site include:

- The 12th street/Broadway intersection currently provides diagonal curb ramps on all four corners, crosswalks on all four approaches, and pedestrian countdown signal heads in all directions.

- The 11th street/Broadway intersection currently provides diagonal curb ramps on all four corners, crosswalks on all four approaches, and pedestrian countdown signal heads in all directions. Broadway provides a center median on the northbound (south) approach of the intersection.

As part of the East Bay Bus Rapid Transit (BRT) Project, AC Transit will upgrade some of the diagonal curb ramps to directional curb ramps at these two intersections.

Recommendation 4: While not required to address a CEQA impact, the following should be considered as part of the final design for the Project:

- Explore the feasibility and if feasible, install directional curb ramps at all four corners of the 12th street/Broadway and 11th street/Broadway intersections that the East Bay BRT project would not upgrade. Considering that fire hydrants, signal poles, light poles, and/or storm drain inlets may be present at these locations, construction of curb extensions (bulbouts) may also be required at some locations to accommodate the directional curb ramps.

- Explore the feasibility and if feasible, modify the existing median on Broadway to provide a pedestrian refuge island for the south crosswalk at the 11th Street/Broadway intersection.

Transit Access

Transit service providers in the project vicinity include Bay Area Rapid Transit (BART) and AC Transit.

BART provides regional rail service throughout the East Bay and across the Bay. The Proposed Project is adjacent to the 12th Street Oakland City Center BART Station. The nearest station portal is just to the south of the main Project entry, on the east side of Broadway between 11th and 12th Streets. The Proposed Project would not modify access between the project site and the BART Station.

AC Transit is the primary bus service provider in the City of Oakland. AC Transit operates multiple major routes in the vicinity of the project including: Routes 6, 12,18, 19, 20, 51A, 72/72M/72R, and 96 along Broadway, Routes 1, 29, and 40 along 11th and 12th Streets, and Routes 18 and 62 along 7th and 8th Streets. The Oakland Free Broadway shuttle ("Free B") also operate along Broadway.

The nearest bus stops to the Project site are:

- On the east side of Broadway (northbound), adjacent to the project site. Routes 6, 12, and 72, 72M, 72R, and the Free B Shuttle serve this stop. The stop provides a bus shelter, a bench, a changeable message sign, and a trash receptacle.

- On the west side of Broadway (southbound), midblock between 11th and 12th Streets. Routes 6, 12, 72, 72M, 72R, and 96, and the Free B Shuttle serve this stop. The stop provides a bus shelter, benches, and a changeable message sign. This stop can be accessed from the project site by crossing Broadway at the signalized crossings at 11th or 12th Streets.

- On the north side of 12th Street (westbound), just west of Broadway. Routes 1, 19, 20, 29, 40, and 88 service this stop. The stop provides a bus shelter, a bench, and a trash receptacle. This stop can be accessed from the project site by using the signalized 12th Street/Broadway intersection.

- On the north side of 12th Street (westbound), about 150 feet east of Broadway. 33 service this stop. The stop provides a bus shelter, a bench, and a trash receptacle. This stop can be accessed from the project site by crossing 12th Street at the signalized crossing at Broadway.

- On the south side of 11th Street, just west of Broadway. Routes 19, 20, and 88 service this stop. The stop provides a bus shelter, a bench, and a trash receptacle. This stop can be accessed from the project site by using the signalized 11th Street/Broadway intersection.

- On the south side of 11th Street, about 150 feet east of Broadway. Routes 1, 29, 40, and 96 service this stop. The stop provides a bus shelter, benches, and a changeable message sign. This stop can be accessed from the project site by crossing 11th Street at the signalized crossing at Broadway.

AC Transit is currently designing the East Bay Bus Rapid Transit (BRT) Project, which would replace Route 1 along the 11th/12th Streets corridor in the project vicinity. The project would generally dedicate one travel lane in each direction to bus operations only to provide a quicker and more reliable bus service.

The nearest BRT stop to the project site would be at the same location as the current Route 1 stops on eastbound 11th and westbound 12th Streets on the opposite side of the street from the project. Both stops would be accessed from the project site by crossing at the protected signalized intersections on Broadway at 11th and 12th Streets.

No other major changes to the bus routes operating in the vicinity of the project are planned and the Proposed Project would not modify access between the project site and these bus stops.

Conclusion

The Proposed Project would not cause significant impacts to transportation and circulation, as was determined in the 2008 Addendum. Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts related to transportation and circulation that were not identified in the 2008 Addendum or the Program EIRs. The 2008 Addendum did not identify any mitigation measures related to transportation and circulation, and none would be required for the Proposed Project.

All of the applicable City of Oakland SCAs relevant to the Project's effects on transportation and circulation are identified in Attachment A to this document. For reference, these are **SCA TRA-1, SCA TRA-2, SCA TRA-3, and SCA TRA-4,** most of which incorporate and update several requirements previously identified in the 2008 Addendum.

14. Utilities and Service Systems Would the project:	**Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents**	**Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents**	**New Significant Impact**
a. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board; Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects; Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;	☒	☐	☐
b. Exceed water supplies available to serve the project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects;	☒	☐	☐
c. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects; Violate applicable federal, state, and local statutes and regulations related to solid waste;	☒	☐	☐
d. Violate applicable federal, state and local statutes and regulations relating to energy standards; or Result in a determination by the energy provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.	☒	☐	☐

WATER, WASTEWATER, AND STORMWATER (CRITERIA 14A AND 14B)

Previous Program EIR Findings

Most of the Program EIRs considered in this analysis found less-than-significant impacts related to water, wastewater, or stormwater facilities, finding no mitigation measures warranted but adhering to certain City of Oakland SCAs. The LUTE EIR identified a significant effect regarding these topics and identified mitigation measures that reduced the effects to less than significant.[22]

2008 Addendum Findings

The 2008 Addendum determined, as found in the 1998 Initial Study Checklist for the 1998 EIR, that development of the 2008 Office Project would not place undue burden on existing water, sewers or storm drainage utilities. Finding consistency with the 1998 analysis, the 2008 Addendum indicated that the 2008 Office Project would be consistent with the service plans of existing public utilities serving the downtown area. Impact fees and utility connection fees assessed and collected prior to the issuance of building permits for the proposed project to help offset any capital facility impacts from new office workers utilizing the space as well as other utility services. The impact was less than significant.

Proposed Project Analysis

No changes have occurred with the Proposed Project, the Project site, or its surroundings that would alter the less-than-significant impact identified in the 2008 Addendum with regards to water, wastewater and stormwater utilities. The proposed use and the estimated employment population and associated service demands of the Proposed Project workers and the building functions would be the same as with the 2008 Office Project since the total square footage and land uses are the same. The impact would remain less than significant. Current City of Oakland SCAs would be implemented by the Proposed Project to address reductions of wastewater and the adequacy of sewer and storm drainage facilities, including SCA UTIL-5 and SCA UTIL-6, as presented in Attachment A to this document. SCA UTIL-7 also addresses water use efficiency related to landscaping. Each of these SCAs updates and replaces conditions previously identified in the 2008 Addendum. Overall, the Proposed Project would not result in any new or more substantial effect on water and sewer services. The impact would remain less than significant.

SOLID WASTE SERVICES (CRITERION 14C)

Previous Program EIR Findings

Most of the Program EIRs considered in this analysis all found less-than-significant impacts related to solid waste, adhering to City of Oakland SCAs; no mitigation measures were warranted. The LUTE EIR identified a significant effect regarding solid waste and identified a mitigation measure that reduced the effect to less than significant.

[22] The 1998 LUTE EIR addressed effects on solid waste demand and infrastructure facilities for water, sanitary sewer and stormwater drainage under *Public Services*. These topics are addressed in this document under *14. Utilities and Service Systems*, consistent with current City approach.

2008 Addendum Findings

As stated above, the 2008 Addendum determined, as found in the 1998 Initial Study Checklist for the 1998 EIR, that development of 2008 Office Project would not place undue burden on burden on existing utilities, which included solid waste. The impact was less than significant.

Proposed Project Analysis

The Proposed Project would not result in any change to the conclusions or impact statements made in the 2008 Addendum with regard to solid waste utilities and services; the proposed development and resulting population would be the same as the 2008 Office Project. Like the previous proposal, the Proposed Project would not overburden landfill(s); and would comply with federal, state, and local statutes related to solid waste. Nonhazardous solid waste from the project site would be ultimately hauled to the Altamont Landfill and Resource Facility. The Altamont Landfill would have sufficient capacity to accept waste generated by development evaluated in the 2008 Addendum. In addition, the Proposed Project will comply with City of Oakland SCA UTIL-1 and SCA UTIL pertaining to waste reduction and recycling during construction and operations, and thereby reduce waste through compliance with the City of Oakland's Recycling Space Allocation Ordinance (Oakland Municipal Code, Chapter 17.118); the current SCAs update and replace conditions previously identified in the 2008 Addendum. The impact regarding solid waste utilities would remain less than significant.

ENERGY (CRITERION 14D)

Previous Program EIR Findings

The Program EIRs considered in this analysis all found less-than-significant impacts related to energy; with adherence to City of Oakland SCAs; no mitigation measures were warranted.

2008 Addendum Findings

The 2008 Addendum determined, as found in the 1998 Initial Study Checklist for the 1998 EIR, that development of 2008 Office Project would not use or encourage use of substantial quantities of fuel or energy. The proposed project will be required to comply with the Title 24: Energy Conservation requirements of the Uniform Building Code, and the analysis found that the scale of the proposed project was within the capacity of fuel and energy resources, both available then and planned for by Pacific Gas and Electric Company (PG & E). The impact was less than significant.

Project Analysis

No changes have occurred with the Proposed Project, the Project site, or its surroundings that would alter the less-than-significant impact identified in the 2008 Addendum with regards to energy use. As indicated above, the proposed use and the estimated employment population and associated service demands of the Proposed Project workers and the building functions would be the same as with the 2008 Office Project, since the total square footage and land uses are the same. The Proposed Project would continue to comply with the standards of Title 24 of the California Code of Regulations. Moreover, new the City of Oakland SCA UTIL-4 pertaining to compliance with the green building ordinance would require the Project and its construction to incorporate energy-conserving design measures.

As with the 2008 Office Project, construction of the Proposed Project would require the use of fuels (primarily gasoline and diesel) for the operation of construction equipment and vehicles, as well as direct and indirect energy consumed by some construction equipment. The overall construction-related energy consumption would be the same for the Proposed Project as for the 2008 Office Project. Several City of Oakland SCAs would work to reduce potential construction energy consumption with the Proposed Project. SCA AIR-1 would also work to reduce fuel consumption and energy use. SCA TRA-1 would require preparation of a Construction Traffic Control Plan which would effectively reduce potential idling time by construction vehicles and regular traffic near the Project site during construction. Also, SCA UTIL-4 regarding compliance with Green Building Requirements would also reduce fuel consumption, including that related to materials deliveries.

During Project operations, the Proposed Project will employ California Title 24, Part 6 building energy efficiency standards. Which are more efficient than assumed at the time the 2008 Office Project was evaluated. Also, compliance with several SCAs, such as SCA TRA-4 for the Project-specific Draft TDM Plan (see Appendix H to this document), would reduce the need for fuel due to recued vehicle trips associated with the Project. Also, SCA GHG-1 for the Project-specific GHG Reduction Plan (Appendix F to this document) also employs measures that reduce energy consumption of the Project. The Proposed Project would also be required to be consistent the Oakland Energy and Climate Action Plan (ECAP) and current City Sustainability Programs, as discussed in 6. Greenhouse Gases and Climate Change in this Overall, the Proposed Project's impact regarding energy would remain less than significant as identified in the 2008 Addendum.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2008 Addendum and the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the 2008 Addendum or the Program EIRs, nor would it result in new significant impacts related to utilities and service systems that were not identified in the 2008 Addendum or the Program EIRs. The 2008 Addendum did not identify any mitigation measures related to utilities and service systems, and none would be required for the Proposed Project. The Proposed Project would be required to implement SCAs related to utilities and service systems and energy, as identified in Attachment A to this document. For reference, these are **SCA UTIL-1, SCA UTIL-2, SCA UTIL-3, SCA UTIL-4, SCA UTIL-5, SCA UTIL-6, SCA UTIL-7, SCA AIR-2, SCA GHG-1 and SCA TRA-4**.

7.0 References

(All references cited below are available at the Oakland Bureau of Planning, Agency, 250 Frank Ogawa Plaza, Suite 2114, Oakland, California, unless specified otherwise.)

Keystone Hotel / 1100 Broadway Project

City of Oakland, Keystone Hotel Initial Study and Environment Review Checklist, January 13, 1998.

City of Oakland, Keystone Hotel Draft Environmental Impact Report, March 6, 1998.

City of Oakland, Keystone Hotel (Final) Environmental Impact Report, April 24, 1998.

City of Oakland, Key System Building Office Project Addendum #1 to the 1998 Keystone Hotel Final EIR, March 6, 1998, April 11, 2006.

City of Oakland, Key System Building Office Project Addendum #1 to the 1998 Keystone Hotel Final EIR, March 6, 1998, April 11, 2006.

City of Oakland, Key System Building Office Project Addendum #2 to the 1998 Keystone Hotel Final EIR, March 6, 1998, February 5, 2008.

Central District Urban Renewal Plan Amendment (Redevelopment Plan)

Oakland Redevelopment Agency, Draft EIR for the Proposed Amendments to the Central District Urban Renewal Plan, March 2011.

Oakland Redevelopment Agency, Final EIR for the Proposed Amendments to the Central District Urban Renewal Plan, June 2011.

Oakland Redevelopment Agency, 2012. *Central District Urban Renewal Plan*, Adopted June 12. 1969, as amended through April 3, 2012.

General Plan Land Use and Transportation Element

City of Oakland, 1998 LUTE Draft EIR, October 1997.

City of Oakland, 1998 LUTE Final EIR, February 1998.

City of Oakland, 2007. Land Use and Transportation Element of the Oakland General Plan, March 24, 1998, amended to June 21, 2007.

Plan Bay Area

Metropolitan Transportation Commission and Association of Bay Area Governments, 2013. Plan Bay Area, Strategy for a Sustainable Region. Adopted July 18, 2013.

Oakland Planning Code

City of Oakland, 2013. City of Oakland Planning Code. CEDA: Planning and Zoning. http://www2.oaklandnet.com/oakca1/groups/ceda/documents/report/oak032032.pdf, accessed June 2017.

Attachments

A. Standard Conditions of Approval and Mitigation Monitoring and Reporting Program
B. Criteria for Use of Addendum, Per CEQA Guidelines Sections 15162, 15164, and 15168
C. Project Consistency with Community Plan or Zoning, Per CEQA Guidelines Section 15183

Appendices

A. 2008 Shadow Study
B. 2008 Wind Hazards Study
C. Air Quality and GHG Emissions Technical Detail
D. Evaluation of the 1100 Broadway Project for Consistency with the Secretary of the Interior's Standards for Rehabilitation
E. Health Risk Assessment (per SCA AIR-2)
F. GHG Reduction Plan (per SCA GHG-1)
G. Construction Noise Management Plan (per SCAs NOI-3 and NOI-4)
H. Transportation Demand Management Program (per SCA TRA-4)
I. 1100 Broadway Application for Development Review Planset

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ATTACHMENT A: STANDARD CONDITIONS OF APPROVAL AND MITIGATION MONITORING AND REPORTING PROGRAM

This Standard Conditions of Approval and Mitigation Monitoring and Reporting Program (SCAMMRP) is based on the CEQA Analysis prepared for the Proposed Project in this CEQA Analysis.

This SCAMMRP is in compliance with Section 15097 of the CEQA Guidelines, which requires that the Lead Agency "adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects."

The SCAMMRP lists mitigation measures recommended in the 1998 Keystone Hotel Environmental Impact Report ("1998 EIR"), as last modified in the 2008 Addendum to the 1998 EIR. The SCAMMRP also lists the City's current Standard Conditions of Approval ("SCAs") that are newly added in this CEQA Analysis and/or that modified and/or replacement SCAs mitigation measures or conditions of approval (COA) previously identified in the 2008 Addendum. As discussed in Section 3.2 of the CEQA Analysis document, the SCAs are measures that would minimize potential adverse effects that could result from implementation of the Proposed Project to ensure the conditions are implemented and monitored. The SCAMMRP identifies the mitigation monitoring requirements for each mitigation measure and SCA applicable to the Proposed Project.

This CEQA Analysis is also based on the analysis in the following Program EIRs that apply to the Proposed Project: Oakland's *1998 General Plan Land Use and Transportation Element* (LUTE) EIR and the 2011 Central District Urban Renewal Plan Amendments EIR (or "Redevelopment Plan Amendments EIR"). However, none of the mitigation measures or SCAs from these EIRs are included in this SCAMMRP because an updated and equally effective mitigation measure or SCA is available to reduce Proposed Project impacts to less-than-significant levels, where an environmental impact has been identified.

To the extent that there is any inconsistency between or among any mitigation measures or SCAs identified in the SCAMMRP, the more restrictive conditions shall govern. To the extent any mitigation measure or SCA identified in the CEQA Checklist is inadvertently omitted, they are automatically incorporated herein by reference. The SCAMMRP is organized as follows:

- The first column of the SCAMMRP table identifies the mitigation measure or SCA applicable to the topic in the CEQA Checklist. While a mitigation measure or SCA can apply to more than one topic, it is listed in its entirety only under its primary topic (as indicated in the mitigation or SCA designator).
- The SCAs are numbered to specifically apply to the Proposed Project in this CEQA Analysis; however, each SCAs numeric designation from the City's *Standard Conditions of Approval and Uniformly Applied Development Standards* document[23] is also identified in parenthesis for cross-reference purposes, and if applicable the designation from the 2008 Addendum (i.e. mitigation measures and COAs that are unnumbered SCA) is also identified for cross-reference.[24] All mitigation measures and SCAs are shown in their final format, as revised

[23] Adopted November 3, 2008, as amended and/or supplemented through April 11, 2017.

[24] The 2008 Addendum did not enumerate applicable SCAs but incorporated them as numbered Conditions of Approval (COAs) in the *Conditions of Approval and Mitigation Monitoring & Reporting Program* (dated February 13, 2008) adopted for the 2008 Office Tower Project.

from the 2008 Addendum. A "roadmap" of all changes to mitigation measures and COAs from the 2008 Addendum is available for review at the City of Oakland Bureau of Planning at 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, California 94612.

- The second column identifies the monitoring schedule or timing for implementation.
- The third column names the agency responsible for monitoring the required implementation.

The Project sponsor is responsible for compliance with any adopted recommendations identified in City-approved technical reports and all applicable mitigation measures adopted, and with all final SCAs at its sole cost and expense, unless otherwise expressly provided in a specific mitigation measure or condition of approval, and subject to the review and approval of the City of Oakland. Overall monitoring and compliance with the SCA and/or mitigation measures will be the responsibility of the Bureau or Planning, Zoning Inspections Division. Prior to the issuance of a demolition, grading, and/or construction permit, the project sponsor shall pay the applicable mitigation and monitoring fee to the City in accordance with the City's Master Fee Schedule.

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Monitoring Responsibility
General		
SCA GEN-1 *Regulatory Permits and Authorizations from Other Agencies (# 15)* The project applicant shall obtain all necessary regulatory permits and authorizations from applicable resource/regulatory agencies including, but not limited to, the Regional Water Quality Control Board, Bay Area Air Quality Management District, Bay Conservation and Development Commission, California Department of Fish and Wildlife, U. S. Fish and Wildlife Service, and Army Corps of Engineers and shall comply with all requirements and conditions of the permits/authorizations. The project applicant shall submit evidence of the approved permits/authorizations to the City, along with evidence demonstrating compliance with any regulatory permit/authorization conditions of approval.	Prior to activity requiring permit/authorization from regulatory agency	City of Oakland Bureau of Planning and Building
Aesthetics, Shadow and Wind		
SCA AES-1 *Graffiti Control (#16)* a. During construction and operation of the project, the project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation: i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces. ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces. iii. Use of paint with anti-graffiti coating. iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED). b. The project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include the following: i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system.	Ongoing	City of Oakland Bureau of Building Services Division, Zoning Inspections

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
ii. Covering with new paint to match the color of the surrounding surface. iii. Replacing with new surfacing (with City permits if required).		
SCA AES-2 *Landscape Plan (#17)* a) Landscape Plan Required The project applicant shall submit a final Landscape Plan for City review and approval that is consistent with the approved Landscape Plan. The Landscape Plan shall be included with the set of drawings submitted for the construction-related permit and shall comply with the landscape requirements of chapter 17.124 of the Planning Code. b) Landscape Installation The project applicant shall implement the approved Landscape Plan unless a bond, cash deposit, letter of credit, or other equivalent instrument acceptable to the Director of City Planning, is provided. The financial instrument shall equal the greater of $2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid. c) Landscape Maintenance All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. The property owner shall be responsible for maintaining planting in adjacent public rights-of-way. All required fences, walls, and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.	a) Prior to approval of construction-related permit b) Prior to building permit final c) Ongoing	City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA AES-3 *Lighting (#18)* Proposed new exterior lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties.	Prior to issuance of final electrical or building permits	City of Oakland Bureau of Building Services Division, Zoning Inspections
Air Quality		
SCA AIR-1 *Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19)* **During Project Construction.** The project applicant shall implement all of the following applicable air pollution control measures during construction of the project: **Basic Controls.** a) Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible. b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d) Pave all roadways, driveways, sidewalks, etc. within one month of site grading or as soon as feasible. In addition, building pads should be laid within one month of grading or as soon as feasible unless seeding or soil binders are used. e) Enclose, cover, water twice daily, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).	Ongoing, throughout demolition, grading and/or construction	City of Oakland Bureau of Planning and Building

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Monitoring Responsibility
f) Limit vehicle speeds on unpaved roads to 15 miles per hour. g) Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations). Clear signage to this effect shall be provided for construction workers at all access points. h) Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations"). i) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. j) Portable equipment shall be powered by electricity if available. If electricity is not available, propane or natural gas shall be used if feasible. Diesel engines shall only be used if electricity is not available and it is not feasible to use propane or natural gas. **Enhanced Controls** (applies to projects that involve 114 or mores single family residential units or 240 or more multi-family residential units). a) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. b) All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph. c) Install sandbags or other erosion control measures to prevent silt runoff to public roadways. d) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more). e) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. f) Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize wind blown dust. Wind breaks must have a maximum 50 percent air porosity. g) Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. h) Activities such as excavation, grading, and other ground-disturbing construction activities shall be phased to minimize the amount of disturbed surface area at any one time. i) All trucks and equipment, including tires, shall be washed off prior to leaving the site. j) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel. k) All equipment to be used on the construction site and subject to the requirements of Title 13, Section 2449, of the California Code of Regulations		

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
("California Air Resources Board Off-Road Diesel Regulations") must meet emissions and performance requirements one year in advance of any fleet deadlines. Upon request by the City, the project applicant shall provide written documentation that fleet requirements have been met. l) Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings). m) All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NOx and PM. n) Off-road heavy diesel engines shall meet the California Air Resources Board's most recent certification standard. o) Post a publicly-visible large on-site sign that includes the contact name and phone number for the project complaint manager responsible for responding to dust complaints and the telephone numbers of the City's Code Enforcement unit and the Bay Area Air Quality Management District. When contacted, the project complaint manager shall respond and take corrective action within 48 hours.		
SCA AIR-2 *Stationary Sources of Air Pollution (Toxic Air Contaminants) (#21)* The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to on-site stationary sources of toxic air contaminants. The project applicant shall choose <u>one</u> of the following methods: a. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements to determine the health risk associated with proposed stationary sources of pollution in the project. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. - or - b. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City: i. Installation of non-diesel fueled generators, if feasible, or; ii. Installation of diesel generators with an EPA-certified Tier 4 engine or engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy, if feasible.	Prior to approval of construction-related permit. **STATUS: The requirement to prepare and submit an HRA (a) has been satisfied (see Appendix E to this document for the HRA Plan).**	City of Oakland Bureau of Planning and Building
SCA AIR-3 *Truck-Related Risk Reduction Measures (Toxic Air Contaminants) (#22)* a. <u>Truck Loading Docks</u> The project applicant shall locate proposed truck loading docks as far from nearby sensitive receptors as feasible. b. <u>Truck Fleet Emission Standards</u> The project applicant shall comply with all applicable California Air Resources Board (CARB) requirements to control emissions from diesel engines and demonstrate compliance to the satisfaction of the City. Methods to comply include, but are not limited to, new clean diesel trucks, lower-tier diesel engine trucks with added Particulate Matter (PM) filters, hybrid trucks, alternative	a. Prior to approval of construction-related permit. b. Prior to building.	a. City of Oakland Bureau of Planning and Building b. City of Oakland Bureau of Planning and Building

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
energy trucks, or other methods that achieve the applicable CARB emission standard. Compliance with this requirement shall be verified through CARB's Verification Procedures for In-Use Strategies to Control Emissions from Diesel Engines.		
Biological Resources		
SCA BIO-2 *Tree Removal during Breeding Bird Season (#26)* To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of birds shall not occur during the bird breeding season of February 1 to August 15 (or during December 15 to August 15 for trees located in or near marsh, wetland, or aquatic habitats). If tree removal must occur during the bird breeding season, all trees to be removed shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to the start of work City for review and approval. If the survey indicates the potential presence of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the California Department of Fish and Wildlife, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.	**Conduct Pre-Removal Surveys:** • Within 15 days prior to removal of any trees and/or other vegetation suitable for nesting of birds **Agency Consultation for Nesting Raptors/Birds:** • Prior to the start of work involving ground disturbance or building dismantling, relocation or demolition	City of Oakland, Bureau of Building - Zoning Inspections Qualified biologist approved by the Bureau of Planning
SCA BIO-3 *Tree Permit (#27)* a) **Tree Permit Required**. Pursuant to the City's Tree Protection Ordinance (OMC chapter 12.36), the project applicant shall obtain a tree permit and abide by the conditions of that permit. b) **Tree Protection During Construction.** Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist: i. Before the start of any clearing, excavation, construction, or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project's consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree. ii. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project's consulting arborist from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree. iii. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the project's consulting arborist from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project's consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as	**Submit Tree Permit Application:** • Prior to approval of any construction-related permit **Conduct Work Pursuant to Approved Tree Permit:** • Ongoing, as needed	City of Oakland, Bureau of Planning; Bureau of Building - Zoning Inspections Oakland Public Works Agency - Tree Division

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree. iv. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration. v. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Department and the project's consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed. vi. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations. c) **Tree Replacement Plantings.** Replacement plantings shall be required for tree removals for the purposes of erosion control, groundwater replenishment, visual screening, wildlife habitat, and preventing excessive loss of shade, in accordance with the following criteria: i. For Sequoia sempervirens, three hundred fifteen (315) square feet per tree; ii. For other species listed, seven hundred (700) square feet per tree. iii. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee in accordance with the City's Master Fee Schedule may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians. iv. The project applicant shall install the plantings and maintain the plantings until established. The Tree Reviewer of the Tree Division of the Public Works Department may require a landscape plan showing the replacement plantings and the method of irrigation. Any replacement plantings which fail to become established within one year of planting shall be replanted at the project applicant's expense.		
Cultural Resources		
SCA NOI-6 *Vibration Impacts on Adjacent Historic Structures or Vibration-Sensitive Activities (#66).* The project applicant shall submit a Vibration Analysis prepared by an acoustical and/or structural engineer or other appropriate qualified professional for City review and approval that establishes pre-construction baseline conditions and threshold levels of vibration that could substantially interfere with activities located at the Project site and/or the historic Key System Building. The Vibration Analysis shall identify design means and methods of construction that shall be utilized in order to not exceed the thresholds. The applicant shall implement the recommendations during construction.	**Submit Analysis:** • Prior to approval of any construction-related permit **Conduct Work Pursuant to Approved Analysis:** • Ongoing, throughout all construction activities	City of Oakland Bureau of Building Services Division, Zoning Inspections

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Monitoring Responsibility
SCA CUL-1 *Archaeological and Paleontological Resources – Discovery During Construction (#29)* Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the project site while measures for the cultural resources are implemented. In the event of data recovery of archaeological resources, the project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The project applicant shall implement the ARDTP at his/her expense. In the event of excavation of paleontological resources, the project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the project applicant.	Ongoing, throughout all construction activities	City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA CUL-2 *Archaeologically Sensitive Areas – Pre-Construction Measures (#30)* The project applicant shall implement either Provision A (Intensive Pre-Construction Study) or Provision B (Construction ALERT Sheet) concerning archaeological resources. **Provision A: Intensive Pre-Construction Study.** The project applicant shall retain a qualified archaeologist to conduct a site-specific, intensive archaeological resources study for review and approval by the City prior to soil-disturbing activities occurring on the project site. The purpose of the site-specific, intensive archaeological resources study is to identify early the potential presence of history-period archaeological resources on the project site. At a minimum, the study shall include: a. Subsurface presence/absence studies of the project site. Field studies may include, but are not limited to, auguring and other common methods used to identify the presence of archaeological resources. b. A report disseminating the results of this research.	**Implementation:** • Provision A: Prior to approval of any construction-related permit. • Provision B: Prior to any soil-disturbing activities, and ongoing throughout all construction activities.	City of Oakland Bureau of Building Services Division, Zoning Inspections

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
c. Recommendations for any additional measures that could be necessary to mitigate any adverse impacts to recorded and/or inadvertently discovered cultural resources. If the results of the study indicate a high potential presence of historic-period archaeological resources on the project site, or a potential resource is discovered, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction and prepare an ALERT sheet pursuant to Provision B below that details what could potentially be found at the project site. Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced in the ALERT sheet, required per Provision B below) and the procedures to follow if any artifacts are encountered, field recording and sampling in accordance with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation, notifying the appropriate officials if human remains or cultural resources are discovered, and preparing a report to document negative findings after construction is completed if no archaeological resources are discovered during construction. **Provision B: Construction ALERT Sheet.** The project applicant shall prepare a construction "ALERT" sheet developed by a qualified archaeologist for review and approval by the City prior to soil-disturbing activities occurring on the project site. The ALERT sheet shall contain, at a minimum, visuals that depict each type of artifact that could be encountered on the project site. Training by the qualified archaeologist shall be provided to the project's prime contractor, any project subcontractor firms (including demolition, excavation, grading, foundation, and pile driving), and utility firms involved in soil- disturbing activities within the project site. The ALERT sheet shall state, in addition to the basic archaeological resource protection measures contained in other standard conditions of approval, all work must stop and the City's Environmental Review Officer contacted in the event of discovery of the following cultural materials: concentrations of shellfish remains; evidence of fire (ashes, charcoal, burnt earth, fire-cracked rocks); concentrations of bones; recognizable Native American artifacts (arrowheads, shell beads, stone mortars [bowls], humanly shaped rock); building foundation remains; trash pits, privies (outhouse holes); floor remains; wells; concentrations of bottles, broken dishes, shoes, buttons, cut animal bones, hardware, household items, barrels, etc.; thick layers of burned building debris (charcoal, nails, fused glass, burned plaster, burned dishes); wood structural remains (building, ship, wharf); clay roof/floor tiles; stone walls or footings; or gravestones. Prior to any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The ALERT sheet shall also be posted in a visible location at the project site.		
SCA CUL-3 *Human Remains – Discovery During Construction (#31)* Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the project applicant shall notify the City and the Alameda County. If the County Coroner determines that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the project applicant.	Ongoing, throughout all construction activities	City of Oakland Bureau of Building Services Division, Zoning Inspections

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
Geology, Soils and Geohazards		
SCA GEO-1 *Construction-Related Permit(s) (#33)* The project applicant shall obtain all required construction-related permits/approvals from the City. The project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.	Prior to approval of construction-related permit	City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA GEO-2 *Soils Report (#34)* The project applicant shall submit a soils report prepared by a registered geotechnical engineer for City review and approval. The soils report shall contain, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and recommendations for appropriate grading practices and project design. The project applicant shall implement the recommendations contained in the approved report during project design and construction.	Prior to approval of construction-related permit	City of Oakland Bureau of Building Services Division, Zoning Inspections
Greenhouse Gases and Climate Change		
SCA GHG-1 *Greenhouse Gas (GHG) Reduction Plan (#38)* a. ***Greenhouse Gas (GHG) Reduction Plan Required***. The project applicant shall retain a qualified air quality consultant to develop a Greenhouse Gas (GHG) Reduction Plan for City review and approval and shall implement the approved GHG Reduction Plan. The goal of the GHG Reduction Plan shall be to increase energy efficiency and reduce GHG emissions to below at least one of the Bay Area Quality Management District's (BAAQMD's) CEQA Thresholds of Significance (1,100 metric tons of CO2e per year or 4.6 metric tons of CO2e per year per service population) AND to reduce GHG emissions by 36 percent below the project's "2005 business-as-usual" baseline GHG emissions (as explained below) to implement the City's Energy and Climate Action Plan (adopted in 2012) which calls for reducing GHG emissions by 36 percent below 2005 levels. The GHG Reduction Plan shall include, at a minimum, (a) a detailed GHG emissions inventory for the project under a "business-as-usual" scenario with no consideration of project design features, or other energy efficiencies, (b) an "adjusted" baseline GHG emissions inventory for the project, taking into consideration energy efficiencies included as part of the project (including the City's Standard Conditions of Approval, proposed mitigation measures, project design features, and other City requirements), and additional GHG reduction measures available to further reduce GHG emissions, and (c) requirements for ongoing monitoring and reporting to demonstrate that the additional GHG reduction measures are being implemented. If the project is to be constructed in phases, the GHG Reduction Plan shall provide GHG emission scenarios by phase. Potential GHG reduction measures to be considered include, but are not be limited to, measures recommended in BAAQMD's latest CEQA Air Quality Guidelines, the California Air Resources Board Scoping Plan (December 2008, as may be revised), the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures (August 2010, as may be revised), the California Attorney General's website, and Reference Guides on Leadership in Energy and Environmental Design (LEED) published by the U.S. Green Building Council. The types of allowable GHG reduction measures include the following (listed in order of City preference): (1) physical design features; (2) operational features;	a. Prior to approval of a construction-related permit. **STATUS: The requirement to submit a Draft GHG Reduction Plan (a) has been satisfied; see Appendix F to this document. The Findings in the Plan make "b" and "c" not required.** b. Not required. c. Not required.	a. City of Oakland Bureau of Planning b. *Initial Approval:* City of Oakland Bureau of Planning *Monitoring/Inspection:* City of Oakland Bureau of Planning c. *Initial Approval:* City of Oakland Bureau of Planning

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Monitoring Responsibility
and (3) the payment of fees to fund GHG-reducing programs (i.e., the purchase of "carbon credits") as explained below. The allowable locations of the GHG reduction measures include the following (listed in order of City preference): (1) the project site; (2) off-site within the City of Oakland; (3) off-site within the San Francisco Bay Area Air Basin; (4) off-site within the State of California; then (5) elsewhere in the United States. As with preferred locations for the implementation of all GHG reductions measures, the preference for carbon credit purchases include those that can be achieved as follows (listed in order of City preference): (1) within the City of Oakland; (2) within the San Francisco Bay Area Air Basin; (3) within the State of California; then (4) elsewhere in the United States. The cost of carbon credit purchases shall be based on current market value at the time purchased and shall be based on the project's operational emissions estimated in the GHG Reduction Plan or subsequent approved emissions inventory, which may result in emissions that are higher or lower than those estimated in the GHG Reduction Plan. For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits. b. ***GHG Reduction Plan Implementation During Construction***. The project applicant shall implement the GHG Reduction Plan during construction of the project. For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be implemented during construction. For physical GHG reduction measures to be incorporated into off-site projects, the project applicant shall obtain all necessary permits/approvals and the measures shall be included on drawings and submitted to the City Planning Director or his/her designee for review and approval. These off-site improvements shall be installed prior to completion of the subject project (or prior to completion of the project phase for phased projects). For GHG reduction measures involving the purchase of carbon credits, evidence of the payment/purchase shall be submitted to the City for review and approval prior to completion of the project (or prior to completion of the project phase, for phased projects). c. ***GHG Reduction Plan Implementation After Construction***. The project applicant shall implement the GHG Reduction Plan after construction of the project (or at the completion of the project phase for phased projects). For operational GHG reduction measures to be incorporated into the project or off-site projects, the measures shall be implemented on an indefinite and ongoing basis. The project applicant shall satisfy the following requirements for ongoing monitoring and reporting to demonstrate that the additional GHG reduction measures are being implemented. The GHG Reduction Plan requires regular periodic evaluation over the life of the project (generally estimated to be at least 40 years) to determine how the Plan is achieving required GHG emissions reductions over time, as well as the efficacy of the specific additional GHG reduction measures identified in the Plan. **Annual Report**. Implementation of the GHG reduction measures and related requirements shall be ensured through compliance with Conditions of Approval adopted for the project. Generally, starting two years after the City issues the first Certificate of Occupancy for the project, the project applicant shall prepare each year of the useful life of the project an Annual GHG Emissions Reduction Report ("Annual Report"), for review and approval by the City Planning Director or		

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Monitoring Responsibility
his/her designee. The Annual Report shall be submitted to an independent reviewer of the City's choosing, to be paid for by the project applicant. The Annual Report shall summarize the project's implementation of GHG reduction measures over the preceding year, intended upcoming changes, compliance with the conditions of the Plan, and include a brief summary of the previous year's Annual Report results (starting the second year). The Annual Report shall include a comparison of annual project emissions to the baseline emissions reported in the GHG Plan. The GHG Reduction Plan shall be considered fully attained when project emissions are less than either applicable numeric BAAQMD CEQA Thresholds AND GHG emissions are 36 percent below the project's "2005 business-as-usual" baseline GHG emissions, as confirmed by the City through an established monitoring program. Monitoring and reporting activities will continue at the City's discretion, as discussed below. **Corrective Procedure.** If the third Annual Report, or any report thereafter, indicates that, in spite of the implementation of the GHG Reduction Plan, the project is not achieving the GHG reduction goal, the project applicant shall prepare a report for City review and approval, which proposes additional or revised GHG measures to better achieve the GHG emissions reduction goals, including without limitation, a discussion on the feasibility and effectiveness of the menu of other additional measures ("Corrective GHG Action Plan"). The project applicant shall then implement the approved Corrective GHG Action Plan. If, one year after the Corrective GHG Action Plan is implemented, the required GHG emissions reduction target is still not being achieved, or if the project applicant fails to submit a report at the times described above, or if the reports do not meet City requirements outlined above, the City may, in addition to its other remedies, (a) assess the project applicant a financial penalty based upon actual percentage reduction in GHG emissions as compared to the percent reduction in GHG emissions established in the GHG Reduction Plan; or (b) refer the matter to the City Planning Commission for scheduling of a compliance hearing to determine whether the project's approvals should be revoked, altered or additional conditions of approval imposed. The penalty as described in (a) above shall be determined by the City Planning Director or his/her designee and be commensurate with the percentage GHG emissions reduction not achieved (compared to the applicable numeric significance thresholds) or required percentage reduction from the "adjusted" baseline. In determining whether a financial penalty or other remedy is appropriate, the City shall not impose a penalty if the project applicant has made a good faith effort to comply with the GHG Reduction Plan. The City would only have the ability to impose a monetary penalty after a reasonable cure period and in accordance with the enforcement process outlined in Planning Code Chapter 17.152. If a financial penalty is imposed, such penalty sums shall be used by the City solely toward the implementation of the GHG Reduction Plan. **Timeline Discretion and Summary**. The City shall have the discretion to reasonably modify the timing of reporting, with reasonable notice and opportunity to comment by the applicant, to coincide with other related monitoring and reporting required for the project.		

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
Hazards and Hazardous Materials		
SCA HAZ-1 *Hazardous Materials Related to Construction (#39)* The project applicant shall ensure that Best Management Practices (BMPs) are implemented as part of construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following: a. Follow manufacture's recommendations for use, storage, and disposal of chemical products used in construction; b. Avoid overtopping construction equipment fuel gas tanks; c. During routine maintenance of construction equipment, properly contain and remove grease and oils; d. Properly dispose of discarded containers of fuels and other chemicals; e. Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program)~~,~~ and f. If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the project applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the City andapplicable regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.	Ongoing, throughout all construction activities	City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA HAZ-2 *Site Contamination (#40)* a. **Environmental Site Assessment Required.** The project applicant shall submit a Phase I Environmental Site Assessment report, and Phase II Environmental Site Assessment report if warranted by the Phase I report, for the project site for review and approval by the City. The report(s) shall be prepared by a qualified environmental assessment professional and include recommendations for remedial action, as appropriate, for hazardous materials. The project applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency. b. **Health and Safety Plan Required.** The project applicant shall submit a Health and Safety Plan for the review and approval by the City in order to protect project construction workers from risks associated with hazardous materials. The project applicant shall implement the approved Plan. c. **Best Management Practices (BMPs) Required for Contaminated Sites.** The project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential soil and groundwater hazards. These shall include the following: d. Soil generated by construction activities shall be stockpiled on site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and	**Submit Environmental Site Assessment and Health and Safety Plan:** • Prior to approval of any construction-related permit. **Conduct Work Per Approved Plans and BMPs:** • Ongoing, throughout all construction activities	City of Oakland, Bureau of Planning; Bureau of Building – Zoning Inspections Oakland Fire Department - Hazardous Materials Division

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state, and federal requirements. **e.** Groundwater pumped from the subsurface shall be contained on site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.		
SCA HAZ-3 *Hazardous Materials Business Plan (#41)* The project applicant shall submit a Hazardous Materials Business Plan for review and approval by the City, and shall implement the approved Plan. The approved Plan shall be kept on file with the City and the project applicant shall update the Plan as applicable. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle hazardous materials and provides information to the Fire Department should emergency response be required. Hazardous materials shall be handled in accordance with all applicable local, state, and federal requirements. The Hazardous Materials Business Plan shall include the following: a. The types of hazardous materials or chemicals stored and/or used on-site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids. b. The location of such hazardous materials. c. An emergency response plan including employee training information. A plan that describes the manner in which these materials are handled, transported, and disposed.	**Submit Hazardous Materials Business Plan:** • Prior to approval of final building permit **Conduct Work Per Approved Plan:** • Ongoing, throughout all construction activities	City of Oakland, Bureau of Building – Zoning Inspections Oakland Fire Department - Hazardous Materials Division
SCA HAZ-5 *Asbestos in Structures (#23)* The project applicant shall comply with all applicable laws and regulations regarding demolition and renovation of Asbestos Containing Materials (ACM), including but not limited to California Code of Regulations, Title 8; California Business and Professions Code, Division 3; California Health and Safety Code sections 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended. Evidence of compliance shall be submitted to the City upon request.	Prior to approval of any construction-related permit	City of Oakland, Bureau of Building – Zoning Inspections
Hydrology and Water Quality		
SCA HYD-1 *Erosion and Sedimentation Control Plan for Construction (#45)* a. **Erosion and Sedimentation Control Plan Required** The project applicant shall submit an Erosion and Sedimentation Control Plan to the City for review and approval. The Erosion and Sedimentation Control Plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading and/or construction operations. The Plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The Plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant	**Submit Plan:** • Prior to approval of any construction-related permit **Post-Construction Inspection and Clearance:** • Prior to final permit	City of Oakland, Bureau of Building – Zoning Inspections

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
shall clear the system of any debris or sediment. b. **Erosion and Sedimentation Control During Construction** The project applicant shall implement the approved Erosion and Sedimentation Control Plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Bureau of Building.		
SCA HYD-5 *Source Control Measures to Limit Stormwater Pollution (#49)* Pursuant to Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES), the project applicant is encouraged to incorporate appropriate source control measures to limit pollution in stormwater runoff. These measures may include, but are not limited to, the following: a. Stencil storm drain inlets "No Dumping – Drains to Bay;" b. Minimize the use of pesticides and fertilizers; c. Cover outdoor material storage areas, loading docks, repair/maintenance bays and fueling areas; d. Cover trash, food waste, and compactor enclosures; and e. Plumb the following discharges to the sanitary sewer system, subject to City approval: i. Discharges from indoor floor mats, equipment, hood filter, wash racks, and, covered outdoor wash racks for restaurants; ii. Dumpster drips from covered trash, food waste, and compactor enclosures; iii. Discharges from outdoor covered wash areas for vehicles, equipment, and accessories; iv. Swimming pool water, if discharge to on-site vegetated areas is not feasible; and v. Fire sprinkler teat water, if discharge to on-site vegetated areas is not feasible.	**Submit Source Control Measures in Project Plans:** • Prior to issuance of any construction-related permit **Implement Source Control Measures:** • Ongoing, throughout all construction activities and project operations	City of Oakland, Bureau of Planning; Bureau of Building – Zoning Inspections
Land Use		
None.		
Noise		
SCA NOI-1 *Construction Days/Hours (#58)* The project applicant shall comply with the following restrictions concerning construction days and hours: a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday. c. No construction is allowed on Sunday or federal holidays. Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings	**Submit Source Control Measures in Project Plans:** • Prior to issuance of any construction-related permit **Implement Source Control Measures:** • Ongoing, throughout all construction activities and project operations	City of Oakland, Bureau of Planning; Bureau of Building – Zoning Inspections

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Monitoring Responsibility
held on site in a non- enclosed area. Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.		
SCA NOI-2 *Construction Noise (#59)* The project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to the following**:** a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) wherever feasible. b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, 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, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures. c. Applicant shall use temporary power poles instead of generators where feasible. d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction. e. Plywood barriers shall be erected along boundaries to shield pedestrians from construction related noise. f. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.	Ongoing, throughout all construction activities	City of Oakland, Bureau of Planning; Bureau of Building – Zoning Inspections

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
SCA NOI-3 *Extreme Construction Noise (#60)* a. **Construction Noise Management Plan Required** Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90 dBA), the project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following: i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings; ii. Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; iv. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and v. Monitor the effectiveness of noise attenuation measures by taking noise measurements. b. **Public Notification Required** Requirement: The project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.	**Submit Plan:** • Prior to approval of any construction-related permit **STATUS: The requirement to submit a Construction Noise Management Plan has been satisfied (see Appendix G) and updates measures from the 1/31/08 Project-specific construction noise study, also provided in Appendix G to this document. *(Also applies to SCA NOI-4).*** **Conduct Work Pursuant to Approved Plan:** • Ongoing, throughout all construction activities **Draft Public Notification for City Approval; Issue Notice:** • 14 calendar days prior to commencing extreme noise generating activities	City of Oakland, Bureau of Planning; Bureau of Building – Zoning Inspections
SCA NOI-4 *Project-Specific Construction Noise Reduction Measures (#61)* The project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site- specific noise attenuation measures to further reduce construction noise impacts. The project applicant shall implement the approved Plan during construction	**Submit Plan:** • Prior to approval of any construction-related permit **Conduct Work Pursuant to Approved Plan:**	City of Oakland, Bureau of Planning; Bureau of Building – Zoning Inspections

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	**Monitoring Responsibility**
	• Ongoing, throughout all construction activities **STATUS: The requirement to submit a Construction Noise Management Plan has been satisfied (see Appendix G) and updates measures from the 1/31/08 Project-specific construction noise study, also provided in Appendix G to this document. *(Also applies to SCA NOI-3 (measure a).***	
SCA NOI-5 *Construction Noise Complaints (#62)* The project applicant shall submit to the City for review and approval a set of procedures for responding to and tracking complaints received pertaining to construction noise, and shall implement the procedures during construction. At a minimum, the procedures shall include: a. Designation of an on-site construction complaint and enforcement manager for the project; b. A large on-site sign near the public right-of-way containing permitted construction days/hours, complaint procedures, and phone numbers for the project complaint manager and City Code Enforcement unit; c. Protocols for receiving, responding to, and tracking received complaints; and d. Maintenance of a complaint log that records received complaints and how complaints were addressed, which shall be submitted to the City for review upon the **City's** request.	**Submit Procedures:** • Prior to approval of any construction-related permit **Implementation:** • Ongoing, throughout all construction activities	City of Oakland, Bureau of Planning; Bureau of Building – Zoning Inspections
SCA NOI-7 *Operational Noise (#64)* Noise levels from the project site after completion of the project (i.e., during project operation) shall comply with the performance standards of chapter 17.120 of the Oakland Planning Code and chapter 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the City.	Ongoing, throughout all construction activities	City of Oakland, Bureau of Planning; Bureau of Building – Zoning Inspections
Also see **SCA NOI-6** *Vibration Impacts on Adjacent Historic Structures or Vibration-Sensitive Activities (#66)*, under Cultural Resources.		
Transportation and Circulation		
SCA TRA-1 *Construction Activity in the Public Right-of-Way (#68)* a. **Obstruction Permit Required** The project applicant shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets and sidewalks. b. **Traffic Control Plan Required**	a. Prior to approval of construction-related permit b. Prior to approval of construction-related permit c. Prior to building	a. City of Oakland Bureau of Building Services Division, Zoning Inspections b. Public Works Department, Transportation

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
In the event of obstructions to vehicle or bicycle travel lanes, the project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The project applicant shall submit evidence of City approval of the Traffic Control Plan with the application for an obstruction permit. The Traffic Control Plan shall contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian detours, including detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. The project applicant shall implement the approved Plan during construction. c. **Repair of City Streets** The project applicant shall repair any damage to the public right-of way, including streets and sidewalks caused by project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit. All damage that is a threat to public health or safety shall be repaired immediately.	permit final	Services Division c. City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA TRA-2 *Bicycle Parking (#69)* The project applicant shall comply with the City of Oakland Bicycle Parking Requirements (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall demonstrate compliance with the requirements.	Prior to approval of construction-related permit	City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA TRA-3 *Transportation Improvements (#70)* The project applicant shall implement the recommended on- and off-site transportation-related improvements contained within the Transportation Impact Study for the project (e.g., signal timing adjustments, restriping, signalization, traffic control devices, roadway reconfigurations, and pedestrian and bicyclist amenities). The project applicant is responsible for funding and installing the improvements, and shall obtain all necessary permits and approvals from the City and/or other applicable regulatory agencies such as, but not limited to, Caltrans (for improvements related to Caltrans facilities) and the California Public Utilities Commission (for improvements related to railroad crossings), prior to installing the improvements. To implement this measure for intersection modifications, the project applicant shall submit Plans, Specifications, and Estimates (PS&E) to the City for review and approval. All elements shall be designed to applicable City standards in effect at the time of construction and all new or upgraded signals shall include these enhancements as required by the City. All other facilities supporting vehicle travel and alternative modes through the intersection shall be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for, among other items, the elements listed below: a. 2070L Type Controller with cabinet accessory b. GPS communication (clock) c. Accessible pedestrian crosswalks according to Federal and State Access Board guidelines with signals (audible and tactile) d. Countdown pedestrian head module switch out e. City Standard ADA wheelchair ramps f. Video detection on existing (or new, if required) g. Mast arm poles, full activation (where applicable) h. Polara Push buttons (full activation) i. Bicycle detection (full activation)	**Submit PS&E and Plans:** Prior to building permit final or as otherwise specified regarding a development trigger	City of Oakland, Bureau of Planning; Bureau of Building – Zoning Inspections; Oakland Department of Transportation Engineering Services Unit Oakland Transportation Services Division

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
j. Pull boxes k. Signal interconnect and communication with trenching (where applicable), or through existing conduit (where applicable), 600 feet maximum l. Conduit replacement contingency m. Fiber switch n. PTZ camera (where applicable) o. Transit Signal Priority (TSP) equipment consistent with other signals along corridor p. Signal timing plans for the signals in the coordination group		
SCA TRA-4 *Transportation and Parking Demand Management (#71)* a. ***Transportation and Parking Demand Management (TDM) Plan Required*** The project applicant shall submit a Transportation and Parking Demand Management (TDM) Plan for review and approval by the City. i. The goals of the TDM Plan shall be the following: • Reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable, consistent with the potential traffic and parking impacts of the project. • Achieve the following project vehicle trip reductions (VTR): o Projects generating 50-99 net new a.m. or p.m. peak hour vehicle trips: 10 percent VTR o Projects generating 100 or more net new a.m. or p.m. peak hour vehicle trips: 20 percent VTR • Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate. • Enhance the City's transportation system, consistent with City policies and programs. ii. TDM strategies to consider include, but are not limited to, the following: • Inclusion of additional long-term and short-term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan and the Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement. • Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority bikeways, on-site signage and bike lane striping. • Installation of safety elements per the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials, in addition to safety elements required to address safety impacts of the project. • Installation of amenities such as lighting, street trees, and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan. • Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements. • Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency).	a. Prior to development of any construction-related permit. **STATUS: The requirement to submit a TDM Plan (a) has been satisfied (see Appendix H for the Draft TDM Plan).** b. Prior to building permit final c. Ongoing	a. City of Oakland Bureau of Planning and Building b. City of Oakland Bureau of Building Services Division, Zoning Inspections c. City of Oakland Bureau of Planning and Building

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
• Provision of a transit subsidy to employees or residents, determined by the project applicant and subject to review by the City, if employees or residents use transit or commute by other alternative modes. • Provision of an ongoing contribution to transit service to the area between the project and nearest mass transit station prioritized as follows: 1) Contribution to AC Transit bus service; 2) Contribution to an existing area shuttle service; and 3) Establishment of new shuttle service. The amount of contribution (for any of the above scenarios) would be based upon the cost of establishing new shuttle service (Scenario 3). • Guaranteed ride home program for employees, either through 511.org or through separate program. • Pre-tax commuter benefits (commuter checks) for employees. • Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants. • On-site carpooling and/or vanpool program that includes preferential (discounted or free) parking for carpools and vanpools. • Distribution of information concerning alternative transportation options. • Parking spaces sold/leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties. • Parking management strategies including attendant/valet parking and shared parking spaces. • Requiring tenants to provide opportunities and the ability to work off-site. • Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite (e.g., working four, ten-hour days; allowing employees to work from home two days per week). • Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours. The TDM Plan shall indicate the estimated VTR for each strategy, based on published research or guidelines where feasible. For TDM Plans containing ongoing operational VTR strategies, the Plan shall include an ongoing monitoring and enforcement program to ensure the Plan is implemented on an ongoing basis during project operation. If an annual compliance report is required, as explained below, the TDM Plan shall also specify the topics to be addressed in the annual report. b. ***TDM Implementation – Physical Improvements*** For VTR strategies involving physical improvements, the project applicant shall obtain the necessary permits/approvals from the City and install the improvements prior to the completion of the project. c. ***TDM Implementation – Operational Strategies*** For projects that generate 100 or more net new a.m. or p.m. peak hour vehicle trips and contain ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project (or completion of each phase for phased projects) for review and		

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual VTR achieved by the project during operation. If deemed necessary, the City may elect to have a peer review consultant, paid for by the project applicant, review the annual report. If timely reports are not submitted and/or the annual reports indicate that the project applicant has failed to implement the TDM Plan, the project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in these Conditions of Approval. The project shall not be considered in violation of this Condition if the TDM Plan is implemented but the VTR goal is not achieved.		
Utilities and Service Systems		
SCA UTIL-1 *Construction and Demolition Waste Reduction and Recycling (#74)* The project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at www.greenhalosystems.com or manually at the City's Green Building Resource Center. Current standards, FAQs, and forms are available on the City's website and in the Green Building Resource Center.	**Submit WRRP:** • Prior to approval of any construction-related permit **Conduct Work Per Approved Plan:** • Ongoing, throughout all construction activities	City of Oakland Public Works Department, Environmental Services Division
SCA UTIL-2 *Underground Utilities (#75)* The project applicant shall place underground all new utilities serving the project and under the control of the project applicant and the City, including all new gas, electric, cable, and telephone facilities, fire alarm conduits, street light wiring, and other wiring, conduits, and similar facilities. The new facilities shall be placed underground along the project's street frontage and from the project structures to the point of service. Utilities under the control of other agencies, such as PG&E, shall be placed underground if feasible. All utilities shall be installed in accordance with standard specifications of the serving utilities.	During construction.	City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA UTIL-3 *Recycling Collection and Storage Space (#76)* The project applicant shall comply with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential projects, at least two cubic feet of storage and collection space per residential unit is required, with a minimum of ten cubic feet. For nonresidential projects, at least two cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten cubic feet.	**Submit Plans:** • Prior to approval of any construction permit **Conduct Work Per Ordinance:** • Ongoing, throughout all construction activities and project operations	City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA UTIL-4 *Green Building Requirements (#77)* ***a. Compliance with Green Building Requirements During Plan-Check*** The project applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the City of Oakland Green Building Ordinance (chapter 18.02 of the Oakland Municipal Code). i. The following information shall be submitted to the City for review and	a. Prior to approval of any construction permit b. During construction c. After project	a. City of Oakland Bureau of Building Services Division, Zoning Inspections b. City of Oakland Bureau of Building Services

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
approval with the application for a building permit: • Documentation showing compliance with Title 24 of the current version of the California Building Energy Efficiency Standards. • Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit. • Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit. • Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (ii) below. • Copy of the signed statement by the Green Building Certifier approved during the review of the Planning and Zoning permit that the project complied with the requirements of the Green Building Ordinance. • Signed statement by the Green Building Certifier that the project still complies with the requirements of the Green Building Ordinance, unless an Unreasonable Hardship Exemption was granted during the review of the Planning and Zoning permit. • Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. ii. The set of plans in subsection (i) shall demonstrate compliance with the following: • CALGreen mandatory measures. • All pre-requisites per the green building checklist approved during the review of the Planning and Zoning permit, or, if applicable, all the green building measures approved as part of the Unreasonable Hardship Exemption granted during the review of the Planning and Zoning permit. • Green building point level/certification requirement: 50 to 59 point level / LEED Silver for new non-residential, per the appropriate checklist approved during the Planning entitlement process. • All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Bureau of Planning that shows the previously approved points that will be eliminated or substituted. • The required green building point minimums in the appropriate credit categories. ***b. Compliance with Green Building Requirements During Construction*** The project applicant shall comply with the applicable requirements of CALGreen and the Oakland Green Building Ordinance during construction of the project. The following information shall be submitted to the City for review and approval: i. Completed copies of the green building checklists approved during the review of the Planning and Zoning permit and during the review of the building permit. ii. Signed statement(s) by the Green Building Certifier during all relevant phases of construction that the project complies with the requirements of	completion as specified	Division, Zoning Inspections c. City of Oakland Bureau of Planning and Building

SCAMMRP Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring Schedule	 Monitoring Responsibility
the Green Building Ordinance. iii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. *c. Compliance with Green Building Requirements After Construction* Within sixty (60) days of the final inspection of the building permit for the project, the Green Building Certifier shall submit the appropriate documentation to Build It Green or Green Building Certification Institute and attain the minimum required certification/point level. Within one year of the final inspection of the building permit for the project, the applicant shall submit to the Bureau of Planning the Certificate from the organization listed above demonstrating certification and compliance with the minimum point/certification level noted above.		
SCA UTIL-5 *Sanitary Sewer System (#79)* The project applicant shall prepare and submit a Sanitary Sewer Impact Analysis to the City for review and approval in accordance with the City of Oakland Sanitary Sewer Design Guidelines. The Impact Analysis shall include an estimate of pre-project and post-project wastewater flow from the project site. In the event that the Impact Analysis indicates that the net increase in project wastewater flow exceeds City-projected increases in wastewater flow in the sanitary sewer system, the project applicant shall pay the Sanitary Sewer Impact Fee in accordance with the City's Master Fee Schedule for funding improvements to the sanitary sewer system.	Prior to approval of any construction permit	City of Oakland Public Works Department, Department of Engineering and Construction
SCA UTIL-6 *Storm Drain System (#80)* The project storm drainage system shall be designed in accordance with the City of Oakland's Storm Drainage Design Guidelines. To the maximum extent practicable, peak stormwater runoff from the project site shall be reduced by at least 25 percent compared to the pre-project condition.	**Submit Plan:** • Prior to any construction permit **Conduct Work Per Approved Plan:** Ongoing, throughout all construction activities and project operations	City of Oakland Bureau of Building Services Division, Zoning Inspections

ATTACHMENT B: CRITERIA FOR USE OF ADDENDUM, PER CEQA GUIDELINES SECTIONS 15162, 15164 AND 15168

Section 15164(a) of the California Environmental Quality Act (CEQA) Guidelines states that "a lead agency or responsible agency shall prepare an addendum to a previously certified EIR [Environmental Impact Report] if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred." Section 15164(e) states that "a brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR."

As discussed in detail in Sections 2.0 and 3.0 of this document, the analysis in the 1998 Keystone Hotel EIR, as updated by its 2006 and 2008 addenda, is considered for this assessment under Sections 15162 and 15164. The 1998 LUTE EIR is a Program EIR considered for this assessment of an Addendum, pursuant to Sections 15162 and 15164. The 2011 Redevelopment Plan Amendments EIR analysis is a Program EIR that is also separately considered for this assessment, pursuant to CEQA Guidelines Section 15168 and Section 15180.

Project Modifications

In May 1998, the Oakland Planning Commission certified the 1998 EIR, and on February 13, 2008 adopted a 2008 Addendum for the 2008 Office Project. The project analyzed in the 2008 Addendum consisted of development of a 20-story office and rehabilitation of the historic Key System Building at 1100 Broadway.

The 2008 Office Project analyzed in the 2008 Addendum would include up to approximately 312,605 square feet of office use, including existing space in the Key System Building, and would entail up to approximately 9,810 square feet of ground-floor retail/restaurant uses.

The proposed land uses and total square footage of the development would be generally the same as considered in 2008, however, the Proposed Project considers a slightly different distribution of office and retail/restaurant square footage. Also, the City's methodology for estimating trip generation is updated since the 2008 Addendum was prepared. The Proposed Project would represent a minor change in the 2008 Office Project.

Conditions for Addendum

None of the following conditions for preparation of a subsequent EIR per Sections 15162(a) and 15168 apply to the Proposed Project:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Project Consistency with Sections 15162, 15164, and 15168 of the CEQA Guidelines

Since certification of the 1998 EIR, as updated with the 2008 Addendum in particular, no changes have occurred in the circumstances under which the Proposed Project would be implemented, that would change the severity of the Proposed Project's physical impacts, as explained in the CEQA Checklist in Section 6.0 of this document. No new information has emerged that would materially change the analyses or conclusions set forth in the 1998 EIR or the 2008 Addendum.

Furthermore, as demonstrated in the CEQA Checklist in Section 6.0 of this document, the Proposed Project would not result in any new significant environmental impacts, result in any substantial increases in the significance of previously identified effects, or necessitate implementation of additional or considerably different mitigation measures than those identified in the 2008 Addendum, nor render any mitigation measures or alternatives found not to be feasible, feasible. The effects of the Proposed Project would be substantially the same as those reported in the 2008 Addendum.

The analysis presented in this CEQA Analysis, combined with the prior 1998 EIR and 2008 Addendum analysis, demonstrates that the Proposed Project would not result in significant impacts that were not previously identified in the EIR or its 2008 Addendum. The Proposed Project would not result in a substantial increase in the significance of impacts, nor would the Proposed Project contribute considerably to cumulative effects that were not already accounted for in the certified 1998 EIR or its 2008 Addendum. Overall, the Proposed Project's impacts are similar to those identified and discussed in the 1998 EIR or its 2008 Addendum, as described in the CEQA Checklist herein, and the findings reached in the 1998 EIR or its 2008 Addendum are applicable.

ATTACHMENT C: PROJECT CONSISTENCY WITH COMMUNITY PLAN OR ZONING, PER CEQA GUIDELINES SECTION 15183

Section 15183(a) of the California Environmental Quality Act (CEQA) Guidelines states that "…projects which are consistent with the development density established by the existing zoning, community plan, or general plan policies for which an Environmental Impact Report (EIR) was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site."

As discussed in detail in Section 2.4 of this document, the analysis in the 1998 LUTE EIR and the 2011 Redevelopment Plan Amendments EIR are considered the qualified planning level CEQA documents for this assessment, pursuant to CEQA Guidelines Section 15183.

Proposed Project

The Proposed Project would be located in developed urbanized Downtown Oakland. The Proposed Project would construct a new office building of up to approximately 322,415 square feet of usable floor area, including up to approximately 312,415 square feet of office use and up to 10,000 square feet of retail and restaurant uses on the ground floor and mezzanine levels of the entire development. The project site has been partially excavated and no buildings, trees, or other greenery currently exist on the portion of the .05-acre Project site where the new office building would occur. The developed portion of the Project site contains the existing historic Key System Building.

Project Consistency

- As determined by the City of Oakland General Plan and Planning Code, the proposed land uses are permitted in the zoning district in which the Project is located, and the Proposed Project is consistent with the bulk, height, density and land uses envisioned for this site on Broadway in Downtown Oakland, as outlined below. The Proposed Project requires a minor variance for exceptions to off-street loading requirements, but as proposed will be consistent overall with the development density envisioned for the area. The General Plan land use designation for the site is Central Business District (CBD). This designation applies to areas suitable for high density mixed use urban center with a mix of large-scale offices, commercial, urban (high-rise) residential, and infill hotel uses, among many others, in the central Downtown core of the city. The proposed commercial use project would be consistent with this designation.
- The site is zoned Central Business District Pedestrian Retail Commercial (CBD-P). The Proposed Project would be consistent with the purposes of this district, which is generally intended to create, maintain, and enhance areas of the Central Business District for ground level, pedestrian-oriented, active storefront uses. Upper story spaces are intended to be available for a wide range of office and residential activities. The site is also located within the. CBD-P Height/Bulk/Intensity Area 7, which allow 100 percent coverage of a project site area and no maximum building heights or elevation lengths.
- The Proposed Project would develop ground-floor commercial retail/restaurant space with upper level office use.
- The Proposed Project would develop an 18-story, 240-foot-tall building with a ground floor lobby of approximately 24 feet tall. There is no height limit above the building base or podium. The base

height of the new office building is 102 feet 6 inches (see Figures 10 and 11), which complies with the maximum allowed of 120 feet.

- The office building proposes an average per-story lot coverage above the building base of 18,650 square feet, which is consistent with the maximum standard of 85 percent of site area (i.e. 18,700 square feet)**.** The Project would be consistent overall with the development density envisioned for the area.

- The floor area ratio (FAR) of the Proposed Project would total approximately 368,576 square feet of gross floor area on the 0.5-acre site, or 16.9 FAR. A maximum 20.0 FAR is allowed on the Project site, pursuant to the CBD-P Zoning and CBD General Plan designations.

- The Proposed Project requests a Minor Variance to allow for the minimum required number of off-street loading berths to be reduced from three (3) to two (2), to reduce the length of the off-street loading stalls from 33 feet to 31 feet, pursuant to City Municipal Code Section 17.116.140 and 17.116.220.

Therefore, the Proposed Project is eligible for consideration of an exemption under California Public Resources Code Section 21083.3, and Section 15183 of the CEQA Guidelines.

Appendix A
2008 Shadow Study

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SHADE AND SHADOW
1100 Broadway, Oakland

Prepared for Turnstone Consulting
Revised October 2007

Introduction and Project Setting

Located at 1100 Broadway, the project site is situated in downtown Oakland between 11th and 12th Streets. The project involves constructing a nineteen-story building on a vacant site adjacent to and north of an existing 6-story building known as the Key Building. Figure 1 shows the location of the project site. Figure 1 also depicts the location of existing public plazas in the vicinity including the two nearby plazas which lie across Broadway as well as the City Hall and Frank Ogawa Plazas which are situated more than a block away to the north.

Environmental Vision produced a set of computer-generated diagrams to portray existing and project-generated shadow patterns in the project vicinity. The purpose of this shadow study is to identify and evaluate potential shadow effects associated with the proposed new building at 1100 Broadway (the project).

Methods

The project's shadow effects were analyzed for representative times of day (9AM, noon and 3PM) for each of the four seasons. Four dates were used for analysis purposes:

• March 21, the spring equinox, when day and night are of approximately equal length and shadows are about midway between longest and shortest;

• June 21, the summer solstices when the sun is at its highest point and shadows are the shortest;

• December 21, winter solstice, when the sun is at its lowest and shadows are the longest;

• September 21, the autumn equinox when day and night are of approximately equal length, and shadows are about midway between longest and shortest.

Using a three-dimensional digital model and computer-assisted design (CAD) software Environmental Vision produced diagrams to portray existing and project-generated shadow patterns cast on the ground surface and on existing building rooftops. The shadow patterns reflect existing and proposed building massing. The shadow analysis is based on architectural design data provided by KMD, the project architects and on GIS and aerial photography data obtained from the City of Oakland. A schematic three-dimensional digital model of the proposed project was used to calculate the shadows for each time of day and date evaluated. The diagrams portray shadow cast by building massing only and do not reflect shadow patterns associated with existing vegetation/landscaping.

Evaluation

Presented as Figures 2a through 2f, the shadow diagrams portray shadow cast by existing buildings in gray and new project-generated shadow in black. The diagrams indicate that the existing downtown buildings currently cast considerable amounts of shadow on public streets, sidewalks and open space areas in the project vicinity. The areas shaded in black on the diagrams represent the 1100 Broadway project's shadow effect on the existing urban environment. As outlined below, the overall amount of shadow cast by the project would be relatively minor.

Morning- 9AM (Figures 2a and 2b)

At 9AM throughout the year, the project would cast new shadow on the sidewalk along a limited portion of Broadway adjacent to or near the project site. In spring and summer (March and June) at 9AM, the project would also cast some new shadow on the plaza located across the street, in front of the 1111 Broadway building. A very minor amount of new shadow would also be cast on the plaza in autumn (September). In addition, during summer at 9AM the project would cast a limited amount of shadow on the rooftop of the adjacent Key Building. This building fronts on Broadway and is considered an historic structure in terms of its contribution to the Downtown Oakland Historic District (CEDA, 1998).

Noon (Figures 2c and 2d)

At noon throughout the year the project would cast new shadow on the sidewalk along a limited portion of Broadway. The Figure 2c and 2d diagrams indicate that the project would cast some new shadow on the public plaza in front of the Clorex Building at noon during spring, winter and fall months. In December at noon the project would cast new shadow on about half of the plaza area located along Broadway, in front of the Clorox building; however, the southern portion of this open space would not be shaded during noontime. At noon in the summer and fall, the project would also cast a minor amount of shadow on the 1111 Broadway building plaza.

Afternoon- 3PM (Figures 2e and 2f)

At 3PM throughout the year, the project would not cast new shadow on public plaza areas in the vicinity. During spring, summer and fall months, it would cast new shadow on the sidewalk along a limited part of 12th Street, adjacent to the project site.. In addition the project could shade a portion of the 1212 Broadway building's south façade at 3PM in spring and autumn (March and September). Located along 12th Street across from the project site, this building (1212 Broadway) is considered an historic structure in terms of its contribution to the Downtown Oakland Historic District (CEDA, 1998).

Criteria of Significance.

The City of Oakland Draft Significance criteria outline the following thresholds for finding a significant effect on visual and aesthetic resources with respect to shadow impacts.

1. The project would introduce landscape that would now or in the future cast shadow on existing solar collectors (in conflict with California Public Resource Code Section 25980-25986).

2. The project would cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;

The shadow diagrams demonstrate that, in general, the 1100 Broadway project would not cast shadow on the rooftops of existing buildings in the vicinity. In addition, a windshield survey of the Project site area, and an inspection of air photos identified no solar collectors or photovoltaic (PV) cells that would be substantially affected by shadow resulting from the proposed Project.

3. The project would cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space.

New shadow created by the proposed Project would not substantially impair the beneficial use of any public or quasi-public park, lawn, garden, or open space area. The project would not cast any shadow on the Frank Ogawa and City Hall Plazas, two popular open spaces located nearby. The project would cast some new shadow on the plaza at 1111 Broadway during morning hours in spring and summer; however no substantial new shadow would occur at this open space during the noon/afternoon period, when downtown plazas are most heavily used. In December at noon the project would cast new shadow on about half of the plaza area located in front of the Clorox building; during this time period, however, the southern portion of this public open space would remain in sunlight.

4. The project would cast shadow on a historic resource, as defined by CEQA Section 15064.5(a), such that it would substantially diminish/impair its eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, or in a local register of historical resources or a historical resource survey as defined by the Public Resource Code.

The project would cast a minor amount of new shadow on two buildings which are historic resources (1212 Broadway and the Key Building). As shown on the Figure 2 shadow diagrams, at present both structures are currently shaded by existing buildings throughout much of the day. Project-generated shadows would represent a minor incremental change that would not substantially affect these historic resources.

Conclusion

Taken together the project-generated shadow effects described above are incremental and relatively minor changes to existing sun/shade patterns currently found in the project vicinity. The shadow impacts associated with the project are therefore considered to be less than significant.

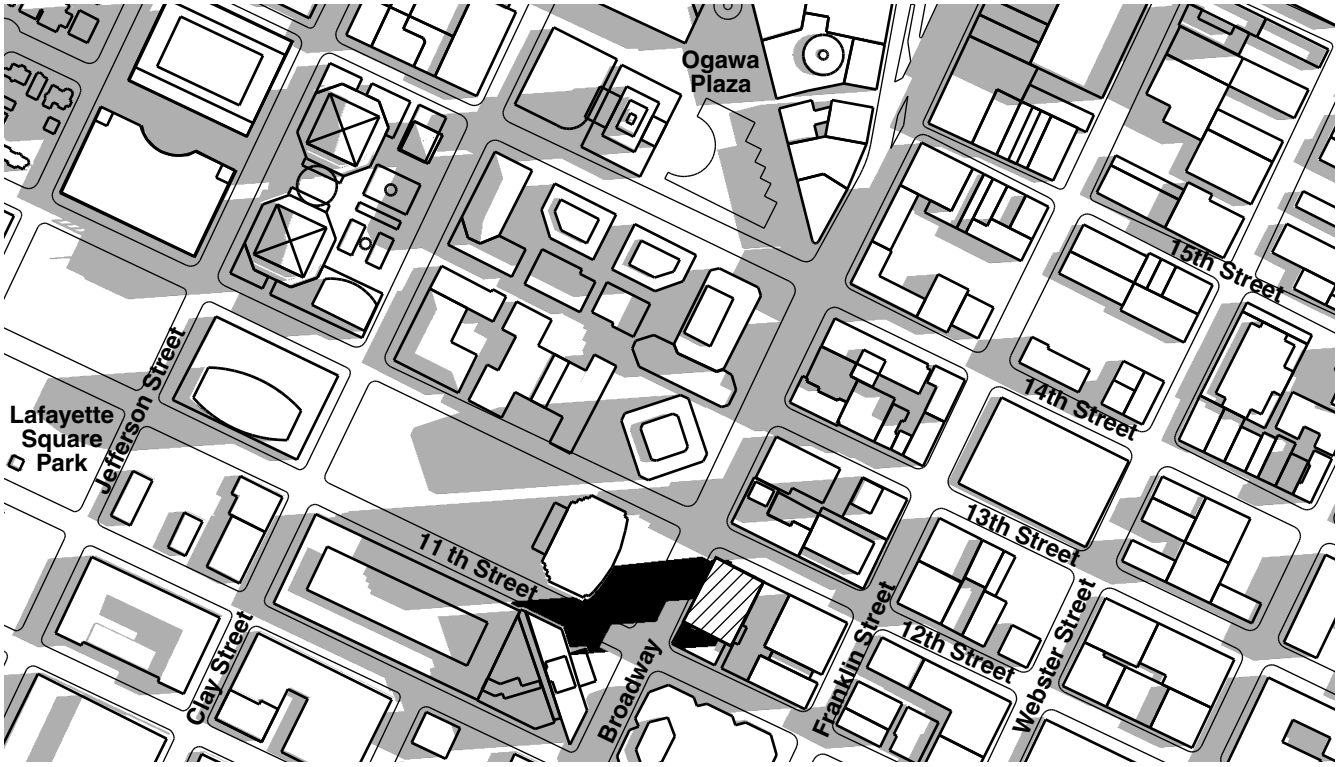
0 100 200
Scale in Feet

Legend

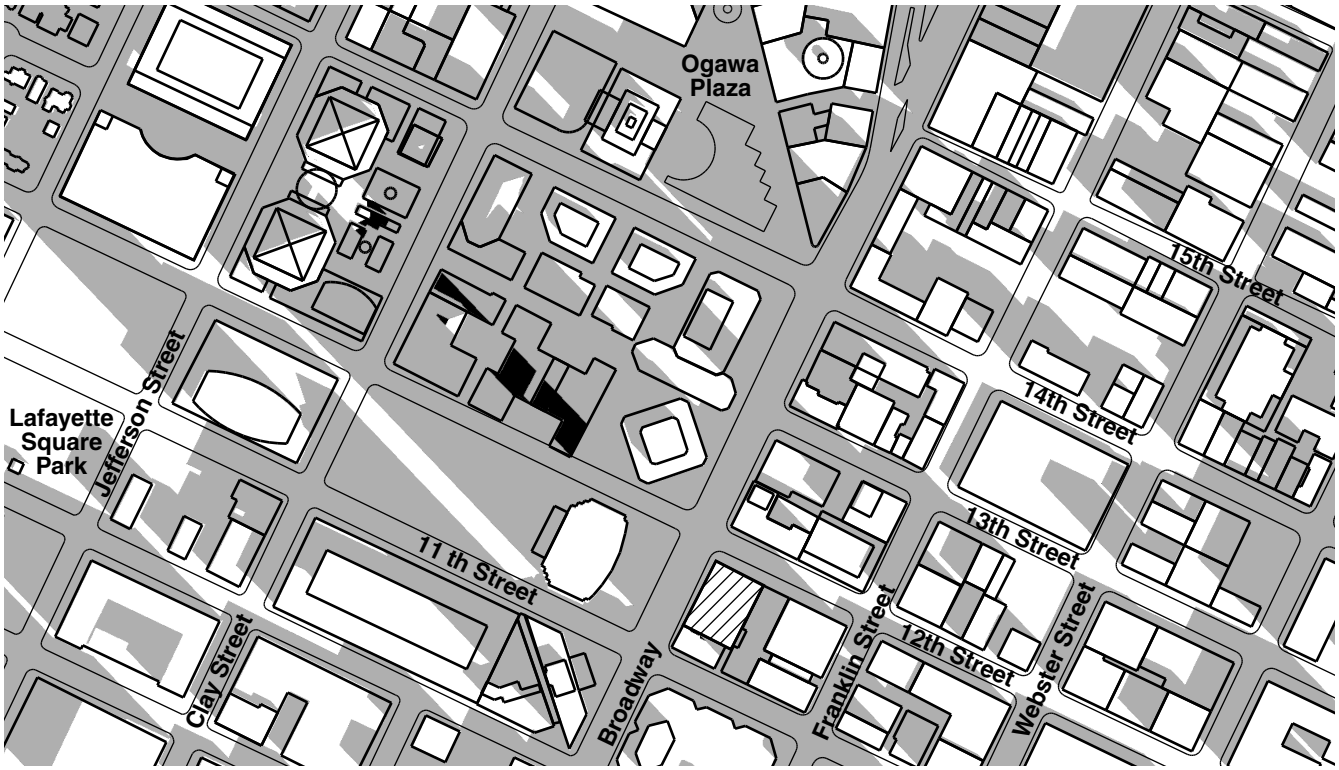
Project Site

ENVIRONMENTAL VISION
100807

Figure 1
Project Location
1100 Broadway
Oakland, CA



June 21, 9:00 am PDT



December 21, 9:00 am PST

0 200 400
Scale in Feet

Legend

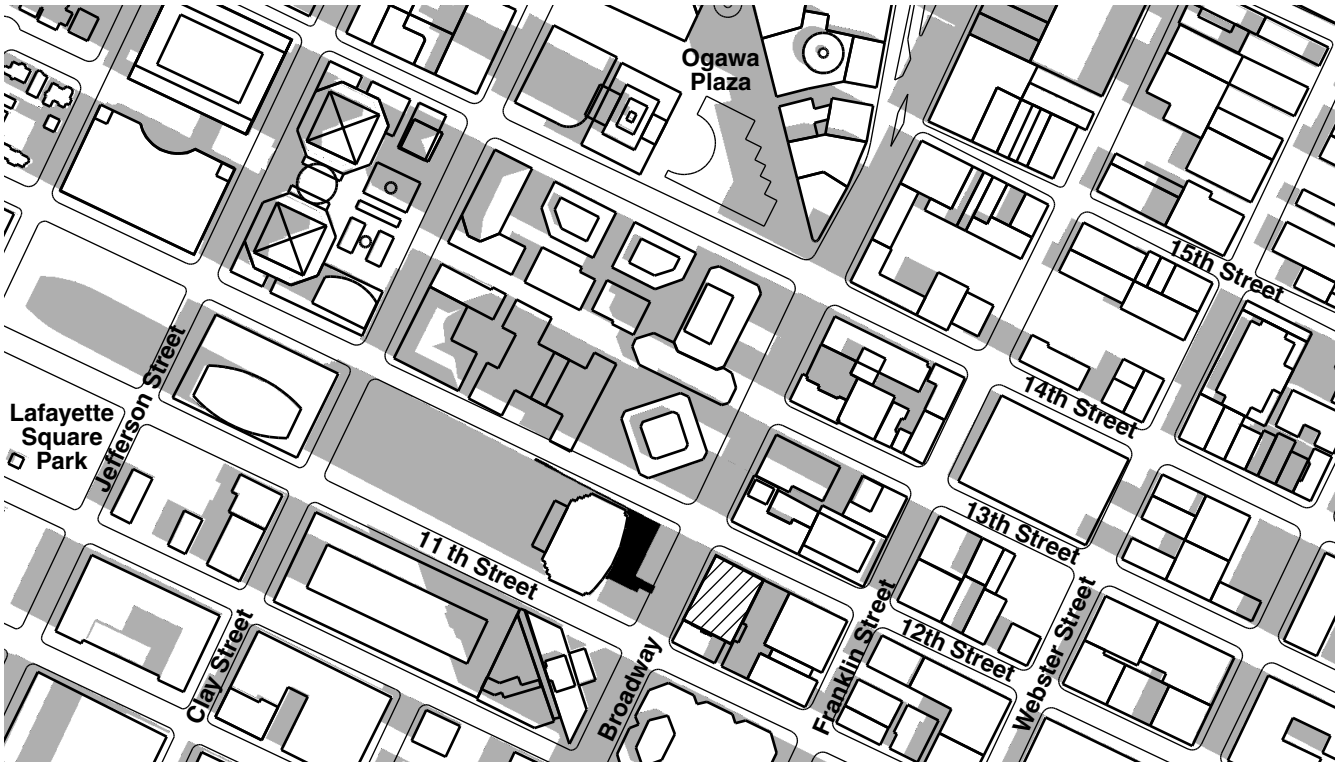
Project Site

Existing Shadow

New Project Shadow

Figure 2a
Project Shadow Patterns
1100 Broadway
Oakland, CA

ENVIRONMENTAL VISION
100807



March 21, 9:00 am PST

September 21, 9:00 am PDT

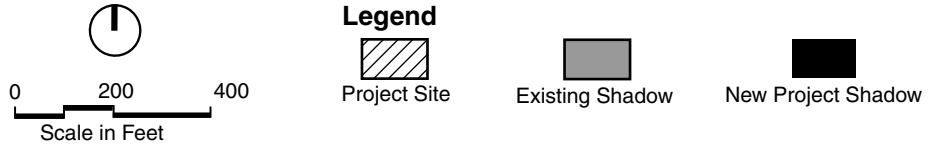


Figure 2b
Project Shadow Patterns
1100 Broadway
Oakland, CA

ENVIRONMENTAL VISION
100807

June 21, 12:00 noon PDT

December 21, 12:00 noon PST

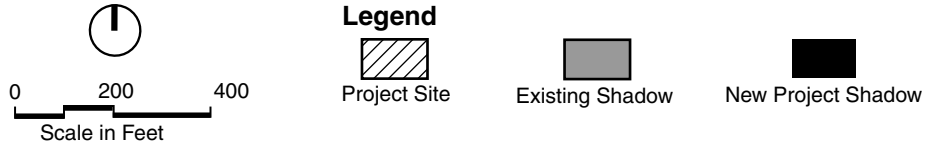
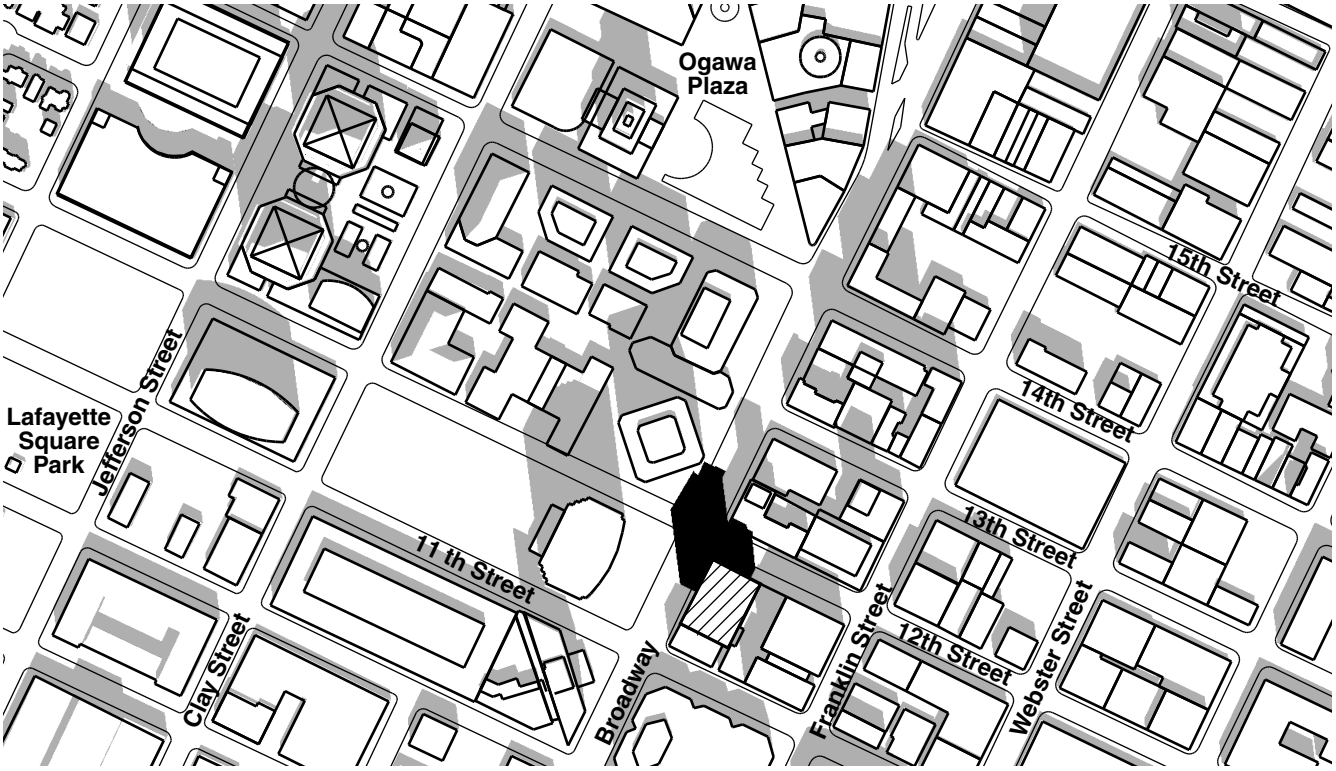
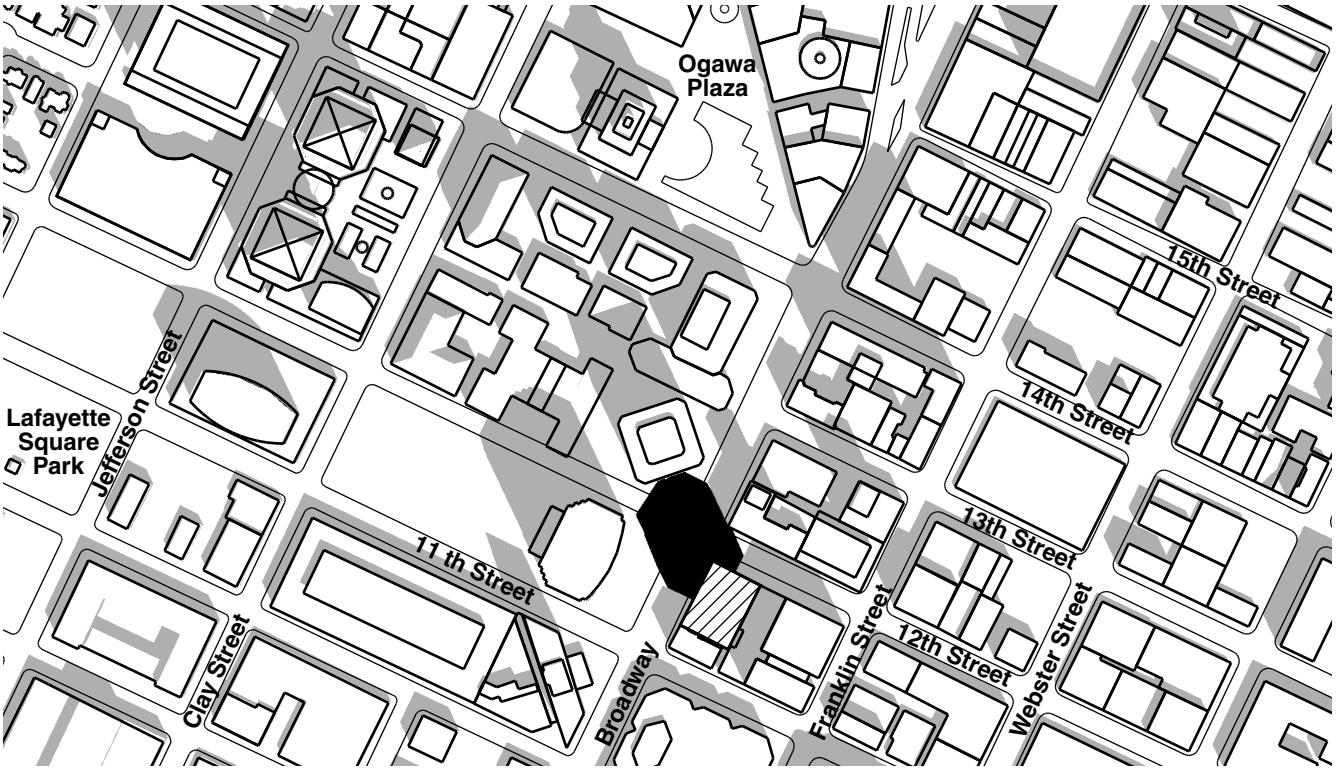


Figure 2c
Project Shadow Patterns
1100 Broadway
Oakland, CA

ENVIRONMENTAL VISION
100807



March 21, 12:00 noon PST



September 21, 12:00 noon PDT

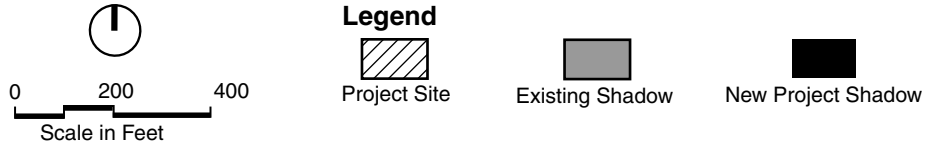


Figure 2d
Project Shadow Patterns
1100 Broadway
Oakland, CA

ENVIRONMENTAL VISION
100807

June 21, 3:00 pm PDT

December 21, 3:00 pm PST

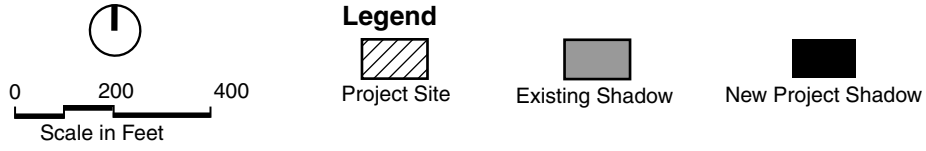


Figure 2e
Project Shadow Patterns
1100 Broadway
Oakland, CA

ENVIRONMENTAL VISION
100807

March 21, 3:00 pm PST

September 21, 3:00 pm PDT

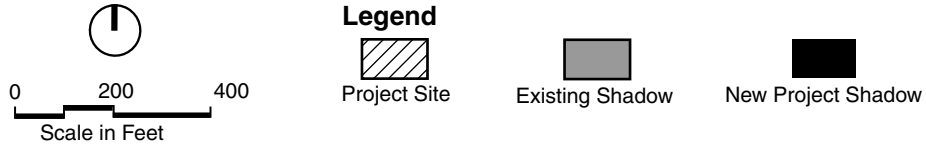


Figure 2f
Project Shadow Patterns
1100 Broadway
Oakland, CA

ENVIRONMENTAL VISION
100807

Appendix B
2008 Wind Hazards Study

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Donald Ballanti
Certified Consulting Meteorologist

1424 Scott Street
El Cerrito, CA 94530
(510) 234-6087
Fax: (510) 232-7752

November 8, 2007

Barbara Sahm
Turnstone Consulting
330 Townsend Street, Suite 216
San Francisco, CA. 94107

Subject: Wind Tunnel Studies for the 11th and Broadway Project, Oakland

Dear Ms. Sahm:

I am pleased to submit this letter-report providing the results of the wind tunnel tests for the subject project. The purpose of the wind tunnel tests was to determine compliance of the project with the City of Oakland's wind threshold of significance:

> *Create winds exceeding 36 mph for more than 1 hour during daylight hours during the year*

Such a wind analysis only needs to be done if the project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown. Being located Downtown, the project is subject to the threshold of significance.

SUMMARY

A scale model of the existing site, the proposed project and the surrounding cityscape was constructed and tested in a boundary-layer wind tunnel facility at the University of California at Davis. The model was based on project plans dated July 18, 20007. Velocity measurements were made at 19 measurement locations with pedestrian areas

adjacent or near the project site. Wind speed was measured for the north-northwest, west and south-southeast wind directions, which represent the wind directions with the highest average wind speeds and those from which peak winds occur in Oakland.

The wind data were used by a computer program to predict frequencies of wind speeds exceeding the hazard criteria at each of the measurement points utilizing a 5-year database from Alameda Naval Air Station.

METHODOLOGY

A 1-inch equals 50 feet scale model of the project site and several surrounding blocks was built and added to the existing model created for past wind tunnel studies. The scale model was then tested in a Boundary Layer wind tunnel at the University of California, Davis, under the direction of Dr. Bruce White

Simulation of the boundary layer in the natural wind is achieved by turbulence generators placed upwind of the test section. This allows for adjustment in the wind characteristics to provide for different model scales and varying terrain upwind of the project. The velocity measurements in this study were made with a hot wire anemometer. A total of 19 measurement locations were selected within pedestrian areas adjacent or near the project site. The attached Figure 1 shows the location of measurement sites.

Prior to testing, the speed and turbulence profiles of the flow within the wind tunnel were measured and documented to ensure that the approach flow within the tunnel has an appropriate boundary layer for the scale of the model and the nature of the surrounding terrain.

Wind speed was measured within the project site at a scale height of 5 feet. Testing was conducted for north-northwest, west and south-southeast wind directions. These wind directions are used by a computer program developed by Environmental Science Associates to process wind tunnel data for sites in Oakland, California utilizing a 5-year database from Alameda Naval Air Station. The program combines data from the different wind directions to predict frequencies of wind speeds exceeding the hazard criteria at each of the measurement points. The wind directions tested are those with the highest average wind speeds and those from which peak winds occur.

The wind computer program utilizes "equivalent wind speed" (EWS) to account for the greater danger inherent in gusty winds. EWS denotes the mean hourly wind speed adjusted to account for the expected turbulence intensity or gustiness at the site. When

the measured turbulence intensity at a point is greater than 15%, the equivalent wind speed is calculated by multiplying the mean velocity at the point by a weighting factor according to the following formula:

EWS = Vm (2*TI + 0.7) where:
V_m = mean pedestrian-level wind speed
TI = turbulence intensity

RESULTS

Attached Table 1 shows the predicted windspeed that would be exceeded 1 hour per year (during daylight hours) for each measurement point for existing conditions and with the proposed project. The criterion is that the wind exceeded 1 hour per year should not exceed 36 MPH. Any value exceeding 36.0 MPH would be considered an exceedance of the wind hazard threshold.

The area around the project currently does not meet the wind hazard threshold. Existing tall buildings near the project site accelerate wind at ground level such that 6 of the 19 measurement points already exceed the wind hazard threshold. The total duration of the exceedance for the 6 locations is 68 hours per year.

The proposed project would have a generally beneficial effect on wind. The project would eliminate exceedances at three measurement locations (points 1, 3 and 11) and reduce the hours of exceedance at two measurement locations (points 10 and 12). While the project would create a new exceedance of with 1 additional hour of exceedance at point 15, the total number of hours of exceedance would decline from 68 hours for the existing site to 40 hours with the proposed project, a reduction of 28 hours per year.

The results show that the project would meet the City of Oakland's wind hazard threshold of significance. The project modifies wind in an area already exceeding the hazard threshold, but does not "create winds exceeding 36 mph for more than 1 hour during daylight hours during the year". While the project would add 1 hour of exceedance at one location, the project would also reduce or eliminate exceedances at five locations and would eliminate 28 hours of exceedance. The project would have a mitigating effect on wind, and the wind environment near the project site would be safer and more comfortable with the addition of the proposed project.

I hope you find this analysis useful. Please call if you have any questions.

Sincerely,

Donald Ballanti
Certified Consulting Meteorologist

Attachments

Figure 1: Measurement Point Locations

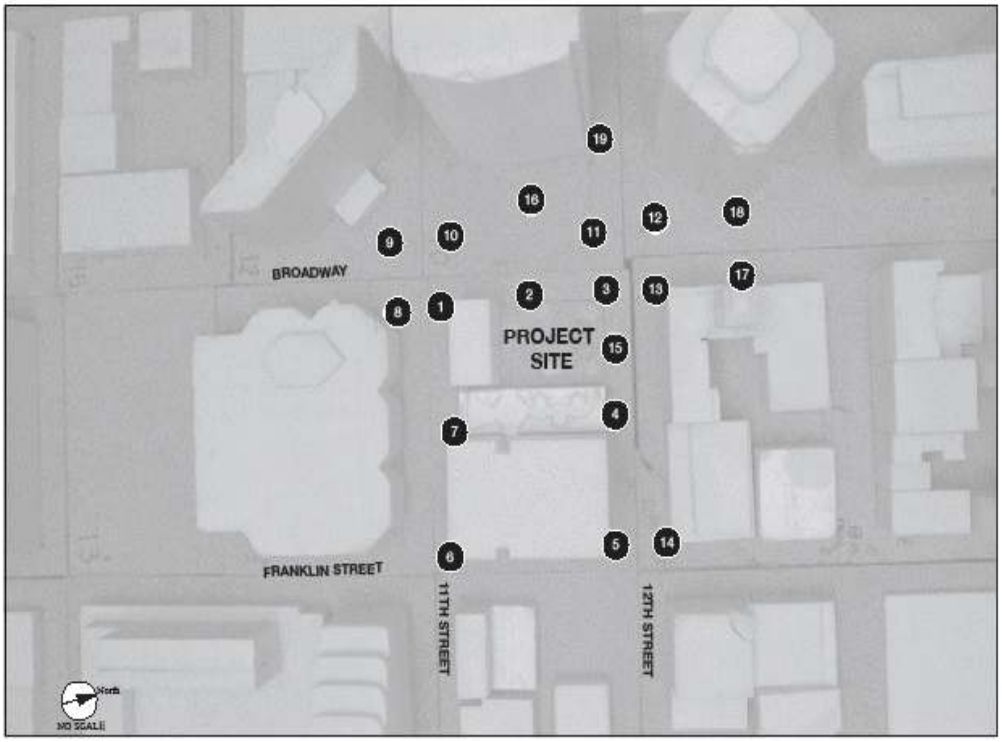

FIGURE 1: MEASUREMENT POINT LOCATIONS

Table 1: Windspeed Predicted to be Exceeded 1 Hour Per Year (During Daylight Hours) (Miles Per Hour) and Predicted Annual Hours of Exceedance

Location	Existing	Project	Threshold
1	37 (2)	24 (0)	36.0
2	23 (0)	33 (0)	36.0
3	37 (1)	34(0)	36.0
4	30 (0)	31 (0)	36.0
5	27(0)	28 (0)	36.0
6	25 (0)	26(0)	36.0
7	22 (0)	14 (0)	36.0
8	27 (0)	26 (0)	36.0
9	26(0)	25 (0)	36.0
10	47 (24)	38 (2)	36.0
11	39 (3)	35 (0)	36.0
12	47 (23)	47 (22)	36.0
13	32 (0)	35 (0)	36.0
14	26 (0)	27 (0)	36.0
15	32 (0)	37 (1)	36.0
16	30(0)	24 (0)	36.0
17	26 (0)	26 (0)	36.0
18	31 (0)	29 (0)	36.0
19	42 (15)	43 (15)	36.0
Hours of Exceedance	68	40	

Appendix C
Air Quality and GHG Emissions Detail

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1100 Broadway

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	312.42	1000sqft	0.50	312,415.00	0
Enclosed Parking with Elevator	7.59	1000sqft	0.00	7,585.00	0
Regional Shopping Center	10.00	1000sqft	0.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	349	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - based on PG&E 5 year average for 20015 - 2019
available at https://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf

Land Use - Project data

Construction Phase - Project schedule as provided by applicant. No demolition and site prep assumed.

Off-road Equipment -

Off-road Equipment - provided by applicant.

Off-road Equipment - No demolition

Off-road Equipment - Provided by applicant

Off-road Equipment - Provided by applicant

Off-road Equipment - No site prep

Trips and VMT - No demolition and site prep

Grading - Project data

Vehicle Trips - Adjusted based on project traffic analysis which includes 46.9% reduction in trips to account for proximity to BART

Energy Use - 5 percent reduction oevr default 2013 Title 24 standards assumed to account for compliance with the 2016 Title 24 standards

Water And Wastewater - 20 percent reduction in indoor water use assumed to account for required compliance with CalGreen
100 percent aerobic treatment of wastewater assumed

Construction Off-road Equipment Mitigation - Tier 4 equipment assumed in compliance with BACT requirements of SCA-19(w)

Stationary Sources - Emergency Generators and Fire Pumps -

Solid Waste - 88% reduction in waste generated assumed from 2005 to 2020 to account for measures taken by the City to implement the Zero Waste Goal

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	5.00	173.00
tblConstructionPhase	NumDays	100.00	190.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	59.00
tblConstructionPhase	NumDays	5.00	86.00
tblConstructionPhase	NumDays	1.00	0.00
tblEnergyUse	LightingElect	2.63	2.50
tblEnergyUse	LightingElect	3.67	3.49
tblEnergyUse	LightingElect	5.00	4.75
tblEnergyUse	T24E	3.92	3.72
tblEnergyUse	T24E	4.30	4.08
tblEnergyUse	T24E	2.35	2.23
tblEnergyUse	T24NG	18.41	17.49
tblEnergyUse	T24NG	3.92	3.72
tblGrading	AcresOfGrading	0.00	0.50

tblGrading	AcresOfGrading	0.00	0.50
tblGrading	MaterialExported	0.00	10,074.00
tblLandUse	BuildingSpaceSquareFeet	312,420.00	312,415.00
tblLandUse	BuildingSpaceSquareFeet	7,590.00	7,585.00
tblLandUse	LandUseSquareFeet	312,420.00	312,415.00
tblLandUse	LandUseSquareFeet	7,590.00	7,585.00
tblLandUse	LotAcreage	7.17	0.50
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	0.23	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	4.00	7.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	4.00

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	349
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	290.55	34.87
tblSolidWaste	SolidWasteGenerationRate	10.50	1.26
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	18.00
tblVehicleTrips	ST_TR	2.46	1.56
tblVehicleTrips	ST_TR	49.97	27.72
tblVehicleTrips	SU_TR	1.05	0.67
tblVehicleTrips	SU_TR	25.24	14.00
tblVehicleTrips	WD_TR	11.03	6.99
tblVehicleTrips	WD_TR	42.70	23.68
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	55,527,577.55	44,422,062.04
tblWater	IndoorWaterUseRate	740,725.21	592,580.17
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1489	1.7746	0.8875	3.5300e-003	0.2164	0.0461	0.2625	0.0835	0.0426	0.1261	0.0000	329.7464	329.7464	0.0341	0.0000	330.5992
2019	1.7416	0.4357	0.4822	8.3000e-004	0.0201	0.0273	0.0473	5.3400e-003	0.0260	0.0313	0.0000	73.2732	73.2732	0.0128	0.0000	73.5923
Maximum	**1.7416**	**1.7746**	**0.8875**	**3.5300e-003**	**0.2164**	**0.0461**	**0.2625**	**0.0835**	**0.0426**	**0.1261**	**0.0000**	**329.7464**	**329.7464**	**0.0341**	**0.0000**	**330.5992**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0554	0.8775	0.9402	3.5300e-003	0.2164	-0.0168	0.1996	0.0835	-0.0151	0.0685	0.0000	329.7463	329.7463	0.0341	0.0000	330.5991
2019	1.6865	0.1558	0.5127	8.3000e-004	0.0201	-0.0148	5.2900e-003	5.3400e-003	-0.0135	-0.0081	0.0000	73.2731	73.2731	0.0128	0.0000	73.5922
Maximum	**1.6865**	**0.8775**	**0.9402**	**3.5300e-003**	**0.2164**	**-0.0148**	**0.1996**	**0.0835**	**-0.0135**	**0.0685**	**0.0000**	**329.7463**	**329.7463**	**0.0341**	**0.0000**	**330.5991**

1100 Broadway - Alameda County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.86**	**53.25**	**-6.08**	**0.00**	**0.00**	**143.03**	**33.85**	**0.00**	**141.64**	**61.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-9-2018**	**4-8-2018**	0.5300	0.0368
2	**4-9-2018**	**7-8-2018**	0.4774	0.3132
3	**7-9-2018**	**10-8-2018**	0.4832	0.3172
4	**10-9-2018**	**1-8-2019**	0.4455	0.2653
5	**1-9-2019**	**4-8-2019**	0.2419	0.0414
6	**4-9-2019**	**7-8-2019**	0.6341	0.5758
7	**7-9-2019**	**9-30-2019**	0.6508	0.6212
		Highest	0.6508	0.6212

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4283	3.0000e-005	3.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.9000e-003	5.9000e-003	2.0000e-005	0.0000	6.2900e-003
Energy	0.0314	0.2855	0.2398	1.7100e-003		0.0217	0.0217		0.0217	0.0217	0.0000	946.6260	946.6260	0.0588	0.0166	953.0513
Mobile	0.5964	3.8396	6.5509	0.0221	1.6332	0.0268	1.6601	0.4391	0.0253	0.4644	0.0000	2,037.4906	2,037.4906	0.0934	0.0000	2,039.8246
Stationary	0.0308	0.1376	0.0785	1.5000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	14.2799	14.2799	2.0000e-003	0.0000	14.3300
Waste						0.0000	0.0000		0.0000	0.0000	7.3333	0.0000	7.3333	0.4334	0.0000	18.1678
Water						0.0000	0.0000		0.0000	0.0000	15.9263	57.6667	73.5930	0.0596	0.0356	85.6996
Total	**2.0869**	**4.2627**	**6.8722**	**0.0240**	**1.6332**	**0.0531**	**1.6863**	**0.4391**	**0.0516**	**0.4906**	**23.2595**	**3,056.0691**	**3,079.3286**	**0.6472**	**0.0523**	**3,111.0795**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4283	3.0000e-005	3.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.9000e-003	5.9000e-003	2.0000e-005	0.0000	6.2900e-003
Energy	0.0314	0.2855	0.2398	1.7100e-003		0.0217	0.0217		0.0217	0.0217	0.0000	946.6260	946.6260	0.0588	0.0166	953.0513
Mobile	0.5964	3.8396	6.5509	0.0221	1.6332	0.0268	1.6601	0.4391	0.0253	0.4644	0.0000	2,037.4906	2,037.4906	0.0934	0.0000	2,039.8246
Stationary	0.0308	0.1376	0.0785	1.5000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	14.2799	14.2799	2.0000e-003	0.0000	14.3300
Waste						0.0000	0.0000		0.0000	0.0000	7.3333	0.0000	7.3333	0.4334	0.0000	18.1678
Water						0.0000	0.0000		0.0000	0.0000	15.9263	57.6667	73.5930	0.0596	0.0356	85.6996
Total	**2.0869**	**4.2627**	**6.8722**	**0.0240**	**1.6332**	**0.0531**	**1.6863**	**0.4391**	**0.0516**	**0.4906**	**23.2595**	**3,056.0691**	**3,079.3286**	**0.6472**	**0.0523**	**3,111.0795**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/9/2018	1/8/2018	5	0	
2	Site Preparation	Site Preparation	1/9/2018	1/8/2018	5	0	
3	Grading	Grading	1/9/2018	3/30/2018	5	59	
4	Building Construction	Building Construction	3/31/2018	12/21/2018	5	190	
5	Paving	Paving	12/22/2018	4/22/2019	5	86	
6	Architectural Coating	Architectural Coating	4/23/2019	12/19/2019	5	173	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 483,623; Non-Residential Outdoor: 161,208; Striped Parking Area: 455 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Site Preparation	Graders	0	0.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Concrete/Industrial Saws	0	0.00	81	0.73
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	0.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Paving	Cement and Mortar Mixers	0	0.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	10.00	0.00	1,259.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	1	106.00	54.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0897	0.0000	0.0897	0.0489	0.0000	0.0489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0241	0.2531	0.1249	2.1000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	18.8341	18.8341	5.8600e-003	0.0000	18.9807
Total	**0.0241**	**0.2531**	**0.1249**	**2.1000e-004**	**0.0897**	**0.0138**	**0.1035**	**0.0489**	**0.0127**	**0.0617**	**0.0000**	**18.8341**	**18.8341**	**5.8600e-003**	**0.0000**	**18.9807**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9900e-003	0.2057	0.0341	5.1000e-004	0.0107	7.8000e-004	0.0114	2.9300e-003	7.4000e-004	3.6800e-003	0.0000	49.1984	49.1984	2.5900e-003	0.0000	49.2633
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.7000e-004	9.6900e-003	2.0000e-005	2.3300e-003	2.0000e-005	2.3500e-003	6.2000e-004	2.0000e-005	6.4000e-004	0.0000	2.2041	2.2041	7.0000e-005	0.0000	2.2058
Total	**7.2300e-003**	**0.2067**	**0.0438**	**5.3000e-004**	**0.0130**	**8.0000e-004**	**0.0138**	**3.5500e-003**	**7.6000e-004**	**4.3200e-003**	**0.0000**	**51.4025**	**51.4025**	**2.6600e-003**	**0.0000**	**51.4691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0897	0.0000	0.0897	0.0489	0.0000	0.0489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	-0.0265	-0.1827	0.1300	2.1000e-004		-0.0225	-0.0225		-0.0206	-0.0206	0.0000	18.8341	18.8341	5.8600e-003	0.0000	18.9807
Total	**-0.0265**	**-0.1827**	**0.1300**	**2.1000e-004**	**0.0897**	**-0.0225**	**0.0672**	**0.0489**	**-0.0206**	**0.0283**	**0.0000**	**18.8341**	**18.8341**	**5.8600e-003**	**0.0000**	**18.9807**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9900e-003	0.2057	0.0341	5.1000e-004	0.0107	7.8000e-004	0.0114	2.9300e-003	7.4000e-004	3.6800e-003	0.0000	49.1984	49.1984	2.5900e-003	0.0000	49.2633
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.7000e-004	9.6900e-003	2.0000e-005	2.3300e-003	2.0000e-005	2.3500e-003	6.2000e-004	2.0000e-005	6.4000e-004	0.0000	2.2041	2.2041	7.0000e-005	0.0000	2.2058
Total	**7.2300e-003**	**0.2067**	**0.0438**	**5.3000e-004**	**0.0130**	**8.0000e-004**	**0.0138**	**3.5500e-003**	**7.6000e-004**	**4.3200e-003**	**0.0000**	**51.4025**	**51.4025**	**2.6600e-003**	**0.0000**	**51.4691**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0474	0.5670	0.2096	4.8000e-004		0.0245	0.0245		0.0226	0.0226	0.0000	43.7827	43.7827	0.0136	0.0000	44.1235
Total	**0.0474**	**0.5670**	**0.2096**	**4.8000e-004**		**0.0245**	**0.0245**		**0.0226**	**0.0226**	**0.0000**	**43.7827**	**43.7827**	**0.0136**	**0.0000**	**44.1235**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0255	0.6915	0.1579	1.4400e-003	0.0337	4.9300e-003	0.0386	9.7500e-003	4.7200e-003	0.0145	0.0000	137.5868	137.5868	8.8000e-003	0.0000	137.8069
Worker	0.0422	0.0331	0.3306	8.3000e-004	0.0796	5.8000e-004	0.0802	0.0212	5.4000e-004	0.0217	0.0000	75.2368	75.2368	2.3600e-003	0.0000	75.2958
Total	**0.0677**	**0.7246**	**0.4886**	**2.2700e-003**	**0.1133**	**5.5100e-003**	**0.1188**	**0.0309**	**5.2600e-003**	**0.0362**	**0.0000**	**212.8236**	**212.8236**	**0.0112**	**0.0000**	**213.1027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8600e-003	0.1267	0.2554	4.8000e-004		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	43.7827	43.7827	0.0136	0.0000	44.1234
Total	**7.8600e-003**	**0.1267**	**0.2554**	**4.8000e-004**		**7.9000e-004**	**7.9000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**43.7827**	**43.7827**	**0.0136**	**0.0000**	**44.1234**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0255	0.6915	0.1579	1.4400e-003	0.0337	4.9300e-003	0.0386	9.7500e-003	4.7200e-003	0.0145	0.0000	137.5868	137.5868	8.8000e-003	0.0000	137.8069
Worker	0.0422	0.0331	0.3306	8.3000e-004	0.0796	5.8000e-004	0.0802	0.0212	5.4000e-004	0.0217	0.0000	75.2368	75.2368	2.3600e-003	0.0000	75.2958
Total	**0.0677**	**0.7246**	**0.4886**	**2.2700e-003**	**0.1133**	**5.5100e-003**	**0.1188**	**0.0309**	**5.2600e-003**	**0.0362**	**0.0000**	**212.8236**	**212.8236**	**0.0112**	**0.0000**	**213.1027**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2300e-003	0.0229	0.0189	3.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	2.5000	2.5000	7.8000e-004	0.0000	2.5194
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.2300e-003**	**0.0229**	**0.0189**	**3.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**2.5000**	**2.5000**	**7.8000e-004**	**0.0000**	**2.5194**

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7700e-003	0.0000	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.4035	0.4035	1.0000e-005	0.0000	0.4038
Total	**2.3000e-004**	**1.8000e-004**	**1.7700e-003**	**0.0000**	**4.3000e-004**	**0.0000**	**4.3000e-004**	**1.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4035**	**0.4035**	**1.0000e-005**	**0.0000**	**0.4038**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	-0.0011	1.9600e-003	0.0208	3.0000e-005		-0.0014	-0.0014		-0.0013	-0.0013	0.0000	2.5000	2.5000	7.8000e-004	0.0000	2.5194
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**-0.0011**	**1.9600e-003**	**0.0208**	**3.0000e-005**		**-0.0014**	**-0.0014**		**-0.0013**	**-0.0013**	**0.0000**	**2.5000**	**2.5000**	**7.8000e-004**	**0.0000**	**2.5194**

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7700e-003	0.0000	4.3000e-004	0.0000	4.3000e-004	1.1000e-004	0.0000	1.2000e-004	0.0000	0.4035	0.4035	1.0000e-005	0.0000	0.4038
Total	**2.3000e-004**	**1.8000e-004**	**1.7700e-003**	**0.0000**	**4.3000e-004**	**0.0000**	**4.3000e-004**	**1.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4035**	**0.4035**	**1.0000e-005**	**0.0000**	**0.4038**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0262	0.2696	0.2489	3.7000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	32.7905	32.7905	0.0104	0.0000	33.0499
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0262**	**0.2696**	**0.2489**	**3.7000e-004**		**0.0160**	**0.0160**		**0.0147**	**0.0147**	**0.0000**	**32.7905**	**32.7905**	**0.0104**	**0.0000**	**33.0499**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7300e-003	2.0800e-003	0.0210	6.0000e-005	5.6900e-003	4.0000e-005	5.7300e-003	1.5100e-003	4.0000e-005	1.5500e-003	0.0000	5.2221	5.2221	1.5000e-004	0.0000	5.2258
Total	**2.7300e-003**	**2.0800e-003**	**0.0210**	**6.0000e-005**	**5.6900e-003**	**4.0000e-005**	**5.7300e-003**	**1.5100e-003**	**4.0000e-005**	**1.5500e-003**	**0.0000**	**5.2221**	**5.2221**	**1.5000e-004**	**0.0000**	**5.2258**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	-0.0106	0.0568	0.2803	3.7000e-004		-0.0153	-0.0153		-0.0139	-0.0139	0.0000	32.7905	32.7905	0.0104	0.0000	33.0498
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**-0.0106**	**0.0568**	**0.2803**	**3.7000e-004**		**-0.0153**	**-0.0153**		**-0.0139**	**-0.0139**	**0.0000**	**32.7905**	**32.7905**	**0.0104**	**0.0000**	**33.0498**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7300e-003	2.0800e-003	0.0210	6.0000e-005	5.6900e-003	4.0000e-005	5.7300e-003	1.5100e-003	4.0000e-005	1.5500e-003	0.0000	5.2221	5.2221	1.5000e-004	0.0000	5.2258
Total	**2.7300e-003**	**2.0800e-003**	**0.0210**	**6.0000e-005**	**5.6900e-003**	**4.0000e-005**	**5.7300e-003**	**1.5100e-003**	**4.0000e-005**	**1.5500e-003**	**0.0000**	**5.2221**	**5.2221**	**1.5000e-004**	**0.0000**	**5.2258**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6828					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0231	0.1588	0.1593	2.6000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	22.0856	22.0856	1.8700e-003	0.0000	22.1323
Total	**1.7058**	**0.1588**	**0.1593**	**2.6000e-004**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**22.0856**	**22.0856**	**1.8700e-003**	**0.0000**	**22.1323**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8800e-003	5.2400e-003	0.0530	1.5000e-004	0.0144	1.0000e-004	0.0145	3.8200e-003	9.0000e-005	3.9200e-003	0.0000	13.1749	13.1749	3.8000e-004	0.0000	13.1843
Total	**6.8800e-003**	**5.2400e-003**	**0.0530**	**1.5000e-004**	**0.0144**	**1.0000e-004**	**0.0145**	**3.8200e-003**	**9.0000e-005**	**3.9200e-003**	**0.0000**	**13.1749**	**13.1749**	**3.8000e-004**	**0.0000**	**13.1843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6828					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7100e-003	0.0917	0.1585	2.6000e-004		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	22.0856	22.0856	1.8700e-003	0.0000	22.1323
Total	**1.6875**	**0.0917**	**0.1585**	**2.6000e-004**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**22.0856**	**22.0856**	**1.8700e-003**	**0.0000**	**22.1323**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8800e-003	5.2400e-003	0.0530	1.5000e-004	0.0144	1.0000e-004	0.0145	3.8200e-003	9.0000e-005	3.9200e-003	0.0000	13.1749	13.1749	3.8000e-004	0.0000	13.1843
Total	**6.8800e-003**	**5.2400e-003**	**0.0530**	**1.5000e-004**	**0.0144**	**1.0000e-004**	**0.0145**	**3.8200e-003**	**9.0000e-005**	**3.9200e-003**	**0.0000**	**13.1749**	**13.1749**	**3.8000e-004**	**0.0000**	**13.1843**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5964	3.8396	6.5509	0.0221	1.6332	0.0268	1.6601	0.4391	0.0253	0.4644	0.0000	2,037.4906	2,037.4906	0.0934	0.0000	2,039.8246
Unmitigated	0.5964	3.8396	6.5509	0.0221	1.6332	0.0268	1.6601	0.4391	0.0253	0.4644	0.0000	2,037.4906	2,037.4906	0.0934	0.0000	2,039.8246

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	2,183.82	487.38	209.32	3,965,547	3,965,547
Regional Shopping Center	236.80	277.20	140.00	401,056	401,056
Total	2,420.62	764.58	349.32	4,366,603	4,366,603

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Enclosed Parking with Elevator	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Regional Shopping Center	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	635.8418	635.8418	0.0528	0.0109	640.4202
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	635.8418	635.8418	0.0528	0.0109	640.4202
NaturalGas Mitigated	0.0314	0.2855	0.2398	1.7100e-003		0.0217	0.0217		0.0217	0.0217	0.0000	310.7843	310.7843	5.9600e-003	5.7000e-003	312.6311
NaturalGas Unmitigated	0.0314	0.2855	0.2398	1.7100e-003		0.0217	0.0217		0.0217	0.0217	0.0000	310.7843	310.7843	5.9600e-003	5.7000e-003	312.6311

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	5.77968e+006	0.0312	0.2833	0.2380	1.7000e-003		0.0215	0.0215		0.0215	0.0215	0.0000	308.4256	308.4256	5.9100e-003	5.6500e-003	310.2584
Regional Shopping Center	44200	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3587	2.3587	5.0000e-005	4.0000e-005	2.3727
Total		**0.0314**	**0.2855**	**0.2398**	**1.7100e-003**		**0.0217**	**0.0217**		**0.0217**	**0.0217**	**0.0000**	**310.7843**	**310.7843**	**5.9600e-003**	**5.6900e-003**	**312.6311**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	5.77968e+006	0.0312	0.2833	0.2380	1.7000e-003		0.0215	0.0215		0.0215	0.0215	0.0000	308.4256	308.4256	5.9100e-003	5.6500e-003	310.2584
Regional Shopping Center	44200	2.4000e-004	2.1700e-003	1.8200e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3587	2.3587	5.0000e-005	4.0000e-005	2.3727
Total		**0.0314**	**0.2855**	**0.2398**	**1.7100e-003**		**0.0217**	**0.0217**		**0.0217**	**0.0217**	**0.0000**	**310.7843**	**310.7843**	**5.9600e-003**	**5.6900e-003**	**312.6311**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	48619.8	7.6967	6.4000e-004	1.3000e-004	7.7521
General Office Building	3.86457e+006	611.7764	0.0508	0.0105	616.1816
Regional Shopping Center	103400	16.3686	1.3600e-003	2.8000e-004	16.4865
Total		**635.8418**	**0.0528**	**0.0109**	**640.4202**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	48619.8	7.6967	6.4000e-004	1.3000e-004	7.7521
General Office Building	3.86457e+006	611.7764	0.0508	0.0105	616.1816
Regional Shopping Center	103400	16.3686	1.3600e-003	2.8000e-004	16.4865
Total		**635.8418**	**0.0528**	**0.0109**	**640.4202**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4283	3.0000e-005	3.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.9000e-003	5.9000e-003	2.0000e-005	0.0000	6.2900e-003
Unmitigated	1.4283	3.0000e-005	3.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.9000e-003	5.9000e-003	2.0000e-005	0.0000	6.2900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1683					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2597					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.9000e-004	3.0000e-005	3.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.9000e-003	5.9000e-003	2.0000e-005	0.0000	6.2900e-003
Total	**1.4283**	**3.0000e-005**	**3.0500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.9000e-003**	**5.9000e-003**	**2.0000e-005**	**0.0000**	**6.2900e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1683					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2597					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.9000e-004	3.0000e-005	3.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.9000e-003	5.9000e-003	2.0000e-005	0.0000	6.2900e-003
Total	**1.4283**	**3.0000e-005**	**3.0500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.9000e-003**	**5.9000e-003**	**2.0000e-005**	**0.0000**	**6.2900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	73.5930	0.0596	0.0356	85.6996
Unmitigated	73.5930	0.0596	0.0356	85.6996

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	44.4221 / 34.033	72.6242	0.0588	0.0352	84.5715
Regional Shopping Center	0.59258 / 0.453993	0.9688	7.8000e-004	4.7000e-004	1.1282
Total		**73.5930**	**0.0596**	**0.0356**	**85.6996**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	44.4221 / 34.033	72.6242	0.0588	0.0352	84.5715
Regional Shopping Center	0.59258 / 0.453993	0.9688	7.8000e-004	4.7000e-004	1.1282
Total		**73.5930**	**0.0596**	**0.0356**	**85.6996**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.3333	0.4334	0.0000	18.1678
Unmitigated	7.3333	0.4334	0.0000	18.1678

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	34.866	7.0775	0.4183	0.0000	17.5342
Regional Shopping Center	1.26	0.2558	0.0151	0.0000	0.6337
Total		**7.3333**	**0.4334**	**0.0000**	**18.1678**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	34.866	7.0775	0.4183	0.0000	17.5342
Regional Shopping Center	1.26	0.2558	0.0151	0.0000	0.6337
Total		**7.3333**	**0.4334**	**0.0000**	**18.1678**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	50	750	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0308	0.1376	0.0785	1.5000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	14.2799	14.2799	2.0000e-003	0.0000	14.3300
Total	**0.0308**	**0.1376**	**0.0785**	**1.5000e-004**		**4.5300e-003**	**4.5300e-003**		**4.5300e-003**	**4.5300e-003**	**0.0000**	**14.2799**	**14.2799**	**2.0000e-003**	**0.0000**	**14.3300**

11.0 Vegetation

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1100 Broadway-2005

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	312.42	1000sqft	0.50	312,415.00	0
Enclosed Parking with Elevator	7.59	1000sqft	0.00	7,585.00	0
Regional Shopping Center	10.00	1000sqft	0.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - BAU Scenario using PG&E's GHG emission factor fo 2005

Land Use - Project data

Construction Phase - Project schedule as provided by applicant. No demolition and site prep assumed.

Off-road Equipment -

Off-road Equipment - provided by applicant.

Off-road Equipment - No demolition

Off-road Equipment - Provided by applicant

Off-road Equipment - Provided by applicant

Off-road Equipment - No site prep

Trips and VMT -

Grading - Project data

Vehicle Trips - Adjusted based on project traffic analysis

Energy Use -

Water And Wastewater -
100 percent aerobic treatment of wastewater assumed

Construction Off-road Equipment Mitigation - Tier 4 equipment assumed in compliance with BACT requirements of SCA-19(w)

Stationary Sources - Emergency Generators and Fire Pumps -

Area Coating -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	250
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	250
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	250

tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	250
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	12/14/2004	11/30/2004
tblLandUse	BuildingSpaceSquareFeet	312,420.00	312,415.00
tblLandUse	BuildingSpaceSquareFeet	7,590.00	7,585.00
tblLandUse	LandUseSquareFeet	312,420.00	312,415.00
tblLandUse	LandUseSquareFeet	7,590.00	7,585.00
tblLandUse	LotAcreage	7.17	0.50
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	0.23	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,259.00
tblVehicleTrips	ST_TR	2.46	1.56
tblVehicleTrips	ST_TR	49.97	27.72
tblVehicleTrips	SU_TR	1.05	0.67
tblVehicleTrips	SU_TR	25.24	14.00
tblVehicleTrips	WD_TR	11.03	6.99
tblVehicleTrips	WD_TR	42.70	23.68
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2004	0.1029	0.9382	0.5063	6.6900e-003	0.0177	0.0403	0.0580	5.0200e-003	0.0391	0.0441	0.0000	71.6876	71.6876	9.9100e-003	0.0000	71.9354
2005	1.9712	1.7943	1.4274	0.0131	0.0544	0.1016	0.1561	0.0149	0.1006	0.1154	0.0000	163.7571	163.7571	0.0296	0.0000	164.4962
Maximum	**1.9712**	**1.7943**	**1.4274**	**0.0131**	**0.0544**	**0.1016**	**0.1561**	**0.0149**	**0.1006**	**0.1154**	**0.0000**	**163.7571**	**163.7571**	**0.0296**	**0.0000**	**164.4962**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2004	0.1029	0.9382	0.5063	6.6900e-003	0.0177	0.0403	0.0580	5.0200e-003	0.0391	0.0441	0.0000	71.6876	71.6876	9.9100e-003	0.0000	71.9354
2005	1.9712	1.7943	1.4274	0.0131	0.0544	0.1016	0.1561	0.0149	0.1006	0.1154	0.0000	163.7570	163.7570	0.0296	0.0000	164.4961
Maximum	**1.9712**	**1.7943**	**1.4274**	**0.0131**	**0.0544**	**0.1016**	**0.1561**	**0.0149**	**0.1006**	**0.1154**	**0.0000**	**163.7570**	**163.7570**	**0.0296**	**0.0000**	**164.4961**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**12-1-2004**	**2-28-2005**	1.7794	1.7794
2	**3-1-2005**	**5-31-2005**	2.8189	2.8189
		Highest	2.8189	2.8189

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0400	0.3639	0.3057	2.1800e-003		0.0277	0.0277		0.0277	0.0277	0.0000	1,769.6291	1,769.6291	0.0697	0.0201	1,777.3649
Mobile	2.4126	10.3784	27.5081	0.0754	1.6410	0.2326	1.8736	0.4426	0.2216	0.6642	0.0000	2,280.4699	2,280.4699	0.3211	0.0000	2,288.4968
Stationary	0.0308	0.1376	0.0785	1.5000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	14.2799	14.2799	2.0000e-003	0.0000	14.3300
Waste						0.0000	0.0000		0.0000	0.0000	61.1104	0.0000	61.1104	3.6115	0.0000	151.3985
Water						0.0000	0.0000		0.0000	0.0000	19.9078	123.6875	143.5953	0.0741	0.0445	158.6943
Total	**4.1168**	**10.8799**	**27.8923**	**0.0777**	**1.6410**	**0.2648**	**1.9058**	**0.4426**	**0.2538**	**0.6963**	**81.0182**	**4,188.0664**	**4,269.0846**	**4.0784**	**0.0646**	**4,390.2844**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0400	0.3639	0.3057	2.1800e-003		0.0277	0.0277		0.0277	0.0277	0.0000	1,769.6291	1,769.6291	0.0697	0.0201	1,777.3649
Mobile	2.4126	10.3784	27.5081	0.0754	1.6410	0.2326	1.8736	0.4426	0.2216	0.6642	0.0000	2,280.4699	2,280.4699	0.3211	0.0000	2,288.4968
Stationary	0.0308	0.1376	0.0785	1.5000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	14.2799	14.2799	2.0000e-003	0.0000	14.3300
Waste						0.0000	0.0000		0.0000	0.0000	61.1104	0.0000	61.1104	3.6115	0.0000	151.3985
Water						0.0000	0.0000		0.0000	0.0000	19.9078	123.6875	143.5953	0.0741	0.0445	158.6943
Total	**4.1168**	**10.8799**	**27.8923**	**0.0777**	**1.6410**	**0.2648**	**1.9058**	**0.4426**	**0.2538**	**0.6963**	**81.0182**	**4,188.0664**	**4,269.0846**	**4.0784**	**0.0646**	**4,390.2844**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/1/2004	11/30/2004	5	0	
2	Site Preparation	Site Preparation	12/15/2004	12/15/2004	5	1	
3	Grading	Grading	12/16/2004	12/17/2004	5	2	
4	Building Construction	Building Construction	12/18/2004	5/6/2005	5	100	
5	Paving	Paving	5/7/2005	5/13/2005	5	5	
6	Architectural Coating	Architectural Coating	5/14/2005	5/20/2005	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 483,623; Non-Residential Outdoor: 161,208; Striped Parking Area: 455 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,259.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	106.00	54.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2004

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2004

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2004

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	9.3600e-003	3.4600e-003	6.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.5117	0.5117	1.0000e-004	0.0000	0.5143
Total	**1.2700e-003**	**9.3600e-003**	**3.4600e-003**	**6.0000e-005**	**2.7000e-004**	**5.7000e-004**	**8.4000e-004**	**3.0000e-005**	**5.7000e-004**	**6.0000e-004**	**0.0000**	**0.5117**	**0.5117**	**1.0000e-004**	**0.0000**	**0.5143**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	7.0000e-005	5.6000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0211	0.0211	0.0000	0.0000	0.0212
Total	**5.0000e-005**	**7.0000e-005**	**5.6000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0211**	**0.0211**	**0.0000**	**0.0000**	**0.0212**

3.3 Site Preparation - 2004

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	9.3600e-003	3.4600e-003	6.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.5117	0.5117	1.0000e-004	0.0000	0.5143
Total	**1.2700e-003**	**9.3600e-003**	**3.4600e-003**	**6.0000e-005**	**2.7000e-004**	**5.7000e-004**	**8.4000e-004**	**3.0000e-005**	**5.7000e-004**	**6.0000e-004**	**0.0000**	**0.5117**	**0.5117**	**1.0000e-004**	**0.0000**	**0.5143**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	7.0000e-005	5.6000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0211	0.0211	0.0000	0.0000	0.0212
Total	**5.0000e-005**	**7.0000e-005**	**5.6000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0211**	**0.0211**	**0.0000**	**0.0000**	**0.0212**

3.4 Grading - 2004

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6700e-003	0.0219	9.5800e-003	1.3000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	1.1395	1.1395	3.0000e-004	0.0000	1.1469
Total	**3.6700e-003**	**0.0219**	**9.5800e-003**	**1.3000e-004**	**7.5000e-004**	**1.7400e-003**	**2.4900e-003**	**4.1000e-004**	**1.7400e-003**	**2.1500e-003**	**0.0000**	**1.1395**	**1.1395**	**3.0000e-004**	**0.0000**	**1.1469**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0576	0.6858	0.2644	5.0700e-003	0.0106	0.0256	0.0363	2.9300e-003	0.0245	0.0274	0.0000	52.1477	52.1477	6.0300e-003	0.0000	52.2984
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	2.7000e-004	2.2400e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0844	0.0844	1.0000e-005	0.0000	0.0848
Total	**0.0578**	**0.6861**	**0.2667**	**5.0700e-003**	**0.0107**	**0.0256**	**0.0364**	**2.9500e-003**	**0.0245**	**0.0275**	**0.0000**	**52.2322**	**52.2322**	**6.0400e-003**	**0.0000**	**52.3832**

3.4 Grading - 2004

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6700e-003	0.0219	9.5800e-003	1.3000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	1.1395	1.1395	3.0000e-004	0.0000	1.1469
Total	**3.6700e-003**	**0.0219**	**9.5800e-003**	**1.3000e-004**	**7.5000e-004**	**1.7400e-003**	**2.4900e-003**	**4.1000e-004**	**1.7400e-003**	**2.1500e-003**	**0.0000**	**1.1395**	**1.1395**	**3.0000e-004**	**0.0000**	**1.1469**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0576	0.6858	0.2644	5.0700e-003	0.0106	0.0256	0.0363	2.9300e-003	0.0245	0.0274	0.0000	52.1477	52.1477	6.0300e-003	0.0000	52.2984
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	2.7000e-004	2.2400e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0844	0.0844	1.0000e-005	0.0000	0.0848
Total	**0.0578**	**0.6861**	**0.2667**	**5.0700e-003**	**0.0107**	**0.0256**	**0.0364**	**2.9500e-003**	**0.0245**	**0.0275**	**0.0000**	**52.2322**	**52.2322**	**6.0400e-003**	**0.0000**	**52.3832**

3.5 Building Construction - 2004

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0185	0.1134	0.0484	6.9000e-004		8.9200e-003	8.9200e-003		8.9200e-003	8.9200e-003	0.0000	6.0001	6.0001	1.5000e-003	0.0000	6.0377
Total	**0.0185**	**0.1134**	**0.0484**	**6.9000e-004**		**8.9200e-003**	**8.9200e-003**		**8.9200e-003**	**8.9200e-003**	**0.0000**	**6.0001**	**6.0001**	**1.5000e-003**	**0.0000**	**6.0377**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0102	0.0932	0.0587	6.7000e-004	1.7700e-003	3.2900e-003	5.0700e-003	5.1000e-004	3.1500e-003	3.6600e-003	0.0000	7.3082	7.3082	1.2600e-003	0.0000	7.3397
Worker	0.0114	0.0142	0.1190	8.0000e-005	4.1900e-003	1.6000e-004	4.3500e-003	1.1100e-003	1.5000e-004	1.2700e-003	0.0000	4.4749	4.4749	7.0000e-004	0.0000	4.4924
Total	**0.0216**	**0.1074**	**0.1777**	**7.5000e-004**	**5.9600e-003**	**3.4500e-003**	**9.4200e-003**	**1.6200e-003**	**3.3000e-003**	**4.9300e-003**	**0.0000**	**11.7830**	**11.7830**	**1.9600e-003**	**0.0000**	**11.8321**

3.5 Building Construction - 2004

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0185	0.1134	0.0484	6.9000e-004		8.9200e-003	8.9200e-003		8.9200e-003	8.9200e-003	0.0000	6.0001	6.0001	1.5000e-003	0.0000	6.0376
Total	**0.0185**	**0.1134**	**0.0484**	**6.9000e-004**		**8.9200e-003**	**8.9200e-003**		**8.9200e-003**	**8.9200e-003**	**0.0000**	**6.0001**	**6.0001**	**1.5000e-003**	**0.0000**	**6.0376**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0102	0.0932	0.0587	6.7000e-004	1.7700e-003	3.2900e-003	5.0700e-003	5.1000e-004	3.1500e-003	3.6600e-003	0.0000	7.3082	7.3082	1.2600e-003	0.0000	7.3397
Worker	0.0114	0.0142	0.1190	8.0000e-005	4.1900e-003	1.6000e-004	4.3500e-003	1.1100e-003	1.5000e-004	1.2700e-003	0.0000	4.4749	4.4749	7.0000e-004	0.0000	4.4924
Total	**0.0216**	**0.1074**	**0.1777**	**7.5000e-004**	**5.9600e-003**	**3.4500e-003**	**9.4200e-003**	**1.6200e-003**	**3.3000e-003**	**4.9300e-003**	**0.0000**	**11.7830**	**11.7830**	**1.9600e-003**	**0.0000**	**11.8321**

3.5 Building Construction - 2005

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1421	0.8736	0.3955	6.1800e-003		0.0734	0.0734		0.0734	0.0734	0.0000	54.0009	54.0009	0.0116	0.0000	54.2908
Total	**0.1421**	**0.8736**	**0.3955**	**6.1800e-003**		**0.0734**	**0.0734**		**0.0734**	**0.0734**	**0.0000**	**54.0009**	**54.0009**	**0.0116**	**0.0000**	**54.2908**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0737	0.7956	0.3933	6.0800e-003	0.0160	0.0230	0.0390	4.6100e-003	0.0220	0.0267	0.0000	65.8366	65.8366	0.0124	0.0000	66.1465
Worker	0.0626	0.0679	0.5999	4.5000e-004	0.0377	8.5000e-004	0.0386	0.0100	7.8000e-004	0.0108	0.0000	39.7211	39.7211	4.7500e-003	0.0000	39.8399
Total	**0.1363**	**0.8636**	**0.9932**	**6.5300e-003**	**0.0537**	**0.0239**	**0.0775**	**0.0146**	**0.0228**	**0.0375**	**0.0000**	**105.5577**	**105.5577**	**0.0171**	**0.0000**	**105.9863**

3.5 Building Construction - 2005

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1421	0.8736	0.3955	6.1800e-003		0.0734	0.0734		0.0734	0.0734	0.0000	54.0008	54.0008	0.0116	0.0000	54.2908
Total	**0.1421**	**0.8736**	**0.3955**	**6.1800e-003**		**0.0734**	**0.0734**		**0.0734**	**0.0734**	**0.0000**	**54.0008**	**54.0008**	**0.0116**	**0.0000**	**54.2908**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0737	0.7956	0.3933	6.0800e-003	0.0160	0.0230	0.0390	4.6100e-003	0.0220	0.0267	0.0000	65.8366	65.8366	0.0124	0.0000	66.1465
Worker	0.0626	0.0679	0.5999	4.5000e-004	0.0377	8.5000e-004	0.0386	0.0100	7.8000e-004	0.0108	0.0000	39.7211	39.7211	4.7500e-003	0.0000	39.8399
Total	**0.1363**	**0.8636**	**0.9932**	**6.5300e-003**	**0.0537**	**0.0239**	**0.0775**	**0.0146**	**0.0228**	**0.0375**	**0.0000**	**105.5577**	**105.5577**	**0.0171**	**0.0000**	**105.9863**

3.6 Paving - 2005

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.9900e-003	0.0450	0.0213	3.3000e-004		3.4000e-003	3.4000e-003		3.4000e-003	3.4000e-003	0.0000	2.7483	2.7483	5.7000e-004	0.0000	2.7625
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.9900e-003**	**0.0450**	**0.0213**	**3.3000e-004**		**3.4000e-003**	**3.4000e-003**		**3.4000e-003**	**3.4000e-003**	**0.0000**	**2.7483**	**2.7483**	**5.7000e-004**	**0.0000**	**2.7625**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	6.4000e-004	5.6600e-003	0.0000	3.6000e-004	1.0000e-005	3.6000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.3747	0.3747	4.0000e-005	0.0000	0.3759
Total	**5.9000e-004**	**6.4000e-004**	**5.6600e-003**	**0.0000**	**3.6000e-004**	**1.0000e-005**	**3.6000e-004**	**9.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**0.3747**	**0.3747**	**4.0000e-005**	**0.0000**	**0.3759**

3.6 Paving - 2005

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.9900e-003	0.0450	0.0213	3.3000e-004		3.4000e-003	3.4000e-003		3.4000e-003	3.4000e-003	0.0000	2.7483	2.7483	5.7000e-004	0.0000	2.7625
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.9900e-003**	**0.0450**	**0.0213**	**3.3000e-004**		**3.4000e-003**	**3.4000e-003**		**3.4000e-003**	**3.4000e-003**	**0.0000**	**2.7483**	**2.7483**	**5.7000e-004**	**0.0000**	**2.7625**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	6.4000e-004	5.6600e-003	0.0000	3.6000e-004	1.0000e-005	3.6000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.3747	0.3747	4.0000e-005	0.0000	0.3759
Total	**5.9000e-004**	**6.4000e-004**	**5.6600e-003**	**0.0000**	**3.6000e-004**	**1.0000e-005**	**3.6000e-004**	**9.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**0.3747**	**0.3747**	**4.0000e-005**	**0.0000**	**0.3759**

3.7 Architectural Coating - 2005

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6828					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8800e-003	0.0107	5.2000e-003	7.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	0.6383	0.6383	1.5000e-004	0.0000	0.6422
Total	**1.6847**	**0.0107**	**5.2000e-003**	**7.0000e-005**		**9.6000e-004**	**9.6000e-004**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**0.6383**	**0.6383**	**1.5000e-004**	**0.0000**	**0.6422**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	7.5000e-004	6.6000e-003	0.0000	4.2000e-004	1.0000e-005	4.2000e-004	1.1000e-004	1.0000e-005	1.2000e-004	0.0000	0.4372	0.4372	5.0000e-005	0.0000	0.4385
Total	**6.9000e-004**	**7.5000e-004**	**6.6000e-003**	**0.0000**	**4.2000e-004**	**1.0000e-005**	**4.2000e-004**	**1.1000e-004**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**0.4372**	**0.4372**	**5.0000e-005**	**0.0000**	**0.4385**

3.7 Architectural Coating - 2005

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6828					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8800e-003	0.0107	5.2000e-003	7.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	0.6383	0.6383	1.5000e-004	0.0000	0.6422
Total	**1.6847**	**0.0107**	**5.2000e-003**	**7.0000e-005**		**9.6000e-004**	**9.6000e-004**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**0.6383**	**0.6383**	**1.5000e-004**	**0.0000**	**0.6422**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	7.5000e-004	6.6000e-003	0.0000	4.2000e-004	1.0000e-005	4.2000e-004	1.1000e-004	1.0000e-005	1.2000e-004	0.0000	0.4372	0.4372	5.0000e-005	0.0000	0.4385
Total	**6.9000e-004**	**7.5000e-004**	**6.6000e-003**	**0.0000**	**4.2000e-004**	**1.0000e-005**	**4.2000e-004**	**1.1000e-004**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**0.4372**	**0.4372**	**5.0000e-005**	**0.0000**	**0.4385**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4126	10.3784	27.5081	0.0754	1.6410	0.2326	1.8736	0.4426	0.2216	0.6642	0.0000	2,280.4699	2,280.4699	0.3211	0.0000	2,288.4968
Unmitigated	2.4126	10.3784	27.5081	0.0754	1.6410	0.2326	1.8736	0.4426	0.2216	0.6642	0.0000	2,280.4699	2,280.4699	0.3211	0.0000	2,288.4968

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	2,183.82	487.38	209.32	3,965,547	3,965,547
Regional Shopping Center	236.80	277.20	140.00	401,056	401,056
Total	2,420.62	764.58	349.32	4,366,603	4,366,603

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.540639	0.064683	0.171972	0.117999	0.030504	0.004760	0.020161	0.036194	0.001764	0.004728	0.005037	0.000261	0.001298
Enclosed Parking with Elevator	0.540639	0.064683	0.171972	0.117999	0.030504	0.004760	0.020161	0.036194	0.001764	0.004728	0.005037	0.000261	0.001298
Regional Shopping Center	0.540639	0.064683	0.171972	0.117999	0.030504	0.004760	0.020161	0.036194	0.001764	0.004728	0.005037	0.000261	0.001298

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,373.4738	1,373.4738	0.0621	0.0129	1,378.8555
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,373.4738	1,373.4738	0.0621	0.0129	1,378.8555
NaturalGas Mitigated	0.0400	0.3639	0.3057	2.1800e-003		0.0277	0.0277		0.0277	0.0277	0.0000	396.1553	396.1553	7.5900e-003	7.2600e-003	398.5095
NaturalGas Unmitigated	0.0400	0.3639	0.3057	2.1800e-003		0.0277	0.0277		0.0277	0.0277	0.0000	396.1553	396.1553	7.5900e-003	7.2600e-003	398.5095

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	7.36987e+006	0.0397	0.3613	0.3035	2.1700e-003		0.0275	0.0275		0.0275	0.0275	0.0000	393.2843	393.2843	7.5400e-003	7.2100e-003	395.6214
Regional Shopping Center	53800	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8710	2.8710	6.0000e-005	5.0000e-005	2.8880
Total		**0.0400**	**0.3639**	**0.3057**	**2.1900e-003**		**0.0277**	**0.0277**		**0.0277**	**0.0277**	**0.0000**	**396.1553**	**396.1553**	**7.6000e-003**	**7.2600e-003**	**398.5094**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	7.36987e+006	0.0397	0.3613	0.3035	2.1700e-003		0.0275	0.0275		0.0275	0.0275	0.0000	393.2843	393.2843	7.5400e-003	7.2100e-003	395.6214
Regional Shopping Center	53800	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8710	2.8710	6.0000e-005	5.0000e-005	2.8880
Total		**0.0400**	**0.3639**	**0.3057**	**2.1900e-003**		**0.0277**	**0.0277**		**0.0277**	**0.0277**	**0.0000**	**396.1553**	**396.1553**	**7.6000e-003**	**7.2600e-003**	**398.5094**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	51115.1	14.8700	6.7000e-004	1.4000e-004	14.9282
General Office Building	4.54876e+006	1,323.2871	0.0598	0.0124	1,328.4722
Regional Shopping Center	121400	35.3167	1.6000e-003	3.3000e-004	35.4550
Total		**1,373.4738**	**0.0621**	**0.0129**	**1,378.8554**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	51115.1	14.8700	6.7000e-004	1.4000e-004	14.9282
General Office Building	4.54876e+006	1,323.2871	0.0598	0.0124	1,328.4722
Regional Shopping Center	121400	35.3167	1.6000e-003	3.3000e-004	35.4550
Total		**1,373.4738**	**0.0621**	**0.0129**	**1,378.8554**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	1.6334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3738					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2597					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6334**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3738					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2597					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6334**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	143.5953	0.0741	0.0445	158.6943
Unmitigated	143.5953	0.0741	0.0445	158.6943

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	55.5276 / 34.033	141.7050	0.0731	0.0439	156.6052
Regional Shopping Center	0.740725 / 0.453993	1.8903	9.8000e-004	5.9000e-004	2.0891
Total		**143.5953**	**0.0741**	**0.0445**	**158.6943**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	55.5276 / 34.033	141.7050	0.0731	0.0439	156.6052
Regional Shopping Center	0.740725 / 0.453993	1.8903	9.8000e-004	5.9000e-004	2.0891
Total		**143.5953**	**0.0741**	**0.0445**	**158.6943**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	61.1104	3.6115	0.0000	151.3985
Unmitigated	61.1104	3.6115	0.0000	151.3985

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	290.55	58.9790	3.4856	0.0000	146.1180
Regional Shopping Center	10.5	2.1314	0.1260	0.0000	5.2805
Total		**61.1104**	**3.6115**	**0.0000**	**151.3985**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	290.55	58.9790	3.4856	0.0000	146.1180
Regional Shopping Center	10.5	2.1314	0.1260	0.0000	5.2805
Total		**61.1104**	**3.6115**	**0.0000**	**151.3985**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	50	750	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0308	0.1376	0.0785	1.5000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	14.2799	14.2799	2.0000e-003	0.0000	14.3300
Total	**0.0308**	**0.1376**	**0.0785**	**1.5000e-004**		**4.5300e-003**	**4.5300e-003**		**4.5300e-003**	**4.5300e-003**	**0.0000**	**14.2799**	**14.2799**	**2.0000e-003**	**0.0000**	**14.3300**

11.0 Vegetation

Appendix D
Evaluation of the 1100 Broadway Project for Consistency with the Secretary of the Interior's Standards for Rehabilitation

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ESA Community Development

180 Grand Avenue
Suite 1050
Oakland, CA 94612
510.839.5066 phone
510.839.5825 fax

www.esassoc.com

1100 BROADWAY

Evaluation of the 1100 Broadway Project for Consistency with the Secretary of the Interior's Standards for Rehabilitation

1. Introduction

As the existing building at 1100 Broadway—also known as the Key System Building—is individually listed in the National Register of Historic Places (National Register), is an Oakland Landmark and listed in the City of Oakland Local Register, and as the building is a contributor to the locally designated Downtown District Area of Primary Importance (API) and the National Register-listed Downtown Oakland Historic District, this evaluation considers whether the proposed project's design meets the Secretary of Interior's Standards for Rehabilitation (Standards). "Rehabilitation" is defined as "the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values." The intent of the Standards is to assist the long-term preservation of a property's significance through the preservation of historic materials and features. The Standards pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and interior of the buildings. They also encompass related landscape features and the building's site and environment, as well as attached, adjacent, or related new construction. As stated in the definition, the treatment "rehabilitation" assumes that at least some repair or alteration of the historic building will be needed in order to provide for an efficient contemporary use; however, these repairs and alterations must not damage or destroy materials, features or finishes that are important in defining the building's historic character.[1]

2. Consistency Evaluation

The Standards identify ten measures for determining the appropriateness of a proposed project with regards to the preservation of the historic materials and features. The proposed project, as presented in architectural drawings dated August 30, 2017, and the Outline Scope for Treatment of Exterior Materials (Alan R. Dreyfuss, AIA) dated February 13, 2006, and as addended on March 23, 2006,[2] is analyzed below for potential effects on the significance of the existing historic Key System Building in accordance with each standard and for its potential effects on the significance of the API and the Downtown Oakland Historic District in accordance with applicable Standards (3, 9).

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1 National Park Service Technical Preservation Services, "The Secretary of the Interior's Standards for Rehabilitation, Introduction to the Standards", https://www.nps.gov/tps/standards/rehabilitation/rehab/stand.htm; Accessed May 30, 2017.

2 The project sponsor has included the 2006 Outline Scope for the Treatment of Exterior Materials in the currently proposed revised project's exterior rehabilitation work.

Standard 1: A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

The Key System Building functioned historically as a ground-floor banking hall with upper-story offices for the Security Bank and Trust Company, which was absorbed by the Bank of Italy and ultimately became the Bank of America in 1929. It also later housed the offices of the Key Route System Transit Company. The proposed project will devote the ground floor and mezzanine levels of the Key System Building to retail/restaurant use, and the upper floors will be used as office space. Adjacent new construction will also be retail/restaurant use at the ground floor/mezzanine levels and office space at upper floors, and a conference space and fitness center will occupy the new basement. The uses of the proposed project are consistent with the historic use of the Key System Building and require minimal change to the property's remaining distinctive materials, features, spaces, and spatial relationships. *As designed, the proposed project is consistent with Rehabilitation Standard 1.*

Standard 2: The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

Distinctive elements of the Key System Building design, as identified in the 1981 National Register nomination, include the tripartite vertical composition, Renaissance Revival and Baroque stylistic details, terra cotta ornamentation, yellow brick cladding, window patterns and forms, the U-shaped plan above the rectangular ground floor, and the crowning cornice.[3] A comprehensive list of character-defining features was not identified as part of the nomination documentation.

An ESA architectural historian surveyed the Key System Building on May 23, 2017, for the purpose of identifying extant character-defining features. The following character-defining exterior features have been identified:

- Yellow/buff-colored brick on the west, south, and east façades,
- Terra cotta ornament (including the frieze above the second floor, flat spandrel panels above the third through fifth floors, window medallions, crests, muntin and window header units, window sills, friezes above the sixth and seventh floors),
- Tripartite vertical organization,
- Oversized metal cornice on south and west (primary) façades that has returns on the east (secondary) façade and the north wall,
- Cast iron transom windows at the second floor on south and west (primary) façades,
- Projecting wood balconies with balustrades, and
- Wood-sash windows on the south and west (primary) façades.

[3] The building is ornamented only on its two street-facing (primary) façades and part of the east (secondary) façade; the north wall and the northernmost bay of the east façade are clad in common red brick, and the north wall features irregularly placed windows.

The following character-defining interior features have also been identified (unless otherwise noted, the following refer to the first floor):

- Double-height volume,
- Ornamental plaster,
- Plaster walls,
- Ornamental plaster columns with plaster capitals,
- Ornamental plaster ceiling,
- Cast iron transom windows,
- Oversized (nearly floor-to-ceiling) windows (third through eighth floors)
- Iron balustrade, railing, and treads on the stairs (third through eighth floors), and
- Wood window sashes and frames (third through eighth floors).

The proposed project will retain and preserve nearly all of these features. Only the iron balustrade, railing, and stair treads on the third through eighth floors would be removed. All other character-defining features, spaces, and spatial relationships will be retained, including remaining distinctive materials, finishes, and volumes at the interior ground floor, mezzanine, and upper story floor spaces. *Because nearly all of the character-defining features will be retained, the proposed project is consistent with Rehabilitation Standard 2.*

Standard 3: Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

The proposed project will integrate new construction with the historic Key System Building in such a way that the new will be clearly differentiated from the old. With its glass curtain wall construction, the proposed office building is contemporary in its design. Furthermore, new construction will not replicate or emulate any of the distinctive elements that are identified with the Key System Building or other historic properties in the API or the Downtown Oakland Historic District. For these reasons it will not create a false sense of historical development in the context of the Key System Building, the API, or the Downtown Oakland Historic District. *As designed, the proposed project is consistent with Rehabilitation Standard 3.*

Standard 4: Changes to a property that have acquired historic significance in their own right will be retained and preserved.

A two-story annex was constructed on the building's north side in 1924; the annex was deemed a safety hazard and demolished in late 1998.[4] Extant physical remnants of the now-demolished annex include exposed concrete

4 Planning Commission staff report; Case File Number CMD07-390/ER07-0015, February 13, 2008.

columns abutting the Key System Building where the former annex ground floor and second story stood, and the outline of the former annex at the second story. Remnants of the annex located on the interior of the Key System Building include partially intact marble floors and wall panels and marble-clad stairs. Exterior alterations to the Key System Building itself have been made to the fenestration at the ground floor. In particular, the building's main entrance on the Broadway (west) façade was relocated from its original location in the center two bays to a location one bay to the left, apparently in conjunction with construction of the annex in 1924. This placed the entrance closer to the center of the expanded ground floor, which was widened to six bays by the addition of the annex.[5] Engaged columns that flanked the original main entrance and extended the full height of the building's base were removed, most likely as part of this ground floor renovation. While these changes were apparently related to construction of the historic annex, its subsequent demolition removed the significant context and associations for the changes, and they are not significant in their own right. Also, the decorative iron window frames at the ground floor have also been altered, having largely been replaced with anodized aluminum.[6,7] Additionally, extensive alterations have been made to the ground floor interior. Specifically, "a large proportion of the original ground-floor interior finishes has been demolished (by a prior owner) or severely deteriorated by years of standing vacant."[8] Alterations to the upper floors include changes to the floor plans and circulation spaces. The partially intact white and gray terrazzo flooring located on the third through eighth floors was a feature that once delineated the now-demolished hallways. Documentation of the Key System Building does not refer to any other alterations.[9,10,11] None of the abovementioned alterations have acquired historic significance in their own right.

As designed, the proposed project is consistent with Rehabilitation Standard 4.

Standard 5: Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

The proposed project will preserve the distinctive materials, features, and finishes that characterize the Key System Building on its west and south (primary) façades, and on parts of the east (secondary) façade, and the north wall. It appears that the building was originally designed to abut other buildings at the historic north and east lot lines. The property line walls in these locations have historically remained unfinished and unadorned and are clad in red pressed brick in an American, or common, bond pattern, as compared to the distinctive yellow brick cladding and cream-colored terra cotta ornament on the building's street-facing façades. At the east façade, the unornamented lower and rear wall portions likely abutted a property line and were anticipated to abut another building, while the upper, forward portion of the east façade, which is ornamented and set back approximately six feet from this same line, was likely anticipated to remain visible with adjacent development. At the north façade, an existing corner return of the upper cornice and entablature from the primary (Broadway) façade was

5 National Register nomination for the Key System Building, 1981.

6 DPR Form 523 for the Key System Building that accompanies Landmark Nomination Case Report to Oakland City Council, December 21, 1983.

7 Alan R. Dreyfuss, AIA, Security Bank and Trust Building, Outline Scope for Treatment of Exterior Materials, February 13, 2006.

8 Turnstone Consulting, 1100 Broadway, Key System Building, Draft V Historical Resources Design Analysis Memo, October 29, 2007.

9 National Register nomination for the Key System Building, 1981.

10 DPR Form 523 for the Key System Building that accompanies Landmark Nomination Case Report to Oakland City Council, December 21, 1983.

11 Downtown Oakland Central District Historic Survey, 1985.

also likely anticipated to remain visible with adjacent development. New construction will affect the unornamented north (rear) wall, all or most of which will be removed as part of the proposed project[12]. The existing property-line fenestration at the unadorned north and east walls – consisting of wood-sash windows of various sizes, one window per floor at the back of the east wall, and as many as six per floor on the north wall – is not distinctive or character defining and is proposed to be removed and infilled. The project proposes a recess measuring approximately three feet of the new building from the Broadway façade above the second floor that will allow for retention of the original historic building form and massing from corner to corner, and retention of the corner return of the upper cornice and entablature (approximately the rear half of the existing cornice and entablature return will be removed). Additionally, the narrow segment of remaining red-brick north wall will be clad in new metal siding, while the distinctive yellow brick cladding on the Broadway (west) façade would remain visible. *As designed, the proposed project is consistent with Rehabilitation Standard 5.*

Standard 6: Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Interior work at the ground floor will occur within the area designated as "preservation area," which is inclusive of the primary interior volume, and will include repairing all existing ornamental plaster at columns, capitals, walls, beams, and ceilings and replacing areas of missing plaster and replicating ornament as necessary to be compatible with the old. On the exterior, the existing main entrance on Broadway will be refurbished, while other non-historic, ground-floor storefront systems on the primary (west and south) façades will be replaced to be compatible with the old. All limestone pilasters and granite bases at the ground floor will be repaired, and in several locations, stucco and galvanized sheet metal flashing will be removed in order to install new limestone. All transom windows above the ground floor will be retained and refurbished. The stone cornice above the transom will be retained and repaired, and all exterior brick and terra cotta cladding and applied ornament will be repaired. The existing wood balconies at the seventh floor will be repaired. All double-hung, wood-sash windows on the west and south (primary) façades and east (secondary) façade will be repaired in place, and the sheet metal cornice that crowns the building will be repaired. At the roof level, non-character-defining features that will be removed include the penthouse and water tank structures and nearly all of the parapet on the north (rear) wall. (A small segment of the parapet will be retained at the west end of the north wall.) According to the 2006 Outline Scope for Treatment of Exterior Materials, "The Rehabilitation of the exterior façade of the Security Bank and Trust Building will conform to the Secretary of the Interior's Standards for Rehabilitation."[14] This includes the Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings and the National Park Service's Preservation Briefs, which provide in-depth guidance for appropriate treatment of building materials and architectural features. Pertinent Preservation Briefs for rehabilitation of the Key System Building include, but are not limited to:

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[12] The proposed project includes an option to retain a portion of the existing brick north wall as an interior feature at the ground floor/mezzanine. The project analysis assumes complete removal of the existing north wall, which is the potential greater scope of work.

[14] Alan R. Dreyfuss, AIA, Security Bank and Trust Building, Outline Scope for Treatment of Exterior Materials, February 13, 2006.

- *The Preservation of Historic Glazed Architectural Terra-Cotta,*
- *The Repair of Historic Wooden Windows,*
- *Preserving Historic Ornamental Plaster,*
- *Cleaning and Water-Repellent Treatments for Historic Masonry Buildings,* and
- *Repointing Mortar Joints in Historic Masonry Buildings.*

As designed, the proposed project is consistent with Rehabilitation Standard 6.

Standard 7: Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

The architectural drawings do not indicate that any potentially damaging physical or chemical treatments (such as sandblasting, high pressure water-blasting, paint stripping, etc.) are proposed, nor are there any known existing physical conditions which would require intensive or invasive treatments to historic fabric. The drawings (including previously approved plans and currently proposed plans) indicate that ordinary maintenance and repair to existing historic building materials, features, and elements is proposed to be undertaken in ways that are consistent with the Secretary's Standards. This includes the Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings and the National Park Service's Preservation Briefs, which provide in-depth guidance for appropriate treatment of building materials and architectural features. Pertinent Preservation Briefs for rehabilitation of the Key System Building include, but are not limited to:

- *The Preservation of Historic Glazed Architectural Terra-Cotta,*
- *The Repair of Historic Wooden Windows,*
- *Preserving Historic Ornamental Plaster,*
- *Cleaning and Water-Repellent Treatments for Historic Masonry Buildings, and*
- *Repointing Mortar Joints in Historic Masonry Buildings.*

As designed, the proposed project is consistent with Rehabilitation Standard 7.

Standard 8: Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

There are no known archeological resources on the subject property, and it may be noted that major excavations and earth disturbances previously occurred in order to construct the subterranean Bay Area Rapid Transit (BART) system directly below the property. If such resources are encountered during project construction, compliance with the City of Oakland Standard Conditions of Approval 29 (Archaeological and Paleontological Resources – Discovery During Construction), 30 (Archaeologically Sensitive Areas – Pre-Construction Measures), 31 (Human Remains – Discovery During Construction), and 32 (Property Relocation) would mitigate impacts and ensure appropriate treatments and/or disposition. *As conditioned, the proposed project is consistent with Rehabilitation Standard 8.*

Standard 9: New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

New construction will not destroy the character-defining features of the historic building. No major alterations to the primary (south and west) façades are proposed. The drawings identify several possible locations for new signage on the exterior of the Key System Building; future permitting procedures will address how the signage would physically attach to the building and other key considerations such as materiality, size, and message content.

New construction on the first and second floors will extend the plane of the Key System Building's Broadway (west) façade northward, effectively restoring the ground-level street-wall that was historically created by the now-demolished annex. New construction will be slightly recessed from the historic building on its north wall above the second floor, allowing for the return of the cornice at the roofline to be partially retained, preserved, and showcased and for the thoughtful and complementary joining of the new construction with the old at the Broadway façade.

The southernmost part of the tower addition is a cantilever that will project over the Key System Building and appear as if it is resting on the existing roof plane, although the cantilever will not be structurally supported by the historic building. According to the architectural drawings, the cantilever will be set back varying between approximately 24 and 27 feet from the 11th Street façade of the Key System Building, a distance equal to nearly half the depth of the historic building footprint. The cantilever will be set back approximately eight feet from the historic building's Broadway façade, thereby maintaining a respectful visual clearance above the historic building that does not substantially detract from the Key System Building's vertical emphasis or affect its massing.

The overall design of the addition embodies a clear vertical emphasis that is compatible with the historic building and its built environment. The proposed addition also exhibits a tripartite vertical organization that is characteristic of the Key System Building and is also a prevailing pattern in and around the locally designated API and the National Register-listed historic district, to which the Key System Building is a contributor. The new tower addition is visually composed of a two-story "base" component and a 16-story "shaft" component. The "capital" component is represented by the absence of exterior wall-mounted, vertical glass fins at the roofline; these fins characterize much of the remainder of the tower's north, west, and south facades, and this subtle differentiation in surface treatment crowns the new construction.

As designed, the proposed project is consistent with Rehabilitation Standard 9.

Standard 10: New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The proposed new construction is intended to be permanent and its future removal is not anticipated. However, if its removal were to occur, the existing historic building and its façades could be protected and preserved, and a new north wall could be built, such that the essential form of the Key System Building—an eight-story corner building with a U-shaped floor plan above a rectangular base—will not be impaired.

As designed, the proposed project is consistent with Rehabilitation Standard 10.

3. Summary

In summary, the proposed project as designed and/or conditioned is consistent with the Standards for Rehabilitation, to the extent that each Standard is applicable.

Security Bank and Trust Building
Outline Scope for Treatment of Exterior Materials

Methodology

The conditions assessment and repair recommendations that are included below are based on a superficial examination during a walkthrough of the building on 2/8/06 and examination from the ground level. Close examination of the exterior conditions were restricted to that which could be viewed from the central light well, which could be considered a relatively protected part of the building.

The following recommendations address the treatment of the various architectural materials that makeup the exterior façade of the Bank Building. No attempt has been made to address structural retrofitting that may be required to reinforce the attachment of apparently intact decorative elements. These include the terra cotta balconies at the 6th floor level, the cast iron railings at the second floor level, and the stone/terra cotta water table above the storefront level.

Condition

The façade of the Security Bank and Trust Building is in relatively good condition given the long period of neglect dating from at least the time of the Loma Prieta Earthquake in 1989.

The ornamental sheet metal cornice is generally in good condition. A layer of roll roofing has been applied to the horizontal upper surface, so the majority of the surface cannot be seen. However, there were some worn areas that showed complete deterioration of the sheet metal and exposure of the wood framing beneath.

The brick and terra cotta cladding show relatively little spalling. There are, however, numerous cracks, ranging from hairline cracks to larger displacement cracks at the corners of the light well. The pointing mortar at the decorative terra cotta spandrel panels has been replaced, to a large extent, with caulking, which is peeling from the joints.

The cast iron railings at the second floor level appear to be in good condition despite showing signs of corrosion.

The Stone water table above the ground floor is largely intact, but has damage at each end, and shows signs of deterioration along the drip edge. Most of the ornamental carvings are in good condition.

The storefront mullions at the clerestory level are historic and possibly original. Their condition appears to be good, although no close examination was possible. With the exception of the office tower entry on Broadway, the storefront mullions at the lower

level have all been replaced with contemporary dark anodized bronze aluminum storefront material. It was not possible to determine the condition of the spandrels between these levels.

The limestone pilasters at the ground floor level are in poor condition. Most of the stone has been coated with a heavy paint that obscures the scoring lines and detail. At the building corner, and at some other areas, the limestone has been coated a heavier, stippled paint or coated/replaced with stucco. Those areas of the stone that are exposed show severe deterioration of the cut surface. Additionally, one entire pilaster is missing at the north end of the Broadway elevation.

The base of the pilasters and storefronts is currently covered in plywood, the base of one pilaster the east end of the 11th Street elevation is exposed. In this location the material is granite, and in good condition.

Rehabilitation Approach

The Rehabilitation of the exterior façade of the Security Bank and Trust Building will conform to the Secretary of the Interior's Standards for Rehabilitation. The Standards (Department of the Interior regulations, 36 CFR 67) pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and the interior, related landscape features and the building's site and environment as well as attached, adjacent, or related new construction. The Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility. The standards that are applicable to the exterior rehabilitation are included below.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of the features and spaces that characterize a property shall be avoided..

3. Each property shall be recognized as a physical record of its own time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

6. Deteriorated historic features shall be repaired rather replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible,

materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to the historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Repair Recommendations

A. Repair of Sheet Metal Cornice

1. Remove corrosion and loose paint using wire brushes and similar hand tools.* Remove roll roofing at top surface.
2. Repair small holes using epoxy compound and sand edges to be smooth and level with adjacent material.
3. Repair larger holes using sheet metal patches to match the existing profile. Weld or braze patch to the surface and grind edges to be smooth and level with the adjacent material.
4. At deformed areas, straighten sheet metal to conform to original profile if possible. If necessary, cut out and replace deformed areas with new sheet metal profiles to match the original. Install as described above.
5. Treat upper horizontal surface with elastomeric coating to prevent further water penetration.

B. Repair and Cleaning of Terra Cotta Cladding and Face Brick

1. Cleaning
   a. Wash surfaces with a low pressure cold water spray.
   b. Apply approved restoration cleaning solution in lowest effective concentration as established by test area.
   c. Rinse surfaces thoroughly within time specified by manufacturer.
   d. Repeat procedure as necessary.
2. Repair of Cracks
   a. Cut back edges of crack to provide a minimum width of ¼ inch and a minimum depth of ½ inch.
   b. Repair crack with approved injection grout.

c. Coat repair with breathable masonry coating in a color and pattern to match adjacent surface.

3. Repair of Spalls
   a. Cut away material to a solid substrate. Cut edges of repair area squarely to a minimum depth of ½ inch.
   b. Replace spalled area with approved restoration repair mortar. Shape repair to match profile of original masonry unit.
   c. Coat repair with breathable masonry coating in a color and pattern to match adjacent surface.
4. Securing Loose and Displaced Material
   a. Secure loose material with stainless steel spiral anchors, set in epoxy and countersunk to ½ inch below masonry surface.
   b. Repair hole using approved restoration repair mortar.
   c. Coat repair with breathable masonry coating in a color and pattern to match adjacent surface.
5. Repointing
   a. Remove loose mortar and caulking* using hand tools to expose sound material, to a minimum depth of two times the width of the joint. Do not use power operated saws or grinders unless approved by architect.
   b. Repoint joint with approved restoration mortar as specified by manufacturer.

C. Repair of Wood Windows

1. Remove loose paint from wood sash and adjacent wood trim using hand scrapers and sand paper, and chemical paint remover if necessary.*
2. Remove wood stops and existing glazing, Retain wood stops for reinstallation.
2. Repair deteriorated sash and trim components with an approved epoxy resin filler. Sand patches to be even with adjacent surface.
3. Replace severely deteriorated or missing sash and trim components with new wood components to match existing profiles.
4. Replace missing sash with new wood sash to match existing.
5. Reglaze sash with new laminated glass.
6. Paint sash and trim.
7. Weather strip window sash and fix sash in place using original and replacement sash locks. Remove sash cords and weights, and fill cavity between masonry and jambs with insulation from the interior.

D. Cast Iron Railings
1. Remove corrosion and loose paint using wire brushes and similar hand tools, and chemical paint removers if necessary.*
2. Repair any heavily corroded areas with Bondo type material.
2. Repaint railings.

E. Stone Water Table
   1. Cut back deteriorated areas to sound stone.
   2. Patch cut back and damaged areas with approved restoration mortar.
   3. Coat water table with approved breathable masonry coating

F. Limestone Pilasters
   No specific recommendations for the treatment of the limestone pilasters are possible without further examination and testing. The paint and stucco coatings will be removed using gentle methods. If possible, portions of the limestone will be cut back to solid material and redressed, and water repellants with consolidating properties will be used to strengthen the limestone. Where and if this is not possible, the limestone will be replaced using GFRC panels to replicate the profile of the limestone pilasters. The condition of the remaining limestone and the extent of the replacement required will determine whether a breathable masonry coating will be required.

G. Granite Base
   No specific recommendations for the treatment of the granite base are possible without further examination. Assuming that the granite is largely intact, it will be retained and cleaned using approved methods. Patching will be reserved for severely damaged areas only, and will require approved patching materials treated to match the existing granite, and missing panels will be replaced with similar material. If major portions of the granite are missing, replacement with a complimentary material may be proposed.

H. Storefronts
   1. Retain historic storefront mullions where they remain.
   2. Remove corrosion and loose paint from historic storefronts using hand tools and chemical paint remover to expose original finish.
   3. Repaint storefront mullions if required by condition of original finish.
   4. Remove contemporary storefronts and replace with historically compatible materials.

   *These materials may contain hazardous materials that require abatement by methods other than described above. Any methods employed will be approved by architect before implementation.

Appendix E
Health Risk Assessment (SCA AIR-2)

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ESA Community Development

180 Grand Avenue
Suite 1050
Oakland, CA 94612
510.839.5066 phone
510.839.5825 fax

www.esassoc.com

Health Risk Assessment – 1100 Broadway Project, Addendum #3

Background

The Health Risk Assessment (HRA) presented below includes a detailed assessment of the incremental health risk impacts to existing sensitive receptors from the construction of the 1100 Broadway project. It also includes a screening level cumulative analysis to satisfy the requirements of the City of Oakland's Standard Conditions of Approval (SCA) SCA-21 (referred to as SCA AIR-2 in this document).

The HRA was conducted in accordance with technical guidelines developed by federal, state, and regional agencies, including U.S. Environmental Protection Agency (USEPA), California Environmental Protection Agency (CalEPA), California Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments[1] and the Bay Area Air Quality Management District (BAAQMD) Air Toxics New Source Review (NSR) Program Health Risk Assessment Guidelines.[2]

Construction Health Risk Assessment

This construction HRA consists of three principal components:

1. Quantification of toxic air contaminant (TAC) emissions from project construction.
2. Estimation of TAC concentrations at existing sensitive receptors from the project's construction emissions using refined air dispersion modeling.
3. Estimation of health risks from construction using the modeled concentrations at receptors and exposure parameters and comparison to significance thresholds developed by the BAAQMD and adopted by the City of Oakland.

1. Estimation of TAC Emissions from Project Construction

The primary TAC of concern emitted during project construction is Diesel Particulate Matter (DPM), a primary component of diesel exhaust from construction equipment and heavy duty trucks transporting materials to and from the project site. In August 1998, the CARB identified DPM as a TAC. DPM is a complex mixture of numerous individual gaseous and particulate compounds

[1] Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, February 2015, http://oehha.ca.gov/air/hot_spots/hotspots2015.html

[2] BAAQMD, BAAQMD Air Toxics New Source Review (NSR) Program Health Risk Assessment Guidelines, January 2016.

emitted from diesel-fueled combustion engines and contains at least 40 different TACs. DPM is formed primarily through the incomplete combustion of diesel fuel. DPM is removed from the atmosphere through physical processes including atmospheric fall-out and washout by rain. Humans can be exposed to airborne DPM by deposition on water, soil, and vegetation; although the main pathway of exposure is inhalation. Studies indicate that DPM poses the greatest health risk among airborne TACs.

For purposes of this assessment, consistent with OEHHA guidelines, exhaust emissions of PM_{10} are represented as DPM. Exhaust PM_{10} emissions from project construction were derived from CalEEMod (Version 2016.3.1) using the following assumptions:

- Construction of 312,415 square feet of office space, 10,000 square feet of retail and 7,585 square feet of area for lobby, amenity space and circulation;
- Construction was assumed to begin in January 2018 and project's first operational year was assumed to be 2020;
- The schedule and duration of the various construction phases (e.g., grading, building construction, paving, etc.) were provided by the project applicant (shown in **Table E-1**);
- The number and types of construction equipment used for each phase, their size and activity level during each phase were provided by the applicant (**Table E-2**);
- The number of construction related worker, vendor and hauling trips were based on CalEEMod defaults based on project size (**Table E-3**); and
- Off haul of 10,074 cubic yards of material during the grading phase.

TABLE E-1
PROJECT CONSTRUCTION SCHEDULE [a]

Construction Phase	Duration	Number of Workdays [b]
Grading	1/9/2018 – 3/31/2018	59
Building Construction	4/1/2018 – 12/21/2018	190
Paving	12/22/2018 – 4/22/2019	86
Architectural Coating	4/23/2019 – 12/19/2019	173
TOTAL NUMBER OF WORKDAYS	1/9/2018 – 12/19/2019	508

a Provided by applicant.
b Number of workdays are calculated assuming Monday – Friday construction. No construction on weekends is assumed.

TABLE E-2
CONSTRUCTION EQUIPMENT USED BY PHASE [a]

Equipment	Number	No. of days Used	No. of Hours/Day Used
Grading			
Rubber Tired Dozer	1	59	4
Tractor/Loader/Backhoe	1	59	7
Building Construction			
Crane	1	190	7
Paving			
Paver	1	86	7
Roller	1	86	7
Tractor/Loader/Backhoe	1	86	7
Architectural Coating			
Air Compressor	1	173	6

a Provided by applicant.

TABLE E-3
VEHICLE TRIPS BY CONSTRUCTION PHASE [a, b]

Construction Phase	Worker Commute Trips/Day	Vendor Trips/Day	Total Number of Hauling Trips
Grading	5	0	1,259
Building Construction	106	54	0
Paving	8	0	0
Architectural Coating	21	0	0

a CalEEMod default values.
b Note that worker and vendor trips are shown as trips/day while hauling trips shown are the total number of trips during the grading phase.

Exhaust PM_{10} emissions from on-site construction equipment and off-site vendor and hauling trips during the different phases were extracted from the CalEEMod output and are presented in **Table E-4** for both the uncontrolled scenario and the Standard Condition of Approval (SCA) scenario (mitigated scenario).[3] The SCA scenario assumes use of engines that meet the Tier 4 Interim standards as the best available control technology for all construction equipment as required by the SCA AIR-1(w) [City SCA-19(w)] for larger projects. As required by the BAAQMD Guidelines, fugitive emissions are not included in this assessment and are addressed separately through dust control measures implemented as part of SCA AIR-1.

[3] CalEEMod Output sheets provided in **Appendix C,** *Air Quality and GHG Emissions Detail,* to the CEQA Analysis document.

TABLE E-4
TOTAL PM_{10} EXHAUST EMISSIONS GENERATED OVER ENTIRE DURATION OF PROJECT CONSTRUCTION

DPM Emissions (as Exhaust PM_{10})[a]	Unmitigated Scenario	SCA Scenario
Total On-Site DPM (tons)	0.067	0.0021
Total Off-Site DPM (tons)	0.0057	0.0057
Total DPM emissions (tons)	0.727	0.0078
Number of construction workdays	508	508
Emission Rate (grams/second) [b, c]	0.00419	0.00017

a Derived from CalEEMod (version 2016.3.1).
b Emission rate calculated assuming 8 hours of construction per day.
c Emission rate calculated assuming 100 percent of on-site emissions and only 10 percent of off-site emissions as contributing to concentrations and health risks in the project vicinity.

2. Estimation of Ambient Concentrations at Existing Sensitive Receptors

Dispersion is the process by which atmospheric pollutants disseminate due to wind and vertical stability. The results of a dispersion analysis are used to assess pollutant concentrations at or near an emission source. The results of such an analysis allow predicted concentrations of pollutants to be compared directly to air quality standards and other criteria such as health risks based on modeled concentrations.

An air dispersion model is a mathematical formulation that is used to estimate the air quality concentrations at specific locations (receptors) surrounding a source of emissions given the rate of emissions, topography and prevailing meteorological conditions. The air dispersion model used in this assessment was the USEPA's AERMOD air dispersion model that is approved by the BAAQMD for air pollutant dispersion assessments. Specifically, the AERMOD model was used to estimate concentrations of DPM emissions at sensitive receptor locations in the vicinity of the project site using the project's emission rate shown in **Table E-4**. As required by the BAAQMD Guidelines, fugitive emissions are not included in this assessment and are addressed separately through dust control measures implemented as part of SCA AIR-1.

Both on-site emissions from construction and off-site emissions from heavy duty trucks were modeled together as an area source extending over the entire project site. Only 10 percent of off-site emissions were considered in the modeling effort as contributing to concentrations in the project vicinity. The release height for the source was specified as 5 meters above ground to account for the top of the equipment exhaust stack where the emission is released to the atmosphere and the increase in the height of the emissions due to its heated exhaust. A variable emissions rate was used to represent project construction activity that is expected to take place only on weekdays for 8 hours per day between 8 a.m. and 4 p.m. Five years of meteorological data from the Metropolitan Oakland International Airport was used to represent wind conditions at the project site.

Sensitive receptors in the form of existing residential uses are generally located to the east and southeast of the project site. S ensitive receptors are generally located to the east of the project site

with the closest receptors located approximately 250 feet from the project site. Five discrete receptors at sensitive land uses near the project site were chosen to be modeled.

The dispersion modeling results show that the maximum annual concentration of 0.222 μg/m3 for the uncontrolled scenario would occur at the receptors located in the Marks Building Apartments at the corner of 12th and Franklin Streets, approximately 250 feet east of the project site. This would be considered the Maximum Exposed Individual Receptor (MEIR). With the use of construction equipment that meets the Tier 4 Interim standards required by SCA AIR-1(w), the annual DPM concentration at the MEIR would be reduced to 0.009 $\mu g/m^3$.

3. Estimation of Health Risks to Existing Sensitive Receptors and Comparison to Thresholds

Assessment of health risks from project construction was conducted following methodologies and exposure parameters recommended in OEHHA's Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.[4] OEHHA's 2015 revisions to its Guidance Manual are primarily designed to ensure that the greater sensitivity of children to cancer and other health risks is reflected in HRAs. For example, OEHHA now recommends that risks be analyzed separately for multiple age groups, focusing especially on young children and teenagers, rather than the past practice of analyzing risks to the general population, without distinction by age. OEHHA also now recommends that statistical "age sensitivity factors" be incorporated into a HRA, and that children's relatively high breathing rates be accounted for. On the other hand, the Guidance Manual revisions also include some changes that would reduce calculated health risks. For example, under the former guidance, OEHHA recommended that residential cancer risks be assessed by assuming 70 years of exposure at a residential receptor; under the revised Guidance Manual, this assumption is lessened to 30 years. This is based on studies showing that 30 years is a reasonable estimate of the 90th to 95th percentile of residency duration in the population. For short term projects such as construction activities, OEHHA recommends using the actual project duration. To ensure that short-term projects do not result in unanticipated higher cancer impacts due to short duration high-exposure rates, the BAAQMD recommends that the cancer risk be evaluated assuming that the average daily dose for short-term exposure lasts a minimum of three years for projects lasting three years or less.[4]

Based on OEHHA recommendations, the cancer risk to residential receptors assumes that exposure occurs 24 hours per day for 350 days per year while accounting for a percentage of time at home. OEHHA evaluated information from activity pattern databases to estimate the fraction of time at home (FAH) during the day. This information was used to adjust exposure duration and cancer risk based on the assumption that a person is not present at home continuously for 24 hours and therefore exposure to emissions is not occurring when a person is away from their home. The exposure parameters used in the assessment of health risks are summarized in **Table E-5**.

[4] Bay Area Air Quality Management District, BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines, pages 4 & 5, January 2016.

TABLE E-5
EXPOSURE PARAMETERS USED

Receptor Age	Exposure Duration (ED) [a] (years)	Age Sensitivity Factors (ASF)	Fraction of time at Home (TAH) (%)	Daily Breathing Rate (DBR) [b] (L/kg-day)
Residential Receptor - Infant				
3rd trimester	0.25	10	0.85	361
0 – 2 years	2	10	0.85	1090
2 – 16 years	1	3	0.72	572
Residential Receptor - Child				
2 – 16 years	3	3	0.72	572
Residential Receptor - Adult				
>16 years	3	1	0.73	261

[a] Per BAAQMD guidance, a minimum 3 year exposure duration is assumed to estimate risks from project construction.

[b] BAAQMD Air Toxics New Source Review Program HRA Guidelines recommend using the 95th percentile rate for age groups less than 2 years old and the 80th percentile rate for age groups that are greater than or equal to 2 years old.

Cancer risk at the MEIR was estimated using the OEHHA recommended method shown in the following equations and the cancer risk exposure parameters shown in Table E-5. Estimates were made using the mandatory minimum pathways, which for DPM is only through inhalation.

$$Risk_{inh\text{-}res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$$

$Risk_{inh\text{-}res}$ = Residential inhalation cancer risk
$DOSE_{air}$ = Daily Inhalation Dose
CPF = Cancer Potency Factor for DPM = 1.1
ASF = Age Sensitivity Factors
ED = Exposure Duration in each age group (years)
AT = Averaging Time over lifetime cancer risk (years) = 70 years
FAH = Fraction of Time at Home (%)

$$DOSE_{air} = C_{air} \times DBR \times A \times EF \times 10^{-6}$$

C_{air} = Concentration of TAC in air ($\mu g/m^3$)
DBR = Daily Breathing Rate
A = Inhalation Absorption factor = 1.0 for DPM
EF = Exposure Frequency = 350/365 = 0.96

Chronic (long-term) adverse health impacts unrelated to cancer are measured against a hazard index (HI), which is defined as the ratio of the predicted incremental DPM exposure concentration from the proposed project to a reference exposure level (REL) that could cause adverse health

effects. The RELs are published by OEHHA based on epidemiological research. The chronic reference exposure level for DPM was established by the California OEHHA as 5 μg/m^3.[5]

Estimated health risks and maximum $PM_{2.5}$ concentration to receptors of different age groups at the MEIR are shown in **Table E-6** below and compared to the BAAQMD project-level thresholds that have been adopted by the City of Oakland.

TABLE E-6
MAXIMUM HEALTH RISKS FROM PROJECT CONSTRUCTION

Health Risk at MEIR	Maximum Cancer Risk (in a million)	Chronic Risk (Hazard Index)	Maximum $PM_{2.5}$ concentration
Uncontrolled Scenario			
Residential Receptor - Infant	68.8	0.044	0.207
Residential Receptor - Child	12	0.044	0.207
Residential Receptor - Adult	2	0.044	0.207
SCA Scenario (With Tier 4 Interim Equipment)			
Residential Receptor - Infant	2.8	0.0018	0.009
Residential Receptor - Child	0.5	0.0018	0.009
Residential Receptor - Adult	0.1	0.0018	0.009
Project-level Threshold	10	1.0	0.3
Significant?	**No**	**No**	**No**

As shown in the table, health risks (cancer and chronic) to receptors of all age groups and $PM_{2.5}$ concentrations resulting from project construction would be less than the applicable significance thresholds with the use of Tier 4 Interim equipment for construction. Therefore, the TAC impact of project construction on existing receptors would be less than significant.

Cumulative Health Risks to Existing Receptors

City of Oakland's current SCA 21: Stationary Sources of Air Pollution (Toxic Air Contaminants [TACs]) requires all projects involving a stationary source (e.g., backup generator) permitted by the BAAQMD to conduct a screening analysis in accordance with the BAAQMD Guidelines to assess risk to existing receptors in the project vicinity. The analysis presented below includes a screening level assessment of the cumulative risk to existing receptors from the project, in combination with other stationary and mobile sources of TACs within 1,000 feet of receptors.

The BAAQMD's CEQA Air Quality Guidelines include standards and methods for determining the significance of cumulative health risk impacts. The method for determining cumulative health risk requires the tallying of health risk from permitted stationary sources, major roadways and any other identified substantial air toxic sources in the vicinity of a project site (i.e., within a

[5] California Office of Environmental Health Hazards Assessment - Acute, 8-hour, and Chronic Reference Exposure Levels, June 2014, http://www.oehha.ca.gov/air/allrels.html

1,000-foot radius) and then adding the individual sources to determine whether the BAAQMD's cumulative health risk thresholds are exceeded. The cumulative screening health risk for existing receptors is shown in **Table E-7**.

Stationary Sources within 1,000 feet of the Project Site

BAAQMD has developed a geo-referenced database of permitted stationary emissions sources throughout the San Francisco Bay Area and the Stationary Source Screening Analysis Tool[6] for estimating cumulative health risks from the permitted stationary sources. Based on this, ten permitted stationary sources of TAC emissions were identified within 1,000 feet of the project site. Preliminary health risk screening values for sources that operate a diesel engine were refined using the BAAQMD's Diesel Internal Combustion Engine Distance Multiplier Tool[7] to represent the attenuated health risks at the project receptors. The screening values for two facilities that operate diesel engines (BAAQMD Plant numbers 18912 and 13308) were not refined because their values were based on site-specific health risk assessments.

Mobile Sources within 1,000 feet

BAAQMD has also developed a geo-referenced database of highways and roadways throughout the San Francisco Bay Area to be used in conjunction with the Highway Screening Analysis Tool and the Roadway Screening Analysis Calculator[8] for estimating risks from highways and major roadways. There are no highways within 1,000 feet of the project site. BAAQMD *CEQA Air Quality Guidelines* also require the inclusion of surface streets within 1,000 feet of the proposed project with annual average daily traffic of 10,000 or greater. Upon review of nearby roadways based on the Project's traffic study, only Broadway was found to meet this criterion. The health risk screening values at the MEIR from traffic on Broadway was estimated using the BAAQMD's county-specific Roadway Screening Analysis Calculator[7] and is included in Table E-7.

Project sources

Table E-7 also includes health risks from construction of the proposed Project as estimated in the construction health risk assessment presented earlier. In compliance with the California Building Code, the Project would include a backup generator that existing receptors near the project would be exposed to. The project's backup generator would be required to comply with the BAAQMD's permit requirements for a stationary source. The BAAQMD would not approve an Authority to Construct or a Permit to Operate any new or modified source of TACs that exceeds a cancer risk of 10 in one million or a chronic or acute hazard index of 1.0. Conservatively assuming that the proposed generator would result in a maximum excess cancer risk of 10 in one million due to emissions of diesel particulate matter at the project site, the BAAQMD's Risk and Hazards Emissions Screening Calculator (Beta Version) was used to estimate the equivalent screening-level health risk values for chronic HI and annual average $PM_{2.5}$ concentrations. The health risk screening values were then refined to account for the distance separating the Project from the receptors (at the MEIR as determined from the project construction health risk

6 Bay Area Air Quality Management District, *Stationary Source Screening Analysis Tool,* May 30, 2012.
7 Bay Area Air Quality Management District, *Diesel Internal Combustion (IC) Engine Distance Multiplier,* June 13, 2012.
8 Bay Area Air Quality Management District, *Roadway Screening Analysis Calculator,* April 16, 2015.

assessment) using the BAAQMD's Diesel Internal Combustion Engine Distance Multiplier Tool and is shown in Table E-7.

Note that the cancer risks estimated from the BAAQMD assessment tools (roadways and permitted stationary sources) and shown in Table E-7 is based on an older set of exposure parameters that do not reflect the revised OEHHA cancer risk parameters dealing with daily breathing rates, time at home factors, and exposure duration. The cancer risks estimated from the BAAQMD's assessment tools for these emission sources, therefore, were increased using a BAAQMD provided multiplier of 1.3744 to account for the revised exposure parameters.[9]

As shown in Table E-7, the screening analysis, which is based on conservative assumptions, indicates that the cumulative cancer, chronic risk (HI) and $PM_{2.5}$ concentration estimated at existing receptors near the project site would be below the City's cumulative thresholds. Therefore, this would be a less than significant cumulative impact.

TABLE E-7
CUMULATIVE HEALTH IMPACTS TO EXISTNG RECEPTORS (AT MEIR)

Source	Distance to MEIR (feet)	Cancer Risk (persons per million)	Chronic Hazard Impact	$PM_{2.5}$ Concentration (µg/m3)
Existing Stationary Sources (BAAQMD Plant Number) within 1,000 feet				
Cushman and Wakefield (17739)	590	2.7	0.011	0.0006
FEMA (16836)	560	2.4	0.008	0.0042
Trans Pacific Center (14837)	660	4.4	0.019	0.0001
East Bay Municipal Utility District (13728)	250	6.7	0.12	0.468
Paetec (18912) [a]	150	1.5	0.0005	0.0016
County of Alameda – GSA (14742)	300	1.5	0.002	0.0003
The Clorox Company (13308)	630	0.08	<0.001	0.0133
MCI, dba Verizon Business (12765)	750	2.0	0.01	0.0036
Level 3 Communications LLC (18110)	750	0.93	0.005	0.0002
Best Instrument Repair Company (10345)	990	0	0	0
Major Roadways (with more than 10,000 AADT) within 1,000 feet				
Broadway	380	2.7	--	0.053
Project Construction		2.8	0.002	0.009
Project Operation – Backup Generator		3.1	0.036	0.056
Cumulative Impacts [a]		30.8	0.213	0.611
Cumulative Impacts using BAAQMD multiplier to existing and proposed stationary sources and roadways to account for 2015 OEHHA revisions		40.2	0.213	0.611
City of Oakland Cumulative Significance Criteria		100	10	0.8
Potentially Significant Impact?		No	No	No

NOTE: NA = Not Available

[a] Cumulative totals may not add up due to rounding

SOURCE: BAAQMD, 2012; BAAQMD, 2015; ESA, 2017.

[9] Kirk, Alison, Email Communication with ESA, December 20, 2016.

Appendix F
Draft GHG Reduction Plan (SCA GHG-1)

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ESA Community Development

180 Grand Avenue
Suite 1050
Oakland, CA 94612
510.839.5066 phone
510.839.5825 fax

www.esassoc.com

Draft Greenhouse Gas Reduction Plan (GHG Plan) – 1100 Broadway Project, Addendum #3

1. Introduction

This 1100 Broadway Project Greenhouse Gas (GHG) Emissions Reduction Plan ("GHG Plan") is prepared to comply with City of Oakland Standard Condition of Approval (SCA) "Greenhouse Gas Reduction Plan" (GHG-1) (as amended February 2016[1]) identified in the *1100 Broadway CEQA Analysis* document to which this GHG Plan is incorporated as an appendix. Under SCA GHG-1, the City of Oakland requires a GHG Plan be prepared because the Proposed Project would exceed at least one of the City of Oakland's CEQA Thresholds of Significance (which incorporate the BAAQMD's CEQA thresholds) – specifically the emissions are more than 1,100 metric tons of CO_2e annually – and because the Project meets the City's definition of "Very Large Project."[2] The goal of the GHG Plan is to reduce GHG emissions by 36 percent below the Project's "2005 business-as-usual" (BAU) scenario to help achieve the City's goal of reducing GHG emissions, consistent with the goal of the City's Energy and Climate Action Plan (ECAP).

As presented in this GHG Plan and analyzed in the CEQA Analysis document, GHG emissions from the Proposed Project result in a less than significant CEQA impact. However, pursuant to SCA GHG-1, the Project must still prepare a GHG Plan to demonstrate achievement of a 36 percent reduction of GHG emissions compared to the 2005 BAU scenario, and if necessary, identify and quantify specific GHG reduction measures to reduce Project emissions to less than either of the two CEQA thresholds and to 36 percent below the Project's 2005 BAU scenario.

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2. Project Description

The Proposed Project would construct a new 18-story commercial office building on a vacant portion of a one-half acre site at 1100 Broadway in Downtown Oakland, adjacent to the existing eight-story historic Key System Building on the remainder of the Project site. The Proposed Project would also rehabilitate the historic Key System Building for commercial reuse. No on-site parking is proposed or required, and there is an option for the developer to secure 145 parking spaces in an existing adjacent underground

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1 Minor text correction was made to SCA GHG-1 in August 2016, as published in the Oak Knoll Project Draft EIR. "The GHG Reduction Plan shall be considered fully attained when project emissions are less than either applicable numeric BAAQMD CEQA Thresholds AND GHG emissions are 36 percent below the project's ~~"adjusted"~~ 2005 "business-as-usual" baseline GHG emissions…."

2 A "Very Large Project" includes "Commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space."

garage. The Proposed Project includes a bicycle parking program that includes 33 long term spaces and 18 short term spaces. The Project sponsor intends to meet the LEED V4 Core & Shell Rating System and anticipates achieving 64 points through the adherence to California Green Building Standards (CalGreen) and Title 24 Building Energy Efficiency Standards (Energy Standards) in addition to certain Green Building features that exceed those incorporated in CalGreen or the Energy Standards.

A two-year construction period for the Proposed Project is projected to begin in January 2018, and the Project's first operational year is estimated to be 2020. The Proposed Project will require the excavation and off haul of approximately 2,610 cubic yards of earth from the Project site, in addition to approximately 7,415 cubic yards of existing demolition rubble (for a total of approximately 10,000 cubic yards).

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3. Overview of GHG Emissions Inventories

3.1 Methodology and Assumptions

GHG emissions were estimated for a 2005 baseline scenario and a Proposed Project Buildout (2020) baseline scenario. Year 2005 is the baseline year because the City's GHG emissions reduction goal specified in its ECAP is based on what GHG emissions were in 2005. Year 2020 is the Buildout year when construction of the Proposed Project is anticipated to be complete. Assumptions for the emissions inventories were based on Project information provided to the City and ESA by the Project Sponsor for the CEQA Analysis.

This GHG Plan includes a GHG emissions inventory for the Project under a 2005 BAU scenario and for the "adjusted" baseline scenario at Project Buildout year 2020, taking into consideration energy efficiencies included as part of the Project (including the City's SCAs, recommended mitigation measures, Project design features, and other State and City requirements). The emissions inventories for Project Buildout year 2020 are presented *with* and *without* the incorporation of vehicle trip reductions (VTR) resulting from the Project's implementation of SCA TRA-4, Transportation Demand Management (TDM) Plan.

ESA's analysis of the Project's GHG emissions used CalEEMod version 2016.3.1. Consistent with the methodology used in the Oakland ECAP, the ESA analyzed the 2005 BAU Project as if it was operating in 2005 and consistent with CalEEMod version 2016.3.1.

3.1.1 Emissions Sources

The GHG emissions inventories in this document are divided by the following sources:

- Area Sources
- Energy (Natural Gas and Grid Electricity)
- Mobile Sources
- Water and Wastewater Conveyance & Treatment
- Solid Waste
- Backup Generator (Stationary Source)

Each of the emissions sources is described below.

- Area Sources. These are direct emissions from sources that include natural gas combustion for heating, cooking, fireplaces, or boilers, as well as emissions from landscape maintenance equipment. For commercial development with no hearth facilities (including gas fireplaces, wood-burning fireplaces, and wood-burning stoves), such as the Proposed Project, area source emissions of GHG would be entirely from small mobile fuel combustion sources, such as landscape maintenance equipment. For the Proposed Project, the CalEEMod model indicates practically no quantifiable change in GHG emissions from landscape equipment.

- Energy - Natural Gas. Operational emissions are generated by on-site natural gas combustion considering the type and size of the land and uses proposed. To estimate emissions from natural gas associated with the Project for year 2020, CalEEMod inputs were adjusted to account for the 2016 Title 24 standards, which will be in effect when Project construction begins. This adjustment was not made for the 2005 BAU scenario; instead, historical use energy was used to represent 2005 emission factors.

- Energy - Indirect Project Electrical Emissions. When electricity is used in a building, a portion of the electricity is typically generated off site at a power plant, while the remaining percentages are generated by renewable resources such as hydroelectric dams. The relative percentages of renewable and non-renewable resources vary from year-to-year based on the magnitude of available water flows at hydroelectric dams and other source variables. Currently, electricity provided by the standard PG&E grid represents indirect emissions of GHGs from the combustion of fossil fuels. PG&E maintains annual records on the percentage of electricity from renewable and non-renewable resources and, using this data, calculates a 5-year rolling average annual emission factor (CO2e emission rate per kilowatt of electricity generated) for its sources.

  ESA used CalEEMod to calculate GHG emissions from electricity by inputting the most recent historic data published by PG&E was used instead of the CalEEMod defaults. For the 2005 BAU scenario for the Project, PG&E's historic emissions data for year 2005 was input. For the 2020 adjusted emissions for the Project, PG&E's emissions factor for 2020 based on a five-year average of actual and projected emission factors from years 2016-2020 was used.[3] The CalEEMod inputs also reflect that the Proposed Project would be constructed to mandatory CalGreen standards as well as 2016 Title 24 standards.

- Mobile (Motor Vehicles) Sources. Vehicle trip generation data for Proposed Project was estimated by transportation consultant Fehr & Peers and used in CalEEMod to estimate Project GHG emissions for the 2020 and the 2005 BAU scenario. Vehicle trip generation data for the Proposed Project accounts for a trip reduction of 46.9 percent to account for non-automobile trips (walking, biking and transit) that would occur given the Project site's proximity to BART. This trip reduction is consistent with the City's Transportation Impact Study Guidelines and is based on US Census data which shows that the non-automobile mode share within 0.5-mile of a BART station in Alameda County is about 46.9 percent. The Project's implementation of SCA TRA-4, TDM Plan (see *State and Local Requirements that Reduce GHG Emissions*, below), could reduce trips by an additional 20 percent, if fully achieved. While not input directly into CalEEMod, but calculated manually, achieving the TDM Plan target of 20 percent can substantially reduce mobile

[3] *Greenhouse Gas Emission Factors: Guidance for PG&E Customers*, November 2015

source GHG emissions of the Project, which are the most significant emissions contributor. The generation rates and trip lengths assumed for the Project are also the same for 2005 BAU and 2020 adjusted baseline, however, the 2005 BAU emissions differ from the 2020 inputs in that they are based on the same 2005 mobile fleet emissions factors used for the City's ECAP analysis.

- Water and Wastewater Treatment and Conveyance. The majority of these indirect emissions are associated with the electricity used to treat, supply and convey water, due to increased water demand from the Project. Indirect emissions from wastewater treatment include the GHG emissions associated with the electricity use in wastewater treatment. The Project GHG inventory includes emissions associated with drinking water and wastewater supply and treatment based on the land use type. In general, these emissions are indirect emissions associated with the energy used to convey, treat, and distribute water and wastewater. (Additional emissions from wastewater treatment include CH_4 and N_2O, which are emitted directly from wastewater treatment processes.) Adjustments were made to CalEEMod inputs for the 2020 adjusted emissions that assume a 20 percent reduction in indoor water use in compliance with CalGreen. This adjustment was not applied to the 2005 BAU scenario.

- Solid Waste. The Proposed Project will generate waste, which will generate GHG emissions. A large percentage of this waste would be diverted from landfills by waste reduction, recycling, and composting. Oakland currently diverts a large portion of its waste and has goals to further reduce the amount of waste sent to a landfill (see *State and Local Requirements that Reduce GHG Emissions*, below). The remainder of the waste not diverted would be disposed of at a landfill. Landfills emit anthropogenic methane from the anaerobic breakdown of material. For solid waste, CalEEMod uses the emission factors compiled by CALrecycle to estimate GHG emissions. Adjustments were made to CalEEMod inputs for the 2020 adjusted emissions that assume substantial reductions in emissions from wastes based on implementation of the City's Zero Waste Goal. a 20 percent reduction in indoor water use in compliance with CalGreen. This adjustment was not applied to the 2005 BAU scenario.

3.1.2 Emissions Source Not Included

- Permitted Stationary Source Equipment. Per BAAQMD, GHG emissions from permitted stationary source equipment are not to be assessed as part of the operational emissions of a land development project, but are instead to be directly compared to BAAQMD's 10,000 metric ton per year threshold for such equipment for the purposes of impact assessment relative to CEQA. The Project would include a backup diesel generator that would be a permitted stationary source. The estimated emissions are disclosed in the Project emissions inventories, but are not included in the total Project emissions that are compared to the CEQA significance thresholds.

3.2 State and Local Requirements that Reduce GHG Emissions

The following state programs and existing City requirements are factored into the GHG emissions inventories and will reduce Project GHG emissions from the 2005 BAU scenario.

- The Pavley Act and Clean Car Programs will reduce on-road vehicle fleet emissions, pursuant to Senate Bill 32 (SB 32) (Pavley).

- Low Carbon Fuel Standards (LCFS) designed to encourage the use of cleaner low-carbon fuels statewide, pursuant to California Assembly Bill AB 32 and the Governor's Executive Order S-01-07

- Project TDM Plan will reduce vehicle trips and vehicle miles traveled (VMT) by 20 percent, which reduced on-road mobile source emissions (see SCA TRA-4, below).

- City of Oakland's Zero Waste Goal attainment will reduce GHG emissions from waste by 88 percent.

- Electric Vehicles. Increased use of electric vehicles will reduce GHG emissions from on-road mobile sources, even without assuming mandated changes to charging infrastructure

- CalGreen/Green Building Requirements. Increased non-residential building energy efficiency due to 2016 Title 24 standards (Oakland Green Building Ordinance; California Green Building Standards [CalGreen] (in compliance with SCA UTIL-4)

City of Oakland SCAs are incorporated and required as part of a proposed project, adopted as conditions of approval. The following SCAs (which are also identified in Section 6. *Greenhouse Gas Emissions and Climate Change* in the CEQA Analysis) are required as part of a Proposed Project and are factored into the GHG emissions inventories (in most cases through other mandatory requirements), resulting in reduced Project GHG emissions from the 2005 BAU scenario:

- SCA AES-2 – Landscape Requirements and Tree Replacement. Addresses landscape requirements for frontages of commercial buildings and replacement of trees removed as part of a project. Together, these SCAs that maintain and increase landscaping and trees effect cooler climate, reduce excessive solar gain, and absorb CO2e emissions.

- SCA AIR-1 – Construction Related Air Pollution Controls. Includes many measures that will reduce or limit the amount of GHG emissions during construction, including limitations on vehicle idling, preference over electricity over petroleum-based combustion equipment, and accelerated use of off-road equipment with emissions control.

- SCA GHG-1 – GHG Reduction Plan. The subject of this GHG Plan, SCA GHG-1 applies to certain projects that produce total GHG emissions that exceed the BAAQMD CEQA Thresholds. The GHG Plan goals are to increase energy efficiency and reduce GHG emissions to below CEQA thresholds and to achieve at least a 36 percent reduction from a 2005 BAU scenario for the Project.

- SCA TRA-4 – Parking and Transportation Demand Management Plan. Requires the Project-specific TDM Plan containing strategies to reduce on-site parking demand and single occupancy

vehicle (SOV) travel. GHG emissions reductions attributable to a TDM Plan assume 20 percent reduction in vehicle trip generation.

- SCA UTIL-1 – Waste Reduction and Recycling. Requires a project-level Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) to reduce construction–related emissions through reducing off-site disposal truck trips and/or trip lengths.

- SCA UTIL-4 – Green Building Ordinance Requirements. *Discussed above.*

- SCA UTIL-7 - Water Efficient Landscapes (WELO). Requires a project reduce landscape water usage.

Implementation of City of Oakland Plans and Policies also reduce GHG emissions, and they are implemented through many of the mandated measures and SCAs listed above:

- 2012 Oakland ECAP. Oakland developed its ECAP using a GHG reduction target equivalent to 36 percent below 2005 BAU GHG emissions by 2020 (City of Oakland, Resolution No. 82129 C.M.S., 2009). Certain development projects must meet this target (see SCA GHG-1, above).

- City of Oakland Sustainability Programs. The City has proactively adopted a number of sustainability programs in an effort to reduce the City's impact on climate change. Two main categories that address reducing GHG emissions from a development projects are renewable energy (for City facilities) and green building (see CalGreen/Green Building Requirements, above).

3.3 Voluntary Project Design Features

A project's GHG emissions can be reduced through its design, construction and operations features. "Project Design Features" are components considered voluntary parts of the Proposed Project and are generally not otherwise required by other mandatory regulatory requirements. The Project sponsor intends to meet the LEED V4 Core & Shell Rating System and anticipates achieving 64 points. Some LEED credits and points are achieved through adherence to CalGreen and Title 24 Building Energy Standards. Further, because the Project involves new construction of a non-residential building over 25,000 square feet, it is required under SCA UTIL to achieve a specific Green Building point level (50 to 59 points) and LEED Silver certification.

According to the Project's LEED V4 for New Construction Scorecard (prepared by the Project sponsor's qualified architect and included as part of the Project's Development Application to the City) compared to the Oakland CalGreen Checklist), proposed Project features that are in addition to those already mandated by (or incorporated within) CalGreen, for example, include the following:

- indoor water efficiency measures that include water metering and use of low flow appliances and fixtures *beyond CalGreen levels*;

- strategies that optimize energy performance (including heating, ventilation, air conditioning [HVAC] and lighting systems) *beyond standards specified in the State Energy Standards*;

- use of no or low-impact refrigerants in HVAC and refrigeration equipment;

- use of low volatile organic compound (VOC) emission materials that *exceed the standards established by the Bay Area Air Quality Management District (BAAQMD) regulation 8 Rule 3 for low VOC paints and architectural coatings*; and

- renovation and reuse of a historic building structure.

The Project also earns additional LEED credits for being

- an urban infill development located within a historic district and adjacent to "quality" transit.

These voluntary features are considered in the Project's LEED attainment level, but are not quantified for the Project's emissions inventory, as it is difficult to quantify the portion of credit or emission reduction for these additional features, nor is the Project committed to these particular features to achieve the mandated LEED Silver status. However, if implemented, the Project would achieve further GHG emissions reductions compared to the 2005 BAU scenario and the CEQA thresholds.

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4. Proposed Project Emissions Inventory

4.1 2005 BAU Scenario Emissions Inventory

4.1.1 Existing

There were no existing activities or uses on the Project site in 2005. No existing baseline GHG emissions are assumed for the 2005 BAU scenario.

4.1.2 Construction

Estimated total construction emissions of the Project under the 2005 BAU scenario, assuming construction equipment and vehicles that would have been used during the two-year construction period, is 400 MT CO2e. Construction emissions are annualized because the proposed operational GHG emissions thresholds are analyzed in terms of metric tons "per year." Therefore, assuming a 40-year development life of the Project until it is demolished or remodeled for energy efficiency (which is the common standard currently used in practice) is approximately **10 MT CO_2e annuall**y, over 40 years (see Table 1, page F-9).

The City's CEQA Thresholds do not include a specific threshold or methodology for assessing construction-related GHG emissions for the CEQA analysis. The City's methodology adds the 40-year annualized construction-related GHG emissions to the Project's total operational-related emissions, to assess construction-related GHG emissions against the thresholds. The 2005 BAU scenario does not include characteristics that specifically contribute to it being consistent with AB 32 GHG reduction goals during construction; adjustments we made to CalEEMod for construction under the 2005 BAU scenario.

4.1.3 Long-Term Operations

Long-term operational GHG emissions associated with the Project under the 2005 BAU scenario are shown by emissions source in Table 1. As discussed previously in this memo, the emissions calculated do not factor in most of the current state and local regulatory requirements, SCAs and Project design features that have occurred since the 2005 base year of the ECAP. As shown in Table 1, the total 2005 BAU

emissions generated by the Project would be approximately **4,386 MT CO_2e per year**. Factoring in the service population of the Project, total emissions would be approximately **4.2 MT CO_2e per service population**.

4.2 2020 Adjusted Baseline Project Emissions Inventory (Buildout)

4.2.1 Existing

The Project has no existing activities or uses, as was the case in 2005. No existing baseline GHG emissions are assumed for the 2020 adjusted baseline assessment.

4.2.2 Construction

An estimated total 400 MT CO2e emissions from Project construction equipment and vehicles would be emitted over the two years to construct the Project for 2020 Buildout. As done for the 2005 BAU scenario, assuming a 40-year development life of the Project until it is demolished or remodeled for energy efficiency (which is the common standard currently used in practice) is approximately **10 MT CO_2e annually**, over 40 years (see Table 1).

4.2.3 Long-Term Operational GHGs

Adjusted emissions calculated under the 2020 Buildout year assumes current state and local regulatory requirements, SCAs and Project design features that have occurred since the 2005 base year of the ECAP (discussed in Section 4.3, below). As shown in Table 1, the total 2020 adjusted baseline emissions generated by the Project would be approximately **2,698 MT CO_2e annually** with implementation of the TDM Plan (20 percent reduction assumed). Factoring in the service population of the Project, total emissions would be approximately **1.8 MT CO_2e per service population**.

Therefore, the Proposed Project would exceed the threshold of 1,100 metric tons of CO2e per year, but would not exceed the 4.6 MT of CO2e per service population threshold. Therefore, the GHG emission impact under CEQA would be less than significant, as presented in the CEQA Analysis.

Noted because of the substantial reduction in emissions that it achieves, implementation of the TDM Plan (SCA TRA-4) reduces the total 2020 adjusted baseline emissions by 409 MT CO2e per year, and the Project would continue to have a less than significant CEQA impact without implementation of the TDM Plan, as shown in Table 1. Also, the Proposed Project's emissions under the 2020 adjusted baseline would not exceed the conceptual GHG emissions threshold of 2.7 metric tons of CO2e per service population, which BAAQMD has released but not adopted to align with the new 2030 reduction target established in the State's 2017 Climate Change Scoping Plan Update.

TABLE 1
COMPARISON OF GHG EMISSIONS -
2005 BAU SCENARIO COMPARED TO 2020 ADJUSTED BASELINE - WITH AND WITHOUT TDM [a]

	CO_2e **2005 BAU Scenario (*No TDM*)**	CO_2e **2020 Baseline / Project Buildout (*No TDM*) [b]**	CO_2e **2020 Baseline / Project Buildout (*With TDM*) [b]**	**Reduction from 2005 BAU Scenario**
Source Category				
Area Source Emissions (Landscape Maintenance)	<0.01	<0.01	<0.01	No change
Energy Emissions (Natural Gas and Grid Electricity)	1,777.4	953.1	953.1	46.3%
Mobile Emissions	2,288.5	2,039.8	1631.2	29.0%
Solid Waste	151.4	18.2	18.2	88.0%
Water and Wastewater Conveyance & Treatment	158.7	85.7	85.7	46.0%
Annualized Construction Emissions (Over 40 Years)	10.0	10.0	10.0	No change
Total Increase	**4,386**	**3,107**	**2,698**	**38.5% Threshold: > 36%**
City of Oakland Threshold	1,100	1,100	1,100	No change
Exceedance of Project Threshold?	Yes	Yes	Yes	No change
Total Emissions per Service Population (1,051 employees)	4.17	2.95	1.80	2.37 CO_2e/capita
City Emissions per Service Population Threshold	4.6	4.6	4.6	No change
Exceedance of Service Population (Efficiency) Threshold?	No	No	No	No change
Significant?	**No**	**No**	**No**	No change

[a] Project operational emissions estimates were made using CalEEMod, version 2016.3.1.

[b] Assumes 2020 energy and utility assumptions factoring in 2016 Title 24 standards and CalGreen compliance, actual PG&E data, vehicle trip reduction for proximity to transit/BART, and compliance with City's waste energy goals. Emissions reductions associated with voluntary LEED attainment are considered are not factored into this quantified emissions inventory.

[c] Backup generators are a stationary source and are assessed separately against a threshold of 10,000 MT CO2e per year. Therefore, its emissions are not considered in the total with respect to other sources. Total emissions are 14.3 MT CO2e per year, as reported in the CEQA Analysis, Table GHG-1.

SOURCE: ESA, 2017

4.3 Comparison of 2005 BAU Emissions and 2020 Adjusted Emissions

4.3.1 Summary of Adjustments from 2005 BAU Scenario to 2020 Adjusted Baseline

The difference in the Proposed Project's GHG emissions under the 2005 BAU scenario and the 2020 adjusted baseline (Buildout) shown in Table 1 generally demonstrates the extent of emissions reduction that is attributable to measures incorporated with state programs and existing City requirements. Key adjustments are as follows – most of which are previously summarized in Section 3.3.1 *Emissions Sources*.

- Emissions from **Area Sources** are not changed between 2005 BAU and the 2020 adjusted baseline for the Project. As discussed in Section 3.1.1, Emissions Sources, area source GHG for the Project would be entirely from small mobile fuel combustion sources, such as landscape maintenance equipment. No quantifiable change is assumed or mandated by state or local regulations.

- Emissions from **Energy** and **Natural Gas** decrease by 46.3 from 2005 BAU due to the combined impacts of increased building energy efficiency and change in PG&E's GHG emissions factors based on information they prepared. The reductions are from the 2016 Title 24 standards and CalGreen/Green Building Requirements previously discussed above.

- Emissions from on-road **Mobile Sources** are reduced by 29.0 percent from 2005 BAU due to implementation of the TDM Plan and use of 2005 mobile fleet emissions (as assumed in the ECAP). The 2005 BAU scenario reflects the 46.9 percent reduction in vehicle trips on the Project site's proximity to BART.

- Emissions from **Waste** are reduced by 88.0 percent from 2005 BAU as Oakland implements measures to meet its Zero Waste goal by 2020.

- Emissions from **Water** use are reduced by 46.0 percent from 2005 BAU also due to the CalGreen/Green Building Requirements and reductions related to the provision of electricity (above) that were not in place for 2005 BAU scenario.

4.3.2 36 Percent Reduction from 2005 BAU

With the above adjustments, at 2020 Buildout, the total annual adjusted GHG emissions generated by the Project (2,698 MT CO2e per year) is approximately **1,688 MT CO2e per year** less than the Project's estimated 2005 BAU scenario emissions (4,386 MT CO2e per year). This is a reduction of approximately **38.5 percent** – greater than the 36 percent reduction from 2005 BAU required pursuant to the ECAP and SCA GHG-1.

As shown in the far right column of Table 1, the most substantial reductions achieved with the 2020 adjusted baseline emissions are associated with motor vehicle emissions - primarily implementation of state requirements (Pavley Act, Clean Car Programs and LCFS, and CalGreen/Green Building Requirements discussed in Section 3.1) and SCA TRA-4 (TDM Plan), which are not assumed in the 2005 BAU scenario. Table 1 also demonstrates that without implementation of the TDM Plan that Project

would still have a less than significant CEQA impact, but the reduction from 2005 BAU would be 29.2 percent – less than the required 36 percent target.[4]

Noted reductions also occur for energy emission given the Project's adherence to mandatory CalGreen/Green Building and 2016 Title 24 standards (in compliance with SCA UTIL-4) and also not assumed in the 2005 BAU scenario.

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5. Conclusion

As presented in this GHG Plan and analyzed in the CEQA Analysis document for the 1100 Broadway Project, GHG emissions from the Proposed Project result in a less than significant CEQA impact. Pursuant to SCA GHG-1, the Project sponsor directed that ESA prepare a GHG Plan to demonstrate achievement of a 36 percent reduction of GHG emissions compared to the 2005 BAU scenario, and compliance with the City ECAP.

Table 1 of this GHG Plan shows that the Project's 2020 adjusted baseline emissions are reduced **38.5 percent** from the 2005 BAU scenario. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions, in particular the City's ECAP (per SCA GHG-1). Pursuant to SCA GHG-1, the Project is not required to identify and quantify additional specific GHG reduction measures to reduce Project emissions for CEQA purposes; the Project's emissions are already below one of the CEQA thresholds and exceed the 36 percent reduction from the Project's 2005 BAU scenario. The Project has fully attained SCA GHG-1, the GHG Plan, for CEQA purposes, as specified in SCA GHG-1.[5]

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[4] The Project would still achieve the mandated 36 percent reduction from 2005 BAU and a less than significant CEQA impact with a TDM Plan target of approximately 15 percent vehicle trip / mobile source reduction, although that would not meet the 20 percent requirement of SCA TRA-4 (TDM Plan). The total emissions would be approximately 2,800 MT CO2e per year, per capita emissions would be 2.6 MT CO2e per service population, and the reduction from 2005 BAU would be approximately 36.2 percent.

[5] "The GHG Reduction Plan shall be considered fully attained when project emissions are less than either applicable numeric BAAQMD CEQA Thresholds AND GHG emissions are 36 percent below the project's "2005 business-as-usual" baseline GHG emissions, as confirmed by the City through an established monitoring program."

Appendix G
Construction Noise Management Plan (SCA NOI-4)

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ESA Community Development

180 Grand Avenue
Suite 1050
Oakland, CA 94612
510.839.5066 phone
510.839.5825 fax

www.esassoc.com

Draft Construction Noise Management Plan – 1100 Broadway Project, Addendum #3

Background

This Construction Noise Management Plan ("CNMP") presents project-specific measures for construction contractors to include in the construction contacts to ensure that construction activities are conducted pursuant to City of Oakland Standard Conditions of Approval (SCA) NOI-4 identified in the 1100 Broadway CEQA Analysis for the 2017 Office Project, to which this CNMP is incorporated as Attachment G). Qualified consultants of ESA prepared this CNMP concurrent with the CEQA Analysis.

The proposed development at 1100 Broadway ("Proposed Project") would construct a new 18-story commercial office building on a vacant portion of a one-half acre site ("Project site") at 1100 Broadway in Downtown Oakland, adjacent to the existing eight-story historic Key System Building on the remainder of the Project site. The Proposed Project would also rehabilitate the historic Key System Building for commercial reuse. A two-year construction period for the Proposed Project is projected to begin in January 2018, and the Project's first operational year is estimated to be 2020. The Proposed Project will require the excavation and off haul of approximately 2,610 cubic yards of earth from the Project site, in addition to approximately 7,415 cubic yards of existing demolition rubble (for a total of approximately 10,000 cubic yards) to a depth of 14 feet on the Project site. The excavation activity is anticipated to use conventional earth-moving equipment, such as loaders and backhoes. No soils are anticipated to be imported to the site. The Proposed Project will involve screw piles; no impact-driven piles will be used.

CNMP Measures

Pursuant to SCA NOI-4, this Project-specific CNMP is appropriate to the Project's proposed construction methods and the type and proximity of noise-sensitive receptors to the Project site has been prepared during the CEQA analysis of the Project. Although the Proposed Project does not propose any "extreme noise generating construction activity (e.g., pier drilling, pile driving and other activities generating greater than 90 dBA), certain of the measures included in this CNMP are "potential attenuation measures" identified in SCA NOI-3 which addresses extreme construction noise, to the extent they are appropriate to the Project and its context.

The Proposed Project shall implement to following site- specific noise attenuation measures to further reduce construction noise impacts. All construction contractors on the Project shall adhere to these measures, which shall be included within their construction contracts.

Measures that are redundant of those required by other Oakland SCAs are not included, except that measures identified as part of a menu of options but that shall be tailored and required for the Proposed Project are included:

1. **Document Special Pile Method Noise Level.** Prior to issuance of the first construction permit from the City, the project applicant shall submit to the City for review and confirmation, manufacturer information stated the average operable noise level of the proposed screw pile technology to be used by the Project. Staff shall confirm average operative noise levels less than 90 dBA.

2. **Expanded Construction Hours.** Except if at any time during construction activities the contractor propose to use equipment or conduct activities that involve extreme noise generating activities greater than 90 dBA, construction activity may be considered to occur between 7:00 a.m. and 7:00 p.m. on Saturdays, given the lack of sensitive receptors, residential zoning or substantial weekend congestion on nearby roadways on Saturdays in the Project area, subject to the request for variance from the City and pursuant to the Oakland Municipal Code.

3. **Foundation / Pile Driving.** If feasible, the Project shall install a mat foundation. Impact pile driving shall not be used as an installation method.

4. **Notifications.** Notify adjacent property owners within 300 feet of the project site, including the hotel use at the southwest corner 11th Street and Broadway, at least 10 days prior to commencement of activities.

5. **Site Visibility for Safety.** Avoid temporary plywood noise barriers around the construction site that obscure visibility of the construction site during non-construction days and hours, for purpose of safety and security.

Appendix H
Draft Transportation Demand Management Program (SCA TRA-4)

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Draft Transportation and Parking Demand Management Plan – 1100 Broadway, Addendum #3

The proposed project is required to prepare a Transportation and Parking Demand Management (TDM) Plan because it would generate more than 50 peak hour trips. Since the project would generate more than 100 peak hour trips, the TDM Plan goal is to achieve a 20 percent vehicle trip reduction (VTR).

Project Location

The project is located in Downtown Oakland, a dense, pedestrian-friendly, urban area, and is adjacent to a BART Station and frequent bus service. The project's location is expected to result in relatively high rate of pedestrian, bicycle, and transit trips. As a result, the automobile trips generated by the project is estimated to be slightly more than half of trips generated by a typical suburban office building, as shown in **Table H-1**. Similarly, the VMT per worker in the project area is about 60 percent of the regional VMT per worker (See VMT discussion under *13. Transportation and Circulation* [Criterion 13B], in the CEQA Checklist if this document).

The project would also include the following features that further discourage driving and encourage non-automobile modes:

- The project would not provide any automobile parking, which considering the limited parking supply in Downtown Oakland, would further discourage driving to and from the project site; however, the project has the option to secure up to 145 parking spaces in the underground parking garage in the adjacent building.
- The project would provide bicycle parking that meets or exceeds City Cide requirements. The project would also provide showers and locker that would further encourage bicycling.

TABLE H-1
AUTOMOBILE TRIP GENERATION

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Office	312.4 KSF	710 [3]	3,120	419	57	476	73	355	428
Retail	10.0 KSF	820 [2]	430	6	4	10	18	19	37
Subtotal			3,550	425	61	486	91	374	465
Non-Auto Reduction (-46.9%)[4]			*-1,660*	*-199*	*-29*	*-228*	*-43*	*-175*	*-218*
Net New Project Trips			**1,890**	**226**	**32**	**258**	**48**	**199**	**247**
Approved 2008 Project [5]			2,513	271	39	310	69	245	315
Net Difference			-623	-45	-7	-52	-21	-46	-68

1. DU = Dwelling Units, KSF = 1,000 square feet.
2. ITE *Trip Generation (9th Edition)* land use category 820 (Shopping Center):
   Daily: T = 42.7 * X
   AM Peak Hour: T = 0.96* X (62% in, 38% out)
   PM Peak Hour: T = 3.71* X (48% in, 52% out)
3. ITE *Trip Generation (9th Edition)* land use category 710 (General Office Building):
   Daily: Ln(T) = 0.76*Ln(X) + 3.68
   AM Peak Hour: Ln(T) = 0.80*Ln(X) + 1.57 (88% in, 12% out)
   PM Peak Hour: T = 1.12*(X) + 78.45 (17% in, 83% out)
4. Reduction of 46.9% assumed. Based on City of Oakland *Transportation Impact Review Guidelines* using Census data for urban environments within 0.5 miles of a BART Station.
5. Source: 1100 Broadway Transportation Study, January 31, 2008

SOURCE: Fehr & Peers, 2017.

The following infrastructure improvements that would further encourage non-automobiles modes are also planned in the project area:

- AC Transit will implement the East Bay Bus BRT Project, which would provide rapid bus service in the International Boulevard corridor. The nearest BRT stop to the project site would be at the same location as the current Route 1 stops on eastbound 11th and westbound 12th Streets on the opposite side of the street from the project.
- Ford GoBike, the Bay Area bike share system, expanded in Oakland in summer 2017. Several bike share stations are in the vicinity of the proejct site as part of the intitial expansion phase. These locations include: Frank Ogawa Plaza, Franklin Street at 9th Street, and Franklin Street at 14th Street.

Infrastructure Improvements

The Site Plan Review, described earlier in this memorandum, recommends several infrastructure improvements that would improve the bicycling, walking, and transit systems in the area. These improvements, which are considered part of the TDM program include:

- Consider relocating all or some of the long-term bicycle parking from the basement to a more convenient location on the ground level.
- Implement a continuation of the existing Class 2 bicycle lanes on Webster and Franklin Streets between 11th and 14th Streets.
- Explore the feasibility and if feasible, install directional curb ramps at all four corners of the 12th street/Broadway and 11th street/Broadway intersections that the East Bay BRT project would not upgrade. Considering that fire hydrants, signal poles, light poles, and/or storm drain inlets may be present at these locations, construction of curb extensions (bulbouts) may also be required at some locations to accommodat the directional curb ramps.
- Modify the existing median on Broadway to provide a pedestrian refuge island for the south crosswalk at the 11th Street/Broadway intersection.

Mandatory TDM Strategies

This section describes the mandatory strategies that shall be implemented at the project. Some of these strategies shall be directly implemented by the building management and others shall be implemented by individual tenants. If the mandatory measures do not achieve the required VTR goals, additional voluntary measures are to be implemented, as described in the following section. **Table H-2** lists these mandatory TDM strategies, the responsible party for implementation, and the effectiveness of each strategy based on research compiled in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association (CAPCOA), August 2010). This report is a resource for local agencies to quantify the benefit, in terms of reduced travel demand, of implementing various TDM strategies.

- *Alternative Work Schedule/Flexible Hours/Telecommuting* – Encourage project tenants to offer alternative work schedules, flexible hours, and or telecommuting, which can eliminate employee trips or shift them to non-peak periods.
- *Transit Fare Subsidy* – Encourage project tenants to provide free or reduced cost transit in order to increase transit mode share. It is assumed that 50 percent of employers will opt to offer a transit fare subsidy of $4.50 per day, which would translate to a 15 percent reduction in driving trips generated by the project.

TABLE H-2
MANDATORY TDM PROGRAM COMPONENTS

TDM Strategy	Responsible Party	Estimated Trip Reduction[1]
Infrastructure Improvements	Building Management	NA[2]
Alternative Work Schedule/Flexible Hours/ Telecommuting	Project Tenants	<1%
Transit Fare Subsidy	Project Tenants	15%[3]
Pre-tax Commuter Benefit	Project Tenants	NA[1]
Carpool and Ride-Matching Assistance	Building Management	2%
Preferential Parking for Carpoolers	Building Management	
Bicycle Facility Monitoring	Building Management	NA[2]
Guaranteed Ride Home	Project Tenants	NA[2]
TDM Coordinator	Building Management and Project Tenants	NA[2]
TDM Marketing and Employee Education	Building Management and Project Tenants	2%
	Total	**20%**

1. The focus of the CAPCOA document is reductions to VMT but the research used to generate the reductions also indicates vehicle trip reductions are applicable as well. For the purposes of this analysis the VTR is assumed to equal the VMT reduction. See the cited CAPCOA research for more information and related information on page 8 of the BAAQMD *Transportation Demand Management Tool User's Guide* (June 2012)
2. The effectiveness of this strategy cannot be quantified at this time. This does not necessarily imply that the strategy is ineffective. It only demonstrates that at the time of the CAPCOA report development, existing literature did not provide a robust methodology for calculating its effectiveness. In addition, many strategies are complementary to each other and isolating their specific effectiveness may not be feasible.
3. Assuming a subsidy of $4.50 per employee per day offered by 50 percent of building employers.

Sources: Fehr & Peers, 2017.

- *Pre-tax Commuter Benefits* – Encourage project tenants to enroll in WageWorks or other service to help with pre-tax commuter savings. This strategy allows employs to deduct monthly transit passes or other amount using pre-tax dollars. This can help to lower payroll taxes and allows employees to save on transit.

- *Carpool and Ride-Matching Assistance Program* – The building management shall offer personalized ride-matching assistance to pair employees interested in forming commute carpools. As an enhancement, building management may consider using specific services such as ZimRide, ComoVee, or 511.org RideShare.

- *Preferential Parking for Carpoolers* – If off-site parking is provided for the project, the building management shall offer free or discounted preferential carpool parking for eligible commuters. To be eligible for carpool parking, the carpool shall consist of three or more people. The building management shall monitor and provide adequate carpool spaces to meet and exceed potential demand. Considering the limited parking supply in Downtown Oakland, all or some of the unoccupied parking spaces designated for carpool shall be available for general use after 10:00 AM.

- *Bicycle Facility Monitoring* – As previously described, the project would meet or exceed the City's requirements for short-term and long-term bicycle parking. Building management shall monitor the usage of these facilities and provide additional bicycle parking if necessary.

- *Guaranteed Ride Home* – Encourage project tenants to register for the Guaranteed Ride Home (GRH) program. Employees may be hesitant to commute by any other means, besides driving alone, since they lose the flexibility of leaving work in case of an emergency. GRH programs encourage alternative modes of transportation by offering free rides home in the case of an illness or crisis, if the employee is required to work unscheduled overtime, if a carpool or vanpool is unexpectedly unavailable, or if a bicycle problem arises. The Alameda County Transportation Commission offers a GRH service for all registered permanent employees who are employed within Alameda County, live within 100 miles of their worksite, and do not drive alone to work. The GRH program is offered at no cost to the employer, and employers are not required to register in order for their employees to enroll and use the program.

- *TDM Coordinator* – Each tenant shall designate a staff person as their TDM coordinator to coordinate, monitor and publicize TDM activities. Building management shall also designate a "Building TDM coordinator."

- *TDM Marketing and Employee Education*- Building management shall provide employees information about various transportation options in the project area and the TDM strategies provided by the building. This information would also be posted at central location(s) and be provided to each building tenant. The information shall be updated as necessary. Marketing strategies can promote alternative trips by making commuters aware of the options and incentives of using non-automobile transportation. Implementing commute trip reduction strategies with a complementary marketing strategy can increase the overall effectiveness of the program.

Additional TDM Strategies

The project should consider the implementation of some or all of the following additional strategies to limit automobile use and encourage non-automotive travel. If the TDM program does not meet the required goals, the implementation of some or all of these measures may become necessary. **Table H-3** lists these additional TDM strategies, the responsible party for implementation, and their estimated effectiveness.

TABLE H-3
ADDITIONAL TDM PROGRAM COMPONENTS

TDM Strategy	Responsible Party	Estimated Trip Reduction
Increased Transit Subsidy	Project Tenants	NA[1]
Increased Parking Fee	Building Management	NA[1]
Bike-Share Membership	Project Tenants	NA[1]
Personalized Trip Planning	Building Management	NA[1]

1. Estimated trip reductions will only be recalculated as part of a Corrective Action Plan, if required.
Sources: Fehr & Peers, 2017.

- *Increased Transit Subsidy* – Encourage tenants to increase the transit subsidy provided to employees. Alternatively, the building management can include a specific number of transit passes with each lease agreement.
- *Car-Share Membership* – Encourage increased usage of car-share by encouraging tenants to fully or partially pay for their employees' yearly membership fee and insurance associated with car-sharing.
- *Bike-Share Membership* – Encourage increased usage of bike-share by encouraging tenants to fully or partially pay for their employees' yearly membership fee and insurance associated with bike-sharing.
- *Personalized Trip Planning* – In the form of in-person assistance or as a web tool, this provides employees with a customized menu of options for commuting. Trip planning reduces the barriers employees see to making a walk, bike, or transit trip to the site. Transit trip making tools, such as those available from Google or 511.org, could be promoted to inform employees of transit options to/from work. Providing a map of preferred walking routes to destinations within

one mile of the site and a map of bicycling routes within five miles of the site would be a proactive strategy to encourage those employees to use alternatives to driving. Building management can make presentation to employers and their employees upon request or at set times.

TDM Compliance

Since the proposed project would generate more than 100 net peak hour automobile trips and the TDM Plan contains ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project for review and approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual vehicle trip reduction achieved by the project during operation. If deemed necessary, the City may elect to have a peer review consultant, paid for by the project applicant, review the annual report. If timely reports are not submitted and/or the annual reports indicate that the project applicant has failed to implement the TDM Plan, the project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in the Project Conditions of Approval. The project shall not be considered in violation of this Condition if the TDM Plan is implemented but the vehicle trip reduction goal is not achieved.

Appendix I
1100 Broadway Final SCAs, Mitigation Measures and COAs, as Revised from the 2008 Addendum

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1100 BROADWAY
Application for Development Review

08 . 30 . 2017

Owner/Applicant:
1100 Broadway Owner, LLC c/o Ellis Partners
111 Sutter Street, Suite 800
San Francisco, CA 94104

Landscape Architect:
Bionic
833 Market Street, Suite 601
San Francisco, CA 94103

Civil Engineer:
Sandis
636 9th Street
Oakland, CA 94607

Geotechnical Engineer:
GEI
180 Grand Avenue, Suite 1410
Oakland, CA 94612

Structural Engineer:
Magnusson Klemencic Associates
1301 Fifth Avenue, Suite 3200
Seattle, WA 98101-2699

Historical Architect:
Wiss, Janey, Elstner Associates, Inc.
2000 Powell St. #1650
Emeryville, CA 94608

Architect:
Gensler
2101 Webster Street, Suite 2000
Oakland, CA 94612

Vertical Transportation:
Edgett Williams Consulting Group
102 East Blithedale Avenue, Suite 1
Mill Valley, CA 94941

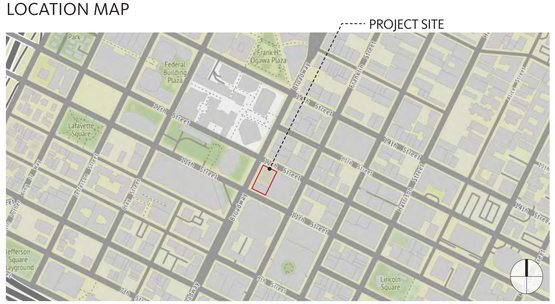
Mechanical and Plumbing Engineer:
Taylor Engineering
1080 Marina Village Parkway, Suite 501
Alameda, CA 94501

Electrical Engineer & Lighting Designer:
The Engineering Enterprise
1305 Marina Village Parkway
Alameda, CA 94501

Fire and Life Safety:
The Fire Consultants
1981 N. Broadway, Suite 400
Walnut Creek, CA 94596

Curtain Wall:
JA Weir Associates
600 South Catalina Ave, Suite G
Redondo Beach, CA 90277-4173

LOCATION MAP



ASSESSOR'S PARCEL MAP

USE AND AREA CHART

Entitlement

FLOOR	NEW TOWER (GROSS FLOOR AREA)						KEY BUILDING (GROSS FLOOR AREA)				TOTAL BUILDING (GROSS FLOOR AREA)					
	ENTRANCE LOBBY	RETAIL/ RESTAURANT	LOADING DOCK	BUILDING SUPPORT SPACE*	OFFICE AREA	TOTAL NEW TOWER	RETAIL/ RESTAURANT	BUILDING SUPPORT SPACE	OFFICE AREA	TOTAL KEY BUILDING	ENTRANCE LOBBY	RETAIL/ RESTAURANT	LOADING DOCK	BUILDING SUPPORT SPACE	OFFICE AREA	TOTAL BUILDING
Upper Mech PH				6,150		6,150								6,150		6,150
Lower Mech PH				6,150		6,150								6,150		6,150
18					18,700	18,700								0	18,700	18,700
17					18,700	18,700								0	18,700	18,700
16					18,700	18,700								0	18,700	18,700
15					18,700	18,700								0	18,700	18,700
14					18,700	18,700								0	18,700	18,700
13					18,700	18,700								0	18,700	18,700
12					18,700	18,700								0	18,700	18,700
11					18,700	18,700								0	18,700	18,700
10					18,700	18,700								0	18,700	18,700
9					18,200	18,200								0	18,200	18,200
8					16,300	16,300			4,315	4315				0	20,615	20,615
7					16,300	16,300			4,315	4315				0	20,615	20,615
6					16,300	16,300			4,315	4315				0	20,615	20,615
5					16,200	16,200			4,315	4315				0	20,515	20,515
4					16,200	16,200			4,315	4315				0	20,515	20,515
3					16,200	16,200			4,315	4315				0	20,515	20,515
2 (Mezzanine)						0	1,000			1000		1,000		0	0	1,000
1	5,850	4,334	900	6,215		17,299	4,666			4666	5,850	9,000	900	6,215	0	21,965
Basement				16,500		16,500		6,921		6921	0	0	0	23,421	0	23,421
Total	**5,850**	**4,334**	**900**	**35,015**	**284,000**	**330,099**	**5,666**	**6,921**	**25,890**	**38,477**	**5,850**	**10,000**	**900**	**41,936**	**309,890**	**368,576**

*Building Support space includes mechanical, electrical, plumbing, fire-life safety, potential conference center, fitness center, bike storage, storage and other uses.

AVERAGE TOWER SF	**18,650**
MAX SF PER CODE (85% OF 22K)	**18,700**

PROJECT DESCRIPTION

The 1100 Broadway project is located in Oakland, California, along Broadway between 11th and 12th Streets. The project consists of a new 18-story tower connected to the existing 8-story Key System Building (KSB). There is one full basement level under both the new and existing buildings. The total project will contain approximately 310,000 square feet of office space, 10,000 square feet of retail space, and 49,000 sf of combined lobby, support, and back of house space.

The primary use of the building will be office space with retail space at street level and below-grade support spaces. The design includes a below-grade connection to the adjacent parking structure, a connection at grade to the University of California Office of the President (UCOP) building, and a connection onto the UCOP roof garden at level 5. An additional connection to the parking structure is being explored at levels 3 and 4.

The new tower consists of a side-core architectural layout, with the core on the east side of the floor plate adjacent to the UCOP building. Rooftop amenity spaces may be provided on the KSB roof, tower roof, or both.

PROJECT & ZONING SUMMARY

Address: 1100 Broadway, Oakland CA 94607
Parcel Number: 2-51-6-2
Development Standard Zone: CBD-P

Height Area: 7 (No height limit, 120' max building base height)
Proposed Total Building Height: 240' to top of structural slab, +/- 269' to top of mechanical penthouse slab
Proposed Building Base Height: 102'-6"
Max FAR: 20
Proposed FAR: 17
Maximum Allowable Floor Area: 440,000 sf
Proposed Floor Area: 368,576 sf
Total Lot Area: 22,000 sf
Total Building Footprint: 21,965 sf
Max Lot Coverage: 100%
Max Average Lot Coverage Above Building Base: 85%
Proposed Average Lot Coverage Above Building Base: 85%
Max Average Area of Floor Plates: No max
Max Tower Elevation Length: No Max
Max Diagonal Length: No Max
Proposed Number of Parking Spaces: 0 (Option for 145 parking spaces in adjacent garage)

VARIANCES REQUESTED

Off-Street Loading: This project includes a requested loading variance for a reduction in the number and size of loading spaces as shown on these plans. Per section 17.116.140 (3) loading berths would be required, plan shows (2) provided. Per section 17.116.220 loading berths shall have the minimum dimensions of 33' long, 12' wide, and 14' high, plans show berths with the dimensions of 31' long, 12' wide, and 14' high. Additionally section 220 requires a 3' maneuvering aisle, proposed plan provides maneuvering space within the 12' width of the berth. See associated variance findings document for details.

BICYCLE PARKING, SHOWER, AND LOCKER REQUIREMENTS

BICYCLE PARKING REQUIREMENTS PER SECTION 17.117.110

Program	Area	Long Term Ratio	Long Term Spaces	Short Term Ratio	Short Term Spaces
Commercial - Office	309,890 SF	1:10,000 SF (Min 2)	31	1:20,000 SF (Min 2)	16
Commercial - Retail	10,000 SF	1:12,000 SF (Min 2)	2	1:5,000 SF (Min 2)	2
Total			33		18

17.117.080 - Calculation Rules. A. If after calculating the number of required bicycle parking spaces a quotient is obtained containing a fraction of one-half (½) or more, an additional space shall be required; if such fraction is less than one-half (½), it may be disregarded.

SHOWER AND LOCKER FACILITY REQUIREMENTS PER 17.117.130

Program	Area	Male Showers	Female Showers	Male Lockers	Female Lockers
Commercial - Office + Retail	319,890 SF	3	3	12	12

A minimum of two (2) showers per gender plus one (1) shower per gender for each 150,000 sf. above 150,000 sf. Four (4) lockers per shower

DRAWING INDEX

ARCHITECTURAL

A0.00 COVER SHEET
A0.01 PROJECT INFORMATION
A0.02 EXISTING SITE PHOTOGRAPHS
A0.03 KEY SYSTEM BUILDING PHOTOGRAPHS
A0.04 PERSPECTIVE RENDERINGS
A0.05 BROADWAY FACADE RENDERING
A0.06 BROADWAY FACADE RENDERING
A1.00 SITE PLAN
A1.01 FLOOR PLAN - BASEMENT
A1.02 FLOOR PLAN - GROUND FLOOR
A1.03 FLOOR PLAN - 2ND FLOOR (MEZZANINE)
A1.04 FLOOR PLAN - LOW RISE (FL3-8)
A1.05 FLOOR PLAN - 9TH FLOOR
A1.06 FLOOR PLAN - 10TH FLOOR
A1.07 FLOOR PLAN - 11TH FLOOR
A1.08 FLOOR PLAN - LEVEL 12 STAIR TRANSFER
A1.09 FLOOR PLAN - HIGH RISE (FL13-18)
A1.10 FLOOR PLAN - ROOF/LOWER MECH PENTHOUSE
A1.11 FLOOR PLAN - UPPER MECH PENTHOUSE
A2.00 BUILDING ELEVATIONS AND MATERIALS
A2.01 BUILDING ELEVATIONS AND MATERIALS
A3.00 BUILDING SECTION
A3.01 BUILDING SECTION

CIVIL

C0.0 TOPOGRAPHIC SURVEY
C1.0 GRADING PLAN
C2.0 UTILITY PLAN
C3.0 PRELIMINARY PORT-CONSTRUCTION STORMWATER MANAGEMENT PLAN
C4.0 EROSION AND SEDIMENTATION CONTROL PLAN

HISTORICAL ARCHITECTURE

HA2.01 GROUND FLOOR DEMO AND PRESERVATION PLAN
HA2.02 REFLECTED CEILING PRESERVATION PLAN
HA2.03 ROOF PLAN
HA3.01 PARTIAL WEST (BROADWAY) ELEVATION - FLOORS 1-4
HA3.02 PARTIAL WEST (BROADWAY) ELEVATION - FLOORS 5-ROOF
HA3.03 PARTIAL SOUTH ELEVATION - WEST TOWER - FLOORS 1-4
HA3.04 PARTIAL SOUTH ELEVATION - WEST TOWER - FLOORS 6-ROOF
HA3.05 PARTIAL SOUTH ELEVATION - EAST TOWER - FLOORS 1-4
HA3.06 PARTIAL SOUTH ELEVATION - EAST TOWER - FLOORS 5-ROOF
HA3.07 PARTIAL EAST AND SOUTH LIGHT COURT ELEVATIONS - FLOORS 3-5
HA3.08 PARTIAL EAST AND SOUTH LIGHT COURT ELEVATIONS - FLOORS 5-ROOF
HA3.09 PARTIAL WEST LIGHT COURT ELEVATION - FLOORS 3-5
HA3.10 PARTIAL WEST LIGHT COURT ELEVATION - FLOORS 6-ROOF
HA3.11 PARTIAL EAST ELEVATION - FLOORS 3-5
HA3.12 PARTIAL EAST ELEVATION - FLOORS 6-ROOF
HA3.13 SOUTH EAST ELEVATION
HA3.14 NORTH ELEVATION

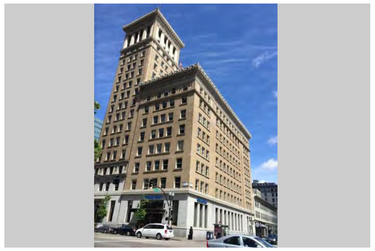
LANDSCAPE

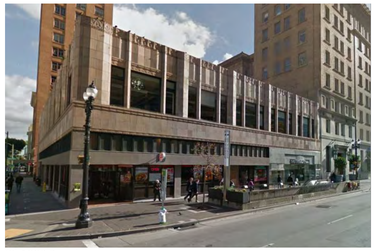
L1.00 TREE SURVEY
L1.01 LANDSCAPE PLAN - STREETSCAPE
L1.01A MATERIAL BOARD - STREETSCAPE
L1.02 LANDSCAPE PLAN - OPTIONAL ROOF DECK LVL 9 (KEY SYSTEM BLDG ROOF)
L1.03 LANDSCAPE PLAN - OPTIONAL ROOF DECK LVL 19 (NEW TOWER BLDG ROOF)

LIGHTING DESIGN

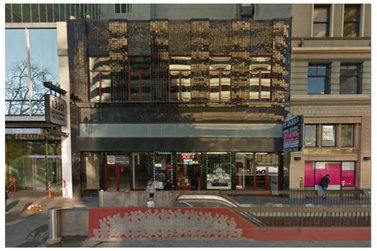
E1.01 LIGHTING PLAN - STREET LEVEL

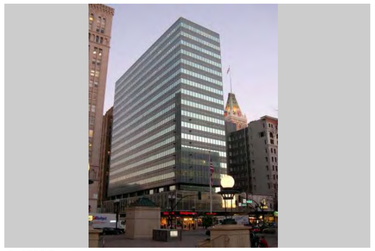
VICINITY PHOTOS


(1) 1200 Broadway: Comerica Bank


(2) 1220 Broadway

(3) 1300 Broadway


(4) 1310 Broadway


(5) 1330 Broadway

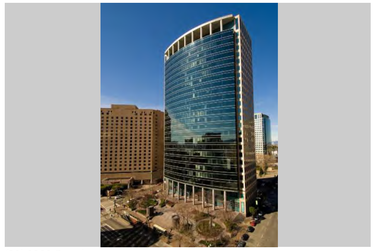
(6) 1201 Franklin Street

(7) 1111 Franklin Street

(8) 1000 Broadway: Trans Pacific Center

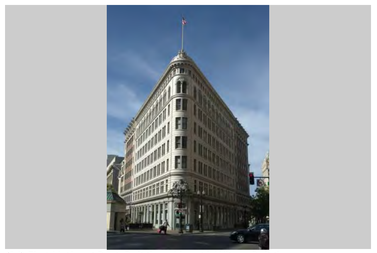
(9) 988 Broadway: Courtyard Marriot

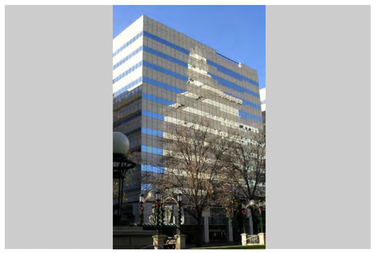
(10) 801 Franklin Street

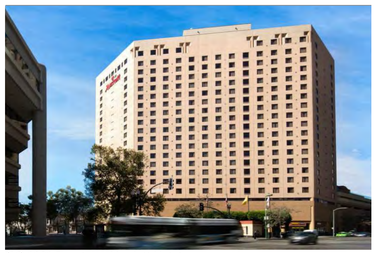

(11) 1111 Broadway

(12) 1221 Broadway: Clorox Building

(13) 1333 Broadway


(14) First National Bank Building - Lionel J. Wilson Building


(15) 475 14th Street


(16) 1001 Broadway: Marriott Hotel

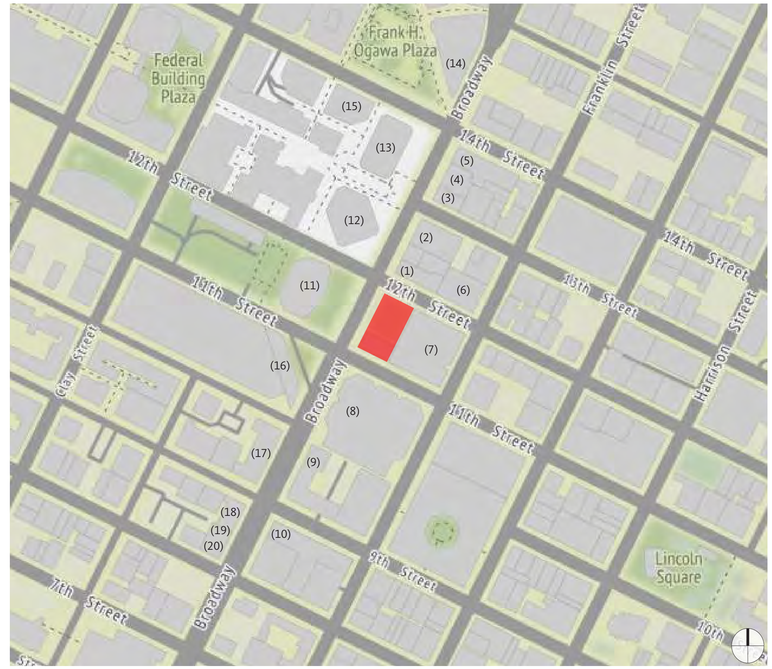
(17) 901-933 Broadway: Smart and Final

(18) 827 Broadway: Wilcox Building

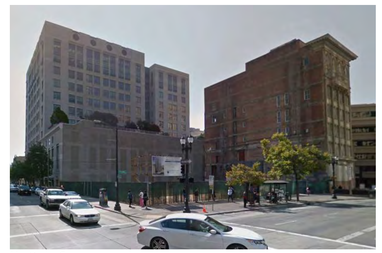
(19) 807 Broadway: Studio Building

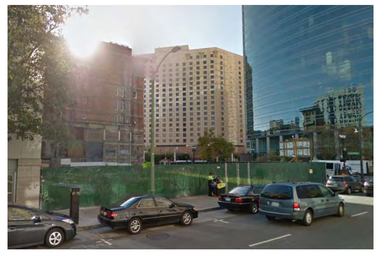
(20) 801 Broadway: Sanford Building

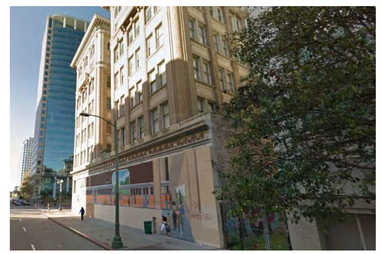
KEY PLAN



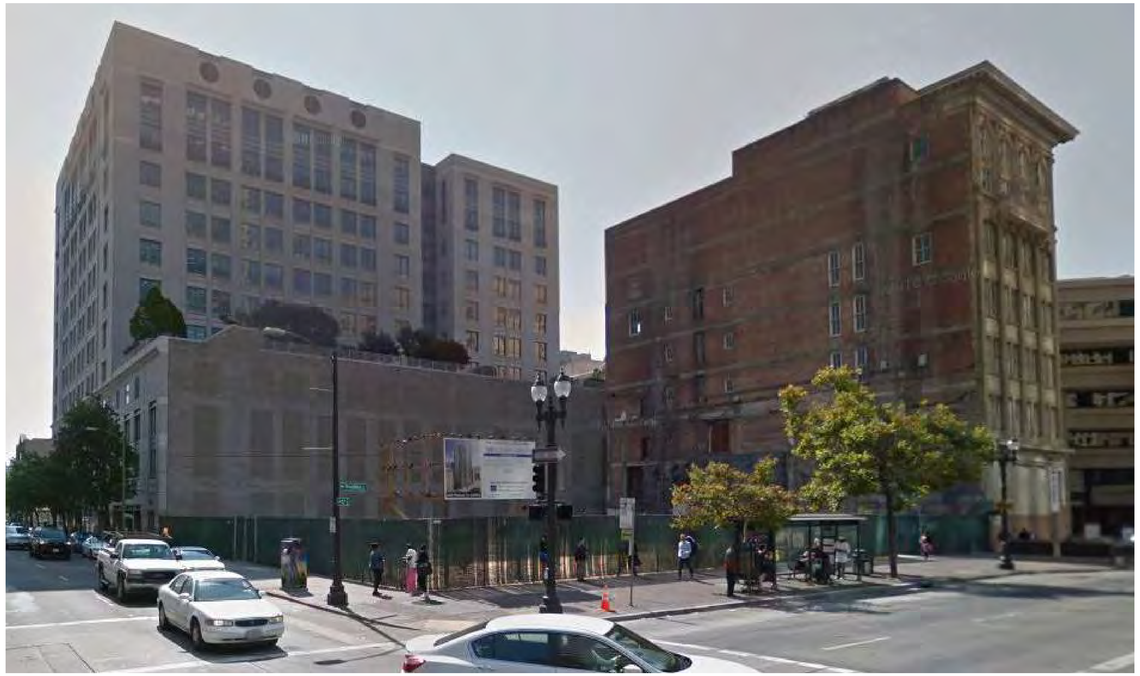
SITE PHOTOS


Northern Corner


Eastern Corner


Southern Corner

Western Corner



Broadway Facade

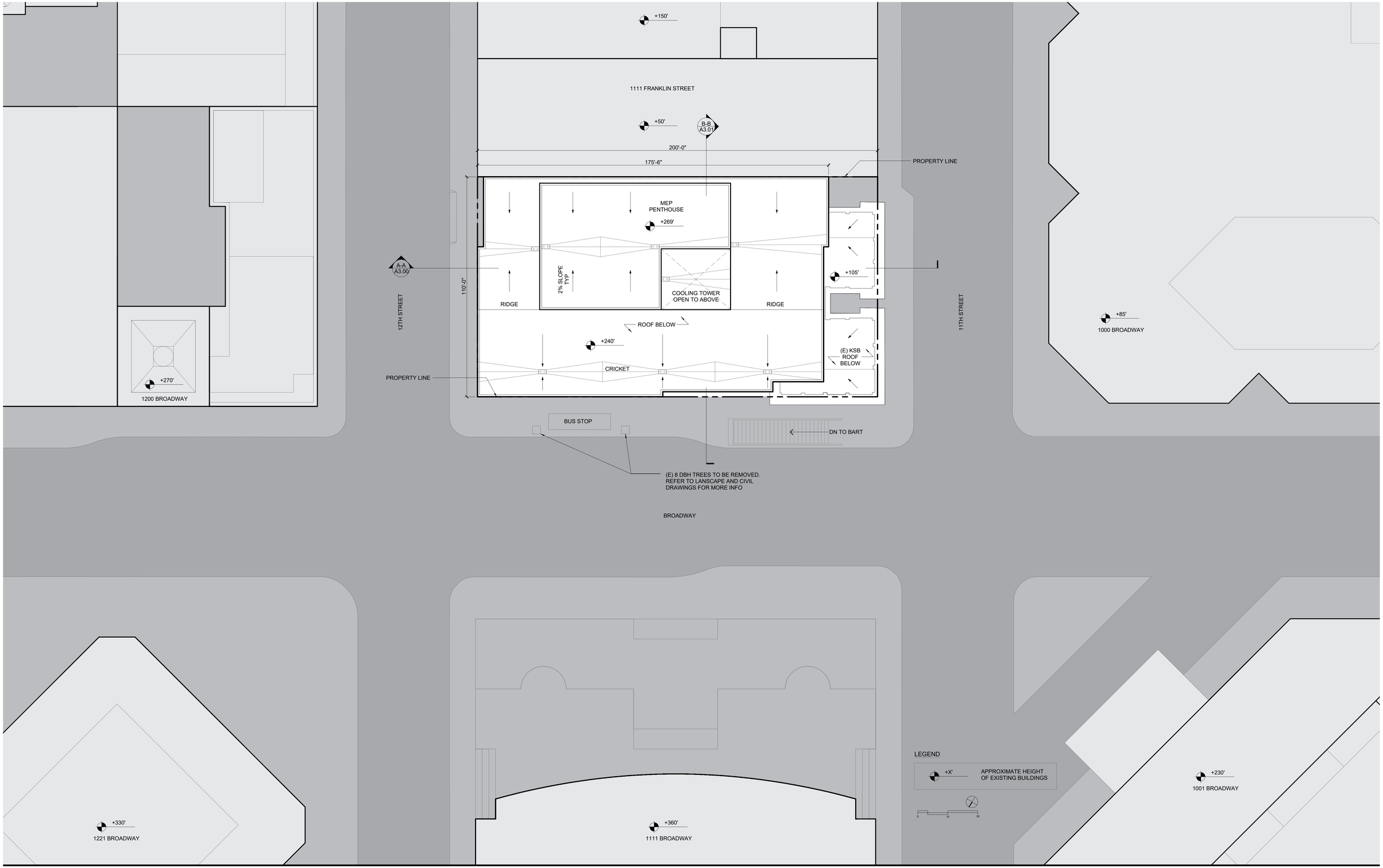
Facade Vignette

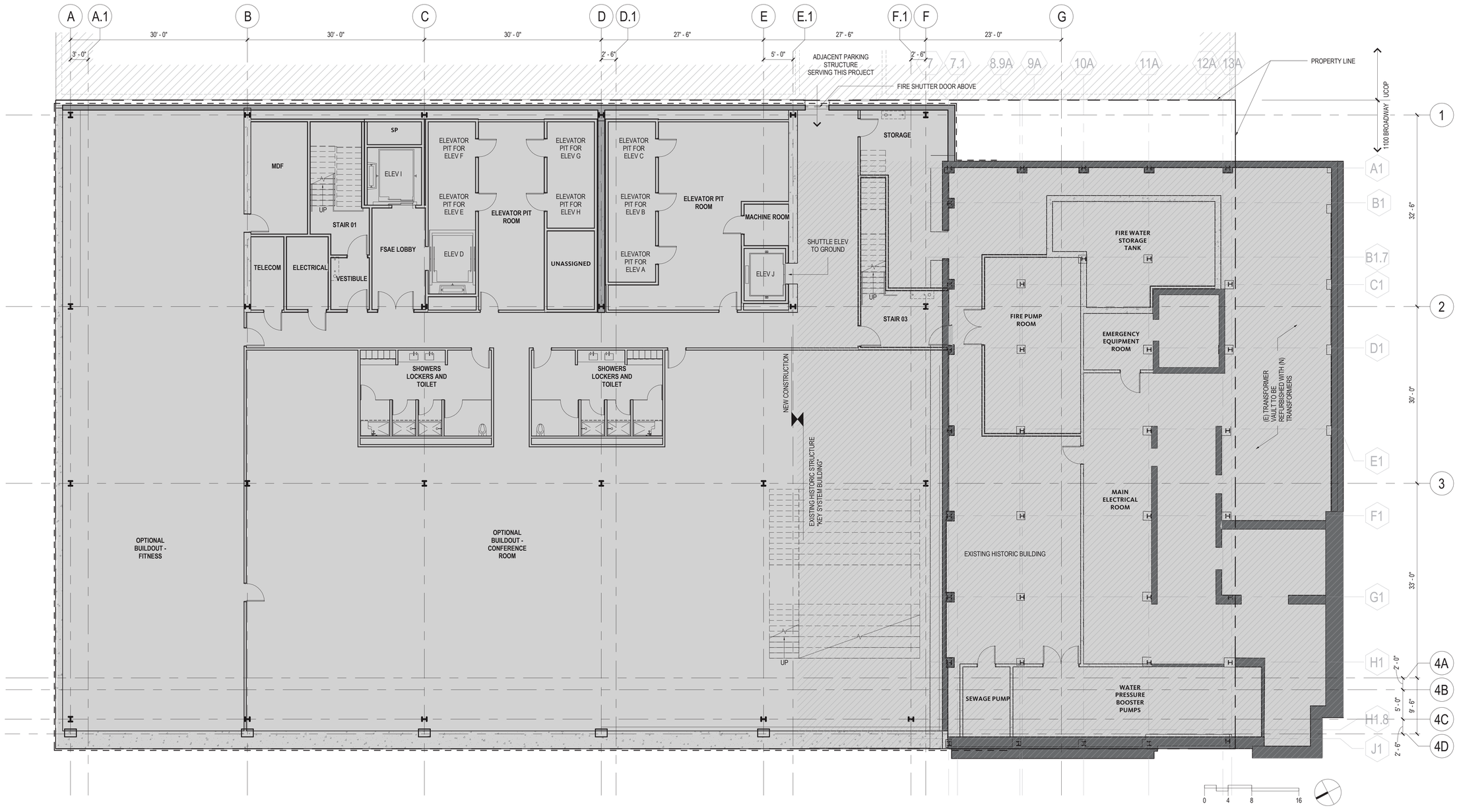
Top of Building Detail

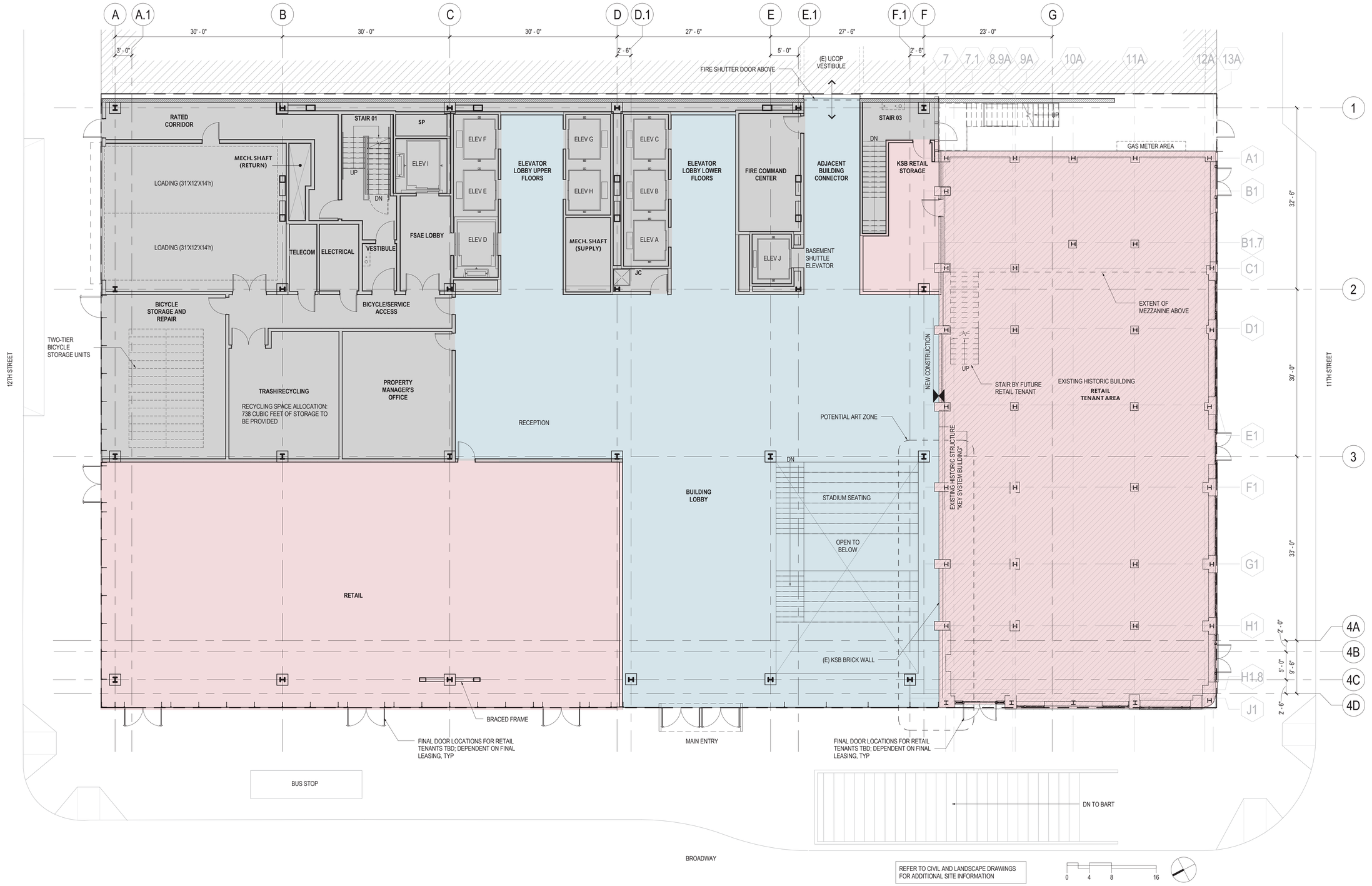
11th St. Looking East

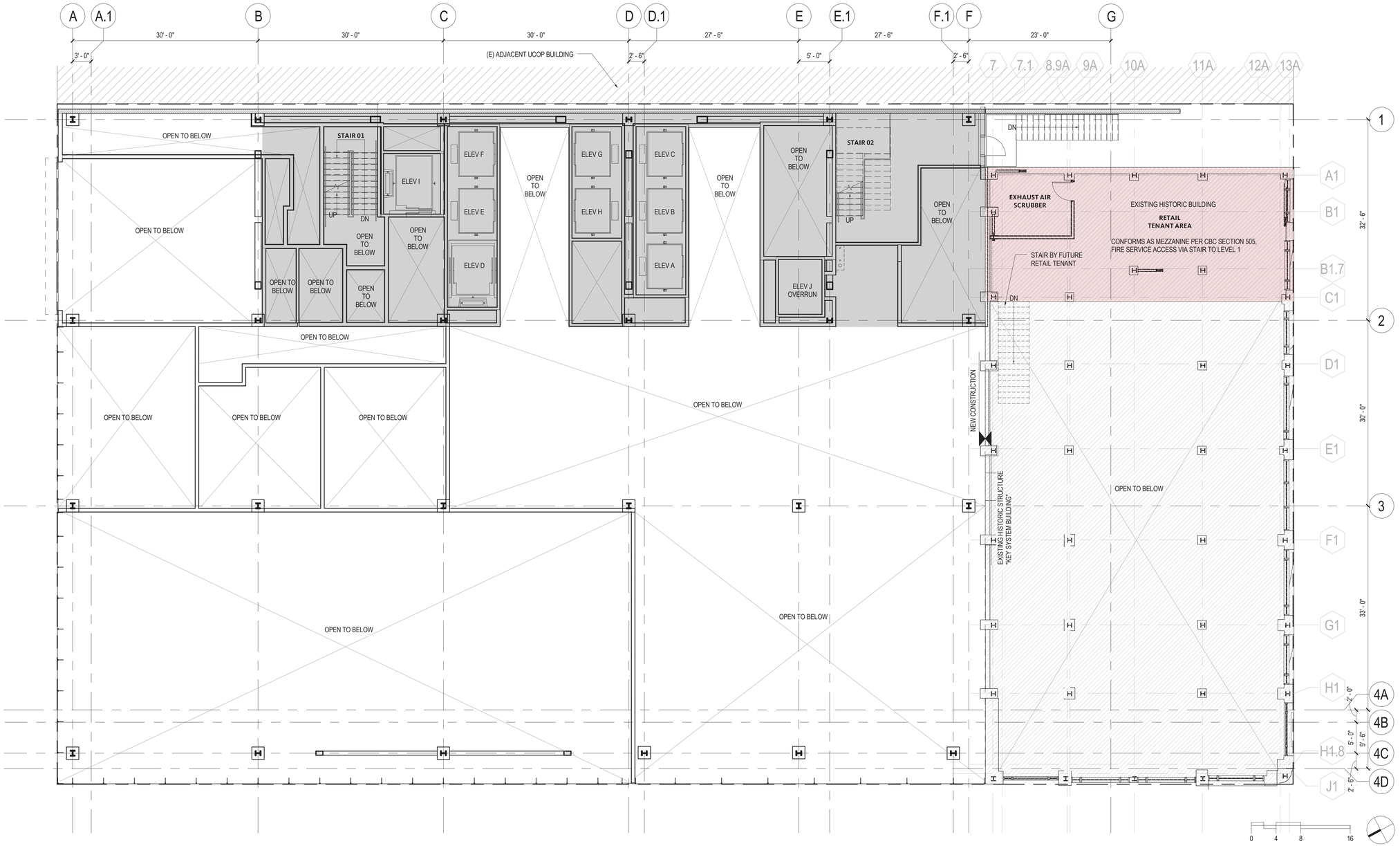
1100

Bank

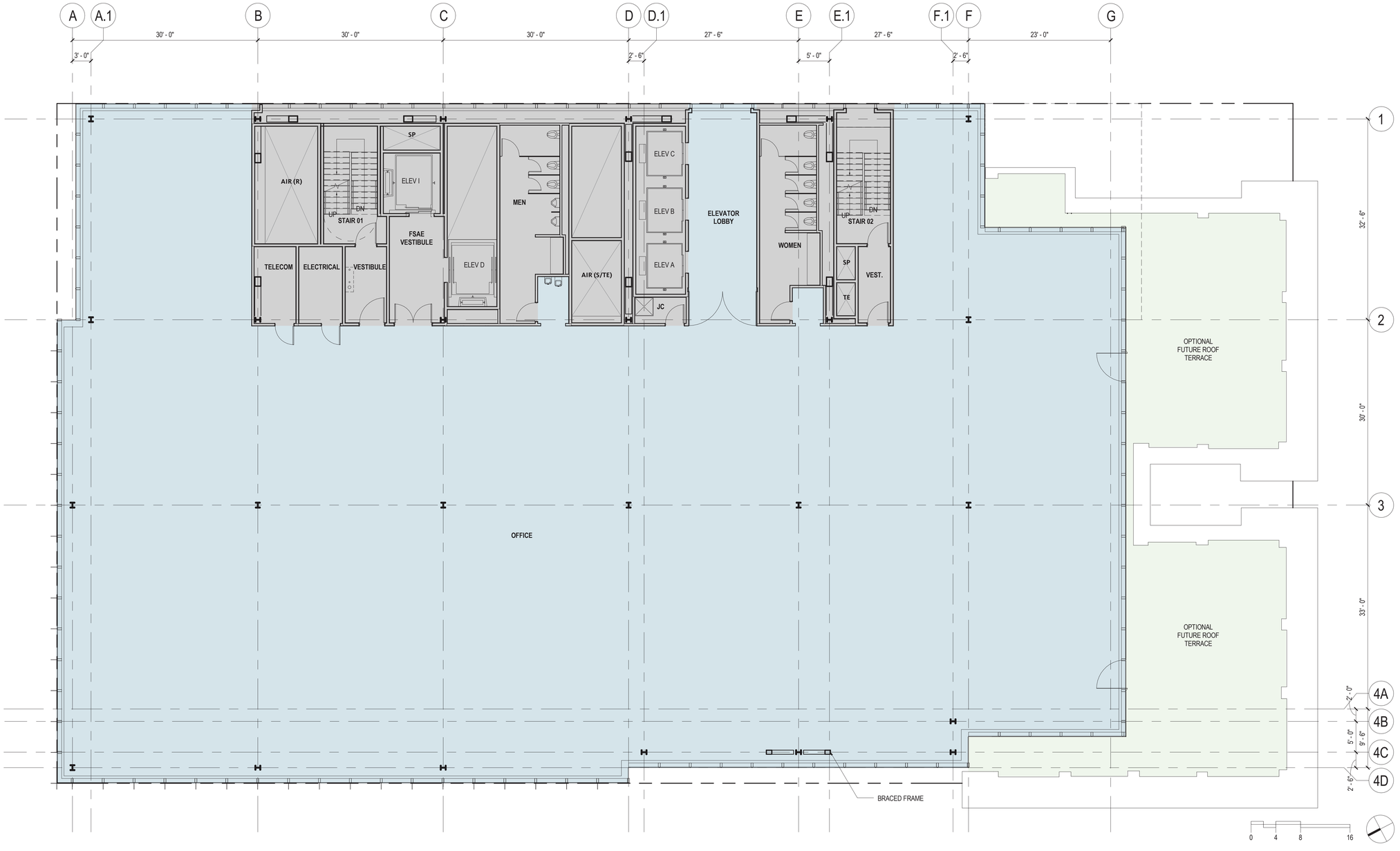

+150'
1111 FRANKLIN STREET
+50'
B-B
A3.01
200'-0"
175'-6"
PROPERTY LINE
MEP
PENTHOUSE
+269'
A-A
A3.00
110'-0"
2% SLOPE
TYP
COOLING TOWER
OPEN TO ABOVE
RIDGE
RIDGE
+105'
12TH STREET
11TH STREET
ROOF BELOW
+240'
(E) KSB
ROOF
BELOW
CRICKET
PROPERTY LINE
+270'
1200 BROADWAY
+85'
1000 BROADWAY
BUS STOP
DN TO BART
(E) 8 DBH TREES TO BE REMOVED.
REFER TO LANSCAPE AND CIVIL
DRAWINGS FOR MORE INFO
BROADWAY
LEGEND
+X'
APPROXIMATE HEIGHT
OF EXISTING BUILDINGS
0
15
30
+330'
1221 BROADWAY
+360'
1111 BROADWAY
+230'
1001 BROADWAY

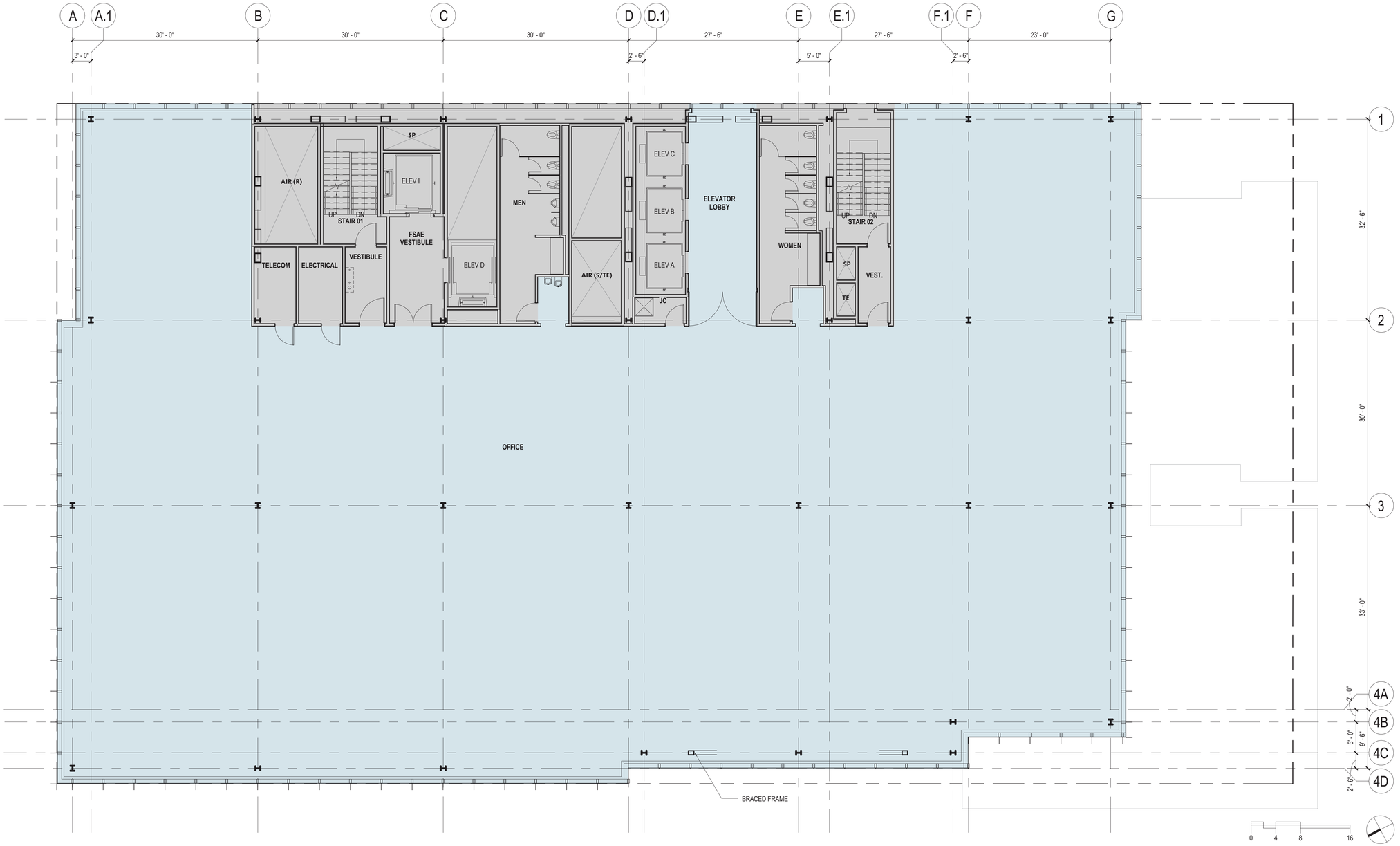

A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
7
7.1
8.9A
9A
10A
11A
12A
13A
PROPERTY LINE
1100 BROADWAY / UCOP
ADJACENT PARKING STRUCTURE SERVING THIS PROJECT
FIRE SHUTTER DOOR ABOVE
MDF
SP
ELEV I
UP
STAIR 01
TELECOM
ELECTRICAL
VESTIBULE
FSAE LOBBY
ELEV D
ELEVATOR PIT FOR ELEV F
ELEVATOR PIT FOR ELEV E
ELEVATOR PIT ROOM
ELEVATOR PIT FOR ELEV G
ELEVATOR PIT FOR ELEV H
UNASSIGNED
ELEVATOR PIT FOR ELEV C
ELEVATOR PIT FOR ELEV B
ELEVATOR PIT FOR ELEV A
ELEVATOR PIT ROOM
MACHINE ROOM
ELEV J
SHUTTLE ELEV TO GROUND
STORAGE
UP
STAIR 03
SHOWERS LOCKERS AND TOILET
SHOWERS LOCKERS AND TOILET
NEW CONSTRUCTION
EXISTING HISTORIC STRUCTURE "KEY SYSTEM BUILDING"
UP
OPTIONAL BUILDOUT - FITNESS
OPTIONAL BUILDOUT - CONFERENCE ROOM
FIRE WATER STORAGE TANK
FIRE PUMP ROOM
EMERGENCY EQUIPMENT ROOM
(E) TRANSFORMER VAULT TO BE REFURBISHED WITH (N) TRANSFORMERS
MAIN ELECTRICAL ROOM
EXISTING HISTORIC BUILDING
SEWAGE PUMP
WATER PRESSURE BOOSTER PUMPS
A1
B1
B1.7
C1
D1
E1
F1
G1
H1
H1.8
J1
1
2
3
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
5' - 0"
9' - 6"
2' - 6"
0
4
8
16


A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
3' - 0"
30' - 0"
30' - 0"
30' - 0"
2' - 6"
27' - 6"
5' - 0"
27' - 6"
2' - 6"
23' - 0"
7
7.1
8.9A
9A
10A
11A
12A
13A
FIRE SHUTTER DOOR ABOVE
(E) UCOP VESTIBULE
RATED CORRIDOR
STAIR 01
SP
ELEV F
ELEV E
ELEV D
ELEV I
ELEVATOR LOBBY UPPER FLOORS
ELEV G
ELEV H
MECH. SHAFT (SUPPLY)
ELEV C
ELEV B
ELEV A
JC
ELEVATOR LOBBY LOWER FLOORS
FIRE COMMAND CENTER
ELEV J
ADJACENT BUILDING CONNECTOR
BASEMENT SHUTTLE ELEVATOR
STAIR 03
DN
KSB RETAIL STORAGE
UP
GAS METER AREA
MECH. SHAFT (RETURN)
LOADING (31'X12'X14'h)
LOADING (31'X12'X14'h)
UP
DN
TELECOM
ELECTRICAL
VESTIBULE
FSAE LOBBY
BICYCLE STORAGE AND REPAIR
BICYCLE/SERVICE ACCESS
TWO-TIER BICYCLE STORAGE UNITS
TRASH/RECYCLING
RECYCLING SPACE ALLOCATION: 738 CUBIC FEET OF STORAGE TO BE PROVIDED
PROPERTY MANAGER'S OFFICE
RECEPTION
EXTENT OF MEZZANINE ABOVE
NEW CONSTRUCTION
UP
STAIR BY FUTURE RETAIL TENANT
EXISTING HISTORIC BUILDING
RETAIL TENANT AREA
POTENTIAL ART ZONE
EXISTING HISTORIC STRUCTURE "KEY SYSTEM BUILDING"
DN
STADIUM SEATING
OPEN TO BELOW
BUILDING LOBBY
RETAIL
(E) KSB BRICK WALL
BRACED FRAME
FINAL DOOR LOCATIONS FOR RETAIL TENANTS TBD; DEPENDENT ON FINAL LEASING, TYP
MAIN ENTRY
FINAL DOOR LOCATIONS FOR RETAIL TENANTS TBD; DEPENDENT ON FINAL LEASING, TYP
BUS STOP
DN TO BART
BROADWAY
12TH STREET
11TH STREET
1
2
3
A1
B1
B1.7
C1
D1
E1
F1
G1
H1
H1.8
J1
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
5' - 0"
9' - 6"
2' - 6"
REFER TO CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL SITE INFORMATION
0
4
8
16


A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
3' - 0"
30' - 0"
30' - 0"
30' - 0"
27' - 6"
2' - 6"
5' - 0"
27' - 6"
2' - 6"
23' - 0"
(E) ADJACENT UCOP BUILDING
7
7.1
8.9A
9A
10A
11A
12A
13A
1
2
3
A1
B1
B1.7
C1
D1
E1
F1
G1
H1
H1.8
J1
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
5' - 0"
9' - 5"
2' - 6"
STAIR 01
STAIR 02
ELEV A
ELEV B
ELEV C
ELEV D
ELEV E
ELEV F
ELEV G
ELEV H
ELEV I
ELEV J OVERRUN
UP
DN
OPEN TO BELOW
EXHAUST AIR SCRUBBER
EXISTING HISTORIC BUILDING
RETAIL TENANT AREA
CONFORMS AS MEZZANINE PER CBC SECTION 505, FIRE SERVICE ACCESS VIA STAIR TO LEVEL 1
STAIR BY FUTURE RETAIL TENANT
NEW CONSTRUCTION
EXISTING HISTORIC STRUCTURE "KEY SYSTEM BUILDING"
0
4
8
16

A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
ACCESS DOOR ON 5TH FLOOR TO
(E) ADJACENT UCOP ROOF GARDEN
7
7.1
8.9A
9A
10A
11A
12A
13A
EXISTING ROOF GARDEN
AT 1111 FRANKLIN
1100 BROADWAY
AIR (R)
UP
DN
STAIR 01
ELEV I
FSAE
VESTIBULE
ELEV F
ELEV E
ELEV D
MEN
ELEV G
ELEV H
AIR (S/TE)
ELEV C
ELEV B
ELEV A
JC
ELEVATOR
LOBBY
WOMEN
UP
DN
STAIR 02
SP
TE
VEST.
TELECOM
ELECTRICAL
VESTIBULE
OFFICE
NEW CONSTRUCTION
EXISTING HISTORIC STRUCTURE
"KEY SYSTEM BUILDING"
BRACED FRAME
1
2
3
A1
B1
B1.7
C1
D1
E1
F1
G1
H1
H1.8
J1
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
9' - 6"
5' - 0"
2' - 6"
0
4
8
16


A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
1
2
3
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
9' - 6"
5' - 0"
2' - 6"
AIR (R)
SP
ELEV I
STAIR 01
UP
DN
FSAE VESTIBULE
TELECOM
ELECTRICAL
VESTIBULE
ELEV D
MEN
AIR (S/TE)
ELEV C
ELEV B
ELEV A
JC
ELEVATOR LOBBY
WOMEN
STAIR 02
SP
TE
VEST.
OFFICE
OPTIONAL FUTURE ROOF TERRACE
OPTIONAL FUTURE ROOF TERRACE
BRACED FRAME
0
4
8
16


A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
1
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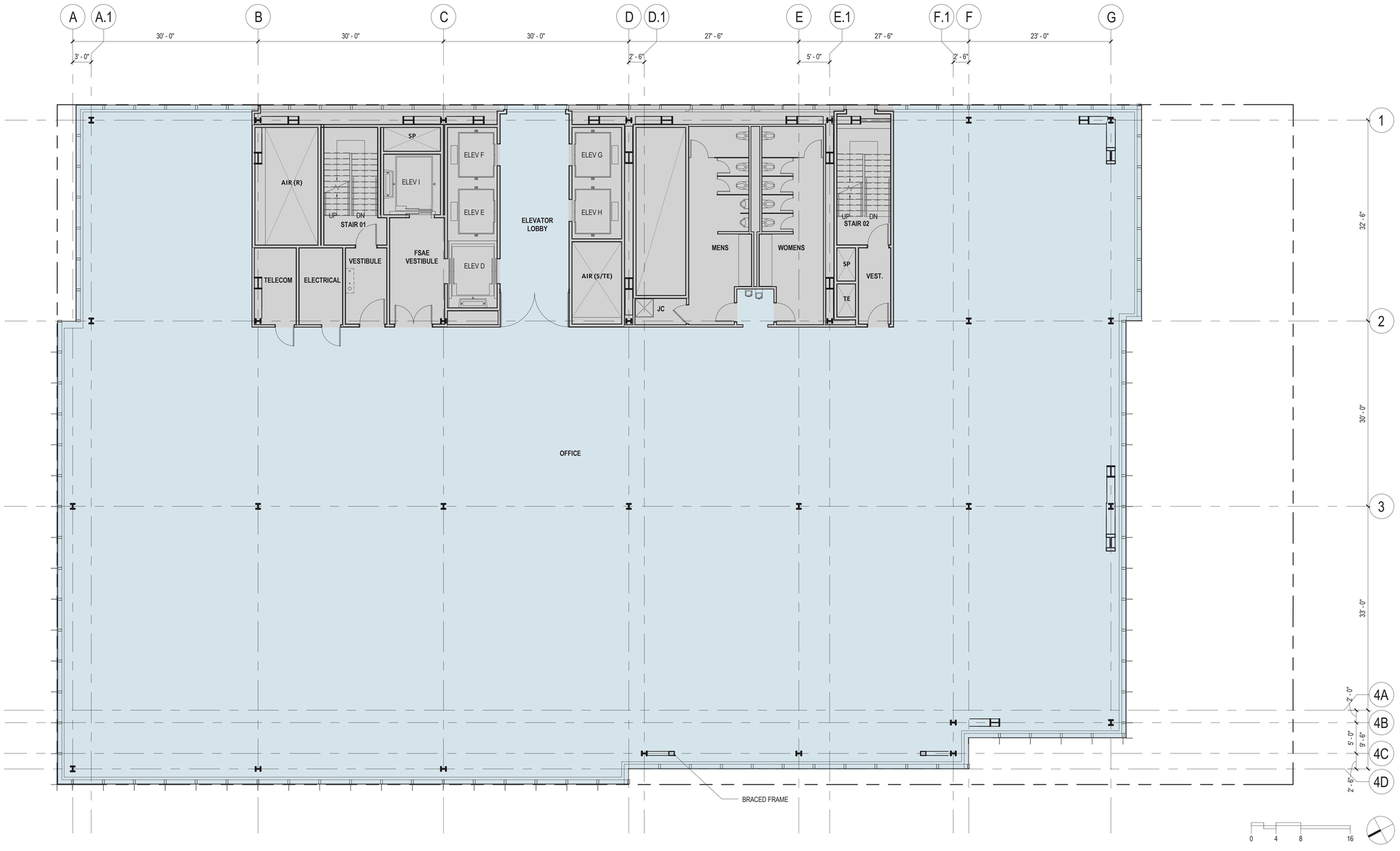
3
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
5' - 0"
9' - 4"
2' - 6"
AIR (R)
UP
DN
STAIR 01
SP
ELEV I
FSAE VESTIBULE
TELECOM
ELECTRICAL
VESTIBULE
ELEV D
MEN
AIR (S/TE)
ELEV C
ELEV B
ELEV A
JC
ELEVATOR LOBBY
WOMEN
UP
DN
STAIR 02
SP
TE
VEST.
OFFICE
BRACED FRAME
0
4
8
16


A
A.1
B
C
D
D.1
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E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
1
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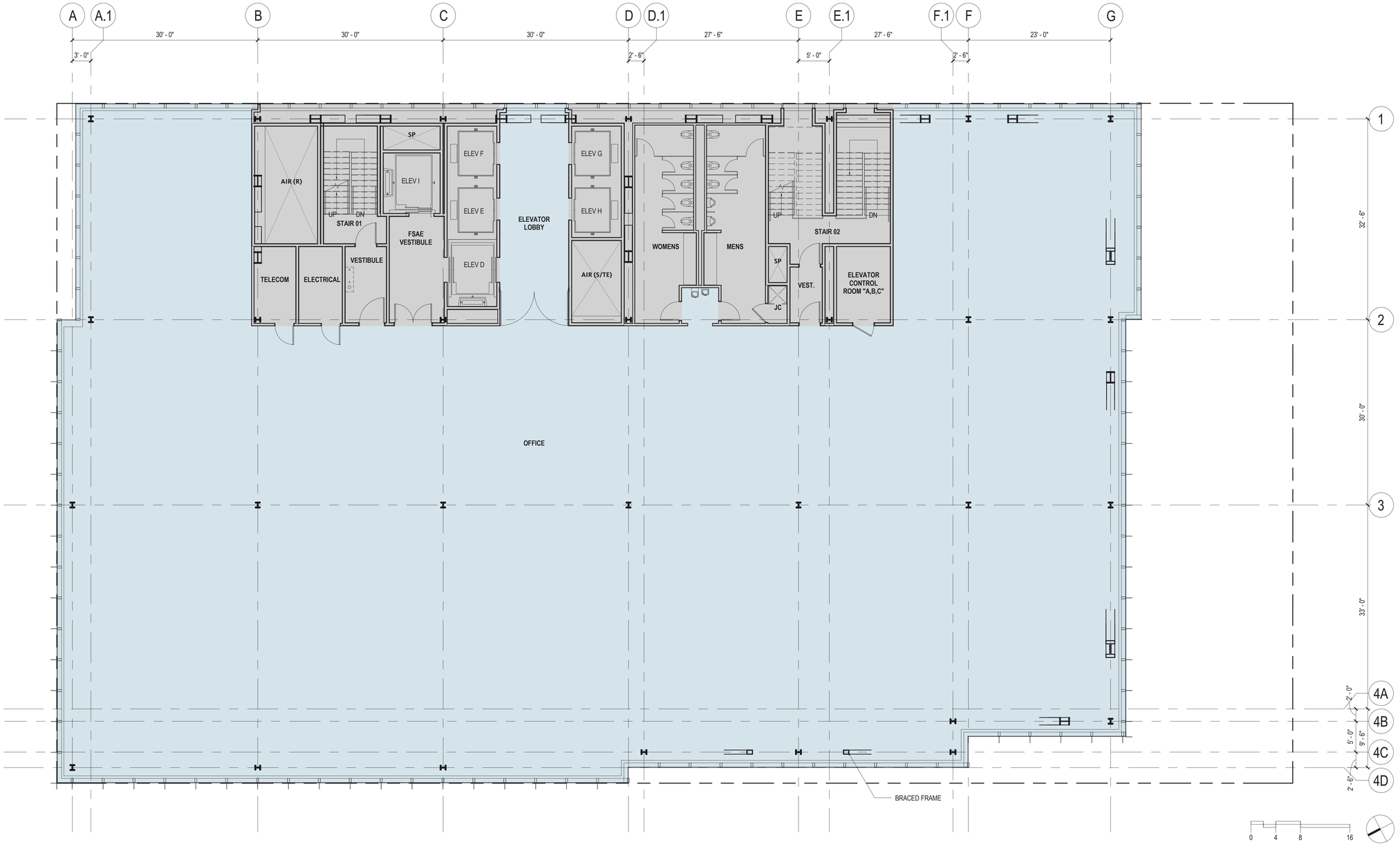
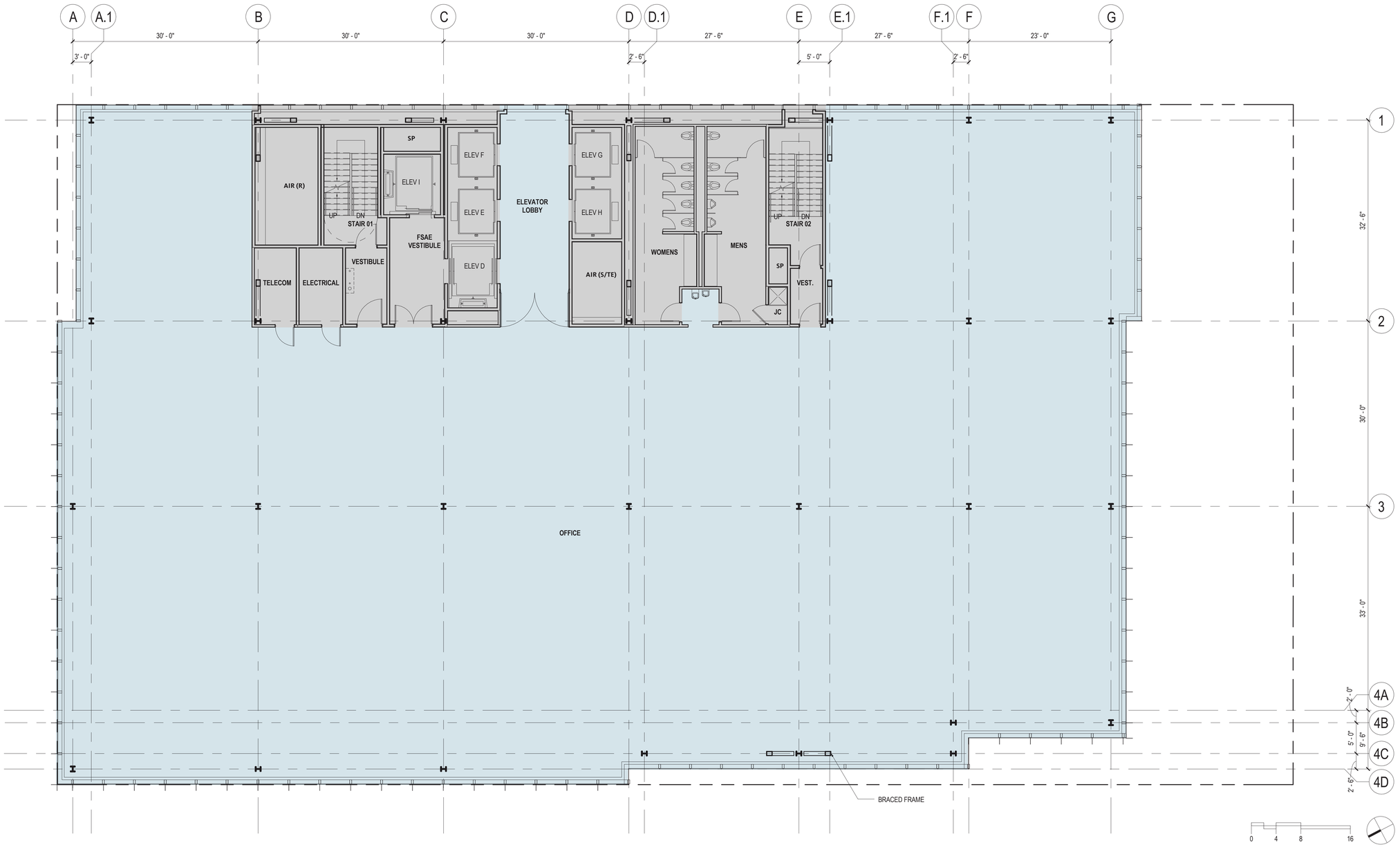
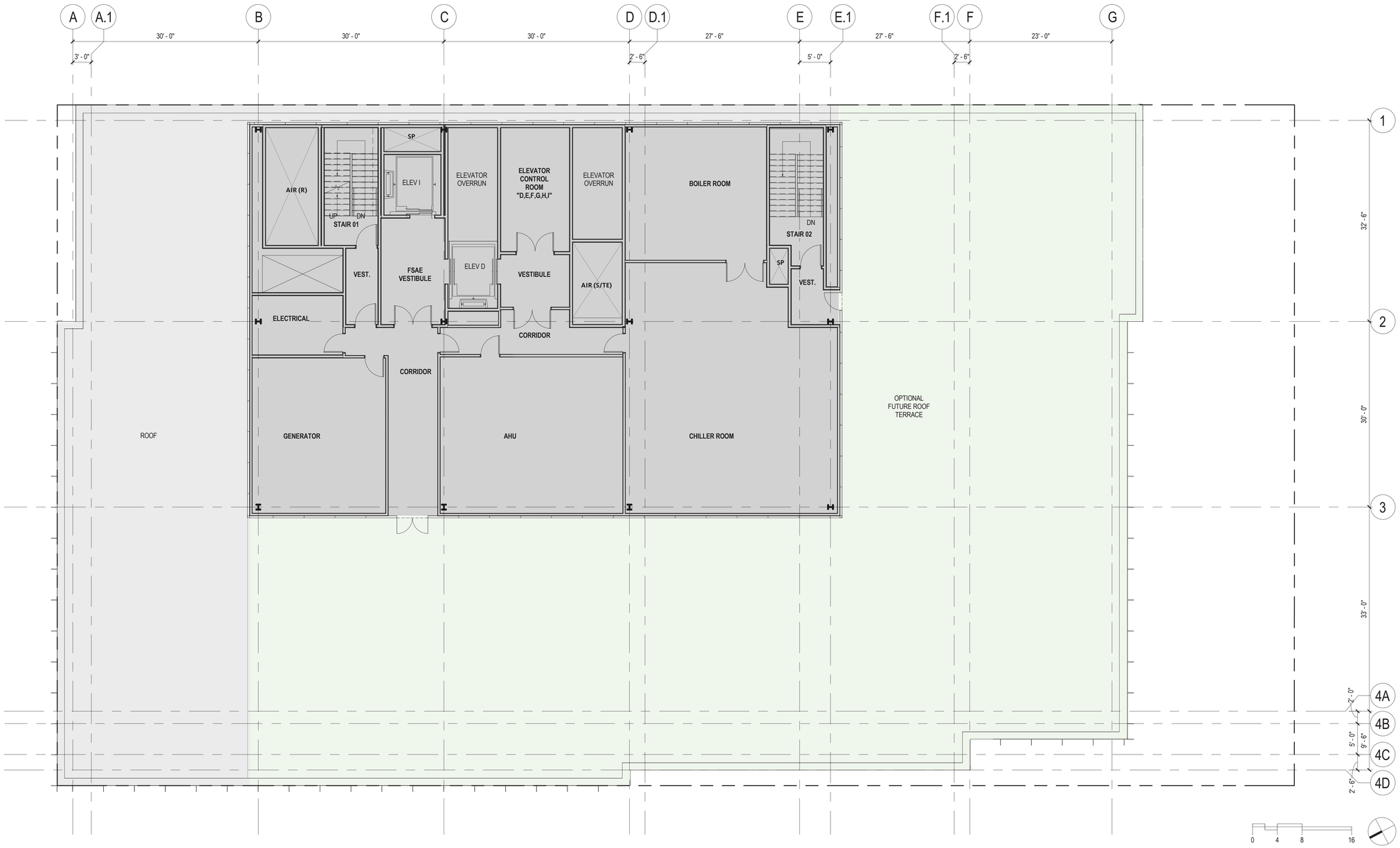
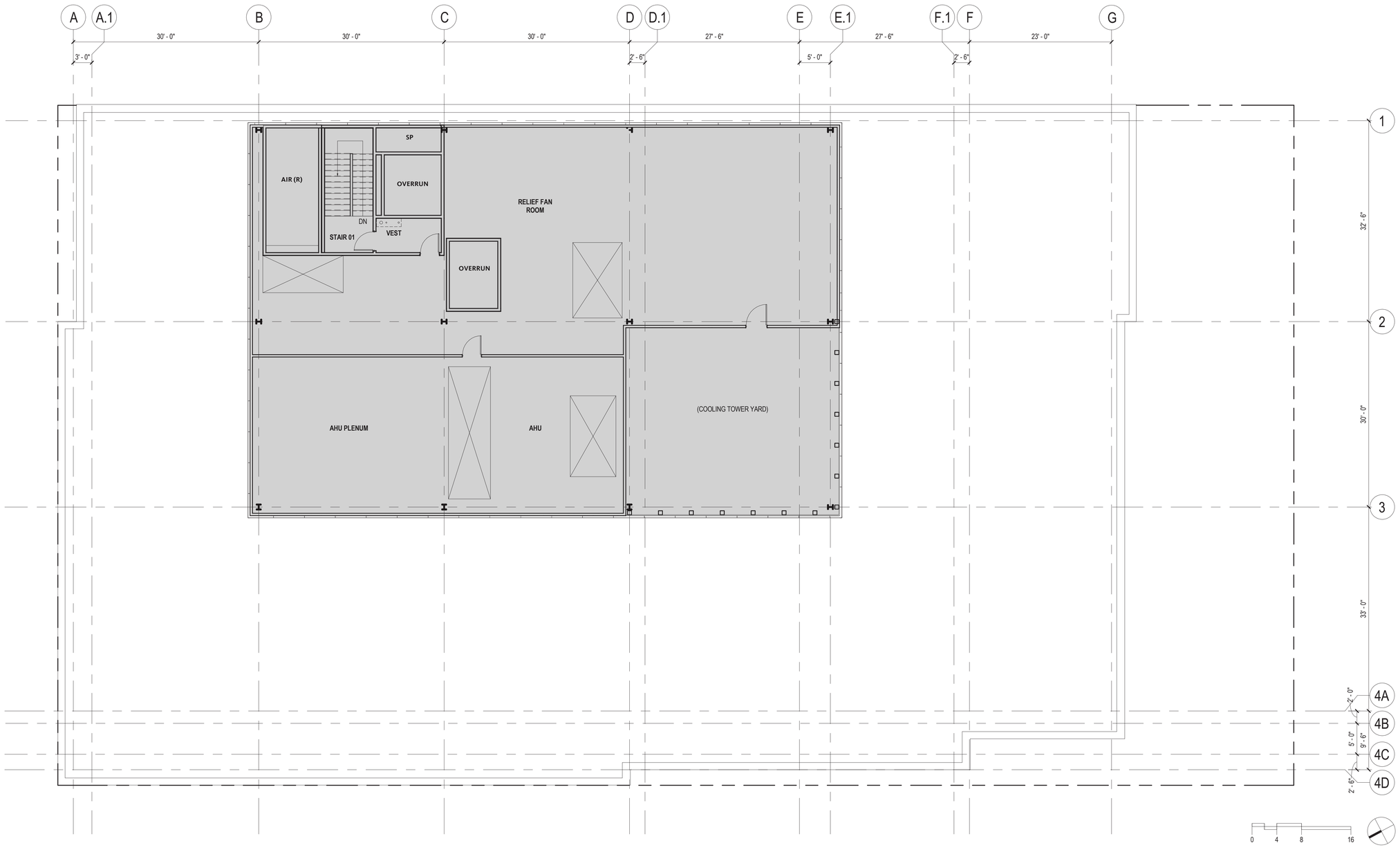
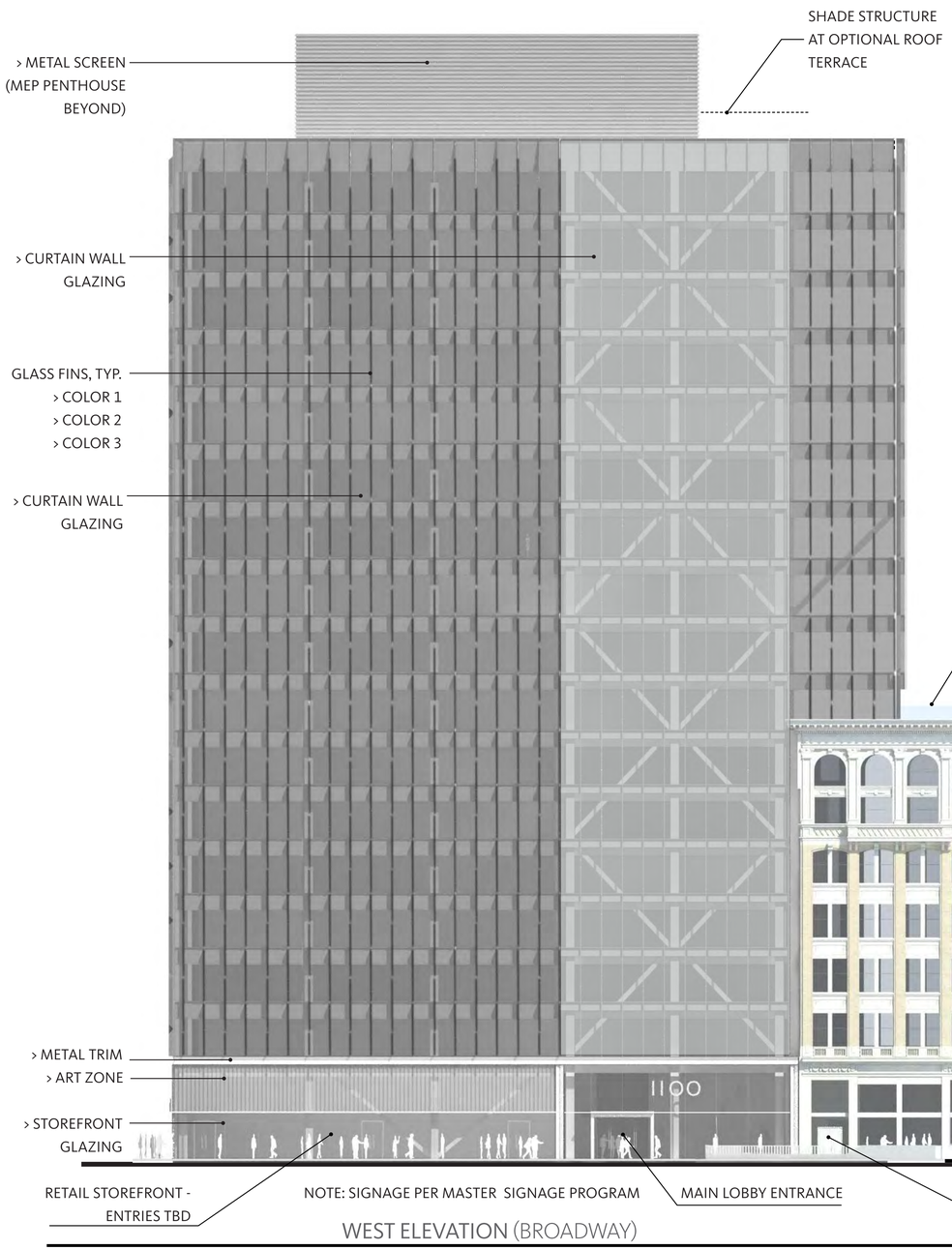
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
9' - 6"
5' - 0"
2' - 6"
AIR (R)
UP
DN
STAIR 01
SP
ELEV I
ELEV F
ELEV E
ELEV D
TELECOM
ELECTRICAL
VESTIBULE
FSAE VESTIBULE
ELEVATOR LOBBY
ELEV G
ELEV H
AIR (S/TE)
JC
MENS
WOMENS
UP
DN
STAIR 02
SP
TE
VEST.
OFFICE
BRACED FRAME
0
4
8
16


A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
1
2
3
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
9' - 9"
5' - 0"
2' - 6"
AIR (R)
UP
DN
STAIR 01
SP
ELEV I
ELEV F
ELEV E
ELEV D
FSAE VESTIBULE
VESTIBULE
TELECOM
ELECTRICAL
ELEVATOR LOBBY
ELEV G
ELEV H
AIR (S/TE)
WOMENS
MENS
UP
DN
STAIR 02
SP
VEST.
JC
ELEVATOR CONTROL ROOM "A,B,C"
OFFICE
BRACED FRAME
0
4
8
16

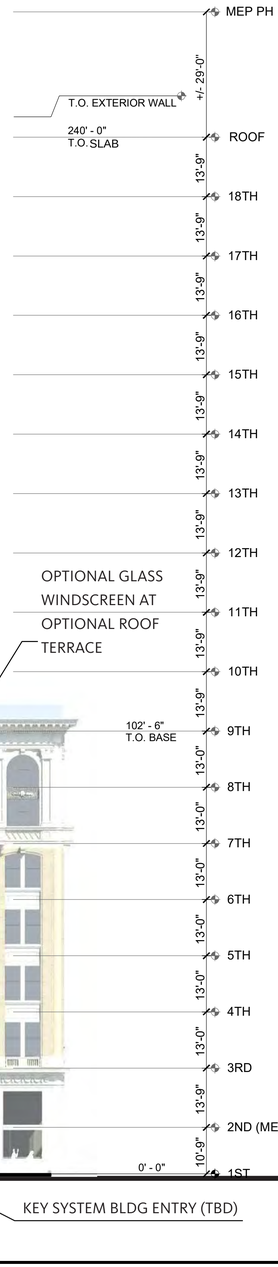

A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
1
2
3
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
5' - 0"
9' - 6"
2' - 6"
AIR (R)
UP
DN
STAIR 01
SP
ELEV I
ELEV F
ELEV E
ELEV D
FSAE VESTIBULE
VESTIBULE
TELECOM
ELECTRICAL
ELEVATOR LOBBY
ELEV G
ELEV H
AIR (S/TE)
WOMENS
MENS
UP
DN
STAIR 02
SP
VEST.
JC
OFFICE
BRACED FRAME
0
4
8
16

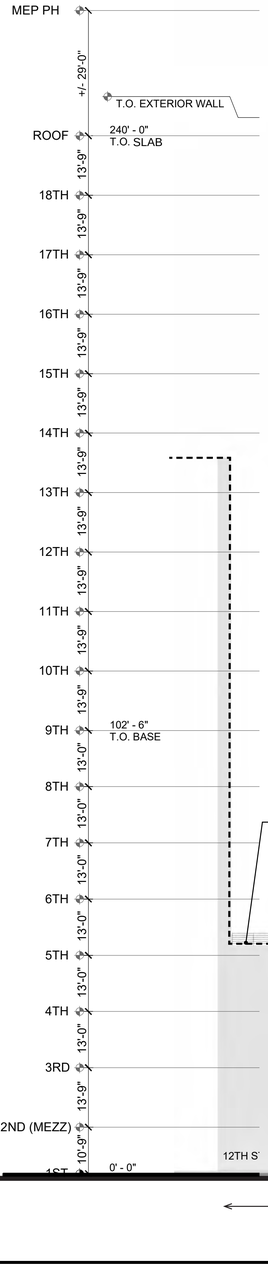

A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
1
2
3
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
5' - 0"
9' - 6"
2' - 6"
AIR (R)
UP
DN
STAIR 01
SP
ELEV I
ELEVATOR OVERRUN
ELEVATOR CONTROL ROOM "D,E,F,G,H,I"
ELEVATOR OVERRUN
BOILER ROOM
DN
STAIR 02
SP
VEST.
FSAE VESTIBULE
ELEV D
VESTIBULE
AIR (S/TE)
VEST.
ELECTRICAL
CORRIDOR
CORRIDOR
ROOF
GENERATOR
AHU
CHILLER ROOM
OPTIONAL FUTURE ROOF TERRACE
0
4
8
16

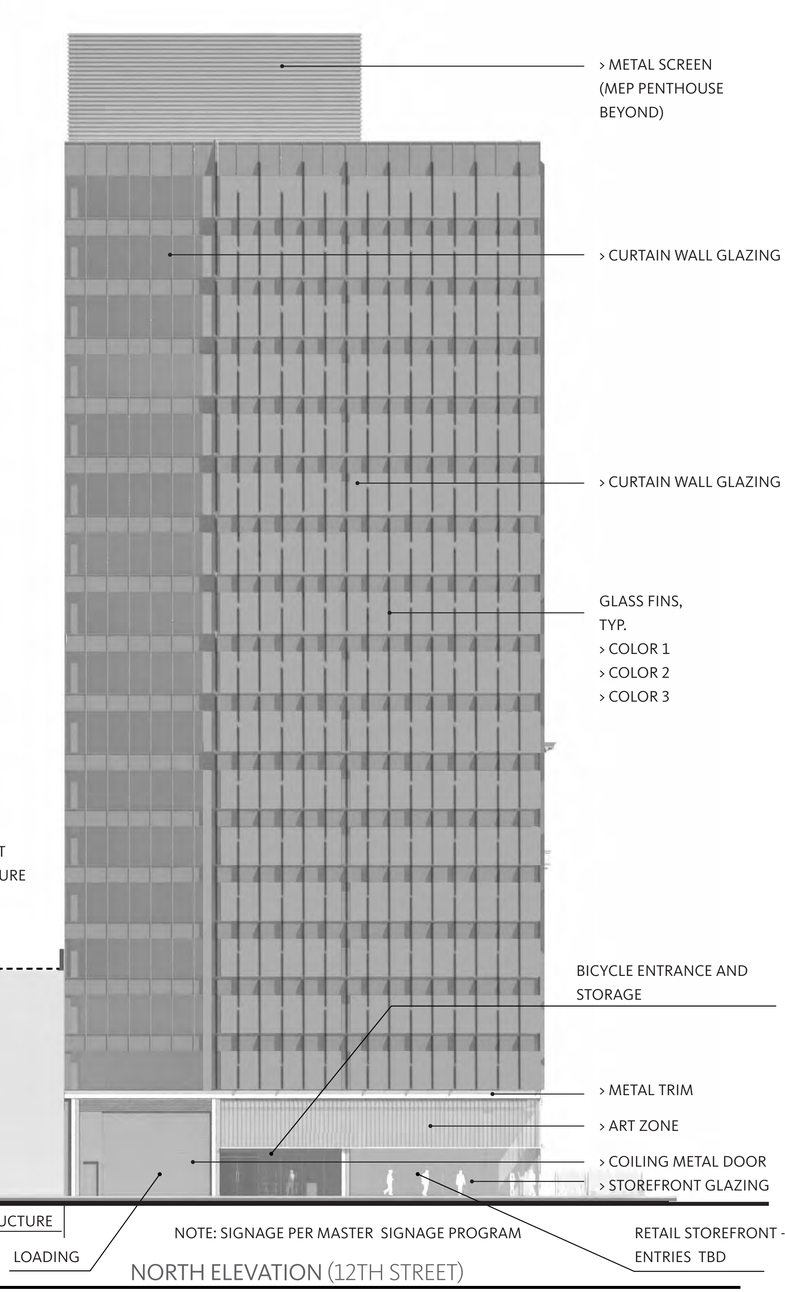

A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
1
2
3
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
2' - 0"
5' - 0"
2' - 6"
SP
AIR (R)
OVERRUN
DN
STAIR 01
VEST
RELIEF FAN ROOM
OVERRUN
AHU PLENUM
AHU
(COOLING TOWER YARD)
0
4
8
16



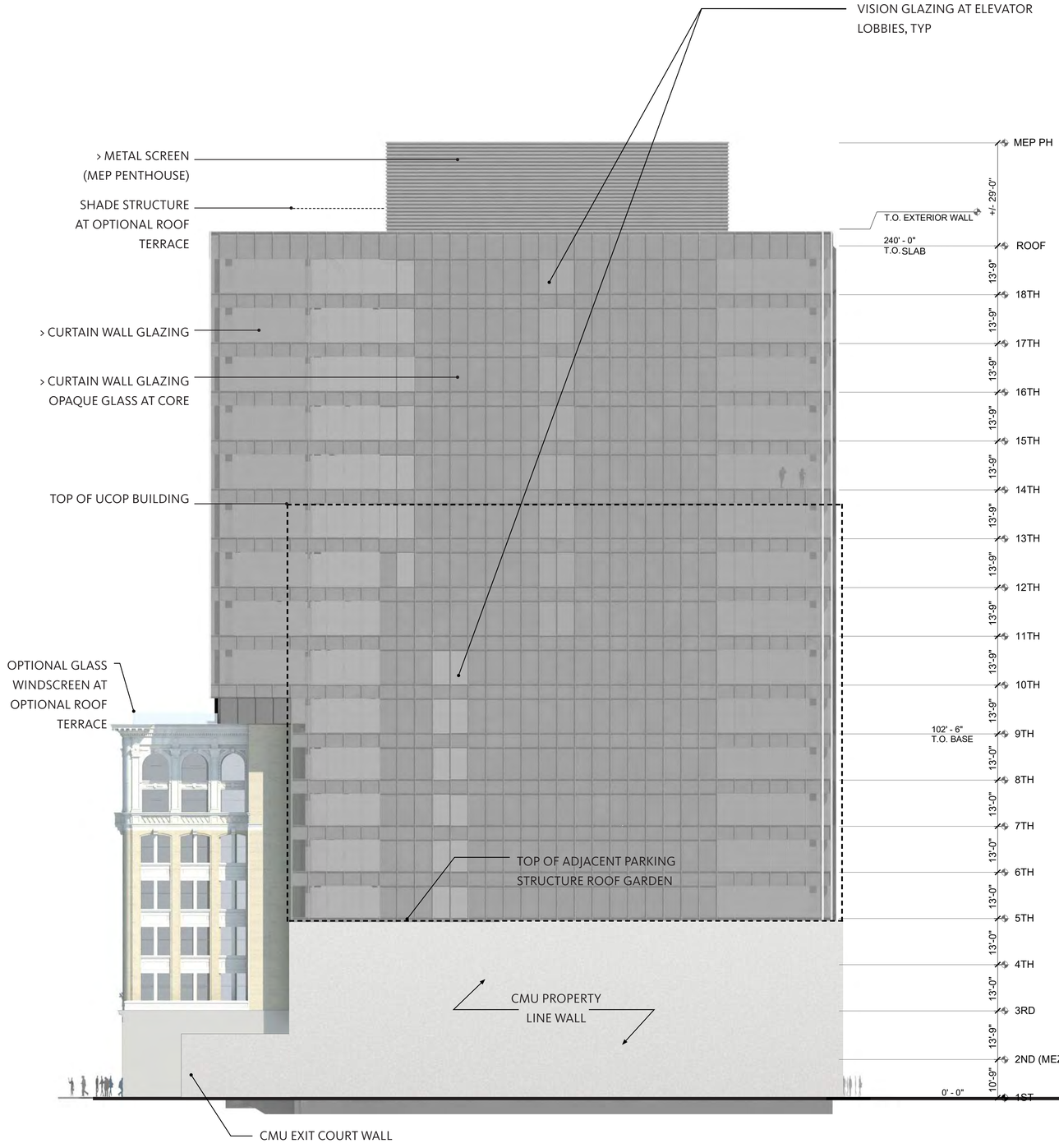
WEST ELEVATION (BROADWAY)



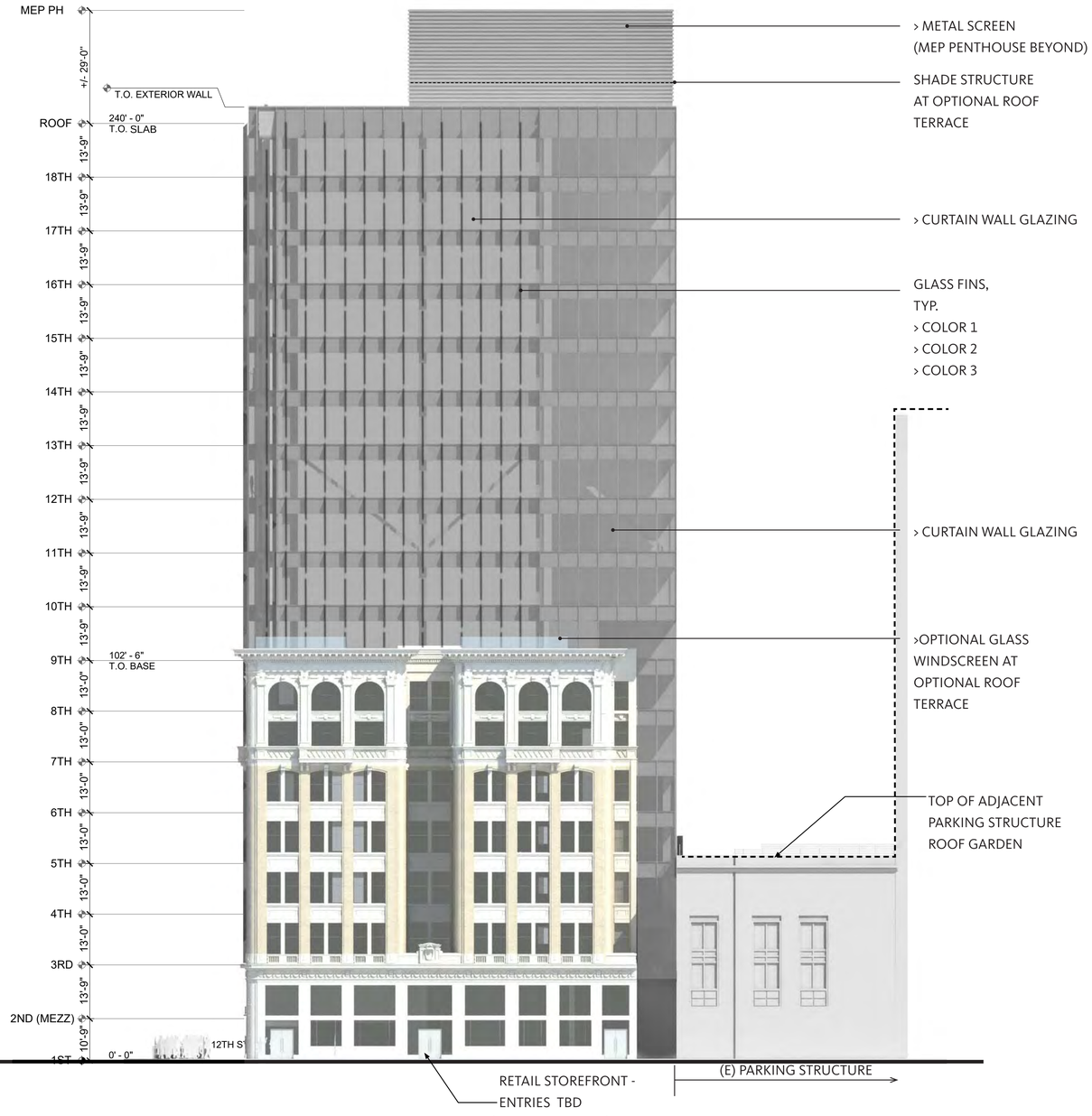




NORTH ELEVATION (12TH STREET)

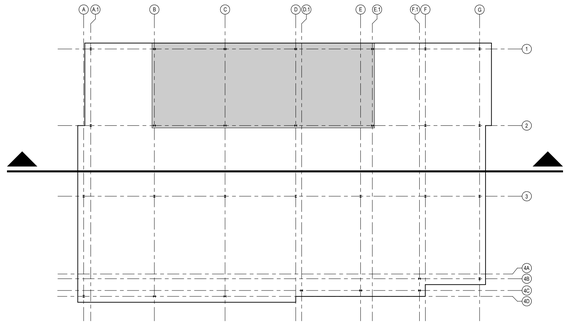


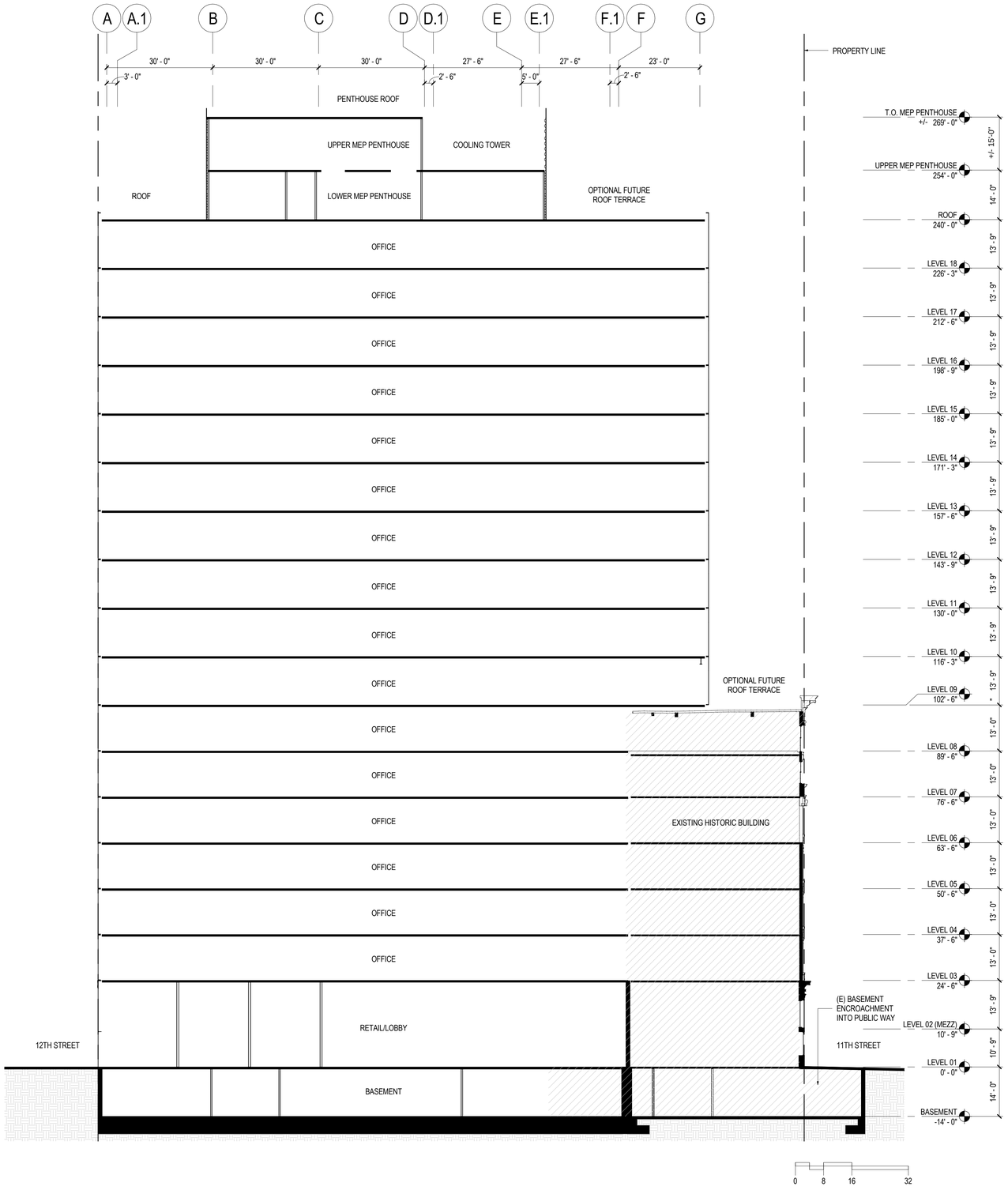
EAST ELEVATION



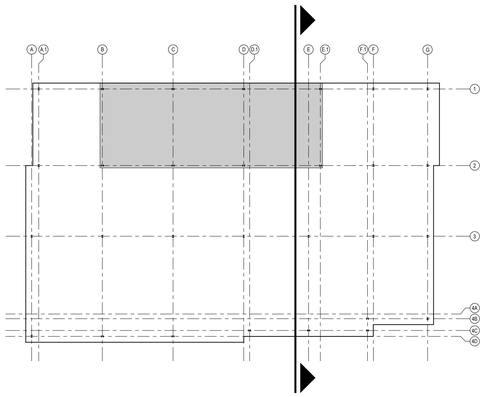
SOUTH ELEVATION (11TH STREET)

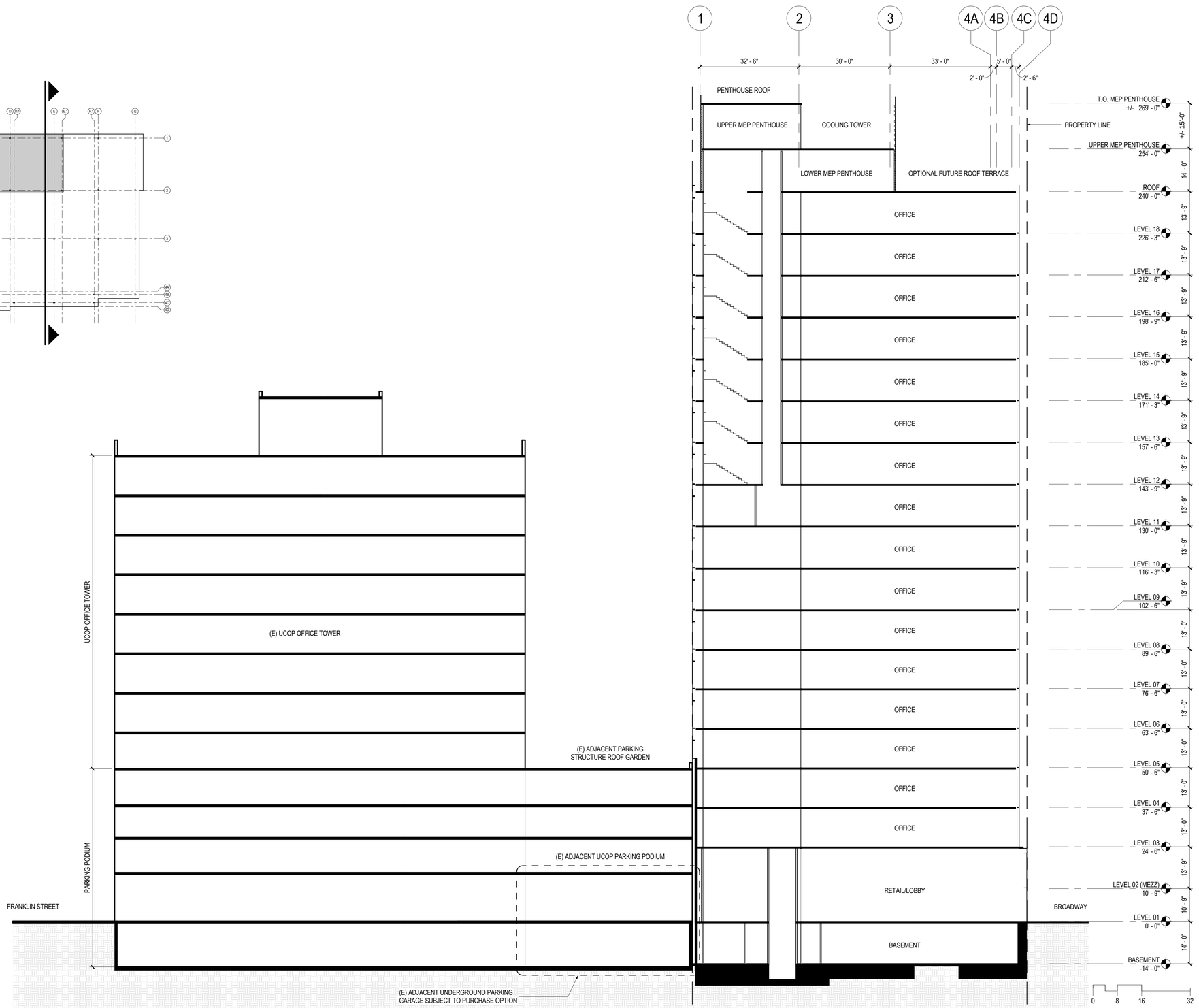
SECTION A-A




A
A.1
B
C
D
D.1
E
E.1
F.1
F
G
30' - 0"
30' - 0"
30' - 0"
27' - 6"
27' - 6"
23' - 0"
3' - 0"
2' - 6"
5' - 0"
2' - 6"
PENTHOUSE ROOF
UPPER MEP PENTHOUSE
COOLING TOWER
ROOF
LOWER MEP PENTHOUSE
OPTIONAL FUTURE ROOF TERRACE
OFFICE
OFFICE
OFFICE
OFFICE
OFFICE
OFFICE
OFFICE
OFFICE
OFFICE
OFFICE
OFFICE
OFFICE
OFFICE
OPTIONAL FUTURE ROOF TERRACE
EXISTING HISTORIC BUILDING
RETAIL/LOBBY
BASEMENT
12TH STREET
11TH STREET
(E) BASEMENT ENCROACHMENT INTO PUBLIC WAY
PROPERTY LINE
T.O. MEP PENTHOUSE +/- 269' - 0"
UPPER MEP PENTHOUSE 254' - 0"
ROOF 240' - 0"
LEVEL 18 226' - 3"
LEVEL 17 212' - 6"
LEVEL 16 198' - 9"
LEVEL 15 185' - 0"
LEVEL 14 171' - 3"
LEVEL 13 157' - 6"
LEVEL 12 143' - 9"
LEVEL 11 130' - 0"
LEVEL 10 116' - 3"
LEVEL 09 102' - 6"
LEVEL 08 89' - 6"
LEVEL 07 76' - 6"
LEVEL 06 63' - 6"
LEVEL 05 50' - 6"
LEVEL 04 37' - 6"
LEVEL 03 24' - 6"
LEVEL 02 (MEZZ) 10' - 9"
LEVEL 01 0' - 0"
BASEMENT -14' - 0"
+/- 15'-0"
14' - 0"
13' - 9"
13' - 9"
13' - 9"
13' - 9"
13' - 9"
13' - 9"
13' - 9"
13' - 9"
13' - 0"
13' - 0"
13' - 0"
13' - 0"
13' - 0"
13' - 0"
13' - 9"
10' - 9"
14' - 0"
0
8
16
32

SECTION B-B




1
2
3
4A
4B
4C
4D
32' - 6"
30' - 0"
33' - 0"
5' - 0"
2' - 0"
2' - 6"
PENTHOUSE ROOF
UPPER MEP PENTHOUSE
COOLING TOWER
LOWER MEP PENTHOUSE
OPTIONAL FUTURE ROOF TERRACE
PROPERTY LINE
OFFICE
RETAIL/LOBBY
BASEMENT
T.O. MEP PENTHOUSE +/- 269' - 0"
UPPER MEP PENTHOUSE 254' - 0"
ROOF 240' - 0"
LEVEL 18 226' - 3"
LEVEL 17 212' - 6"
LEVEL 16 198' - 9"
LEVEL 15 185' - 0"
LEVEL 14 171' - 3"
LEVEL 13 157' - 6"
LEVEL 12 143' - 9"
LEVEL 11 130' - 0"
LEVEL 10 116' - 3"
LEVEL 09 102' - 6"
LEVEL 08 89' - 6"
LEVEL 07 76' - 6"
LEVEL 06 63' - 6"
LEVEL 05 50' - 6"
LEVEL 04 37' - 6"
LEVEL 03 24' - 6"
LEVEL 02 (MEZZ) 10' - 9"
LEVEL 01 0' - 0"
BASEMENT -14' - 0"
+/- 15'-0"
14' - 0"
13' - 6"
13' - 0"
10' - 9"
0
8
16
32
UCOP OFFICE TOWER
(E) UCOP OFFICE TOWER
PARKING PODIUM
(E) ADJACENT PARKING STRUCTURE ROOF GARDEN
(E) ADJACENT UCOP PARKING PODIUM
(E) ADJACENT UNDERGROUND PARKING GARAGE SUBJECT TO PURCHASE OPTION
FRANKLIN STREET
BROADWAY

SANDIS
EAST BAY/SF
SCALE: 1"=20'

TITLE REPORT

THE BOUNDARY FOR THIS SURVEY IS BASED ON THE PRELIMINARY TITLE REPORT BY FIRST AMERICAN TITLE COMPANY, ORDER NUMBER NCS-785427-SF, ORIGINALLY DATED AUGUST 4, 2016, AMENDED DECEMBER 1, 2016.

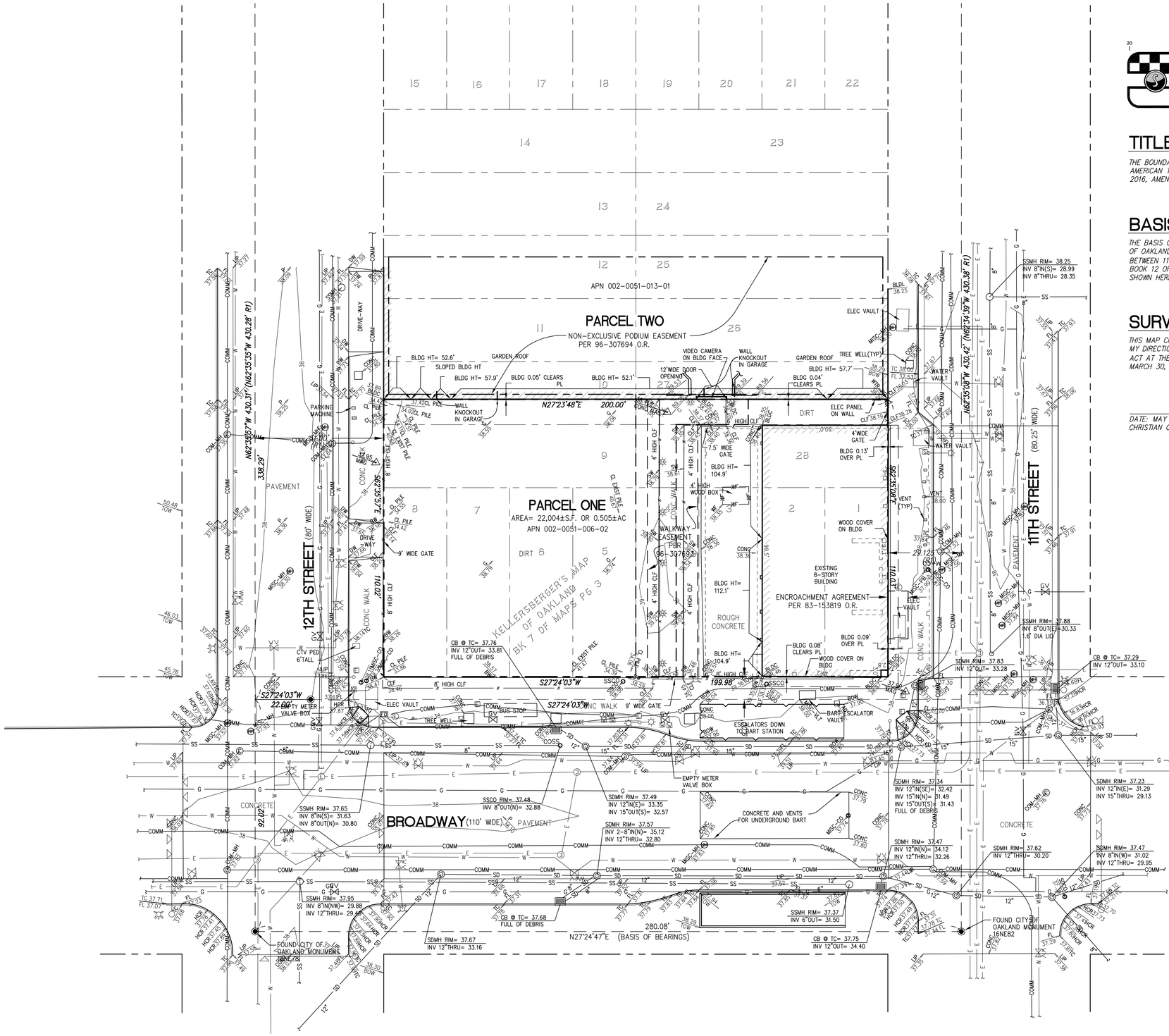
BASIS OF BEARINGS

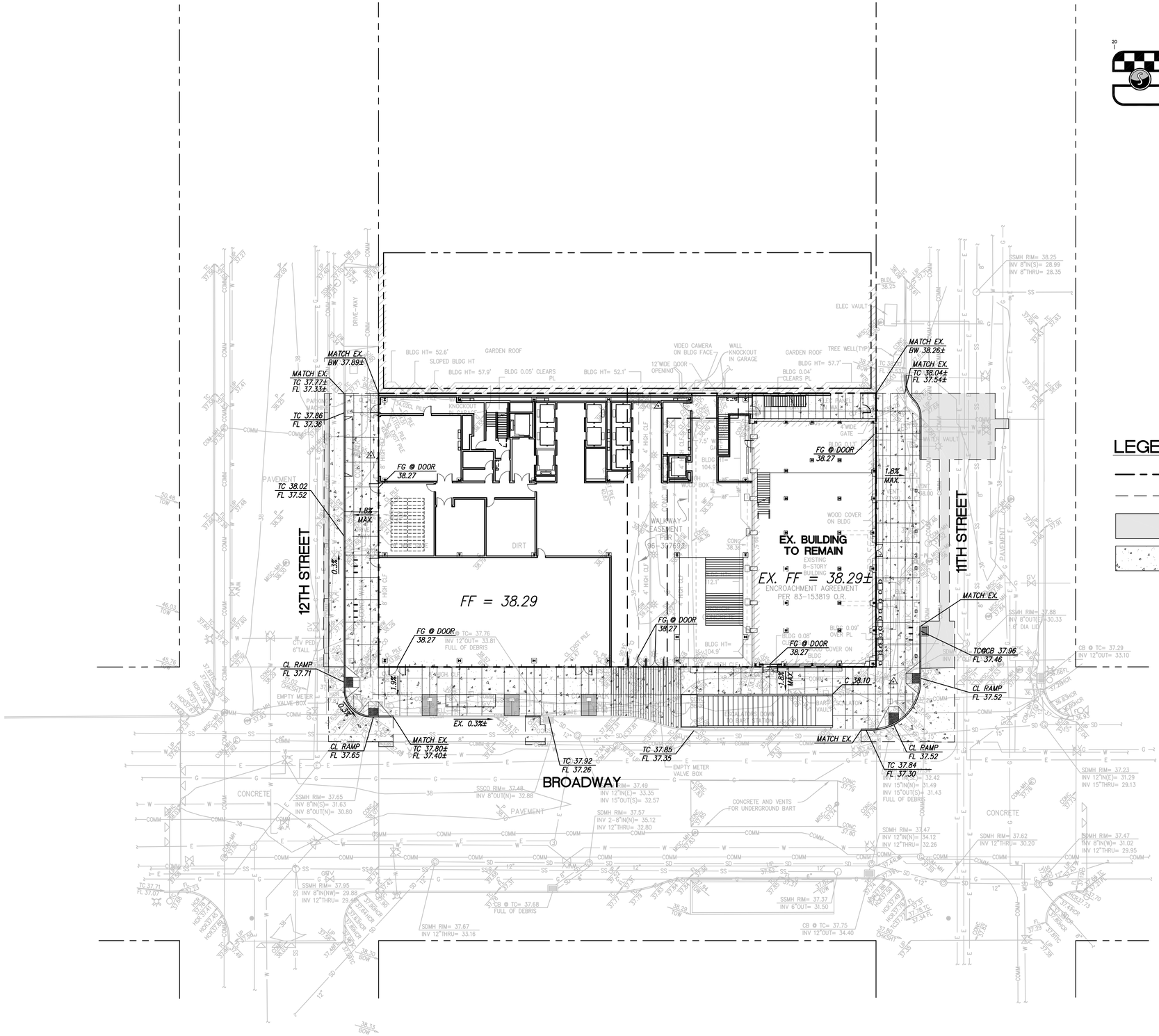
THE BASIS OF BEARINGS OF THIS SURVEY IS THE MONUMENT LINE BETWEEN THE CITY OF OAKLAND MONUMENTS 16NE82 AND 16NE78 ON THE WEST SIDE OF BROADWAY BETWEEN 11TH STREET AND 12TH STREET, TAKEN AS N27°24'47"E, AS SHOWN IN BOOK 12 OF RECORDS OF SURVEY AT PAGE 51, ALAMEDA COUNTY RECORDS, AND AS SHOWN HEREON

SURVEYOR'S STATEMENT

THIS MAP CORRECTLY REPRESENTS A TOPOGRAPHIC SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS ACT AT THE REQUEST OF 1100 BROADWAY OWNER. LLC C/O ELLIS PARTNERS ON MARCH 30, 2017.

DATE: MAY 12, 2017
CHRISTIAN CINTEAN, L.S. 8941





LEGEND

- PROPERTY LINE
- SAWCUT LINE
- AC PAVEMENT
- CONCRETE

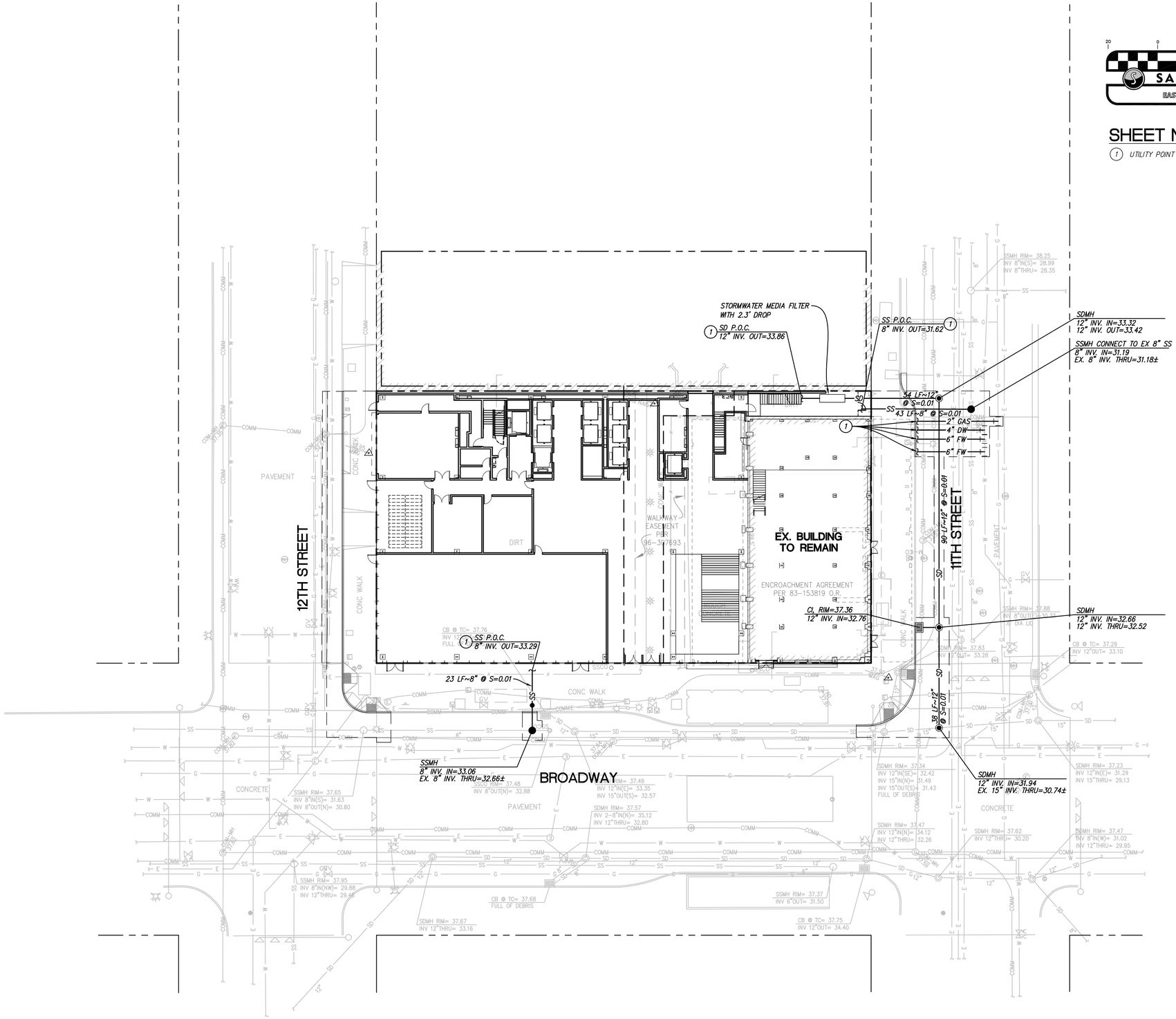
EARTHWORK QUANTITIES:

IMPORT =	0 CY
EXPORT (DEMO) =	7,415 CY*
EXPORT (EARTH) =	2,610 CY
FILL =	0 CY
CUT =	2,610 CY

** EXISTING 14-FOOT DEEP BASEMENT WAS PREVIOUSLY FILLED WITH RUBBLE, DEBRIS, AND EXCESS EXCAVATION MATERIAL UPON DEMOLITION OF EXISTING BUILDING. REMOVAL OF RUBBLE AND DEBRIS UP TO A DEPTH OF 14 FEET SHALL NOT BE CONSIDERED EARTHWORK.*

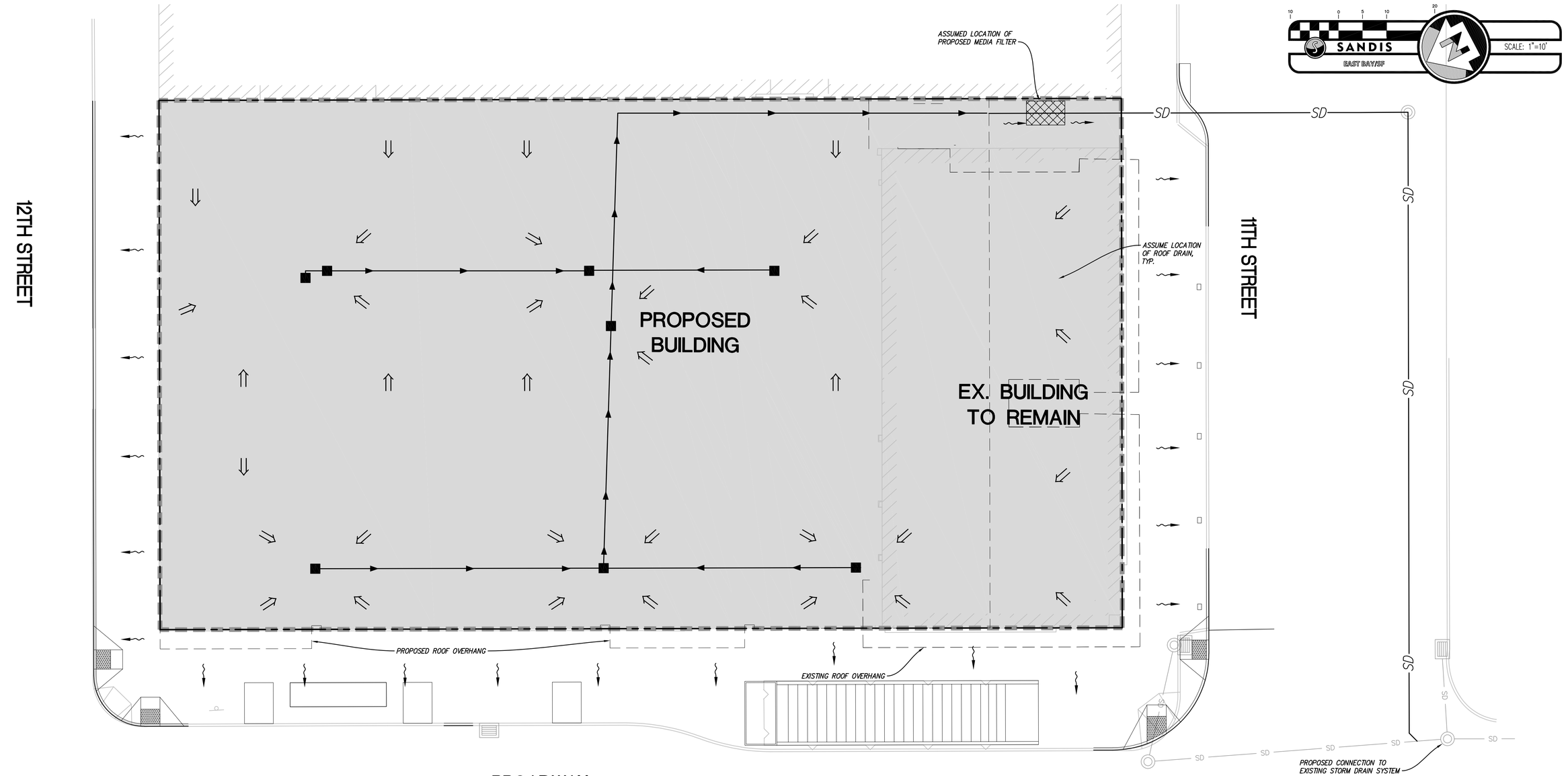
NOTE:

THE EARTHWORK QUANTITIES SHOWN ARE PROVIDED FOR THE PURPOSE OF GRADING PERMIT APPROVAL ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CARRY OUT THE CUT/FILL, IMPORT/EXPORT AS NECESSARY TO MEET THE DESIGN GRADES AS SHOWN ON THE PLANS REGARDLESS OF THE ESTIMATED EARTHWORK QUANTITIES AS INDICATED. SIGNIFICANT REVISIONS TO THE QUANTITIES NEED REVIEW BY THE CITY. FILL SHORTAGE IS ANTICIPATED TO COME FROM ON-SITE SPOILS ACQUIRED FROM UTILITY TRENCHES AND FOOTING SPOILS.



SHEET NOTES:

1. UTILITY POINT OF CONNECTION. SEE MEP PLANS FOR CONTINUATION.



STORMWATER MANAGEMENT NOTES

1. THE PROPOSED PROJECT WILL INCLUDE MORE THAN 10,000 SQUARE FEET OF IMPERVIOUS SURFACE AND HAS THEREBY BEEN PLANNED TO COMPLY WITH THE PROVISION C.3 – NEW DEVELOPMENT AND REDEVELOPMENT OF THE MUNICIPAL REGIONAL STORMWATER PERMIT (ORDER NO. R2–2009–0074).
2. 50% RULE CHECK – WHERE A REDEVELOPMENT PROJECT RESULTS IN AN ALTERATION OF MORE THAN 50 PERCENT OF THE IMPERVIOUS SURFACE OF A PREVIOUSLY EXISTING DEVELOPMENT, THE ENTIRE PROJECT, CONSISTING OF ALL EXISTING, NEW, AND/OR REPLACED IMPERVIOUS SURFACES, MUST BE INCLUDED IN THE TREATMENT SYSTEM DESIGN.

   THEREFORE THE PROJECT IS REQUIRED TO PROVIDE TREATMENT FOR ALL EXISTING, NEW, AND/OR REPLACED IMPERVIOUS SURFACES.
3. GENERAL STORMWATER QUALITY APPROACH – STORMWATER QUALITY FEATURES WILL INCLUDE MINIMIZING IMPERVIOUS SURFACES, AND DIRECTING STORMWATER TO A MEDIA FILTER LOCATED IN THE BASEMENT WHICH WILL REMOVE SUSPENDED SOLIDS AND SEDIMENT FROM THE STORMWATER BEFORE IT LEAVES THE SITE.
4. SIZING CRITERIA – STORMWATER QUALITY FEATURES WILL BE SIZED TO COMPLY WITH THE NPDES PERMIT PROVISION C.3 AND THE LATEST EDITION (2013) OF THE ALAMEDA COUNTY STORMWATER MANUAL. THE PROPOSED MEDIA FILTER HAS BEEN SIZED USING A FLOW HYDRAULICS DESIGN BASIS, ASSUMING A FLOW OF RUNOFF RESULTING FROM A RAIN EVENT EQUAL TO AT LEAST 0.2 IN/HR INTENSITY RATE.
5. HYDROMODIFICATION – THE PROJECT IS NOT LOCATED IN AN AREA THAT IS REQUIRED TO DESIGN STORMWATER CONVEYANCES TO ACCOUNT FOR HYDROMODIFICATION.
6. THIS PROJECT IS CONSIDERED SPECIAL CATEGORY TYPE A. THEREFORE THE SITE CAN USE LID OR NON–LID STORMWATER TREATMENT PER THE ALAMEDA COUNTY C.3 TECHNICAL MANUAL (2015).

LEGEND

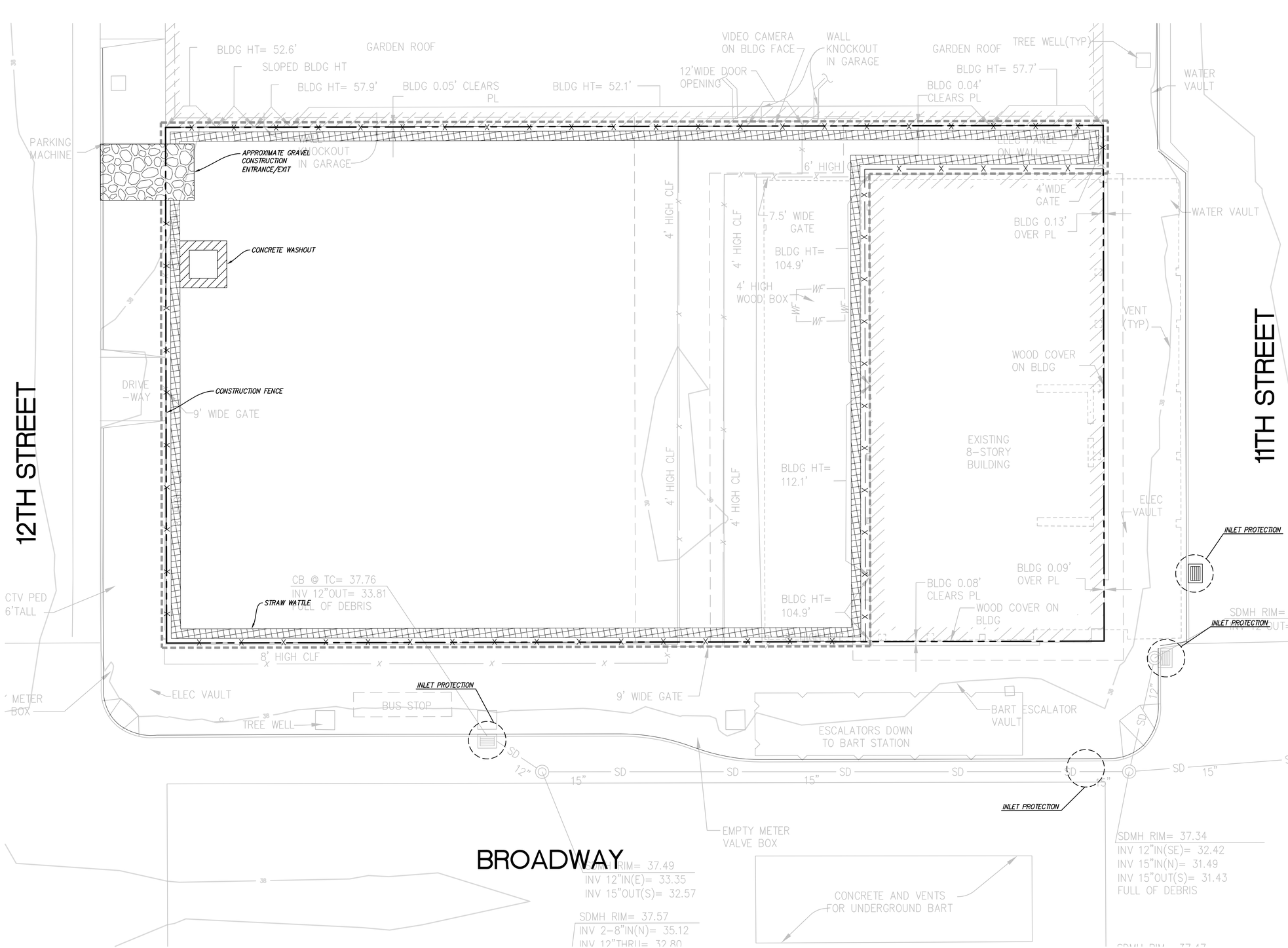
- PROPERTY LINE
- DRAINAGE AREA
- SD — EXISTING STORM DRAIN MAIN
- SD — PROPOSED STORM DRAIN LINE
- ASSUMED ROOF DRAIN PIPE ROUTING
- PROPOSED TRASH ROOM LOCATION
- ASSUMED DIRECTION OF ROOF RUNOFF
- DIRECTION OF SURFACE RUNOFF
- ASSUMED LOCATION OF ROOF DRAIN
- EXISTING TO REMAIN, NEW, AND REPLACED IMPERVIOUS AREA TO BE TREATED
- ASSUMED LOCATION OF MEDIA FILTER AND VAULT DESIGNED IN ACCORDANCE WITH ALAMEDA COUNTY C.3 STORM MANUAL.

AREA SUMMARY

TOTAL SITE AREA[7] (SF)	TOTAL AREA DISTURBED[1] (SF)	EXISTING PRE–PROJECT IMPERVIOUS SURFACE[2] (SF)	EXISTING IMPERVIOUS SURFACE TO REMAIN[3] (SF)	REPLACED IMPERVIOUS SURFACE[4] (SF)	NEW IMPERVIOUS SURFACE[5] (SF)	TOTAL POST–PROJECT IMPERVIOUS SURFACE[6] (SF)	TOTAL POST–PROJECT PERVIOUS SURFACE (SF)
22,000	17,000	8,600	5,000	3,600	13,400	22,000	0

NOTES:

1. LAND AREA DISTURBED IS EQUAL TO THE SURFACE AREA OF CONSTRUCTION ACTIVITIES, INCLUDING GRADING, CONSTRUCTION, STAGING, AND STORAGE AREAS.
2. EXISTING/PRE–PROJECT IMPERVIOUS SURFACE IS EQUAL TO THE TOTAL AMOUNT OF IMPERVIOUS SURFACE ON–SITE PRIOR TO THE PROJECT.
3. EXISTING IMPERVIOUS SURFACE TO REMAIN IS EQUAL TO THE ROOF OF THE EXISTING KEY SYSTEM BUILDING.
4. REPLACED IMPERVIOUS SURFACE IS EQUAL TO THE PROJECT IMPERVIOUS SURFACE THAT REPLACES EXISTING PRE–PROJECT IMPERVIOUS SURFACE.
5. NEW IMPERVIOUS SURFACE IS EQUAL TO THE PROJECT IMPERVIOUS SURFACE THAT REPLACES EXISTING PRE–PROJECT PERMEABLE SURFACE.
6. TOTAL POST–PROJECT IMPERVIOUS SURFACE IS EQUAL TO THE TOTAL AMOUNT OF IMPERVIOUS SURFACE ON–SITE AFTER COMPLETION OF THE PROJECT. THIS AREA IS REQUIRED TO BE TREATED BY LID OR NON–LID TREATMENT MEASURES. SEE STORMWATER MANAGEMENT NOTES.
7. TOTAL SITE AREA INCLUDES ALL SURFACES WITHIN THE PROPERTY LINES AND DOES NOT INCLUDE AREA IN PUBLIC RIGHT OF WAY.



SANDIS — EAST BAY/SF — SCALE: 1"=10'

LEGEND

- APPROXIMATE GRAVEL CONSTRUCTION ENTRANCE, OR CONTRACTOR TO LOCATE AS APPROPRIATE
- CONCRETE WASHOUT
- STRAW WATTLE
- INLET PROTECTION
- APPROXIMATE AREA OF CONSTRUCTION DISTURBANCE

WATER POLLUTION CONTROL NOTES:

A. TEMPORARY CONSTRUCTION ENTRANCE/EXIT LOCATION SHOWN IS APPROXIMATE. CONTRACTOR TO PROVIDE LOCATION WHERE APPROPRIATE.

B. THIS PLAN REPRESENTS POSSIBLE WATER POLLUTION CONTROL MEASURES INCLUDING EROSION CONTROL AND SEDIMENT CONTROL.

C. EXISTING SURFACES SHALL BE UNDISTURBED TO THE EXTENT PRACTICAL.

D. GROUND WATER SHALL NOT BE DISCHARGED WITH STORM WATER. GROUND WATER DEWATERING OPERATIONS SHALL BE COORDINATED AS NEEDED WITH OWNER.

E. CONTRACTOR SHALL PROVIDE EFFECTIVE SOIL COVER FOR AREAS OF CONSTRUCTION ACTIVITY THAT HAVE BEEN DISTURBED AND ARE NOT SCHEDULED TO BE ACTIVE FOR AT LEAST 14 DAYS.

F. ALL EROSION CONTROL AND SEDIMENT CONTROLS TO BE OBTAINED INSTALLED AND MAINTAINED AS REQUIRED IN PROJECT SWPPP.

G. CONTRACTOR TO INSTALL RUN-ON AND RUN-OFF CONTROL MEASURES ACCORDING TO PLANS OR AS NECESSARY TO ENSURE SEDIMENT IS NOT TRANSPORTED FROM SITE.

H. NO ACTIVE CONSTRUCTION IS ALLOWED UNTIL SWPPP IS APPROVED BY THE R.E. THE SWPPP BINDER AND ALL AMENDMENTS MUST BE PRESENT ON SITE DURING ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL BE REQUIRED TO CONDUCT ALL MONITORING AND REPORT.

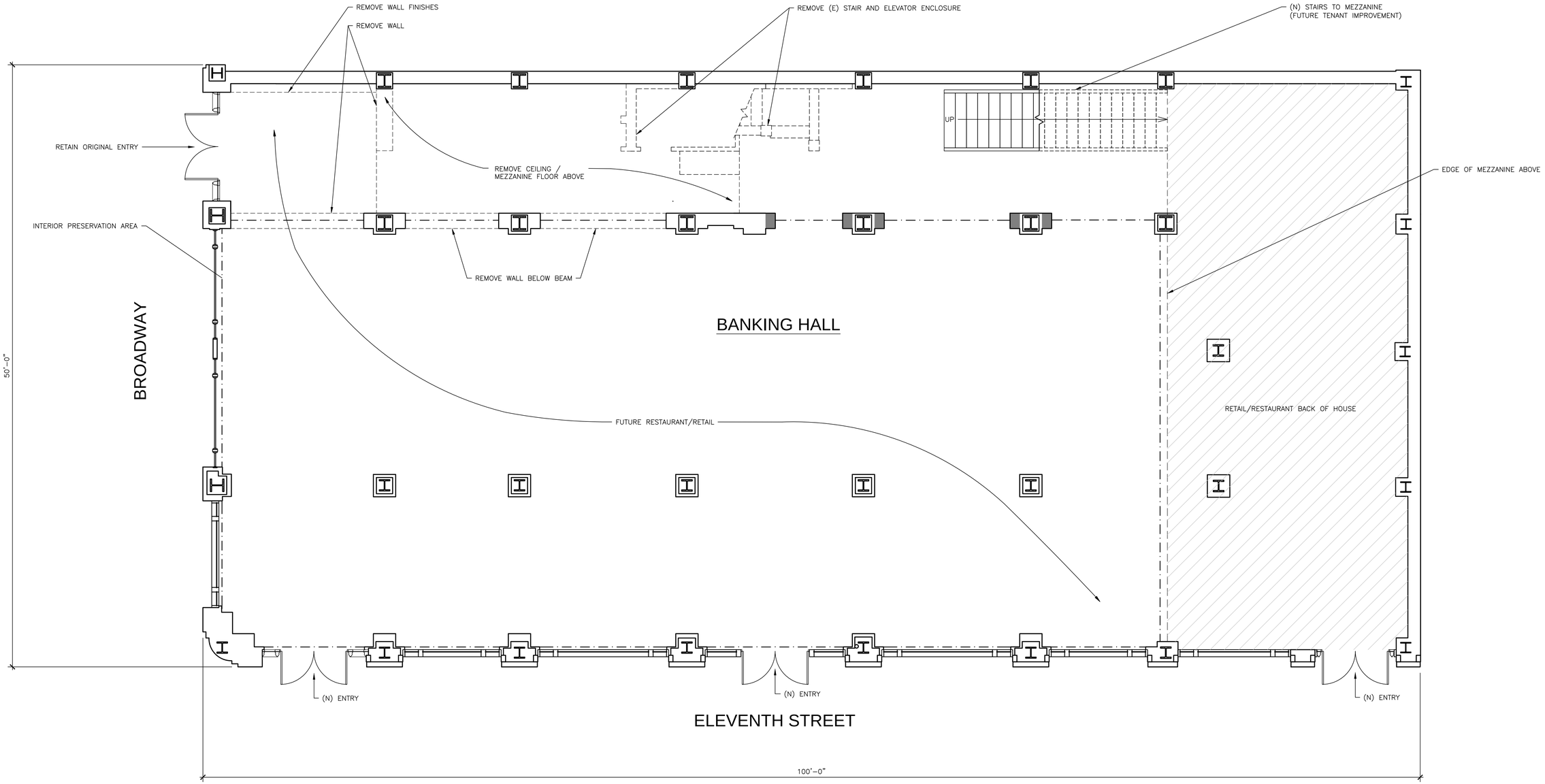
I. CONTRACTOR TO PROVIDE BACK-UP EROSION PREVENTION MEASURES (SOIL STABILIZATION) WITH SEDIMENT CONTROL MEASURES SUCH AS STRAW WATTLES, SILT FENCE, GRAVEL INLET FILTERS, AND/OR SEDIMENT TRAPS OR BASINS. ENSURE CONTROL MEASURES ARE ADEQUATE, IN PLACE, AND IN OPERABLE CONDITIONS. SEDIMENT CONTROLS, INCLUDING INLET PROTECTION, ARE NECESSARY BUT SHOULD BE A SECONDARY DEFENSE BEHIND GOOD EROSION CONTROL MEASURES.

J. STOCKPILE LOCATION(S) TO BE DETERMINED BY THE CONSTRUCTION SCHEDULE. CONTRACTOR TO COORDINATE WITH SITE QSP.

LEGEND:

(N) CONSTRUCTION

(E) TO BE REMOVED

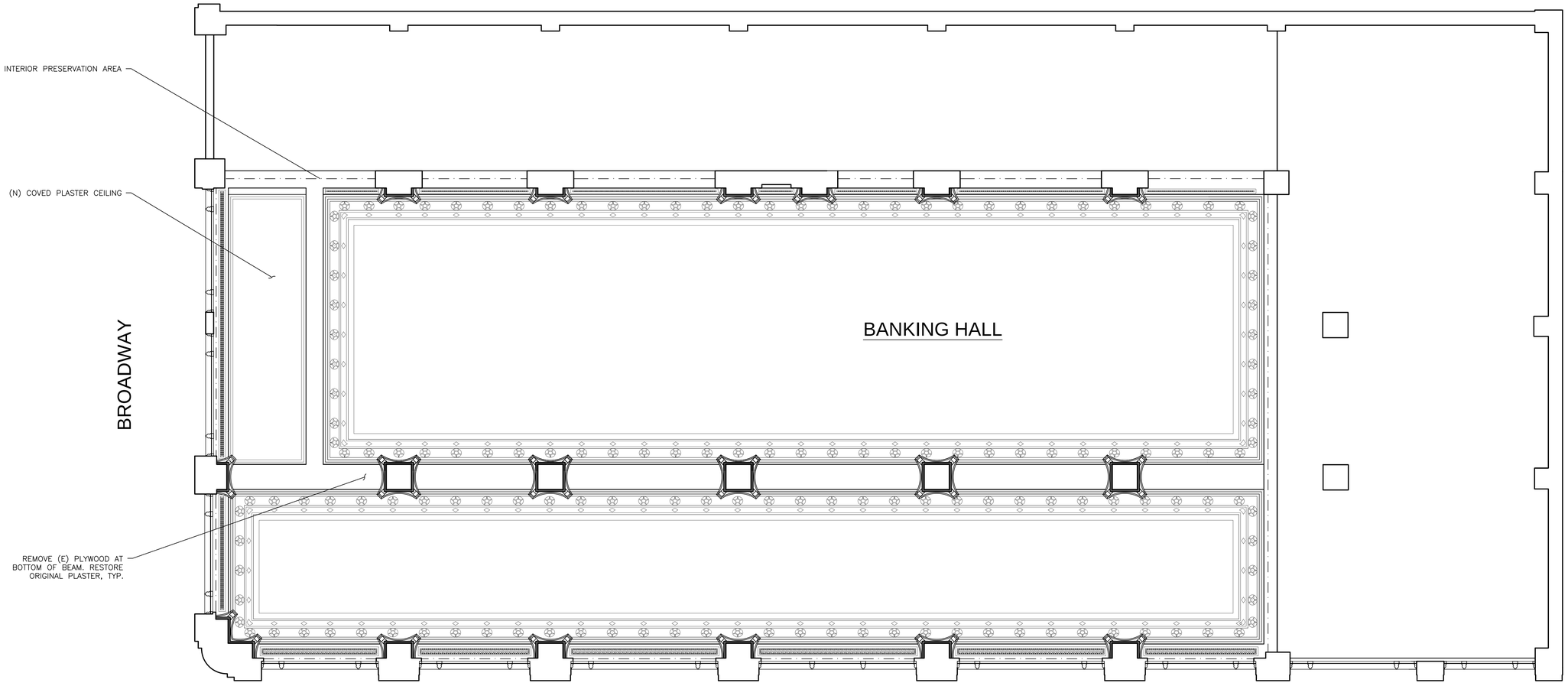


GENERAL NOTES:

1. ALL INTERIOR RESTORATION WORK TO TAKE PLACE IN AREA DESIGNATED AS PRESERVATION AREA.
2. REPAIR ALL EXISTING ORNAMENTAL PLASTER AT COLUMNS AND WALLS.
3. REPLACE AREAS OF MISSING PLASTER AND REPLICATE ORNAMENT AS NECESSARY.
4. SEE REFLECTED CEILING PLAN FOR COLUMN CAPITALS AND CEILING.
5. SEE ELEVATIONS FOR EXTERIOR MATERIALS, DOORS AND WINDOWS.
6. STOREFRONT ENTRIES SHOWN AT PROJECTED LOCATIONS. FINAL LOCATION OF NEW ENTRIES TO BE DETERMINED BASED ON TENANT REQUIREMENTS.

1 GROUND FLOOR DEMO AND PRESERVATION PLAN
SCALE: 1/4" = 1'-0"

Plotted: 8/31/2017 9:42 AM by Smith, Devin File Name: p:\2016\2016.7xxx\2016.7153.0 - 1100 broadway (ad)\05 construction documents\01 drawings\Sheets\2007-4287-HA2.01A.dwg

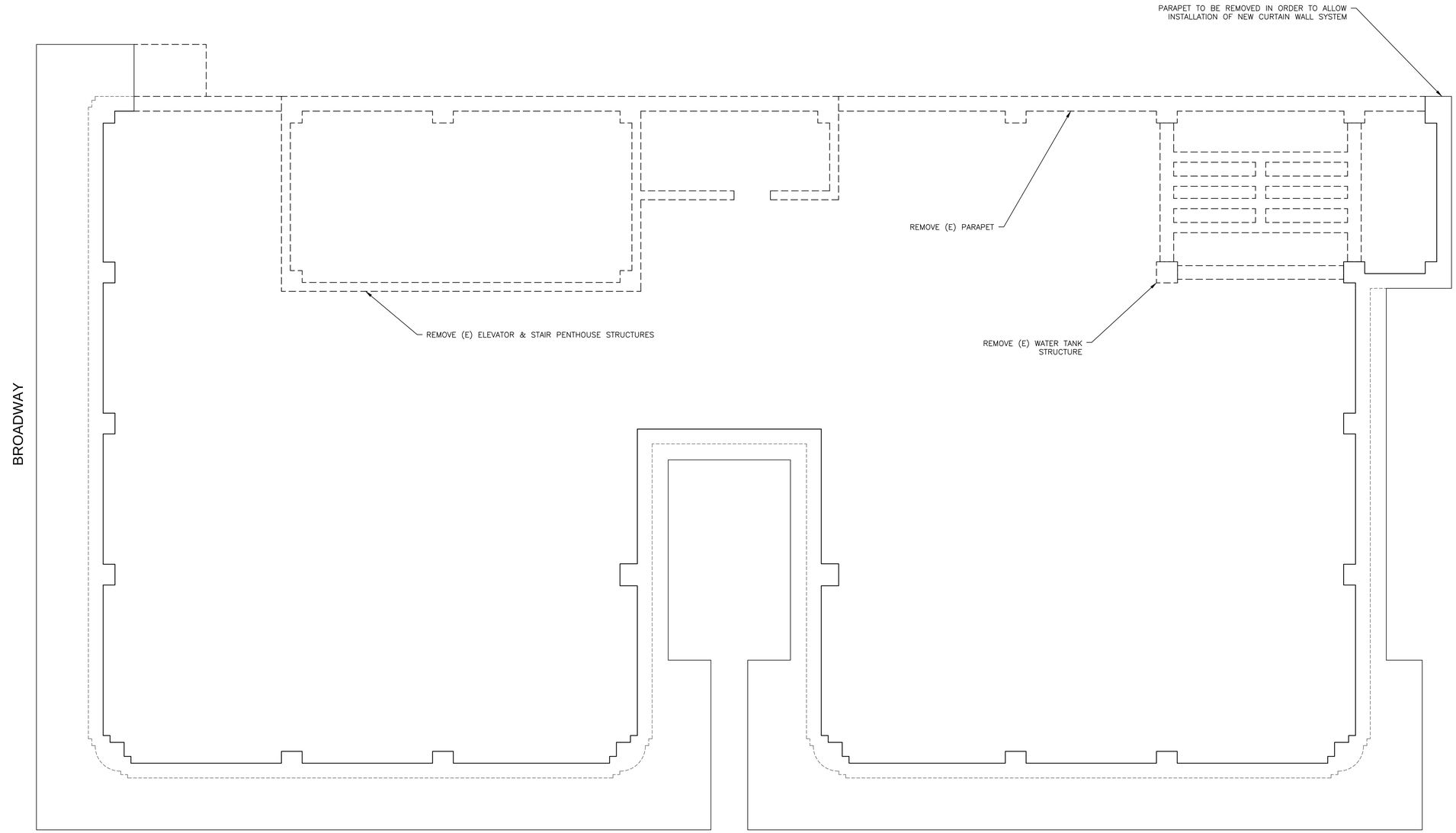


GENERAL NOTES:

1. REPAIR ALL EXISTING ORNAMENTAL PLASTER AT COLUMNS, BEAMS, COLUMN CAPITALS AND CEILINGS.
2. REPLACE AREAS OF MISSING PLASTER AND REPLICATE ORNAMENT AS NECESSARY.

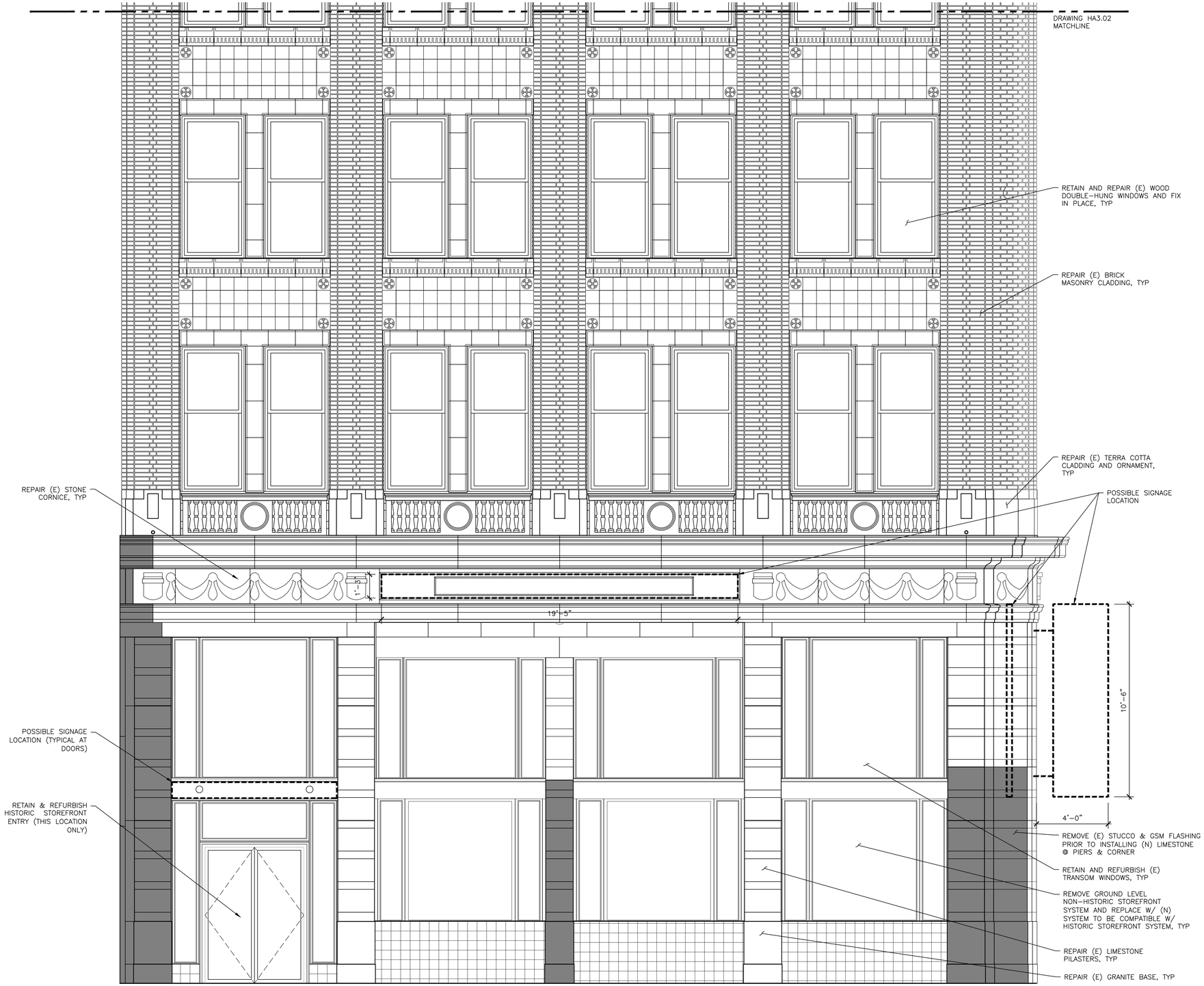
1 REFLECTED CEILING RESTORATION PLAN
SCALE: 1/4" = 1'-0"

Plotted: 8/31/2017 9:42 AM by Smith, Devin File Name: p:\2016\2016.7xxx\2016.7153.0 - 1100 broadway (ad)\05 construction documents\01 drawings\Sheets\2007-4287-HA2.02A.dwg



1 KEY SYSTEM BUILDING - ROOF PLAN
SCALE: 1/4" = 1'-0"

Plotted: 8/31/2017 9:42 AM by Smith, Devin File Name: p:\2016\2016.7xxx\2016.7153.0 - 1100 broadway (ad)\05 construction documents\01 drawings\Sheets\2016-7513-HA2.03.dwg



LEGEND:

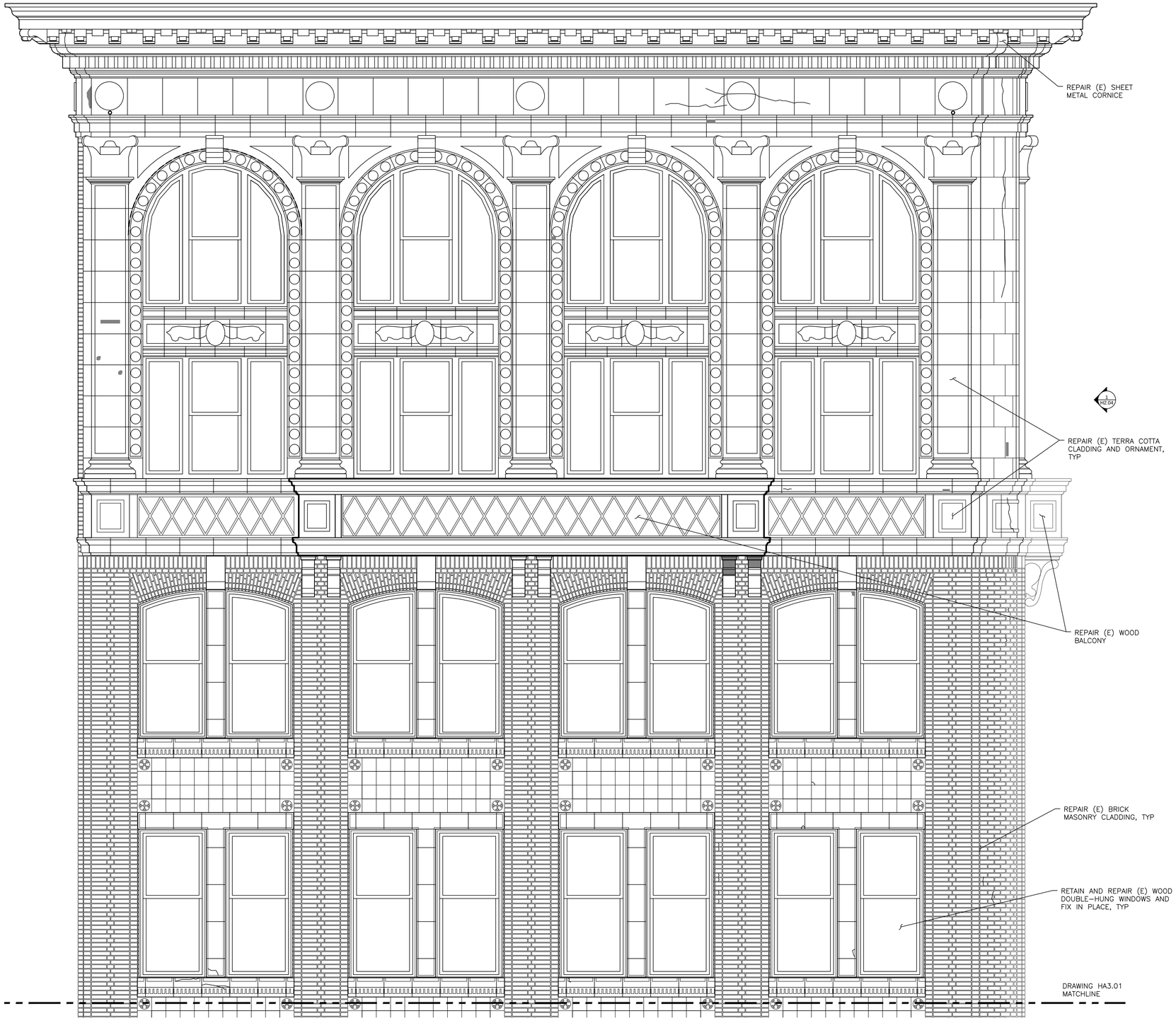
(N) MISSING MATERIAL TO BE REPLACED

GENERAL NOTES:

1. STOREFRONT ENTRIES SHOWN AT PROJECTED LOCATIONS. FINAL LOCATION OF NEW ENTRIES TO BE DETERMINED BASED ON TENANT REQUIREMENTS.

1 PARTIAL WEST (BROADWAY) ELEVATION - FLOORS 1-4
SCALE: 3/8" = 1'-0"

Plotted: 8/31/2017 9:42 AM by Smith, Devin File Name: p:\2016\2016.7xxx\2016.7153.0 - 1100 broadway (ad)\05 construction documents\01 drawings\Sheets\2016-7153-0_HA3-01.dwg



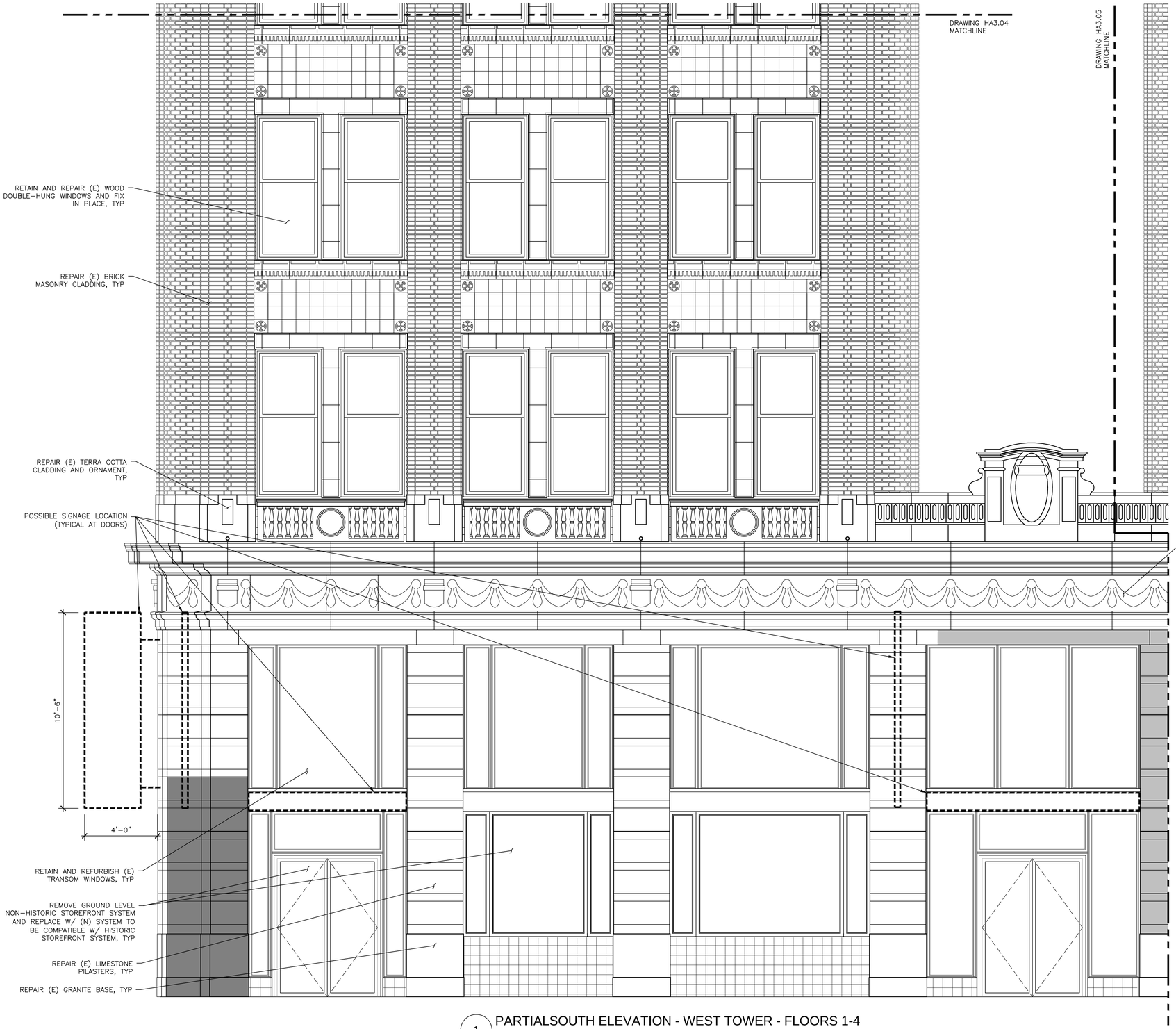
LEGEND:

(N) MISSING MATERIAL TO BE REPLACED

1 PARTIAL WEST (BROADWAY) ELEVATION - FLOORS 5-ROOF

SCALE: 3/8" = 1'-0"

Plotted: 8/31/2017 9:42 AM by Smith, Devin File Name: p:\2016\2016.7xxx\2016.7153.0 - 1100 broadway (ad)\05 construction documents\01 drawings\Sheets\2016-7153-0_HA3-02.dwg



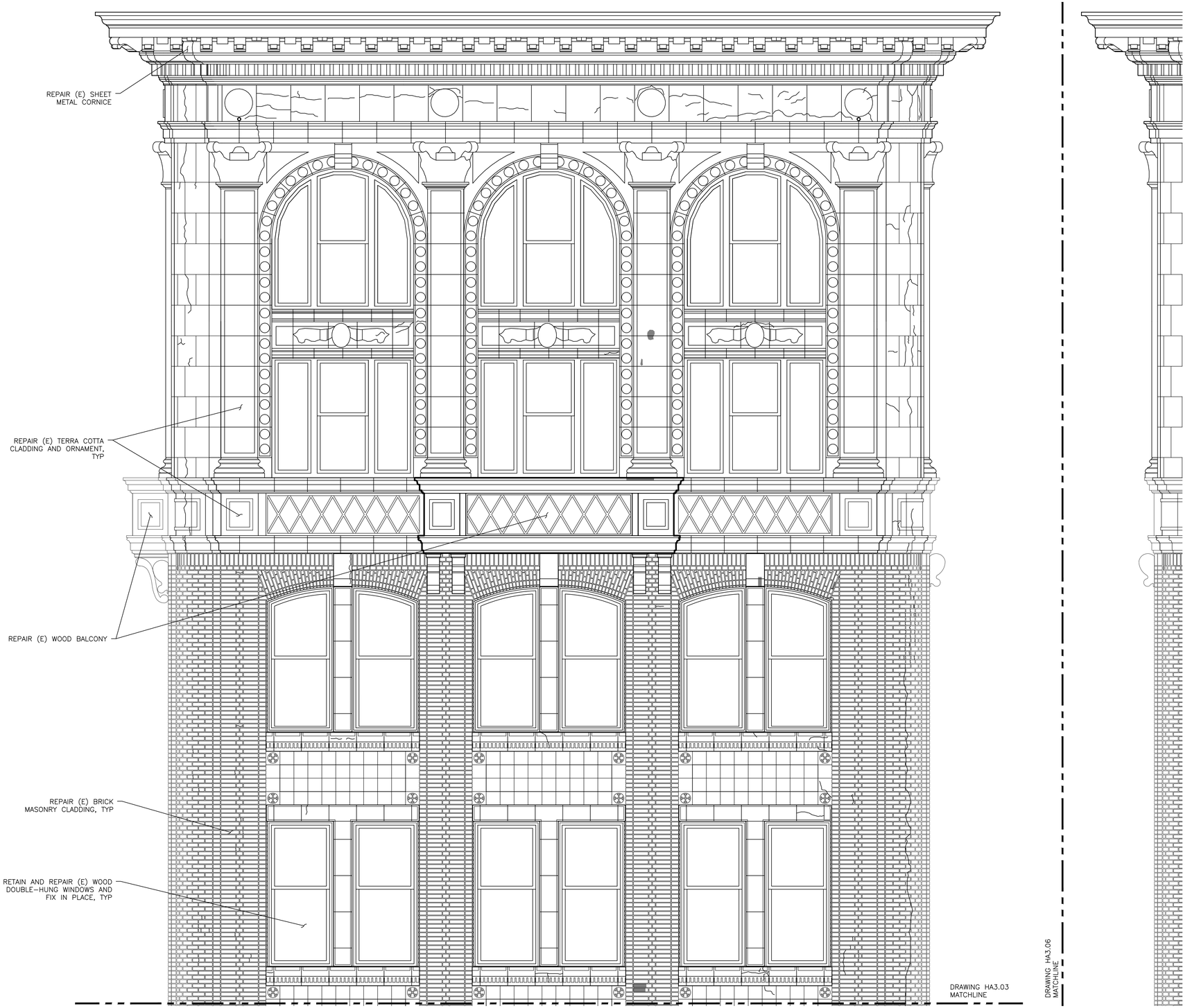
1 PARTIALSOUTH ELEVATION - WEST TOWER - FLOORS 1-4
SCALE: 3/8" = 1'-0"

LEGEND:

(N) MISSING MATERIAL TO BE REPLACED

GENERAL NOTES:

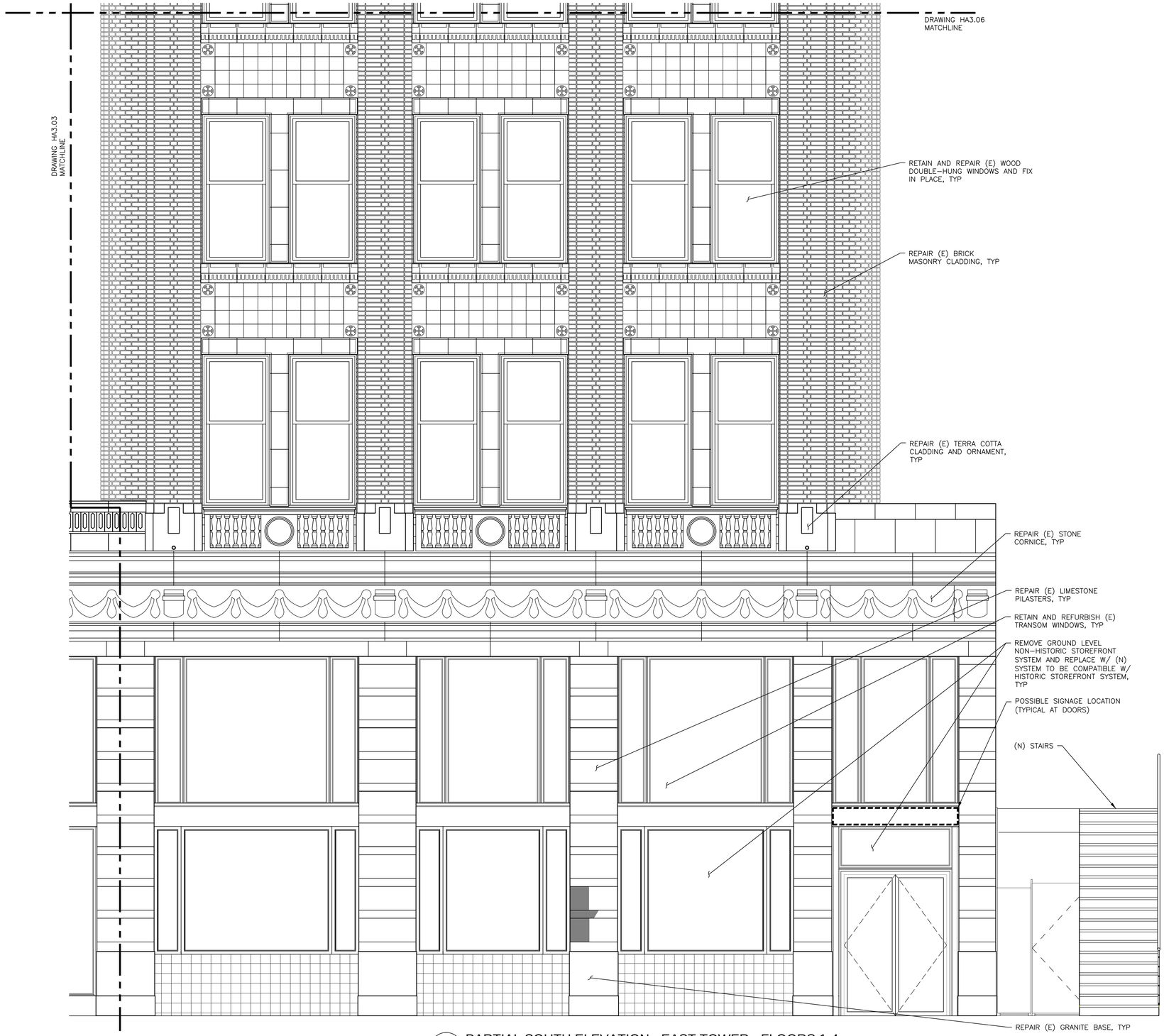
1. STOREFRONT ENTRIES SHOWN AT PROJECTED LOCATIONS. FINAL LOCATION OF NEW ENTRIES TO BE DETERMINED BASED ON TENANT REQUIREMENTS.



1 PARTIAL SOUTH (11th STREET) ELEVATION - WEST TOWER - FLOORS 5-ROOF

SCALE: 3/8" = 1'-0"

Plotted: 8/31/2017 9:42 AM by Smith, Devin File Name: p:\2016\2016.7xxx\2016.7153.0 - 1100 broadway (ad)\05 construction documents\01 drawings\Sheets\2016-7153-0_HA3-04.dwg



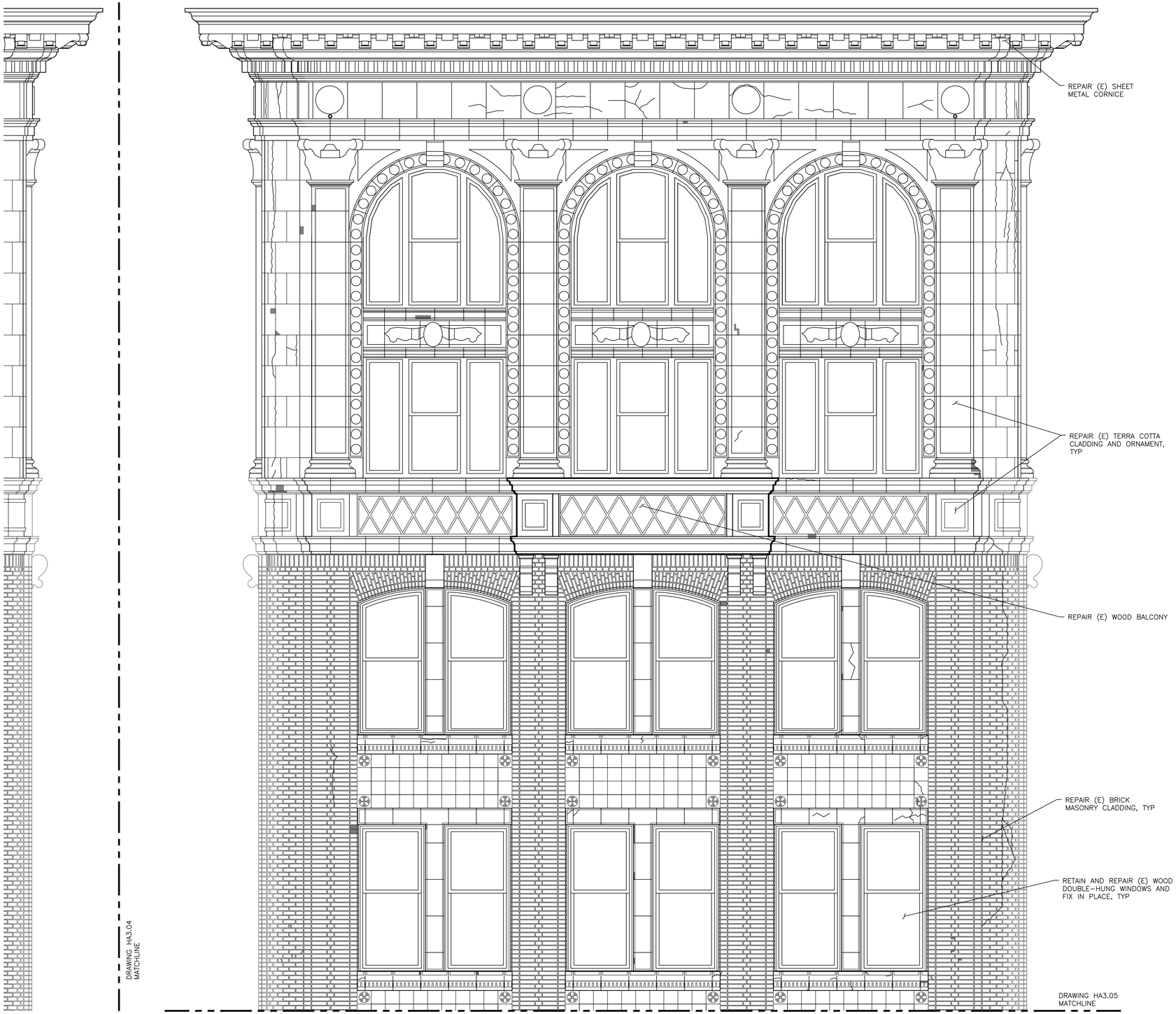
1 PARTIAL SOUTH ELEVATION - EAST TOWER - FLOORS 1-4
SCALE: 3/8" = 1'-0"

LEGEND:

(N) MISSING MATERIAL TO BE REPLACED

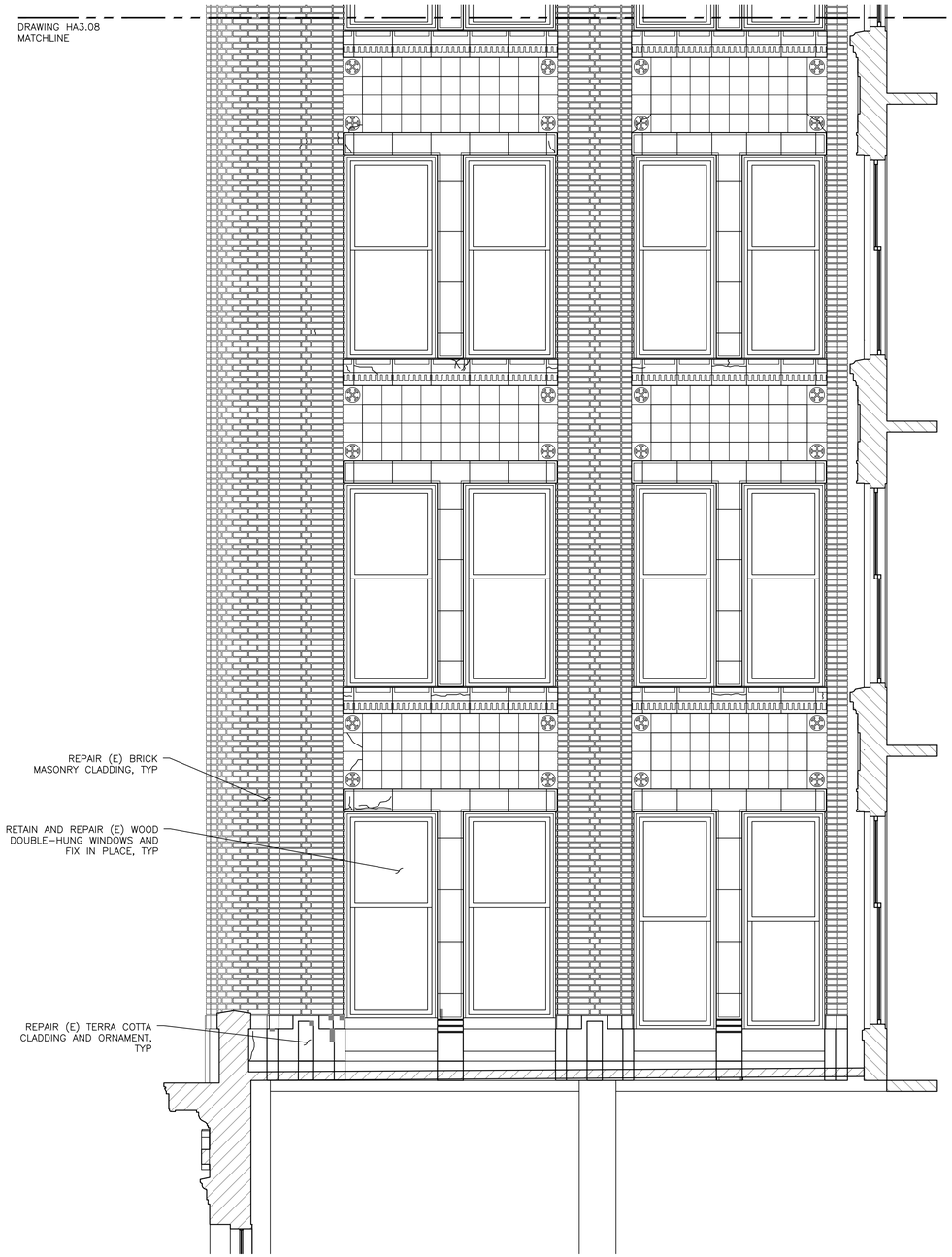
GENERAL NOTES:

1. STOREFRONT ENTRIES SHOWN AT PROJECTED LOCATIONS. FINAL LOCATION OF NEW ENTRIES TO BE DETERMINED BASED ON TENANT REQUIREMENTS.

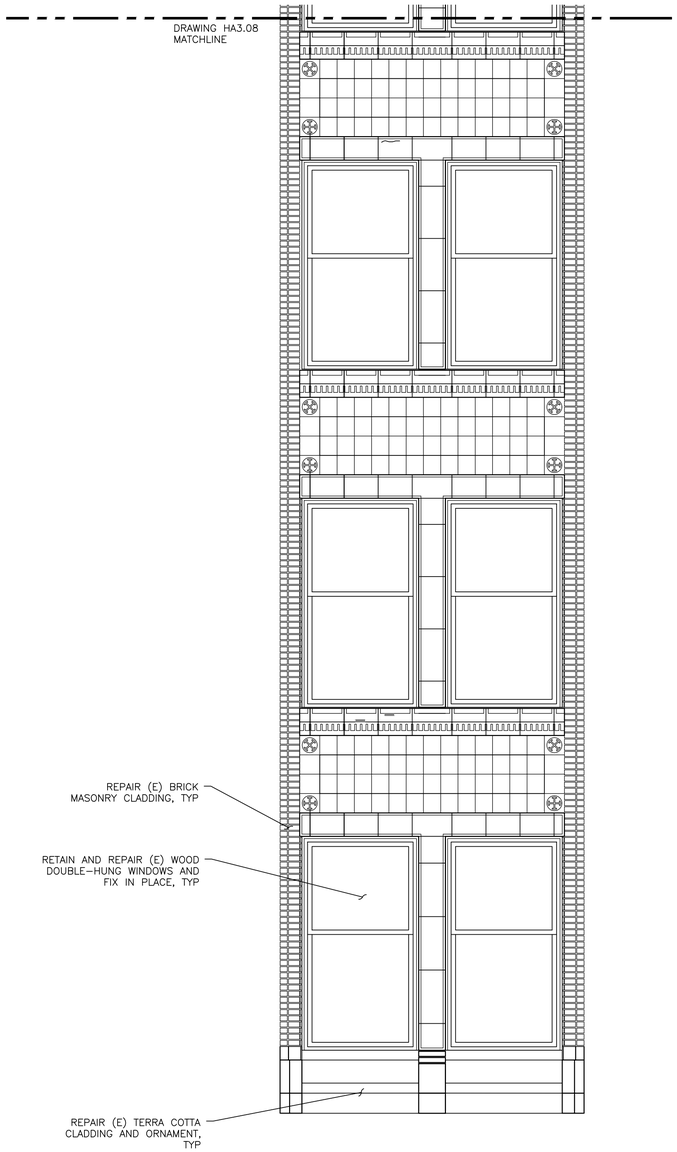


1 PARTIAL SOUTH (11th STREET) ELEVATION - EAST TOWER - FLOORS 5-ROOF
SCALE: 3/8" = 1'-0"

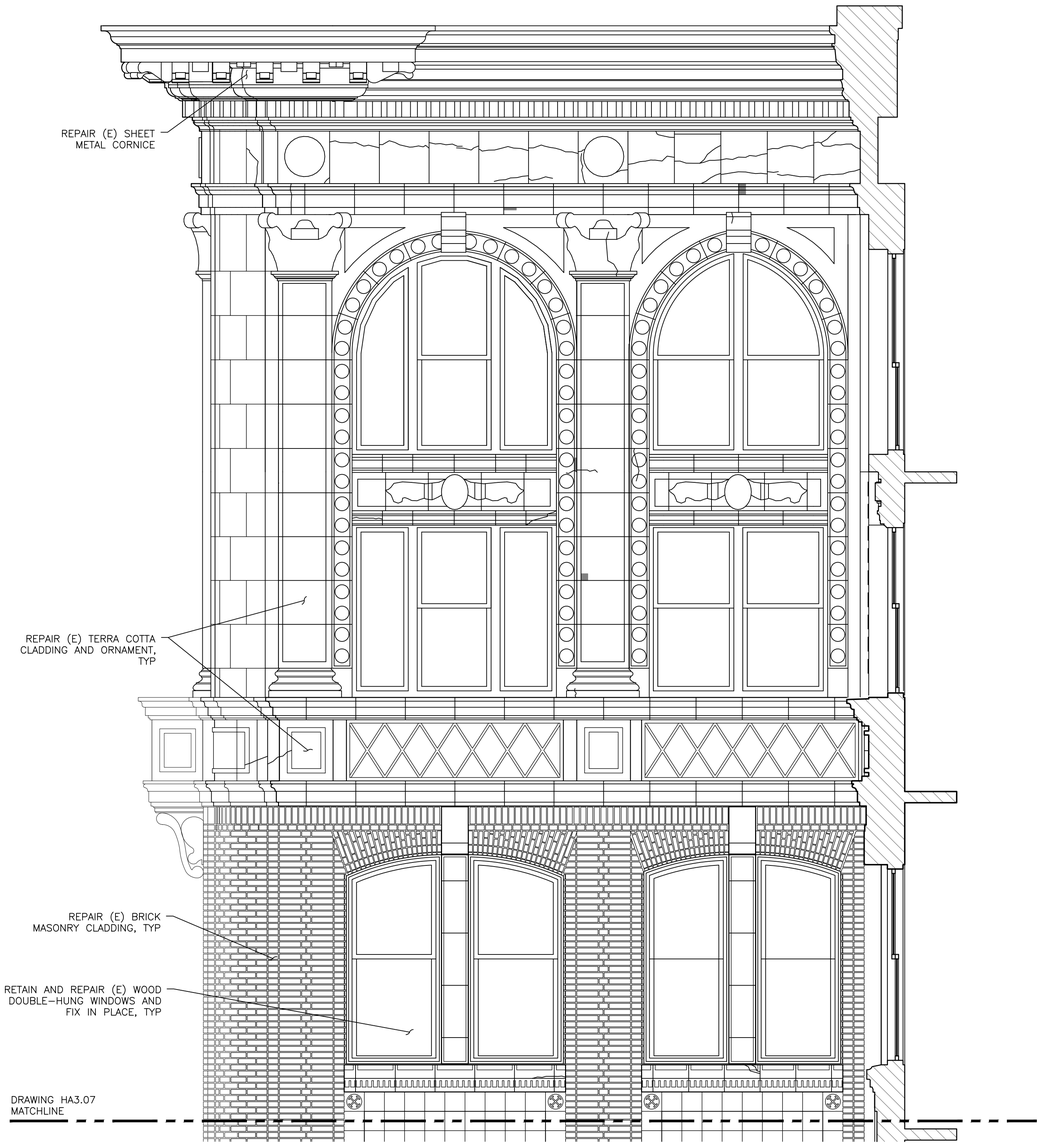
Plotted: 8/31/2017 9:42 AM by Smith, Devin File Name: p:\2016\2016.7xxx\2016.7153.0 - 1100 broadway (ad)\05 construction documents\01 drawings\Sheets\2016-7153-0_HA3-06.dwg



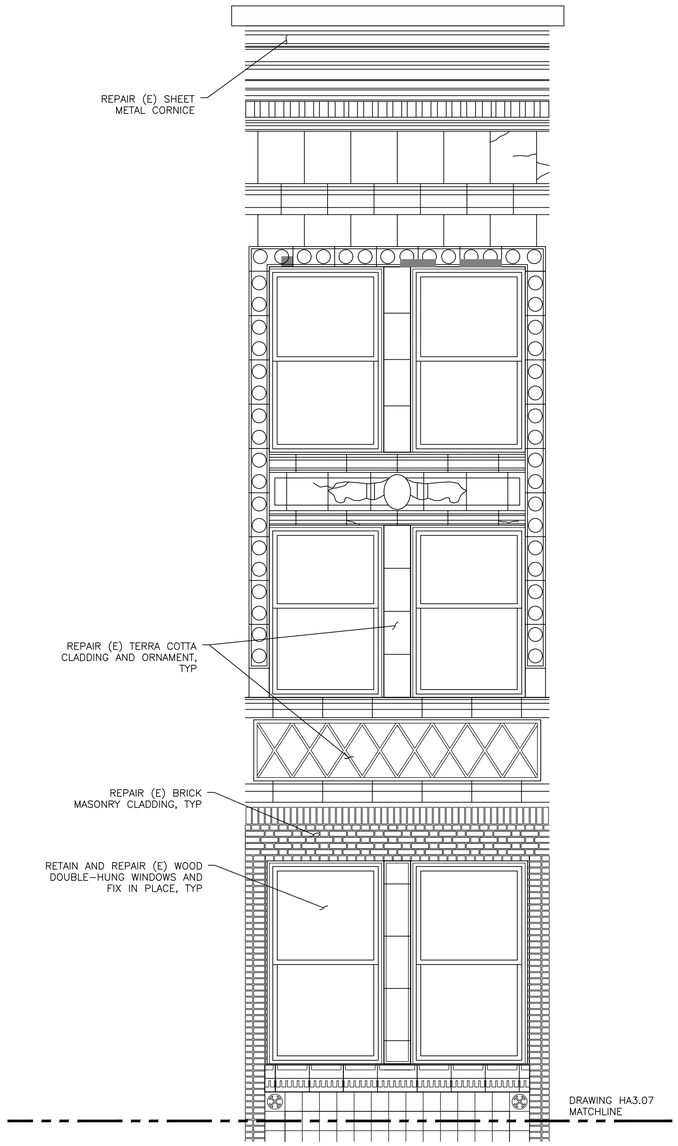
1 PARTIAL EAST LIGHT COURT ELEVATION - FLOORS 3-5
SCALE: 3/8" = 1'-0"



2 PARTIAL SOUTH LIGHT COURT ELEVATION - FLOORS 3-5
SCALE: 3/8" = 1'-0"



1 PARTIAL EAST LIGHT COURT ELEVATION - FLOORS 6-8
SCALE: 1/2" = 1'-0"



2 PARTIAL SOUTH LIGHT COURT ELEVATION - FLOORS 6-8
SCALE: 1/2" = 1'-0"

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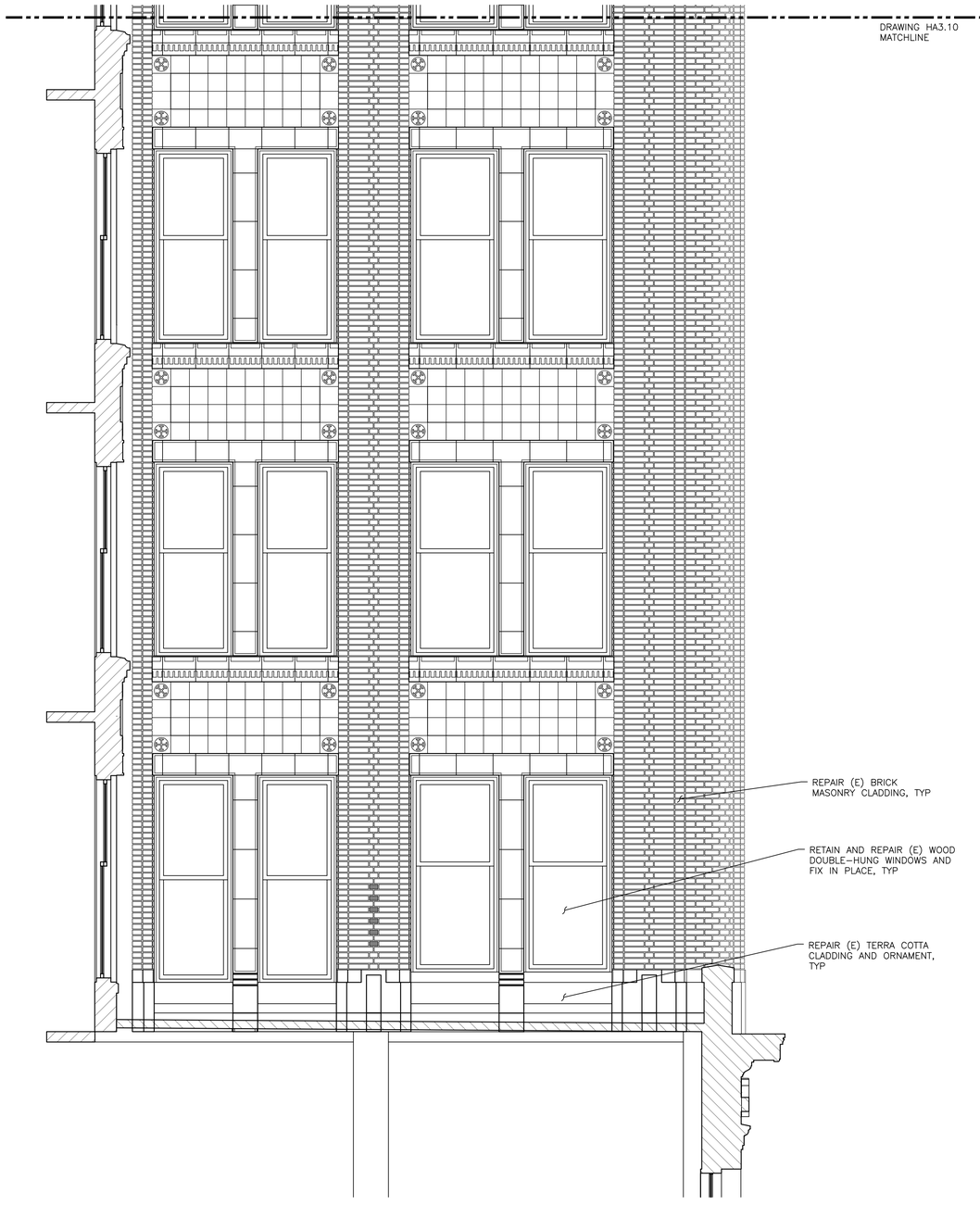

1 PARTIAL WEST LIGHT COURT ELEVATION - FLOORS 3-5
SCALE: 3/8" = 1'-0"

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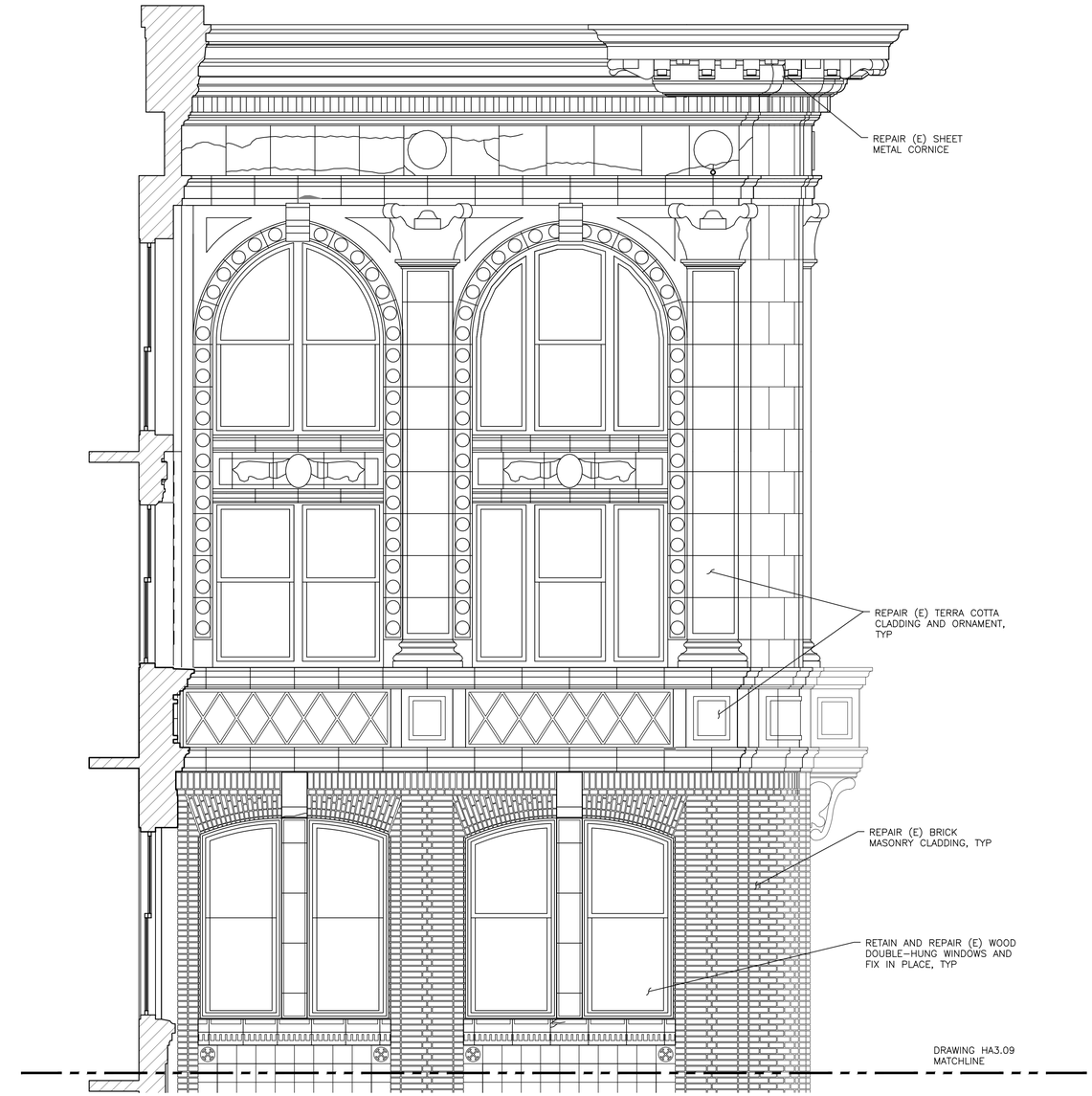

1 PARTIAL WEST LIGHT COURT ELEVATION - FLOORS 6-8
SCALE: 3/8" = 1'-0"

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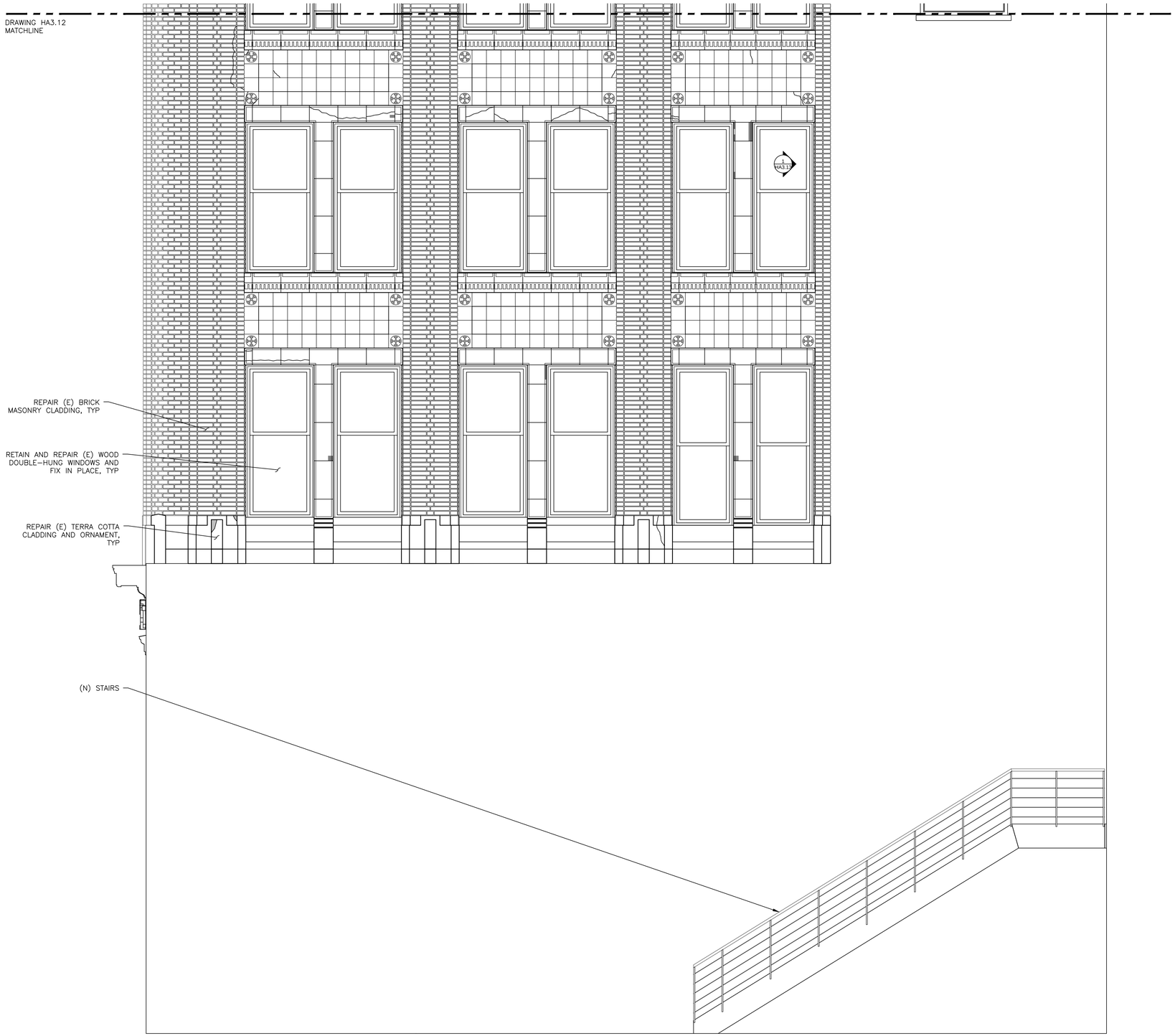

1 PARTIAL EAST ELEVATION - FLOORS 1-4
SCALE: 3/8" = 1'-0"

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1 PARTIAL EAST ELEVATION - FLOORS 5-ROOF
SCALE: 1/2" = 1'-0"

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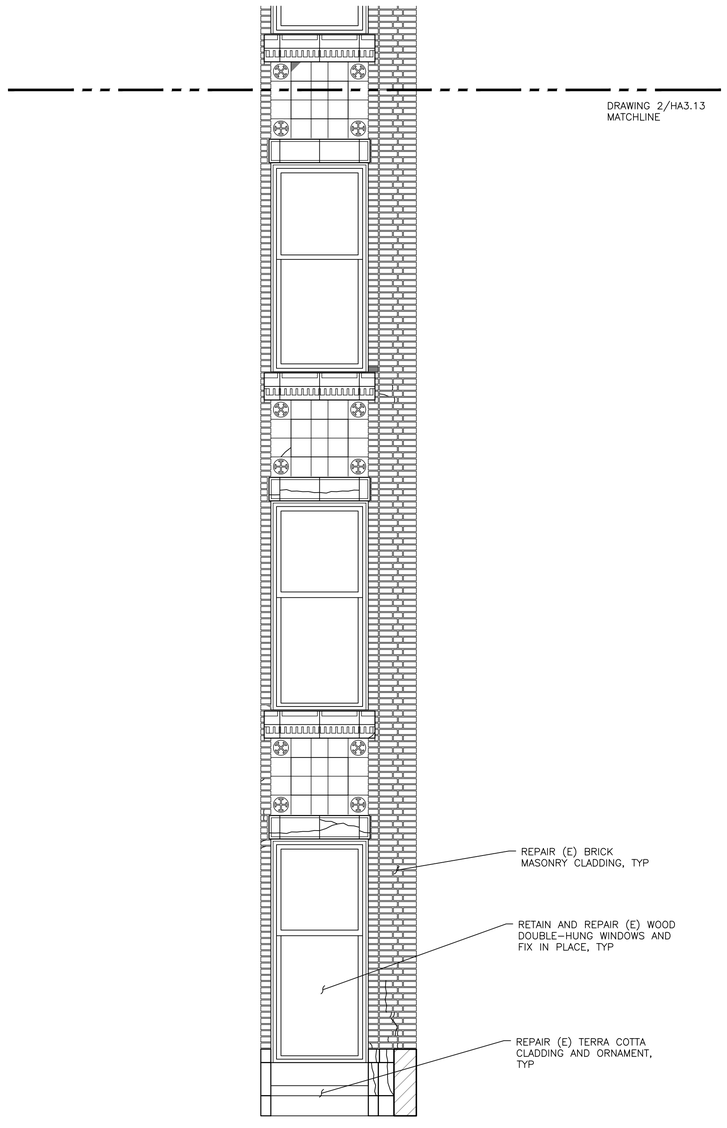
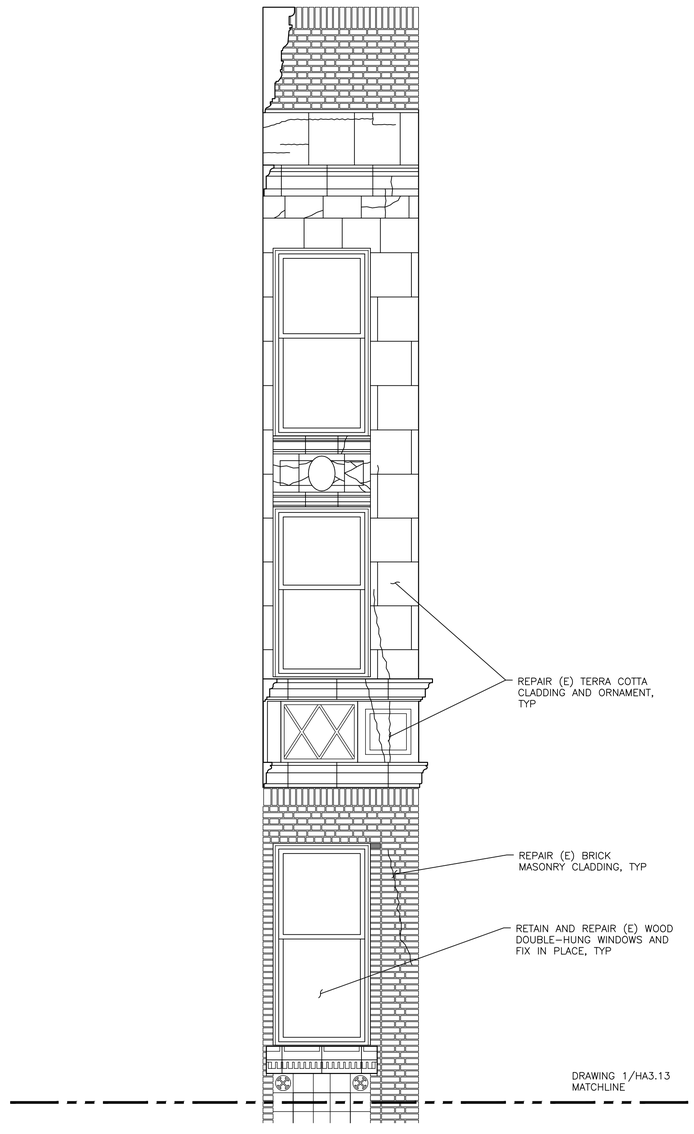


1 PARTIAL SOUTHEAST ELEVATION - FLOORS 3-5
SCALE: 1/2" = 1'-0"



2 PARTIAL SOUTHEAST ELEVATION - FLOORS 6-ROOF
SCALE: 1/2" = 1'-0"

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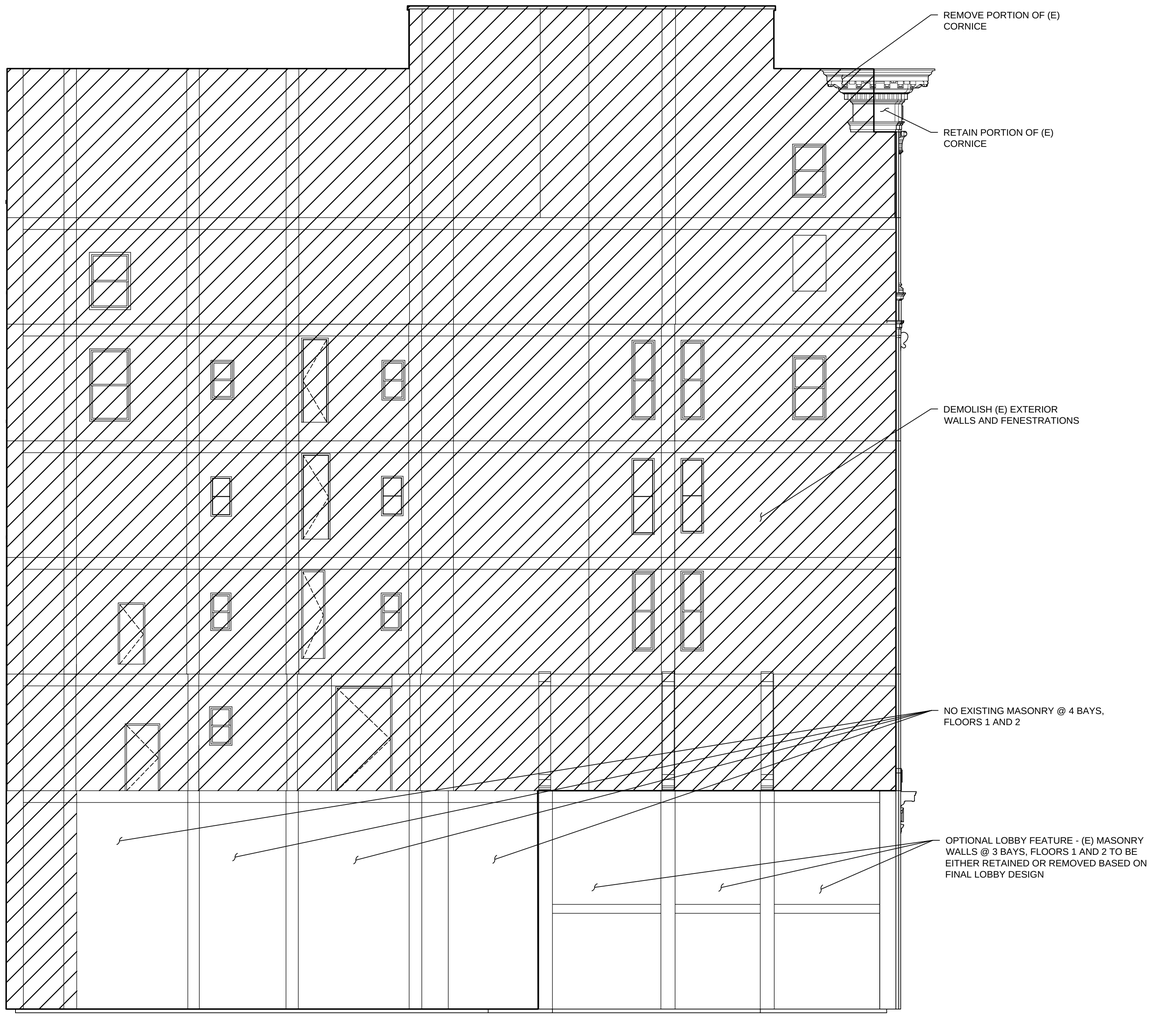
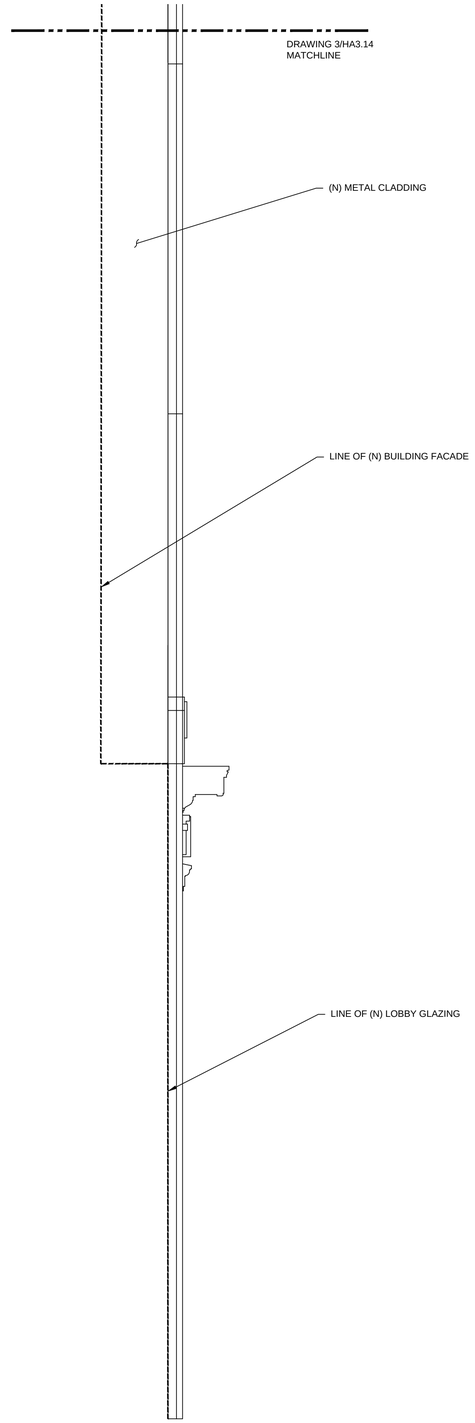
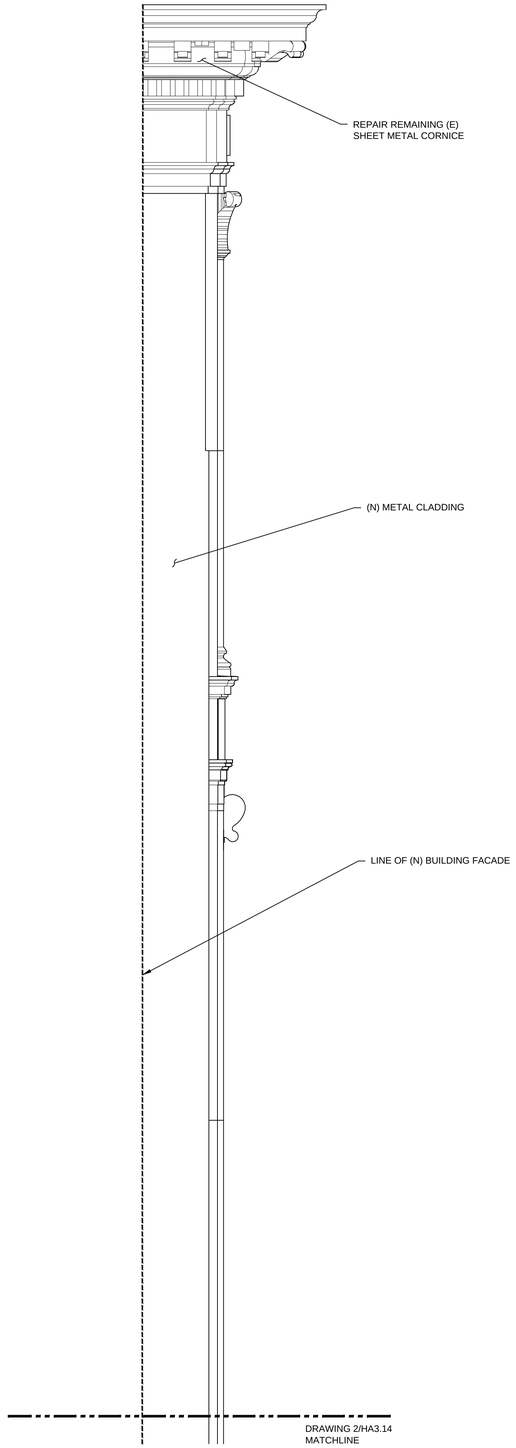


1 NORTH ELEVATION - DEMOTLITION
SCALE: 1/8" = 1'-0"

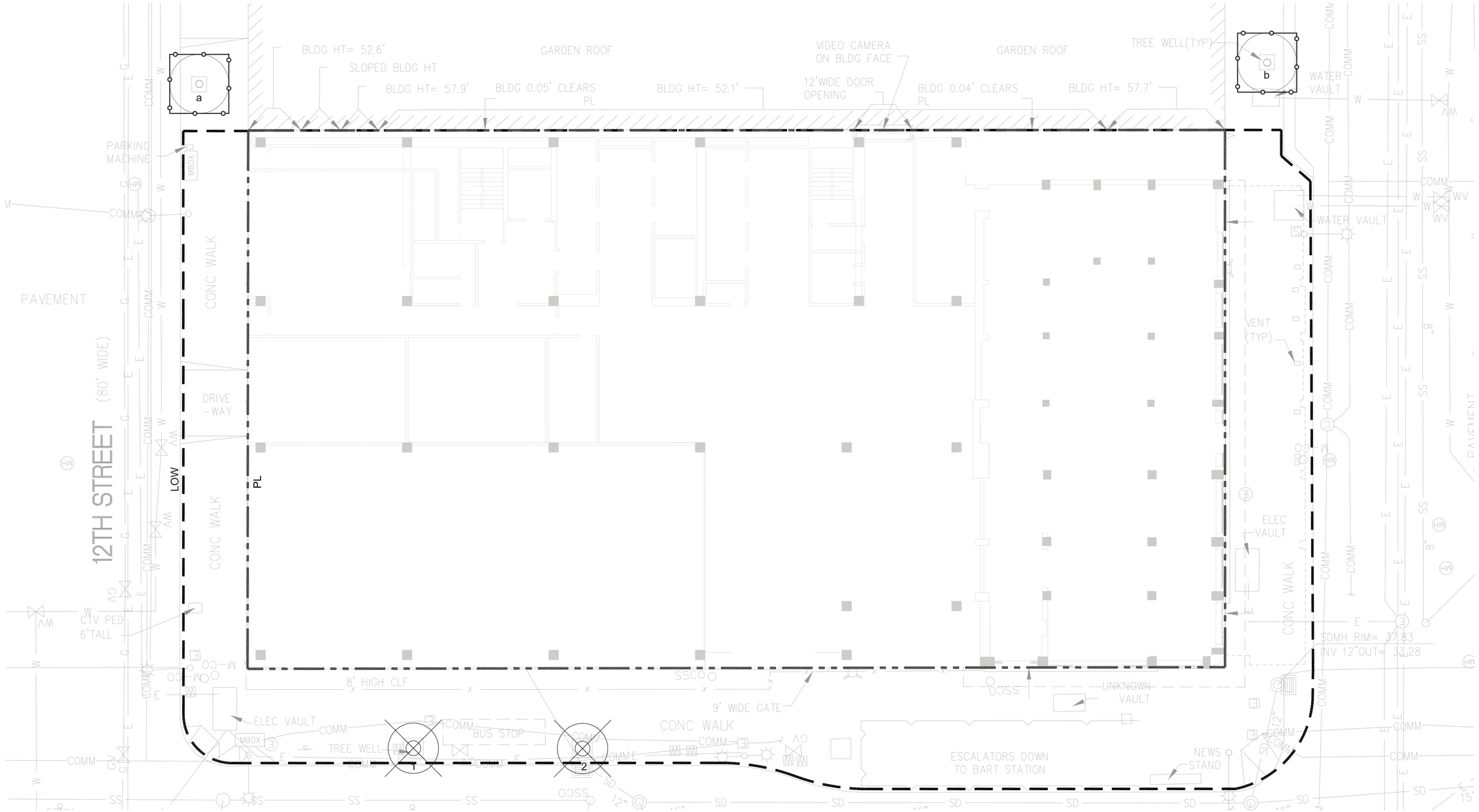


2 NORTH ELEVATION - FLOORS 1-4
SCALE: 3/8" = 1'-0"



3 NORTH ELEVATION - FLOORS 5-ROOF
SCALE: 3/8" = 1'-0"

Plotted: 8/31/2017 9:43 AM by Smith, Devin File Name: p:\2016\2016.7xxx\2016.7153.0 - 1100 broadway (ad)\05 construction documents\01 drawings\Sheets\2007-4287-HA3.14A.dwg



LEGEND

EXISTING PROTECTED TREES TO BE SAVED (2) TOTAL

EXISTING PROTECTED TREES TO BE REMOVED (2) TOTAL

(LOW) LIMIT OF WORK

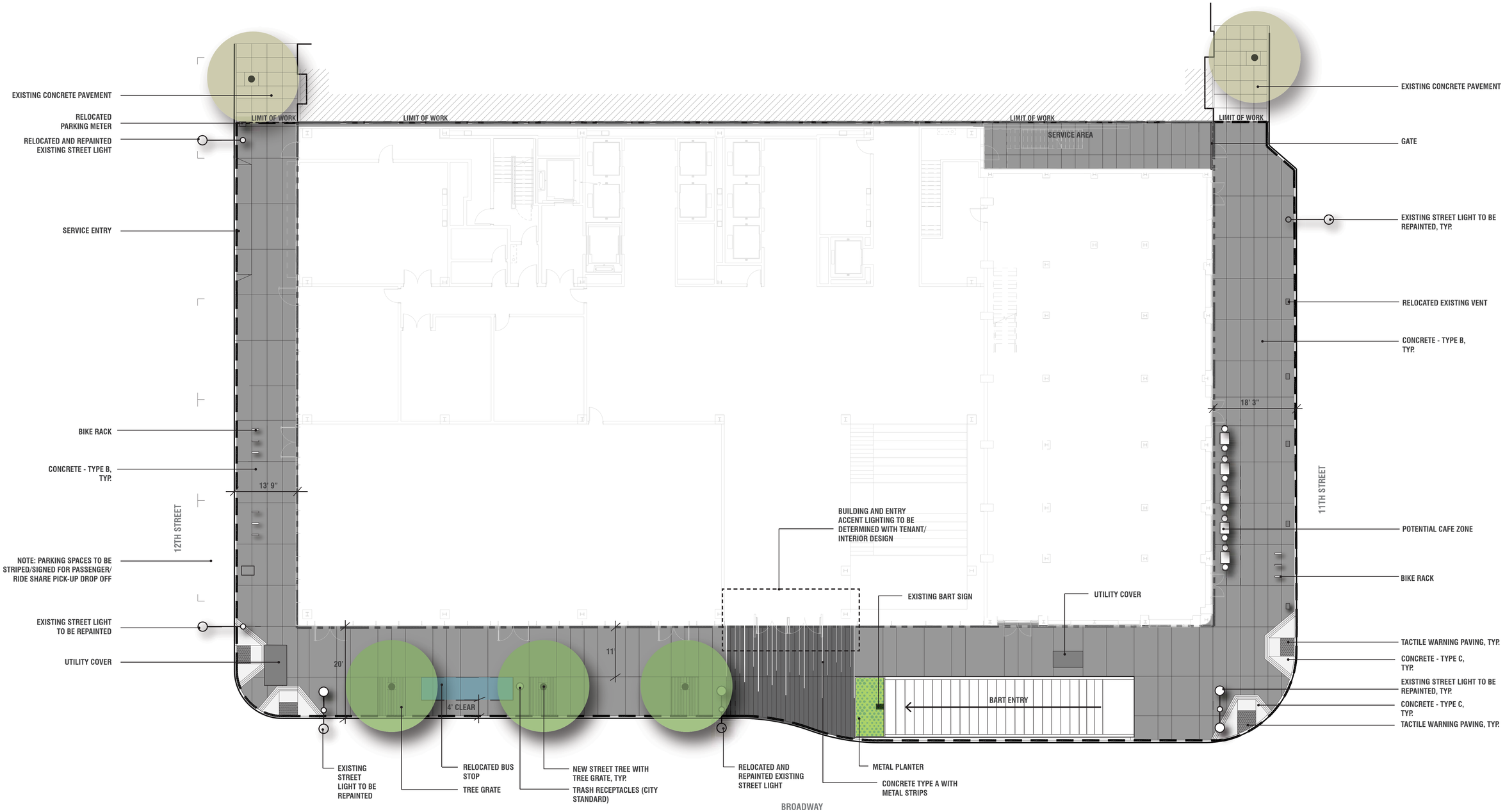
(PL) PROPERTY LINE

TREES PROPOSED FOR REMOVAL		
#	SPECIES	DBH
1	*Platanus x hispanica*	4"
2	*Platanus x hispanica*	9"
TREES NOT PROPOSED FOR REMOVAL BUT LOCATED WITHIN 10 FEET OF CONSTRUCTION ACTIVITY		
#	SPECIES	DBH
a	*Pyrus calleryana*	12"
b	*Pyrus calleryana*	13"

TREE SURVEY PREPARED BY:
BIONIC LANDSCAPE INC
833 MARKET ST STE 601
SAN FRANCISCO CA 94103
p 415.206.0648
d 415.690.2611
Tree Survey Date: May 8, 2017

SITE SURVEY PREPARED BY:
SANDIS
636 9TH STREET
OAKLAND, CA 94607
P 510.873.8866
Site Survey Date: March 30, 2017

N 0' 10' 20'



LEGEND

- CONCRETE TYPE A
- CONCRETE TYPE A WITH METAL STRIPS
- CONCRETE TYPE B
- CONCRETE TYPE C
- TACTILE WARNING PAVEMENT
- NEW STREET TREE
- EXISTING STREET TREE (OUTSIDE LIMIT OF WORK)
- EXISTING BROADWAY STREET LIGHT - TO BE REPAINTED (SEE L101A)
- EXISTING 11TH AND 12TH STREET LIGHT - TO BE REPAINTED (SEE L101A)
- BIKE RACK

NOTE:
- BUBBLER IRRIGATION SHALL BE PROVIDED TO ALL STREET TREES ALONG BROADWAY.
- SEE CIVIL PLANS FOR GRADES

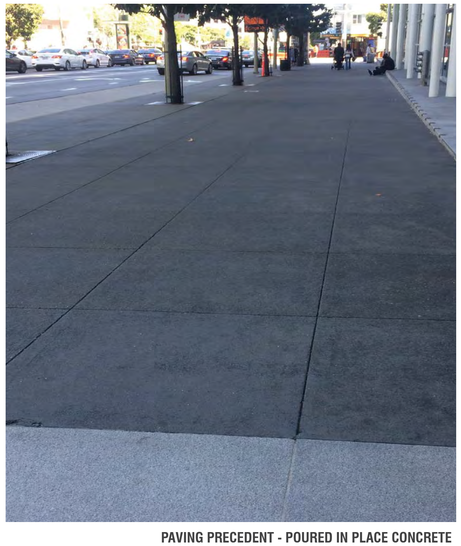
PLANT SCHEDULE

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QUANTITY / AREA (SQ FT)	SIZE	IRRIGATION
TREE					
	Platanus x hispanica	London Planetree	3	48" Box	Bubbler
GROUNDCOVER					
	Agave attenuata	Fox Tail Agave	79 sq ft	1 Gal	Drip Irrigation

N

0' 10' 20'

ILLUSTRATIVE SITE PLAN

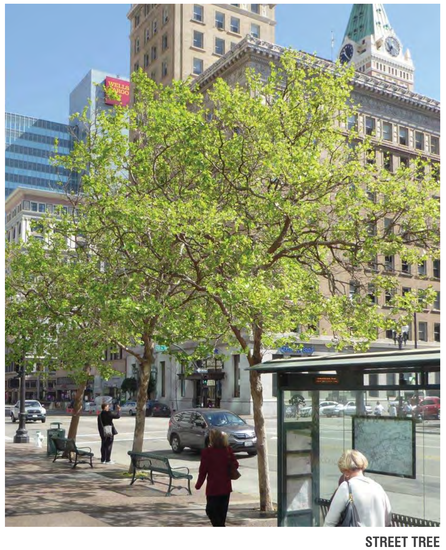


PAVING PRECEDENT - POURED IN PLACE CONCRETE WITH INTEGRAL COLOR

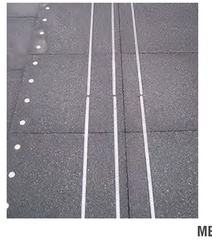
CONCRETE TYPE A COLOR

CONCRETE TYPE B COLOR

CONCRETE TYPE C COLOR



STREET TREE
Platanus x hispanica 'Columbia'

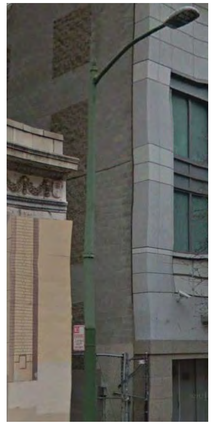


METAL STRIPS IN CONCRETE (BROADWAY)

METAL TREE GRATE

BIKE RACK

TEXT IN METAL (optional)

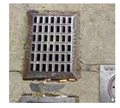


EXISTING BROADWAY STREET LIGHT - TO BE REPAINTED

EXISTING 11TH AND 12TH STREET LIGHT - TO BE REPAINTED

SLIPNOT CLAD COVERS

UTILITY COVERS



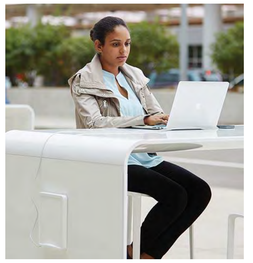
EXISTING METAL VENT

TACTILE PAVEMENT

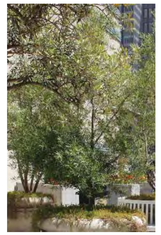
STREETSCAPE MATERIAL BOARD

0' 2' 4' 8' N

LEVEL 9 ROOF TERRACE - TOP VIEW



FURNITURE



LANDFORM / PLANTING

PEDESTAL PAVER

WIND SCREEN

LEGEND

- A. Communal Table
- B. Lounge
- C. Seating
- D. Specimen Tree (5)
- E. Cafe Table
- F. Glass Windscreen
- G. Planted Landform
- H. Pedestal Paver

AREA TABULATION

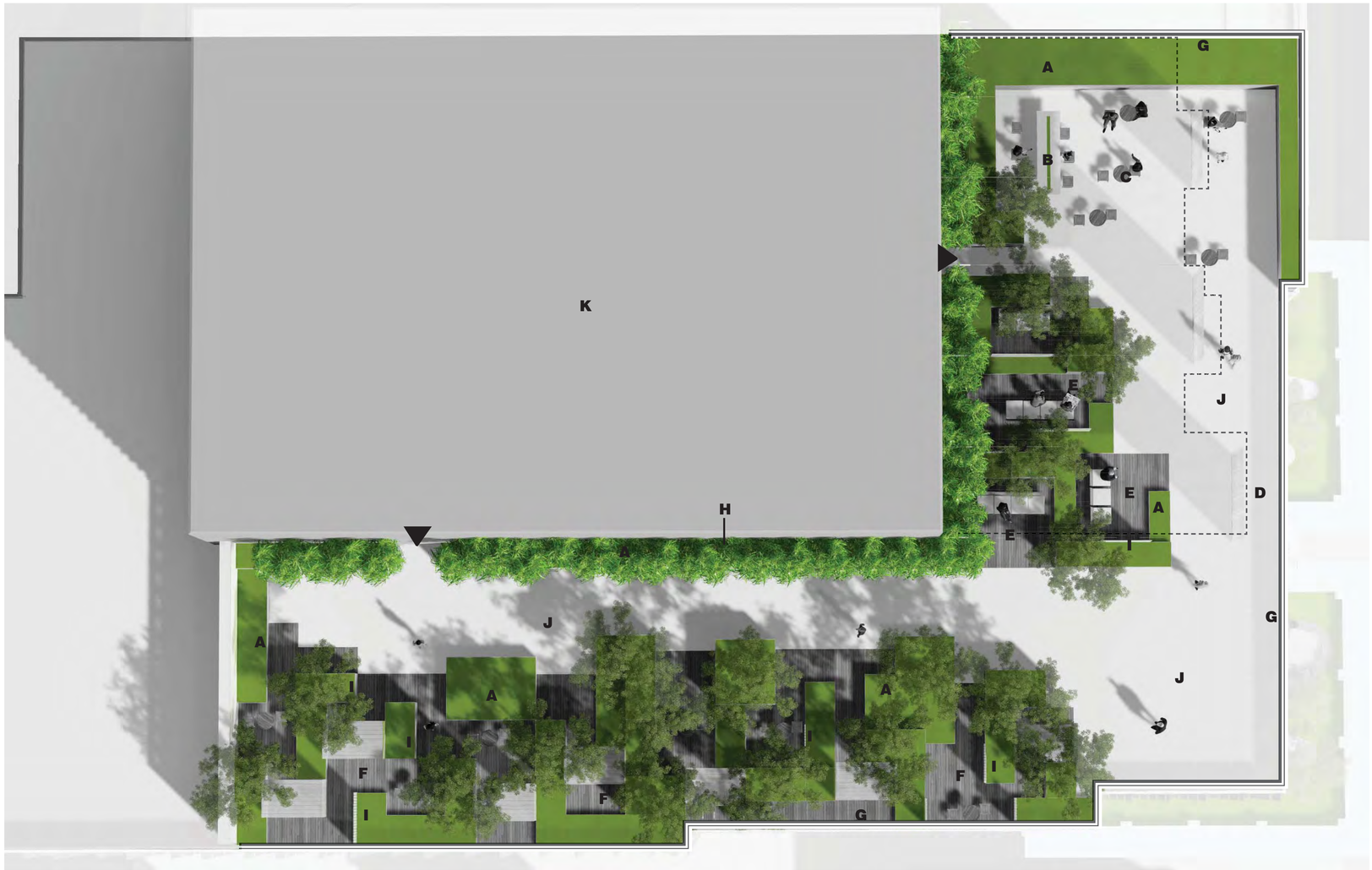
Roof Area: 2250 SF
Hardscape: 860 SF (38.5%)
Softscape: 1390 SF (61.5%)
Occupancy: 57

NOTE:
SEE ARCHITECTURAL PLANS FOR FLOOR PLAN AND ROOF DRAINAGE.
DRIP IRRIGATION SHALL BE PROVIDED TO ALL PLANTING ZONES

PRELIMINARY PLANT SCHEDULE

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QUANTITY / AREA (SQ FT)	SIZE	IRRIGATION
TREE					
(1) (2) (3) (4)	*Olea europaea* OR *Lagerstroemia indica* *'Glendora White'*	Olive Tree OR Crepe Myrtle (White Flowering)	4	24" Box	Bubbler
(5)	*Acer Palmatum*	Japanese Maple	1	24" Box	Bubbler
SHRUB / GROUNDCOVER					
	Agave Attenuata *Senecio mandraliscae* *Anigozanthos Flavidus* *Achillea millefolium* *Carex divulsa* *Lomandra longifolia "Breeze"* *Salvia apiana* *Heuchera sanguinea* *Agave spp.* *Arctostaphylos spp.* *Epilobium canum*	Fox Tail Agave Blue Chalk Sticks Kangaroo Paw Yarrow Berkeley Sedge Dwarf Mat Rush White Sage Coral Bells Agave Creeping Manzanita California Fuschia	1,250 sq ft	1 Gal	Drip Irrigation

NOTE: IF OPTIONAL ROOF TERRACE IS PURSUED, FINAL DESIGN SUBJECT TO TENANT FEEDBACK



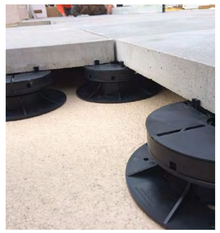
0' 2' 4' 8' N

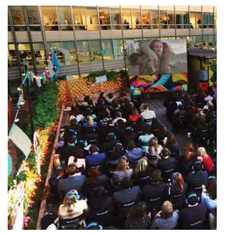
LEVEL 19 ROOF DECK - TOP VIEW

BAR AND CAFE

PLANTING/ SCREENING

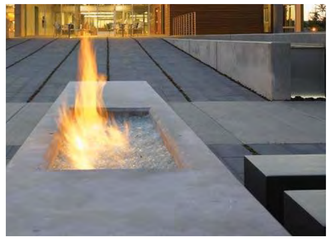
WORK AREA





PEDESTAL PAVER

FLEXIBLE PROGRAM AREA



LOUNGE

NOTE: IF OPTIONAL ROOF TERRACE IS PURSUED, FINAL DESIGN SUBJECT TO TENANT FEEDBACK

LEGEND

A. Planter
B. Communal Table
C. Cafe Seating
D. Trellis
E. Lounge Area
F. Decking
G. Glass Windscreen / Railing
H. Planted Screen
I. Windscreen
J. Flexible Program Area (Pedestal Pavers)
K. Mechanical Area

NOTE:

SEE ARCHITECTURAL PLANS FOR FLOOR PLAN AND ROOF DRAINAGE.
DRIP IRRIGATION SHALL BE PROVIDED TO ALL PLANTING ZONES

AREA TABULATION

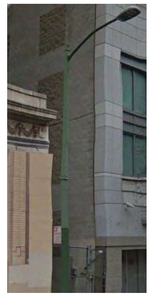
Roof Area: 7900 SF
Hardscape: 5900 SF (75%)
Softscape: 2000 SF (25%)
Occupancy: 390

PRELIMINARY PLANT SCHEDULE

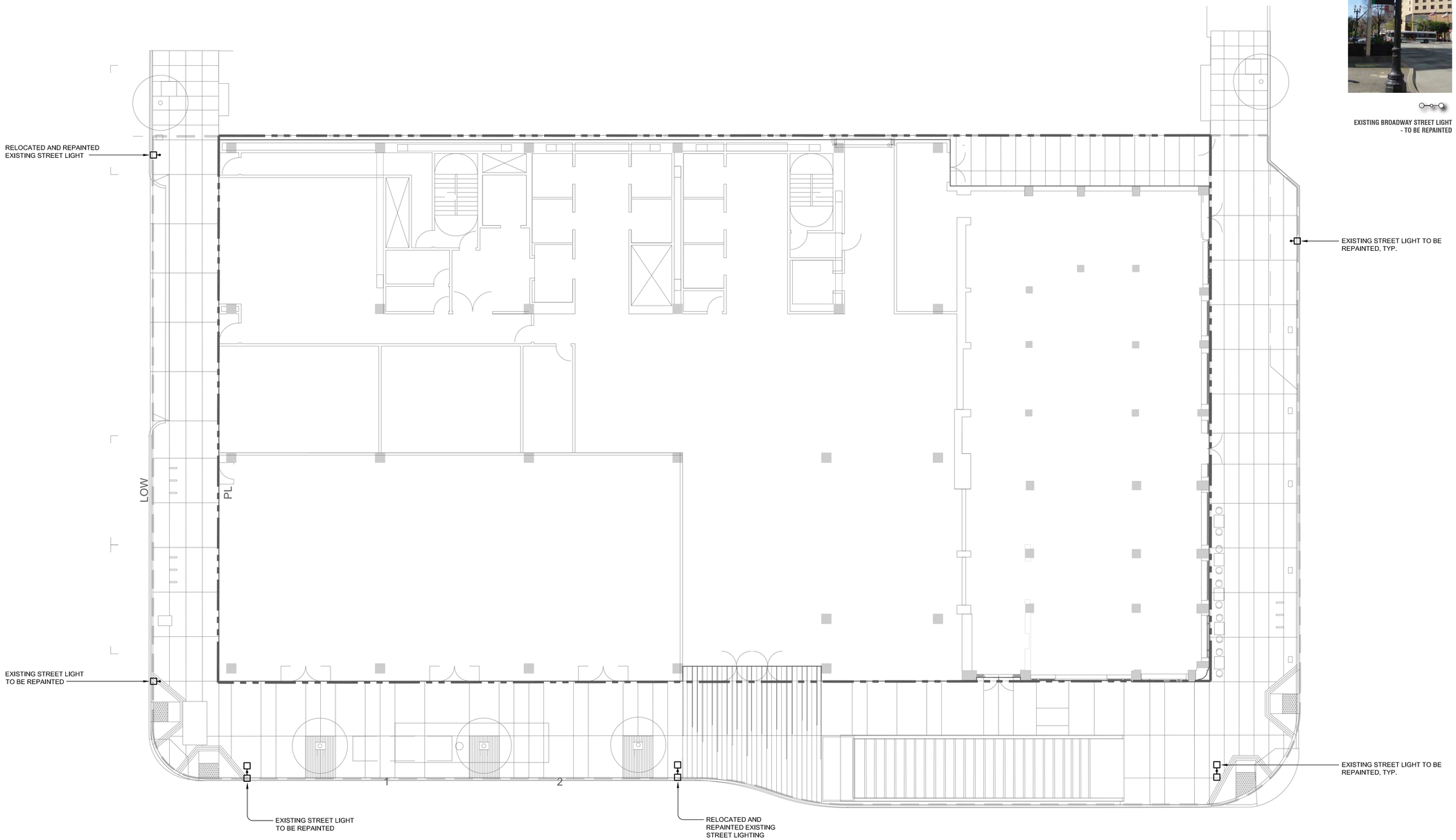
SYMBOL	SCIENTIFIC NAME	COMMON NAME	QUANTITY	SIZE	IRRIGATION
TREE					
	Olea europaea OR *Lagerstroemia indica 'Glendora White'*	Olive Tree OR Crepe Myrtle (White Flowering)	15	24" Box	Bubbler
PLANT FOR SCREENING					
H	*Himalayacalamus hookerianus*	Blue Bamboo	1,075 sq ft	24" Box	Bubbler

SYMBOL	SCIENTIFIC NAME	COMMON NAME	AREA (SQ FT)	SIZE	IRRIGATION
SHRUB / GROUNDCOVER					
	Agave Attenuata *Senecio mandraliscae* *Anigozanthos Flavidus* *Achillea millefolium* *Carex divulsa* *Lomandra longifolia "Breeze"* *Salvia apiana* *Heuchera sanguinea* *Agave spp.* *Arctostaphylos spp.* *Epilobium canum*	Fox Tail Agave Blue Chalk Sticks Kangaroo Paw Yarrow Berkeley Sedge Dwarf Mat Rush White Sage Coral Bells Agave Creeping Manzanita California Fuschia	2,000 sq ft	1 Gal	Drip Irrigation

EXISTING BROADWAY STREET LIGHT - TO BE REPAINTED



EXISTING 11TH AND 12TH STREET LIGHT - TO BE REPAINTED



0 10' 20'