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City Center EIR CEQA Analysis

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Oakland City Center Project
Modified Block T5/6 Project
CEQA Analysis

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:	May 29, 2015
Project Address:	1100 Clay Street, Block T5/6
Case Number:	PUD99-ER15003
Zoning:	CBD-C (Central Business District General Commercial Zone)
General Plan:	Central Business District (CBD)
APNs:	Site A: 02-97-38 Site B: 02-97-39 and 02-97-40
Lot Size:	1.25 acres
Applicant:	Strada T5, LLC Strada Investment Group 101 Mission Street, Suite 420 San Francisco, CA 94105
Staff Contact:	Catherine Payne, Planner III Bureau of Planning cpayne@oaklandnet.com (510) 238-6168

I. Executive Summary

The proposed Modified Block T5/6 Project ("proposed project" or **"Modified T5/6 Project"**) would be developed on an approximately 1.25-acre parcel that is one of four development blocks that make up the Oakland City Center Project in Downtown Oakland.

The City certified an Environmental Impact Report (EIR) for the Oakland City Center Project Preliminary Planned Unit Development (PUD) in April 2000, pursuant to the California Environmental Quality Act (CEQA).[1] The **"Original Project"** analyzed in the 2000 EIR considered the development of a 580,000 square-foot commercial office building up to 390 feet tall with ground floor retail space on Block T5/6. A total of up to 200 parking spaces would be provided on-site or in an existing adjacent City parking garage.

The Modified T5/6 Project now proposes three possible development options on Block T5/6, which would be developed in two phases on two sites: Phase 1 on Site A and Phase 2 on Site B. The project sponsor also seeks approval of amended revised Preliminary PUD for the entire Block T5/6, and a Final PUD for Site A (Phase 1), which would be developed as an up-to-262 unit residential building with up to 6,800 square feet of ground-floor retail space. Site B (Phase 2) will be subject to a Final PUD application at a later date, once

[1] Oakland City Center Project Final EIR, Certified April 26, 2000. SCH No. 99081119. Oakland Case No. ER99-15.

the project sponsor has determined the final use option for Site B: Option 1, a 300-room hotel; Option 2, a second 262-unit residential building; or Option 3: a 205,800 square-foot office building. All three options would include up to 8,000 square feet of ground-floor retail space.

All buildings developed in the Modified T5/6 Project would be a maximum of 150 feet tall. All parking would be provided on-site in addition to the continued option of using up to 200 parking spaces available in the adjacent City Center Parking Garage through an existing license agreement with the City of Oakland. The Modified T5/6 Project will involve a maximum total of approximately 66,000 cubic yards of excavation to accommodate up to three levels of underground parking under each of the buildings. Construction of Phase 1 is of the project is to commence prior to 2018, with construction of Phase 2 projected to start by 2020.

Overall, the Modified T5/6 Project would develop up to approximately 137,600 fewer square feet of development, and result in approximately 50 percent fewer p.m. peak-hour vehicle trips, compared to that analyzed in the EIR, and would introduce residential and the option for hotel use on the site.

The 2000 EIR, and four subsequent addenda to that EIR, analyzed the environmental impacts of adoption and implementation of the City Center Project. The analysis in the 2000 City Center EIR and its four addenda directly apply to the Modified T5/6 Project, providing the basis for use of an Addendum. Separate and independently, qualified planning level documents, specifically program-level EIRs, that can be used as a basis to provide additional CEQA clearance of the Modified T5/6 Project (all or in part) under specific CEQA provisions include Oakland's 1998General Plan Land Use and Transportation Element EIR, the 2010 General Plan Housing Element Update EIR and 2014 Addendum, 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" or "the Previous CEQA Documents."

II. Background

Original 2000 EIR Project

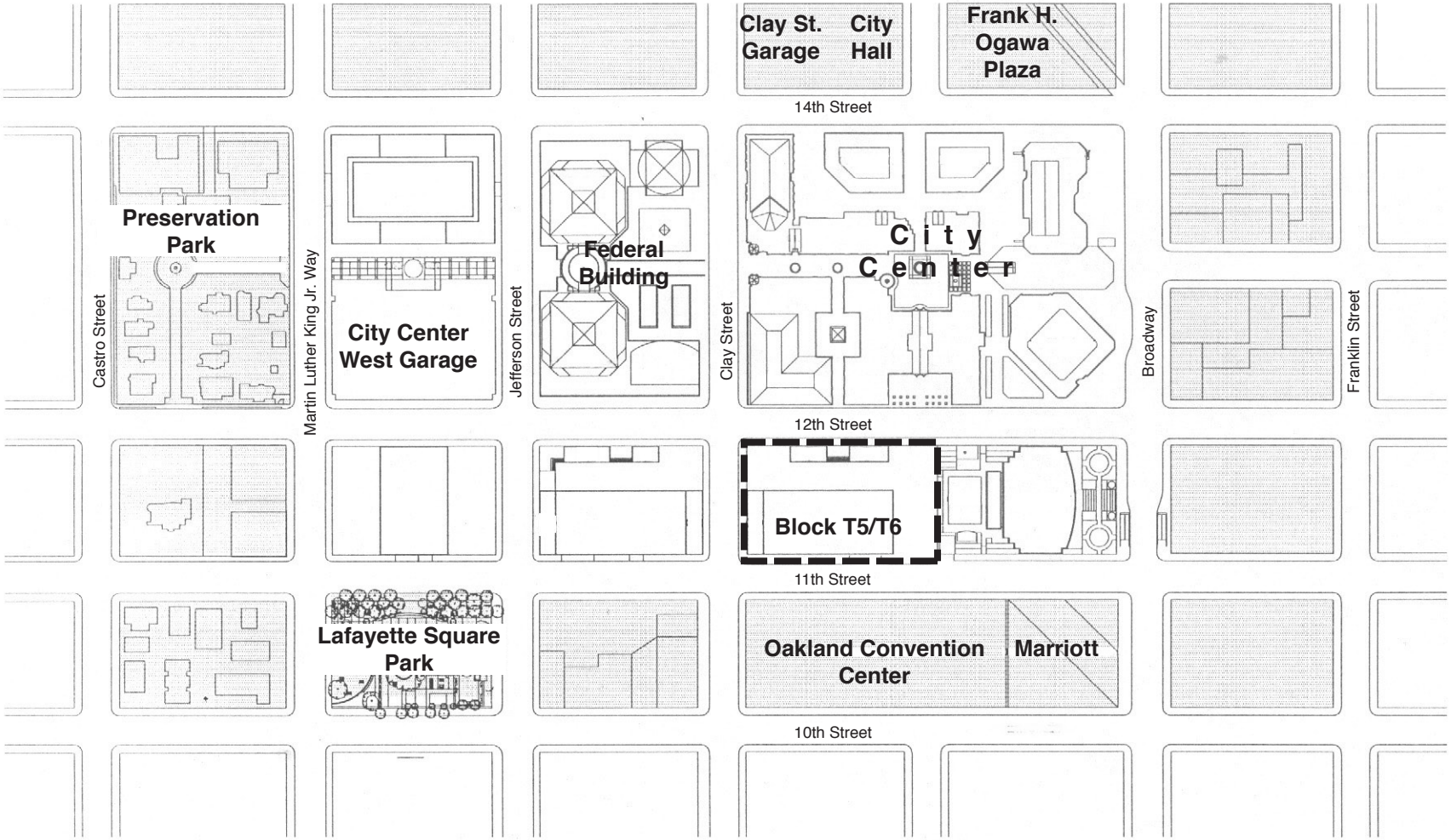
In April 2000, the Oakland Planning Commission certified the EIR and approved a Preliminary PUD for the Oakland City Center Project. The Original Project analyzed in the 2000 EIR consisted of a Preliminary PUD program of approximately 2.2 million square feet (msf) of high-rise building development on the four city blocks: Blocks T5/6, T9, T10 and T12. The Original Project location and development blocks are shown in **Figure 1** and **Figure 2**, respectively. **Table 1** shows the development program of the Original Project.

The 2000 EIR (including its Initial Study Checklist) determined that the Oakland City Center Project's impacts to the following resources would be reduced to **a less-than-significant level with the implementation of mitigation measures**: circulation and parking, air quality, and noise (in the EIR); geology and soils, hydrology and water quality, cultural resources, and hazards and hazardous materials (in the Initial Study). **Less-than-significant impacts** were identified for the following resources: aesthetics; biology; land use, plans, and policies; population and housing; public services, recreation, and utilities and service systems.

The 2000 EIR determined that the Oakland City Center Project would have **significant unavoidable effects** on the following environmental resources: traffic delays; air quality (cumulative); noise (cumulative); and wind hazards. Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

SOURCE: Oakland City Center Project DEIR (2000)

Figure 1
Project Location and Context



SOURCE: Oakland City Center Project DEIR (2000)

City Center T5/6 Addendum . ESA 140343

Figure 2
Approved Project Site Plan

TABLE 1
DEVELOPMENT CHARACTERISTICS OF ORIGINAL PROJECT, 2000 EIR

	Block T5/6	Block T9	Block T10	Block T12	Original Project (2000 EIR)
Office	580,000 sf	470,000 sf	550,000 sf	584,000 sf	**2,184,000 sf**
Residential	0	0	200 units	0	**200 units**
Commercial	7,500 sf	7,500 sf	8,000 sf	0	**23,000 sf**
Parking	150 spaces	236 spaces	230 spaces	220 spaces	**836 spaces**
Parking access	11th Street	11th Street	Jefferson St.	11th Street	**N/A**
Loading Spaces	3	3	3	3	**12 spaces**
Loading access	11th Street	11th Street	MLK Jr. Way	11th Street	**N/A**
Hgt. (stories)	26 stories	21 stories	31 stories	26 stories	**Max. 31 stories**
Height (feet) [a]	390 feet	306 feet	440 feet	390 feet	**Max. 440 feet**

[a] In the 2000 EIR, all Blocks were modeled at 440 feet tall shadow and scenic resources, and at 425 feet for the wind analyses in the 2000 EIR.

Previous Addenda and "Approved Project"

Four addenda to the 2000 EIR were completed to consider modifications to the Original Project: Addendum #1 for Block T10 (2003); and Addenda #2 through #4 for Block T12 (2005, 2007 and 2010). The development programs for each addendum are summarized in **Table 2**. As described below, each of the addenda determined that no further review was required, in terms of a subsequent or supplemental EIR, pursuant to CEQA Guidelines Sections 15162 and 15164 (Subsequent EIRs, Supplements and Addenda to an EIR or Negative Declaration). Development on Blocks T9 and T10 are fully constructed and operational. Throughout this document, except where necessary for clarity, "2000 EIR" encompasses the Initial Study, Draft EIR, Final EIR, and each subsequent addendum for the City Center Project.

The 2003 Addendum #1 found that a Modified Block T10 project, which increased the residential units and decreased office square footage on Block T10, would have no new or substantially severe impacts compared to what was identified in the 2000 Final EIR.

The 2005 Addendum #2, which considered an increased number of residential units for Block T12, confirmed that increased traffic anticipated from other new development that had occurred near Block T12 would not cause the Modified Block T12 project to adversely affect intersections, specifically once the Uptown Project was completed.2 The analysis concluded that there would be little interaction between traffic from Modified Block T12 project and the Uptown project at the affected intersections.[3]

[2] The Uptown project is an approximately 1,270-unit residential complex on nine blocks, generally between San Pablo and Telegraph Avenues, from 19th to 21st Streets. The other new nearby development considered included Landmark Place, a 92-unit condominium complex at Martin Luther King Jr. Way and 12th Street (directly west of Block T12); and the Market Square Phase 1 project, a 115-unit residential project at 9th Street, between Clay and Jefferson Streets (two blocks south of Block T12, former Housewives' Market).

[3] Since certification of Addendum #2, all projects being developed in the Downtown area have included the City Center Project in their cumulative traffic analyses.

TABLE 2
DEVELOPMENT CHARACTERISTICS OF APPROVED MODIFIED PROJECT, THROUGH ADDENDUM #4, 2010

	Block T5/6 (approved, Original Project)	Block T9 (as constructed, approved in Original Project)	Block T10 (as constructed, reduced from Original Project [a])	Block T12 (approved, Addendum #4 [b])	Approved Modified Project, through Addendum #4 (2010)	Original Project (2000 EIR)
Office	580,000 sf	470,000 sf	0	584,000 sf	**1,634,000 sf**	**2,184,000 sf**
Residential	0	0	251 units	0	**251 units**	**200 units**
Commercial	7,500 sf	7,500 sf	2,600sf	0	**17,600 sf**	**23,000 sf**
Parking	150 spaces	236 spaces	252 spaces	220 spaces	**858 spaces**	**836 spaces**
Parking access	11th Street	11th Street	Jefferson St.	11th Street	**N/A**	**N/A**
Loading Spaces	3	3	1	3	**12 spaces**	**12 spaces**
Loading access	11th Street	11th Street	14th Street	11th Street	**N/A**	**N/A**
Hgt. (max stories)	26 stories	21 stories	8 stories	26 stories	**Max. 26 stories**	**Max. 31 stories**
Height (feet)	390 feet	306 feet	80 feet	390 feet	**Max. 390 feet**	**Max. 440 feet**

[a] Block T10 was evaluated in and approved with Addendum #1 with 400 units, 3,000 to 10,000 square feet of commercial, 400 parking spaces, and a maximum height of 240 feet.
[b] Block T12 was also previously modified from the Original Project in Addendum #2 and Addendum #3.
[c] In the 2000 EIR, all Blocks were modeled at 440 feet tall shadow and scenic resources, and at 425 feet for the wind analyses in the 2000 EIR.

The 2007 Addendum #3 and 2010 Addendum #4 were completed to address the reversion of the Modified Block T12 project of Addendum #2 to office use. Both addenda found that the four significant and unavoidable impacts of the City Center Project in the 2000 EIR, which are primarily due to the office component of the City Center Project, would remain the same and that no new or severe impacts were found. The CEQA Analysis for the Modified T5/6 Project assumes development of Block T12 with a high-rise office building, as approved in the Original Project and analyzed in the 2000 EIR and the most recent Addendum #4.

Applicable Previous CEQA Documents / Program EIRs

The analysis in the 2000 City Center EIR and its four addenda directly apply to the Modified T5/6 Project, providing the basis for use of an Addendum. The following describes the Program EIRs that constitute the Previous CEQA Documents considered in this CEQA Analysis. Each of the following documents are hereby incorporated 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, and/or located at http://ec2-54-235-79-104.compute-1.amazonaws.com/Government/o/PBN/OurServices/Application/DOWD009157.htm.

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 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 City Center Project and Block T5/6

are 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 is designated 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 III. While approved after certification of the 1998 LUTE EIR, growth and potential effects of the development of City Center in downtown Oakland would have been considered in the cumulative growth projections factored into the LUTE EIR analysis.

Applicable mitigation measures identified in the 1998 LUTE EIR are largely the same as those identified in the other Program EIRs prepared *after* the 1998 LUTE EIR, either as mitigation measures or newer standard conditions of approval, the latter of which are described below in Section III.

Environmental Effects Summary – 1998 LUTE EIR

The 1998 LUTE EIR (including its Initial Study Checklist) determined that development consistent with the LUTE would result in the following impacts **reduced to a less-than-significant level with the implementation of mitigation measures and/or standard conditions of approval** (described in Section III): aesthetics (views, architectural compatibility and shadow only); air quality (construction dust [including PM10] 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)[4]; 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 (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.

Oakland Housing Element Update EIR and Addendum

Since the 2000 EIR, the City has twice amended its General Plan to adopt updates to its Housing Element. It certified a 2010 EIR for the 2007-2014 Housing Element, and a 2014 Addendum to the 2010 EIR for the

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

2015-2023 Housing Element. The General Plan identifies the City's current and projected housing needs, and sets goals, policies, and programs to address those needs, as specified by the state's *Regional Housing Needs Allocation* (RHEA) process. Although City Center Block T5/6 is not specified as a "Housing Opportunity Site" in the 2015-2023 Housing Element, the propose project would contribute to the total number of housing units needed in the City of Oakland to meet its RHNA target. Applicable mitigation measures and SCAs identified in the 2014 Addendum to the 2010 EIR are considered in the analysis of the residential components of the Block T5/6 Project in this document, and are largely the same as those identified in the 2011 Redevelopment Plan Amendments EIR. The 2010 Housing Element Update EIR was designated a "Program EIR" under CEQA Guidelines Sections 15183 and 15183.3. As such, subsequent activities under the Housing Element that involve housing, are subject to requirements under each of the aforementioned CEQA Sections, which are described further in Section III.

Applicable mitigation measures and standard conditions of approval (also described in Section III) identified in the 2010 Housing Element Update EIR are considered in the analysis in this document and are largely the same as those identified in the other Program EIR documents described in this section.

Environmental Effects Summary – 2010 Housing Element and 2014 Addendum

The 2010 Housing Element Update EIR (including its Initial Study Checklist) and 2014 Addendum determined that housing developed pursuant to the Housing Element, which would include Block T5/6, would result in impacts that would be **reduced to a less-than-significant level with the implementation of mitigation measures and/or standard conditions of approval** (described in Section III): aesthetics (visual character/quality and light/glare only); air quality (except as noted below); biological resources; cultural resources; geology and soils; greenhouse gas emissions; hazards and hazardous materials (except as noted below, and no impacts regarding airport/airstrip hazards and emergency routes); hydrology and water quality (except as noted below); noise; public services (police and fire only); and utilities and service systems (except as noted below).

Less-than-significant impacts were identified for the following resources in the Housing Element Update EIR and Addendum: hazards and hazardous materials (emergency plans and risk via transport/disposal); hydrology and water quality (flooding/flood flows, and inundation by seiche, tsunami or mudflow); land use (except no impact regarding community division or conservation plans); population and housing (except no impact regarding growth inducement); public services and recreation (except as noted above, and no impact regarding new recreation facilities); and utilities and service systems (landfill, solid waste, and energy capacity only, and no impact regarding energy standards). **No impacts** were identified for agricultural or forestry resources, and mineral resources.

Significant unavoidable impacts were identified for the following environmental resources in the Housing Element Update EIR and Addendum: air quality (toxic air contaminant exposure) and traffic delays. 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 Oakland City Center Project site, including Block T5/6, 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. Recently, 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.[5] The blocks of the Oakland City Center Project that currently remain undeveloped (Blocks T5/6 and T12) were 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.[6] The full Oakland City Center Project has been factored as into all cumulative traffic analysis for projects developed in the Downtown area since the City's certification of the 2000 EIR. The 2011 Redevelopment Plan EIR was 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 III) identified in the 2011 Redevelopment Plan Amendments EIR are considered in the analysis in this document and are also largely the same as those identified in the other 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 VI of this document.

Environmental Effects Summary – 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 Block T5/6, 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 III): 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).

Less-than-significant impacts were identified for the following resources in the 2011 Redevelopment Plan 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 EIR determined that the Proposed Amendments combined with cumulative development, including explicitly Block T5/6, would have **significant unavoidable impacts**

[5] 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.

[6] Projects previously analyzed under CEQA and approved, 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."

on the following environmental resources: air quality (toxic air contaminant exposure and odors); cultural resources (historic); and traffic/circulation (roadway segment operations).7 Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

III. Purpose and Summary of this Document

The purpose of this document is to demonstrate CEQA compliance of the proposed Modified Block T5/6 Project. The 2000 Oakland City Center EIR analyzed the environmental impacts of development defined by the Preliminary PUD, which includes separate developments on four development blocks: T5/6, T9, T10 and T12. Subsequent final approvals for the foreseeable and anticipated development of each block were anticipated upon the submittal of detailed design proposals and, as necessary, supplemental or subsequent project-level CEQA review.

As mentioned above, four addenda to the 2000 EIR were prepared and certified. An addendum is considered suitable for the currently proposed Modified T5/6 Project, as demonstrated by the CEQA Checklist presented in Section VI, herein. For comprehensive review and public information, the CEQA Checklist and its supporting attachments also demonstrate that the Modified T5/6 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 2000 City Center EIR and its four addenda directly apply to the Modified T5/6 Project, providing the basis for use of an Addendum.

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 Program EIRs - the 1998 LUTE EIR and, for only the residential components of the Modified T5/6 Project, the 2010 Housing Element Update EIR and its 2014 Addendum - are applicable to the Modified T5/6 Project and are the Previous CEQA Documents providing the basis for use of the Community Plan Exemption.

[7] 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 Modified Block T5/6 Project given the distance and presumably minimal contribution of multimodal trips affecting these impacts.

3. **Qualified Infill Exemption.** Public Resources Code Section 21094.5 and CEQA Guidelines Section 15183.3 (Streamlining for Infill Projects) allow streamlining for certain qualified infill projects by limiting the topics subject to review at the project level, if the effects of infill development have been addressed in a planning level decision, or by uniformly applicable development policies. Infill projects are eligible if they are located in an urban area on a site that either has been previously developed or that adjoins existing qualified urban uses on at least 75 percent of the site's perimeter; satisfy the performance standards provided in CEQA Guidelines Appendix M; and are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy. No additional environmental review is required if the infill project would not cause any new specific effects or more significant effects, or if uniformly applicable development policies or standards would substantially mitigate such effects.

   The analysis in the Program EIRs - the 1998 LUTE EIR and, for the residential components of the Modified T5/6 Project only, the 2010 Housing Element Update EIR and its 2014 Addendum - are applicable to the Modified T5/6 Project and are the Previous CEQA Documents providing the basis for use of the Community Plan Exemption under CEQA Guidelines Section 15183.3.

4. **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.

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

The CEQA Checklist provided in Section VI of this document evaluates the potential project-specific environmental effects of the proposed Modified T5/6 Project, and evaluates whether such impacts were adequately covered by the 2000 EIR and its four addenda (as well as the Program EIRs previously described in Section II) 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 Modified T5/6 Project is legally required to incorporate and/or comply with the applicable requirements of the mitigation measures identified in the 2000 EIR. 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 in General

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) after certification of the 2000 EIR.[8] The City's SCAs are incorporated into 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 (such as 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), which have been found to substantially mitigate environmental effects. The SCAs are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects.

SCA Application in this CEQA Analysis

Several SCAs would apply to the Modified T5/6 Project because of the proposed project's characteristics and proposed "changes" to the Original Project; they are triggered by the fact that the City is considering renewed discretionary actions for the proposed project. Because the SCAs are mandatory City requirements, the impact analyses for new and modified projects assume that they will be imposed and implemented by the project in question.

Mitigation measures identified in the 2000 EIR and addenda and that would apply to the Modified T5/6 Project are listed in Attachment A to this document. Certain mitigation measures identified in the 2000 EIR or addenda have since been adopted by the City as SCAs for all projects. Therefore, some of the previously identified mitigation measures have been modified, and in some cases wholly replaced, to reflect the City's current standard language and requirements of its SCAs. All mitigation measures and applicable SCAs for the Modified T5/6 Project are listed in Attachment A to this document. Most of the SCAs that are identified in this document to apply to the Modified T5/6 Project were also identified in the 2011 Redevelopment Plan Amendments EIR and the 2010 Oakland Housing Element Update EIR and 2014 Addendum; the 1998 LUTE EIR was developed prior to the City's application of SCAs.

Modified T5/6 Project CEQA Compliance

The Modified T5/6 Project satisfies each of the CEQA provisions, as summarized below.

- **Addendum.** The analysis conducted in this document indicates that an addendum to the 2000 EIR applies; therefore, this CEQA Analysis is considered to be the addendum. As discussed under *Project Characteristics* below, the Modified T5/6 Project represents a minor change to the Block T5/6 development from what was analyzed with the Original Project in the 2000 EIR. The Modified T5/6 Project would not represent a substantial change from the what was described for Block T5/6 in the Original Project analyzed in the 2000 EIR; the total building development is less and although the proposed project would include other and different uses (residential and potentially hotel), it would construct buildings lower in height and would generate fewer trips than the Block T5/6 development analyzed in the 2000 EIR. The Modified T5/6 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 Modified T5/6 Project also qualifies for a community plan exemption. It is permitted in the zoning district where

[8] Dated September 5, 2007, as amended and/or supplemented through August 30, 2013.

the project site is located, and is consistent with the bulk, density, and land uses envisioned for the site. The analysis herein considers the analysis in the 2010 Oakland Housing Element Update EIR and 2014 Addendum for the evaluation of the housing components of the Modified T5/6 Project, and 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 2000 EIR; or (3) were previously identified as significant effects, but are determined to have a more severe adverse impact than discussed in the EIR. Findings regarding the proposed project's consistency with the zoning are included as Attachment C to this document.

- **Qualified Infill Exemption**. The analysis conducted indicates that the proposed project qualifies for a qualified infill exemption and is generally consistent with the required performance standards provided in CEQA Guidelines Appendix M, as evaluated in Table D-1 in Attachment D to this document. This CEQA Analysis supports that the Modified T5/6 Project would not cause any new specific effects or more significant effects than previously identified in applicable planning level EIRs, and uniformly applicable development policies or standards (SCAs) would substantially mitigate the project's effects. The Modified T5/6 Project is proposed on a previously developed site in downtown Oakland and is surrounded by urban uses. Further, the proposed project is consistent with the land use, density, building intensity, and applicable policies for the site. The analysis herein considers the analysis in the 2000 EIR; the 1998 LUTE EIR; and for the residential components of the Modified T5/6 Project only, the 2010 Housing Element Update EIR and its 2014 Addendum.

As discussed in Table D-1, Phase 2 of the project, which would be 50 percent of the project, may be non-residential uses (hotel or commercial office) which CEQA Guidelines Appendix M indicates shall include onsite renewable power generation, where feasible, if it is the predominant use of a mixed-use project. At the time this CEQA Analysis is being prepared, it is not known if non-residential uses will be developed as 50 percent of the proposed project (Phase 2) will provide onsite renewable power.

- **Program EIRs and Redevelopment Projects.** The Modified T5/6 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 Modified T5/6 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 2000 EIR, as well as those of the 1998 LUTE EIR, the 2011 Redevelopment Plan Amendments EIR (or "Redevelopment Plan Amendments EIR"), and for the housing components of the proposed project, the 2010 General Plan Housing Element Update EIR and 2014 Addendum – all of which are as summarized in the CEQA Checklist in Section VI of this document – the potential environmental impacts associated with the Modified T5/6 Project have been adequately analyzed and covered in prior Program EIRs. Therefore, no further review or analysis under CEQA is required.

IV. Project Description

Block T5/6 Project Site

Project Location

Block T5/6 (**"project site"**) is located at 1100 Clay Street. It is 1.25 acres comprised of three parcels (Assessor's Parcel Numbers 02-97-38 for Site A, and 02-97-39 and 02-97-40 for Site B). The project site is bounded by 12th Street on the north, Clay Street on the west, 11th Street on the south, and the former Washington Street right-of-way and open space plaza of the 1111 Broadway office tower to the east, as shown in **Figure 3**.

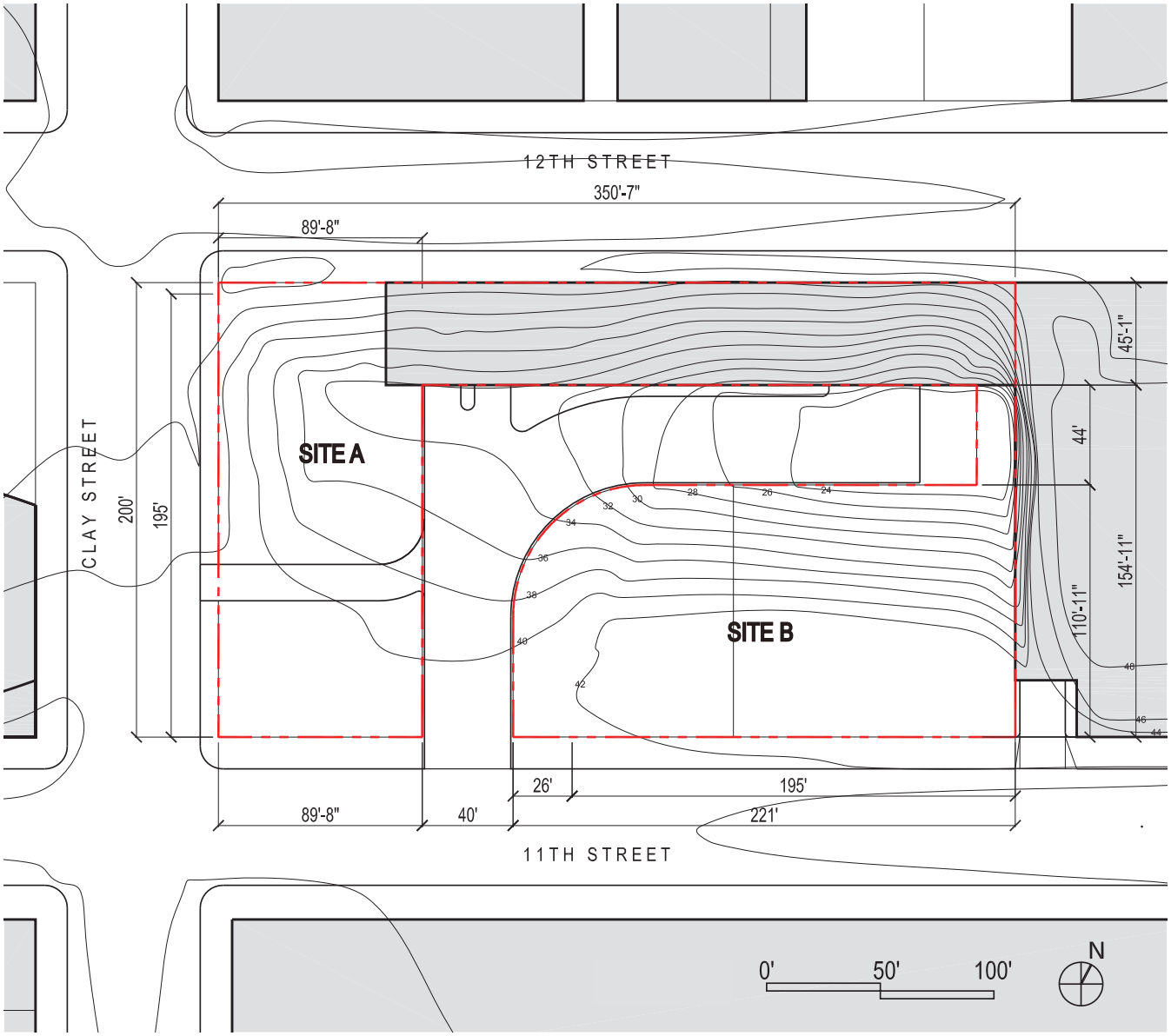
Existing Site Conditions

Existing conditions for Block T5/6 are unchanged from those described in the 2000. As depicted in photographs in **Figures 4a and 4b**, the project site is bowl-like and slopes downward from Clay Street and 11th Street sides. The site generally has no building development and has three fairly distinct areas created by an L-shaped driveway lane from 11th Street:

- the 11th Street area of the site is covered with short grass, and approximately 15 mature trees and three small art sculptures;
- the Clay Street area of the site also covered with short grass, groundcover landscaping, approximately 19 mature trees, one art sculpture in the southwest corner (near 11th Street); and
- the 12th Street area of the site is the paved roof of the underground City Center Garage and contains small planter boxes, jersey barricades, and roof hatches and exhaust shafts for the garage.

Block T5/6 includes the southern exit driveways from the underground City Center Garage to 11th and Clay Streets, as well as the entrance driveway from 11th Street which serves the garage and the underground loading/service area. Additional landscaping and approximately 6 mature trees exist along the front garage frontage.

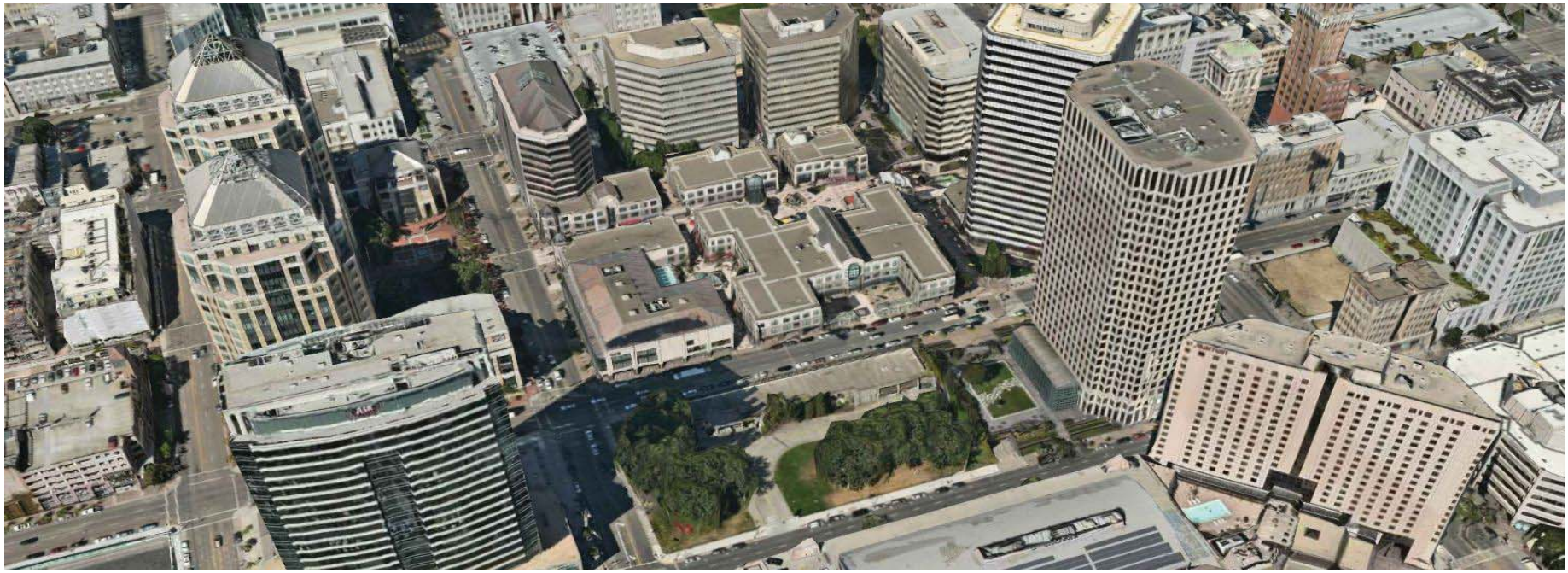
Block T5/6 is surrounded on 11th, Clay and 12th Streets by concrete sidewalks and a four-foot high chain link fence. A portion of the fence along 12th Street (adjacent to the paved roof of the garage) contains some landscaping. The east boundary of the project site is a partially landscaped retaining wall that slopes downward "into" the site (from south to north); the wall is the west-facing façade of an underground garage and loading/service area entrance. There is no direct pedestrian or vehicular access to the project site from its eastern side.



City Center T5/6 Addendum . ESA 140343

SOURCE: Arquitectonica Strada

Figure 3
Existing Block T5/6



Aerial View of Site looking North

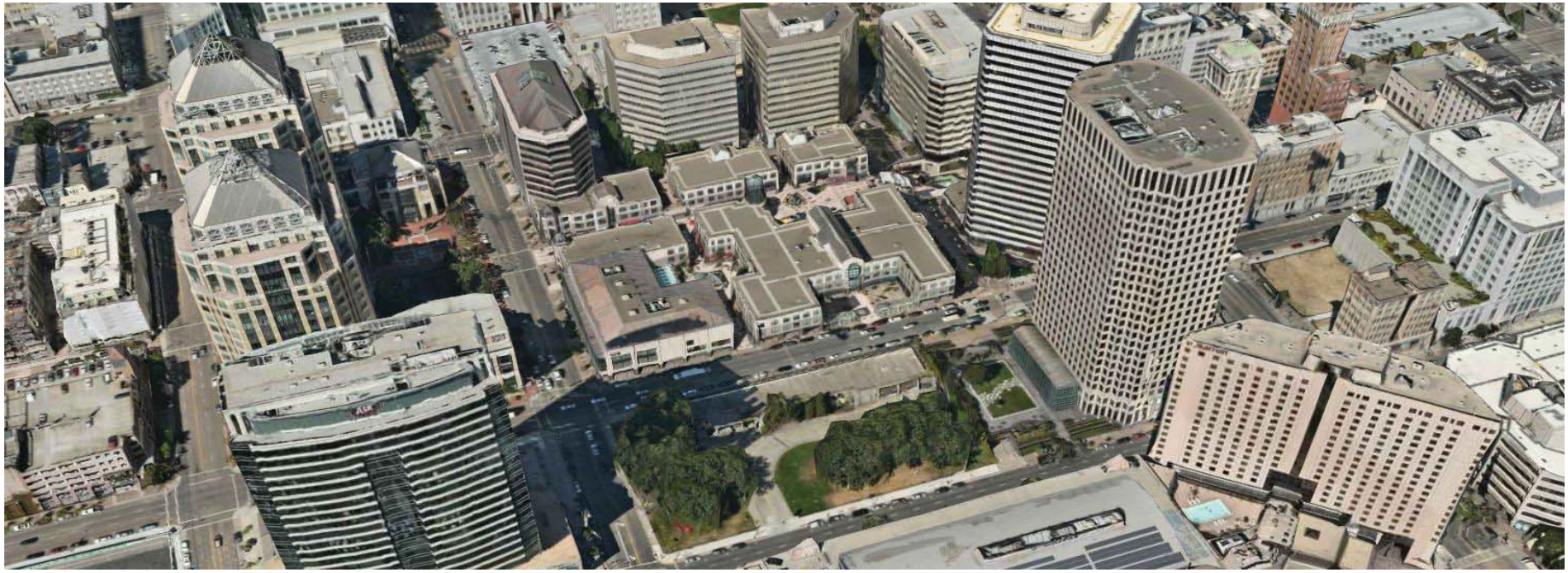
Panoramic View from north adjacent lot

SOURCE: Arquitectonica Strada

City Center T5/6 Addendum . ESA 140343

Figure 4a

Existing Block T5/6 Photos/Aerials



Aerial View of Site looking North

Panoramic View from north adjacent lot

SOURCE: Arquitectonica Strada

City Center T5/6 Addendum . ESA 140343

Figure 4a

Existing Block T5/6 Photos/Aerials

Surrounding Context

The area surrounding Block T5/6 is primarily commercial land uses as part of the City Center development.

- To the west of Block T5/6, across Clay Street, is 555 12th Street or Block T9 which contains an approximately 20-story high-rise office tower with some ground-floor commercial retail/restaurant space.
- To the east of Block T5/6 is 1111 Broadway, a 24-story high-rise office tower with some ground-floor commercial retail/restaurant space.
- To the north of the project site, across 12th Street, is the three-story Oakland City Center - a series of mixed-use buildings with commercial office and retail uses.
- To the south of Block T5/6, across 11th Street, is the three-story Oakland Convention Center West Garage.

An entrance to the Bay Area Rapid Transit District (BART) 12th Street City Center station entrance (11th and Broadway) is approximately 400 feet from the midpoint of Block T5/6. 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 one to three blocks of the project site. The free Oakland shuttle that services Broadway from Jack London Square to approximately 20th Street also runs along Broadway. Access to and from ramps to I-980 is approximately three blocks west (via 11th and 12th Streets) of the project site; access to I-880 South is approximately seven blocks south (at 5th Street and Broadway); access to I-880 North is approximately nine blocks southwest (at 6th and Brush Streets).

Project Characteristics

Modified T5/6 Development Program

The proposed project analyzed in this CEQA Analysis is referred to as the "**Modified T5/6 Project**" (or "proposed project"). The Modified Project proposes three possible development options for Block T5/6, as shown below in **Table 3**.

The project sponsor, Strada T5, LLC, seeks a revised Preliminary PUD for the entire Block T5/6, which is delineated into two sites: Sites A and B, as shown in Figure 3. The project sponsor also seeks a Final PUD for Site A, a residential building that would front Clay Street, as that building would be constructed first as Phase 1. Site B, would be developed as Phase 2 and be subject to a Final PUD application at a later date, once the project sponsor has determined the final use for Site B – hotel, residential, or office.

The Modified T5/6 Project would introduce residential or hotel uses on the site previously considered for office only, result in buildings up to 150 feet compared to a maximum 390 feet previously considered, and develop up to approximately 179,227 fewer gross square feet of building area than previously considered. Also, the Original Project envisioned development of a single building on Block T5/6 whereas the Modified T5/6 Project would develop two buildings in two phases.

TABLE 3
PROPOSED MODIFIED T5/6 DEVELOPMENT PROGRAM COMPARED TO ORIGINAL PROJECT [a]

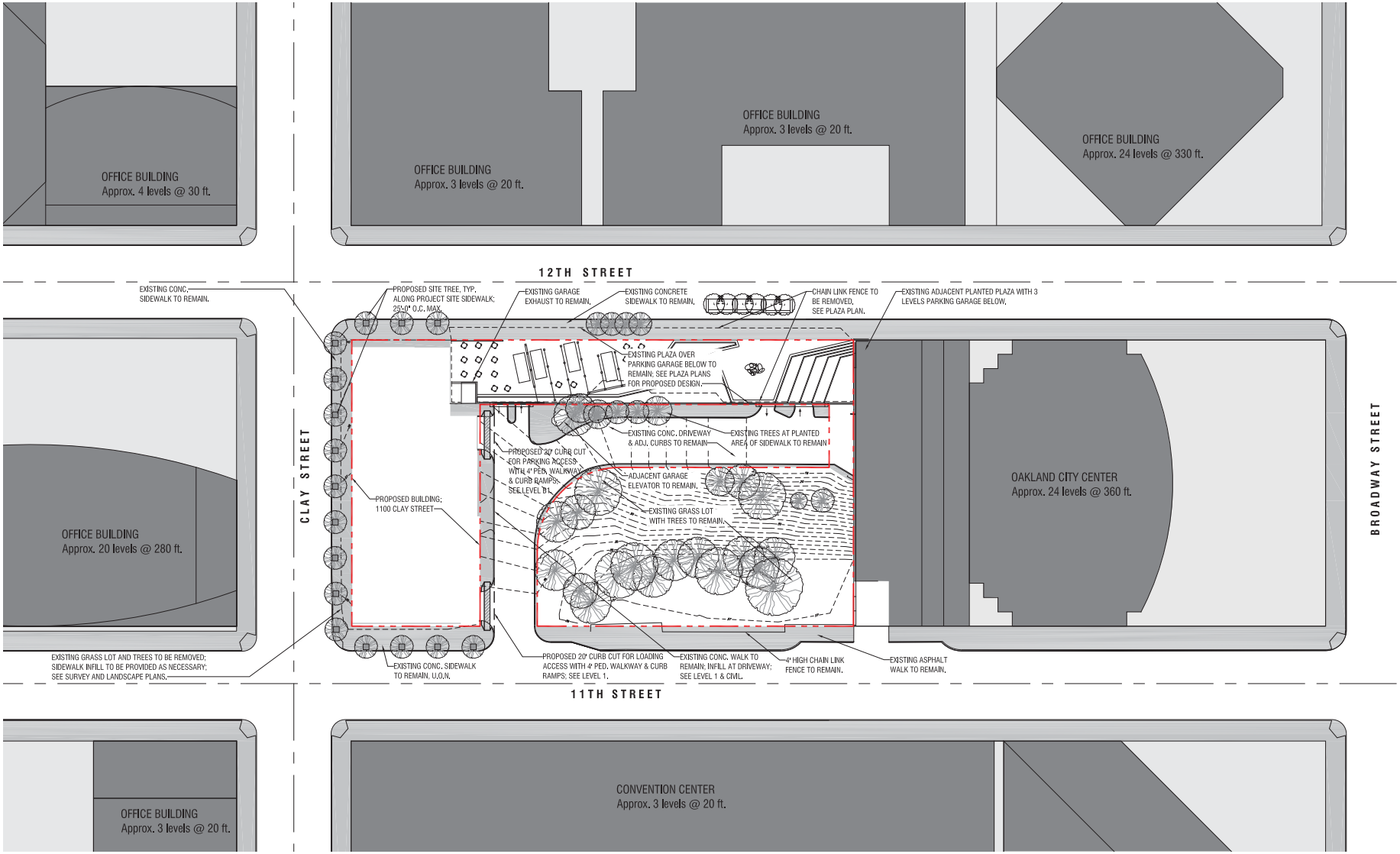
	Original Project T5/6 (approved 2000 EIR)	Site A (Phase 1)	Site B (Phase 2)								
		Residential	Option 1: Hotel	Total/Max Modified T5/6: Site A + Site B Option 1	*Difference:* Original T5/6 to Modified T5/6 w/ Option 1	Option 2: Residential	Total/Max Modified T5/6: Site A + Site B Option 2	*Difference:* Original T5/6 to Modified T5/6 w/ Option 2	Option 3: Office	Total/Max Modified T5/6: Site A + Site B Option 3	*Difference:* Original T5/6 to Modified T5/6 w/ Option 3
Total Gross Floor Area (sq.ft.)	**580,000**	236,613	164,160	**400,773**	**-179,227**	181,440	**418,053**	**-161,947**	205,800	**442,413**	**-137,587**
Hotel (rooms)	**0**	0	300	300	**+300**	0	0	**-**	0	0	**-**
Office	**580,000**	0	0	-	**-580,000**	0	0	**-580,000**	205,800	205,800	**-374,200**
Residential (units)	**0**	262	0	262	**+262**	262	524	**+524**	0	262	**+262**
Commercial (sq.ft.) (Ground Level Retail) [b]	**7,500**	4,850	5,000 to 8,000	12,850	**+5,350**	5,000 to 8,000	12,850	**+5,**	5,000 to 8,000	12,850	**+5,350**
Parking Spaces[c]	**150**	150 to 200	138	338	**+188**	137	337	**+187**	0	200	**+50**
Parking access	**11th St.**	11th St.	11th St.	-	**-**	11th St.	-	**-**	11th St.	-	**-**
Loading Spaces	**3**	2	3	5	**+2**	2	4	**+1**	3	5	**+2**
Loading access	**11th St.**	11th St.	11th St.	-	**-**	11th St.	-	**-**	11th St.	-	**-**
Hgt. (max stories)	**26**	14	13	14	**-12**	13	14	**-12**	10	14	**-12**
Height (feet)	**390**	150	136	150	**-240**	136	150	**-240**	136	150	**-240**

[a] Totals shown as analyzed in this CEQA Analysis for CEQA purposes, which may exceed the proposed PUD scenario submitted by the project sponsor. The Site A PUD plans propose 237 units and 188 on-site parking spaces in underground levels of its building. Moreover, the analysis in this this CEQA Analysis largely addresses the Site A Residential and Site B Office (Option 3) scenario for traffic-based topics and most other environmental topics because it would generate more peak hour vehicle trips than the other Site B options. However, to ensure a conservative analysis throughout the CEQA Analysis, the analysis specifies and addresses when an environmental topic is more impacted by Site B Option 1 or 2.

[b] The ground level commercial retail uses are included in the total gross floor area of each building.

[c] Site A may instead or in addition, use up to 200 existing parking spaces in the City Center West Garage through a license agreement with the City of Oakland, and if it does not, those existing spaces may be used for the hotel parking on Site B (office use requires no parking, and residential parking must be provided onsite).

[d] In the 2000 EIR, all Blocks were modeled at 440 feet tall shadow and scenic resources, and at 425 feet for the wind analyses in the 2000 EIR.



SOURCE: Arquitectonica Strada

Figure 5

Modified Block T5/6 Plan – Site A (Phase 1)

Site A Development – Phase 1

Figure 6 through Figure 8 shows the site plan, site section, and perspective views of proposed development of Site A for Phase 1.

A new, 150-foot tall residential building could be developed on Site A facing Clay Street. It would include up to 262 market-rate units, up to 6,800 square feet of ground-floor local-serving retail and food-related use, located in two retail spaces at the corners of 11th and 12th Streets at Clay Street. Ground floor uses would also include the residential lobby and leasing office, as well as amenities for residents. The residential units would range in size from about 477 to 875 habitable square feet, and would include studio, one and two bedroom units. The building would include rooftop deck and patio areas with landscaping and a pool for residents use. Parking could be provided on basement levels of the building for the residential uses or off site (parking, loading and access is described below).

Figure 6 illustrates development of Block T5/6 at the completion of Phase 1.

Site B Development Options - Phase 2

Figure 7 through **Figure 9** show the site plan, site section, and perspective views of each of the three development options that could occur on Site B for Phase 2. Because the project sponsor is not requesting approval of a Final PUD approval for Site B at this time and is considering more than one development option, the project sponsor has not prepared detailed plans for Site B. In Phase 1, Site B would remain undeveloped in its existing condition.

Site B could include either of the following options fronting 11th Street:

1. Option 1: a 300-room key hotel, or
2. Option 2: a second residential building of 262 market-rate units, or
3. Option 3: 205,800 square feet of office.

All three options for Site B would include 5,000-8,000 square feet of ground-floor local-serving retail uses, which would be primarily retail and food-related uses, as on Site A.

If the Option 1 hotel is developed, it would be regional and local serving, with up to 300 rooms. If the Option 2 second residential building is developed, it would include up to 262 units, the same number as with the residential building on Site A for Phase 1, but in a slightly different building configuration (lower height but smaller footprint (see Table 3). If the Option 3 office building is developed, it would provide approximately 206,000 square feet of office space. As for Site A, parking could be provided within Site B or alternatively off site (parking, loading and access is described below). Parking for Site B could be provided on basement levels of the building for the Option 1 hotel or the Option 2 residential building; the Option 3 office use would not require parking (parking, loading and access is described below).

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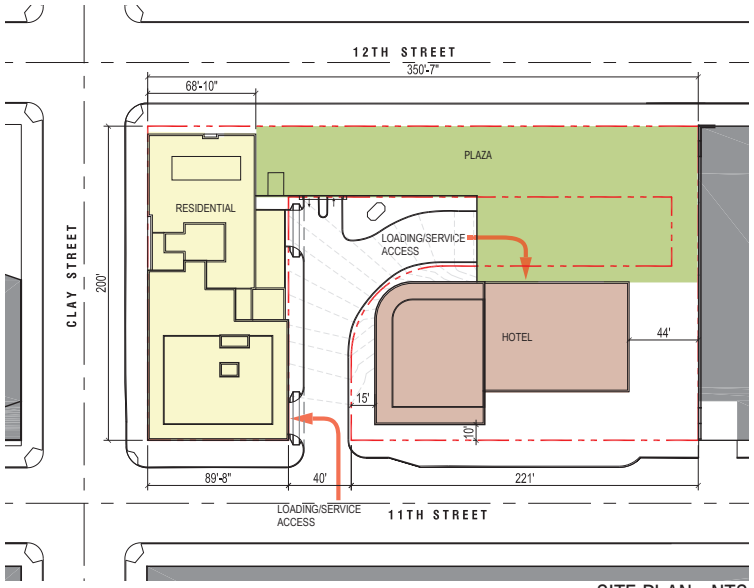
SOURCE: Arquitectonica Strada

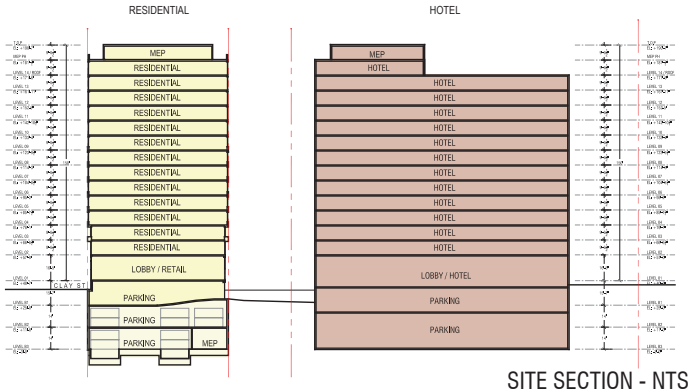
Figure 6

Modified Block T5/6 Illustration – Site A (Phase 1) Final PUD

OPTION 1:
SITE A - RESIDENTIAL / SITE B - HOTEL



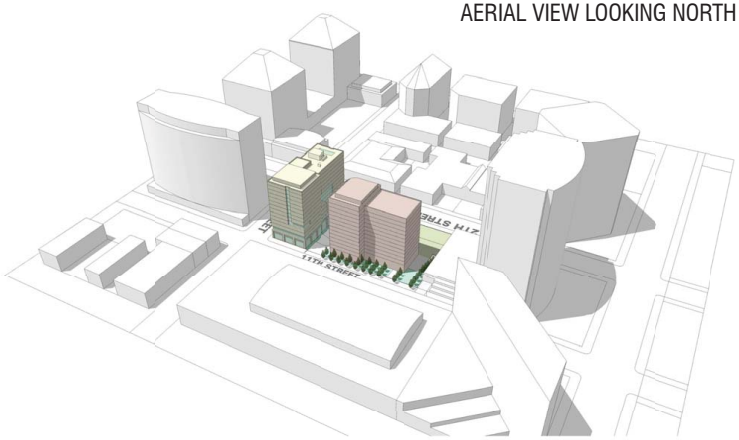
SITE PLAN - NTS



SITE SECTION - NTS

*NOTE: UNDERGROUND PARKING MAY BE ACCOMMODATED OFF-SITE. THESE LEVELS ARE OPTIONAL.

AERIAL VIEW LOOKING NORTH



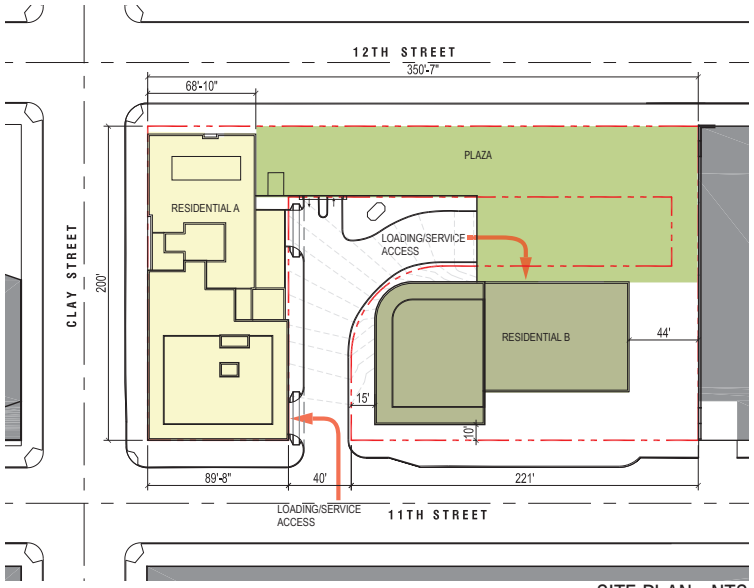
AERIAL VIEW LOOKING SOUTH

SOURCE: Arquitectonica Strada

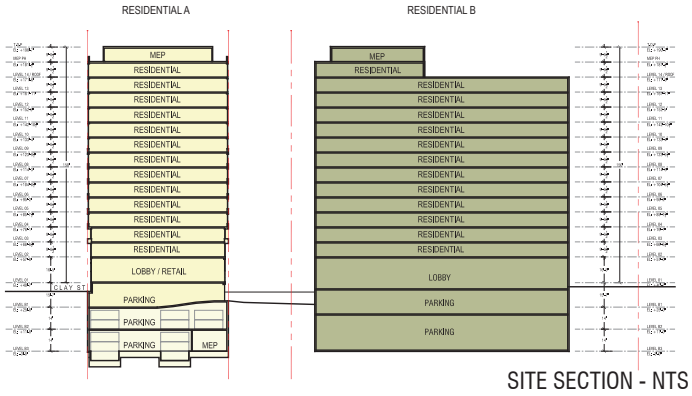
Figure 7

Modified Block T5/6 Plan – Site B (Phase 2) Option 1: Hotel

OPTION 2:
SITE A - RESIDENTIAL / SITE B - RESIDENTIAL



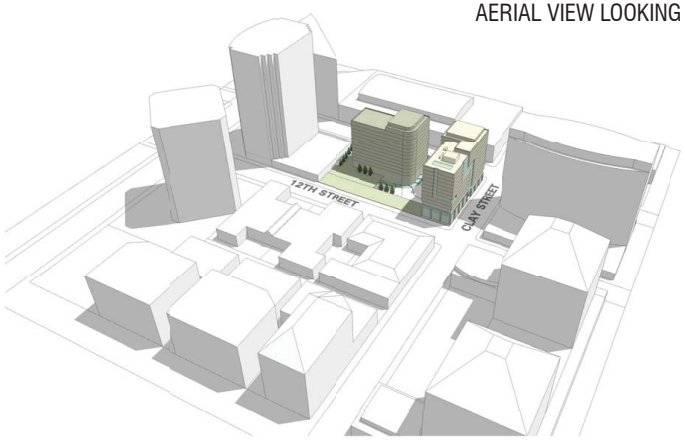
SITE PLAN - NTS



SITE SECTION - NTS

*NOTE: UNDERGROUND PARKING MAY BE ACCOMMODATED OFF-SITE. THESE LEVELS ARE OPTIONAL.

AERIAL VIEW LOOKING NORTH



AERIAL VIEW LOOKING SOUTH

SOURCE: Arquitectonica Strada

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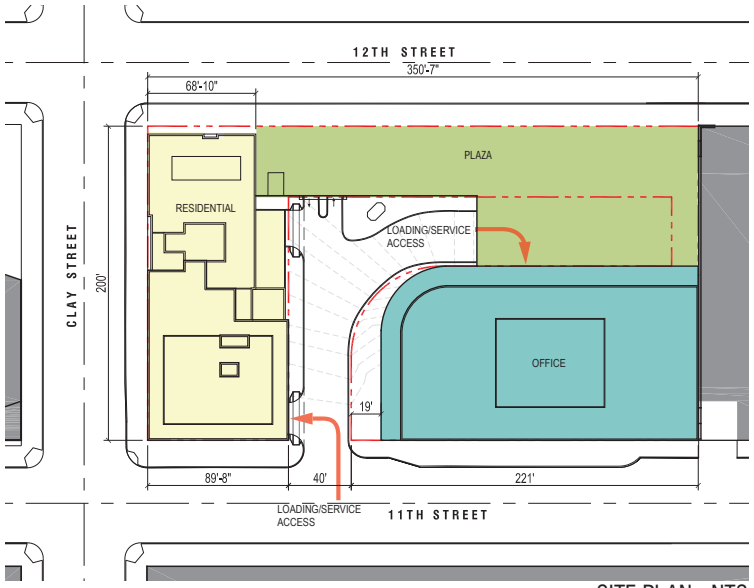
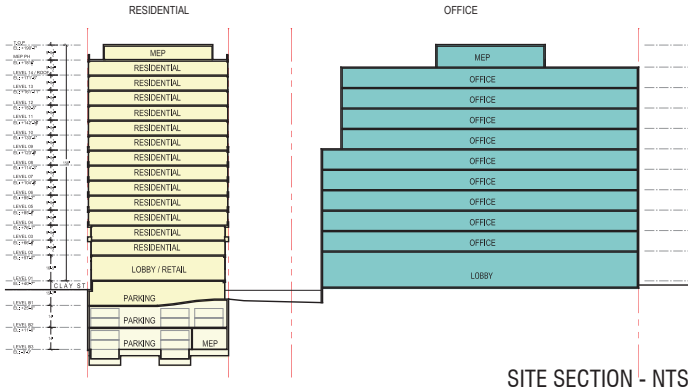
Figure 8

Modified Block T5/6 Plan – Site B (Phase 2) Option 1: Residential

OPTION 3:
SITE A - RESIDENTIAL / SITE B - OFFICE

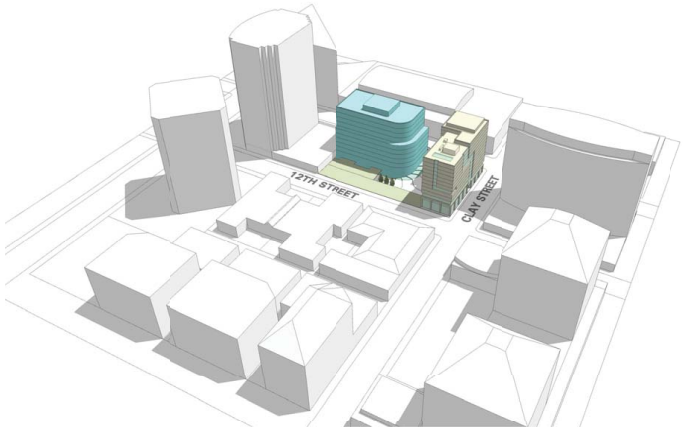


SITE PLAN - NTS

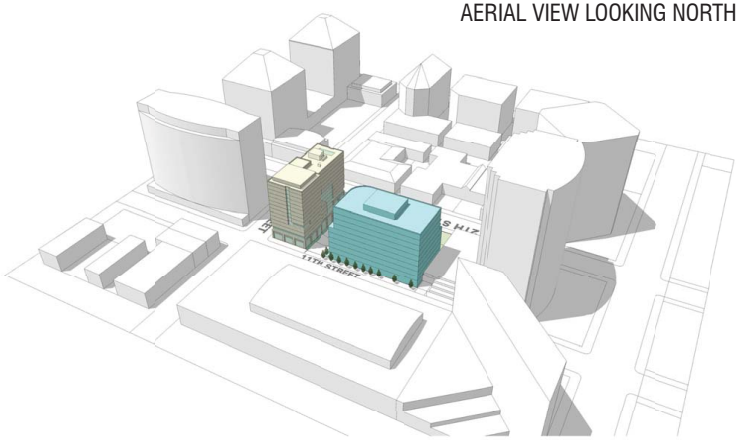


SITE SECTION - NTS

*NOTE: UNDERGROUND PARKING MAY BE ACCOMMODATED OFF-SITE. THESE LEVELS ARE OPTIONAL.



AERIAL VIEW LOOKING NORTH



AERIAL VIEW LOOKING SOUTH

SOURCE: Arquitectonica Strada

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Figure 9

Modified Block T5/6 Plan – Site B (Phase 2) Option 1: Office

Other Modified T5/6 Characteristics

Pedestrian Plaza and Art Park

The 12th Street portion of Site A would include a publicly accessible pedestrian plaza and "art park," developed on in the area that is currently the paved roof of the City Center Garage. As shown in **Figure 10**, the pedestrian plaza would include both soft and hard landscaping, public art, and pedestrian-oriented commercial spaces for restaurant and/or retail use, potentially through shipping container installation.

Parking and Circulation

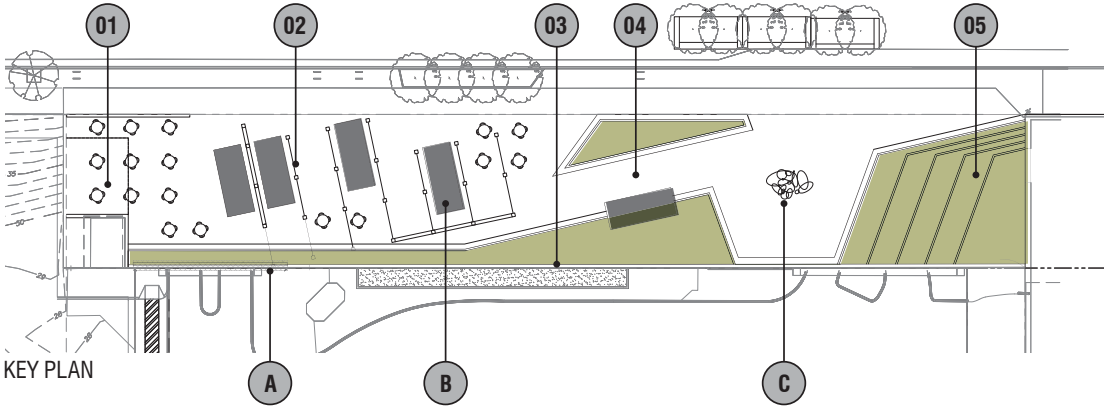
Parking. Both buildings (Site A and Site B) would provide their own parking, except as specified below. The Site A building would utilize up to 200 parking spaces in the City Center West Garage through a license agreement with the City of Oakland, and/or provide between 150 and 180 parking spaces onsite in up to three below-grade levels in a combination of standard spaces and lift parking (see Figures 6 through Figure 8).

The project sponsor has submitted plans for Site A that show 188 parking spaces in three underground building levels on Site A as an option. If the Site A spaces are provided on-site, the 200 existing City Center West Garage spaces may be included as part of the Site B parking if Site B is developed with the Option 1 hotel, which would require 138 off-street parking spaces. If Site B is developed with the Option 2 residential building, all the required parking for that use would be provided within Site B. If Site B is developed with the Option 3 office building, no off-street parking spaces would be required.

Site A would include long term bicycle parking for 61 bicycles on the ground level adjacent to the residential building lobby, with direct access from both Clay and 11th Streets. Fifteen (15) short-term bicycle parking spaces would be provided along the sidewalks. Bicycle parking detail is not yet provided for Site B.

Vehicular Access. Block T5/6 would continue to be accessed and egressed from the existing driveway from 11th Street. Development on Site A would remove the existing exit-only driveway from the City Center Garage to Clay Street. Vehicles would access the Site A building garage and loading/service areas from 11th Street, with the garage driveway located just before the City Center Garage entrance (see Figure 5). While not yet detailed, vehicles would also access the Site B parking and loading/service areas from the existing 11th Street driveway.

Pedestrian Access. Primary pedestrian access to the residential component on Site A would be through a main lobby mid-block on Clay Street. A secondary pedestrian access would also be provided on 11th Street. The proposed Site A building would be built to the property line and would widened the sidewalks adjacent to the building. Development on Site B would be similarly developed, except that an Option 1 hotel or an Option 2 residential building would have setback areas along the 11th Street frontage, potentially for pedestrian/guest drop-offs (see Figures 7 and 8, respectively).



KEY PLAN

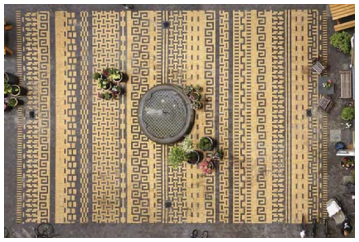
01 CAFE SEATING

02 TRELLIS

03 GUARDRAIL

04 GRASS HILL SEATING

05 PAVING



SOURCE: Arquitectonica Strada

Figure 10

Modified Block T5/6 Plaza Plan – Site A (Phase 1)

Landscaping, Open Space and Tree Removal

For Phase 1, all 19 existing trees on Site A, as well as approximately six trees that exist north of the City Center Garage entrance, would be removed to develop the residential building and accommodate improved stormwater treatment areas, such as flow-through planters. The approximately 15 remaining trees on the project site would be removed to accommodate development of Site B in Phase 2.

For Phase 1, the proposed project would install 16 new street trees and bulb-out plantings along the street frontages of Site A, spaced at up to approximately every 25 feet, as well as 10 new trees along the street edge of the proposed pedestrian plaza. In Phase 2, an additional 10 street trees would be added along the 11th street frontage.

Onsite, existing landscaping and approximately 25 new trees would be removed and replaced along the internal driveways to the Site A and Site B buildings' garages and loading/service areas, and near the existing City Center Parking Garage and loading areas currently serviced by the 11th Street driveway. Landscaping or other grass or planter areas would also be provided in the outdoor patio area on the building roof of Site A and the public pedestrian plaza on 12th Street within Site A (described above). The project would include an efficient irrigation system. No uplighting would be included onsite.

Sustainability and Efficiency

The project sponsor intends to meet LEED Silver standards and comply with the Green Building ordinance and requirements. The project would optimize the efficiency of its building envelope and through use of efficient lighting and HVAC systems to reduce domestic energy use. The project would meet the newly implemented Building Energy Efficiency Standards and would exceed these standards as prerequisite and additional points for LEED.

Construction and Phasing

The Modified Project for Block T5/6 involves two phases, as previously described. Phase 1 (Site A) is scheduled to commence construction no later than 36 months after the City of Oakland approves the Disposition and Development Agreement (DDA) for the site, which is estimated for mid 2015). The second phase (Site B) is scheduled to commence construction no later than 60 months after City approval of the DDA. Construction for each phase is anticipated to last a period of approximately twenty-four months.

Construction activities on the project site would consist of excavation and shoring, foundation and below-grade construction, and construction of buildings and finishing interiors. Excavation to depths ranging to approximately 43 to 53 feet below grade (as measured from existing sidewalks) would be needed to accommodate the development of Block T5/6 and would be required largely to accommodate the potential underground parking levels on each site. Approximately 33,000 cubic yards of excavation would be required for residential building on Site A or Site B Option 2, and approximately 8,000 cubic yards would be excavated for the Option 1 hotel or Option 3 office buildings on Site B. Taken together, development of Block T5/6 could involve 41,000 to 66,000 cubic yards of excavation.9 The soil to be excavated consists predominately of sand, which can be excavated using conventional earth-moving equipment such as loaders and backhoes. No soils are anticipated to be imported to the site.

[9] For conservative purposes in terms of environmental effects, a total of 66,000 cubic yards of excavation is assumed for Block T5/6 throughout the analysis in this Addendum.

Groundwater depth across the site ranges from approximately five to nine feet below ground surface, and dewatering during excavation and construction would be required. Given the potential height of the proposed buildings, pile driving would occur or be required.

Discretionary Project Approvals Requested

The project sponsor requests, and proposed project would require, a number of discretionary actions/ approvals, including without limitation.

Actions by the City of Oakland

- **Revised or Amended Preliminary PUD**: A revised or amended Preliminary PUD to allow for a mix of development of multifamily residential, hotel, and/or office use on the project site. The PUD revision would also address a preliminary site plan, massing, and concept design for Site B, Phase 2. This would be a Bureau of Planning action.
- **Final PUD and Final Development Plan (FDP)**: For Site A, Phase 1, a Final PUD approval of final development plans. Site B, Phase 2 would be subject to a Final PUD application at a later date, once the project sponsor has determined the final use for Site B. This would be a Bureau of Planning action.
- **Conditional Use Permit (CUP)**: A CUP to reduce the requisite parking, provided through a combination, of on-site and off-site parking spaces at the developer's choosing. The developer has the right to lease up to 200 parking spaces at the City Center West Garage to satisfy the project's parking requirements. This would be a Bureau of Planning action.
- **Variance**: A variance to reduce the required number of on-site loading spaces from two to one. This would be a Bureau of Planning action.
- **Tentative Parcel Map (TPM)**: TPM to match the site parcels to the development program. This would be a Bureau of Planning action.
- **Tree Removal**: Issuance of Tree Removal Permit. This would be a Public Works Tree Division action.
- **Building and other Discretionary Development Permits**: Grading and other related onsite and offsite work permits, and minor encroachment permits. This would be a Bureau of Building action.
- **Disposition and Development Agreement (DDA):** Specifying the price and terms of payment for the project site and development obligations. This would be a City Council action.

Actions by Other Agencies

- **Bay Area Air Quality Management District (BAAQMD)**: Issuance of permits for installation and operation of the emergency generator.
- **Regional Water Quality Control Board**: Acceptance of a Notice of Intent to obtain coverage under the General Construction Activity Storm Water Permit, and Notice of Termination after construction is complete. Granting of required clearances to confirm that all applicable standards, regulations, and conditions for all previous contamination at the site have been met.
- **East Bay Municipal Utility District (EBMUD)**: Approval of new service requests and new water meter installations.

V. Summary of Findings

An evaluation of the proposed project is provided in the CEQA Checklist in Section VI that follows. This evaluation concludes that the Modified T5/6 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 its development were adequately analyzed and covered by the analysis in the 2000 Oakland City Center EIR and its four addenda, and in the applicable Program EIRs: the 1998 LUTE EIR, the 2011 Redevelopment Plan Amendments EIR, and for the housing components of the proposed project, the 2010 General Plan Housing Element Update EIR and 2014 Addendum.

The proposed project would be required to comply with the applicable mitigation measures identified in the 2000 EIR, as updated and amended, and any applicable City of Oakland SCAs presented in Attachment A to this document.[10] With implementation of the applicable mitigation measures and SCAs, the proposed project would not result in a substantial increase in the severity of previously identified significant impacts in the 2000 EIR and its subsequent addenda, 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, 21094.5, and 21166; and CEQA Guidelines Sections 15183, 15183.3, 15162, 15164, 15168, and 15180, and as set forth in the CEQA Checklist below, 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 2000 EIR certified by the Planning Commission on April 26, 2000, and last confirmed by the City Council in 2010 (EIR Addendum #4), remain valid. The proposed project would not cause new significant impacts not previously identified in the previously certified Program EIRs, or 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 Original 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 in the 2000 Oakland City Center EIR, its addenda, or in the applicable Program EIRs: 1998 LUTE EIR, and for the housing components of the proposed project, the 2010 General Plan Housing Element Update EIR and 2014 Addendum; or (3) were previously identified as significant effects, but which—as a result of substantial new information not known at the time the 2000 EIR or its addenda were prepared, or when the Program EIRs were certified—would increase in severity beyond that described in those EIRs. 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.

[10] Throughout this document, except where necessary for clarity, "2000 EIR" encompasses the Initial Study, Draft EIR, Final EIR, and each subsequent addendum for the City Center Project.

- **Qualified Infill Exemption**. The proposed project would not cause any new specific effects on the environment that were not already analyzed in the 2000 Oakland City Center EIR, its addenda, or in the applicable Program EIRs: the 1998 LUTE EIR, and for the housing components of the proposed project, the 2010 General Plan Housing Element Update EIR and 2014 Addendum. Further, the proposed project would not cause any new specific effects on the environment that are more significant than previously analyzed in the 2000 EIR, its addenda, or the aforementioned previously certified applicable Program EIRs. The effects of the proposed project have been addressed in the previous Program EIRs, and no further environmental documents are required in accordance with Public Resources Code Section 21094.5 and CEQA Guidelines Section 15183.3.
- **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 Modified T5/6 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.

Darin Ranelletti

Environmental Review Officer **Date**

VI. CEQA Checklist

Overview

The analysis in this CEQA Checklist provides a summary of the potential environmental impacts that may result from adoption and implementation of the Oakland City Center Project, specifically for Modified Block T5/6, as evaluated in the certified 2000 Oakland City Center Project EIR.[11] The analysis in this CEQA Checklist also summarizes the impacts and findings of Program EIRs that covered, specifically or as part of the cumulative analyses, the environmental effects of the Oakland City Center Project encompassing the Modified T5/6 Project and that are still applicable for the proposed project. As previously indicated, the Program EIRs are referred to collectively throughout this CEQA Analysis as "Previous CEQA Documents" and include the 1998 Land Use and Transportation Element EIR, the 2011 Central District Urban Renewal Plan (or Redevelopment Plan) Amendments EIR, and for the housing components of the proposed project, the 2010 General Plan Housing Element Update EIR and 2014 Addendum. Given the timespan between the preparations of these EIRs, there are variations in the specific environmental topics addressed and significance criteria, however, as discussed above in Section II and throughout this Checklist, the overall environmental effects identified in each are largely the same; any notable differences are noted.

Several mitigation measures identified in the 2000 EIR have since been adopted by the City as SCAs for all projects. All mitigation measures, as modified herein, and SCAs identified for the Modified T5/6 Project are presented in Appendix 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, which the project sponsor has agreed to do or ensure as part of the proposed project. If this CEQA Checklist or its attachments inaccurately identifies or fails to list a mitigation measure or SCA, the applicability of that mitigation measure or SCA to the proposed project is not affected.

This CEQA Checklist hereby incorporates by reference the discussion and analysis of all potential environmental impact topics as presented in the certified 2000 Oakland City Center Project, its addenda, and the Program EIRs. The significance criteria from the 2000 EIR, have been consolidated and abbreviated in this CEQA Checklist for administrative purposes; where appropriated, the significance criteria are updated to reflect the current City of Oakland significance criteria that were established after the 2000 EIR and that now apply to the proposed project.

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
- New Significant Impact.

[11] Reference to the "Oakland City Center Project EIR" or the "2000 EIR" encompasses the Initial Study, Draft EIR, Final EIR, and each of four subsequent addendum for the City Center Project.

Where the severity of the impacts of the proposed project would be the same as or less than the severity of the impacts described in the Previous CEQA Documents, the checkbox for "Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents" is checked.

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 or 2010 Housing Element Update EIR and 2014 Addendum (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 attachments (Attachments B through D) 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.	☒	☐	☐

Project Analysis

Scenic Vistas, Scenic Resources, and Visual Character (Criterion 1a)

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, the 2010 Housing Element Update EIR and 2014 Addendum, and the 2011 Redevelopment Plan Amendments EIR found that the effects to visual quality would be less than significant. The Redevelopment Plan EIR and the Housing Element 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.

The 2000 City Center Project EIR determined that potential impacts of the Original Project to visual quality would be less than significant; no mitigation measures were necessary. The 2000 EIR analysis was based on the City Center Project's development of four high-rise buildings, ranging in maximum heights of 21 stories (306 feet) to 31 stories (440 feet), on four blocks that compose the Original Project. Two of the four City Center Project blocks have since been developed: Block T9 at 21 stories (approximately 306 feet) and Block T10 at 8 stories (approximately 80 feet), the latter being built at substantially lower height than originally analyzed. The two remaining City Center Project blocks remain undeveloped: Block T5/6 and Block T12.

The existing conditions and immediate surroundings of Block T5/6 are substantially unchanged from the 2000 EIR, except for the development of Block T9 immediately west of the site, across Clay Street. Block T5/6 has no buildings and contains grass, landscaping, and an L-shaped driveway lane to the City Center Parking Garage and loading/service docks. The existing landscaping and trees on portions of Block T5/6 were planted by the Oakland Redevelopment Agency as an interim improvement several years prior to 2000 and have since matured, providing some existing scenic resource value to the area. A portion of Block T5/6 is the paved roof over the south portion of the City Center Parking Garage. (See Figures 4a and 4b of this document.)

When compared to the Original Project, the Modified T5/6 Project would develop two buildings instead of one. The maximum height of buildings on the site would be up to 14 stories (approximately 150 feet), which is 12 stories (approximately 240 feet) less than previously analyzed. The location and orientation of the proposed buildings on the site would be toward the south (11th Street) and west (Clay Street), similar to that previously considered. However, the building proposed on Site A would front the full length of the Clay Street block (about 200 feet between 11th and 12th Streets), whereas the model analyzed in the 2000 EIR fronted about 140 feet of the Clay Street block.

The 2000 EIR presented a generalized massing model of the Original Project building analyzed for Block T5/6, which was a 440-foot tall rectangular building covering most of the site, except with a set back from 12th Street, as described above.[12] While not detailed in the 2000 EIR, all of the Original Project buildings would include street-level commercial uses. The building setbacks and street-level commercial uses throughout the developments would allow for landscaped plazas and "provide visual relief in scale, form, colors, and textures at street level from the height and mass of the structures," a pattern established by adjacent high-rise development, like 1111 Broadway (immediately east of Block T5/6) and as developed with Block T9 (immediately west of Block T5/6, across Clay Street). Moreover, as anticipated in

[12] Oakland City Center Project Draft EIR, Figures IV.E-4 through IV-E.9, provided in Appendix A to this document.

the 2000 EIR, a plaza and garden area was developed between the existing 1111 Broadway building and the project building on Block T5/6, which was would further offset the loss of existing landscaping on this block.

As shown in Figure 6 through Figure 10 of this document, the Site A Phase 1 building, site layout, and pedestrian plaza proposed by the Modified Block T5/6 Project would result in development compatible with the visual character and patterns in this portion of Downtown. The substantially lower building height now proposed for Block T5/6 would result in less obstruction of views of the sky than previously estimated, but would still align with the varied building heights Downtown. The 2000 EIR acknowledged limited views in the area because of the dense, multi-story development covering most blocks; existing views across Block T5/6 are obstructed by the development on all adjacent blocks, and effect to any views identified in the 2000 EIR would be less with the lower building height proposed for the site. While visual quality is inherently subjective, the visual impacts of the Modified T5/6 Project would be less severe than those discussed in the 2000 EIR and would remain less than significant. The visual impacts of the project would also be similar to, or less severe than, those identified in the Program EIRs considered in this analysis.

Development on Block T5/6 would be required to comply with City of Oakland SCAs related to landscaping, street frontages, landscape maintenance, utility undergrounding, public right-of-way improvements, and lighting plans.

Shadow (Criteria 1b through 1d)

Except for the LUTE EIR, each of the Program EIRs 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.

The 2000 EIR determined that the Original 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. The shadow analysis of the Original Project evaluated development on all four blocks, each model with a 440-foot rectangular building, including on Block T5/6. A subsequent shadow analysis was conducted for Addendum #3, which shows the potential shadow effects of a conceptual building on Block T5/6 in context with the other City Center Project development and surroundings, in particular the buildings that were built since the 2000 EIR analysis on Block T9 and underway at the time on T10. [13]

Both the EIR and the Addendum #3 analyses focused on the Original Project's potential effects on nearby public open space. These include Lafayette Square Park located approximately one block or 500 feet west of Block T5/6, south of 11th Street; and the historic Pardee Home and Garden and Preservation Park located approximately two blocks or 1,000 feet west of Block T5/6, both north and south of 12th Street. The previous analyses found that shadow from the modeled 440-foot tall building on Block T5/6 would cast shadow on Lafayette Square Park during the morning hours except in late spring and summer, general overlapping the shadow cast by the building on Block T9. However, neither building would substantially affect use of the park since neither building casts shadow on the park after mid-morning.

[13] Oakland City Center Project Addendum #3, Figures 3 through 8, provided in Appendix A to this document.

Given the substantially reduced building height proposed for Block T5/6, shadow that would be cast by the Modified Project T5/6 Project would be less than previously analyzed, even considering that a wider shadow would be cast with the proposed building on Site A being the full length of Clay Street between 11th and 12th Streets. No shadow from the Block T5/6 building would extend to the historic Pardee Home and Garden or Preservation Park at any time. Also, the project sponsor has not requested approval of an exception (variance) for the proposed project. Overall, the shadow effects of the Modified T5/6 Project would be less severe than those discussed in the 2000 EIR and would remain less than significant. The shadow effects of the project would also be similar to, or less severe than, those identified in the Program EIRs considered in this analysis.

Wind (Criterion 1e)

The Redevelopment Plan EIR and the Housing Element EIR cited applicable SCAs that would ensure the wind hazard effects would be less than significant, however, like the 2000 EIR discussed below, the LUTE EIR identified a significant wind hazards impact with mitigation measures that would not reduce the impact to less than significant.

The 2000 EIR concluded that the Original Project could result in exceedances of the 36-mph wind hazard speed and would therefore result in a significant impact. Mitigation Measure AES-F.2 (designated added in this analysis for clarity) was identified and requires the project sponsor to incorporate specific design elements to reduce ground-level winds within the Downtown area, including placing tall buildings back from the sidewalk, using curved facades, incorporating facade articulation, and/or placing towers atop a podium to interrupt winds before they reach ground level. The design elements listed in Mitigation Measure AES-F.2 could substantially reduce wind speeds, and eliminate the potential for new hazardous wind conditions. Nevertheless, the 2000 EIR determined that the impact after mitigation would be significant and unavoidable based on the possibility that design features could not fully mitigate hazardous ground-level winds.

The Modified Block T5/6 Project building on Site A would be substantially shorter than analyzed in the 2000 EIR wind assessment. Also, the building is proposed with minimal articulation created by recesses and protrusions on all sides; at the second level above grade, the building would be set back 20 feet from its west (rear) wall to create an outdoor patio. Buildings conceptualized for the Option 1 hotel and the Option 2 residential on Site B in Phase 2 would include a curved façade on the internal corner, and a

vertical façade offset on the 11th Street frontage (see Figure 6 and Figure 7). Overall, the 2000 EIR concluded that it cannot be stated with certainty that incorporation of typically beneficial design features identified in Mitigation Measure AES-F.2 would reduce ground-level winds (compared to conditions without such design features) to less than significant levels. Therefore the impact would remain significant and unavoidable, as identified in the 2000 EIR, and previously identified in the LUTE EIR.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and the Program EIRs, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the 2000 EIR or the Program EIRs, nor would it result in new significant impacts related to aesthetics, shadow or wind that were not identified in the 2000 EIR or the Program EIRs. **Mitigation Measure AES-F.2** (regarding wind-reducing building design elements) from the 2000 EIR (as amended in Attachment A to this document) would continue to apply to the Modified T5/6

Project, which would also be required to implement City of Oakland SCAs related to landscaping, street frontages, landscape maintenance, utility undergrounding, public right-of-way improvements, and lighting plans, as identified in Attachment A. For reference, these are **AES-1 through AES-9, and SCA BIO-1**.

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.	☒	☐	☐

Project Analysis

Since information on the above mentioned air quality issues was known, or could have been known, when the 2000 EIR or other the Program EIRs was being prepared, it is not legally "new information" as specifically defined under CEQA. However, an analysis of the proposed project relying on the previously recommended May 2011 Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and Thresholds, has nevertheless been conducted in order to provide more information to the public and decision-makers, and in the interest of being conservative, although the analysis in this Addendum

evaluates air quality using both the 2000 EIR thresholds (based upon BAAQMD *1999 CEQA Air Quality Guidelines*) and the BAAQMD May 2011 CEQA Guidelines and Thresholds, significance determinations are based on the thresholds from the 2000 EIR. Nevertheless, the City will impose its SCAs and previously approved mitigation measures from the 2000 EIR, as detailed below.

Construction and Operational Emissions (Criterion 2a)

The Redevelopment Plan EIR and the Housing Element EIR found that emissions associated with construction and operations resulting from increased criteria pollutants from resulting development would result in less-than-significant effects, including with adherence to mitigation measures or SCAs. Specifically, the Redevelopment Plan EIR and the Housing Element 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. 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.

The 2000 EIR for the Original Project found that the potential impact of development of the Original Project (all blocks) would result in significant but mitigatable impacts to construction and operational air quality emissions (like the Redevelopment Plan EIR and the Housing Element EIR), as well as a significant cumulative air quality emissions impact (like the LUTE EIR). As analyzed below, the Modified T5/6 Project would result in similar impacts as those previously identified.

Construction Air Emissions

Assumptions for Construction Emissions
The analysis below used the following assumptions to calculate average daily construction emissions associated with a worst-case construction scenario for the proposed project:

- Worst case excavation (all residential scenario) totaling 66,000 cubic yards of exported soil;
- The length of the various construction phases (e.g., demolition, grading, building, etc.) was CalEEMod default values;
- The amount and types of construction equipment used for each phase and the number of off-road vehicle trips were based on CalEEMod defaults;
- The footprint lot size of the proposed project (Sites A and B) input into CalEEMod 1.25 acres;
- Construction of 262 units (Site A) and 205,800 square feet of office (Site B, Option 3), which is considered the most impactful scenario of the proposed project for purposes of assessing air quality impacts - that is the scenario that would generate the most vehicle trips and construction activity.
- Two year construction period, for each 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	23.8	41.9	2.0	1.9
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 2013.2.2. Emissions are average daily pounds per day during the two year construction period.

SOURCE: ESA, 2015.

The 2000 EIR for the Original Project analyzed construction-related air emissions relative to the methodology and thresholds of the Bay Area Air Quality Management District (BAAQMD) contained in its *1999 CEQA Air Quality Guidelines* which did not require quantification of construction-related emissions or identify quantitative thresholds for assessing construction-related emissions. As previously stated, the 2000 EIR identified a less-than-significant impact with respect to construction-related emissions, after the inclusion of mitigation measures (Mitigation Measure C.1) to control fugitive dust and ensure equipment maintenance. These measures are now incorporated into 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 (as shown in Attachment A to this document). Therefore, the proposed project would have an equal or less severe construction-related air quality impact compared to that previously identified in the 2000 EIR or the other 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:

- The vehicle trip generation rates that were input into CalEEMod (Version 2013.2.2) 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;
- The operational emissions generated assumed a default number of fireplaces. All fireplaces were assumed to be gas-fired. No wood burning fireplaces or woodstoves were assumed;
- All other inputs in CalEEMod were based on model default values.
- Two backup diesel generators were assumed pursuant to California Building Code Requirements for buildings of this height. The generators were assumed to have a rating of 300 kW-hr, 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 $PM_{2.5}$. 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.

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

	ROG	NO_x	PM_{10}	$PM_{2.5}$
Project				
Area Source Emissions	12.28	0.25	0.40	0.40
Energy Emissions	0.15	1.32	0.10	0.10
Project Vehicle Emissions[b]	8.47	23.30	11.95	3.40
Backup Diesel Generator	2.02	24.80	1.76	1.76
Total Emissions	**22.92**	**49.67**	**14.21**	**5.66**
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 2013.2.2.

[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, 2014.

The 2000 EIR for the Original Project 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 $PM_{2.5}$.[14] The 2000 EIR identified a significant impact with respect to operational emissions of NO_x upon the completion of Block T9 as well as Block T5/6 (assumed 2005).[15] Block T5/6 alone in the 2000 EIR had emissions that were below the 1999 thresholds as well as under existing thresholds. The analysis in the 2000 EIR did not consider emissions from maintenance operation of generators, as is considered in the proposed project analysis reported in Table AIR-2.

The 2000 EIR identified mitigation measures (Mitigation Measures C.2a and C.2b) addressing Transportation Control Measures and 12th Street BART Station improvements to reduce emissions to a less-than-significant level. Mitigation Measure C.2a is replaced with the current City of Oakland SCA regarding Transportation Demand Management (TDM) (as shown in Attachment A to this document). The SCA regarding TDM applies to all projects within the City of Oakland, therefore it would still apply to the proposed project even though the Modified T5/6 Project would not have the significant operational emissions impact. Mitigation Measure C.2b would not apply to the Modified T5/6 Project. The proposed project would have an equal or less severe operational air quality impact than previously identified in the 2000 EIR or the Program EIRs.

[14] The cited thresholds remained consistent across the addenda prepared to the 2000 EIR.

[15] The 2000 EIR analysis considered emissions from the then-anticipated year of completion of the first building, Block T9 (2001); the then-anticipated year of completion of Block T9 and T5/6 (2005); as well as emissions for all four City Center Project blocks at the time completion was initially estimated (2010).

Cumulative Air Emissions

The 2000 EIR also conservatively identified a significant cumulative air quality impact for the Original Project, presuming that its significant but mitigable project-levels of ROG and NOx (ozone precursor emissions) would be a "considerable" contribution to the region's nonattainment for ozone and state standard for PM_{10} (state standard only).

As shown in Table AIR-2, the Modified T5/6 Project would not result in project-level exceedances of criteria pollutants. Also, counter to the statement in the 2000 EIR that the Original Project would be fully developed by 2010, Blocks T5/6 and T12 remain undeveloped and would occur in years of improved background air conditions. Regardless, this analysis conservatively assumes that the proposed projects could still have a considerable contribution to regional conditions. The current City of Oakland SCA regarding TDM (which replaces Mitigation Measure C.2a from the 2000 EIR), would apply to the proposed project's conservatively-assessed contribution to the cumulative impact, which would remain significant and unavoidable.

Toxic Air Contaminants (Criterion 2b)

Emissions associated with construction and operations resulting from increased criteria pollutants from development that could occur under each of the d Program EIRs considered throughout this analysis were found to result in less-than-significant effects, either with adherence to mitigation measures or SCAs. The Redevelopment Plan EIR and the Housing Element 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. The LUTE EIR identified mitigation measures that would address each of these topics and reduce the effect to less than significant, including specifically in the Downtown area. The LUTE EIR also identified mitigation measures to address increased regional emissions of criteria air pollutants, but determined that the effect would remain significant and unavoidable after consideration of the mitigation.

The 2000 EIR for the Original Project 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 cumulative health risks and screening tools for analyzing such cumulative risks were not available from BAAQMD at that time. As presented in the analysis below, the Modified T5/6 Project would not result in a new significant impact with respect to cumulative toxic air contaminants (TACs) impacts.

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 EIR (2011), and the Housing Element EIR (2010 and 2014) did conduct cumulative health risk assessments and, as identified for the Modified T5/6 Project, identified significant and unavoidable impacts, after the consideration of SCAs.

<u>Assumptions and Area Sources for Health Risk</u>

Since the previous analysis in the 2000 EIR did not address health risk associated with TACs, this following background is provided. 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.

Additionally, the City's CEQA significance thresholds require 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. When siting new sensitive receptors, existing TAC sources located within 1,000 feet including, but not limited to, stationary sources, freeways, and major roadways (10,000 or greater vehicles per day) should be considered.[16] The BAAQMD provides a publicly available inventory of TAC-related health risks for permitted stationary sources throughout the San Francisco Bay Area Air Basin as well as for freeways. The inventory presents community risk and hazards from screening tools and tables that are intentionally conservative. The screening-level risk factors derived from the BAAQMD's tools are intended to indicate whether additional review related to the impact is necessary and are not intended to be used to assess actual risk for all projects.

Analysis of Health Risk

Construction Impact. Regarding construction TACs emissions, BAAQMD developed screening tables for commercial and residential land use development projects that estimate screening distances from sensitive receptors sufficient to avoid exposure to substantial construction-related health risks. For development sites of less than 3 acres in area, a screening distance of 100 meters (328) feet is identified as sufficient to avoid a construction-related TAC impact. Block T5/6 is approximately 1.25 acres in area and is located over 500 feet from the nearest sensitive receptor (Domain Apartments north of Jefferson Street and 13th Street). Therefore, potential impact of the proposed project regarding exposure to construction related health risks would be less than significant.

Project-Level Operations Impact. The two backup diesel generators assumed for the proposed project (given its high-rise height, as previously described under *Assumptions for Operational Emissions*), would be the only new source of TACs associated with the proposed project. The 2000 EIR 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 health risks impact of the proposed project on the environment would be less than significant.

Cumulative Impact. Regarding exposure of new sensitive receptors to existing and new sources of TACs, the health risk analysis contained herein relies on the BAAQMD's conservative screening-level tool to screen out low-emitting existing sources of TACs that pose no substantial threat to increased cancer risk exposure. According to BAAQMD's conservative screening-level tool for Alameda County, there are 15 stationary TAC sources within 1,000 feet of the Block T5/6, all of which are backup generators. According to the BAAQMD's intentionally conservative estimates, some of these sources have screening-level cancer risks up to 177 in one million at the property line of the source.

ESA conducted refinements to these screening values to account for distance between receptors at Block T5/6 and the stationary TAC sources within 1,000 feet of Block T5/6. **Table AIR-3** presents the results of

[16] CEQA requires the analysis of potential adverse effects of a project on the environment. Potential effects of the environment on a project are legally not required to be analyzed or mitigated under CEQA. However, this analysis nevertheless assesses potential effects of "the environment on the project" in order to provide information to decision-makers.

this refined, project-specific, screening effort that includes the risks posed by roadway traffic on Broadway and the proposed project's backup diesel generators. As shown, the cumulative cancer risks for new receptors (residents) of the proposed project (Site A, or Site B Option 2) would be below the significance criterion of 100 in one million. As such, a Health Risk Assessment in accordance with the California Air Resources Board and the Office of Environmental Health and Hazard Assessment requirements was neither required nor conducted. The cumulative impact would be less than significant.

TABLE AIR-3
CUMULATIVE HEALTH IMPACTS FOR NEW RECEPTORS

Site #	Facility Type	Address	Cancer Risk (persons per million)	Chronic Hazard Impact	PM2.5 Concentration (µg/m3)
18912	Generator	427 14th Street	0.61	<0.001	<0.001
14837	Generator	1000 Broadway	3.85	0.002	<0.001
16836	Generator	1111 Broadway	4.26	0.001	0.008
13308	Generator	1221 Broadway	0.08	<0.001	0.0133
18110	Generator	1330 Broadway	0.66	<0.001	<0.001
12765	Generator	1330 Broadway	1.44	0.001	0.001
17607	Generator	1333 Broadway	NA	NA	NA
10345	Generator	564 14th Street	0	0	0
14423	Generator	475 14th Street	6.99	0.003	0.002
16713	Generator	475 14th Street	0	0	0
16835	Generator	505 14th Street	1.29	<0.001	<0.001
16837	Generator	525 14th Street	12.4	0.004	0.003
16749	Generator	1301 Clay Street	24.84	0.009	0.099
16838	Generator	1300 Clay Street	4.58	0.002	0.008
14534	Generator	555 12th Street	32.56	0.011	0.058
		Roadway Sources			
		Broadway[a]	1.15	0.002	0.043
		Cumulative Impacts	94.71	0.033	0.235
		City of Oakland Significance Criteria (new receptor)	100	10	0.8
		Potentially Significant Impact?	No	No	No

[a] Risks and concentrations from roadway traffic on Broadway are for an assumed distance of 500 feet from the edge of the nearest travel lane of a north-south directional roadway in Alameda County. Broadway has an existing AADT of 15,600 per Fehr & Peers. Risks presented assume AADT of 20,000. (AADTs for 11th and 12th Street are less than 10,000 and therefore no analysis is required for these roadways)

NA = Not an active source per BAAQMD

Source: BAAQMD, 2014; ESA, 2015.

As shown in Table AIR-3, the proposed project would not result in exposure to substantial levels of TACs resulting in a cumulative cancer risk level greater than 100 in a million, thus the impact is less-than-significant. Including consideration of roadway traffic on Broadway, the cumulative cancer risks for new receptors (residents) of the proposed project would be less than 100 in one million. No mitigation measure is required.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and the Program EIRs, as well as new analysis presented above per current thresholds, implementation of the Modified T5/6 Project would not result in a new significant impact regarding operational air quality emissions or, conservatively, a cumulative air quality impact identified in the 2000 EIR. The analysis above also determines that the proposed project would not result in a new significant impact regarding construction emissions, which was not addressed in the 2000 EIR or the Program EIRs. Also, based on the health risk analysis above, implementation of the proposed project would not result in a new significant impact related to construction, operational, or cumulative TAC emissions, which also were not addressed in the 2000 EIR, but were addressed in the subsequent Redevelopment Plan EIR and Housing Element EIR and Addendum, and found to be significant and unavoidable.

No mitigation measures are required. **Mitigation Measure C.1** from the 2000 EIR is now replaced with current City of Oakland SCA regarding construction-related emissions controls, and **Mitigation Measure C.2a** from the 2000 EIR is now replaced with current City of Oakland SCA involving the preparation and implementation of TDM plans. Both current City of Oakland SCAs are identified in Attachment A to this document. For reference, the applicable SCAs are **SCA AIR-1 and SCA AIR-2** (previously Mitigation Measures C.1 and C.2a, respectively).

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.	☒	☐	☐

Project Analysis

Special-Status Species, Wildlife Corridors, Riparian and Sensitive Habitat, Wetlands, Tree and Creek Protection (Criteria 3a and 3b)

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 EIR and the Housing Element EIR and Addendum. No mitigation measures were necessary.

The 2000 EIR found that the potential impact of the Original Project on biological resources would also be less than significant; no mitigation measures were necessary.

As was described in the previous analysis, the Oakland City Center Project blocks are located in the fully developed urban area of Downtown; this remains the existing condition for Block T5/6. Block T5/6 does not contain vegetation and hydrology conditions suitable for sustaining wetlands, nor are any known special status species or sensitive habitats, including those that could support migratory fish or birds, located on the site. The existing landscaping and trees on portions of Block T5/6 were planted by the Oakland Redevelopment Agency as an interim improvement several years prior to 2000 and have since matured. However, this vegetation is not connected to other nearby natural habitats, and therefore would not constitute a wildlife corridor. There are no natural sensitive communities in the area.

However, although not considered in the 2000 EIR, existing trees on the project site could be nursery sites for nesting birds. In addition, the buildings proposed for Block T5/6 could cause harm to birds by increasing bird collisions with buildings. A City of Oakland SCA pertaining to reducing bird collisions with buildings would reduce potential impacts to birds by constructing features in compliance with Best Management Practice strategies to limit bird strikes.

As it was when assessed in the 2000 EIR, the approximately 40 trees on Block T5/6 are "Protected Trees," per Oakland's Protected Tree Ordinance. That previous analysis discussed that the development of Block T5/6 in particular would require approval of a tree removal permit prior to the issuance of building permits, consistent with standard City practices and regulations. This requirement is now directed by City of Oakland SCAs related to the removal and replacement of trees, tree protection during construction, and protection of nesting birds during the breeding season. Compliance with these SCAs would protect natural resources from potential degradation that could result from development of the proposed project. A relevant requirement of the tree removal permit is that the project must include specific planting for the removal of any native species. As shown in Figure 5 and Figure 10 in this document, the proposed project would introduce new trees onsite as well as along the project street frontage and in a new pedestrian plaza on Site A.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR 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 2000 EIR or the previously mentioned Program EIRs. Nor would the proposed project result in new significant impacts related to biological resources that were not identified in the 2000 EIR or the other Program EIRs. The 2000 EIR 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 tree removal and replacement, bird protection, 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-1 through SCA BIO-4, SCA GEO-1, SCA HAZ-1, SCA HYD-1 and HYD-1, and SCA HYD-6**.

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.	☒	☐	☐

Project Analysis

Historical Resources (Criterion 4a)

The Redevelopment Plan EIR, which addresses much of the oldest part of Downtown Oakland, identified a significant impact to historical resources that would occur with development anticipated in the Redevelopment Plan Amendments EIR, even with the implementation of mitigation measures identified in that Redevelopment Plan EIR. Therefore, the impact to historic resources would be significant and unavoidable. 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. The Housing Element EIR identifies City of Oakland SCAs pertaining to historic resources, and finds a less-than-significant impact.

The 2000 EIR also found that the potential impact of development of the Original Project on historical resources would be less than significant. There are three historic districts in the area of the Original Project; these include the Grove Street-Lafayette Square Residential District, the Old Oakland District, and the Downtown District. In addition to the historic districts, two designations of the S-7 Preservation Combining Zones generally overlap with each of the nearby districts.

Block T5/6 does not have existing structures, nor is it located near the historic resources identified in the 2000 EIR that could potentially be affected by the City Center Project. Previous analysis discussed that "the nearby historic districts are identified as isolated remnants of what was once greater Downtown Oakland, defined by their isolation from the remainder of the historic Downtown. Additionally, these districts are isolated by existing land use patterns." Development of Block T5/6, like the Original Project, would neither alter the character-defining elements of the historic districts, nor impair the physical characteristics that convey the significance of the districts. Changes in land use and design of the Modified Block T5/6, compared to those discussed in the 2000 EIR or the Program EIRs considered in this analysis, would not result in new, or new or substantially more severe impacts, on historic resources than were identified in the 2000 EIR or the Program EIRs.

Archaeological and Paleontological Resources and Human Remains (Criteria 4b through 4d)

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 (and the 2000 EIR, as discussed below)_ identified mitigation measures would reduce the effects to archaeological resources to less than significant.

The 2000 EIR found that the potential impact of development of the Original Project on archaeological and paleontological resources and human remains would be less than significant with the implementation of mitigation measures identified in the Initial Study.[17]

The proposed project would involve grading and excavation activities up to depths of approximately 40 feet below grade to construct the buildings and associated below-grade parking either in Phase 1 on Site A, or in Phase 2 on Site B. Based on the results of the Geotechnical Report prepared for the proposed project, the site is underlain with approximately five to seven feet of loose to dense silty clayey sand and the near-surface soil is not expansive. Below the initial layer of sand lies about 22 to 32 feet of dense to very dense silty sand known as the Merritt sand. Stiff to hard clayey silt and silty clay with interlayered sand underlie the Merritt sand. Borings indicate the presence of groundwater at approximately five to nine feet below ground surface to the west of the site and approximately seven to 11 feet below ground surface to the south of the site.

In addition, according to the Phase 1 Environmental Site Assessment, the project site was previously developed as a service station, with various surrounding uses, including parking lots and garages, gas stations, and commercial service uses, and as updated from the 2000 EIR, the previous development on

[17] The Initial Study to the 2000 EIR did not identify designators for mitigation measures.

the site was cleared approximately 35 years ago, and the site has since been excavated for the below-grade City Center Parking Garage.

The previous analysis acknowledged the potential for discovery of archaeological and paleontological resources and/or human remains during construction and excavation on the project site. The mitigation measures identified in the 2000 EIR, including one pertaining to archaeological resources that was updated in subsequent addenda to the EIR, are now incorporated in current City of Oakland SCAs, as listed in Attachment A to this document. The applicable City of Oakland SCAs would ensure that archaeological resources are recovered and that appropriate procedures are followed in the event of accidental discovery; would require a qualified paleontologist to document a discovery, would require that appropriate procedures be followed in the event of a discovery, and would ensure that the appropriate procedures for handling and identifying human remains are followed. 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 2000 EIR 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 2000 EIR or the other Program EIRs, nor would it result in new significant impacts related to cultural resources that were not identified in the 2000 EIR or the other Program EIRs. The Modified T5/6 Project would not result in impacts to historical resources. Further, the proposed project would implement City of Oakland SCAs that replace the mitigation measures previously identified for the Original Project to 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**.

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.	☒	☐	☐

Project Analysis

Seismic Hazards, Expansive Soils, and Soil Erosion (Criterion 5a and 5b)

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.

The 2000 EIR found that the potential impact of development of the Original Project on geology, soils and geohazards would be less than significant, with the project sponsor's adherence to local and state regulations.

The Original Project site is located approximately 3.5 miles southwest of the Hayward Fault and is outside of the Alquist-Priolo Geologic Hazards Special Studies Zone. The 2000 EIR described that all of the City Center blocks were located in soil zone II which may experience a variety of types of ground failure due to ground motion, particularly if there is strong seismic activity. However, the 2000 EIR also determined that development of the Original Project would not result in any significant impacts with respect to rupture of a known earthquake fault, ground shaking, or seismic-related ground failure

because development would adhere to standard City practices employed to ensure that all buildings are designed and built in conformance with state and local seismic requirements.

Current City of Oakland SCAs now incorporate these requirements and would ensure that development of the proposed project on Block T5/6 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 City of Oakland SCAs that require the preparation of soils and geotechnical reports specifying generally accepted and appropriate engineering techniques would reduce potential impacts to less-than-significant levels.

As reported in the 2000 EIR, the Original Project sites are located in an area designated as least susceptible to landslides; they do not have contributing factors such as slopes over 15 percent or a history of landslide problems. Moreover, the sites are relatively flat and developed in the Downtown urban area that is built-out or paved, landscaped, and served by an existing storm drain system. Block T5/6 continues to have these characteristics and therefore would not result in significant impacts with respect to landslides. The proposed project would not result in substantial risks to life or property.

The 2000 EIR determined that development of the Original Project would result in 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. The proposed project on Block T5/6 (Phase 1 Site A) would require excavation of up to 66,000 cubic yards of soil, as described in the Project Description (Section IV of this document) and therefore would require a grading permit from the City. In addition to the requirements of the grading permit, adherence to existing City of Oakland SCAs would ensure that development of the proposed project on Block T5/6 would minimize erosion and sedimentation during all phases of the project through installation of project landscaping and storm drainage facilities, both of which shall be designed to meet applicable regulations.

The soil characterization of Block T5/6 has not changed since the 2000 EIR. As reported there for the Original Project, and in the Geotechnical Report prepared for the proposed project, the site is in an area characterized as Urban Land-Danville complex, which have some development limitations. These limitations would be addressed pursuant to requirements specified in the site-specific Geotechnical Report for the proposed project, and measures discussed in the previous analysis are now incorporated into current City of Oakland 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.

As discussed in the 2000 EIR, development of the Original Project would occur on sites served by the existing sewer system; development of Block T5/6 would not involve septic tanks or alternative wastewater disposal.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR 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 2000 EIR or the other Program EIRs, nor would it result in new significant impacts related to geology, soils, and geohazards that were not identified in the 2000 EIR

or the other Program EIRs. The proposed project would implement City of Oakland SCAs that incorporate the regulatory requirements addressed in the Original 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, SCA GEO-3, and SCA HYD-4**.

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.	☒		

Project Analysis

Climate change and greenhouse gas emissions were not expressly addressed in the 2000 EIR, nor in the 1998 LUTE EIR, for reasons described below. However, since information on climate change and greenhouse gas emissions was known, or could have been known, in 2000, 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. However, an analysis of the proposed project using the previously recommended May 2011 BAAQMD CEQA Guidelines and Thresholds has been conducted to provide more information to the public and decision-makers, and in the interest of being conservative. Thus, although the analysis in this CEQA Checklist evaluates climate change and greenhouse gas emissions, there is no resulting significant CEQA impact. Nevertheless, the City will impose its SCAs.

Greenhouse Gas Emissions (Criterion 6a)

The 2011 Redevelopment Plan EIR and the 2010 Housing Element EIR and 2014 Addendum included GHG emissions and impacts analyses, as these documents were prepared after both 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. Both of these Program EIRs identified less-than-significant impacts with the incorporation of numerous applicable City of Oakland SCAs. No mitigation measures were necessary.

As previously discussed under *2. Air Quality*, the analysis of the Modified T5/6 Project considers the proposed project scenario that is considered the most impactful for purposes of assessing GHG emissions; that is the scenario that would generate the most vehicle trips and construction activity: Site A, residential + Site B Option 3, office.[18]

The Modified T5/6 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.

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. As shown in **Table GHG-1**, construction-related emissions would total 1,012 metric tons of CO_2 equivalents (CO_2e) during the peak construction year. Annualized over an assumed project life of 40 years, construction-related GHG emissions would be 25.3 metric tons per year of CO_2e. These emissions are factored into the total operational GHG emissions calculation below to determine significance.

TABLE GHG-1
GHG EMISSIONS FROM OPERATION (metric tons per year)[a,b]

Project Component	CO_2e
Project	
Area Source Emissions	11.99
Energy Emissions	798.73
Mobile Emissions	1,967.27
Backup Generator	2.10
Solid Waste	141.89
Water and Wastewater	94.07
Annualized Construction Emissions (Over 40 Years)	25.3
Total Increase	**3,041**
Total Increase without Mobile Sources	**1,074**
City of Oakland Threshold	1,100
Total Emissions per Service Population (498 residents)	**2.16**
City Emissions per Service Population Threshold	4.6
Significant?	**No**

[a] Project operational emissions estimates were made using CalEEMod, version 2013.2.
[b] The GHG analysis relied on inputs from the Project Concept Plans that indicated a maximum of 262 residential units for Site A (498 residents). Service population would be more than this, depending on the land use developed on Site B. Analysis based only on Site A service population yields conservative results.

[18] Up to 262 residential units on Site A (Phase 1) and up to 205,800 square feet of Option 3 office use on Site B (Phase 2).

Operational GHG Emissions

The proposed project would generate GHG emissions from many of the same sources as presented in air quality Tables AIR-1 and AIR-2 (under *2. Air Quality*, above). Additionally, GHGs would be generated indirectly by increased electrical demand, increased water and wastewater demand, and increased solid waste generation.

The total operational GHG emissions for the proposed project are presented in Table GHG-1. This table presents the project-related GHG emissions from all sources and assesses the impact relative to City thresholds. As discussed below (see *Transit Priority Project*), and Attachments C and D to this document, the proposed project meets the criteria for a residential or mixed use "transit priority project," and is located within a "Regional Center" Priority Development Area (PDA) pursuant to the Plan Bay Area, which represents the Sustainable Communities Strategy (SCS) for the greater San Francisco Bay Area (MTC, 2013). Environmental documents for such projects , need not analyze global warming impacts resulting from cars and light duty trucks. A lead agency should consider whether such projects may result in GHGs from other sources, however, consistent with the CEQA Guidelines. Consequently, if the project meets the requirements of a transit priority project, its mobile source need not be included in the assessment of GHG impacts. For this reason, Table GHG-1 presents the project-related GHG emissions without the mobile emissions, as permitted per CEQA guidelines Section 15183.5 (c).

As shown in Table GHG-1, the proposed project would not exceed the threshold of 1,100 metric tons of CO2e per year and also would not exceed the City's 4.6 metric tons of CO2e per service population threshold. Therefore, the GHG emission impact would be less than significant. The City's GHG reduction plan SCA would not be triggered since neither of the significance thresholds is exceeded. 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 emissions, transportation demand management, construction waste reduction and recycling, as well as California Green Building Standards.

Consistency with GHG Emissions Plans and Policies (Criterion 6b)

The Modified T5/6 Project would comply with the Oakland Energy and Climate Action Plan, 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 Energy and Climate Action Plan in that it will include a number of sustainability design features. The proposed project intends to meet LEED Silver standards and comply with the Green Building ordinance and requirements. It will optimize the efficiency of the building envelopes and, through use of efficient heating, ventilation, and air conditioning (HVAC) and lighting systems, reduce domestic energy use compared to traditional development. The proposed project will also meet the newly implemented Building Energy Efficiency Standards and will exceed these standards as a prerequisite of attaining additional points for LEED certification. Additionally, the proposed project is located within a "Regional Center" Priority Development Area (PDA) pursuant to the Plan Bay Area, which represents the Sustainable Communities Strategy (SCS) for the greater San Francisco Bay Area; as discussed

below and in Attachment D to this document, the proposed project meets all conditions for qualification as a transit priority project with respect to the SCS, as discussed below.

Transit Priority Project

As introduced above, per CEQA Guidelines Section 15183.5 (c), environmental documents for certain residential and mixed use projects and transit priority projects, as defined in Section 21155 of the Public Resources Code, that are consistent with the general use designation, density, building intensity and applicable policies specified for the project area in an applicable SCS or alternative planning strategy need not analyze global warming impacts resulting from cars and light duty trucks. A lead agency should consider whether such projects may result in GHGs from other sources, however, consistent with the CEQA Guidelines. Consequently, if the project meets the requirements of a transit priority project, its mobile source emissions need not be included in the assessment of GHG impacts.

Section 21155 of the *California Public Resources Code* defines transit priority projects as projects which:

1. Contain at least 50 percent residential use, based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75;

2. Provide a minimum net density of at least 20 dwelling units per acre; and

3. Be located within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan. A major transit stop is as defined in Section 21064.3, except that, for purposes of this section, it also includes major transit stops that are included in the applicable regional transportation plan. For purposes of this section, a high quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. A project shall be considered to be within one-half mile of a major transit stop or high-quality transit corridor if all parcels within the project have not more than 25 percent of their area farther than one-half mile from the stop or corridor and if not more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from the stop or corridor.

The project proposes a minimum of 236,613 square feet of residential uses and a maximum of 205,800 square feet of non-residential (office) uses (53 percent residential use) with a minimum floor area ratio of 4.34 (236,613/54,500). So, the proposed project meets condition (1) above for qualification as a transit priority project. The project proposes a minimum of 262 residential units on a parcel of 1.25 acre, which is equivalent to 210 dwelling units per acre. Consequently, the proposed project meets condition (2) above for qualification as a transit priority project.

Finally, a major transit stop is defined in Section 21064.3 of the California Public Resources Code as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute period. An entrance to the 12th Street City Center BART entrance (11th and Broadway) is approximately 700 feet from the midpoint of Block T5/6. Other transit lines and major transfer points are along Broadway within one to three blocks from Block T5/6. Consequently, the proposed project meets all three conditions above for qualification as a transit priority project. Therefore,

pursuant to Section 15183.5 (c) of the CEQA Guidelines, the mobile source emissions of the project need not be included in the assessment of GHG impacts in the environmental document.

Conclusion

Based on the analysis above, implementation of the Modified T5/6 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 emission. No mitigation measures or City of Oakland SCAs related to GHG emissions or plan consistency are necessary to ensure a less-than-significant impact with the proposed project. However, the implementation of other mitigation measures and City of Oakland SCAs that apply to the construction and operation of the proposed project would help minimize GHG emissions, as identified in Attachment A to this document. For reference, these are **Mitigation Measures TRA-B.5 and TRA-B.6**. Applicable SCAs are **SCA AIR-1, SCA AIR-2, SCA UTIL-1, and SCA UTIL-2**.

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.	☒	☐	☐

Project Analysis

Exposure to Hazards, Hazardous Materials Use, Storage and Disposal (Criterion 7a)

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 EIR or the Housing Element. However, the LUTE EIR included mitigation measures specifically to address exposure to workers and the public during construction.

The 2000 EIR determined that development of the Original 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. None of the blocks of the Original Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

The Modified T5/6 Project would involve similar activities as evaluated in the 2000 EIR, even with the addition or change to residential and potentially hotel uses on the site. No buildings exist on the site, however, some existing concrete and/or asphalt driveways would be removed. The Phase 1 Environmental Site Assessment prepared for the proposed project indicated that the site had been developed as a service station, with various surrounding uses, including parking lots and garages, gas stations, and commercial service uses. The previous development on the site was cleared approximately 35 years ago, and the site has since been excavated for the below-grade City Center Parking Garage. Four underground storage tanks (USTs) were reportedly at the site since 1929 with no documentation of their removal. Previous testing indicated semi-volatile organic compounds in the groundwater and elevated levels of lead in the soil such that some of the fill material would be classified as California Hazardous Waste. Other hazardous materials were identified in groundwater tests from the southeastern most edge of the site and vapor intrusion from groundwater to indoor air cannot be ruled out.

The transportation, use, and storage of all hazardous materials involved with the proposed project would be required to follow the applicable laws and regulations adopted to safeguard workers and the general public. In addition, development of the proposed project would be subject to the City of Oakland's SCAs pertaining 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, which would reduce impacts to less-than-significant levels.

Hazardous Materials within a Quarter Mile of a School (Criterion 7b)

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.

The 2000 EIR reported that development of the Original 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. Lincoln Elementary School at 225 11th Street is the nearest school to Block T5/6, at a distance of one-half mile. Development of the proposed project would be required to comply with existing locale 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. Additionally, those handling or storing hazardous materials 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; preparation of these plans would reduce impacts to less-than-significant levels.

Emergency Access Routes (Criteria 7c)

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.

The 2000 EIR similarly determined that construction of the Original Project would not significantly interfere with emergency response plans or evacuation plans; no impact was identified. This continues to be the case for development of Block T5/6. 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. However, the proposed project would not permanently change the surrounding streets or roadways. The requirement in Mitigation Measure B.7 from the 2000 EIR will continue to apply, but as an applicable City of Oakland SCA, as updated in Table 4 in this CEQA Checklist. The SCAs address construction traffic and parking (see *13. Traffic and Circulation*) and include requirements that would ensure emergency routes are not obstructed during construction. The proposed project's compliance with all applicable requirements would reduce potential impacts to a less-than-significant level, as identified in the 2000 EIR.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and the other applicable Program EIRs, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the 2000 EIR and the other Program EIRs, nor would it result in new significant impacts related to hazards and hazardous materials that were not identified in the 2000 EIR or the other Program EIRs. Mitigation measures identified in the 2000 EIR are replaced as City of Oakland SCAs. The proposed project will adhere to the requirements of previous Mitigation Measure B.7 (construction traffic and parking) and City of Oakland SCAs which relate to asbestos removal, lead-based paint/coatings, PCBs, Environmental Site Assessment reports and remediation, health and safety plans, groundwater and soil contamination, hazardous materials business plans, and site review by the Fire Services Division, as identified in Attachment A to this document. For reference, these are **SCA HAZ-1 through HAZ-12, and SCA TRA-**1, previously referenced as Mitigation Measure B.7.

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	☒	☐	☐

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**
Expose people or structures to a substantial risk of loss, injury, or death involving flooding.			

Project Analysis

Water Quality, Stormwater, and Drainages and Drainage Patterns (Criteria 8a and 8c)

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.

The 2000 EIR also determined that development of the Original Project would not result in any significant impacts related to hydrology or water quality given required adherence to existing regulatory requirements. Development on each of the blocks of the Original Project would involve ground disturbance and increase the amount of impervious surface area on the sites, thereby increasing the amount of runoff to the City's stormwater drainage system. The analysis discussed measures that pertained to erosion and sedimentation control, the preparation of storm water pollution prevention plans (SWPPP), post construction stormwater management and treatment measures and associated maintenance agreements. These measures are now incorporated in several City of Oakland SCAs 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. The Modified T5/6 Project would involve the same construction activities described in the 2000 EIR and the Program EIRs and would adhere to the existing City of Oakland SCAs.

Use of Groundwater (Criterion 8b)

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.

As also described in the 2000 EIR for the Original Project, some dewatering may be required for construction of the proposed project, but the dewatering is not anticipated to substantially lower the groundwater level. Potable water is supplied to the Original Project area through imported surface water by EBMUD, and groundwater is generally not considered potable and is not utilized in the public drinking water supply. The 2000 EIR also assumed project compliance with existing City practices, which are now City of Oakland SCAs that address all applicable regulatory standards and regulations pertaining to remediation and grading and excavation activities. The proposed project would adhere to these SCAs and therefore would have a less-than-significant impact on water quality or groundwater supplies, as identified in the 2000 EIR and the Program EIRs.

Flooding and Substantial Risks from Flooding (Criteria 8d)

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.

As reported in the 2000 EIR, the Original Project is located in Zone C, which is not located in either a 100-year or 500-year flood boundary. In addition, the Original Project blocks are not located near a levee or a dam. Therefore, the 2000 EIR found that development of the Original Project would not result in a significant impact, with respect to flood-related risks. The impact would be the same with the proposed project.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and the Program EIRs, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the 2000 EIR 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 those other Program EIRs. The 2000 EIR identified measures in its Initial Study 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 through SCA HYD-6, SCA GEO-1, and SCA UTIL-1.**

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.	☒	☐	☐

Project Analysis

Division of Existing Community, Conflict with Land Uses, or Land Use Plans (Criteria 9a through 9c)

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, which largely align with current City of Oakland SCAs involving TDM and which apply to all projects within the City of Oakland.

The 2000 EIR determined that the Original Project would have less-than-significant land use impacts related to the division of an established community, or potential conflicts with nearby land uses or applicable land use plans, policies, and regulations. Block T5/6 is part of the existing urban grid of Downtown, and its development would be of similar and compatible scale and use to its surroundings; it would not create a division of the community. As discussed in the Project Description (Section VI of this document), surrounding uses to Block T5/6 are primarily commercial land uses.

Block T5/6 is in Oakland's Downtown Showcase District, an area intended to promote a mixture of vibrant and unique uses with around-the-clock activity, continued expansion of job opportunities, and growing residential population. The development of Block T5/6 would be consistent with this intent, with the development of residential and potentially hotel or office uses that would support job opportunities. Moreover, the 2000 EIR described how all four blocks of the Original Project are located on land designated by the Oakland General Plan, the Central District Urban Renewal Plan, and the Zoning Regulations for the most intense development in Oakland.

The proposed project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. The proposed project does not include or require a request for variance,

the approval of which would potentially affect the environment. Development of the most intensive scenario of the Modified Block T5/6 Project for purposes of assessing floor area ratio (FAR) would be the Site A, residential + Site B Option 3, office, which would total approximately 442,413 square feet of gross floor area on the 1.25-acre site, or 8.1 FAR.[19] A maximum 20.0 FAR is allowed on Block T5/6, pursuant to the CBD-C Zoning and CBD General Plan designations.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and Program EIRs, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the 2000 EIR or those Program EIRs, nor would it result in new significant impacts related to land use, plans, and policies that were not identified in the 2000 EIR or the other Program EIRs. The 2000 EIR did not identify any mitigation measures related to land use, and no City of Oakland SCAs directly addressing land use and planning apply to the proposed project.

[19] Up to 236,613 square feet on Site A, and up to 205,800 square feet on Site B, on 54,450 square feet (1.25 acres) of the entire lot area.

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	☒	☐	☐

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
excess of applicable standards established by a 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).	☒	☐	☐

Project Analysis

Construction and Operational Noise and Vibration, Exposure of Receptors to Noise (Criteria 10a, 10b, 10d, and 10e)

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.[20] 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

The 2000 EIR determined that noise impacts related to construction of the Original Project would be significant but that mitigation measures, which are now City of Oakland SCAs, would reduce the severity of the construction noise impacts to a less than significant level. Construction activities for the Modified T5/6 Project are expected to occur over approximately 24 months (each Phase), and would entail excavation and shoring; foundation and below-grade construction; and construction of the building and finishing interiors. Implementation of applicable City of Oakland SCAs would minimize construction noise impacts by limiting hours of construction activities; require best available noise control technology; and notification of any local residents of construction activities, and to track and respond to noise complaints. As a result, the construction noise impacts of the Modified T5/6 Project would less than significant, as identified for the Original Project in the 2000 EIR.

[20] 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 Modified Block T5/6 Project given the distance and presumably minimal contribution of multimodal trips affecting these impacts.

Operational Noise

The 2000 EIR disclosed that during operations of the Original Project buildings, mechanical equipment would generate noise; however, equipment would be standardized and would be required to comply with the City of Oakland Noise Ordinance. The measures discussed in the 2000 EIR are now incorporated in City of Oakland SCAs that would reduce operational noise impacts to less than significant through project designs that would achieve acceptable interior noise levels for buildings; limit groundborne vibration at the proposed project site; and require mechanical equipment compliance with applicable noise performance standards. The proposed project would involve the same types of standardized mechanical equipment, as well as an emergency generator for each building, which were not previously considered in the 2000 EIR analysis. Development of the proposed project would incorporate all applicable SCAs to ensure the less than significant impact identified in the 2000 EIR.

Traffic Noise (Criterion 10c)

The 2000 EIR determined that development of the Original Project would increase noise levels adjacent to nearby roads due to additional vehicles traveling on nearby streets. The analysis found that the increase in traffic noise from the Existing Plus Original Project scenario, as compared to existing conditions, would increase peak hour noise levels by less than 5 A-weighted decibels (dBA) at all studied roadway segments. However, the increase in traffic noise between Existing (2000) and the Cumulative Plus Original Project (2005) scenarios was identified as significant along Castro Street and 18th Street. The 2000 EIR noted that cumulative increases in traffic noise on these roadways may not be perceptible due to the noise contribution from traffic on the adjacent I-980 freeway. The EIR conservatively determined that no feasible mitigation measures were available, and that the impact would be significant and unavoidable.

The Modified T5/6 Project would not be located on Castro Street or 18th Street (which are three and six blocks away, respectively), and therefore would not be anticipated to experience significant impacts related to traffic noise. However, given that 15 years have transpired between the 2000 EIR analysis and this analysis for the Modified T5/6 Project, a revised quantitative traffic noise analysis has been prepared for roadways used to access the project site: Broadway, Brush Street, 11th Street and 12th Street.

Additional vehicles traveling throughout the local roadway network as a result of the proposed project would increase noise levels adjacent to nearby roads. 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 (2013), Existing Plus Modified T5/6 Project, and Cumulative (2035) 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 proposed 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 (2035)	(D) Cumulative Plus Project (2035)	(D-A) Difference between Cumulative Plus Project and Existing	(D-C) Difference between Cumulative Plus Project and Cumulative No Project[d]
Broadway north of 12th Street	67.2	67.3	0.1	67.8	67.7	0.5	-0.1
Broadway south of 11th Street	67.4	67.7	0.3	67.1	67.4	0.0	0.3
12th Street west of Broadway	63.2	64.7	1.5	64.7	65.9	2.7	1.2
11th Street west of Broadway	63.4	64.4	0.1	64.9	65.6	2.2	0.7
Brush Street south of 12th Street	66.1	66.3	0.2	67.6	67.7	1.6	0.1

[a] Road center to receptor distance is 15 meters (approximately 50 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 95 percent, medium trucks three percent, and heavy trucks two percent for Broadway. Traffic speeds for all vehicle classes were set at 30 mph.
[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, 2015.

As shown in Table NOI-1, the increase in traffic noise from the Existing Plus T5/6 Project scenario compared to the Existing scenario would increase peak hour noise levels by less than 5.0 dBA at all roadway segments. The roadway segment of 12th Street west of Broadway would experience the greatest increase in traffic noise, which would be 1.5 dBA above existing ambient noise levels. However, as the noise increase would not exceed 5.0 dBA, the noise impact on this roadway segment is not considered to be significant. Overall, traffic noise impacts associated with the proposed project at all analyzed roadway segments in the project vicinity would be less than significant at the project-level.

Cumulative Noise

Table NOI-1 shows that the increase in traffic from between the Cumulative Plus T5/6 Project (2035) scenario and Existing (2013) would increase peak hour noise levels by less than 5.0 dBA at all roadway segments. Thus, the cumulative roadway noise impact would be less than significant.

The City also now also considers cumulative noise from all sources: mobile and stationary. As described above, the proposed project would generate noise from HVAC mechanical equipment. HVAC equipment would operate within the restrictions of the City's Noise Ordinance. Chapter 17.120.050 of the City of Oakland Planning Code specifies the maximum sound level received at residential, public open spaces and commercial land uses. This equipment would be located over 500 feet from the nearest sensitive receptor (Domain apartments north of Jefferson Street and 13th Street) at which distance this equipment would not meaningfully contribute to cumulative noise levels.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and the Program EIRs, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the 2000 EIR or the other Program EIRs, nor would it result in new significant impacts related to noise that were not identified in the 2000 EIR or in the other Program EIRs. In fact, the significant **Impact D.4** regarding cumulative operational noise and for which no feasible mitigation measure was available, no longer results. **Mitigation Measures D.1a through D.1d** identified in the 2000 EIR to address construction noise impacts are now implemented as City of Oakland SCAs, and restated as such in Attachment A to this document. 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 through SCA NOI-4** (previously Mitigation Measures D.1a through D.1d, respectively), and **SCA NOI-5 and SCA NOI-6**.

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.	☒	☐	☐

Project Analysis

Population Growth and Displacement of Housing and People (Criteria 11a and 11b)

The Program EIRs considered in this analysis all found less-than-significant impacts related to population and housing; the LUTE EIR and Redevelopment Plan 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.

The 2000 EIR determined that impacts related to population growth and displacement of housing and people with the Original Project would be less than significant. Development of the Modified T5/6 Project would add up to 262 residential units and 498 residents in on Site A (Phase 1) to the Downtown area. Assuming the Site B Option 2 which would develop a second residential building on Site B (Phase 2), a total of 524 units and 996 residents would result with the buildout of Block T5/6. At buildout of the proposed project, this would represent approximately 0.1 and 2.5 percent of the total 2015-2035 population growth projected for Oakland and the Downtown/Jack London Square PDA, respectively[21]; these proportions of growth would not be considered substantial.

[21] The Downtown / Jack London Square PDA growth from 2010 to 2040: 39,440. City of Oakland growth from 2010 to 2040: 857,240. (ABAG, 2012)

Moreover, infill growth from development of Block T5/6, whether new residents or employees, was anticipated in the City's 2015-2023 Housing Element Update (2014), the Central District Urban Renewal Plan Amendment (2011), the Oakland General Plan Land Use and Transportation Element (LUTE) (1998, as amended), and each of the CEQA documents to each of these policy documents. The proposed project aligns with Oakland General Plan policies that support additional housing opportunities in proximity to employment centers and alternative transportation options, like Downtown. The proposed project would not displace any housing units, as none exist on Block T5/6. The proposed project's impacts to population and housing would be less than significant, as identified in the 2000 EIR.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and the Program EIRs, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the 2000 EIR and the other Program EIRs, nor would it result in new significant impacts related to population and housing that were not identified in the 2000P EIR and those Program EIRs. The 2000 EIR 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.	☒	☐	☐

Project Analysis

Public Services and Parks and Recreation (Criteria 12a and 12b)

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.[22]

The 2000 EIR determined that the Original Project impacts related to fire and police protection, schools, and other public facilities would be less than significant. As discussed for the Original Project, although development would increase density and population in the area, this growth has been anticipated and factored into Oakland's General Plan, as previously discussed (see *11. Population and Housing*). The

[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.

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. The 2000 EIR discussed that compliance with standard City practices would further ensure the less-than-significant impact. These included City practices and requirements, such as the Oakland Fire Services' review of proposed project plans, and project applicants' required contribution amount to school impact fees to offset any impacts to school facilities from the proposed project.

City of Oakland SCAs now incorporate most of these standard practices and requirements to address potential public services and park and recreation facilities impacts. The proposed project would comply with City of Oakland SCAs related to the increased need for fire protection by requiring all projects to implement safety features, and to comply with all applicable codes and regulations. The Modified T5/6 Project proposes an approximately 0.25-acre pedestrian plaza and art park as part of Site A (see Figure 10 in Section IV of this document). The plaza/park will be available to the public and include a variety of spaces and treatments (sitting areas, paved areas natural and planter landscaping, public art, lawn seating). Neither the development nor use of the plaza is expected to cause a significant impact, and any effects that could result are thoroughly addressed here and in other sections of this CEQA Checklist, with appropriate mitigation measures or SCAs identified.

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. In addition, any increases in need for police protection, fire protection, schools, or other public facilities 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 projects would result in a less-than-significant public services, parks and recreation impact, as was identified in the 2000 EIR.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and the other Program EIRs, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the 2000 EIR or the other 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 2000 EIR or the other Program EIRs. The 2000 EIR did not identify any mitigation measures related to public services, parks and recreation facilities, and none would be required for the proposed project. The proposed project would be required to implement SCAs related to fire safety and compliance with building, fire, and public works code requirements, as identified in the Attachment A to this document. For reference, these are **SCA PSV-1 and SCA PSV-2**.

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**
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit, specifically:			
Traffic Load and Capacity Thresholds a. At a study, signalized intersection which is located **outside the Downtown area and that does not provide direct access to Downtown**, the project would cause the motor vehicle level of service (LOS) to degrade to worse than LOS D (i.e., LOS E or F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;	☒	☐	☐
b. At a study, signalized intersection which is located **within the Downtown area or that provides direct access to Downtown**, the project would cause the motor vehicle LOS to degrade to worse than LOS E (i.e., LOS F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;	☒	☐	☐
c. At a study, signalized intersection **outside the Downtown area and that does not provide direct access to Downtown** where the motor vehicle level of service is LOS E, the project would cause the total intersection average vehicle delay to increase by four (4) or more seconds;	☒	☐	☐
d. At a study, signalized intersection **outside the Downtown area and that does not provide direct access to Downtown** where the motor vehicle level of service is LOS E, the project would cause an increase in the average delay for any of the critical movements of six (6) seconds or more;	☒	☐	☐
e. At a study, signalized intersection for all areas where the level of service is LOS F, the project would cause (a) the overall volume-to-capacity ("V/C") ratio to increase 0.03 or more or (b) the critical movement V/C ratio to increase 0.05 or more;	☒	☐	☐

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
f. At a study, unsignalized intersection the project would add ten (10) or more vehicles to the critical movement and after project completion satisfy the California Manual on Uniform Traffic Control Devices (MUTCD) peak hour volume traffic signal warrant;	☒	☐	☐
g. For a roadway segment of the Congestion Management Program (CMP) Network, the project would cause (a) the LOS to degrade from LOS E or better to LOS F or (b) the V/C ratio to increase 0.03 or more for a roadway segment that would operate at LOS F without the project; or	☒	☐	☐
h. Cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS) evaluated per the requirements of the Land Use Analysis Program of the CMP.	☒	☐	☐

This section of the CEQA Checklist summarizes the findings of the transportation analysis completed for the proposed project.[23]

Project Analysis

Criteria 13a through 13h

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 SU impacts regarding degradation of the level of service (LOS) for several roadway segments citywide. A mitigation measure was identified for one Downtown intersection to reduce the intersection operations to less than significant. All other topics were found less than significant. The LUTE EIR did not identify an impact at the intersection that is adversely impacted to a significant and unavoidable level by the Modified T5/6 Project.

[23] Fehr & Peers, February 13, 2015. Oakland City Center Development (T5/6) – Transportation Impact Analysis.

The Housing Element EIR and Redevelopment Plan 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. The Housing Element EIR did not identify an impact at the intersection that is adversely impacted to a significant and unavoidable level by the Modified T5/6 Project.

2000 EIR and Overview

The 2000 EIR for the Original Project analyzed transportation and circulation conditions in and around the project area and identified a significant and unavoidable impact that involved the *Brush Street/12th Street/I-980 Westbound Off-Ramp* intersection under cumulative buildout conditions (2010). Mitigation Measure B.1a was identified, but would not reduce the impact at this intersection to less than significant. The significant and unavoidable impact also affected the intersection of 12th and Broadway, for which Mitigation Measure B.1b was identified in the 2000 EIR and that would not reduce the impact at the 12th and Broadway intersection to less than significant. The 2000 EIR also identified significant but mitigable impacts regarding parking, ridership on BART, bicycle parking, and circulation during periods of construction.

Existing Setting

The study of the Modified T5/6 Project evaluates traffic operations at the following eight intersections in the vicinity of the project site; these are signalized intersections that were identified in the 2000 EIR and/or other recent environmental documents as operating at or near Level of Service (LOS)[24] F, and where the proposed project would add substantial traffic (generally 50 or more peak hour trips at signalized intersections operating at LOS E or better, or 25 or more peak hour trips at signalized intersections operating at LOS F per recent environmental documents in Oakland) to the intersection. See **Appendix B** to this document for more detail on the process used to select study intersections for this assessment.

1. Broadway/West Grand Avenue
2. Brush Street/12th Street/I-980 Westbound Off-Ramp
3. Broadway/12th Street
4. Broadway/11th Street
5. Broadway/5th Street/I-880 Southbound On-Ramp

All study intersections currently operate at (LOS D or better during both weekday AM and PM peak hours.[25]

[24] The operations of roadway facilities are typically described with the term level of service (LOS), a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, which reflects free-flow conditions where there is very little interaction between vehicles, to LOS F, where the vehicle demand exceeds the capacity and high levels of vehicle delay result. LOS E represents "at-capacity" operations. When traffic volumes exceed the intersection capacity, stop-and-go conditions result and a vehicle may wait through multiple signal cycles before passing through the intersection; these operations are designated as LOS F.

[25] **Appendix B** to this document includes detailed Existing Conditions LOS calculation sheets as well as the Traffic data, automobile turning movement, intersection lane configurations, traffic control devices, peak hour traffic volumes, and pedestrian and bicycle counts.

The City of Oakland considers LOS E as the threshold of significance for intersections located within Downtown or that provide direct access to Downtown[26], and LOS D for all other intersections. All study intersections are located within the Downtown where the threshold of significance is LOS E.

Table TRA-1 summarizes the existing intersection analysis results.

TABLE TRA-1
INTERSECTION LOS SUMMARY – EXISTING CONDITIONS

Intersection	Traffic Control[3]	Peak Hour	Delay[4] (seconds)	LOS
1. Broadway/West Grand Avenue[1]	Signal	AM	18.2	B
		PM	18.4	B
2. Brush Street/12th Street/I-980 Westbound Off-Ramp [2]	Signal	AM	37.8	D
		PM	21.4	C
3. Broadway/12th Street[2]	Signal	AM	20.4	C
		PM	21.6	C
4. Broadway/11th Street[2]	Signal	AM	15.1	B
		PM	19.3	B
5. Broadway/5th Street/I-880 Southbound On-Ramp[1]	Signal	AM	28.6	C
		PM	39.4	D

1 Based on intersection volume data presented in *Broadway Valdez District Specific Plan Draft EIR* (September 2013).
2 Based on intersection volume data presented in Lake Merritt Station Area Plan Draft EIR (November 2013)
3 Signal = intersection is controlled by a traffic signal
4 For signalized intersections, average intersection delay and LOS based on the 2000 HCM method is shown.

SOURCE: Fehr & Peers, 2015.

[26] Intersections that provide direct access to downtown are generally defined as principal arterials within two miles of Downtown and minor arterials within one mile of Downtown, provided that the street connects directly to Downtown.

Trip Generation

Tables **TRA-2 through TRA-4** present the vehicular trip generation estimate for the Modified T5/6 Project assuming each of the three Site B Options (with the residential use on Site A consistent with each), and compare to the trip generation estimated in the 2000 EIR for Block T5/6 under the Original Project.

TABLE TRA-2
OAKLAND CITY CENTER DEVELOPMENT (T5/6)
AUTOMOBILE TRIP GENERATION SUMMARY – OPTION 1 (RESIDENTIAL/HOTEL)

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Residential	262 DU	220 [2]	1,711	26	106	132	105	57	162
Hotel	300 Rooms	310 [3]	2,451	94	65	159	92	88	180
Subtotal			*4,162*	*120*	*171*	*291*	*197*	*145*	*342*
Non-Auto Reduction (-43%)[4]			-1,790	-52	-74	-126	-85	-62	-147
Net New Project Trips			**2,372**	**68**	**97**	**165**	**112**	**83**	**195**
Original Project (T5/6)[5]			2,292	311	42	353	90	438	528
Net Difference			80	-243	55	-188	22	-355	-333

1 DU = Dwelling Units.
2 ITE Trip *Generation (9th Edition)* land use category 220 (Apartment):
Daily: T = 6.06*X + 123.56
AM Peak Hour: T = 0.49*(X) + 3.73 (20% in, 80% out)
PM Peak Hour: T = 0.55*(X) + 17.65 (65% in, 35% out)
3 ITE *Trip Generation (9th Edition)* land use category 310 (Hotel):
Daily: T = 8.17*(X)
AM Peak Hour: T = 0.53*(X) (59% in, 41% out)
PM Peak Hour: T = 0.60*(X) (51% in, 49% out)
4 Reduction of 43.0% assumed. Based on City of Oakland *Transportation Impact Study Guidelines* using BATS 2000 data for development in an urban environment within 0.5 miles of a BART Station.
5 *Oakland City Center Project Draft EIR*, January 2000.

Source: Fehr & Peers, 2015.

TABLE TRA-3
OAKLAND CITY CENTER DEVELOPMENT (T5/6)
AUTOMOBILE TRIP GENERATION SUMMARY – OPTION 2 (RESIDENTIAL/RESIDENTIAL)

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Residential	524 DU	220 [2]	3,299	52	208	260	199	107	306
Non-Auto Reduction (-43%)[3]			-1,419	-22	-89	-111	-86	-46	-132
Net New Project Trips			**1,880**	**30**	**119**	**149**	**113**	**61**	**174**
Original Project (T5/6)[4]			2,292	311	42	353	90	438	528
Net Difference			-412	-281	77	-204	23	-377	-354

1 DU = Dwelling Units,
2 ITE Trip *Generation (9th Edition)* land use category 220 (Apartment):
Daily: T = 6.06*X + 123.56
AM Peak Hour: T = 0.49*(X) + 3.73 (20% in, 80% out)
PM Peak Hour: T = 0.55*(X) + 17.65 (65% in, 35% out)
3 Reduction of 43.0% assumed. Based on City of Oakland *Transportation Impact Study Guidelines* using BATS 2000 data for development in an urban environment within 0.5 miles of a BART Station.
4 *Oakland City Center Project Draft EIR*, January 2000.

SOURCE: Fehr & Peers, 2015.

TABLE TRA-4
OAKLAND CITY CENTER DEVELOPMENT (T5/6)
AUTOMOBILE TRIP GENERATION SUMMARY – OPTION 3 (RESIDENTIAL/OFFICE)

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Residential	262 DU	220 [2]	1,711	26	106	132	105	57	162
Office	205.8 KSF	710 [3]	2,272	300	41	341	53	256	309
Subtotal			*3,983*	*326*	*147*	*473*	*158*	*313*	*471*
Non-Auto Reduction (-43%)[4]			-1,713	-140	-63	-203	-68	-135	-203
Net New Project Trips			**2,270**	**186**	**84**	**270**	**90**	**178**	**268**
Original Project (T5/6)[5]			2,292	311	42	353	90	438	528
Net Difference			-22	-125	42	-83	0	-260	-260

1 DU = Dwelling Units, KSF = 1,000 square feet.
2 ITE Trip *Generation (9th Edition)* land use category 220 (Apartment):
Daily: T = 6.06*X + 123.56
AM Peak Hour: T = 0.49*(X) + 3.73 (20% in, 80% out)
PM Peak Hour: T = 0.55*(X) + 17.65 (65% in, 35% out)
3 ITE *Trip Generation (9th Edition)* land use category 710 (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 43.0% assumed. Based on City of Oakland *Transportation Impact Study Guidelines* using BATS 2000 data for development in an urban environment within 0.5 miles of a BART Station.
5 *Oakland City Center Project Draft EIR*, January 2000.

SOURCE: Fehr & Peers, 2015.

As detailed in Tables 2 and 3 in the Project Description (Section IV of this document), both Sites A and B would include ground level commercial space. The commercial space is not included in the trip generation estimates because of its small size and the expected type of uses, which would be primarily local-serving retail and food-related uses and would primarily attract residents, workers, and visitors, who are already in the area, especially during the peak hours.

The Institute of Transportation Engineers (ITE) data on which the trip generation emerges is based on data collected at mostly single-use suburban sites where the automobile is often the only travel mode. However, Block T5/6 is in a mixed-use urban environment where many trips are walk, bike, or transit trips. Since the proposed project is within one block of the 12th Street BART Station, this analysis reduces the ITE based trip generation by 43 percent to account for the non-automobile trips. This reduction is consistent with City of Oakland Transportation Impact Study Guidelines and is based on the Bay Area Travel Survey (BATS) 2000 which shows that the non-automobile mode share within one-half mile of a BART Station in Alameda County is about 43 percent. A 2011 research study shows reducing ITE based trip generation using BATS data results in a more accurate estimation of trip generation for mixed use developments than just using ITE based trip generation.[27]This reduction is somewhat conservative considering that the 2011 American Community Survey shows that 55 percent of residents and 64 percent of workers in Downtown Oakland travel to work by non-automobile modes.

[27] *Evaluation of the Operation and Accuracy of Five Available Smart Growth Trip Generation Methodologies.* Institute of Transportation Studies, UC Davis, 2011.

As shown in Tables TRA-2 through TRA-4, above, all three Site B Options, including the constant Site A residential use, would generate fewer automobile trips than estimated for Block T5/6 under the Original Project analyzed in the 2000 EIR. Option 3 Office, which would generate about 2,270 daily, 270 AM, and 268 PM peak hour trips, would have a higher trip generation than Option 1 Hotel or Option 2 Residential. Therefore, the rest of this analysis focuses on Option 3, which is considered the most impactful scenario of the proposed project for most environmental factors, as previously discussed under *2. Air Quality*.

Table TRA-5 presents the estimates of proposed project trip generation for all travel modes for Option 3, which has the highest trip generation.

TABLE TRA-5
TRIP GENERATION BY TRAVEL MODE – OPTION 3

Mode	Mode Share Adjustment Factors[1]	Daily	AM Peak Hour	PM Peak Hour
Automobile	57.0%	2,270	270	268
Transit	30.4%	1211	144	143
Bike	3.9%	155	18	18
Walk	23.0%	916	109	108
Total Trips		**4,552**	**541**	**537**

[1] Based on *City of Oakland Transportation Impact Study Guidelines* assuming project site is in an urban environment within 0.5 miles of a BART Station.

SOURCES: Fehr & Peers, 2015.

Trip Distribution and Assignment, and Study Intersections

The trip distribution and assignment process to estimate how the vehicle trips generated by the project site would distribute across the roadway network was conducted, and the trip distribution assumptions was generally based on that documented in the 2000 EIR. The distribution/assignment process also factored in existing and/or future (2035) conditions according to the recently published CEQA documents in the Downtown area to determine the level of LOS at intersections along the primary corridors that would be used by the project traffic from Block T5/6.[28] The detailed trip distribution and assignment information and exhibits are included in Appendix B to this document.

The proposed project would eliminate the existing exit-only driveway for City Center Garage on Clay Street. Based on data collected in January 2015, the driveway is currently used by about five vehicles during the weekday AM peak hour and 106 vehicles during the weekday PM peak hour. This analysis factors in the diversion of the traffic that currently uses the City Center Garage Driveway on Clay Street once the driveway is eliminated with the proposed project. This analysis also conservatively assumes that all diverted City Center Garage traffic would use the existing 11th Street driveway, travel east on 11th Street and use northbound Broadway and westbound 12th Street to travel to the freeway on-ramps; although it is likely that a large portion of the diverted traffic would use either the City Center East

[28] *Broadway Valdez District Specific Plan Draft EIR* (September 2013); *Lake Merritt Station Area Plan Draft EIR* (November 2013); *Jack London Square Redevelopment Project Addendum* (May 2014); and *19th and Broadway Mixed Use Project CEQA Exemption* (to be published)

Garage driveway on 14th Street or use the 11th Street driveway and use southbound Broadway and westbound 10th Street.

This analysis assesses the potential impacts of the proposed project at the following intersections that the previously mentioned CEQA documents identify as operating at LOS F and the proposed project would substantially increase the traffic volume (The estimated peak hour trips added by the proposed project are shown in parenthesis):

1. Broadway/West Grand Avenue (13 AM and 14 PM peak hour trips added)
2. Brush Street/12th Street/I-980 Westbound Off-Ramp (77 AM and 37 PM peak hour trips added)
3. Broadway/12th Street (83 AM and 192 PM peak hour trips added)
4. Broadway/11th Street (90 AM and 288 PM peak hour trips added)
5. Broadway/5th Street/I-880 Southbound On-Ramp (15 AM and 32 PM peak hour trips added)

The CEQA documents mentioned above did not analyze all intersections along the corridors that would be most used by proposed project-generated traffic. Based on Fehr & Peers' observations in Downtown Oakland and as shown above in Table TRA-1, these intersections currently operate at acceptable conditions and are expected to continue operating at acceptable conditions in the future. Therefore, the proposed project is unlikely to cause a significant impact at these locations and their analysis is not necessary.

Traffic Load and Capacity Analysis

The analysis conducted for the proposed project complies with City of Oakland's Transportation Impact Study Guidelines and consider four analysis scenarios: Existing[29], Existing Plus Project, 2035 No Project, and 2035 Plus Project.

This section discusses the impacts of the proposed project on traffic operations under Existing and 2035 conditions based on the City of Oakland's Thresholds of Significance (see Checklist above and Appendix B to this document).

Existing Plus Project Intersection Analysis

Table TRA-6 summarizes the intersection operations results for the Existing No Project and Existing Plus Project conditions. All study intersections would continue to operate at an acceptable LOS. The proposed project would not cause a significant impact at the study intersections under Existing Plus Project conditions (see Appendix B for traffic volume figures for this condition).

2035 Intersection Analysis

Traffic Forecasts

Year 2035 traffic forecasts for all study intersections are from the environmental documents previously discussed. These forecasts are based on the version of Alameda County Transportation Commission

[29] Represents existing conditions based on data obtained from recently published *Broadway Valdez District Specific Plan Draft EIR* (September 2013) and *Lake Merritt Station Area Plan Draft EIR* (November 2013).

Travel Demand Model released in June 2011, which uses land use data consistent with Association of Bay Area Government (ABAG) *Projection 2009,* which were modified to better reflect expected development in the City of Oakland. Although these forecasts reflect future development at Block T5/6, this analysis conservatively uses the 2035 Plus Project forecasts as published in these documents at the 2035 No Project forecasts for this analysis (see Appendix B for traffic volume figures for this condition)

TABLE TRA-6
INTERSECTION LOS SUMMARY – EXISTING PLUS PROJECT

Intersection	Control[1]	Peak Hour	Existing No Project		Existing Plus Project		Signif. Impact?
			Delay[2] (sec)	LOS	Delay[2] (sec)	LOS	
1. Broadway/West Grand Avenue	Signal	AM	18.2	B	18.1	B	No
		PM	18.4	B	18.3	B	No
2. Brush Street/12th Street/ I-980 Westbound Off-Ramp	Signal	AM	37.8	D	43.1	D	No
		PM	21.4	C	21.7	C	No
3. Broadway/12th Street	Signal	AM	20.4	C	21.1	C	No
		PM	21.6	C	44.7	D	No
4. Broadway/11th Street	Signal	AM	15.1	B	15.1	B	No
		PM	19.3	B	18.8	B	No
5. Broadway/5th Street/I-880 Southbound On-Ramp	Signal	AM	28.6	C	28.7	C	No
		PM	39.4	D	39.9	D	No

1 Signal = intersection is controlled by a traffic signal
2 For signalized intersections, average intersection delay and LOS based on the 2000 HCM method is shown.

Source: Fehr & Peers, 2015.

2035 Roadway Network

The 2035 No Project and the 2035 Plus Project conditions reflect the following planned roadway network changes:

- Completion of the East Bay Bus Rapid Transit (BRT) project which would generally designate a bus only lane along 11th and 12th Streets in the study area and result in the following changes at study intersections:
    - Broadway/12th Street (Intersection #3): Reconfigure the westbound 12th Street approach from three through lanes to one exclusive right-turn lane, and two through lanes.
    - Broadway/11th Street (Intersection #4): Reconfigure the eastbound 11th Street approach from four through lanes to one exclave left-turn lane, two through lanes, and one exclusive right-turn lane.

2035 Intersection Operations

Table TRA-7 summarizes intersection LOS calculations for 2035 No Project and 2035 Plus Project conditions. The following intersections would operate at LOS F regardless of the proposed project during both AM and PM peak hours:

- Broadway/West Grand Avenue (Intersection #1) during the PM peak hour
- Brush Street/12th Street/ I-980 Westbound Off-Ramp (Intersection #2) during the AM peak hour
- Broadway/5th Street/I-880 Southbound On-Ramp (Intersection #5) during the PM peak hour

TABLE TRA-7
INTERSECTION LOS SUMMARY – 2035 CONDITIONS

Intersection	Control[1]	Peak Hour	2035 No Project		2035 Plus Project		Signif. Impact?
			Delay[2] (sec)	LOS[3]	Delay[2] (sec)	LOS[3]	
1. Broadway/West Grand Avenue	Signal	AM	38.7	D	38.7	D	No
		PM	**>120 (v/c=1.88)**	**F**	**>120 (v/c=1.90)**	**F**	No
2. Brush Street/12th Street/ I-980 Westbound Off-Ramp	Signal	AM	**91.2 (v/c=1.02)**	**F**	**102.1 (v/c=1.05)**	**F**	Yes[4]
		PM	40.4	D	44.1	D	No
3. Broadway/12th Street	Signal	AM	25.7	C	29.3	C	No
		PM	26.0	C	51.7	D	No
4. Broadway/11th Street	Signal	AM	26.3	C	25.9	C	No
		PM	20.3	C	21.0	C	No
5. Broadway/5th Street/ I-880 Southbound On-Ramp	Signal	AM	29.0	C	29.0	C	No
		PM	**117.9 (v/c=1.36)**	**F**	**120.1 (v/c=1.37)**	**F**	No

1 Signal = intersection is controlled by a traffic signal
2 For signalized intersections, average intersection delay, LOS, and volume-to-capacity ratio (v/c) for intersections operating at LOS F based on the 2000 HCM method is shown.
3 Intersections operating at unacceptable levels are shown in bold.
4 The proposed project would cause an impact at this intersection because it would increase the overall intersection v/c ratio by 0.03 or more and a critical movement v/c ratio by 0.05 or more at an intersection already operating at LOS F.

SOURCE: Fehr & Peers, 2015.

Although these study intersections would operate at LOS F, the proposed project would not cause a significant impact at two of these intersections because it would not trigger any of the significant thresholds (as described in Appendix B and above in this Checklist).

The proposed project would cause a significant impact at the Brush Street/12th Street/I-980 Westbound Off-Ramp intersection during the AM peak hour. This impact is consistent with **Impact B.1a** identified in the 2000 EIR for the Brush Street/12th Street/I-980 Westbound Off-Ramp intersection, shown below as amended to specifically incorporate the Modified T5/6 Project:

> **Impact TRA-B.1:** The project would result in increases in traffic delay in the downtown. In particular, the project would result in a deteriorated level of service at the intersection of 12th and Brush Streets in the weekday ~~a.m.~~ peak hours. This would be a significant impact.

Traffic generated by the Modified T5/6 Project would increase the total intersection v/c ratio by 0.03 or more and increase the v/c ratio for a critical movement by 0.05 or more (Significant Threshold #5) at an intersection operating at LOS F regardless of the project during the weekday AM peak hour at the *Brush Street/12th Street/I-980 Westbound Off-Ramp intersection* (Intersection #2) under 2035 conditions.

As identified in the 2000 EIR, no feasible mitigation measures are available that would mitigate the Modified T5/6 Project impacts at 12th and Brush Streets, specifically the Brush Street/12th Street/I-980 Westbound Off-Ramp intersection. Traffic operations at the intersection can be improved by providing additional automobile travel lanes, such as a third lane on the I-980 Westbound Off-Ramp. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and is considered to be infeasible. Furthermore, the intersection is under the jurisdiction of Caltrans and City of Oakland, as lead agency, does not have jurisdiction at this intersection, and the mitigation would need to be approved and implemented by Caltrans. The 2000 EIR mitigation measure is shown below, amended to specify the Modified T5/6 Project:

> **Mitigation Measure TRA-B.1a:** ~~At 12th and Brush Streets, the Block T12 project sponsor, along with the developer of Block T5/6 (Shorenstein or its successor) shall work with Caltrans and coordinate with the City to consider various improvement options, which could include signal timing improvements or additional lanes on the ramp.~~No feasible mitigation measures are available that would mitigate the Project impacts at the Brush Street/12th Street intersection.
>
> **Significance after Mitigation:** Significant and Unavoidable.

The 2000 EIR proposed signal timing improvements and/or additional lanes on the off-ramp as potential mitigation measures at this intersection. The 2000 EIR identified the impact as significant and unavoidable because the proposed mitigations may not be feasible, intersection is under jurisdiction of Caltrans, and if the mitigation were feasible, it may not mitigate the impact and potentially cause secondary impacts. The mitigation measures proposed in the 2000 EIR are currently considered infeasible for the following reasons:

- City of Oakland no longer considers optimizing signal timing parameters as mitigation measure because they are assumed to occur as part of the City's routine maintenance of signal systems.
- Increasing the signal cycle length at the intersection may increase the queue length on the off-ramp, further extending the queues on the mainline freeway and causing safety issues.
- Providing additional travel lanes on the off-ramp or other intersection approaches cannot be accommodated within the current automobile right-of-way and would require additional automobile right-of-way which may require acquisition of additional right-of-way, eliminating pedestrian facilities, and/or reconstructing the freeway overcrossing, which can be costly.
- If addition of travel lanes were feasible, they would not be desirable because they may result in longer pedestrian crossings at the intersection, degrade pedestrian and bicycle safety by exposing crossing pedestrians and cyclists to additional automobile lanes, and be in conflict with the City's Public Transit and Alternative Modes Policy and Complete Streets Policy which state a strong preference for encouraging the use of non-automobile transportation modes.

Furthermore, the intersection continues to be under the jurisdiction of Caltrans and City of Oakland, as lead agency, does not have jurisdiction at this intersection, and the mitigation measure would need to be

approved and implemented by Caltrans. Therefore, no feasible mitigation measures are available at this intersection and the impact would remain significant and unavoidable. This finding is consistent with that identified in the 2000 EIR, which also identified a significant and unavoidable impact at the Brush Street/12th Street/I-980 Westbound Off-Ramp intersection. The impact is considered equal to or less severe than that previously identified in the 2000 EIR for the Original Project. Mitigating Measure TRA-B.1a is not considered feasible and is no longer needed as explained above.

The 2000 EIR also identified **Mitigation Measure TRA-B.1b** at the Broadway/12th Street intersection and consisted of adjusting signal timings and providing a protected left-turn phase for the northbound Broadway approach. The 2000 EIR identified this as a significant and unavoidable impact. The provision for protected left-turn phase for the northbound Broadway approach has already been implemented. As previously presented, the Modified T5/6 Project would not cause an impact at this intersection. Therefore, Mitigation Measure B.1b is no longer applicable.

Site Plan Review

This section evaluates access, circulation, and safety for all travel modes for Site A, as depicted in Figure 5 in the Project Description (Section IV of this document). No detailed site plan for Site B is currently available and therefore not included in this assessment.

Automobile Access and Safety

All motorized access to and from the project site would be through the existing left-in/left-out City Center Garage Driveway on 11th Street. The proposed project would eliminate the existing exit-only driveway for City Center Garage on Clay Street. Based on data collected in January 2015, the driveway is currently used by about five vehicles during the weekday AM peak hour and 106 vehicles during the weekday PM peak hour. The Site A building may provide up to three levels of below-grade parking for building residents only. Auto access for the Site A garage would be just south of the City Center Garage Driveway gates. Based on the current site plan, the Site A building driveway would provide adequate sight distance between vehicles exiting the Site A garage and vehicles entering and exiting the City Center Garage. However, the existing center-median at the City Center Garage entrance may interfere with the travel path for vehicles entering the Site A Garage.

> **Recommendation TRA-1:** While not required to address a CEQA impact, the following should be considered as part of the final design for the project if Site A building would provide on-site parking:
>
> a) Ensure that the project driveway would provide adequate sight distance between motorists exiting the driveway and vehicles entering and exiting the City Center Garage.
>
> b) Ensure that the travel path for vehicles entering the Site A garage would not interfere with the existing center aisle at the City Center Garage entrance. If necessary, modify the existing center aisle at the City Center Garage entrance.

The Site A building would also provide a loading area in the southeast corner of the building with access on the City Center Garage Driveway just north of 11th Street. Trucks would access the loading area by turning into the City Center Garage Driveway, and backing into the loading area. Considering the

proximity of the loading area to 11th Street, there may not be adequate sight distance between trucks backing into the loading area and vehicles turning from 11th Street onto the City Center Garage Driveway. The loading area would primarily be used by resident move-ins and move-out, and is not expected to be frequently used after the initial move-in period when building is completed.

> **Recommendation TRA-2:** While not required to address a CEQA impact, one or more of the following should be considered as part of the final design for the project:
>
> a) Explore moving the project loading area further from 11th Street to reduce potential conflicts between trucks backing into the loading space and other vehicles entering and exiting the driveway on 11th Street.
>
> b) Alternatively to "a", consider eliminating the loading area and designate on-street parking spaces on either 11th and/or12th Streets adjacent to the building as a loading zone for part or all of the day to serve the commercial component of the project, and/or designate an area within the project parking garage for residents. Eliminating the loading area would require the project sponsor's request for, and City approval of, a variance under the Oakland Planning Code.
>
> c) If the loading area is maintained at the currently proposed location, provide flaggers when trucks are backing into the loading dock to minimize potential conflicts between trucks and other vehicles and/or restrict its use during peak commute periods (7:00 to 9:00 AM and 4:00 to 6:00 PM).

In addition, the proposed project would eliminate the existing right-out only City Center Garage Driveway on Clay Street. The driveway is currently used by motorists who mostly turn left on 12th Street to travel to the I-980 On-Ramps. As previously described, the elimination of this driveway would result in circuitous and longer travel routes; however, it would not significantly affect traffic operations at intersections in the project vicinity.

Pedestrian Access and Safety

Primary pedestrian access to the residential component of the project would be through a main lobby mid-block on Clay Street. A secondary access would also be provided on 11th Street. The commercial components of the proposed project would be in the northwest and southwest corners of the building with access from both adjacent streets. Although the main lobby is located mid-block, the project is not expected to generate many mid-block pedestrian crossings due to the specific uses and location of primary pedestrian access points across Clay Street. It is expected that majority of pedestrians would use the signals on Clay Street at 11th and 12th Streets to cross Clay Street.

The proposed Site A building would provide set-backs along the three building frontages and widen the sidewalks adjacent to the building, which would enhance the pedestrian experience. Currently, the two intersections adjacent to the Site A building on Clay Street at 11th and 12th Streets provide only one curb ramp per corner.

> **Recommendation TRA-3**: 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 of installing directional curb ramps at the southeast corner of the Clay Street/12th Street intersection and northeast corner of the Clay Street/11th Street intersection. Considering that fire hydrants and signal poles are provided at both locations, construction of curb extensions (bulbouts) may also be required.

The proposed project would increase automobile traffic using the existing garage driveway on 11th Street and increase pedestrian crossings on the 11th Street sidewalk at the driveway.

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

- Modify the sidewalk on the north side of 11th Street crossing the existing driveway so that the through passage zone on the sidewalk is level and at the same grade as the adjacent sidewalk. Additionally, consider using different paving material, texture, and/or paint for the segment of sidewalk crossing the driveway to alert both motorists and pedestrians.

Transit Access

Transit service providers in the project vicinity include Bay Area Rapid Transit (BART) and AC Transit. The nearest BART station to the project site is the 12th Street BART Station, about one block east. AC Transit operates multiple major bus routes in the vicinity of the project, on 11th Street, 12th Street, and Clay Street. Additional buses, including the Oakland Free Broadway shuttle ("Free B"), operate along Broadway with the nearest stops near 11th and 12th Streets, about 650 feet east of the Site A building. The proposed project would not modify access between the project site and bus stops in the vicinity of the project; nor would it modify access between the project site and the BART Station. This would be a less than significant impact, and not new or more severe that transit-related impacts identified in the 2000 EIR.

Recommendation TRANS-5: 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 of widening the sidewalk on south side of 11th Street east of Clay Street at the location of the existing bus stop to provide a bus bulb with adequate space to accommodate a bus shelter and other amenities at the existing bus stop. Constructing the bus bulb would require elimination of parking and/or a travel lane, which may be feasible with the proposed reconfiguration of 11th Street at Broadway to accommodate BRT.

The 2000 EIR and each of the subsequent EIR addenda identified a potentially significant transit impact regarding passenger wait times at the 12th Street BART Station exiting fare gates, Impact B.5 (with designator amended to be consistent with this CEQA Checklist) is shown below.

Impact TRA-B.5: Project ridership on AC Transit could be accommodated. Project ridership on BART could be accommodated on the trains, but is likely to exceed the capacity of the 12th Street station at project buildout.

Mitigation Measure B.5 was identified to address the potential transit impact (BART). Mitigation Measure B.5 identified the need for further observation and study of exit fare gates at the 11th Street exit of the 12th Street BART Station during the AM peak period to ensure that the maximum passenger wait would not exceed two minutes through the fare gates. The mitigation measure also required the addition of one or more new fare gates at the 11th Street exit to the station. The mitigation measure continues to be applicable. Considering that Site A would be a residential development and would not generate substantial inbound BART trips during the AM peak period, it would not have a noticeable effect on passenger wait times at the exit fare gate. Therefore, the study required by this mitigation measure should be completed prior to development of Site B based on the specific land use option developed at Site B. Mitigation Measure B.5 is modified as follows**:**

> **Mitigation Measure TRA-B.5:** The project sponsor ~~of Block T5/6 (Shorenstein or its successor), if the Block T5/6 building includes office space~~, shall conduct a study ~~at each phase of project buildout subsequent to Building T12~~prior to the development of Site B, subject to the review and approval of the City ~~Traffic Engineering~~Transportation Services Division, to determine whether there is adequate exiting capacity at the 12th Street station. The Block T5/6 developer shall work with BART to assure that with buildout of the project (~~all four sites~~Site A and Site B), adequate exit fare gates are available at the 11th Street exits in the a.m. peak hour so that the maximum passenger wait does not exceed two minutes to be processed through the fare gates. This may require the addition of one or more new fare gates at the 11th Street exit to the station.

Implementation of amended Mitigation Measure TRA-B.5 would continue to reduce the potential impact to less than significant impact,

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Consistency with Adopted Policies, Plans or Programs Supporting Alternative Transportation

The proposed project is consistent with several policies, plans and programs, and would not cause a significant impact by conflicting with adopted policies, plans, or programs supporting public transit, bicycles, or pedestrians. The *City of Oakland General Plan LUTE*, as well as the City's Public Transit and Alternative Mode and Complete Streets policies, state 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 residential and commercial uses 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* (PMP) and *Bicycle Master Plan* by not making major modifications to existing pedestrian or bicycle facilities in the surrounding areas and would not adversely affect installation of future facilities. Further, the proposed project would adhere to City of Oakland SCAs that would require the preparation and implementation of a TDM Plan because the proposed project would generate more than 50 peak hour trips (see SCA 25 in Attachment A to this document).

> **Recommendation TRA-6:** Consistent with the City of Oakland's requirements, consider including the following strategies as part of the required TDM program for the proposed project:
>
> a) Implement Recommendations TRA-3 through TRA-5 to improve pedestrian and bus rider environment in the project vicinity.

b) Unbundle the cost of parking from the cost of housing where residents pay separately for their parking spaces.

c) Designate dedicated on-site parking spaces for car-sharing.

d) Provide long-term and short-term bicycle parking beyond the minimum required by City of Oakland Planning Code.

e) Cooperate with City of Oakland and/or other regional agencies to allow installation of a potential bike share station along the project frontage.

f) Designate a TDM coordinator for the project.

g) Provide all new residents and employees with information on the various transportation options available.

h) Provide residents and/or employees with free or partially subsidized transit passes, which may include providing Clipper Cards with pre-loaded value, enrolling in AC Transit EasyPass program, etc.

Overall, the proposed project would not conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. This is a less than significant impact; no mitigation measures are required.

Parking Considerations

Although parking does not relate to environmental impacts required for evaluation under CEQA, this section summarizes parking supply and demand for automobiles and bicycles; greater detail is provided in Appendix B to this document. Parking was addressed in the 2000 EIR as the City included it as a CEQA significance criterion at that time.

Parking Supply and Demand

As described in the Project Description (in Section IV of this document), the Site A building would either utilize up to 200 parking spaces in the City Center West Garage through a license agreement, or provide between 150 and 180 parking spaces onsite in up to three below-grade levels in a combination of standard spaces and lift parking (as depicted in Figures 7 through 9 in the Project Description).

Table TRA-8 summarizes the parking supply and demand for the proposed project and shows that the supply would exceed the demand, resulting in a surplus of 20 to 70 spaces.[30] Similar to trip generation (see Table TRA-2), the commercial component of the project would generate very little parking demand. Residential visitors are expected to be accommodated on-street or within the City Center West Garage.

[30] Based on the site plan dated March 6, 2015, the Site A building would provide 250 residential units, which is smaller than the 262 units used in the traffic impact analysis. The parking analysis is based on 262 residential units to be consistent with the rest of the analysis presented in this section.

TABLE TRA-8
PROJECT PARKING SUPPLY AND DEMAND

Use	Units[1]	Parking Demand Rate	Parking Demand
Residential Parking Demand	250 DU	0.52[2]	130
Parking Supply[3]			150-200
Parking Surplus			**20-70**

1 DU = dwelling unit
2 Average automobile ownership per residential unit in Downtown Oakland based on 2012 ACS.
3 Based on a project site plan dated March 6, 2015, project would provide either up to 200 parking spaces in the City Center West Garage or provide between 150 and 180 parking space within the building.

SOURCE: Fehr & Peers, 2015.

Parking Supply and City Code Automobile Parking Requirements

Table TRA-9 presents the off-street automobile parking requirement for the project, pursuant to the Oakland Municipal Code requirements. As shown, the proposed project would have a parking deficit of between 37 to 87 spaces compared to what is required by the Code. The project would need to expand the on-site parking supply or secure additional off-site parking to meet the Code requirement. Although the project would not meet the Code requirements, either option for parking (providing 200 parking spaces in the City Center West Garage or providing 150 and 180 parking spaces on-site) is expected to meet the estimated demand for the project.

TABLE TRA-9
AUTOMOBILE PARKING CODE REQUIREMENTS

Use	Units[1]	Code Requirement	Parking Demand
Residential	250 DU	1 space per unit[2]	262
Commercial	4.54 KSF	none[3]	0
Total Parking Required			262
Parking Supply[3]			150-200
Parking Deficit			**-62 to -112**

1 DU = dwelling unit; KSF = 1,000 square feet
2 City Municipal Code Section 17.116.060.A for multi-family dwellings in Zone CBD-C.
3 City Municipal Code Section 17.116.070 for commercial uses in Zone CBD-C.

SOURCE: Fehr & Peers, 2015.

Bicycle Parking Supply and City Code Bicycle Parking Requirements

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 every four multi-family dwelling units and one short-term space for every 20 multi-family dwelling units. The Code requires the minimum level of bicycle parking, two long and short-term spaces, for the commercial component of the proposed project.

Table TRA-10 presents the City's bicycle parking requirement and the supply for Site A building. As shown, the proposed project would meet the short-term and long-term spaces required. As shown on the proposed project site plan (Figure 5), long-term bicycle parking for 64 bicycles would have the ground level, adjacent to the residential building lobby, with direct access from both Clay and 11th Streets;[31] 16 short-term bicycle parking spaces would be provided along the sidewalks, which may require easement if within the public right-of-way.

TABLE TRA-10
BICYCLE PARKING REQUIREMENTS

Land Use	Size[1]	Long-Term		Short-Term	
		Spaces per Unit	Spaces	Spaces per Unit	Spaces
Residential	250 DU	1:4 DU	66	1:20 DU	13
Commercial	4.52 KSF	Min.	2	Min.	2
Total Required Bicycle Spaces			68		15
Total Bicycle Parking Provided			64		16
Bicycle Parking Surplus			**0**[3]		**+1**

1 DU = dwelling unit; KSF = 1,000 square feet
2 Based on Oakland Municipal Code Sections 17.117.090 and 17.117.110
3 The current site plan identifies 64 long-term bicycle spaces. The long-term bicycle parking facility would accommodate 68 or more bicycles. Therefore, this analysis does not identify a deficit.

Source: Fehr & Peers, 2015.

The 2000 EIR and each of the subsequent EIR addenda identified **Mitigation Measure B.4** to address a parking deficit impact; Mitigation Measure B.4 identified various measures such as construction of additional parking and implementing various TDM strategies, to mitigate to a less than significant level the significant impact on parking. Although parking is no longer considered for evaluation under CEQA, the parking assessment presented above shows that although Building A would not meet City code requirements for parking, it would provide adequate parking supply to meet the estimated parking demand. Recommendation TRA-6 (TDM Plan) is consistent with Mitigation Measure B.4 in the 2000 EIR. Therefore, other components of Mitigation Measure B.4 are no longer applicable.

The 2000 EIR and each of the subsequent EIR addenda identified Mitigation Measure B.6 to address a potential bicycle parking deficit impact. As discussed above, these requirements are now required by City Code and therefore the mitigation measure is no longer required. Also, Recommendation TRA-6 (TDM Plan) above includes as a strategy that the proposed project should provide more than the minimum bicycle parking required by City of Oakland Planning Code.

Loading Requirements

In accordance with City Municipal Code Section 17.116.140, the Site A is required to provide two loading spaces for the residential component and no loading spaces for the non-residential component of the

[31] The Project site plan identifies 64 long-term bicycle parking spaces. However, it is expected that the long-term bicycle parking facility would accommodate bicycle parking for 68 or more bicycles. Therefore, this analysis does not identify a deficit.in long-term bicycle parking.

project. The building would provide two loading spaces that can be accessed from the existing City Center driveway on 11th Street. Thus, the building would satisfy the City's loading requirements. However, if the loading spaces are eliminated per Recommendation TRA-2, the building would not satisfy the City's loading requirement and would require a variance.

Conclusion

The proposed project would not result in significant impacts to the project study intersections, either under the existing plus proposed project conditions or Year 2035 plus proposed project conditions.

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and the other Program EIRs, implementation of the Modified T5/6 Project would not substantially increase the severity of significant impacts identified in the 2000 EIR or the other Program EIRs, nor would it result in new significant impacts related to transportation and circulation that were not identified in the 2000 EIR or the other Program EIR, as summarized below.

The Modified T5/6 Project would result in the significant and unavoidable impact involving the Brush Street/12th Street/I-980 Westbound Off-Ramp intersection under 2035 with Project conditions. The 2000 EIR previously identified a significant impact at this same intersection under cumulative buildout conditions (2010), and identified Mitigation Measure B.1a, now amended in this CEQA Checklist as **Mitigation Measure TRA-B.1a**, which would not reduce the impact to less than significant and that continues to apply to the project; the impact remains significant and unavoidable.

The 2000 EIR also identified Mitigation Measure B.1b to address a significant unavoidable impact at the intersection of 12th and Broadway, however, the proposed project avoids a significant impact at that location; Mitigation Measure B.1b would not apply to the proposed project. **Mitigation Measures TRA-B.1a** (title modified from the 2000 EIR) and **TRA-B.5** would continue to apply to the project and are listed in Attachment A to this document.

The impact of the proposed project is considered equal to or less severe than that previously identified in the 2000 EIR for the Original Project or in the Program EIRs. The proposed project would not result in any other transportation related significant impacts.

The proposed project would implement recommended improvement measures identified in the transportation analysis completed for the proposed project and address automobile access and safety, directional curb ramps for pedestrians, and additional TDM strategies.

In addition, the proposed project will adhere to SCAs related to City review and approval of all improvements proposed in the public right-of-way, reduction of vehicle traffic and parking demand generated by development projects, and construction traffic and parking management, as identified in Appendix A, at the end of the CEQA Checklist. For reference, these are **SCA TRA-1 (previously Mitigation Measure B.7), SCA AES-7, SCA AES-8, SCA AIR-2 (previously Mitigation Measure C.2a)**.

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.	☒	☐	☐

Project Analysis

Water, Wastewater, and Stormwater (Criteria 14a and 14b)

Most of the Program EIRs considered in this analysis all 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.[32]

The water and sanitary sewer demand and stormwater facilities, as well as solid waste and energy associated with the proposed project, have been addressed in the 2000 EIR for the Original Project, and the Modified T5/6 Project assessments are supported by the project-specific engineering and service demand reports provided by the project sponsor. The Phase 1 project would generate approximately 490 gallons per minute (gpm) of wastewater and a water demand of approximately 572 gpm which translates into approximately 824,000 gallons per day (gpd). Together, both phases of the project would generate approximately 980 gpm of wastewater and an estimated water demand of approximately 1,647,360 gpd.

Specifically, the 2000 EIR determined that development of the Original Project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; would not require or result in the construction of new water or wastewater treatment or storm water drainage facilities or expansion of existing facilities; would not result in a shortfall in water supply or wastewater treatment capacity. As previously described in this CEQA Checklist (see *11. Population and Housing*, and *12. Public Services, Parks and Recreation Facilities*), although development would increase density and population in the area, this growth has been anticipated and factored into Oakland's General Plan LUTE (1998, as amended), its 2015-2023 Housing Element Update (2014), the Central District Urban Renewal Plan Amendment (2011), and each of the CEQA documents prepared and approved/certified for each of these policy documents. Therefore, the proposed project has been accounted for in the water demand projections associated with development of the Original Project. Further, the development would occur in an urban area already served by public service utilities and infrastructure.

No changes with respect to the environmental issues listed above have occurred. The Modified T5/6 Project would not result in new significant impacts regarding the provision of or need for new or substantially expanded utilities and service systems, the construction of which could cause significant environmental effects. Therefore, the proposed projects would not result in any new or more substantial effect on water and sewer services. The impact would remain less than significant.

The 2000 EIR also determined that development of the Original project would have less-than-significant impacts related to stormwater and wastewater facilities. As previously discussed (see *8. Hydrology and Water Quality*), new development of the proposed project would likely decrease storm drain runoff through the proposed project's incorporation of City of Oakland SCAs intended to reduce runoff (and maintain stormwater quality). Development of the proposed project may increase sewer demand, and implementation of SCAs requiring stormwater control during and after construction would address potential impacts on stormwater treatment and sanitary sewer infrastructure. The impact of the proposed

[32] 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.

project regarding stormwater and sanitary sewer infrastructure would remain less than significant as identified in the 2000 EIR.

Solid Waste Services (Criterion 14c)

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.

As described in the 2000 EIR, impacts associated with solid waste would be less than significant; development of the Original Project would overburden landfill(s); and would comply with federal, state, and local statutes related to solid waste. Nonhazardous solid waste from the proposed 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 with the proposed projects, as determined in the 2000 EIR. In addition, the proposed projects will comply with a City of Oakland SCA pertaining to waste reduction and recycling and thereby reduce waste through compliance with the City of Oakland's Recycling Space Allocation Ordinance (Oakland Municipal Code, Chapter 17.118). The impact regarding solid waste services would remain less than significant as identified in the 2000 EIR.

Energy (Criterion 14d)

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.

As reported in the 2000 EIR, development of the Original Project would result in less-than-significant impacts related to energy standards and use. The Modified T5/6 Project would result in the same impact and would comply with the standards of Title 24 of the California Code of Regulations. City of Oakland SCAs pertaining to compliance with the green building ordinance would require construction projects to incorporate energy-conserving design measures. (Also see discussion of *Renewable Energy* in Attachment D to this document). The proposed project's impact regarding solid waste services would remain less than significant as identified in the 2000 EIR.

Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2000 EIR and the other Program EIRs, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the 2000 EIR or other Program EIRs, nor would it result in new significant impacts related to utilities and service systems that were not identified in the 2000 EIR or the other Program EIRs. The 2000 EIR 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 sewer capacity, stormwater drainage facilities, solid waste services, and energy, as identified in Attachment A to this document. For reference, these are **SCA UTIL-1 through SCA UTIL-3, and SCA HYD-1 and SCA HYD-2**.

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
D. Infill Performance Standards, Per CEQA Guidelines Section 15183.3

Appendices

A. Reference Figures from 2000 EIR Aesthetics Analysis
B. LOS Sheets

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 Oakland City Center Modified Block T5/6 Project.

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 2000 Oakland City Center EIR, as modified in the subsequent addenda to the 2000 EIR. The SCAMMRP also lists the City's Standard Conditions of Approval ("SCAs") identified and modified in the subsequent addenda to the 2000 EIR; the SCAs are measures that would minimize potential adverse effects that could result from implementation of the project, to ensure the conditions are implemented and monitored. The SCAMMRP also identifies the mitigation monitoring requirements for each mitigation measure and SCA.

This CEQA Analysis is also based on the analysis in the following Program EIRs that apply to the Modified T5/6 Project: Oakland's 1998 General Plan Land Use and Transportation Element (LUTE) EIR, the 2010 General Plan Housing Element Update EIR and 2014 Addendum, and the 2011 Central District Urban Renewal Plan Amendments EIR (or "Redevelopment Plan Amendments EIR"). None of the mitigation measures or SCAs from these Program EIRs are included in this SCAMMRP because they, or an updated or equally effective mitigation measure or SCA, is identified in the 2000 EIR, its addenda, or in this CEQA Analysis for the Modified T5/6 Project.

To the extent that there is any inconsistency between any mitigation measures and/or SCAs, the more restrictive conditions shall govern; to the extent any mitigation measure and/or SCA identified in the CEQA Analysis were inadvertently omitted, they are automatically incorporated herein by reference.

- The first column of the SCAMMRP table identifies the mitigation measure or SCA applicable to that topic in the CEQA Analysis. 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 Modified T5/6 Project and this CEQA Analysis; however, the SCAs as presented in the City's *Standard Conditions of Approval and Uniformly Applied Development Standards* document[33] are included in parenthesis for cross-reference purposes. Substantive modifications or notes on the previously identified mitigation measures or SCAs are shown in <u>double underline</u> or ~~double strikethrough~~ format.
- The second column identifies the monitoring schedule or timing applicable the Project.
- The third column names the party responsible for monitoring the required action for the Project.

The project sponsor is responsible for compliance with any recommendations identified in City-approved technical reports all applicable mitigation measures adopted, and with all SCAs set forth herein 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 mitigation measures will be the responsibility of the Bureau or Planning, Zoning

[33] Dated September 5, 2007, as amended and/or supplemented through August 30, 2013.

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.

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
Aesthetics, Shadow and Wind		
Mitigation Measure AES-F.2: (amended per Addendum #5) The City shall require the project sponsors ~~Shorenstein~~ Strada T5, LLC or its successor), as applicable) to incorporate, to the maximum extent feasible, specific design elements in the final siting and designs for the high rises that would reduce ground-level winds within the Downtown Showcase District. Recommended modifications to the building masses as tested [i.e., 425-foot towers tested for the 1997 General Plan Land Use and Transportation Element EIR] to reduce winds would include some of the design features already included in the project, such as: • placing the buildings back from the sidewalk, which would likely reduce winds at the sidewalk itself; • the introduction of curved facades, which could reduce the tendency of the project structures to intercept upper-level winds and direct them down to ground level; and • placing the tower atop a lower podium level, which would serve to interrupt winds traveling down the tower before they reach ground level. In addition, the use of facade articulation, to break up winds along the building face, and horizontally projecting wind screens, to disturb the downward flow of wind, could further serve to reduce ground-level winds.	Prior to issuance of a building permit for each phase.	City of Oakland Bureau of Planning and Building
SCA AES-1 (Standard Condition of Approval 12): *Required Landscape Plan for New Construction and Certain Additions to Residential Facilities* ***(Applies Only to Phase 1 Site A and Phase 2 Site B Option 2 of the Modified T5/6 Project)*** Submittal and approval of a landscape plan for the entire site is required for the establishment of a new residential unit (excluding secondary units of five hundred (500) square feet or less), and for additions to Residential Facilities of over five hundred (500) square feet. The landscape plan and the plant materials installed pursuant to the approved plan shall conform to all provisions of Chapter 17.124 of the Oakland Planning Code, including the following: a) Landscape plan shall include a detailed planting schedule showing the proposed location, sizes, quantities, and specific common botanical names of plant species. b) Landscape plans for projects involving grading, rear walls on downslope lots requiring conformity with the screening requirements in Section 17.124.040, or vegetation management prescriptions in the S-11 zone, shall show proposed landscape treatments for all graded areas, rear wall treatments, and vegetation management prescriptions. c) Landscape plan shall incorporate pest-resistant and drought-tolerant landscaping practices. Within the portions of Oakland northeast of the line formed by State Highway 13 and continued southerly by Interstate 580, south of its intersection with State Highway 13, all plant materials on submitted landscape plans shall be fire resistant. The City Bureau of Planning shall maintain lists of plant materials and landscaping practices considered pest-resistant, fire-resistant, and drought-tolerant. d) All landscape plans shall show proposed methods of irrigation. The methods shall ensure adequate irrigation of all plant materials for at least one growing season.	Prior to issuance of a building permit for each phase involving residential use.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland, Public Works, Environmental Services

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
SCA AES-2 (Standard Condition of Approval 13): *Landscape Requirements for Street Frontages (Residential Construction)* a) All areas between a primary Residential Facility and abutting street lines shall be fully landscaped, plus any unpaved areas of abutting rights-of-way of improved streets or alleys, provided, however, on streets without sidewalks, an unplanted strip of land five (5) feet in width shall be provided within the right-of-way along the edge of the pavement or face of curb, whichever is applicable. Existing plant materials may be incorporated into the proposed landscaping if approved by the Director of the Bureau of Planning. b) In addition to the general landscaping requirements set forth in Chapter 17.124, a minimum of one (1) fifteen-gallon tree, or substantially equivalent landscaping consistent with city policy and as approved by the Director the Bureau of Planning, shall be provided for every twenty-five (25) feet of street frontage. On streets with sidewalks where the distance from the face of the curb to the outer edge of the sidewalk is at least six and one-half (6 ½) feet, the trees to be provided shall include street trees to the satisfaction of the Director of Parks and Recreation.	Prior to final inspection of the building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland, Public Works, Environmental Services
SCA AES-3 (Standard Condition of Approval 15): *Landscape Maintenance (Residential Construction)* 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. All required fences, walls and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.	Ongoing.	City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland, Public Works, Environmental Services
SCA AES-4 (Standard Condition of Approval 17): *Landscape Requirements for Street Frontages (Commercial and Manufacturing)* ***(Applies Only to Phase 1 Site A and Phase 2 Site B Option 2 of the Modified T5/6 Project)*** On streets with sidewalks where the distance from the face of the curb to the outer edge of the sidewalk is at least six and one-half (6 ½) feet and does not interfere with access requirements, a minimum of one (1) twenty-four (24) inch box tree shall be provided for every twenty-five (25) feet of street frontage, unless a smaller size is recommended by the City arborist. The trees to be provided shall include species acceptable to the Tree Services Division.	Prior to final inspection of the building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland, Public Works, Environmental Services
SCA AES-5 (Standard Condition of Approval 18): *Landscape Maintenance (Commercial and Manufacturing)* ***(Applies Only to Phase 1 Site A and Phase 2 Site B Option 2 of the Modified T5/6 Project)*** 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. All required irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.	Ongoing.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA AES-6 (Standard Condition of Approval 19): *Underground Utilities* *Prior to issuance of a building permit*, the project applicant for projects under the Specific Plan shall submit plans for review and approval by the Bureau of Building Services and the Public Works Agency, and other relevant agencies as appropriate, that show all new electric and telephone facilities; fire alarm conduits; street light wiring; and other	Prior to issuance of a building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
wiring, conduits, and similar facilities placed underground. The new facilities shall be placed underground along the project applicant's street frontage and from the project applicant's structures to the point of service. The plans shall show all electric, telephone, water service, fire water service, cable, and fire alarm facilities installed in accordance with standard specifications of the serving utilities.		Building Services Division, Zoning Inspections City of Oakland, Public Works, Environmental Services
SCA AES-7 (Standard Condition of Approval 20): *Improvements in the Public Right-of-Way (General)* *Approved prior to the issuance of a P-job or building permit* a) The project applicant shall submit Public Improvement Plans to Bureau of Building Services for adjacent public rights-of-way (ROW) showing all proposed improvements and compliance with the conditions and/or mitigations and City requirements including but not limited to curbs, gutters, sewer laterals, storm drains, street trees, paving details, locations of transformers and other above ground utility structures, the design specifications and locations of facilities required by the East Bay Municipal Utility District (EBMUD), street lighting, on-street parking and accessibility improvements compliant with applicable standards and any other improvements or requirements for the project as provided for in this Approval. Encroachment permits shall be obtained as necessary for any applicable improvements- located within the public ROW. b) Review and confirmation of the street trees by the City's Tree Services Division is required as part of this condition and/or mitigations. c) The Bureau of Planning and the Public Works Agency will review and approve designs and specifications for the improvements. Improvements shall be completed prior to the issuance of the final building permit. d) The Fire Services Division will review and approve fire crew and apparatus access, water supply availability and distribution to current codes and standards.	Prior to the issuance of a P-job or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland, Public Works, Environmental Services
SCA AES-8 (Standard Condition of Approval 21): *Improvements in the Public Right-of-Way (Specific)* *Approved prior to the issuance of a grading or building permit.* Final building and public improvement plans submitted to the Bureau of Building Services shall include the following components: a) Install additional standard City of Oakland streetlights. b) Remove and replace any existing driveway that will not be used for access to the property with new concrete sidewalk, curb and gutter. c) Reconstruct drainage facility to current City standard. d) Provide separation between sanitary sewer and water lines to comply with current City of Oakland and Alameda Health Department standards. e) Construct wheelchair ramps that comply with Americans with Disabilities Act requirements and current City Standards. f) Remove and replace deficient concrete sidewalk, curb and gutter within property frontage. g) Provide adequate fire department access and water supply, including, but not limited to currently adopted fire codes and standards.	Prior to the issuance of a grading or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland, Public Works, Environmental Services
SCA AES-9 (Standard Condition of Approval 40): *Lighting Plan.* The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans shall be submitted to the Bureau of Planning and Building Services, Zoning Division, and the Electrical Services Division of the Public Works Department for review and	Prior to the issuance of an electrical or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
approval. All lighting shall be architecturally integrated into the site.		Building Services Division, Zoning Inspections City of Oakland, Public Works, Electrical Services
Also **SCA BIO-1.** See *Biological Resources*, below.		
Air Quality		
SCA AIR-1 (Standard Condition of Approval A): *Construction-Related Air Pollution Controls, Dust and Equipment Emissions* **(Previously Mitigation Measure AIR C.1)** *Ongoing throughout demolition, grading, and/or construction.* During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the BAAQMD: a) Water all exposed surfaces of active construction areas at least twice daily (using reclaimed water if possible). 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 possible. 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., as soon as feasible. In addition, building pads should be laid as soon as possible after grading 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.). 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 idling policy (as required by Title 13, Section 2449 of the California Code of 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) Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage. k) 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	Ongoing throughout demolition, grading, and/or construction for each phase. Prior to starting operations for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
used if electricity is not available and it is not feasible to use propane or natural gas. l) 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. m) All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph. n) Install sandbags or other erosion control measures to prevent silt runoff to public roadways. o) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more). p) 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. q) Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize windblown dust. Wind breaks must have a maximum 50 percent air porosity. r) 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. s) The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. t) All trucks and equipment, including tires, shall be washed off prior to leaving the site. u) 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. v) Minimize the idling time of diesel-powered construction equipment to two minutes. w) 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 ("California Air Resources Board Off-Road Diesel Regulations") must meet Emissions and Performance Requirements one year in advance of any fleet deadlines. The project applicant shall provide written documentation that the fleet requirements have been met. x) Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings). y) All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NOX and PM. z) Off-road heavy diesel engines shall meet the CARB's most recent certification standard.		
SCA AIR-2: (Standard Condition of Approval 25): *Parking and Transportation Demand Management (This SCA would apply to development projects under the Specific Plan generating 50 or more net new a.m. or p.m. peak hour vehicle trips.)* **(Previously Mitigation Measure AIR C.2a)** *Prior to issuance of a final inspection of the building permit.* The project applicant shall submit a Transportation and Parking Demand Management (TDM) for review and approval by the City. The intent of the TDM plan shall be to 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. The goal of the TDM shall be to achieve the following project vehicle trip reductions (VTR): • Projects generating 50 – 99 net new a.m. or p.m. peak hour vehicle trips: 10 percent VTR	Prior to issuance of a final inspection of the building permit for each phase. Implementation: Ongoing (e.g. submittal of additional approved TDM reports as needed per approved TDM plan).	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland, Public Works, Traffic Services Division

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
• Projects generating 100 or more net new a.m. or p.m. peak hour vehicle trips: 20 percent VTR The TDM plan shall include strategies to increase pedestrian, bicycle, transit, and carpool use, and reduce parking demand. All four modes of travel shall be considered, as appropriate. VTR strategies to consider include, but are not limited to, the following: a) 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 Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement. b) Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority Bikeway Projects, on-site signage and bike lane striping. c) Installation of safety elements per the Pedestrian Master Plan (such as cross walk 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. d) Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan. e) Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements. f) 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). g) Provision of a transit subsidy to employees or residents, determined by the project sponsor and subject to review by the City, if the employees or residents use transit or commute by other alternative modes. h) Provision of an ongoing contribution to AC Transit service to the area between the development and nearest mass transit station prioritized as follows: i. Contribution to AC Transit bus service; ii. Contribution to an existing area shuttle or streetcar service; and iii. Establishment of new shuttle or streetcar service. The amount of contribution (for any of the above scenarios) would be based upon the cost of establishing new shuttle service (Scenario 3). i) Guaranteed ride home program for employees, either through 511.org or through separate program. j) Pre-tax commuter benefits (commuter checks) for employees. k) 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. l) Onsite carpooling and/or vanpooling program that includes preferential (discounted or free) parking for carpools and vanpools. m) 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. n) Parking management strategies; including attendant/valet parking and shared parking spaces. o) Requiring tenants to provide opportunities and the ability to work off-site. p) 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		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
employees to work from home two days per week). q) 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 proposed based on published research or guidelines. 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. The project applicant shall implement the approved TDM Plan on an ongoing basis. 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 approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual VTR. 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.		
Mitigation Measure AIR C.2b: (amended per 2015 CEQA Analysis) The office developer (~~Shorenstein~~ Strada T5, LLC or its successor) for the approved Block T5/6 site) shall implement Mitigation Measure TRA-B.5 (improvements to BART 12th Street Station exit gates) to facilitate use of BART by project workers. Implementation of these measures would reduce the anticipated impact to less-than-significant levels.	Phase Studies: Prior to final inspection of the building permit for each phase. Implementation: Ongoing.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
Biological Resources		
SCA BIO-1 (Standard Condition of Approval 46): *Tree Replacement Plantings* *Prior to issuance of a final inspection of the building permit* Replacement plantings shall be required for erosion control, groundwater replenishment, visual screening and wildlife habitat, and in order to prevent excessive loss of shade, in accordance with the following criteria: 1) No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered. 2) Replacement tree species shall consist of Sequoia sempervirens (Coast Redwood), Quercus agrifolia (Coast Live Oak), Arbutus menziesii (Madrone), Aesculus californica (California Buckeye) or Umbellularia californica (California Bay Laurel) or other tree species acceptable to the Tree Services Division. 3) Replacement trees shall be at least of twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate.	Prior to issuance of a tree removal permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland Public Works Department, Tree Services Division

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
4) Minimum planting areas must be available on site as follows: - For Sequoia sempervirens, three hundred fifteen square feet per tree; - For all other species listed in #2 above, seven hundred (700) square feet per tree. 5) In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee as determined by the master fee schedule of the City may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians. Plantings shall be installed prior to the issuance of a final inspection of the building permit, subject to seasonal constraints, and shall be maintained by the project applicant until established. The Tree Reviewer of the Tree Division of the Public Works Department may require a landscape plan showing the replacement planting and the method of irrigation. Any replacement planting which fails to become established within one year of planting shall be replanted at the project applicant's expense.		
SCA BIO-2 (Standard Condition of Approval 44): *Tree Removal During Breeding Season* *Prior to issuance of a tree removal permit* To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of raptors shall not occur during the breeding season of March 15 and August 15. If tree removal must occur during the breeding season, all sites 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 start of work from March 15 through May 31, and within 30 days prior to the start of work from June 1 through August 15. The pre-removal surveys shall be submitted to the Bureau of Planning and the Tree Services Division of the Public Works Department. If the survey indicates the potential presences 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 CDFG, 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.	Prior to issuance of a demolition, grading, or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland Public Works Department, Tree Services Division
SCA BIO-3 (Standard Condition of Approval 45): *Tree Removal Permit* *Prior to issuance of a demolition, grading, or building permit.* Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit from the Tree Division of the Public Works Department, and abide by the conditions of that permit.	Prior to issuance of a demolition, grading, or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland Public Works Department, Tree Services Division
SCA BIO-4 (Standard Condition of Approval 47): *Tree Protection during Construction* *Prior to issuance of a demolition, grading, or building permit* 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: a) Before the start of any clearing, excavation, construction or other work on the site,	Prior to issuance of a demolition, grading, or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/ Monitoring	
	Schedule	Responsibility
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 City Tree Reviewer. 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. b) 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 City Tree Reviewer 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. c) 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 Tree Reviewer 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 tree reviewer. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree. d) 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. e) 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 of such damage. 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. f) 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.		Inspections City of Oakland Public Works Department, Tree Services Division
Also **SCA GEO-1.** See *Geology, Soils and Geohazards*, below		
Also **SCA HAZ-1.** See *Hazards and Hazardous Materials*, below.		
Also **SCAs HYD-1**, **HYD-2** and **HYD-6.** See *Hydrology and Water Quality*, below.		
Cultural Resources		
SCA CUL-1 (Cultural Resources Measure from Initial Study) (Standard Condition of Approval 52): *Archaeological Resource* *Ongoing throughout demolition, grading, and/or construction* Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If	Ongoing throughout demolition, grading, and/or construction for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections

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any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards. • In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light 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) shall be instituted. Work may proceed on other parts of the project site while measure for historical resources or unique archaeological resources is carried out. • Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measure, subject to approval by the City of Oakland, which shall assure implementation of appropriate measures recommended by the archaeologist. Should archaeologically-significant materials be recovered, the qualified archaeologist shall recommend appropriate analysis and treatment, and shall prepare a report on the findings for submittal to the Northwest Information Center. • Archaeological Resources – Sensitive Areas. Prior to issuance of a demolition, grading, or building permit, the project applicant shall implement either Provision A (Intensive Pre-Construction Study) or Provision D (Construction ALERT Sheet). However, if in either case a high potential presence of historic-period archaeological resources on the project site is indicated, or a potential resource is discovered, the project applicant shall also implement all of the following provisions: - Provision B (Construction-Period Monitoring), - Provision C (Avoidance and/or Find Recovery), and - Provision D (to establish a Construction ALERT Sheet if the Intensive Pre-Construction Study was originally implemented per Provision A, or to update and provide more specificity to the initial Construction ALERT Sheet if a Construction ALERT Sheet was originally implemented per Provision D). Provision A through Provision D are detailed as follows: • *Provision A: Intensive Pre-Construction Study* – The project applicant, upon approval from the City Bureau of Planning , may choose to complete a site-specific, intensive archaeological resources study 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. If that approach is selected, the study shall be conducted by a qualified archaeologist approved by the City Bureau of Planning. If prepared, at a minimum, the study shall include: - An intensive cultural resources study of the project site, including subsurface presence/absence studies, of the project site. Field studies conducted by the approved archaeologist(s) may include, but are not limited to, auguring and		

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other common methods used to identify the presence of archaeological resources; - A report disseminating the results of this research; - 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 (see Provision B, Construction-Period Monitoring, below), implement avoidance and/or find recovery measures (see Provision C, Avoidance and/or Find Recovery, below), and prepare an ALERT Sheet that details what could potentially be found at the project site (see Provision D, Construction ALERT Sheet, below). • *Provision B: Construction-Period Monitoring* – Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced in the ALERT Sheet, require per Provision D, Construction ALERT Sheet, below) and the procedures to follow if any 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, or preparing a report to document negative findings after construction is completed. If a significant archaeological resource is discovered during the monitoring activities, adherence to Provision C, Avoidance and/or Find Recovery, discussed below), would be required to reduce the impact to less than significant. The project applicant shall hire a qualified archaeologist to monitor all ground-disturbing activities on the project site throughout construction. • *Provision C: Avoidance and/or Find Recovery* – If a significant archaeological resource is present that could be adversely impacted by the proposed project, the project applicant of the specific project site shall either: - Stop work and redesign the proposed project to avoid any adverse impacts on significant archaeological resource(s); or, - If avoidance is determined infeasible by the City, design and implement an Archaeological Research Design and Treatment Plan (ARDTP). The project applicant shall hire a qualified archaeologist who shall prepare a draft ARDTP that shall be submitted to the City Bureau of Planning for review and approval. 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 practical. The project applicant shall implement the ARDTP. 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.		

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• *Provision D: Construction ALERT Sheet* – The project applicant, upon approval from the City Bureau of Planning, may choose to prepare a construction ALERT sheet prior to soil-disturbing activities occurring on the project site, instead of conducting site-specific, intensive archaeological resources pursuant to Provision A, above. The project applicant shall submit for review and approval by the City prior to subsurface construction activity an "ALERT" sheet prepared by a qualified archaeologist with 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/or utilities firm 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, that in the event of discovery of the following cultural materials, all work must be stopped in the area and the City's Environmental Review Officer contacted to evaluate the find: 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. If the project applicant chooses to implement Provision D, Construction ALERT Sheet, and a potential resource is discovered on the project site during ground disturbing activities during construction, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction (see Provision B, Construction-Period Monitoring, above), implement avoidance and/or find recovery measures (see Provision C, Avoidance and/or Find Recovery, above), and prepare an updated ALERT Sheet that addresses the potential resource(s) and other possible resources based on the discovered find found on the project site.		
SCA CUL-2 (Cultural Resources Measure from Initial Study) (Standard Condition of Approval SCA 53): *Human Remains* *Ongoing throughout demolition, grading, and/or construction* In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines 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 Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. 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.	Ongoing throughout demolition, grading, and/or construction of Phase 1.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections

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SCA CUL-3 (Cultural Resources Measure from Initial Study) (Standard Condition of Approval 54): *Paleontological Resources* *Ongoing throughout demolition, grading, and/or construction.* In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards [SVP 1995,1996[). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.	Ongoing throughout demolition, grading, and/or construction for Phase 1.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
Geology, Soils and Geohazards		
SCA GEO-1 (Geology and Soils Measure from Initial Study) (Standard Condition of Approval 55): *Erosion and Sedimentation Control Plan* *Prior to any grading activities.* The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.780 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Bureau of Building Services. 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 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 shall clear the system of any debris or sediment. *Ongoing throughout grading and construction activities.* The project applicant shall implement the approved erosion and sedimentation 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 Services.	Prior to any grading activities for each phase. Implementation: Ongoing throughout grading and construction activities for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA GEO-2 (Standard Condition of Approval 58): *Soils Report* *Required as part of the submittal of a Tentative Tract or Tentative Parcel Map.* A preliminary soils report for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. The soils reports shall be based, at least in part, on information obtained from on-site testing. Specifically the minimum contents of the report should include:	Required as part of the submittal of a Tentative Tract or Tentative Parcel Map.	City of Oakland Bureau of Building Services Division

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a) Logs of borings and/or profiles of test pits and trenches: 1) The minimum number of borings acceptable, when not used in combination with test pits or trenches, shall be two (2), when in the opinion of the Soils Engineer such borings shall be sufficient to establish a soils profile suitable for the design of all the footings, foundations, and retaining structures. 2) The depth of each boring shall be sufficient to provide adequate design criteria for all proposed structures. 3) All boring logs shall be included in the soils report. b) Test pits and trenches 1) Test pits and trenches shall be of sufficient length and depth to establish a suitable soils profile for the design of all proposed structures. 2) Soils profiles of all test pits and trenches shall be included in the soils report. c) A plat shall be included which shows the relationship of all the borings, test pits, and trenches to the exterior boundary of the site. The plat shall also show the location of all proposed site improvements. All proposed improvements shall be labeled. d) Copies of all data generated by the field and/or laboratory testing to determine allowable soil bearing pressures, sheer strength, active and passive pressures, maximum allowable slopes where applicable and any other information which may be required for the proper design of foundations, retaining walls, and other structures to be erected subsequent to or concurrent with work done under the grading permit. e) A written Soils Report shall be submitted which shall include but is not limited to the following: 1) Site description 2) Local and site geology 3) Review of previous field and laboratory investigations for the site 4) Review of information on or in the vicinity of the site on file at the Information Counter, City of Oakland, Office of Planning and Building. 5) Site stability shall be addressed with particular attention to existing conditions and proposed corrective attention to existing conditions and proposed corrective actions at locations where land stability problems exist. 6) Conclusions and recommendations for foundations and retaining structures, resistance to lateral loading, slopes, and specifications, for fills, and pavement design as required. 7) Conclusions and recommendations for temporary and permanent erosion control and drainage. If not provided in a separate report they shall be appended to the required soils report. 8) All other items which a Soils Engineer deems necessary. 9) The signature and registration number of the Civil Engineer preparing the report. The Director of Planning and Building may reject a report that she/he believes is not sufficient. The Director of Planning and Building may refuse to accept a soils report if the certification date of the responsible soils engineer on said document is more than three		

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years old. In this instance, the Director may be require that the old soils report be recertified, that an addendum to the soils report be submitted, or that a new soils report be provided.		
SCA GEO-3 (Standard Condition of Approval 60): *Geotechnical Report* *Required as part of the submittal of a Tentative Tract Map or Tentative Parcel Map.* A site-specific, design level, Landslide or Liquefaction geotechnical investigation for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Bureau of Building Services. Specifically: 1) Each investigation shall include an analysis of expected ground motions at the site from identified faults. The analyses shall be accordance with applicable City ordinances and polices, and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from identified faults. 2) The investigations shall determine final design parameters for the walls, foundations, foundation slabs, surrounding related improvements, and infrastructure (utilities, roadways, parking lots, and sidewalks). 3) The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, shall be included in the final design, as approved by the City of Oakland. 4) The geotechnical report shall include a map prepared by a land surveyor or civil engineer that shows all field work and location of the "No Build" zone. The map shall include a statement that the locations and limitations of the geologic features are accurate representations of said features as they exist on the ground, were placed on this map by the surveyor, the civil engineer or under their supervision, and are accurate to the best of their knowledge. 5) Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the project's design phase, shall be incorporated in the project. 6) Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Bureau of Building Services prior to commencement of the project. 7) A peer review is required for the Geotechnical Report. Personnel reviewing the geologic report shall approve the report, reject it, or withhold approval pending the submission by the applicant or subdivider of further geologic and engineering studies to more adequately define active fault traces. Tentative Tract or Parcel Map approvals shall require, but not be limited to, approval of the Geotechnical Report.	Required as part of the submittal of a Tentative Tract Map or Tentative Parcel Map.	City of Oakland Bureau of Building Services Division City of Oakland Public Works Department, Tree Services Division
Also **SCA HYD-4.** See *Hydrology and Water Quality*, below.		
Greenhouse Gases and Climate Change		
SCAs UTIL-1 and **UTIL-2**. See *Utilities and Service Systems*, below.		
Hazards and Hazardous Materials		
SCA HAZ-1 (Hazards and Hazardous Materials Measure from initial Study) (Standard Condition of Approval 35): *Hazards Best Management Practices* *Prior to the commencement of demolition, grading, or construction.*	Prior to the commencement of demolition, grading, or construction for each	City of Oakland Bureau of Building Services

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The project applicant and construction contractor shall ensure that construction of Best Management Practices (BMPs) is implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following: a) Follow manufacturers' recommendations on 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) Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building. 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 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 notification of 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.	phase.	Division City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA HAZ-2 (Standard Condition of Approval 41): *Asbestos Removal in Structures* *Prior to issuance of a demolition permit.* If asbestos-containing materials (ACM) are found to be present in building materials to be removed, demolition and disposal, the project applicant shall submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health & Safety Code 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended.	Prior to issuance of a demolition permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections Oakland Fire Prevention Bureau, Hazardous Materials Unit
SCA HAZ-3 (Standard Condition of Approval 61): *Site Review by Fire Services Division* *Prior to the issuance of demolition, grading or building permit.* The project applicant shall submit plans for site review and approval to the Fire Prevention Bureau Hazardous Materials Unit. Property owner may be required to obtain or perform a Phase II hazard assessment.	Prior to issuance of any demolition, grading or building permit for each phase.	Oakland Fire Prevention Bureau, Hazardous Materials Unit
	Prior to issuance of demolition, grading, or building permits for each phase.	Oakland Fire Prevention Bureau, Hazardous Materials Unit

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SCA HAZ-5 (Standard Condition of Approval 63): *Lead-Based Paint/Coatings, Asbestos, or PCB Occurrence Assessment* *Prior to issuance of any demolition, grading or building permit.* The project applicant shall submit a comprehensive assessment report to the Fire Prevention Bureau, Hazardous Materials Unit, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACM), lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.	Prior to issuance of any demolition, grading or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections Oakland Fire Prevention Bureau, Hazardous Materials Unit
SCA HAZ-6 (Standard Condition of Approval 64): *Environmental Site Assessment Reports Remediation*: *Prior to issuance of any demolition, grading or building permit.* If the environmental site assessment reports recommend remedial action, the project applicant shall: a) Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps. b) Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency. c) Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.	Prior to issuance of any demolition, grading or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections Oakland Fire Prevention Bureau, Hazardous Materials Unit
SCA HAZ-7 (Standard Condition of Approval 65): *Lead-base Paint Remediation* *Prior to issuance of any demolition, grading or building permit.* If lead-based paint is present, the project applicant shall submit specifications to the Fire Prevention Bureau, Hazardous Materials Unit signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: Cal/OSHA's Construction Lead Standard, 8 CCR1532.1 and DHS regulation 17 CCR Sections 35001 through 36100, as may be amended.	Prior to issuance of any demolition, grading or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections Oakland Fire Prevention Bureau, Hazardous Materials Unit

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SCA HAZ-8 (Standard Condition of Approval 66): *Other Materials Classified as Hazardous Waste* *Prior to issuance of any demolition, grading or building permit.* If other materials classified as hazardous waste by State or federal law are present, the project applicant shall submit written confirmation to Fire Prevention Bureau, Hazardous Materials Unit that all State and federal laws and regulations shall be followed when profiling, handling, treating, transporting and/or disposing of such materials.	Prior to issuance of any demolition, grading or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections Oakland Fire Prevention Bureau, Hazardous Materials Unit
SCA HAZ-9 (Standard Condition of Approval 67): *Health and Safety Plan per Assessment* *Prior to issuance of any demolition, grading or building permit.* If the required lead-based paint/coatings, asbestos, or PCB assessment finds presence of such materials, the project applicant shall create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation of affected structures, and transport and disposal.	Prior to issuance of any demolition, grading or building permit.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA HAZ-10 (Standard Condition of Approval 68): *Best Management Practices for Soil and Groundwater Hazards* The project applicant shall implement all of the following Best Management Practices (BMPs) regarding potential soil and groundwater hazards: a) Soil generated by construction activities shall be stockpiled onsite 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 handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state and federal agencies laws, in particular, the Regional Water Quality Control Board (RWQCB) and/or the Alameda County Department of Environmental Health (ACDEH) and policies of the City of Oakland. b) Groundwater pumped from the subsurface shall be contained onsite 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 of the City of Oakland, the RWQCB and/or the ACDEH. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building (pursuant to the Standard Condition of Approval regarding Radon or Vapor Intrusion from Soil and Groundwater Sources); c) Prior to issuance of any demolition, grading, or building permit, the applicant shall submit for review and approval by the City of Oakland, written verification that the appropriate federal, state or county oversight authorities, including but not limited to the RWQCB and/or the ACDEH, have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all previous contamination at the site. The applicant also shall provide evidence from the City's Fire Department, Office of Emergency Services, indicating compliance with the Standard Condition of Approval requiring a Site Review by the Fire Services Division pursuant to City Ordinance No. 12323, and compliance with the Standard Condition of Approval requiring a Phase I and/or Phase II Reports.	Prior to issuance of any demolition, grading, or building permit, and ongoing for each phase.	City of Oakland Planning and Building Department City of Oakland - Building Services Division, Zoning Inspection Oakland Fire Prevention Bureau, Office of Emergency Services

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SCA HAZ-11 (Standard Condition of Approval 69): Radon or Vapor Intrusion from Soil or Groundwater Sources *Ongoing.* The project applicant shall submit documentation to determine whether radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis shall be submitted to the Fire Prevention Bureau, Hazardous Materials Unit, for review and approval, along with a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. Applicant shall implement the approved recommendations.	Submittal with Phase I and/or Phase II documents, prior to issuance of a demolition, grading or building permit for each phase. Ongoing if remediation actions are recommended.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections Oakland Fire Prevention Bureau, Hazardous Materials Unit
SCA HAZ-12 (Standard Condition of Approval 74): *Hazardous Materials Business Plan* *Prior to issuance of a business license.* The project applicant shall submit a Hazardous Materials Business Plan for review and approval by Fire Prevention Bureau, Hazardous Materials Unit. Once approved this plan shall be kept on file with the City and will be updated as applicable. The purpose of the Hazardous Business Plan is to ensure that employees are adequately trained to handle the materials and provides information to the Fire Services Division should emergency response be required. 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. d) A plan that describes the manner in which these materials are handled, transported and disposed.	Prior to issuance of a business license for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections Oakland Fire Prevention Bureau, Hazardous Materials Unit
Hydrology and Water Quality		
SCA HYD-1 (Hydrology and Water Quality Measure from Initial Study) (Standard Condition of Approval 75): *Stormwater Pollution Prevention Plan* *Prior to and ongoing throughout demolition, grading, and/or construction activities.* The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Bureau of Building Services. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit to the Bureau of Building Services a copy of the SWPPP and evidence of submittal of the NOI to the SWRCB. Implementation of the SWPPP shall start with the commencement of construction and continue through the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.	Prior to and ongoing throughout demolition, grading, and/or construction activities for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections

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SCA HYD-2 (Hydrology and Water Quality Measure from Initial Study) (Standard Condition of Approval 80): *Post-construction Stormwater Management Plan* *Prior to issuance of building permit (or other construction-related permit).* The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a completed Construction-Permit-Phase Stormwater Supplemental Form to the Bureau of Building Services. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater management plan, for review and approval by the City, to manage stormwater run-off and to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable. a) The post-construction stormwater management plan shall include and identify the following: 1) All proposed impervious surface on the site; 2) Anticipated directional flows of on-site stormwater runoff; and 3) Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and 4) Source control measures to limit the potential for stormwater pollution; 5) Stormwater treatment measures to remove pollutants from stormwater runoff; and 6) Hydromodification management measures so that post-project stormwater runoff does not exceed the flow and duration of pre-project runoff, if required under the NPDES permit. b) The following additional information shall be submitted with the post-construction stormwater management plan: 1) Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and 2) Pollutant removal information demonstrating that any proposed manufactured/ mechanical (i.e., non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable or removing the range of pollutants typically removed by landscape-based treatment measures and/or the range of pollutants expected to be generated by the project. All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater management plan if he or she secures approval from the Bureau of Planning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program. *Prior to final permit inspection.* The applicant shall implement the approved stormwater management plan.	Construction-Permit-Phase Stormwater Supplemental Form Submittal: Prior to issuance of building permit (or other construction-related permit) for each phase. Implement SWP: Prior to final permit inspection for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA HYD-3 (Hydrology and Water Quality Measure from Initial Study) (Standard	Prior to final zoning	City of Oakland

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Condition of Approval 81): *Maintenance Agreement for Stormwater Treatment Measures* *Prior to final zoning inspection.* For projects incorporating stormwater treatment measures, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following: The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.	inspection.	Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland – Public Works Department, Sewer and Stormwater Division
SCA HYD-4 (Standard Condition of Approval 78): *Site Design Measures for Post-Construction Stormwater Management* *Prior to issuance of building permit (or other construction-related permit)* The project drawings submitted for a building permit (or other construction-related permit) shall contain a final site plan to be reviewed and approved by the Bureau of Planning. The final site plan shall incorporate appropriate site design measures to manage stormwater runoff and minimize impacts to water quality after the construction of the project. These measures may include, but are not limited to, the following: a) Minimize impervious surfaces, especially directly connected impervious surfaces; b) Utilize permeable paving in place of impervious paving where appropriate; c) Cluster buildings; d) Preserve quality open space; and e) Establish vegetated buffer areas. *Ongoing.* The approved plan shall be implemented and the site design measures shown on the plan shall be permanently maintained.	Prior to issuance of building permit (or other construction-related permit) for each phase. Implementation: Ongoing for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA HYD-5 (Standard Condition of Approval 79): *Source Control Measures to Limit Stormwater Pollution* *Prior to issuance of building permit (or other construction-related permit).* The applicant shall implement and maintain all structural source control measures imposed by the Chief of Building Services to limit the generation, discharge, and runoff of stormwater pollution. *Ongoing.* The applicant, or his or her successor, shall implement all operational Best Management Practices (BMPs) imposed by the Chief of Building Services to limit the generation, discharge, and runoff of stormwater pollution.	Prior to issuance of building permit (or other construction-related permit) for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA HYD-6 (Standard Condition of Approval 82): *Erosion, Sedimentation, and Debris Control Measures* *Prior to issuance of demolition, grading, or construction-related permit.* The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable "Best Management Practices (BMPs) for the construction industry, and as	Prior to issuance of demolition, grading, or construction-related permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning

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outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP's for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following: a) On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek. b) In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected. c) Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible. d) All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted. e) Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the Engineering Division at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding. f) Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains. g) Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek. h) Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site. i) Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution. j) Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work. k) Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, stormdrains. l) All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and		Inspections

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Sediment Control Field Manual published by the RWQCB. m) Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of Planning and Zoning. lf erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.		
Also **SCA GEO-1.** See *Geology, Soils and Geohazards*, above.		
Also **SCA UTIL-1**. See *Utilities and Service Systems*, below.		
Noise		
SCA NOI-1 (Standard Condition of Approval 28) *Days/Hours of Construction Operation)* **(Previously Mitigation Measure NOI D.1a)** *Ongoing throughout demolition, grading, and/or construction.* The project applicant shall require construction contractors to limit standard construction activities as follows: a) Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pile driving 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. Monday through Friday. b) Any construction activity proposed to occur outside of the standard hours of 7:00 a.m. to 7:00 p.m. Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Bureau of Building Services. c) Construction activity shall not occur on Saturdays, with the following possible exceptions: i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Bureau of Building Services. ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Bureau of Building Services, and only then within the interior of the building with the doors and windows closed. d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.	Plan Submittal: Prior to issuance of demolition, grading, or construction-related permit for each phase. Control: Ongoing throughout demolition, grading, and/or construction for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections

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e) No construction activity shall take place on Sundays or federal holidays. f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area. g) Applicant shall use temporary power poles instead of generators where feasible.		
SCA NOI-2: (Standard Condition of Approval 29: *Noise Control* **(Previously Mitigation Measure NOI D.1b)** *Ongoing throughout demolition, grading, and/or construction.* To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Bureau of Planning and the Bureau of Building Services review and approval, which includes the following measures: 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 wherever possible 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, is 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) Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures as determined by the City to provide equivalent noise reduction. d) The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determined an extension is necessary and all available noise reduction controls are implemented. Implementation of this measure would reduce the anticipated impact to less-than-significant levels.	Plan Submittal: Prior to issuance of demolition, grading, or construction-related permit for each phase. Control: Ongoing throughout demolition, grading, and/or construction for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA NOI-3 (Standard Condition of Approval 39: *Pile Driving and Other Extreme Noise Generators* **(Previously Mitigation Measure NOI D.1c)** *Ongoing throughout demolition, grading, and/or construction.* To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90 dBA, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the Bureau of Planning and the Bureau of Building Services to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall	Plan Submittal: Prior to issuance of demolition, grading, or construction-related permit for each phase. Control: Ongoing throughout demolition, grading, and/or construction for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections

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be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of the following measures. These attenuation measures shall include as many of the following control strategies as applicable to the site and construction activity: a) Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings; b) 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; c) Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; d) 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 e) Monitor the effectiveness of noise attenuation measures by taking noise measurements. Implementation of this measure would reduce the anticipated impact to less-than-significant levels.		
SCA NOI-4: (Standard Condition of Approval 30): *Noise Complaint Procedures* **(Previously Mitigation Measure NOI D.1d)** *Prior to the issuance of each building permit, along with the submission of construction documents. Then ongoing throughout demolition, grading, and/or construction.* The project applicant shall submit to the Bureau of Building Services a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include: a) A procedure and phone numbers for notifying the Bureau of Building Services staff and Oakland Police Department; (during regular construction hours and off-hours); b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. c) The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours); d) The designation of an on-site construction complaint and enforcement manager for the project; e) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and f) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.	Plan Submittal: Prior to issuance of demolition, grading, or construction-related permit for each phase. Control: Ongoing throughout demolition, grading, and/or construction for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
SCA NOI-5 (Standard Condition of Approval 31): *Interior Noise* *Prior to issuance of a building permit.* If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls) shall be incorporated into project building design, based upon recommendations	Prior to issuance of a building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services

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of a qualified acoustical engineer and submitted to the Bureau of Building Services for review and approval. Final recommendations for sound-rated assemblies would depend on the specific building designs and layout of buildings on the site and shall be determined during the design phases. Written confirmation by the acoustical consultant, HVAC or HERS specialist, shall be submitted for City review and approval, prior to Certificate of Occupancy (or equivalent) that: a) Quality control was exercised during construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed; and b) Demonstrates compliance with interior noise standards based upon performance testing of a sample unit. c) Inclusion of a Statement of Disclosure Notice in the CC&R's on the lease or title to all new tenants or owners of the units acknowledging the noise generating activity and the single event noise occurrences. Potential features/measures to reduce interior noise could include, but are not limited to, the following: i. Installation of an alternative form of ventilation in all units identified in the acoustical analysis as not being able to meet the interior noise requirements due to adjacency to a noise generating activity, filtration of ambient make-up air in each unit and analysis of ventilation noise if ventilation is included in the recommendations by the acoustical analysis. ii. Prohibition of Z-duct construction.		Division, Zoning Inspections
SCA NOI-6 (Standard Condition of Approval 32): *Operational Noise (General)* *Ongoing.* Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 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 Bureau of Planning and the Bureau of Building Services.	Ongoing during project operations for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections
Public Services and Recreation		
SCA PVS-1 (Standard Condition of Approval 73): *Fire Safety* The project applicant and construction contractor will ensure that during project construction, all construction vehicles and equipment will be fitted with spark arrestors to minimize accidental ignition of dry construction debris and surrounding dry vegetation.	Ongoing throughout demolition, grading, and/or construction for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections Oakland Fire Prevention Bureau
SCA PVS-2 (Standard Condition of Approval 4): *Conformance with Other Requirements* a) The project applicant shall comply with all other applicable federal, state, regional and/or local laws/codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City's Bureau of Building Services, the City's Fire Marshal, and the City's Public Works Agency. Compliance with other applicable requirements may require changes to the approved use and/or plans. These changes shall be processed in accordance with the procedures contained in SCA 3, Scope of This Approval, Major and Minor Changes.	Ongoing throughout demolition, grading, and/or construction for each phase.	City of Oakland Planning and Building Department City of Oakland - Building Services Division, Zoning Inspection Oakland Fire

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b) The applicant shall submit approved building plans for project-specific needs related to fire protection to the Fire Services Division for review and approval, including, but not limited to automatic extinguishing systems, water supply improvements and hydrants, fire department access, and vegetation management for preventing fires and soil erosion.		Prevention Bureau
Transportation and Circulation		
Mitigation Measure TRA-B.1a (amended per 2015 CEQA Analysis) ~~At 12th and Brush Streets, the Block T12 project sponsor, along with the developer of Block T5/6 (Shorenstein or its successor) shall work with Caltrans and coordinate with the City to consider various improvement options, which could include signal timing improvements or additional lanes on the ramp. The developer shall fund its fair share of any required improvements.~~ No feasible mitigation measures are available that would mitigate the Project impacts at the Brush Street/12th Street intersection.	Study: Prior to final inspection of the building permit for each project phase. Implementation: Ongoing.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland Transportation Services Division Caltrans
Mitigation Measure TRA-B.5: (amended per 2015 CEQA Analysis) The project sponsor ~~of Block T5/6 (Shorenstein or its successor), if the Block T5/6 building includes office space~~, shall conduct a study ~~at each phase of project buildout subsequent to Building T12~~prior to the development of Site B, subject to the review and approval of the City ~~Traffic Engineering~~Transportation Services Division, to determine whether there is adequate exiting capacity at the 12th Street station. The Block T5/6 developer shall work with BART to assure that with buildout of the project (~~all four sites~~Site A and Site B), adequate exit fare gates are available at the 11th Street exits in the a.m. peak hour so that the maximum passenger wait does not exceed two minutes to be processed through the fare gates. This may require the addition of one or more new fare gates at the 11th Street exit to the station.	Phased Studies: Prior to final inspection of the building permit for each project phase. Implementation: Ongoing.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland Transportation Services Division BART
SCA TRA-1 (Standard Condition of Approval 33) *Construction Traffic and Parking* **(Previously Mitigation Measure B.7)** The project sponsor and construction contractor shall meet with appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project sponsor shall develop a construction management plan for review and approval by the Bureau of Planning, the Bureau of Building Services, and the Transportation Services Division. The plan shall include at least the following items and requirements: a) A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. b) Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.	Prior to the issuance of a demolition, grading or building permit for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland, Public Works, Traffic Services Division

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c) Location of construction staging areas for materials, equipment, and vehicles at an approved location. d) A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. The Bureau of Planning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services. e) Provision for accommodation of pedestrian flow. f) Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces. g) Any damage to the street caused by heavy equipment, or as a result of this construction, shall be repaired, at the project sponsor's 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 issuance of a final inspection of the building permit. All damage that is a threat to public health or safety shall be repaired immediately. The street shall be restored to its condition prior to the new construction as established by the City Building Inspector and/or photo documentation, at the project sponsor's expense, before the issuance of a Certificate of Occupancy. h) Any heavy equipment brought to the construction site shall be transported by truck, where feasible. i) No materials or equipment shall be stored on the traveled roadway at any time. j) Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion. k) All equipment shall be equipped with mufflers. l) Prior to the end of each work day during construction, the contractor or contractors shall pick up and properly dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors.		
Also **SCAs AES-7** and **AES-8.** See *Aesthetics*, above.		
Also **SCA AIR-2.** See *Air Quality*, above.		
Utilities and Service Systems		
SCA UTIL-1 (Standard Condition of Approval 91): *Stormwater and Sewer* Confirmation of the capacity of the City's surrounding stormwater and sanitary sewer system and state of repair shall be completed by a qualified civil engineer with funding from the project applicant. The project applicant shall be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed project. In addition, the applicant shall be required to pay additional fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed project. To the maximum extent practicable, the applicant will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project applicant shall be responsible for payment of the required installation or hook-up fees to the affected service providers.	Prior to issuance of a demolition, grading, or building permit within vicinity of the creek.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections

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	Schedule	Responsibility
SCA UTIL-2 (Standard Condition of Approval 36): *Waste Reduction and Recycling* The project applicant will submit a Construction and Demolition WRRP and an Operational Diversion Plan (ODP) for review and approval by the Public Works Department. Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include: - All New Construction; - All Alterations, Renovations, Repairs, or Modifications with construction value of $50,000 or greater, excluding R-3; - All Demolition, including Soft Demo, and excluding R-3; Applicants must complete a Waste Reduction and Recycling Plan (WRRP) as part of the Building Permit Application process to detail the plan for salvaging and recycling C&D debris generated during the course of the project. Standards current at the time of this writing call for salvage and/or recycling 100% of asphalt and concrete, and at least 65% of all remaining debris. These rates are subject to administrative adjustment and Applicants must follow the standards published at the time of building permit application. The City will not issue an affected permit without an approved WRRP on file. Upon approval of the WRRP and issuance of the permit(s), the Applicant shall execute the plan. Prior to the Final Inspection, Temporary Certificate of Occupancy or Certificate of Occupancy, the Applicant must complete and obtain approval of a Construction and Demolition Summary Report (CDSR). The CDSR documents the salvage, recycling and disposal activities that took place during the project. The CDSR must include documentation, such as scale tickets, that support the data provided in the CDSR. Additional information is available at: http://www2.oaklandnet.com/Government/o/PWA/o/FE/s/GAR/OAK024368 The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current City recycling standards for materials generated by operation of the proposed project. The proposed program shall be in implemented and maintained for the duration of the proposed activity or facility, and conform with the requirements of the Alameda County Mandatory Recycling Ordinance. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.	Prior to issuance of a construction-related permit and ongoing as specified for each phase.	City of Oakland Bureau of Planning and Building City of Oakland Bureau of Building Services Division, Zoning Inspections City of Oakland, Public Works, Environmental Services
SCA UTIL-3 (Standard Condition of Approval H): *Green Building for Residential Structures and Non-residential Structures* SCA UTIL-3 applies to the project because it would construct new multi-family dwellings (3+ units) and may also construct a new non-residential building over 25,000 square feet of total floor area. SCA UTIL-3 requires that the applicant comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the Green Building Ordinance. The Green Building Ordinance establishes checklist requirements for developers based on LEED or Build it Green. LEED certification requires a 10 percent reduction in the Title 24 energy standards.	Prior to issuance of a construction-related permit and ongoing as specified for each phase.	City of Oakland Bureau of Building Services Division
Also **SCAs HYD-1** and **HYD-2.** See *Hydrology and Water Quality*, above.		

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 Section III of this document, the analysis in the 2000 Oakland City Center EIR is considered for this assessment under Sections 15162 and 15164. The 1998 LUTE EIR, and for the housing components of the proposed project, the 2010 General Plan Housing Element Update EIR and 2014 Addendum are Program EIRs considered for this assessment of an Addendum, pursuant to Section 15162 and 15164. The 2011 Redevelopment Plan Amendments EIR analysis is a Program EIR specifically considered for this assessment, pursuant to CEQA Guidelines Section 15168 and Section 15180.

Project Modifications

In April 2000, the Oakland Planning Commission certified the EIR and approved a Preliminary PUD for the Oakland City Center Project. The Original Project analyzed in the 2000 EIR consisted of Preliminary PUD program of approximately 2.2 million square feet (msf) of high-rise building development on each of the four city blocks: Blocks T5/6, T9, T10 and T12.

The Original Project analyzed in the 2000 EIR considered the conceptual development of a 205,800 square-foot commercial office building up to 390 feet tall with ground floor retail space on Block T5/6. A total of 150 parking spaces would be provided. The Modified T5/6 Project now proposes three possible development options on Block T5/6, which would be developed in two phases on two sites: Phase 1 Site A and Phase 2 Site B.

Site A (Phase 1) would include a residential building up to 262 units. Site B (Phase 2) could be developed as a 300-room hotel (Option 1), a second 262-unit residential building (Option 2), or a 205,800 square-foot office building (Option 3). All buildings would be a maximum of 150 feet tall. Overall, the Modified T5/6 Project would develop approximately 137,587 fewer total gross area of building area and would introduce residential and potentially hotel uses on the site where only commercial office use was previously considered.

The 2000 EIR anticipated that some of the Original Project development on the four blocks would occur in later phases, and be subject to further review of project specific proposals as they occur for any one of the blocks. The Original Project was analyzed in a highly conservative manner to ensure adequate parameters for future modifications or adjustment that may occur.

The proposed project has three scenarios, so the most impactful one, for purposes of most environmental factors, is generally considered throughout the analysis. The Block T5/6 development scenario that includes Option 3 office use on Site B (with residential on Site A) generates the most peak hour vehicular trips compared to the hotel or residential Options. Further, the Option 3 scenario for full development of Block T5/6 would generate approximately 83 fewer a.m. peak hour vehicle trips compared to Block B5/6 under the Original Project analyzed in the 2000 EIR, and approximately 260 fewer p.m. peak hour vehicle

trips. Overall, compared to the Original Project for Block T5/6, the proposed project would introduce different or additional land uses on the site, and would result in less overall development that previously analyzed. The proposed project would represent a minor change in the Original Project, and such changes were anticipated in the 2000 EIR.

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 and 15168 of the CEQA Guidelines

Since certification of the 2000 EIR, including its subsequent addenda, 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 VI of this document. No new information has emerged that would materially change the analyses or conclusions set forth in the Final EIR.

Furthermore, as demonstrated in the CEQA Checklist, 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 2000 EIR, 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 2000 EIR. The proposed project would result in a significant and unavoidable impact that was previously identified in the 2000 EIR.

The analysis presented in this CEQA Checklist, combined with the prior 2000 EIR analysis, demonstrates that the proposed project would not result in significant impacts that were not previously identified in the EIR. 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 2000 EIR. Overall, the proposed project's impacts are similar to those identified and discussed in the 2000 EIR, as described in the CEQA Checklist, and the findings reached in the EIR 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 III of this document, the analysis in the 1998 LUTE EIR and, for only the residential components of the proposed project, the 2010 Housing Element Update EIR and its 2014 Addendum, 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 be developed in two phases. Phase 1 would construct a new, 262-unit residential building, and Phase 2, which would occur at a later date, could develop as a 300-key hotel, a second residential building of up to 262 units, or a 205,800 square-foot office building. The buildings would be up to 150 feet tall; parking would be provided onsite or in an adjacent parking structure, and small local-serving commercial uses - such as a small restaurant or retail space would occur at the street level. The proposed project could also develop a new pedestrian plaza and parking accessible by the public. No buildings existing on the project site; the project will remove existing lawn and mature trees, as well as an existing driveway between the City Center Garage and Clay Street.

Project Consistency

As determined by the City of Oakland Bureau of Planning, the proposed land uses are permitted in the zoning district in which the project is located, and is consistent with the bulk, density, and land uses envisioned for Block T5/6 and in Downtown Oakland, as outlined below.

- 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 residential mixed use project would be consistent with this designation.
- The site is zoned Central Business District Central Commercial Zone (CBD-C). The proposed project would be consistent with the purposes of this district, which is generally intended to create, maintain, and enhance areas of the CBD appropriate for a wide range of ground-floor office and other commercial activities. Upper-story spaces are intended to be available for a wide range of residential and office or other commercial activities. The proposed project would develop ground-floor commercial retail/restaurant space with upper level residential, office, or hotel use.
- The proposed project would develop buildings up to 150 feet in height, with a two-level base of approximately 57 feet. This would be in compliance with the height limits for the site, which are a minimum 45 feet and maximum 85 feet for the height of the building base, and no height limit above the base.

- The proposed up to 262 dwelling units for Site A would be below the maximum residential density of 332 dwelling units allowed on the project site: One dwelling unit per 90 square feet of lot area; the Site A lot area is 29,900 square feet.
- Only residential use is proposed on Site A. However, development of the most intensive scenario of the for purpose of assessing floor area ratio (FAR) would be the Site A, residential + Site B Option 3, office. This would total approximately 442,413 square feet of gross building area on the 1.25-acre site, or an 8.1 FAR.34 This would be within the maximum 20.0 FAR is allowed on the project site pursuant to the Oakland Planning Code and CBD General Plan designation.

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.

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[34] Up to 236,613 square feet on Site A, and up to 205,800 square feet on Site B, on 54,450 square feet (1.25 acres) of the entire lot area.

ATTACHMENT D: INFILL PERFORMANCE STANDARDS, PER CEQA GUIDELINES SECTION 15183.3

California Environmental Quality Act (CEQA) Guidelines Section 15183.3(b) and CEQA Guidelines Appendix M establish eligibility requirements for projects to qualify as infill projects. Table D-1, below, shows how the proposed project satisfies each of the applicable requirements.

As discussed in detail in Section III of this document, the analysis in the 1998 LUTE EIR and, for only the residential components of the proposed project, the 2010 Housing Element Update EIR and its 2014 Addendum, are considered the Program EIRs for this assessment, pursuant to CEQA Guidelines Section 15183.3.

Table D-1
Project Infill Eligibility

CEQA Eligibility Criteria		Eligible?/Notes for Proposed Project
1.	Be located in an urban area on a site that either has been previously developed or that adjoins existing qualified urban uses on at least seventy-five percent of the site's perimeter. For the purpose of this subdivision "adjoin" means the infill project is immediately adjacent to qualified urban uses or is only separated from such uses by an improved right-of-way. (CEQA Guidelines Section 15183.3[b][1])	Yes. The project site has been previously developed as a service station, with various surrounding uses, including parking lots and garages, gas stations, and commercial service uses.; it adjoins existing urban uses, including high-and mid-rise commercial office buildings, as described in the Project Description, (Section IV).
2.	Satisfy the performance Standards provided in Appendix M (CEQA Guidelines Section 15183.3[b][2]) as presented in 2a and 2b below:	—
	2a. *Performance Standards Related to Project Design.* All projects must implement **all** of the following:	—
	Renewable Energy. *Non-Residential Projects.* All nonresidential projects shall include onsite renewable power generation, such as solar photovoltaic, solar thermal, and wind power generation, or clean back-up power supplies, where feasible. *Residential Projects.* Residential projects are also encouraged to include such on site renewable power generation.	Yes. According to Section IV (G) of CEQA Appendix M, for mixed-use projects "…the performance standards in this section that apply to the predominant use shall govern the entire project." If Phase 2 Site B of the project is developed with the hotel or commercial office use, the project will be mixed use with an even portion of the site used as residential use (Phase 1 Site A) and one of the aforementioned non-residential uses. The project sponsor shall prepare, for City review and approval, a feasibility assessment of onsite renewable power generation options. If determined feasible by the City, the project sponsor shall implement onsite renewable power generation. Also, the proposed project has indicated a LEED silver standard goal, and its initial LEED Score Card indicates points for optimizing energy performance.

Table D-1 Project Infill Eligibility		
	CEQA Eligibility Criteria	**Eligible?/Notes for Proposed Project**
	Soil and Water Remediation. If the project site is included on any list compiled pursuant to Section 65962.5 of the Government Code, the project shall document how it has remediated the site, if remediation is completed. Alternatively, the project shall implement the recommendations provided in a preliminary endangerment assessment or comparable document that identifies remediation appropriate for the site.	The project will complete all remaining remediation required for the uses proposed on the project site. Several past environmental investigations conducted on the project characterized soil and groundwater impacts from the historic release of petroleum hydrocarbons. Site B was granted regulatory closure by Alameda County in 2001; no regulatory closure letters have been located for Site A. Pursuant to the recommendations in the Phase 1 environmental site assessment prepared for the project site (Langan Treadwell Rollo, 2015), the project sponsor will undertake all additional soil and groundwater characterization prior to site development.
	Residential Units Near High-Volume Roadways and Stationary Sources. If a project includes residential units located within 500 feet, or other distance determined to be appropriate by the local agency or air district based on local conditions, of a high volume roadway or other significant sources of air pollution, the project shall comply with any policies and standards identified in the local general plan, specific plan, zoning code, or community risk reduction plan for the protection of public health from such sources of air pollution. If the local government has not adopted such plans or policies, the project shall include measures, such as enhanced air filtration and project design, that the lead agency finds, based on substantial evidence, will promote the protection of public health from sources of air pollution. Those measures may include, among others, the recommendations of the California Air Resources Board, air districts, and the California Air Pollution Control Officers Association.	Yes. As discussed in Section 2. *Air Quality* of the CEQA Checklist, an air quality screening was prepared for the proposed project. According to BAAQMD's conservative screening-level tool for Alameda County, there are 15 stationary TAC sources within 1,000 feet of the Block T5/6, all of which are backup generators. Factoring in allowable refinements to these the screening values to account for distance between Block T5/6 and the nearby stationary TAC sources and considering risks posed by roadway traffic on Broadway and the proposed project's backup diesel generators, the cumulative cancer risks at the project site would be below the significance criterion of 100 in one million. Therefore a health risk was neither required nor conducted. No air pollution standards are required to be implemented for the proposed project. The nearest "high-volume roadway" with 100,000 vehicles per day, as defined by Section II of CEQA Appendix M, is Interstate 980 (I-980). I-980 is approximately 1,250 feet from the project site.
	2b. *Additional Performance Standards by Project Type.* In addition to implementing all the features described in 2a above, the project must meet eligibility requirements provided below by project type.	
	Residential. A residential project must meet **<u>one</u>** of the following: A. *Projects achieving below average regional per capita vehicle miles traveled (VMT).* A residential project is	Yes. The proposed project is eligible under Section (B). The proposed project site is well-served by multiple transit providers. Transit service providers in the project

Table D-1 Project Infill Eligibility		
	CEQA Eligibility Criteria	**Eligible?/Notes for Proposed Project**
	eligible if it is located in a "low vehicle travel area" within the region; B. *Projects located within ½ mile of an Existing Major Transit Stop or High Quality Transit Corridor.* A residential project is eligible if it is located within ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor; **or** C. *Low - Income Housing.* A residential or mixed-use project consisting of 300 or fewer residential units all of which are affordable to low income households is eligible if the developer of the development project provides sufficient legal commitments to the lead agency to ensure the continued availability and use of the housing units for lower income households, as defined in Section 50079.5 of the Health and Safety Code, for a period of at least 30 years, at monthly housing costs, as determined pursuant to Section 50053 of the Health and Safety Code.	vicinity include Bay Area Rapid Transit (BART) and AC Transit. The nearest BART station to project site is the 12th Street BART Station, about one block east. AC Transit operates multiple major bus routes in the vicinity of the project, on 11th Street, 12th Street, and Clay Street. Additional buses, including the Oakland Free Broadway shuttle ("Free B"), operate along Broadway with the nearest stops near 11th and 12th Streets, about 650 feet east of the Site A building. The transbay ferry from Jack London Square is approximately 0.75 miles south. Broadway – up to two blocks east of the project site - qualifies as a "High Quality Transit Corridor," as defined by Section II of CEQA, with fixed route bus service at intervals no longer than 15 minutes during peak commute hours. The AC Transit Line 51A runs along Broadway in the project vicinity, and has service intervals no longer than 15 minutes during peak commute hours. Other bus routes in the project vicinity further satisfy this criterion.
	Commercial/Retail. A commercial/retail project must meet **one** of the following: A. *Regional Location.* A commercial project with no single-building floor-plate greater than 50,000 square feet is eligible if it locates in a "low vehicle travel area"; **or** B. *Proximity to Households.* A project with no single-building floor-plate greater than 50,000 square feet located within ½ mile of 1,800 households is eligible.	Pending. As previously discussed, according to Section IV (G) of CEQA Appendix M, for mixed-use projects "…the performance standards in this Section that apply to the predominant use shall govern the entire project." If Phase 2 Site B of the project is developed with the hotel or commercial office use, the project would be mixed use with an even portion of the site used as residential use (Phase 1 Site A) and one of the aforementioned non-residential uses. Conservatively, in the latter case, the commercial/retail building would be developed in downtown in proximity to households, including the newer and nearby Uptown project (1,270 units) , Landmark Place (92 units), Market Square Phase 1 (115 units), as well as other existing households within a one-half mile radius, generally I-980 to I-880 and Lake Merritt to Grand Avenue.
	Office Building. An office building project must meeting **one** of the following: A. *Regional Location.* Office buildings, both commercial and public, are eligible if they locate in a low vehicle travel area; **or** B. *Proximity to a Major Transit Stop.* Office buildings, both commercial and public, within ½ mile of an existing major transit stop, or ¼ mile	Yes. If Phase 2 Site B of the project is developed with the commercial office option, the office building would be located approximately one block from the nearest BART station entrance and multiple major bus routes, as described previously in this table.

Table D-1 Project Infill Eligibility		
CEQA Eligibility Criteria		**Eligible?/Notes for Proposed Project**
	of an existing stop along a high quality transit corridor, are eligible.	
	Schools. Elementary schools within 1 mile of 50 percent of the projected student population are eligible. Middle schools and high schools within 2 miles of 50 percent of the projected student population are eligible. Alternatively, any school within ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor is eligible. Additionally, to be eligible, all schools shall provide parking and storage for bicycles and scooters, and shall comply with the requirements of Sections 17213, 17213.1, and 17213.2 of the California Education Code.	Not Applicable.
	Transit. Transit stations, as defined in Section 15183.3(e)(1), are eligible.	Not Applicable
	Small Walkable Community Projects. Small walkable community projects, as defined in Section 15183.3, subdivision (e)(6), that implement the project features in 2a above are eligible.	Not Applicable
3.	Be consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy, **except** as provided in CEQA Guidelines Sections 15183.3(b)(3)(A) or (b)(3)(B) below: (b)(3)(A). Only where an infill project is proposed within the boundaries of a metropolitan planning organization for which a sustainable communities strategy or an alternative planning strategy will be, but is not yet in effect, a residential infill project must have a density of at least 20 units per acre, and a retail or commercial infill project must have a floor area ratio of at least 0.75; **or** (b)(3)(B). Where an infill project is proposed outside of the boundaries of a metropolitan planning organization, the infill project must meet the definition of a "small walkable community project" in CEQA Guidelines §15183.3(f)(5). (CEQA Guidelines Section 15183.3[b][3])	Yes (see explanation below table)

Table D-1 Project Infill Eligibility		
CEQA Eligibility Criteria		**Eligible?/Notes for Proposed Project**
	Note: [a] Where a project includes some combination of residential, commercial and retail, office building, transit station, and/or schools, the performance standards in this section that apply to the predominant use shall govern the entire project.	

Explanation for Eligibility Criterion 3 (from Table D-1 above)

The adopted Plan Bay Area (2013) serves as the sustainable communities strategy for the Bay Area, per Senate Bill 375. As defined by the Plan, Priority Development Areas (PDAs) are areas where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit. The Oakland City Center Project and Block T5/6 is considered within the "Oakland Downtown & Jack London Square" PDA – the area bounded generally by 28th Street on the north, I-980 on the west, the Oakland Estuary on the south, and Lake Merritt on the east, excepting the Chinatown area between 6th and 11th Streets east of Franklin Street. The proposed project is consistent with the Oakland General Plan and the Planning Code, as discussed in Attachment C.

- 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 residential or residential-commercial mixed use project would be consistent with this designation.
- The site is zoned Central Business District Central Commercial Zone (CBD-C). The proposed project would be consistent with the purposes of this district, which is generally intended to create, maintain, and enhance areas of the CBD appropriate for a wide range of ground-floor office and other commercial activities. Upper-story spaces are intended to be available for a wide range of residential and office or other commercial activities. The proposed project would develop ground-floor commercial retail/restaurant space with upper level residential, office, or hotel use.
- The proposed project would develop buildings up to 150 feet in height, with a two-level base of approximately 57 feet. This would be in compliance with the height limits for the site, which are a minimum 45 feet and maximum 85 feet for the height of the building base, and no height limit above the base.
- The proposed up to 262 dwelling units for Site A would be below the maximum residential density of 332 dwelling units allowed on the project site: One dwelling unit per 90 square feet of lot area; the Site A lot area is 29,900 square feet.
- Only residential use is proposed on Site A. However, development of the most intensive scenario of the for purpose of assessing floor area ratio (FAR) would be the Site A, residential + Site B Option 3, office. This would total approximately 442,413 square feet of gross building area on the 1.25-acre site, or an 8.1 FAR.35 This would be within the maximum 20.0 FAR is allowed on the project site pursuant to the Oakland Planning Code and CBD General Plan designation.

[35] Up to 236,613 square feet on Site A, and up to 205,800 square feet on Site B, on 54,450 square feet (1.25 acres) of the entire lot area.

VII. References

(All references cited below are available at the Oakland Bureau of Planning, Agency, 250 Frank Ogawa Plaza, Suite 3330, Oakland, California, unless specified otherwise.)

Oakland City Center Project

City of Oakland, Oakland City Center Project Draft Environmental Impact Report, January 31, 2000.

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Fehr & Peers, Oakland City Center Development (T5/6) – Transportation Impact Analysis, February 13, 2015

Langan Treadwell Rollo, Preliminary Geotechnical Evaluation, T5/6 Oakland City Center 11th Street, April 14, 2015.

Lea & Braze Engineering, Inc., Technical Memo: Stormwater Information for 1100 Clay Street, Site T5/6. April 16, 2015.

Lea & Braze Engineering, Inc., Technical Memo: Sewer and Water Demand Estimates, 1100 Clay Street, Site T5/6. (email) April 17, 2015.

APPENDIX A

Reference Figures from Previous Aesthetics Analyses

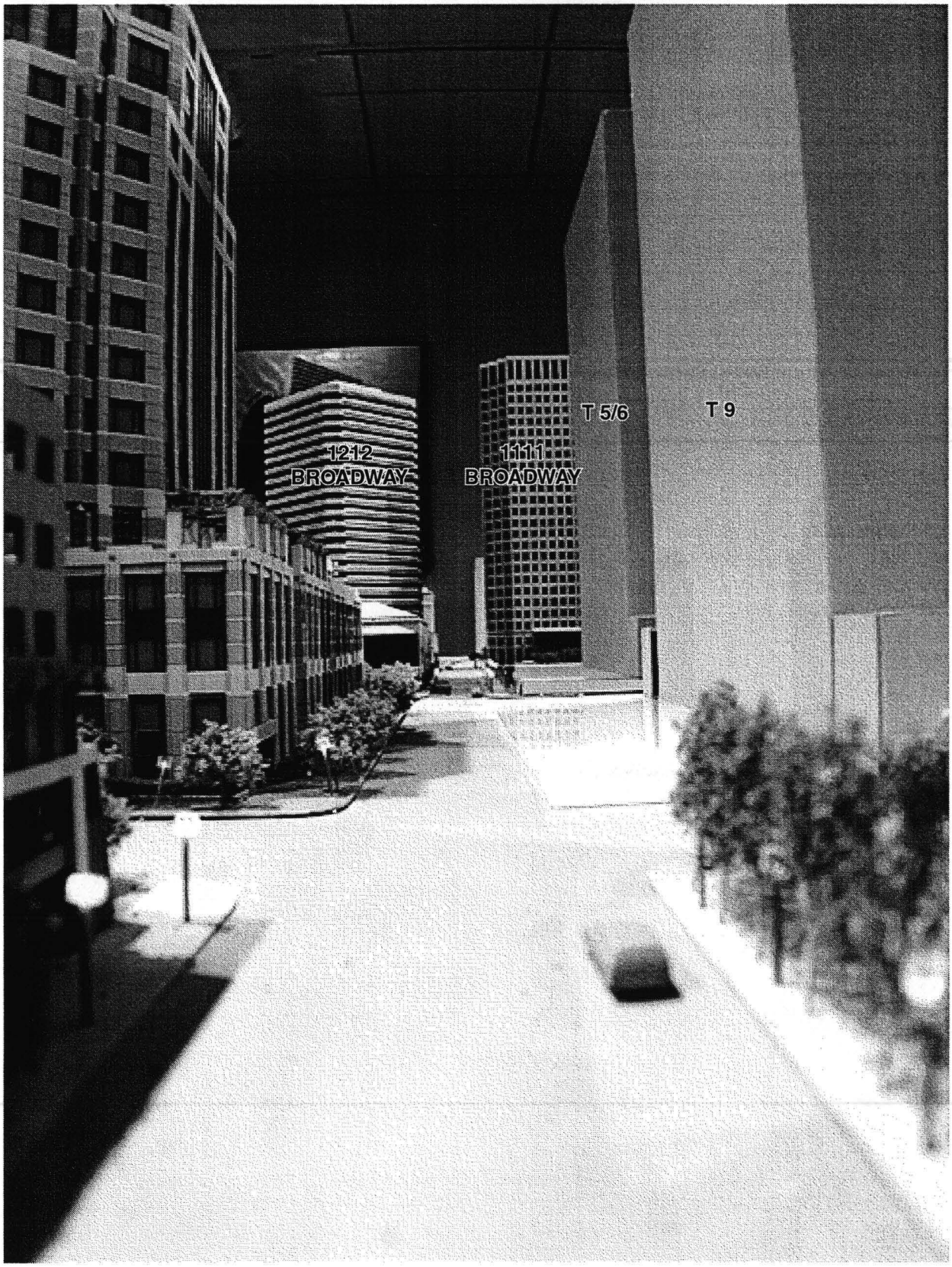
12th Street Looking West from Broadway

ER 99-15: Oakland City Center / ESA 990263 ■

SOURCE: Shorenstein Realty Investors III, LP

NOTE: Model illustrates generalized building masses only and is not intended to depict building design. Actual building designs would vary from those shown.

Figure IV.E-6
View of Project Model



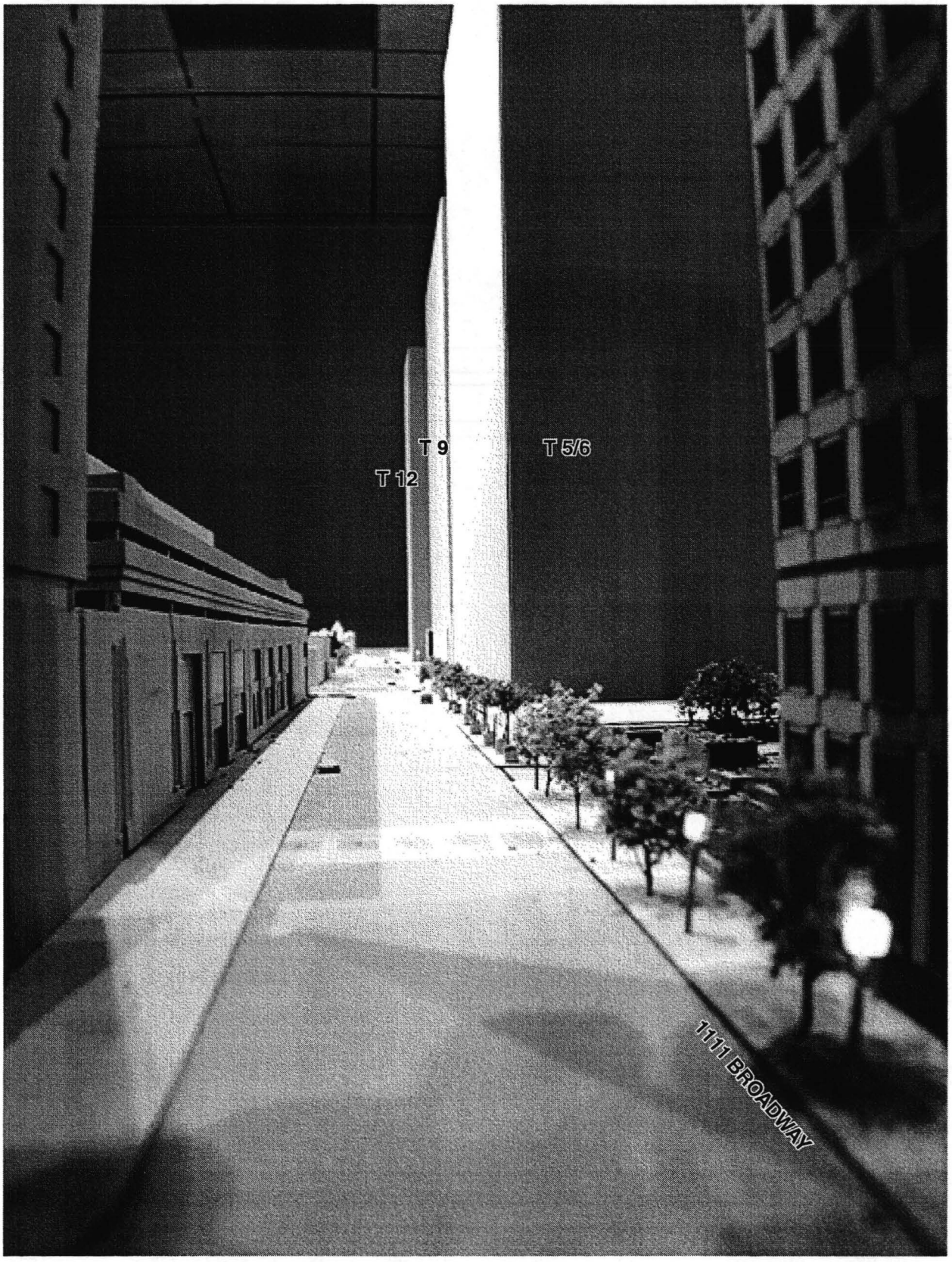
12th Street Looking East from 1/2 Block West of Jefferson

ER 99-15: Oakland City Center / ESA 990263 ■

SOURCE: Shorenstein Realty Investors III, LP

NOTE: Model illustrates generalized building masses only and is not intended to depict building design. Actual building designs would vary from those shown.

Figure IV.E-7
View of Project Model



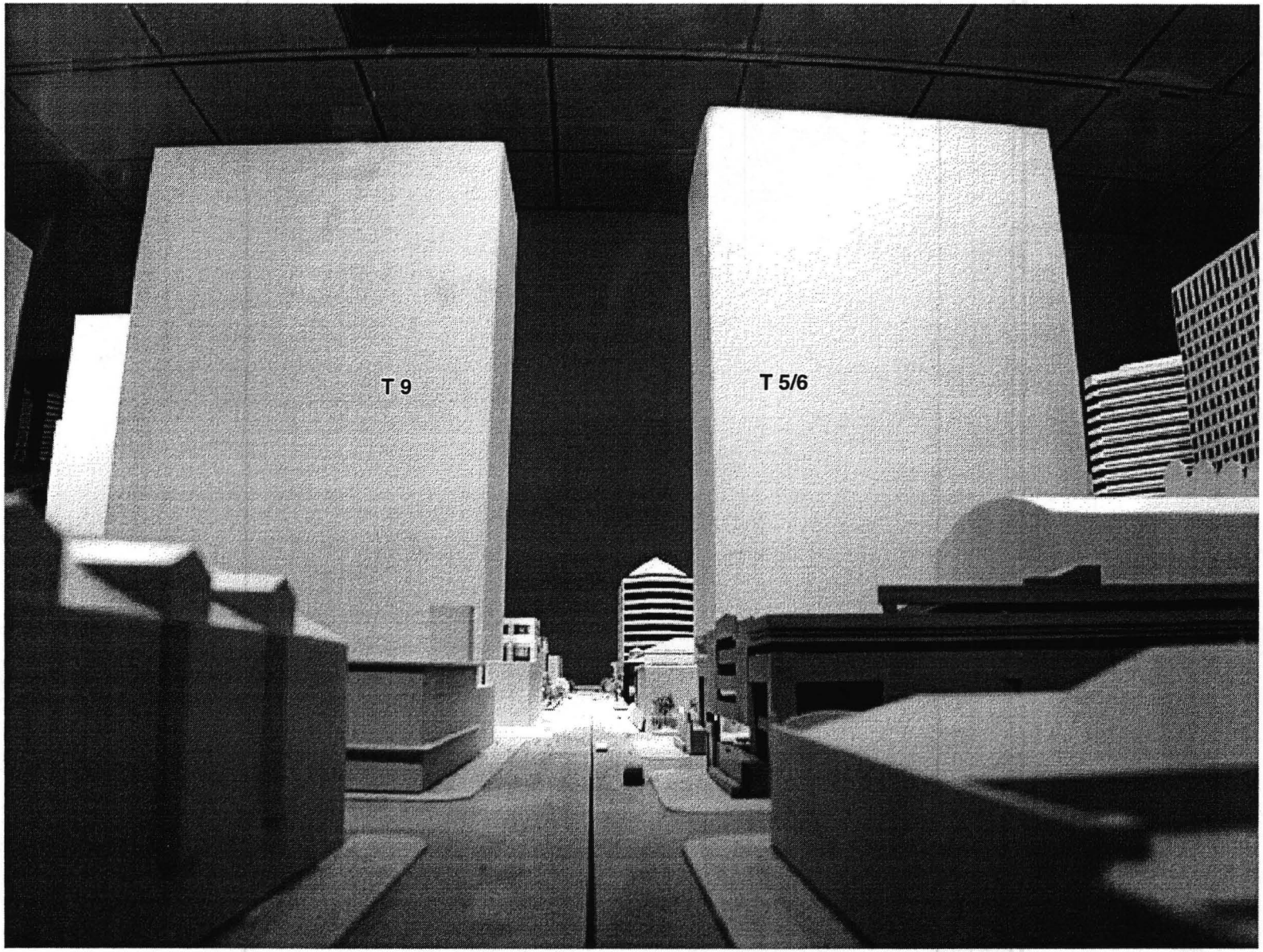
11th Street Looking West from Broadway

ER 99-15: Oakland City Center / ESA 990263 ■

SOURCE: Shorenstein Realty Investors III, LP

NOTE: Model illustrates generalized building masses only and is not intended to depict building design. Actual building designs would vary from those shown.

Figure IV.E-8
View of Project Model

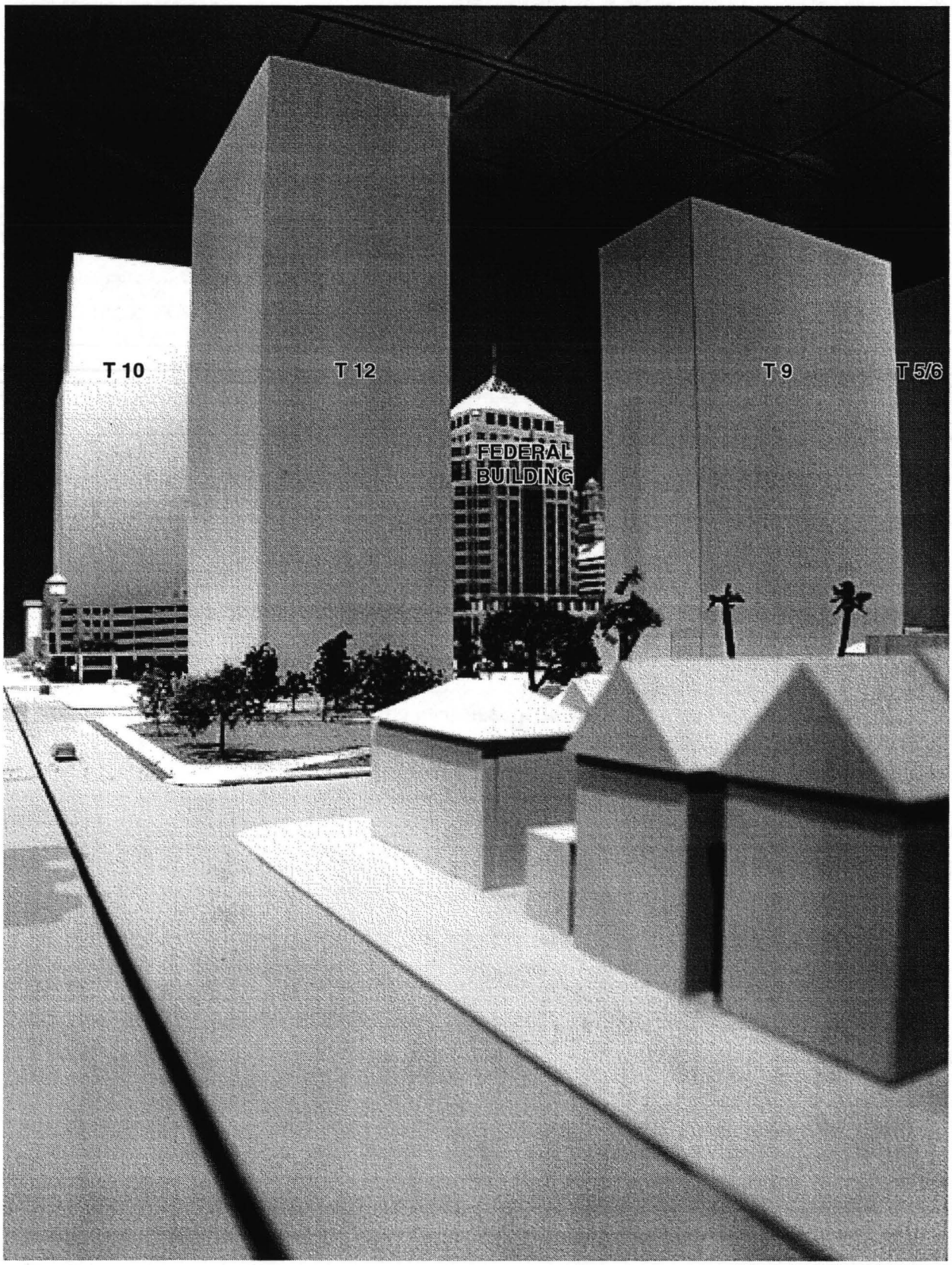


Clay Street Looking North from South of 10th Street

SOURCE: Shorenstein Realty Investors III, LP

NOTE: Model illustrates generalized building masses only and is not intended to depict building design. Actual building designs would vary from those shown.

Figure IV.E-9
View of Project Model



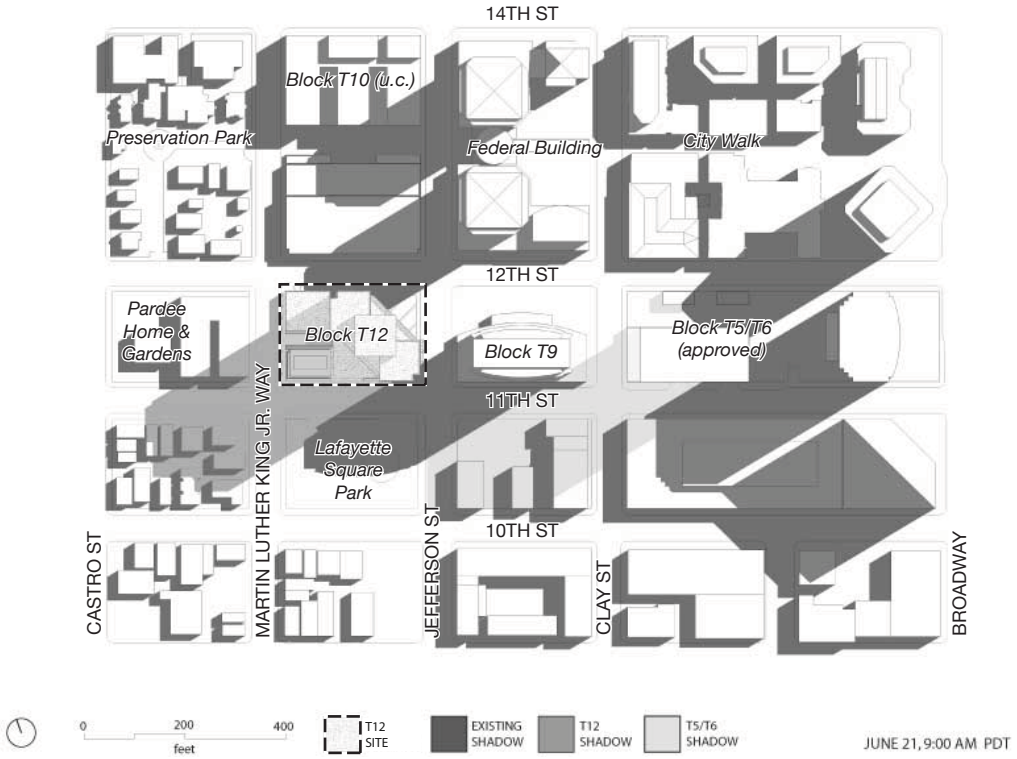
Looking North along MLK Jr. Way from South of 10th Street

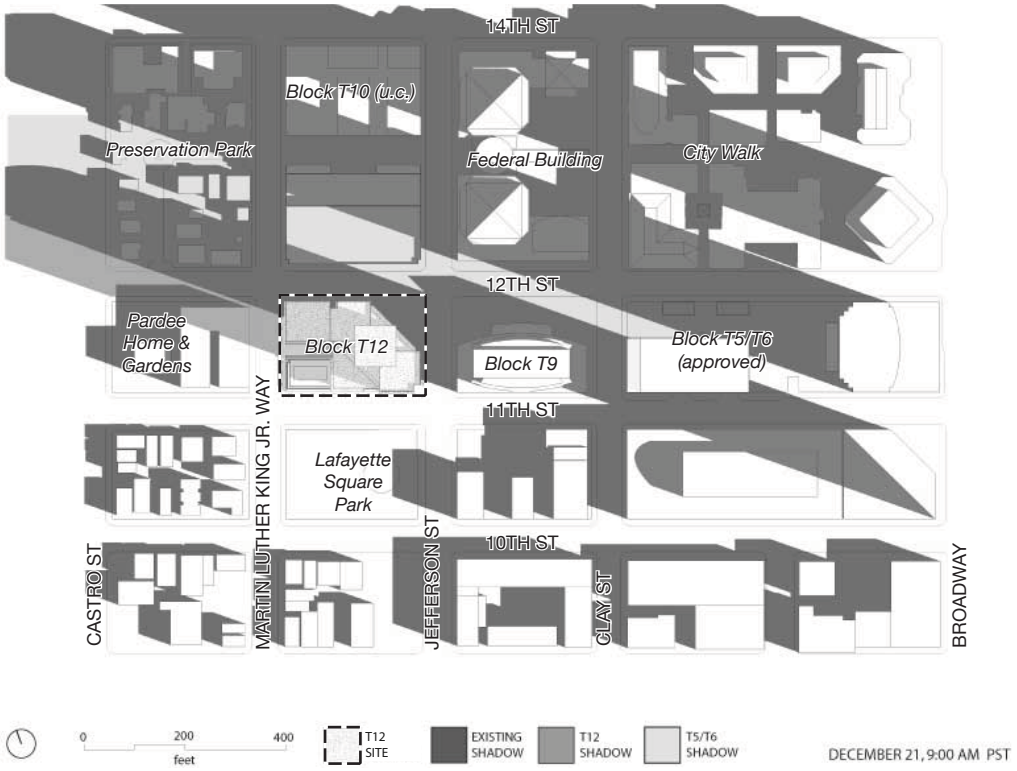
ER 99-15: Oakland City Center / ESA 990263 ■

SOURCE: Shorenstein Realty Investors III, LP

NOTE: Model illustrates generalized building masses only and is not intended to depict building design. Actual building designs would vary from those shown.

Figure IV.E-10
View of Project Model



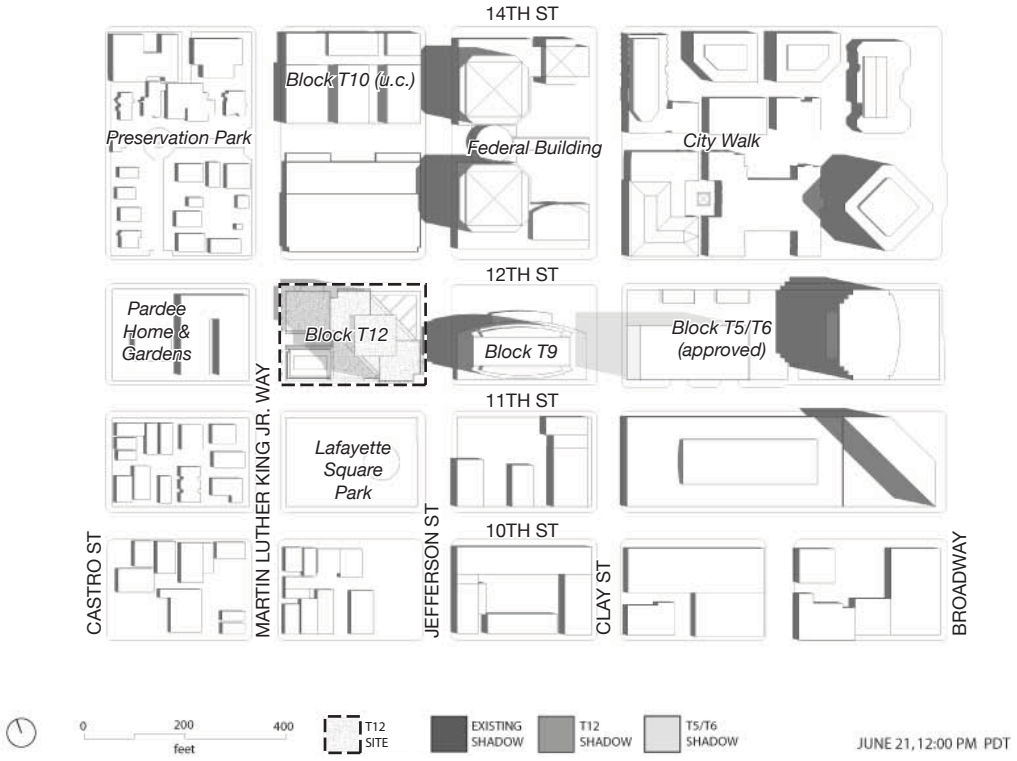


SOURCE: Korth Sunseri Hagey Architects

City Center EIR Addendum #3 . ESA 207453

Figure 3

Project Shadow Patterns
June and December, 9:00 am

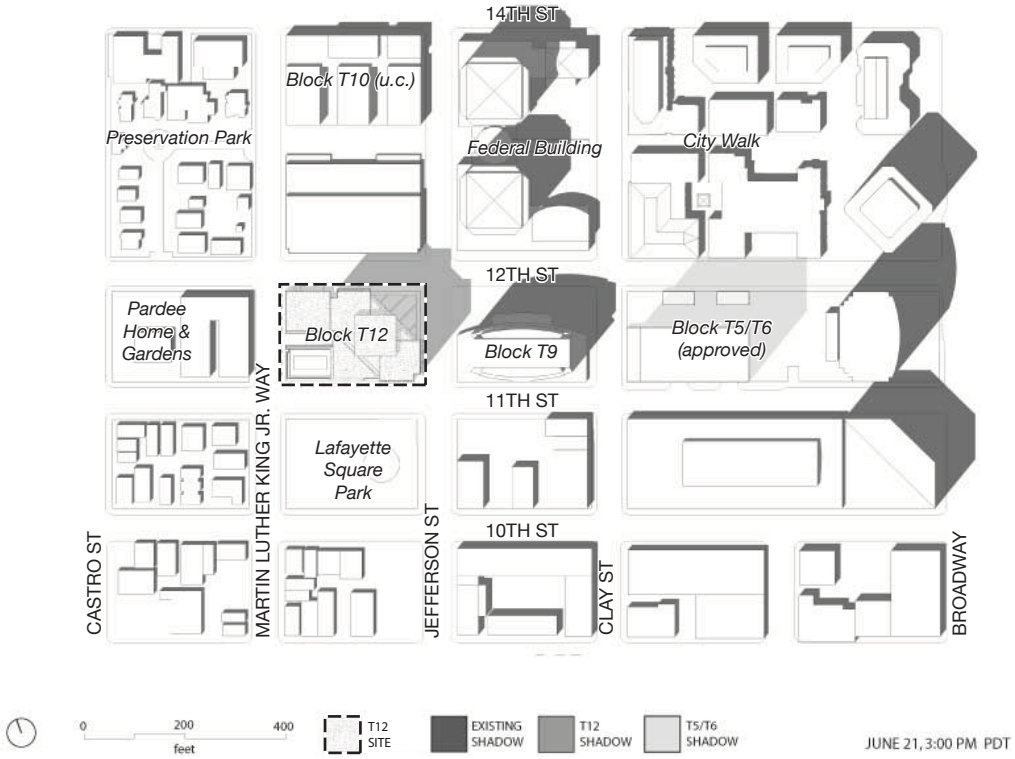


SOURCE: Korth Sunseri Hagey Architects

City Center EIR Addendum #3 . ESA 207453

Figure 4

Project Shadow Patterns
June and December, Noon



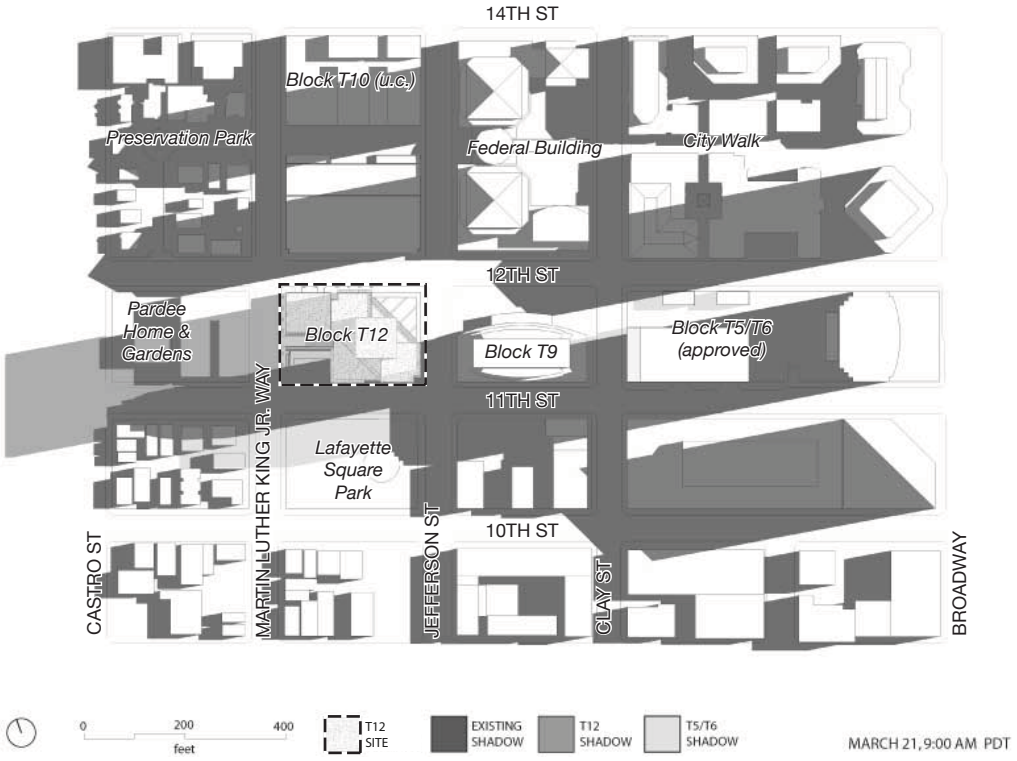
SOURCE: Korth Sunseri Hagey Architects

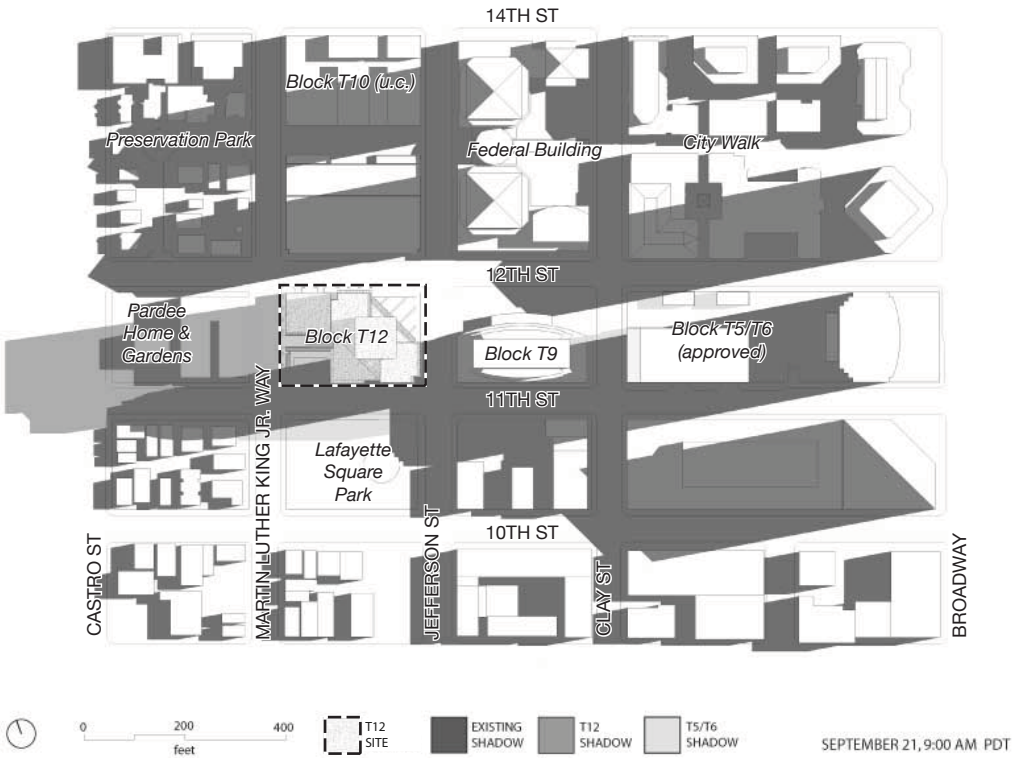
City Center EIR Addendum #3 . ESA 207453

Figure 5

Project Shadow Patterns

June and December, 3:00 pm



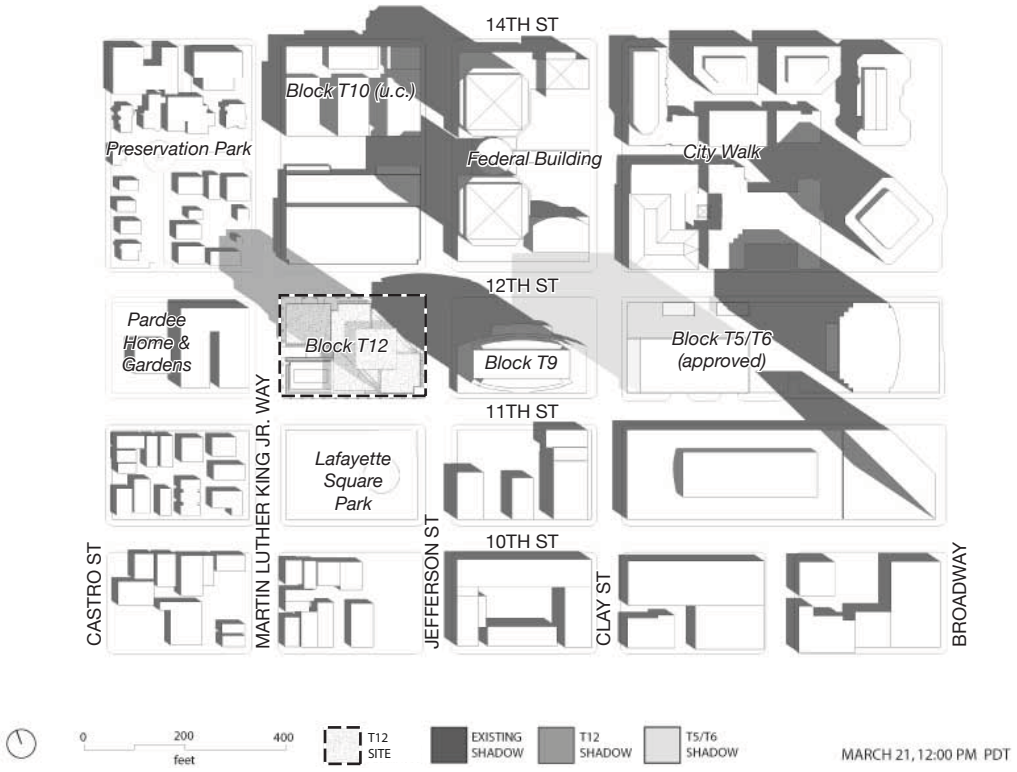


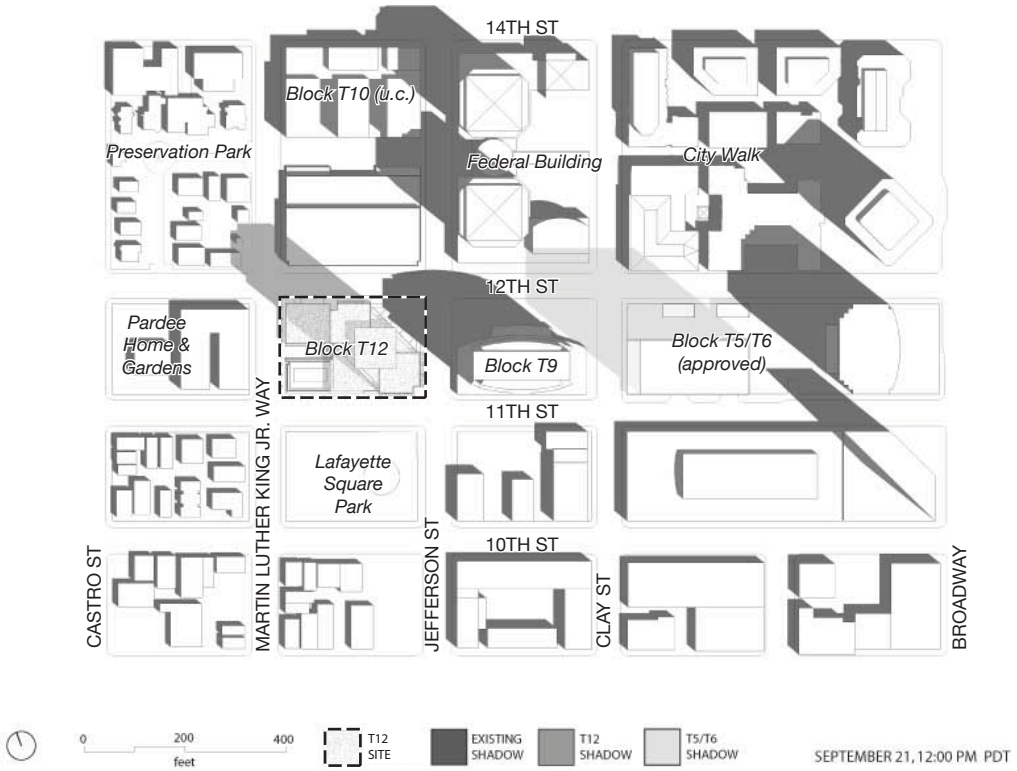
SOURCE: Korth Sunseri Hagey Architects

City Center EIR Addendum #3 . ESA 207453

Figure 6

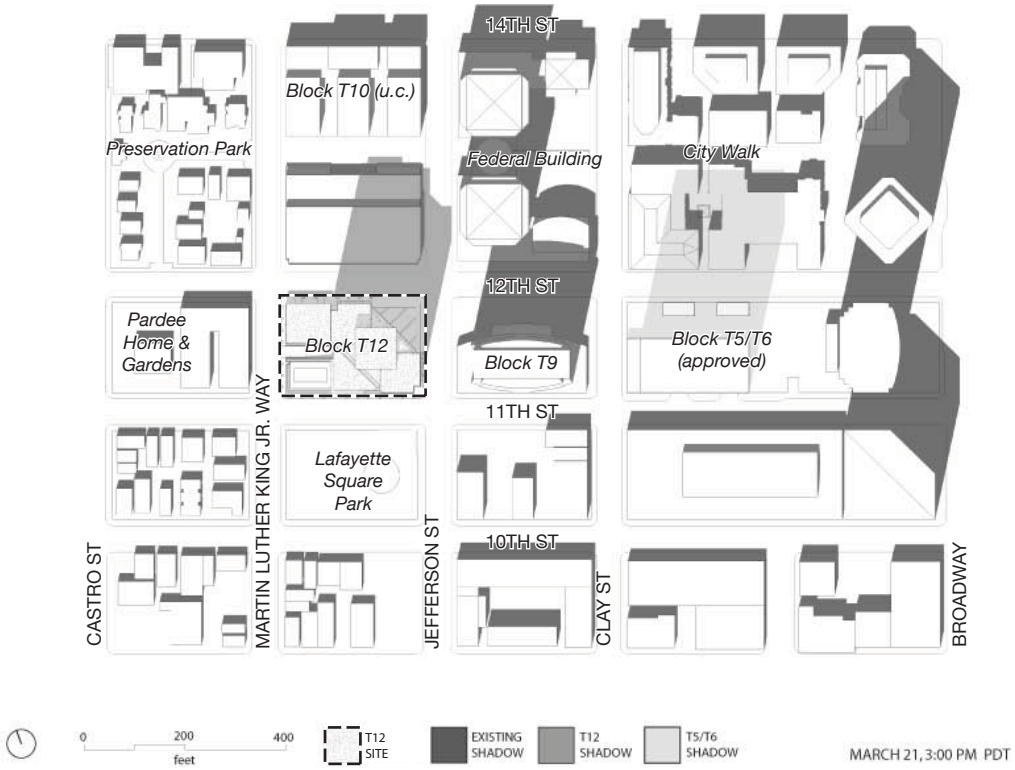
Project Shadow Patterns
March and September, 9:00 am

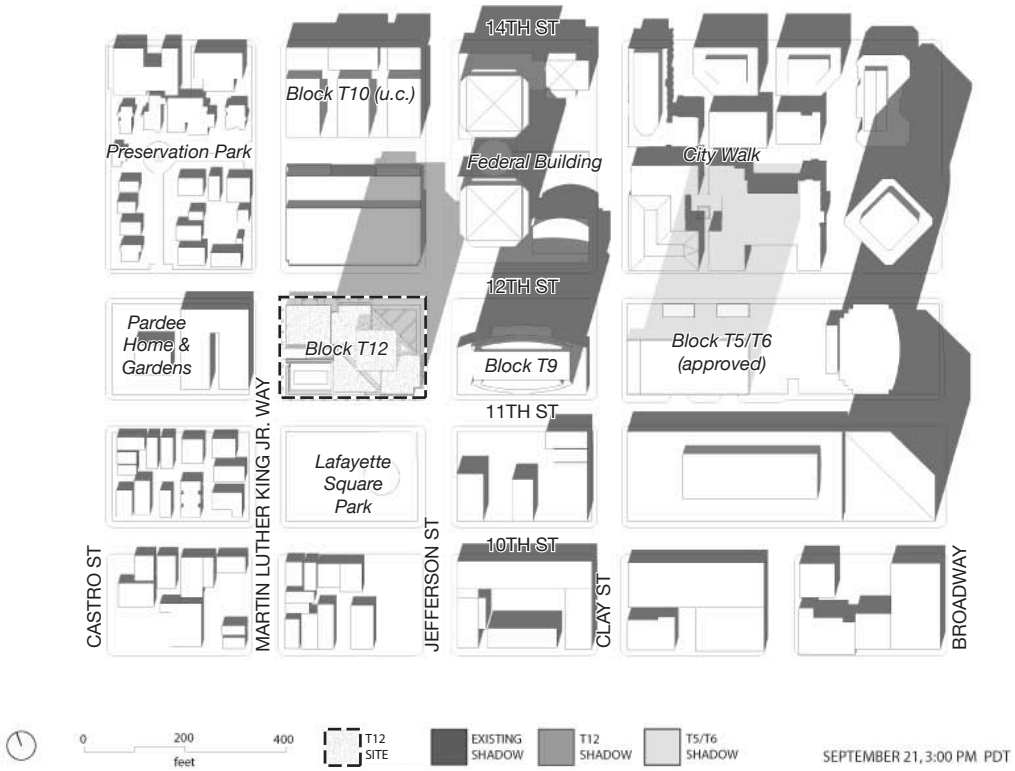




SOURCE: Korth Sunseri Hagey Architects

Figure 7
Project Shadow Patterns
March and September, Noon





SOURCE: Korth Sunseri Hagey Architects

City Center EIR Addendum #3 . ESA 207453

Figure 8

Project Shadow Patterns
March and September, 3:00 pm

APPENDIX B

Transportation LOS Sheets and Background Detail

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	447	36	89	322	51	74	342	101	34	290	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99		1.00	1.00	0.91	1.00	0.98	
Flpb, ped/bikes	0.97	1.00			0.99		0.96	1.00	1.00	0.95	1.00	
Frt	1.00	0.99			0.98		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1541	3130			3053		1526	3185	1087	1515	2997	
Flt Permitted	0.37	1.00			0.70		0.52	1.00	1.00	0.55	1.00	
Satd. Flow (perm)	604	3130			2157		841	3185	1087	871	2997	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	447	36	89	322	51	74	342	101	34	290	95
RTOR Reduction (vph)	0	10	0	0	16	0	0	0	38	0	24	0
Lane Group Flow (vph)	58	473	0	0	446	0	74	342	63	34	361	0
Confl. Peds. (#/hr)	71		73	73		71	84		80	80		84
Confl. Bikes (#/hr)			15			21			9			34
Bus Blockages (#/hr)	0	0	0	0	0	10	0	0	10	0	0	10
Parking (#/hr)			5			5			5			5
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	23.8	23.8			23.8		53.2	53.2	53.2	53.2	53.2	
Effective Green, g (s)	23.8	23.8			23.8		53.2	53.2	53.2	53.2	53.2	
Actuated g/C Ratio	0.28	0.28			0.28		0.63	0.63	0.63	0.63	0.63	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	169	876			603		526	1993	680	545	1875	
v/s Ratio Prot		0.15						0.11			c0.12	
v/s Ratio Perm	0.10				c0.21		0.09		0.06	0.04		
v/c Ratio	0.34	0.54			0.74		0.14	0.17	0.09	0.06	0.19	
Uniform Delay, d1	24.4	26.0			27.8		6.5	6.7	6.3	6.2	6.8	
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.3			4.1		0.6	0.2	0.3	0.2	0.2	
Delay (s)	24.8	26.3			31.9		7.1	6.9	6.6	6.4	7.0	
Level of Service	C	C			C		A	A	A	A	A	
Approach Delay (s)		26.1			31.9			6.8			6.9	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	WBL	WBT	SBT	SBR	SWL	SWR
Lane Configurations							
Volume (vph)	2	53	116	418	89	1816	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		5.0	
Lane Util. Factor	1.00	1.00	0.91	0.91		0.97	
Frpb, ped/bikes	0.93	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	0.94	1.00	1.00		1.00	
Frt	0.86	1.00	1.00	0.97		1.00	
Flt Protected	1.00	0.95	1.00	1.00		0.95	
Satd. Flow (prot)	1345	1496	4577	4254		3185	
Flt Permitted	1.00	0.95	1.00	1.00		0.95	
Satd. Flow (perm)	1345	1496	4577	4254		3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	53	116	418	89	1816	18
RTOR Reduction (vph)	2	46	0	29	0	0	0
Lane Group Flow (vph)	0	7	116	478	0	1834	0
Confl. Peds. (#/hr)	35	35			4	35	4
Confl. Bikes (#/hr)	1				1		
Parking (#/hr)				5	5		
Turn Type	Perm	Perm	NA	NA		Prot	
Protected Phases			4	5		6	
Permitted Phases	4	4					
Actuated Green, G (s)	14.8	14.8	14.8	16.5		69.7	
Effective Green, g (s)	14.8	14.8	14.8	16.5		69.7	
Actuated g/C Ratio	0.13	0.13	0.13	0.14		0.61	
Clearance Time (s)	4.5	4.5	4.5	4.5		5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	173	192	589	610		1930	
v/s Ratio Prot			c0.03	c0.11		c0.58	
v/s Ratio Perm	0.00	0.00					
v/c Ratio	0.00	0.04	0.20	0.78		0.95	
Uniform Delay, d1	43.7	43.9	44.8	47.5		21.0	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.1	0.2	6.5		11.7	
Delay (s)	43.7	43.9	45.0	54.0		32.7	
Level of Service	D	D	D	D		C	
Approach Delay (s)			44.6	54.0		32.7	
Approach LOS			D	D		C	

Intersection Summary			
HCM 2000 Control Delay	37.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	94	303	71	93	395	0	0	400	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.5			4.5	
Lane Util. Factor					0.91		1.00	0.95			0.95	
Frpb, ped/bikes					0.98		1.00	1.00			0.96	
Flpb, ped/bikes					0.97		1.00	1.00			1.00	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4001		1593	3122			2933	
Flt Permitted					0.99		0.95	1.00			1.00	
Satd. Flow (perm)					4001		1593	3122			2933	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	94	303	71	93	395	0	0	400	53
RTOR Reduction (vph)	0	0	0	0	43	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	425	0	93	395	0	0	436	0
Confl. Peds. (#/hr)				164		113	522					522
Confl. Bikes (#/hr)						6						10
Bus Blockages (#/hr)	0	0	0	0	10	10	0	10	0	0	10	10
Parking (#/hr)				5	5	5						
Turn Type				Perm	NA		Prot	NA			NA	
Protected Phases					4		5	2			6	
Permitted Phases				4								
Actuated Green, G (s)					21.0		4.5	30.5			22.0	
Effective Green, g (s)					21.0		4.5	30.5			22.0	
Actuated g/C Ratio					0.35		0.08	0.51			0.37	
Clearance Time (s)					4.0		4.0	4.5			4.5	
Lane Grp Cap (vph)					1400		119	1587			1075	
v/s Ratio Prot							c0.06	0.13			c0.15	
v/s Ratio Perm					0.11							
v/c Ratio					0.30		0.78	0.25			0.41	
Uniform Delay, d1					14.2		27.3	8.3			14.1	
Progression Factor					1.00		1.57	2.28			1.00	
Incremental Delay, d2					0.6		36.0	0.3			1.1	
Delay (s)					14.7		78.9	19.3			15.3	
Level of Service					B		E	B			B	
Approach Delay (s)		0.0			14.7			30.6			15.3	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	448	97	0	0	0	0	402	74	88	403	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frpb, ped/bikes		0.98						0.95		1.00	1.00	
Flpb, ped/bikes		0.98						1.00		1.00	1.00	
Frt		0.98						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		5150						2898		1593	3122	
Flt Permitted		0.99						1.00		0.95	1.00	
Satd. Flow (perm)		5150						2898		1593	3122	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	85	448	97	0	0	0	0	402	74	88	403	0
RTOR Reduction (vph)	0	55	0	0	0	0	0	25	0	0	0	0
Lane Group Flow (vph)	0	575	0	0	0	0	0	451	0	88	403	0
Confl. Peds. (#/hr)	139		172						313	313		
Confl. Bikes (#/hr)			11						3			
Bus Blockages (#/hr)	0	10	10	0	0	0	0	10	10	0	10	0
Parking (#/hr)	5	5	5									
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						20.0		5.0	29.0	
Effective Green, g (s)		23.0						20.0		5.0	29.0	
Actuated g/C Ratio		0.38						0.33		0.08	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1974						966		132	1508	
v/s Ratio Prot								c0.16		c0.06	0.13	
v/s Ratio Perm		0.11										
v/c Ratio		0.29						0.47		0.67	0.27	
Uniform Delay, d1		12.8						15.8		26.7	9.2	
Progression Factor		1.00						1.00		0.64	1.03	
Incremental Delay, d2		0.4						1.6		22.2	0.4	
Delay (s)		13.2						17.4		39.2	9.9	
Level of Service		B						B		D	A	
Approach Delay (s)		13.2			0.0			17.4			15.2	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations											
Volume (vph)	43	595	141	31	51	131	155	57	326	130	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0		4.0	4.5	4.0
Lane Util. Factor		0.91	0.91		1.00	0.95	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	0.99		0.95	1.00	0.89		1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.99		0.85	1.00	0.85		1.00	1.00	1.00
Flt Protected		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (prot)		1449	2913		1356	3185	1262		1593	1593	1676
Flt Permitted		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (perm)		1449	2913		1356	3185	1262		1593	1593	1676
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	43	595	141	31	51	131	155	57	326	130	295
RTOR Reduction (vph)	0	0	0	0	35	0	0	0	0	0	0
Lane Group Flow (vph)	0	358	452	0	16	131	212	0	326	130	295
Confl. Peds. (#/hr)				25	25		40	40	40	40	
Confl. Bikes (#/hr)							1	1			
Turn Type	Perm	Perm	NA		Perm	NA	Perm		Prot	Prot	NA
Protected Phases			4			2			1	1	6
Permitted Phases	4	4			4		2				
Actuated Green, G (s)		26.8	26.8		26.8	18.5	18.5		31.2	31.2	53.2
Effective Green, g (s)		28.3	28.3		28.3	18.0	18.0		31.7	31.2	53.7
Actuated g/C Ratio		0.31	0.31		0.31	0.20	0.20		0.35	0.35	0.60
Clearance Time (s)		5.5	5.5		5.5	3.5	3.5		4.5	4.5	4.5
Vehicle Extension (s)		2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)		455	915		426	637	252		561	552	1000
v/s Ratio Prot						0.04			c0.20	0.08	0.18
v/s Ratio Perm		c0.25	0.16		0.01		c0.17				
v/c Ratio		0.79	0.49		0.04	0.21	0.84		0.58	0.24	0.29
Uniform Delay, d1		28.1	25.0		21.4	30.0	34.6		23.7	20.9	8.9
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		8.1	0.2		0.0	0.1	20.9		4.4	1.0	0.8
Delay (s)		36.2	25.2		21.4	30.1	55.5		28.1	21.9	9.6
Level of Service		D	C		C	C	E		C	C	A
Approach Delay (s)			29.5			45.8					19.8
Approach LOS			C			D					B

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	630	89	71	341	40	240	565	133	85	389	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99		1.00	1.00	0.91	1.00	0.99	
Flpb, ped/bikes	0.98	1.00			1.00		0.98	1.00	1.00	0.98	1.00	
Frt	1.00	0.98			0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1557	3098			3091		1564	3185	1093	1561	3059	
Flt Permitted	0.40	1.00			0.66		0.46	1.00	1.00	0.42	1.00	
Satd. Flow (perm)	648	3098			2043		760	3185	1093	685	3059	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	100	630	89	71	341	40	240	565	133	85	389	94
RTOR Reduction (vph)	0	17	0	0	12	0	0	0	53	0	17	0
Lane Group Flow (vph)	100	702	0	0	440	0	240	565	80	85	466	0
Confl. Peds. (#/hr)	47		62	62		47	43		66	47		43
Confl. Bikes (#/hr)			10			19			35			22
Bus Blockages (#/hr)	0	0	0	0	0	10	0	0	10	0	0	10
Parking (#/hr)			5			5			5			5
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	25.8	25.8			25.8		51.2	51.2	51.2	51.2	51.2	
Effective Green, g (s)	25.8	25.8			25.8		51.2	51.2	51.2	51.2	51.2	
Actuated g/C Ratio	0.30	0.30			0.30		0.60	0.60	0.60	0.60	0.60	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	196	940			620		457	1918	658	412	1842	
v/s Ratio Prot		c0.23						0.18			0.15	
v/s Ratio Perm	0.15				0.22		c0.32		0.07	0.12		
v/c Ratio	0.51	0.75			0.71		0.53	0.29	0.12	0.21	0.25	
Uniform Delay, d1	24.4	26.7			26.3		9.8	8.2	7.3	7.7	7.9	
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.9	2.9			3.1		4.3	0.4	0.4	1.1	0.3	
Delay (s)	25.3	29.5			29.3		14.1	8.6	7.6	8.8	8.3	
Level of Service	C	C			C		B	A	A	A	A	
Approach Delay (s)		29.0			29.3			9.8			8.3	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	WBL	WBT	SBT	SBR	SWL	SWR
Lane Configurations							
Volume (vph)	3	89	119	275	46	986	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		5.0	
Lane Util. Factor	1.00	1.00	0.91	0.91		0.97	
Frpb, ped/bikes	0.92	1.00	1.00	0.99		1.00	
Flpb, ped/bikes	1.00	0.93	1.00	1.00		1.00	
Frt	0.86	1.00	1.00	0.98		0.99	
Flt Protected	1.00	0.95	1.00	1.00		0.95	
Satd. Flow (prot)	1337	1485	4577	4261		3185	
Flt Permitted	1.00	0.95	1.00	1.00		0.95	
Satd. Flow (perm)	1337	1485	4577	4261		3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	89	119	275	46	986	43
RTOR Reduction (vph)	2	74	0	31	0	0	0
Lane Group Flow (vph)	1	15	119	290	0	1029	0
Confl. Peds. (#/hr)	53	53			23	53	23
Parking (#/hr)				5	5		
Turn Type	Perm	Perm	NA	NA		Prot	
Protected Phases			4	5		6	
Permitted Phases	4	4					
Actuated Green, G (s)	14.6	14.6	14.6	11.2		45.2	
Effective Green, g (s)	14.6	14.6	14.6	11.2		45.2	
Actuated g/C Ratio	0.17	0.17	0.17	0.13		0.53	
Clearance Time (s)	4.5	4.5	4.5	4.5		5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	229	255	786	561		1693	
v/s Ratio Prot			c0.03	c0.07		c0.32	
v/s Ratio Perm	0.00	0.01					
v/c Ratio	0.00	0.06	0.15	0.52		0.61	
Uniform Delay, d1	29.2	29.5	29.9	34.4		13.8	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.1	0.1	0.8		1.6	
Delay (s)	29.2	29.6	30.0	35.2		15.4	
Level of Service	C	C	C	D		B	
Approach Delay (s)			29.8	35.2		15.4	
Approach LOS			C	D		B	

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	142	509	101	112	453	0	0	589	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.5			4.5	
Lane Util. Factor					0.91		1.00	0.95			0.95	
Frpb, ped/bikes					0.99		1.00	1.00			0.96	
Flpb, ped/bikes					0.98		1.00	1.00			1.00	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4085		1450	3122			2938	
Flt Permitted					0.99		0.95	1.00			1.00	
Satd. Flow (perm)					4085		1450	3122			2938	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	142	509	101	112	453	0	0	589	79
RTOR Reduction (vph)	0	0	0	0	19	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	733	0	112	453	0	0	651	0
Confl. Peds. (#/hr)				125		48	446		455	455		446
Confl. Bikes (#/hr)						6			10			9
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	12%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	10	10	0	10	0	0	10	10
Parking (#/hr)				5	5	5						
Turn Type				Perm	NA		Prot	NA			NA	
Protected Phases					4		5	2			6	
Permitted Phases				4								
Actuated Green, G (s)					21.0		4.5	30.5			22.0	
Effective Green, g (s)					21.0		4.5	30.5			22.0	
Actuated g/C Ratio					0.35		0.08	0.51			0.37	
Clearance Time (s)					4.0		4.0	4.5			4.5	
Lane Grp Cap (vph)					1429		108	1587			1077	
v/s Ratio Prot							c0.08	0.15			c0.22	
v/s Ratio Perm					0.18							
v/c Ratio					0.51		1.04	0.29			0.60	
Uniform Delay, d1					15.4		27.8	8.5			15.5	
Progression Factor					1.00		1.15	1.10			1.00	
Incremental Delay, d2					1.3		91.4	0.4			2.5	
Delay (s)					16.8		123.4	9.7			18.0	
Level of Service					B		F	A			B	
Approach Delay (s)		0.0			16.8			32.2			18.0	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	95	428	148	0	0	0	0	457	80	112	601	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frpb, ped/bikes		0.93						0.95		1.00	1.00	
Flpb, ped/bikes		0.99						1.00		1.00	1.00	
Frt		0.97						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4868						2885		1593	3122	
Flt Permitted		0.99						1.00		0.95	1.00	
Satd. Flow (perm)		4868						2885		1593	3122	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	95	428	148	0	0	0	0	457	80	112	601	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	664	0	0	0	0	0	514	0	112	601	0
Confl. Peds. (#/hr)	77		535				490		535	535		490
Confl. Bikes (#/hr)			6						9			16
Bus Blockages (#/hr)	0	10	10	0	0	0	0	10	10	0	10	0
Parking (#/hr)	5	5	5									
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						20.0		5.0	29.0	
Effective Green, g (s)		23.0						20.0		5.0	29.0	
Actuated g/C Ratio		0.38						0.33		0.08	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1866						961		132	1508	
v/s Ratio Prot								c0.18		c0.07	0.19	
v/s Ratio Perm		0.14										
v/c Ratio		0.36						0.53		0.85	0.40	
Uniform Delay, d1		13.2						16.2		27.1	9.9	
Progression Factor		1.00						1.00		0.90	1.76	
Incremental Delay, d2		0.5						2.1		39.2	0.6	
Delay (s)		13.7						18.4		63.6	18.1	
Level of Service		B						B		E	B	
Approach Delay (s)		13.7			0.0			18.4			25.2	
Approach LOS		B			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations											
Volume (vph)	28	896	268	7	64	293	232	56	308	243	262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0		3.5	4.0	4.0
Lane Util. Factor		0.91	0.91		1.00	0.95	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	1.00		0.95	1.00	0.81		1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	1.00		0.85	1.00	0.85		1.00	1.00	1.00
Flt Protected		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (prot)		1449	2955		1353	3185	1149		1593	1593	1676
Flt Permitted		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (perm)		1449	2955		1353	3185	1149		1593	1593	1676
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	28	896	268	7	64	293	232	56	308	243	262
RTOR Reduction (vph)	0	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	503	696	0	26	293	288	0	308	243	262
Confl. Peds. (#/hr)				26	26		71	71	71	71	
Confl. Bikes (#/hr)				1	1		2	2			
Turn Type	Perm	Perm	NA		Perm	NA	Perm		Prot	Prot	NA
Protected Phases			4			2			1	1	6
Permitted Phases	4	4			4		2				
Actuated Green, G (s)		31.9	31.9		31.9	22.5	22.5		22.6	22.6	48.1
Effective Green, g (s)		33.4	33.4		33.4	22.0	22.0		23.1	22.6	48.6
Actuated g/C Ratio		0.37	0.37		0.37	0.24	0.24		0.26	0.25	0.54
Clearance Time (s)		5.5	5.5		5.5	3.5	3.5		4.0	4.0	4.5
Vehicle Extension (s)		2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)		537	1096		502	778	280		408	400	905
v/s Ratio Prot						0.09			c0.19	0.15	0.16
v/s Ratio Perm		c0.35	0.24		0.02		c0.25				
v/c Ratio		0.94	0.64		0.05	0.38	1.03		0.75	0.61	0.29
Uniform Delay, d1		27.3	23.3		18.1	28.3	34.0		30.8	29.8	11.3
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		23.7	0.9		0.0	0.1	61.4		12.2	6.7	0.8
Delay (s)		51.0	24.2		18.2	28.4	95.4		43.1	36.5	12.1
Level of Service		D	C		B	C	F		D	D	B
Approach Delay (s)			34.5			61.6					31.1
Approach LOS			C			E					C

Intersection Summary			
HCM 2000 Control Delay	39.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

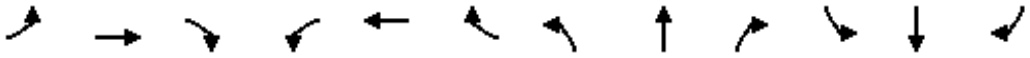
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	447	36	89	322	51	74	346	101	34	299	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99		1.00	1.00	0.91	1.00	0.98	
Flpb, ped/bikes	0.97	1.00			0.99		0.96	1.00	1.00	0.95	1.00	
Frt	1.00	0.99			0.98		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1541	3130			3053		1527	3185	1087	1515	3002	
Flt Permitted	0.37	1.00			0.70		0.52	1.00	1.00	0.54	1.00	
Satd. Flow (perm)	604	3130			2157		833	3185	1087	868	3002	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	447	36	89	322	51	74	346	101	34	299	95
RTOR Reduction (vph)	0	10	0	0	16	0	0	0	38	0	23	0
Lane Group Flow (vph)	58	473	0	0	446	0	74	346	63	34	371	0
Confl. Peds. (#/hr)	71		73	73		71	84		80	80		84
Confl. Bikes (#/hr)			15			21			9			34
Bus Blockages (#/hr)	0	0	0	0	0	10	0	0	10	0	0	10
Parking (#/hr)			5			5			5			5
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	23.8	23.8			23.8		53.2	53.2	53.2	53.2	53.2	
Effective Green, g (s)	23.8	23.8			23.8		53.2	53.2	53.2	53.2	53.2	
Actuated g/C Ratio	0.28	0.28			0.28		0.63	0.63	0.63	0.63	0.63	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	169	876			603		521	1993	680	543	1878	
v/s Ratio Prot		0.15						0.11			c0.12	
v/s Ratio Perm	0.10				c0.21		0.09		0.06	0.04		
v/c Ratio	0.34	0.54			0.74		0.14	0.17	0.09	0.06	0.20	
Uniform Delay, d1	24.4	26.0			27.8		6.5	6.7	6.3	6.2	6.8	
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.3			4.1		0.6	0.2	0.3	0.2	0.2	
Delay (s)	24.8	26.3			31.9		7.1	6.9	6.6	6.4	7.0	
Level of Service	C	C			C		A	A	A	A	A	
Approach Delay (s)		26.1			31.9			6.8			7.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	WBL	WBT	SBT	SBR	SWL	SWR
Lane Configurations							
Volume (vph)	2	53	116	432	89	1879	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		5.0	
Lane Util. Factor	1.00	1.00	0.91	0.91		0.97	
Frpb, ped/bikes	0.93	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	0.94	1.00	1.00		1.00	
Frt	0.86	1.00	1.00	0.97		1.00	
Flt Protected	1.00	0.95	1.00	1.00		0.95	
Satd. Flow (prot)	1345	1496	4577	4257		3185	
Flt Permitted	1.00	0.95	1.00	1.00		0.95	
Satd. Flow (perm)	1345	1496	4577	4257		3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	53	116	432	89	1879	18
RTOR Reduction (vph)	2	46	0	27	0	0	0
Lane Group Flow (vph)	0	7	116	494	0	1897	0
Confl. Peds. (#/hr)	35	35			4	35	4
Confl. Bikes (#/hr)	1				1		
Parking (#/hr)				5	5		
Turn Type	Perm	Perm	NA	NA		Prot	
Protected Phases			4	5		6	
Permitted Phases	4	4					
Actuated Green, G (s)	14.8	14.8	14.8	16.7		69.5	
Effective Green, g (s)	14.8	14.8	14.8	16.7		69.5	
Actuated g/C Ratio	0.13	0.13	0.13	0.15		0.60	
Clearance Time (s)	4.5	4.5	4.5	4.5		5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	173	192	589	618		1924	
v/s Ratio Prot			c0.03	c0.12		c0.60	
v/s Ratio Perm	0.00	0.00					
v/c Ratio	0.00	0.04	0.20	0.80		0.99	
Uniform Delay, d1	43.7	43.9	44.8	47.5		22.3	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.1	0.2	7.1		17.5	
Delay (s)	43.7	43.9	45.0	54.7		39.7	
Level of Service	D	D	D	D		D	
Approach Delay (s)			44.6	54.7		39.7	
Approach LOS			D	D		D	

Intersection Summary			
HCM 2000 Control Delay	43.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	94	364	71	100	401	0	0	400	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.5			4.5	
Lane Util. Factor					0.91		1.00	0.95			0.95	
Frpb, ped/bikes					0.99		1.00	1.00			0.95	
Flpb, ped/bikes					0.98		1.00	1.00			1.00	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4038		1593	3122			2906	
Flt Permitted					0.99		0.95	1.00			1.00	
Satd. Flow (perm)					4038		1593	3122			2906	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	94	364	71	100	401	0	0	400	62
RTOR Reduction (vph)	0	0	0	0	34	0	0	0	0	0	20	0
Lane Group Flow (vph)	0	0	0	0	495	0	100	401	0	0	442	0
Confl. Peds. (#/hr)				164		113	522					522
Confl. Bikes (#/hr)						6						10
Bus Blockages (#/hr)	0	0	0	0	10	10	0	10	0	0	10	10
Parking (#/hr)				5	5	5						
Turn Type				Perm	NA		Prot	NA			NA	
Protected Phases					4		5	2			6	
Permitted Phases				4								
Actuated Green, G (s)					21.0		4.5	30.5			22.0	
Effective Green, g (s)					21.0		4.5	30.5			22.0	
Actuated g/C Ratio					0.35		0.08	0.51			0.37	
Clearance Time (s)					4.0		4.0	4.5			4.5	
Lane Grp Cap (vph)					1413		119	1587			1065	
v/s Ratio Prot							c0.06	0.13			c0.15	
v/s Ratio Perm					0.12							
v/c Ratio					0.35		0.84	0.25			0.41	
Uniform Delay, d1					14.4		27.4	8.3			14.2	
Progression Factor					1.00		1.56	2.26			1.00	
Incremental Delay, d2					0.7		44.4	0.3			1.2	
Delay (s)					15.1		87.3	19.2			15.4	
Level of Service					B		F	B			B	
Approach Delay (s)		0.0			15.1			32.8			15.4	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	21.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	491	131	0	0	0	0	409	74	88	403	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frpb, ped/bikes		0.97						0.95		1.00	1.00	
Flpb, ped/bikes		0.98						1.00		1.00	1.00	
Frt		0.97						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		5107						2902		1593	3122	
Flt Permitted		0.99						1.00		0.95	1.00	
Satd. Flow (perm)		5107						2902		1593	3122	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	91	491	131	0	0	0	0	409	74	88	403	0
RTOR Reduction (vph)	0	68	0	0	0	0	0	25	0	0	0	0
Lane Group Flow (vph)	0	645	0	0	0	0	0	458	0	88	403	0
Confl. Peds. (#/hr)	139		172						313	313		
Confl. Bikes (#/hr)			11						3			
Bus Blockages (#/hr)	0	10	10	0	0	0	0	10	10	0	10	0
Parking (#/hr)	5	5	5									
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						20.0		5.0	29.0	
Effective Green, g (s)		23.0						20.0		5.0	29.0	
Actuated g/C Ratio		0.38						0.33		0.08	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1957						967		132	1508	
v/s Ratio Prot								c0.16		c0.06	0.13	
v/s Ratio Perm		0.13										
v/c Ratio		0.33						0.47		0.67	0.27	
Uniform Delay, d1		13.1						15.8		26.7	9.2	
Progression Factor		1.00						1.00		0.64	1.04	
Incremental Delay, d2		0.5						1.7		22.0	0.4	
Delay (s)		13.5						17.5		39.0	10.0	
Level of Service		B						B		D	A	
Approach Delay (s)		13.5			0.0			17.5			15.2	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations											
Volume (vph)	43	595	141	31	51	131	155	57	337	134	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0		4.0	4.5	4.0
Lane Util. Factor		0.91	0.91		1.00	0.95	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	0.99		0.95	1.00	0.89		1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.99		0.85	1.00	0.85		1.00	1.00	1.00
Flt Protected		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (prot)		1449	2913		1356	3185	1262		1593	1593	1676
Flt Permitted		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (perm)		1449	2913		1356	3185	1262		1593	1593	1676
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	43	595	141	31	51	131	155	57	337	134	295
RTOR Reduction (vph)	0	0	0	0	35	0	0	0	0	0	0
Lane Group Flow (vph)	0	358	452	0	16	131	212	0	337	134	295
Confl. Peds. (#/hr)				25	25		40	40	40	40	
Confl. Bikes (#/hr)							1	1			
Turn Type	Perm	Perm	NA		Perm	NA	Perm		Prot	Prot	NA
Protected Phases			4			2			1	1	6
Permitted Phases	4	4			4		2				
Actuated Green, G (s)		26.8	26.8		26.8	18.5	18.5		31.2	31.2	53.2
Effective Green, g (s)		28.3	28.3		28.3	18.0	18.0		31.7	31.2	53.7
Actuated g/C Ratio		0.31	0.31		0.31	0.20	0.20		0.35	0.35	0.60
Clearance Time (s)		5.5	5.5		5.5	3.5	3.5		4.5	4.5	4.5
Vehicle Extension (s)		2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)		455	915		426	637	252		561	552	1000
v/s Ratio Prot						0.04			c0.21	0.08	0.18
v/s Ratio Perm		c0.25	0.16		0.01		c0.17				
v/c Ratio		0.79	0.49		0.04	0.21	0.84		0.60	0.24	0.29
Uniform Delay, d1		28.1	25.0		21.4	30.0	34.6		24.0	21.0	8.9
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		8.1	0.2		0.0	0.1	20.9		4.7	1.0	0.8
Delay (s)		36.2	25.2		21.4	30.1	55.5		28.7	22.0	9.6
Level of Service		D	C		C	C	E		C	C	A
Approach Delay (s)			29.5			45.8					20.2
Approach LOS			C			D					C

Intersection Summary			
HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	630	89	71	341	40	240	574	133	85	394	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99		1.00	1.00	0.91	1.00	0.99	
Flpb, ped/bikes	0.98	1.00			1.00		0.98	1.00	1.00	0.98	1.00	
Frt	1.00	0.98			0.99		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1557	3098			3091		1564	3185	1093	1561	3060	
Flt Permitted	0.40	1.00			0.66		0.46	1.00	1.00	0.41	1.00	
Satd. Flow (perm)	648	3098			2043		756	3185	1093	677	3060	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	100	630	89	71	341	40	240	574	133	85	394	94
RTOR Reduction (vph)	0	17	0	0	12	0	0	0	53	0	17	0
Lane Group Flow (vph)	100	702	0	0	440	0	240	574	80	85	471	0
Confl. Peds. (#/hr)	47		62	62		47	43		66	47		43
Confl. Bikes (#/hr)			10			19			35			22
Bus Blockages (#/hr)	0	0	0	0	0	10	0	0	10	0	0	10
Parking (#/hr)			5			5			5			5
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	25.8	25.8			25.8		51.2	51.2	51.2	51.2	51.2	
Effective Green, g (s)	25.8	25.8			25.8		51.2	51.2	51.2	51.2	51.2	
Actuated g/C Ratio	0.30	0.30			0.30		0.60	0.60	0.60	0.60	0.60	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	196	940			620		455	1918	658	407	1843	
v/s Ratio Prot		c0.23						0.18			0.15	
v/s Ratio Perm	0.15				0.22		c0.32		0.07	0.13		
v/c Ratio	0.51	0.75			0.71		0.53	0.30	0.12	0.21	0.26	
Uniform Delay, d1	24.4	26.7			26.3		9.8	8.2	7.3	7.7	7.9	
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.9	2.9			3.1		4.3	0.4	0.4	1.2	0.3	
Delay (s)	25.3	29.5			29.3		14.2	8.6	7.6	8.9	8.3	
Level of Service	C	C			C		B	A	A	A	A	
Approach Delay (s)		29.0			29.3			9.9			8.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	WBL	WBT	SBT	SBR	SWL	SWR
Lane Configurations							
Volume (vph)	3	89	119	283	46	1014	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		5.0	
Lane Util. Factor	1.00	1.00	0.91	0.91		0.97	
Frpb, ped/bikes	0.92	1.00	1.00	0.99		1.00	
Flpb, ped/bikes	1.00	0.93	1.00	1.00		1.00	
Frt	0.86	1.00	1.00	0.98		0.99	
Flt Protected	1.00	0.95	1.00	1.00		0.95	
Satd. Flow (prot)	1337	1485	4577	4264		3185	
Flt Permitted	1.00	0.95	1.00	1.00		0.95	
Satd. Flow (perm)	1337	1485	4577	4264		3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	89	119	283	46	1014	43
RTOR Reduction (vph)	2	74	0	30	0	0	0
Lane Group Flow (vph)	1	15	119	299	0	1057	0
Confl. Peds. (#/hr)	53	53			23	53	23
Parking (#/hr)				5	5		
Turn Type	Perm	Perm	NA	NA		Prot	
Protected Phases			4	5		6	
Permitted Phases	4	4					
Actuated Green, G (s)	14.6	14.6	14.6	11.4		45.0	
Effective Green, g (s)	14.6	14.6	14.6	11.4		45.0	
Actuated g/C Ratio	0.17	0.17	0.17	0.13		0.53	
Clearance Time (s)	4.5	4.5	4.5	4.5		5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	229	255	786	571		1686	
v/s Ratio Prot			c0.03	c0.07		c0.33	
v/s Ratio Perm	0.00	0.01					
v/c Ratio	0.00	0.06	0.15	0.52		0.63	
Uniform Delay, d1	29.2	29.5	29.9	34.3		14.1	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.1	0.1	0.9		1.8	
Delay (s)	29.2	29.6	30.0	35.1		15.9	
Level of Service	C	C	C	D		B	
Approach Delay (s)			29.8	35.1		15.9	
Approach LOS			C	D		B	

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	142	573	101	222	466	0	0	589	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.5			4.5	
Lane Util. Factor					0.91		1.00	0.95			0.95	
Frpb, ped/bikes					0.99		1.00	1.00			0.96	
Flpb, ped/bikes					0.98		1.00	1.00			1.00	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4104		1450	3122			2928	
Flt Permitted					0.99		0.95	1.00			1.00	
Satd. Flow (perm)					4104		1450	3122			2928	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	142	573	101	222	466	0	0	589	84
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	18	0
Lane Group Flow (vph)	0	0	0	0	798	0	222	466	0	0	655	0
Confl. Peds. (#/hr)				125		48	446		455	455		446
Confl. Bikes (#/hr)						6			10			9
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	12%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	10	10	0	10	0	0	10	10
Parking (#/hr)				5	5	5						
Turn Type				Perm	NA		Prot	NA			NA	
Protected Phases					4		5	2			6	
Permitted Phases				4								
Actuated Green, G (s)					21.0		6.0	30.5			20.5	
Effective Green, g (s)					21.0		6.0	30.5			20.5	
Actuated g/C Ratio					0.35		0.10	0.51			0.34	
Clearance Time (s)					4.0		4.0	4.5			4.5	
Lane Grp Cap (vph)					1436		145	1587			1000	
v/s Ratio Prot							c0.15	0.15			c0.22	
v/s Ratio Perm					0.19							
v/c Ratio					0.56		1.53	0.29			0.65	
Uniform Delay, d1					15.7		27.0	8.5			16.7	
Progression Factor					1.00		1.07	0.97			1.00	
Incremental Delay, d2					1.6		266.5	0.4			3.3	
Delay (s)					17.3		295.5	8.6			20.1	
Level of Service					B		F	A			C	
Approach Delay (s)		0.0			17.3			101.2			20.1	
Approach LOS		A			B			F			C	

Intersection Summary			
HCM 2000 Control Delay	44.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	214	520	221	0	0	0	0	461	80	112	601	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frpb, ped/bikes		0.92						0.95		1.00	1.00	
Flpb, ped/bikes		0.99						1.00		1.00	1.00	
Frt		0.97						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4794						2886		1593	3122	
Flt Permitted		0.99						1.00		0.95	1.00	
Satd. Flow (perm)		4794						2886		1593	3122	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	214	520	221	0	0	0	0	461	80	112	601	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	948	0	0	0	0	0	518	0	112	601	0
Confl. Peds. (#/hr)	77		535				490		535	535		490
Confl. Bikes (#/hr)			6						9			16
Bus Blockages (#/hr)	0	10	10	0	0	0	0	10	10	0	10	0
Parking (#/hr)	5	5	5									
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						20.0		5.0	29.0	
Effective Green, g (s)		23.0						20.0		5.0	29.0	
Actuated g/C Ratio		0.38						0.33		0.08	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1837						962		132	1508	
v/s Ratio Prot								c0.18		c0.07	0.19	
v/s Ratio Perm		0.20										
v/c Ratio		0.52						0.54		0.85	0.40	
Uniform Delay, d1		14.2						16.2		27.1	9.9	
Progression Factor		1.00						1.00		0.85	1.67	
Incremental Delay, d2		1.0						2.2		37.6	0.6	
Delay (s)		15.3						18.4		60.6	17.2	
Level of Service		B						B		E	B	
Approach Delay (s)		15.3			0.0			18.4			24.0	
Approach LOS		B			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations											
Volume (vph)	28	896	268	7	64	293	232	56	326	257	262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0		3.5	4.0	4.0
Lane Util. Factor		0.91	0.91		1.00	0.95	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	1.00		0.95	1.00	0.81		1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	1.00		0.85	1.00	0.85		1.00	1.00	1.00
Flt Protected		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (prot)		1449	2955		1353	3185	1149		1593	1593	1676
Flt Permitted		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (perm)		1449	2955		1353	3185	1149		1593	1593	1676
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	28	896	268	7	64	293	232	56	326	257	262
RTOR Reduction (vph)	0	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	503	696	0	26	293	288	0	326	257	262
Confl. Peds. (#/hr)				26	26		71	71	71	71	
Confl. Bikes (#/hr)				1	1		2	2			
Turn Type	Perm	Perm	NA		Perm	NA	Perm		Prot	Prot	NA
Protected Phases			4			2			1	1	6
Permitted Phases	4	4			4		2				
Actuated Green, G (s)		31.9	31.9		31.9	22.5	22.5		22.6	22.6	48.1
Effective Green, g (s)		33.4	33.4		33.4	22.0	22.0		23.1	22.6	48.6
Actuated g/C Ratio		0.37	0.37		0.37	0.24	0.24		0.26	0.25	0.54
Clearance Time (s)		5.5	5.5		5.5	3.5	3.5		4.0	4.0	4.5
Vehicle Extension (s)		2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)		537	1096		502	778	280		408	400	905
v/s Ratio Prot						0.09			c0.20	0.16	0.16
v/s Ratio Perm		c0.35	0.24		0.02		c0.25				
v/c Ratio		0.94	0.64		0.05	0.38	1.03		0.80	0.64	0.29
Uniform Delay, d1		27.3	23.3		18.1	28.3	34.0		31.3	30.1	11.3
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		23.7	0.9		0.0	0.1	61.4		15.0	7.7	0.8
Delay (s)		51.0	24.2		18.2	28.4	95.4		46.3	37.8	12.1
Level of Service		D	C		B	C	F		D	D	B
Approach Delay (s)			34.5			61.6					33.1
Approach LOS			C			E					C

Intersection Summary			
HCM 2000 Control Delay	39.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	670	40	150	870	100	120	440	190	70	360	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00			0.99		1.00	1.00	0.91	1.00	0.97	
Flpb, ped/bikes	0.99	1.00			1.00		0.97	1.00	1.00	0.96	1.00	
Frt	1.00	0.99			0.99		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1577	3144			3088		1544	3185	1086	1529	2927	
Flt Permitted	0.15	1.00			0.68		0.39	1.00	1.00	0.45	1.00	
Satd. Flow (perm)	243	3144			2103		627	3185	1086	728	2927	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	60	670	40	150	870	100	120	440	190	70	360	180
RTOR Reduction (vph)	0	5	0	0	9	0	0	0	67	0	38	0
Lane Group Flow (vph)	60	705	0	0	1111	0	120	440	123	70	502	0
Confl. Peds. (#/hr)	71		73	73		71	84		80	80		84
Confl. Bikes (#/hr)			15			21			9			34
Bus Blockages (#/hr)	0	0	0	0	0	10	0	0	10	0	0	10
Parking (#/hr)			5			5			5			5
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	41.0	41.0			41.0		36.0	36.0	36.0	36.0	36.0	
Effective Green, g (s)	41.0	41.0			41.0		36.0	36.0	36.0	36.0	36.0	
Actuated g/C Ratio	0.48	0.48			0.48		0.42	0.42	0.42	0.42	0.42	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	117	1516			1014		265	1348	459	308	1239	
v/s Ratio Prot		0.22						0.14			0.17	
v/s Ratio Perm	0.25				c0.53		c0.19		0.11	0.10		
v/c Ratio	0.51	0.46			1.10		0.45	0.33	0.27	0.23	0.41	
Uniform Delay, d1	15.1	14.7			22.0		17.5	16.4	15.9	15.6	17.0	
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.6	0.1			58.2		5.5	0.6	1.4	1.7	1.0	
Delay (s)	16.7	14.8			80.2		23.0	17.0	17.3	17.3	18.0	
Level of Service	B	B			F		C	B	B	B	B	
Approach Delay (s)		14.9			80.2			18.1			18.0	
Approach LOS		B			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	38.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	105.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	WBL	WBT	SBT	SBR	SWL	SWR
Lane Configurations							
Volume (vph)	10	80	390	460	120	2030	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		5.0	
Lane Util. Factor	1.00	1.00	0.91	0.91		0.97	
Frpb, ped/bikes	0.93	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	0.94	1.00	1.00		1.00	
Frt	0.86	1.00	1.00	0.97		0.99	
Flt Protected	1.00	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1345	1496	4577	4230		3185	
Flt Permitted	1.00	0.95	1.00	1.00		0.96	
Satd. Flow (perm)	1345	1496	4577	4230		3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	80	390	460	120	2030	150
RTOR Reduction (vph)	9	53	0	41	0	0	0
Lane Group Flow (vph)	1	27	390	539	0	2180	0
Confl. Peds. (#/hr)	35	35			4	35	4
Confl. Bikes (#/hr)	1				1		
Parking (#/hr)				5	5		
Turn Type	Perm	Perm	NA	NA		Prot	
Protected Phases			4	5		6	
Permitted Phases	4	4					
Actuated Green, G (s)	17.0	17.0	17.0	17.1		66.9	
Effective Green, g (s)	17.0	17.0	17.0	17.1		66.9	
Actuated g/C Ratio	0.15	0.15	0.15	0.15		0.58	
Clearance Time (s)	4.5	4.5	4.5	4.5		5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	198	221	676	628		1852	
v/s Ratio Prot			c0.09	c0.13		c0.68	
v/s Ratio Perm	0.00	0.02					
v/c Ratio	0.01	0.12	0.58	0.86		1.18	
Uniform Delay, d1	41.8	42.5	45.6	47.8		24.0	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.3	1.2	11.2		85.7	
Delay (s)	41.8	42.8	46.8	59.0		109.8	
Level of Service	D	D	D	E		F	
Approach Delay (s)			46.2	59.0		109.8	
Approach LOS			D	E		F	

Intersection Summary			
HCM 2000 Control Delay	91.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	102.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	130	690	80	100	400	0	0	440	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	5.0	7.5			4.5	
Lane Util. Factor					0.95	1.00	1.00	0.95			0.95	
Frpb, ped/bikes					1.00	0.89	1.00	1.00			0.94	
Flpb, ped/bikes					0.98	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.98	
Flt Protected					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					2839	1065	1593	3122			2875	
Flt Permitted					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					2839	1065	1593	3122			2875	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	130	690	80	100	400	0	0	440	80
RTOR Reduction (vph)	0	0	0	0	0	52	0	0	0	0	25	0
Lane Group Flow (vph)	0	0	0	0	820	28	100	400	0	0	495	0
Confl. Peds. (#/hr)				164		113	522					522
Confl. Bikes (#/hr)						6						10
Bus Blockages (#/hr)	0	0	0	0	10	10	0	10	0	0	10	10
Parking (#/hr)				5	5	5						
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4		5	2			6	
Permitted Phases				4		4						
Actuated Green, G (s)					21.0	21.0	4.5	30.5			22.0	
Effective Green, g (s)					21.0	21.0	3.5	27.5			22.0	
Actuated g/C Ratio					0.35	0.35	0.06	0.46			0.37	
Clearance Time (s)					4.0	4.0	4.0	4.5			4.5	
Lane Grp Cap (vph)					993	372	92	1430			1054	
v/s Ratio Prot							c0.06	0.13			c0.17	
v/s Ratio Perm					0.29	0.03						
v/c Ratio					0.83	0.08	1.09	0.28			0.47	
Uniform Delay, d1					17.8	13.0	28.2	10.1			14.5	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					7.8	0.4	119.3	0.5			1.5	
Delay (s)					25.6	13.4	147.6	10.6			16.0	
Level of Service					C	B	F	B			B	
Approach Delay (s)		0.0			24.6			38.0			16.0	
Approach LOS		A			C			D			B	

Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	600	10	0	0	0	0	320	100	190	370	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00					0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.85					0.93		1.00	1.00	
Flpb, ped/bikes	0.89	1.00	1.00					1.00		1.00	1.00	
Frt	1.00	1.00	0.85					0.96		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1241	2926	1018					2787		1593	3122	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1241	2926	1018					2787		1593	3122	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	100	600	10	0	0	0	0	320	100	190	370	0
RTOR Reduction (vph)	0	0	6	0	0	0	0	38	0	0	0	0
Lane Group Flow (vph)	100	600	4	0	0	0	0	382	0	190	370	0
Confl. Peds. (#/hr)	139		172						313	313		
Confl. Bikes (#/hr)			11						3			
Bus Blockages (#/hr)	0	10	10	0	0	0	0	10	10	0	10	0
Parking (#/hr)	5	5	5									
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)	21.0	21.0	21.0					16.0		6.0	26.0	
Effective Green, g (s)	21.0	21.0	21.0					16.0		6.0	26.0	
Actuated g/C Ratio	0.38	0.38	0.38					0.29		0.11	0.47	
Clearance Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)	473	1117	388					810		173	1475	
v/s Ratio Prot		c0.21						c0.14		c0.12	0.12	
v/s Ratio Perm	0.08		0.00									
v/c Ratio	0.21	0.54	0.01					0.47		1.10	0.25	
Uniform Delay, d1	11.4	13.2	10.5					16.0		24.5	8.7	
Progression Factor	1.00	1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2	1.0	1.9	0.0					2.0		97.1	0.4	
Delay (s)	12.4	15.1	10.6					18.0		121.6	9.1	
Level of Service	B	B	B					B		F	A	
Approach Delay (s)		14.6			0.0			18.0			47.3	
Approach LOS		B			A			B			D	

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations											
Volume (vph)	40	600	140	30	50	130	160	60	330	130	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0		4.0	4.5	4.0
Lane Util. Factor		0.91	0.91		1.00	0.95	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	0.99		0.95	1.00	0.89		1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.99		0.85	1.00	0.85		1.00	1.00	1.00
Flt Protected		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (prot)		1449	2914		1356	3185	1262		1593	1593	1676
Flt Permitted		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (perm)		1449	2914		1356	3185	1262		1593	1593	1676
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	40	600	140	30	50	130	160	60	330	130	300
RTOR Reduction (vph)	0	0	0	0	34	0	0	0	0	0	0
Lane Group Flow (vph)	0	358	452	0	16	130	220	0	330	130	300
Confl. Peds. (#/hr)				25	25		40	40	40	40	
Confl. Bikes (#/hr)							1	1			
Turn Type	Perm	Perm	NA		Perm	NA	Perm		Prot	Prot	NA
Protected Phases			4			2			1	1	6
Permitted Phases	4	4			4		2				
Actuated Green, G (s)		26.8	26.8		26.8	18.9	18.9		30.8	30.8	53.2
Effective Green, g (s)		28.3	28.3		28.3	18.4	18.4		31.3	30.8	53.7
Actuated g/C Ratio		0.31	0.31		0.31	0.20	0.20		0.35	0.34	0.60
Clearance Time (s)		5.5	5.5		5.5	3.5	3.5		4.5	4.5	4.5
Vehicle Extension (s)		2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)		455	916		426	651	258		554	545	1000
v/s Ratio Prot						0.04			c0.21	0.08	0.18
v/s Ratio Perm		c0.25	0.16		0.01		c0.17				
v/c Ratio		0.79	0.49		0.04	0.20	0.85		0.60	0.24	0.30
Uniform Delay, d1		28.1	25.0		21.4	29.7	34.5		24.1	21.2	8.9
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		8.1	0.2		0.0	0.1	22.1		4.7	1.0	0.8
Delay (s)		36.2	25.2		21.4	29.7	56.6		28.8	22.2	9.7
Level of Service		D	C		C	C	E		C	C	A
Approach Delay (s)			29.5			46.6					20.1
Approach LOS			C			D					C

Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	1180	100	100	810	120	450	1130	280	150	630	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99		1.00	1.00	0.91	1.00	0.99	
Flpb, ped/bikes	0.99	1.00			1.00		0.99	1.00	1.00	0.99	1.00	
Frt	1.00	0.99			0.98		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1580	3131			3089		1577	3185	1087	1583	3052	
Flt Permitted	0.18	1.00			0.58		0.25	1.00	1.00	0.11	1.00	
Satd. Flow (perm)	294	3131			1816		411	3185	1087	185	3052	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	180	1180	100	100	810	120	450	1130	280	150	630	160
RTOR Reduction (vph)	0	7	0	0	10	0	0	0	16	0	27	0
Lane Group Flow (vph)	180	1273	0	0	1020	0	450	1130	264	150	763	0
Confl. Peds. (#/hr)	47		62	62		47	43		66	47		43
Confl. Bikes (#/hr)			10			19			35			22
Bus Blockages (#/hr)	0	0	0	0	0	10	0	0	10	0	0	10
Parking (#/hr)			5			5			5			5
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	41.0	41.0			41.0		36.0	36.0	36.0	36.0	36.0	
Effective Green, g (s)	41.0	41.0			41.0		36.0	36.0	36.0	36.0	36.0	
Actuated g/C Ratio	0.48	0.48			0.48		0.42	0.42	0.42	0.42	0.42	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	141	1510			875		174	1348	460	78	1292	
v/s Ratio Prot		0.41						0.35			0.25	
v/s Ratio Perm	c0.61				0.56		c1.09		0.24	0.81		
v/c Ratio	1.28	0.84			1.17		2.59	0.84	0.57	1.92	0.59	
Uniform Delay, d1	22.0	19.2			22.0		24.5	21.9	18.7	24.5	18.8	
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	168.1	4.3			87.1		730.3	6.4	5.1	458.9	2.0	
Delay (s)	190.1	23.5			109.1		754.8	28.3	23.8	483.4	20.8	
Level of Service	F	C			F		F	C	C	F	C	
Approach Delay (s)		44.0			109.1			203.4			94.6	
Approach LOS		D			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	121.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.88		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	139.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	WBL	WBT	SBT	SBR	SWL	SWR
Lane Configurations							
Volume (vph)	10	160	550	390	110	1280	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		5.0	
Lane Util. Factor	1.00	1.00	0.91	0.91		0.97	
Frpb, ped/bikes	0.92	1.00	1.00	0.99		1.00	
Flpb, ped/bikes	1.00	0.93	1.00	1.00		1.00	
Frt	0.86	1.00	1.00	0.97		0.98	
Flt Protected	1.00	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1337	1485	4577	4194		3185	
Flt Permitted	1.00	0.95	1.00	1.00		0.96	
Satd. Flow (perm)	1337	1485	4577	4194		3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	160	550	390	110	1280	200
RTOR Reduction (vph)	8	66	0	67	0	0	0
Lane Group Flow (vph)	2	94	550	433	0	1480	0
Confl. Peds. (#/hr)	53	53			23	53	23
Parking (#/hr)				5	5		
Turn Type	Perm	Perm	NA	NA		Prot	
Protected Phases			4	5		6	
Permitted Phases	4	4					
Actuated Green, G (s)	17.5	17.5	17.5	14.1		39.4	
Effective Green, g (s)	17.5	17.5	17.5	14.1		39.4	
Actuated g/C Ratio	0.21	0.21	0.21	0.17		0.46	
Clearance Time (s)	4.5	4.5	4.5	4.5		5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	275	305	942	695		1476	
v/s Ratio Prot			c0.12	c0.10		c0.46	
v/s Ratio Perm	0.00	0.06					
v/c Ratio	0.01	0.31	0.58	0.62		1.00	
Uniform Delay, d1	26.8	28.6	30.5	33.0		22.8	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.6	0.9	1.7		24.1	
Delay (s)	26.9	29.2	31.4	34.7		46.9	
Level of Service	C	C	C	C		D	
Approach Delay (s)			30.9	34.7		46.9	
Approach LOS			C	C		D	

Intersection Summary			
HCM 2000 Control Delay	40.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	150	770	120	120	460	0	0	670	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	5.0	7.5			4.5	
Lane Util. Factor					0.95	1.00	1.00	0.95			0.95	
Frpb, ped/bikes					1.00	0.94	1.00	1.00			0.95	
Flpb, ped/bikes					0.98	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.98	
Flt Protected					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					2852	1130	1593	3122			2903	
Flt Permitted					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					2852	1130	1593	3122			2903	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	150	770	120	120	460	0	0	670	110
RTOR Reduction (vph)	0	0	0	0	0	67	0	0	0	0	22	0
Lane Group Flow (vph)	0	0	0	0	920	53	120	460	0	0	758	0
Confl. Peds. (#/hr)				125		48	446		455	455		446
Confl. Bikes (#/hr)						6			10			9
Bus Blockages (#/hr)	0	0	0	0	10	10	0	10	0	0	10	10
Parking (#/hr)				5	5	5						
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4		5	2			6	
Permitted Phases				4		4						
Actuated Green, G (s)					23.0	23.0	6.5	28.5			18.0	
Effective Green, g (s)					23.0	23.0	5.5	25.5			18.0	
Actuated g/C Ratio					0.38	0.38	0.09	0.42			0.30	
Clearance Time (s)					4.0	4.0	4.0	4.5			4.5	
Lane Grp Cap (vph)					1093	433	146	1326			870	
v/s Ratio Prot							c0.08	0.15			c0.26	
v/s Ratio Perm					0.32	0.05						
v/c Ratio					0.84	0.12	0.82	0.35			0.87	
Uniform Delay, d1					16.8	12.0	26.8	11.6			19.9	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					7.9	0.6	38.5	0.7			11.7	
Delay (s)					24.7	12.5	65.2	12.4			31.6	
Level of Service					C	B	E	B			C	
Approach Delay (s)		0.0			23.3			23.3			31.6	
Approach LOS		A			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	700	140	0	0	0	0	350	80	170	620	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00					0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.67					0.93		1.00	1.00	
Flpb, ped/bikes	0.94	1.00	1.00					1.00		1.00	1.00	
Frt	1.00	1.00	0.85					0.97		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1309	2926	801					2832		1593	3122	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1309	2926	801					2832		1593	3122	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	120	700	140	0	0	0	0	350	80	170	620	0
RTOR Reduction (vph)	0	0	61	0	0	0	0	23	0	0	0	0
Lane Group Flow (vph)	120	700	79	0	0	0	0	407	0	170	620	0
Confl. Peds. (#/hr)	77		535				490		535	535		490
Confl. Bikes (#/hr)			6						9			16
Bus Blockages (#/hr)	0	10	10	0	0	0	0	10	10	0	10	0
Parking (#/hr)	5	5	5									
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)	21.0	21.0	21.0					16.0		6.0	26.0	
Effective Green, g (s)	21.0	21.0	21.0					16.0		6.0	26.0	
Actuated g/C Ratio	0.38	0.38	0.38					0.29		0.11	0.47	
Clearance Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)	499	1117	305					823		173	1475	
v/s Ratio Prot		c0.24						c0.14		c0.11	0.20	
v/s Ratio Perm	0.09		0.10									
v/c Ratio	0.24	0.63	0.26					0.49		0.98	0.42	
Uniform Delay, d1	11.6	13.8	11.7					16.2		24.4	9.5	
Progression Factor	1.00	1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2	1.1	2.7	2.0					2.1		64.0	0.9	
Delay (s)	12.7	16.5	13.7					18.3		88.5	10.4	
Level of Service	B	B	B					B		F	B	
Approach Delay (s)		15.6			0.0			18.3			27.2	
Approach LOS		B			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations											
Volume (vph)	40	1100	380	20	150	620	470	110	390	320	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0		3.5	4.0	4.0
Lane Util. Factor		0.91	0.91		1.00	0.95	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	1.00		0.95	1.00	0.81		1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	1.00		0.85	1.00	0.85		1.00	1.00	1.00
Flt Protected		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (prot)		1449	2952		1353	3185	1149		1593	1593	1676
Flt Permitted		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (perm)		1449	2952		1353	3185	1149		1593	1593	1676
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	40	1100	380	20	150	620	470	110	390	320	540
RTOR Reduction (vph)	0	0	0	0	48	0	0	0	0	0	0
Lane Group Flow (vph)	0	623	917	0	103	620	580	0	390	320	540
Confl. Peds. (#/hr)				26	26		71	71	71	71	
Confl. Bikes (#/hr)				1	1		2	2			
Turn Type	Perm	Perm	NA		Perm	NA	Perm		Prot	Prot	NA
Protected Phases			4			2			1	1	6
Permitted Phases	4	4			4		2				
Actuated Green, G (s)		31.5	31.5		31.5	22.5	22.5		23.0	23.0	48.5
Effective Green, g (s)		33.0	33.0		33.0	22.0	22.0		23.5	23.0	49.0
Actuated g/C Ratio		0.37	0.37		0.37	0.24	0.24		0.26	0.26	0.54
Clearance Time (s)		5.5	5.5		5.5	3.5	3.5		4.0	4.0	4.5
Vehicle Extension (s)		2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)		531	1082		496	778	280		415	407	912
v/s Ratio Prot						0.19			c0.24	0.20	0.32
v/s Ratio Perm		c0.43	0.31		0.08		c0.50				
v/c Ratio		1.17	0.93dl		0.21	0.80	2.07		0.94	0.79	0.59
Uniform Delay, d1		28.5	26.2		19.5	31.9	34.0		32.6	31.2	13.8
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		96.5	6.0		0.1	5.3	494.3		31.4	14.2	2.8
Delay (s)		125.0	32.2		19.6	37.2	528.3		63.9	45.4	16.6
Level of Service		F	C		B	D	F		E	D	B
Approach Delay (s)			65.3			274.6					38.7
Approach LOS			E			F					D

Intersection Summary			
HCM 2000 Control Delay	117.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.7%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	670	40	150	870	100	120	444	190	70	369	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00			0.99		1.00	1.00	0.91	1.00	0.97	
Flpb, ped/bikes	0.99	1.00			1.00		0.97	1.00	1.00	0.96	1.00	
Frt	1.00	0.99			0.99		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00			0.99		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1577	3144			3088		1544	3185	1086	1529	2932	
Flt Permitted	0.15	1.00			0.68		0.38	1.00	1.00	0.45	1.00	
Satd. Flow (perm)	243	3144			2103		618	3185	1086	723	2932	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	60	670	40	150	870	100	120	444	190	70	369	180
RTOR Reduction (vph)	0	5	0	0	9	0	0	0	67	0	38	0
Lane Group Flow (vph)	60	705	0	0	1111	0	120	444	123	70	511	0
Confl. Peds. (#/hr)	71		73	73		71	84		80	80		84
Confl. Bikes (#/hr)			15			21			9			34
Bus Blockages (#/hr)	0	0	0	0	0	10	0	0	10	0	0	10
Parking (#/hr)			5			5			5			5
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	41.0	41.0			41.0		36.0	36.0	36.0	36.0	36.0	
Effective Green, g (s)	41.0	41.0			41.0		36.0	36.0	36.0	36.0	36.0	
Actuated g/C Ratio	0.48	0.48			0.48		0.42	0.42	0.42	0.42	0.42	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	117	1516			1014		261	1348	459	306	1241	
v/s Ratio Prot		0.22						0.14			0.17	
v/s Ratio Perm	0.25				c0.53		c0.19		0.11	0.10		
v/c Ratio	0.51	0.46			1.10		0.46	0.33	0.27	0.23	0.41	
Uniform Delay, d1	15.1	14.7			22.0		17.5	16.4	15.9	15.6	17.1	
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.6	0.1			58.2		5.7	0.7	1.4	1.7	1.0	
Delay (s)	16.7	14.8			80.2		23.3	17.1	17.3	17.4	18.1	
Level of Service	B	B			F		C	B	B	B	B	
Approach Delay (s)		14.9			80.2			18.1			18.0	
Approach LOS		B			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	38.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	105.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	WBL	WBT	SBT	SBR	SWL	SWR
Lane Configurations							
Volume (vph)	10	80	390	474	120	2093	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		5.0	
Lane Util. Factor	1.00	1.00	0.91	0.91		0.97	
Frpb, ped/bikes	0.93	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	0.94	1.00	1.00		1.00	
Frt	0.86	1.00	1.00	0.97		0.99	
Flt Protected	1.00	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1345	1496	4577	4234		3185	
Flt Permitted	1.00	0.95	1.00	1.00		0.96	
Satd. Flow (perm)	1345	1496	4577	4234		3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	80	390	474	120	2093	150
RTOR Reduction (vph)	9	53	0	38	0	0	0
Lane Group Flow (vph)	1	27	390	556	0	2243	0
Confl. Peds. (#/hr)	35	35			4	35	4
Confl. Bikes (#/hr)	1				1		
Parking (#/hr)				5	5		
Turn Type	Perm	Perm	NA	NA		Prot	
Protected Phases			4	5		6	
Permitted Phases	4	4					
Actuated Green, G (s)	17.0	17.0	17.0	17.2		66.8	
Effective Green, g (s)	17.0	17.0	17.0	17.2		66.8	
Actuated g/C Ratio	0.15	0.15	0.15	0.15		0.58	
Clearance Time (s)	4.5	4.5	4.5	4.5		5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	198	221	676	633		1850	
v/s Ratio Prot			c0.09	c0.13		c0.70	
v/s Ratio Perm	0.00	0.02					
v/c Ratio	0.01	0.12	0.58	0.88		1.21	
Uniform Delay, d1	41.8	42.5	45.6	47.9		24.1	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.3	1.2	13.1		100.9	
Delay (s)	41.8	42.8	46.8	61.0		125.0	
Level of Service	D	D	D	E		F	
Approach Delay (s)			46.2	61.0		125.0	
Approach LOS			D	E		F	

Intersection Summary			
HCM 2000 Control Delay	102.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	130	751	80	107	406	0	0	440	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	5.0	7.5			4.5	
Lane Util. Factor					0.95	1.00	1.00	0.95			0.95	
Frpb, ped/bikes					1.00	0.89	1.00	1.00			0.94	
Flpb, ped/bikes					0.98	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.97	
Flt Protected					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					2845	1065	1593	3122			2852	
Flt Permitted					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					2845	1065	1593	3122			2852	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	130	751	80	107	406	0	0	440	89
RTOR Reduction (vph)	0	0	0	0	0	52	0	0	0	0	23	0
Lane Group Flow (vph)	0	0	0	0	881	28	107	406	0	0	506	0
Confl. Peds. (#/hr)				164		113	522					522
Confl. Bikes (#/hr)						6						10
Bus Blockages (#/hr)	0	0	0	0	10	10	0	10	0	0	10	10
Parking (#/hr)				5	5	5						
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4		5	2			6	
Permitted Phases				4		4						
Actuated Green, G (s)					21.0	21.0	4.5	30.5			22.0	
Effective Green, g (s)					21.0	21.0	3.5	27.5			22.0	
Actuated g/C Ratio					0.35	0.35	0.06	0.46			0.37	
Clearance Time (s)					4.0	4.0	4.0	4.5			4.5	
Lane Grp Cap (vph)					995	372	92	1430			1045	
v/s Ratio Prot							c0.07	0.13			c0.18	
v/s Ratio Perm					0.31	0.03						
v/c Ratio					0.89	0.08	1.16	0.28			0.48	
Uniform Delay, d1					18.4	13.0	28.2	10.1			14.6	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					11.4	0.4	144.3	0.5			1.6	
Delay (s)					29.8	13.4	172.6	10.6			16.2	
Level of Service					C	B	F	B			B	
Approach Delay (s)		0.0			28.4			44.4			16.2	
Approach LOS		A			C			D			B	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	643	44	0	0	0	0	327	100	190	370	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00					0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.85					0.93		1.00	1.00	
Flpb, ped/bikes	0.89	1.00	1.00					1.00		1.00	1.00	
Frt	1.00	1.00	0.85					0.96		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1241	2926	1018					2792		1593	3122	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1241	2926	1018					2792		1593	3122	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	643	44	0	0	0	0	327	100	190	370	0
RTOR Reduction (vph)	0	0	27	0	0	0	0	35	0	0	0	0
Lane Group Flow (vph)	106	643	17	0	0	0	0	392	0	190	370	0
Confl. Peds. (#/hr)	139		172						313	313		
Confl. Bikes (#/hr)			11						3			
Bus Blockages (#/hr)	0	10	10	0	0	0	0	10	10	0	10	0
Parking (#/hr)	5	5	5									
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)	21.0	21.0	21.0					16.0		6.0	26.0	
Effective Green, g (s)	21.0	21.0	21.0					16.0		6.0	26.0	
Actuated g/C Ratio	0.38	0.38	0.38					0.29		0.11	0.47	
Clearance Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)	473	1117	388					812		173	1475	
v/s Ratio Prot		c0.22						c0.14		c0.12	0.12	
v/s Ratio Perm	0.09		0.02									
v/c Ratio	0.22	0.58	0.04					0.48		1.10	0.25	
Uniform Delay, d1	11.5	13.5	10.7					16.1		24.5	8.7	
Progression Factor	1.00	1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2	1.1	2.2	0.2					2.0		97.1	0.4	
Delay (s)	12.6	15.6	10.9					18.1		121.6	9.1	
Level of Service	B	B	B					B		F	A	
Approach Delay (s)		15.0			0.0			18.1			47.3	
Approach LOS		B			A			B			D	

Intersection Summary			
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations											
Volume (vph)	40	600	140	30	50	130	160	60	341	134	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0		4.0	4.5	4.0
Lane Util. Factor		0.91	0.91		1.00	0.95	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	0.99		0.95	1.00	0.89		1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.99		0.85	1.00	0.85		1.00	1.00	1.00
Flt Protected		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (prot)		1449	2914		1356	3185	1262		1593	1593	1676
Flt Permitted		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (perm)		1449	2914		1356	3185	1262		1593	1593	1676
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	40	600	140	30	50	130	160	60	341	134	300
RTOR Reduction (vph)	0	0	0	0	34	0	0	0	0	0	0
Lane Group Flow (vph)	0	358	452	0	16	130	220	0	341	134	300
Confl. Peds. (#/hr)				25	25		40	40	40	40	
Confl. Bikes (#/hr)							1	1			
Turn Type	Perm	Perm	NA		Perm	NA	Perm		Prot	Prot	NA
Protected Phases			4			2			1	1	6
Permitted Phases	4	4			4		2				
Actuated Green, G (s)		26.8	26.8		26.8	18.9	18.9		30.8	30.8	53.2
Effective Green, g (s)		28.3	28.3		28.3	18.4	18.4		31.3	30.8	53.7
Actuated g/C Ratio		0.31	0.31		0.31	0.20	0.20		0.35	0.34	0.60
Clearance Time (s)		5.5	5.5		5.5	3.5	3.5		4.5	4.5	4.5
Vehicle Extension (s)		2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)		455	916		426	651	258		554	545	1000
v/s Ratio Prot						0.04			c0.21	0.08	0.18
v/s Ratio Perm		c0.25	0.16		0.01		c0.17				
v/c Ratio		0.79	0.49		0.04	0.20	0.85		0.62	0.25	0.30
Uniform Delay, d1		28.1	25.0		21.4	29.7	34.5		24.4	21.3	8.9
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		8.1	0.2		0.0	0.1	22.1		5.1	1.1	0.8
Delay (s)		36.2	25.2		21.4	29.7	56.6		29.4	22.3	9.7
Level of Service		D	C		C	C	E		C	C	A
Approach Delay (s)			29.5			46.6					20.6
Approach LOS			C			D					C

Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	1180	100	100	810	120	450	1139	280	150	635	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99		1.00	1.00	0.91	1.00	0.99	
Flpb, ped/bikes	0.99	1.00			1.00		0.99	1.00	1.00	0.99	1.00	
Frt	1.00	0.99			0.98		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1580	3131			3089		1577	3185	1087	1583	3053	
Flt Permitted	0.18	1.00			0.58		0.25	1.00	1.00	0.11	1.00	
Satd. Flow (perm)	294	3131			1816		407	3185	1087	185	3053	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	180	1180	100	100	810	120	450	1139	280	150	635	160
RTOR Reduction (vph)	0	7	0	0	9	0	0	0	16	0	27	0
Lane Group Flow (vph)	180	1273	0	0	1021	0	450	1139	264	150	768	0
Confl. Peds. (#/hr)	47		62	62		47	43		66	47		43
Confl. Bikes (#/hr)			10			19			35			22
Bus Blockages (#/hr)	0	0	0	0	0	10	0	0	10	0	0	10
Parking (#/hr)			5			5			5			5
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	41.0	41.0			41.0		36.0	36.0	36.0	36.0	36.0	
Effective Green, g (s)	41.0	41.0			41.0		36.0	36.0	36.0	36.0	36.0	
Actuated g/C Ratio	0.48	0.48			0.48		0.42	0.42	0.42	0.42	0.42	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	141	1510			875		172	1348	460	78	1293	
v/s Ratio Prot		0.41						0.36			0.25	
v/s Ratio Perm	c0.61				0.56		c1.10		0.24	0.81		
v/c Ratio	1.28	0.84			1.17		2.62	0.84	0.57	1.92	0.59	
Uniform Delay, d1	22.0	19.2			22.0		24.5	22.0	18.7	24.5	18.9	
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	168.1	4.3			87.3		743.9	6.6	5.1	458.9	2.0	
Delay (s)	190.1	23.5			109.3		768.4	28.6	23.8	483.4	20.9	
Level of Service	F	C			F		F	C	C	F	C	
Approach Delay (s)		44.0			109.3			206.0			94.3	
Approach LOS		D			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	122.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.90		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	139.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	WBL	WBT	SBT	SBR	SWL	SWR
Lane Configurations							
Volume (vph)	10	160	550	399	110	1308	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		5.0	
Lane Util. Factor	1.00	1.00	0.91	0.91		0.97	
Frpb, ped/bikes	0.92	1.00	1.00	0.99		1.00	
Flpb, ped/bikes	1.00	0.93	1.00	1.00		1.00	
Frt	0.86	1.00	1.00	0.97		0.98	
Flt Protected	1.00	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1337	1485	4577	4198		3185	
Flt Permitted	1.00	0.95	1.00	1.00		0.96	
Satd. Flow (perm)	1337	1485	4577	4198		3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	160	550	399	110	1308	200
RTOR Reduction (vph)	8	66	0	66	0	0	0
Lane Group Flow (vph)	2	94	550	443	0	1508	0
Confl. Peds. (#/hr)	53	53			23	53	23
Parking (#/hr)				5	5		
Turn Type	Perm	Perm	NA	NA		Prot	
Protected Phases			4	5		6	
Permitted Phases	4	4					
Actuated Green, G (s)	17.5	17.5	17.5	14.3		39.2	
Effective Green, g (s)	17.5	17.5	17.5	14.3		39.2	
Actuated g/C Ratio	0.21	0.21	0.21	0.17		0.46	
Clearance Time (s)	4.5	4.5	4.5	4.5		5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	275	305	942	706		1468	
v/s Ratio Prot			c0.12	c0.11		c0.47	
v/s Ratio Perm	0.00	0.06					
v/c Ratio	0.01	0.31	0.58	0.63		1.03	
Uniform Delay, d1	26.8	28.6	30.5	32.9		22.9	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.6	0.9	1.8		30.7	
Delay (s)	26.9	29.2	31.4	34.6		53.6	
Level of Service	C	C	C	C		D	
Approach Delay (s)			30.9	34.6		53.6	
Approach LOS			C	C		D	

Intersection Summary			
HCM 2000 Control Delay	44.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	150	834	120	230	473	0	0	670	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	5.0	7.5			4.5	
Lane Util. Factor					0.95	1.00	1.00	0.95			0.95	
Frpb, ped/bikes					1.00	0.94	1.00	1.00			0.95	
Flpb, ped/bikes					0.98	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.98	
Flt Protected					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					2857	1130	1593	3122			2894	
Flt Permitted					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					2857	1130	1593	3122			2894	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	150	834	120	230	473	0	0	670	115
RTOR Reduction (vph)	0	0	0	0	0	67	0	0	0	0	23	0
Lane Group Flow (vph)	0	0	0	0	984	53	230	473	0	0	762	0
Confl. Peds. (#/hr)				125		48	446		455	455		446
Confl. Bikes (#/hr)						6			10			9
Bus Blockages (#/hr)	0	0	0	0	10	10	0	10	0	0	10	10
Parking (#/hr)				5	5	5						
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4		5	2			6	
Permitted Phases				4		4						
Actuated Green, G (s)					23.0	23.0	6.5	28.5			18.0	
Effective Green, g (s)					23.0	23.0	5.5	25.5			18.0	
Actuated g/C Ratio					0.38	0.38	0.09	0.42			0.30	
Clearance Time (s)					4.0	4.0	4.0	4.5			4.5	
Lane Grp Cap (vph)					1095	433	146	1326			868	
v/s Ratio Prot							c0.14	0.15			c0.26	
v/s Ratio Perm					0.34	0.05						
v/c Ratio					0.90	0.12	1.58	0.36			0.88	
Uniform Delay, d1					17.4	12.0	27.2	11.7			20.0	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					11.6	0.6	289.1	0.8			12.2	
Delay (s)					29.0	12.5	316.4	12.4			32.1	
Level of Service					C	B	F	B			C	
Approach Delay (s)		0.0			27.2			111.9			32.1	
Approach LOS		A			C			F			C	

Intersection Summary			
HCM 2000 Control Delay	51.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	239	792	213	0	0	0	0	354	80	170	620	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00					0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.67					0.93		1.00	1.00	
Flpb, ped/bikes	0.94	1.00	1.00					1.00		1.00	1.00	
Frt	1.00	1.00	0.85					0.97		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1309	2926	801					2835		1593	3122	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1309	2926	801					2835		1593	3122	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	239	792	213	0	0	0	0	354	80	170	620	0
RTOR Reduction (vph)	0	0	61	0	0	0	0	23	0	0	0	0
Lane Group Flow (vph)	239	792	152	0	0	0	0	411	0	170	620	0
Confl. Peds. (#/hr)	77		535				490		535	535		490
Confl. Bikes (#/hr)			6						9			16
Bus Blockages (#/hr)	0	10	10	0	0	0	0	10	10	0	10	0
Parking (#/hr)	5	5	5									
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Actuated Green, G (s)	21.0	21.0	21.0					16.0		6.0	26.0	
Effective Green, g (s)	21.0	21.0	21.0					16.0		6.0	26.0	
Actuated g/C Ratio	0.38	0.38	0.38					0.29		0.11	0.47	
Clearance Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)	499	1117	305					824		173	1475	
v/s Ratio Prot		c0.27						c0.15		c0.11	0.20	
v/s Ratio Perm	0.18		0.19									
v/c Ratio	0.48	0.71	0.50					0.50		0.98	0.42	
Uniform Delay, d1	12.9	14.4	13.0					16.2		24.4	9.5	
Progression Factor	1.00	1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2	3.3	3.8	5.7					2.2		64.0	0.9	
Delay (s)	16.1	18.2	18.7					18.3		88.5	10.4	
Level of Service	B	B	B					B		F	B	
Approach Delay (s)		17.9			0.0			18.3			27.2	
Approach LOS		B			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations											
Volume (vph)	40	1100	380	20	150	620	470	110	408	334	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0		3.5	4.0	4.0
Lane Util. Factor		0.91	0.91		1.00	0.95	1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00	1.00		0.95	1.00	0.81		1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	1.00		0.85	1.00	0.85		1.00	1.00	1.00
Flt Protected		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (prot)		1449	2952		1353	3185	1149		1593	1593	1676
Flt Permitted		0.95	0.97		1.00	1.00	1.00		0.95	0.95	1.00
Satd. Flow (perm)		1449	2952		1353	3185	1149		1593	1593	1676
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	40	1100	380	20	150	620	470	110	408	334	540
RTOR Reduction (vph)	0	0	0	0	48	0	0	0	0	0	0
Lane Group Flow (vph)	0	623	917	0	102	620	580	0	408	334	540
Confl. Peds. (#/hr)				26	26		71	71	71	71	
Confl. Bikes (#/hr)				1	1		2	2			
Turn Type	Perm	Perm	NA		Perm	NA	Perm		Prot	Prot	NA
Protected Phases			4			2			1	1	6
Permitted Phases	4	4			4		2				
Actuated Green, G (s)		30.5	30.5		30.5	22.5	22.5		24.0	24.0	49.5
Effective Green, g (s)		32.0	32.0		32.0	22.0	22.0		24.5	24.0	50.0
Actuated g/C Ratio		0.36	0.36		0.36	0.24	0.24		0.27	0.27	0.56
Clearance Time (s)		5.5	5.5		5.5	3.5	3.5		4.0	4.0	4.5
Vehicle Extension (s)		2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)		515	1049		481	778	280		433	424	931
v/s Ratio Prot						0.19			c0.26	0.21	0.32
v/s Ratio Perm		c0.43	0.31		0.08		c0.50				
v/c Ratio		1.21	0.96dl		0.21	0.80	2.07		0.94	0.79	0.58
Uniform Delay, d1		29.0	27.1		20.2	31.9	34.0		32.1	30.6	13.1
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		111.4	8.0		0.1	5.3	494.3		31.0	13.8	2.6
Delay (s)		140.4	35.1		20.3	37.2	528.3		63.0	44.4	15.7
Level of Service		F	D		C	D	F		E	D	B
Approach Delay (s)			72.6			274.6					38.3
Approach LOS			E			F					D

Intersection Summary			
HCM 2000 Control Delay	120.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group