REVISIONS TO THE ANALYSIS IN THE OAK TO NINTH PROJECT EIR (SCH. NO.2004062013) PREPARED TO COMPLY WITH THE ALAMEDA COUNTY SUPERIOR COURT ORDER IN CASE NO. RG06-280345 AND CASE NO. RG06-280471

Prepared for
City of Oakland

September 2008

CITY OF OAKLAND

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COMBINED NOTICE OF RELEASE AND AVAILABILITY OF THE REVISIONS TO THE ANALYSIS FOR THE OAK TO NINTH PROJECT EIR (SCH No. 2004062013) PREPARED TO COMPLY WITH THE ALAMEDA COUNTY SUPERIOR COURT ORDER IN CASE NO. RG06-280345 AND CASE NO. RG06-280471

PROJECT TITLE: **OAK TO NINTH AVENUE PROJECT**

CASE NO. ER04-0009

PROJECT SPONSOR: Oakland Harbor Partners, LLC (Signature Properties and Reynolds & Brown)

PROJECT LOCATION: Approximately 64.2 acres bound by Embarcadero Road, the Oakland Estuary, Fallon Street, and 10th Avenue. APN Nos. 0000-0430-001-02, portion of 0000-0430-001-04, 0000-0460-003, 0000-0460-004, 0000-0465-002, and a portion of 0000-0470-002.

BRIEF DESCRIPTION OF PROJECT: Construction of approximately 3,100 residential dwelling units, approximately 200,000 square feet of ground-floor retail/commercial space, and 31.89 acres of parks and open spaces. Demolition of approximately 160,000 of the 180,000 square foot Ninth Avenue Terminal building and conversion to park and other uses consistent with the Tidelands Trust. Creation of a continuous public pedestrian trail and bicycle facility along the project's waterfront (excluding parcels not owned by the City/Port of Oakland or the project sponsor) as a segment of the Bay Trail. The majority of existing uses and structures on the project site would be removed or demolished.

ENVIRONMENTAL REVIEW: The EIR for the Oak to Ninth Project was certified by the City Council on June 20, 2006 (Resolution No. 79981) and the Project approved per various resolutions and ordinances adopted on June 20 and July 18, 2006. However, in Case Nos. RG06280345 and RG06280471, the Alameda Superior Court determined that the EIR was deficient in certain respects. The Court ordered that the EIR certification be set aside and Project approvals suspended. The Revisions to the Analysis for the EIR, now being released, provides the environmental review required by the Court.

Copies of the Revisions to the Analysis for the Oak to Ninth Project EIR are available for distribution to interested parties at no charge at the Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 5:00 p.m. The EIR which the City Council certified on June 20, 2006 continues to be available as well. The documents are also available on the City of Oakland website at the following:
http://www.oaklandnet.com/government/ceda/revised/planningzoning/MajorProjectsSection/oaktoninth.html

PUBLIC HEARING: The City Council will conduct a public hearing and will consider re-certifying the Environmental Impact Report (as revised) on **Tuesday, December 16, 2008 at 7:00 p.m.** in the Council Chambers, City Hall, 1 Frank H. Ogawa Plaza.

please turn over

The City of Oakland is hereby releasing the Revisions to the EIR document, finding it to be accurate and complete and ready for public review. Members of the public are invited to comment on the Revisions to the EIR. Please address all written comments to **Margaret Stanzione,** Project Planner, City of Oakland, Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612; (510) 238-6538 (fax); or by email to mstanzione@oaklandnet.com. Comments should be received no later than 4:00 p.m. on **Monday, November 17, 2008**. Please reference case number ER-04-0009 in all correspondence. After all comments are received, responses to comments will be prepared and the City Council will consider re-certification of the Final EIR.

September 30, 2008
ER 04-0009

Eric Angstadt
Interim Deputy Director of CEDA
Planning and Zoning Division
Community and Economic Development Agency
Environmental Review Officer

REVISIONS TO THE ANALYSIS IN THE OAK TO NINTH PROJECT EIR (SCH. NO.2004062013) PREPARED TO COMPLY WITH THE ALAMEDA COUNTY SUPERIOR COURT ORDER IN CASE NO. RG06-280345 AND CASE NO. RG06-280471

Prepared for
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CHAPTER I
Introduction

A. Purpose of this Document

This document has been prepared to comply with 1) the February 27, 2008 Alameda County Superior Court Judgment issuing a Peremptory Writ of Mandate in Case No. RG06-280345, Oakland Heritage Alliance v. City of Oakland, et al., and 2) the Court's Order Granting In Part And Denying In Part Writs Of Mandate (the Court Order) in Oakland Heritage Alliance v. City of Oakland, et al. and in Case No. RG06-280471, Coalition of Advocates for Lake Merritt, Joyce Roy v. City of Oakland, et al. (As of this date, no judgment has been issued in Case No. RG06-280471 because the causes of action unrelated to CEQA have not been resolved.)

The Court Order held that the Environmental Impact Report (EIR), consisting of the Draft EIR, the Final EIR, and the Addendum to the EIR, prepared and certified by the City of Oakland and the Oakland Redevelopment Agency (collectively, "the City") in 2006 for the Oak to Ninth Avenue Project failed to comply with the California Environmental Quality Act (CEQA) because: (1) it did not include a sufficient cumulative impact analysis for the land use section and for the population and housing section; (2) the cumulative impact analyses for geology and seismicity, noise from traffic, hazardous materials, biological resources, visual quality, public services and recreation facilities, and utilities did not sufficiently consider the impact of the project when added to other closely related past and present projects; (3) the traffic analysis relied on an improper ratio theory to evaluate cumulative impacts; and (4) the seismic risk mitigation measures and findings were not supported by sufficient analysis or substantial evidence in the record.

The Court Order upheld all other aspects of the EIR. Consequently, this document does not revise the EIR in any respect other than as directed by the Court. The analysis in this document relies on the information in the EIR *Setting* sections, the geographic areas identified for cumulative impacts in the EIR, the information contained in Appendix D to the EIR, and all other relevant information in the EIR, its appendices, and other sources identified in the *References* lists.

In response to the Court Order, this document analyzes those topics for which the Court granted the petitions for writ of mandate. Chapter II contains topical Sections (e.g., G. Noise) consistent with the sequence and letter designations used in the EIR and referenced in the Court Order and the Table of Contents for this document. When the document is approved by the City and the court, it will be one of the documents constituting the EIR.

This document is available for public review and comment in accordance with the procedures contained in the Notice of Availability of this document. During this time, written comments on the document may be submitted to the City of Oakland Community and Economic Development Agency, Planning Division, at the address provided in the Notice of Availability. Responses to all comments received during the review period on the environmental analysis in this document will be provided in a separate document.

B. Project Summary

The project proposed by Oakland Harbor Partners, LLC and approved by the City on June 20, 2006 and July 18, 2006, would redevelop approximately 64.2-acres bound by the Embarcadero Roadway on the east (parallel to Interstate 880), the Oakland Estuary on the west, Estuary Park (Fallon Street) on the north, and Brooklyn Basin (11th Avenue) on the south.

The project as approved by the City included certain modifications to the project analyzed in the Draft EIR in two notable areas. First, the development proposed for Parcel N (300 units) was removed from Parcel N and distributed to other development parcels. This modification was analyzed in the EIR Addendum and determined not to result in any new significant environmental impacts. Second, the Ninth Avenue Terminal square footage to be retained was increased from 15,000 to 20,000. This increase was within the range of preservation alternatives covered in the Draft EIR, thus no additional analysis was required.

The project would convert an underutilized, maritime and industrial area into a mixed-use neighborhood with residential, retail/commercial, open space and recreation facilities, and marina uses. Approximately 3,100 residential dwelling units and 200,000 square feet of ground-floor retail/commercial space would be constructed on 12 development parcels. Building heights generally would range from six to eight stories (up to 86 feet), with highrise tower elements of up to 24 stories (240 feet) on certain parcels. Over 32 acres of the site would be devoted to parks, trails, and open space. The project would provide a total of approximately 3,950 onsite parking spaces located in parking structures, along public streets within the project area and near proposed open space areas. The majority of existing uses and structures on the project site would be removed or demolished, except for approximately 20,000 square feet of the existing 180,000 square-foot Ninth Avenue Terminal building, an historic resource, which is located at the south end of the site.

The project would rebuild and expand the existing Fifth Avenue Marina and Clinton Basin Marina, which would entail dredging activities. Proposed shoreline improvements along the site would include straightening Clinton Basin and implementing marsh habitat improvements, riprap, and bulkhead walls.

A phased remediation process for cleanup of the site to appropriate levels would be undertaken pursuant to applicable regulatory requirements with the California Department of Toxic Substances Control (DTSC) as the lead oversight agency.

The project includes a new zoning district and associated standards ("Planned Waterfront Zoning District, PWD-1") for the two-thirds of the site that is south of the Lake Merritt Channel. The PWD-1 Zone establishes specific regulations to facilitate the development of an integrated mixed-use project as proposed. The PWD-1 Zone is consistent with the Oakland General Plan land use designation for this area of the site ("Planned Waterfront Development 1, PWD-1").

The project would be developed in four major phases over a period of approximately 11 years.

A detailed project description is provided in the EIR and the City approvals (described below).

C. Background: EIR Certification and Project Approvals

The City published a Draft EIR for the project on August 31, 2005. A Final EIR was published on February 1, 2006. An addendum to the EIR was published on June 7, 2006. On March 15, 2006, the Oakland Planning Commission certified the EIR (which includes the Draft EIR, the Final EIR, and the Addendum) and took actions approving, or recommending approval of, various resolutions and ordinances related to the approval of the project. On June 20, 2006 and July 18, 2006, the City Council and Redevelopment Agency Board took the following actions with respect to the approval of the project:

1. Approved Resolution 79981 denying the appeal of the Planning Commission actions and certifying the EIR.
2. Approved Resolution 79982 amending the General Plan Estuary Policy Plan.
3. Approved Resolution 2006-0045 regarding amending the Central City East Redevelopment Plan.
4. Adopted Ordinance 12756 amending the Central City East Redevelopment Plan.
5. Approved Resolution 2006-0046 regarding amending the Central District Urban Renewal Plan.
6. Adopted Ordinance 12757 amending the Central District Renewal Plan.
7. Adopted Ordinance 12758, the Planned Waterfront Zoning District-4 (PWD-4).
8. Adopted Ordinance 12759 rezoning property in the Oak to Ninth project site.
9. Approved Resolution 79983 for the vesting tentative map no. 7621.
10. Approved Resolution 79984 for the preliminary development plan and design guidelines.

11. Approved Resolution 2006-0047 authorizing a development agreement.

12. Adopted Ordinance 12760 approving a development agreement.

13. Approved Resolution 2006-0060 authorizing a cooperation agreement.

14. Adopted Exhibits A through D to the approval documents, which included the CEQA findings and statement of overriding considerations, mitigation monitoring and reporting program, conditions of approval, and general findings.

The Court Order found the EIR deficient with respect to portions of the environmental review. The Judgment and Peremptory Writ of Mandate in Case No. RG06-280345 vacated and set aside Resolution 79981 certifying the EIR for the project and adopting the CEQA findings and statement of overriding considerations and the mitigation monitoring and reporting program incorporated by reference in the Resolution. All of the other project approvals listed above were suspended pending further order of the Court. After the City considers the revisions to the EIR as discussed herein and certifies the EIR as revised pursuant to the Court Order and the Judgment and Writ, the City will return to the Court for a determination that the City has complied with the Court Order. Thereafter, the suspension of the project approvals could be vacated and project approvals could be reinstated.

D. CEQA Cumulative Impact Analysis Requirements

To guide the reader and establish the CEQA context for the cumulative information and analysis contained in the document, this introductory section reviews the CEQA requirements for cumulative impact analysis that relate to the claims granted in the Court Order. Following the Court Order in the Oak to Ninth EIR case, the California Supreme Court issued a decision providing guidance regarding the sufficiency of the considerations of past projects in cumulative impact analysis. In Environmental Projection and Information Center v. California Department of Forestry and Fire Protection (44 Cal.4th 459), the Supreme Court upheld the EIS/EIR's discussion of past projects despite some shortcomings, setting a low standard for the consideration of past projects in a cumulative analysis. The analysis in this document for the Oak to Ninth EIR goes beyond the limited discussion found adequate by the Supreme Court.

Turning to the cumulative impact standards set forth in the CEQA Guidelines:

a. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. (CEQA Guidelines section 15355)

b. An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, which means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Where the lead agency is examining a project with an incremental effect that is not cumulatively considerable,

the lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. (CEQA Guidelines sections 15130(a) and 15065(a)(3))

c. A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR. (CEQA Guidelines section 15130(a)(1))

d. When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A Lead Agency shall identify facts and analysis supporting the Lead Agency's conclusion that the cumulative impact is less than significant. (CEQA Guidelines section 15130(a)(2))

e. An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable. (CEQA Guidelines section 15130(a)(3))

f. A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. (CEQA Guidelines section 15064(h)(3))

In this document, "past projects" refers to existing development. The Setting discussions in each section describe the existing development in the relevant geographic area. This setting information provides information about the effects of past projects for the cumulative impact assessment. Additionally, EIR Appendix D.4 accounts for past projects in its updated cumulative growth scenario projections. Recent past projects reflected in the updated cumulative growth scenario projections include developments discussed in the EIR and listed in Appendix D.4 text and in Tables D.4-5a-b and D.4-6a-b generally under the headings "Projects Completed By 2000" and "Projects To Be Completed 2000-2005." "Present projects" refers to projects under construction at the time of the EIR preparation. These projects are reflected in the updated cumulative growth scenario projections and include developments discussed in the EIR and some of the developments listed in Appendix D.4 and in Tables D.4-5a-b and D.4-6a-b under the heading "Projects To Be Completed 2005-2010." "Reasonably foreseeable future projects" are reflected in the updated cumulative growth scenario projections. Additionally, future projects are discussed in the EIR and listed in Appendix D.4 text and in Tables D.4-5a-b and D.4-6a-b under the headings "Projects To Be Completed 2005-2010," "Projects To Be Completed 2005-2010," and "Projects To Be Completed 2020-2025." Growth projections that account for past, present,

and future development and prepared by other agencies are discussed in the relevant topic sections in the EIR and this document.

CHAPTER II
Revisions to Analysis in Response to Court Order

A. Land Use, Plans, and Policies

Summary of Court Order on the Cumulative Analysis of Land Use, Plans, and Policies

The Court Order found that the EIR failed to comply with CEQA by not including a sufficient analysis of the cumulative land use/plans and policies impacts of the proposed project. This section analyzes the potential cumulative land use/plans and policies impact of the project when added to other closely related past, present, and reasonably foreseeable future projects.

Summary of Land Use, Plans, and Policies Impacts Identified in the EIR

The EIR analyzes the proposed project's potential land use/plans and policies impacts under the applicable significance criteria (identified below) (Impacts A.1 through A.4). Based on the EIR analysis, the EIR determines that the project, with the implementation of certain mitigation measures, would not result in any significant adverse land use/plans and policies impacts. This analysis determines that the project and other past, present, and reasonably foreseeable future projects would not result in a cumulative land use/plans and policies impact.

Cumulative Land Use, Plans, and Policies Analysis

Geographic Context

The geographic context considered for the cumulative land use/plans and policies impacts includes the area closely surrounding the project that includes other projects with the potential to combine with the project and result in cumulative land use/plans and policies impacts. Given the nature of the potential impacts analyzed in this section, the geographic scope would include the nearby waterfront neighborhoods to the east (Embarcadero Cove) and the west (Jack London District). Otherwise, the site is physically separated from areas to the north by the Embarcadero Roadway, the railroad tracks, and the I-880 freeway. The project site's southern boundary and a portion of the eastern boundary is the Estuary.

Past, Present, and Reasonably Foreseeable Future Projects

Past projects in this area are included in the *Setting* section that describes existing conditions (Draft EIR pp. III-4-5, and IV.A-4-5) and generally include high density residential condominium projects (Portobello and The Landing), a television broadcasting facility, commercial warehouses, commercial and residential uses in the Jack London District to the west, and a hotel, marine-related retail, and marina facilities to the east. Present projects in the relevant geographic area are included among the projects listed in Tables D.4-5a-b and D.4-6a-b in Appendix D.4 of the EIR . Reasonably foreseeable future projects expected to be completed in the geographic area by 2025 are in the cumulative growth projections and among the projects listed in D.4-5a-b and D.4-6a-b in Appendix D.4. Present and future projects include housing opportunity sites in the Estuary Channel area and the area of East 10th Street and 9th Avenue; small lot single family residences in Embarcadero Cove; and new commercial and infill/intensification commercial projects in Embarcadero Cove.

Cumulative Effect Considering Past, Present, and Reasonably Foreseeable Future Projects, in Addition to the Project

Significance Criteria

Under the significance criteria for land use/plans and policies, potential cumulative impacts could occur if the project combined with other development to (1) physically divide an established community; (2) fundamentally conflict with any applicable land use plan, policy (when considered in balance[1]), 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 result in a physical change in the environment; or (3) fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. The EIR also analyzed whether the project would have a significant impact by resulting in a substantial change in the existing environment and existing land uses. Each of the criteria is identified by the headings below.

Physical Division of an Existing Community

The proposed project would not result in any physical division of an existing community in any of the areas surrounding the project site, because of the site's physical separation from other surrounding neighborhoods. The transportation facilities to the north prevent the project from dividing any neighborhoods beyond those facilities. The neighborhoods to the east and west are physically self-contained and the project would not physically divide these communities. Thus, there is no physical opportunity for the project itself, or in combination with any past, present, or reasonably foreseeable future projects, to physically divide an existing community.

[1] Pursuant to the Oakland General Plan, as amended June 2005, the Oakland General Plan recognizes that it contains policies that may in some cases compete with each other, and that decision-makers must determine whether, "on balance, the project is consistent (i.e., in general harmony) with the General Plan." Further, "the fact that a specific project does not meet all General Plan goals, policies, and objectives does not inherently result in a significant effect on the environment within the context of [CEQA]" (City of Oakland, 2005).

The project-specific potential impact on the Fifth Avenue Point area could not combine with any other project, because the Fifth Avenue Point is completely surrounded by the Oak to Ninth project and the potential impact is related to the project's removal of the surrounding industrial/warehouse area on the project site. There is no physical opportunity for any other project to contribute to this impact. Moreover, mitigation measures will reduce this project-specific potential impact to less than significant. Consequently, the project would not combine with other past, present, or reasonably foreseeable future projects to physically divide an existing community on the project site or in the surrounding area.

Past transportation projects in the area, the Embarcadero Roadway, the I-880 freeway, and the railroad tracks, have resulted in physically dividing the project site and the surrounding waterfront areas from nearby neighborhoods and the rest of the City. Past uses on the project site contributed to the site's isolation from other nearby City neighborhoods, because the industrial, manufacturing, and warehouse uses on the site prevented public access to the site. The project and other present and future residential and commercial infill projects in the waterfront area , which are among the projects listed in EIR Appendix D.4, as well as the Lake Merritt Channel improvements funded per Measure DD, will alleviate this condition and reconnect the Estuary waterfront with the other areas of the City. The project will foster this reconnection through the proposed Embarcadero Roadway improvements, including new and improved intersections, the proposed extension of Fifth Avenue into the project site, and the proposed open space and other land uses that will attract people to the waterfront. Other past, present, and reasonably foreseeable projects future projects that include similar improvements and active uses will contribute to reconnecting the Estuary waterfront with other City neighborhoods. This reconnection is a beneficial land use effect of the project and other development in the area.

Consistency with Applicable Plans, Policies and Regulations

The EIR describes the existing development on the project site and in the project area. (Draft EIR pp. III-4-5, IV.A-4-5). The existing industrial, manufacturing, and warehouse uses on the site are no longer consistent with the City's General Plan land use designation for the site. As described in the EIR *Setting* section, the Land Use and Transportation Element (LUTE) of the General Plan designates the site "Mixed Use Waterfront/Estuary Plan Area," which is "intended to encourage, support, and enhance the transformation of the land adjacent to the shoreline into a vibrant use of mixed use waterfront." The project would change the uses on the site from those that are generally inconsistent with the LUTE to uses that would be consistent with the LUTE. In this way, the project would not contribute to any adverse land use/plans and policies impact. By providing a mix of uses consistent with the LUTE designation, the project would ameliorate the existing inconsistency between the past and present uses on the site and the General Plan land use designation for the site.

The project would result in changes to the Estuary Policy Plan policies and zoning regulations for the site. These land use policy and zoning changes, however, would be consistent with the LUTE and other General Plan policies as described in the *Setting* section of the "Land Use, Plans, and Policies" section in the EIR. Any site-specific potential adverse impact from these changes would be mitigated to a less-than-significant level as provided in mitigation measures A.2a and A.2b.

Although other changes in land use plans and regulations may have occurred with past and present projects in the area and may be necessary for individual future projects, such changes have been, and would be, required to demonstrate consistency with General Plan and other City policies such that no significant adverse cumulative impact has occurred or would occur from such changes.

Overall, the proposed project would be consistent with many of the General Plan policies, Estuary Policy Plan policies, and with policies in the applicable Redevelopment Plans. As analyzed in the EIR *Setting* section (Draft EIR pp. IV.A-5-21 and IV.A-28-29), the project would be generally consistent with General Plan policies that, among others, encourage the revitalization of underutilized sites, the development of mixed-use development on the waterfront, improved public assess to the shoreline for multiple users (pedestrians, bicycles, etc.), expanded parks and large open spaces, opportunities to use alternative modes of transportation (including transit), the sensitivity of new development to adjacent communities, preservation of sensitive environments and a mix of housing types. The project also would be consistent with key policies in the Estuary Policy Plan that call for land use continuity between the Estuary waterfront and adjacent inland district, public access, parks and open space along the waterfront, strengthened local circulation connections, a large park on the site of the Ninth Avenue Terminal, and improvement of the shoreline conditions. Additionally, the project would be generally consistent with the Bay Plan and the San Francisco Bay Trail Plan (Draft EIR pp.IV-A-3–34).

Given that the project would be generally consistent with the land use policies of the applicable plans, the project would not combine with any past, present, or reasonably foreseeable future projects to cause a significant adverse cumulative land use impact based on a conflict with a plan or policy. Any potential conflicts with policies related to specific environmental topics and any associated physical impacts are covered in the individual topic sections of the EIR (e.g., cultural resources, air quality, noise, transportation) including any potential cumulative impacts.

Past projects (i.e., existing uses) in the waterfront area consist of industrial, manufacturing and warehouse uses such as those on represented on the project site, transportation projects such as the freeway and railroad uses north of the project site, maritime related recreational and commercial uses, artists studios, Estuary Park, residential condominium projects, mixed use developments, and hotel use. Some of these existing uses (past projects), such as the industrial, manufacturing, and warehouse and transportation projects, are no longer consistent with the City's land use policies that call for revitalization of the Estuary waterfront. Present projects in the area are improving the consistency with City land use plans by improving underused commercial properties to the east. Future infill projects and the nearby Jack London Square Redevelopment Project also would contribute to improving the consistency of land uses in the area with City plans and policies by redeveloping underused areas with commercial, retail, and open space/recreational uses. The project would convert an underused industrial site that blocks access to the Estuary waterfront to a new mixed-use community with over 32 acres of open space and trails, improve circulation access, remediated environmental hazards, preserve the Fifth Avenue Point, and partially preserve and reuse the Ninth Avenue Terminal. As a result, the project would contribute to the beneficial land use changes in the area, enhance the compatibility

of the uses on the site with the nearby communities, and enhance the sensitivity of the site's uses with the shoreline and the Estuary. Thus, existing uses that are compatible with current plans and policies, present projects, and reasonably foreseeable future projects will combine with the project to have a beneficial effect in terms of land use plan consistency with plans and policies in this area of the Oakland Estuary.

Lastly, the conclusion in this document that there are no significant adverse cumulative land use/plans and policies impact in the project is supported by the analysis and findings contained in the LUTE EIR (1998), the Oakland Estuary Policy Plan EIR (1998), and the Central City East Redevelopment Plan EIR (2003). Mirroring the analysis and findings in the LUTE EIR, the 1998 Oakland Estuary Policy Plan EIR analysis (which covers the project site and surrounding areas) concluded that the combined impact of cumulative projects in the area would not result in a significant land use cumulative impact. Projects in this area have been and will continue to be infill redevelopment projects in an urbanized area fulfilling policies that encourage a compact, focused development pattern (Estuary Policy Plan EIR, p.V-4). The Estuary Policy Plan EIR also concluded that, when viewed in a regional context, the cumulative land use impacts in this area would be positive.

Land Use Compatibility/Change in Environment

The project would result in a substantial change in the existing environment and existing land uses. Although the project would alleviate land use conflicts between the uses on the site and surrounding uses, the project would result in physical environmental changes. These physical changes are fully analyzed in the individual topic sections of the EIR, including the potential cumulative impacts associated with each topic. Thus, the potential for the project to contribute to any cumulative impact related to a physical change in the environment and the mitigation requirements for such impacts are covered in other sections of the EIR.

The project would substantially change the existing conditions on the project site and would change some of the development expectations in the Estuary Policy Plan. This potential impact would be mitigated through implementation of Mitigation Measures A.3a and A.3b requiring the implementation of all the EIR mitigation measures and adherence to the regulations and standards in the Planned Waterfront Zoning District, including standards for allowable uses, open spaces, streets, setbacks, heights, stepbacks, densities, commercial space, pedestrian and bike access, and landscaping and buffering. Implementing these mitigation measures will ensure that project impacts are mitigated to the extent feasible and that land use changes on the site will be compatible with the Fifth Avenue Point and fulfill planning goals for this site. Given that this aspect of the potential impact is limited to concerns on the project site and that the EIR found the project's impact to be mitigated to a less-than-significant level, there is no opportunity for the project to combine with other past, present, or reasonably foreseeable future projects and create a significant adverse impact with respect to the changes on the project site.

Other physical land use changes that would result from the project include converting an underused, contaminated, industrial site to an active mixed use community with substantial new public open space, recreational areas, and access to the waterfront, which would be beneficial.

Other past, present, and reasonably foreseeable future projects have and would continue to redevelop and revitalize this area of the Estuary with urban uses that create opportunities to reconnect the Estuary with other areas of the City and draw local residents to the waterfront. This effect is beneficial as well. Consequently, the project would not combine with other past, present, and reasonably foreseeable future development to cause a significant adverse impact related to a change in land use.

Consistency with Habitat Conservation Plan or Natural Community Conservation Plan

There are no adopted habitat conservation plans or natural community conservation plans related to the project site or the surrounding geographic area. Consequently, the project would not itself, and would not combine with any other past, present, or reasonably foreseeable future project to, conflict with any such plan.

Although not a habitat conservation plan or a natural community conservation plan, the Clinton Basin Wetland Restoration and Enhancement Project exists at the southwest edge of the mouth of Clinton Basin within the project site boundaries. The project would not conflict with the Clinton Basin Wetland Project, and the *Biological Resources* section of the EIR includes Mitigation Measure I.2 to ensure that project construction activities near Clinton Basin would not adversely affect the wetland. No other past, present, or reasonably foreseeable future project is or would be located near the Clinton Basin Wetland Project, because the wetland is surrounded by the Oak to Ninth project area boundaries and the Estuary. Thus, there is no opportunity for any other project construction activities to combine with the Oak to Ninth project construction activities to adversely impact the Clinton Basin Wetland. Past projects are already constructed and are physically separated from the wetland such that those projects would not combine with the Oak to Ninth construction activities in the area of Clinton Basin. Present and future projects are physically separated from the wetland by the Oak to Ninth project and the Estuary and could not combine with the Oak to Ninth project to cause a cumulative impact.

Summary

In summary, the proposed project, combined with closely related past, present, and reasonably foreseeable projects would not result in a significant adverse land use/plans and policies cumulative impact. No mitigation measures are necessary. Thus, the following impact statement is added to the EIR:

Impact A.5: The proposed project, when combined with other closely related past, present, and reasonably foreseeable future development in the vicinity, would not result in a significant adverse cumulative land use/ plans and policies impact. (Cumulative Impact: Less than Significant)

Mitigation: None Required.

References – Land Use, Plans, and Policies

City of Oakland, *Land Use and Transportation Element of the Oakland General Plan Environmental Impact Report*, 1998.

City of Oakland, Oakland General Plan, *Estuary Policy Plan Environmental Impact Report*, 1998.

City of Oakland, Measure DD Expenditure Plan, January 26, 2005, http://www.oaklandparks.org/ExhA(1).Project%20update%201-27-05.htm, website accessed September 25, 2008.

B. Transportation, Circulation, and Parking

Summary of Court Order on the Cumulative Traffic Analysis

The Court Order found that the EIR failed to comply with CEQA by using a ratio theory to assess the cumulative traffic impacts. The EIR included a significance criterion for determining that a project has a considerable contribution to a cumulative intersection impact based on whether the project would contribute five percent or more to the cumulative traffic increase. This section replaces the Impact B.3 portion of the EIR's analysis of the project's potential cumulative traffic impacts under long-term 2025 conditions with a new Impact B.3 analysis that applies six significance criteria related to traffic impacts to determine if the project would have a considerable contribution to those intersections forecast to operate at unacceptable levels in the 2025 scenario, without using the five percent criterion.

Impact B.3 judges potential impacts by first describing the 2025 With Project Conditions, and then determining the significance of project impacts for those study intersections forecast to operate at unacceptable LOS with the project. Impact significance is determined by comparing the change in LOS and delay under 2025 With Project Conditions versus 2025 Without Project Conditions to the significance criteria. This analysis demonstrates whether the project's contribution to the unacceptable level of service is cumulatively considerable.

Significance Criteria

Intersection Peak-Hour Level of Service

The project would have a considerable contribution to a significant cumulative effect at analysis intersections if it would cause an increase in traffic that is substantial in relation to the baseline traffic load and capacity of the street system, or change the condition of an existing street in a manner that would have a substantial impact on access or traffic load and capacity of the street system.

Specifically, a project's contribution to cumulative impacts is considered "considerable" (i.e., significant) when the project exceeds at least one of the intersection-related thresholds listed below for year 2025:

1. Cause the baseline level of service (LOS)[1] to degrade to worse than LOS D (i.e., LOS E or F) at a signalized intersection that is located *outside* the Downtown[2] area;

[1] LOS and delay are based on the 2000 *Highway Capacity Manual*, Transportation Research Board, National Research Council, 2000.

[2] Downtown is defined in the Land Use Transportation Element of the General Plan (page 67) as the area generally bound by West Grand Avenue to the north, Lake Merritt and Channel Park to the east, the Oakland Estuary to the south and I-980/Brush Street to the west. Thus, 29 of the analysis intersections are located outside the Downtown area, and the other 23 analysis intersections are located within the Downtown area.

2. Cause the total intersection average vehicle delay to increase by four or more seconds, or degrade to worse than LOS E (i.e., LOS F) at a signalized intersection *outside* the Downtown area where the baseline level of service is LOS E;

3. Cause the baseline LOS to degrade to worse than LOS E (i.e., LOS F) at a signalized intersection that is located *within* the Downtown area;

4. Cause an increase in the average vehicle delay for any of the critical movements of six seconds or more, or degrade to worse than LOS E (i.e., LOS F) at a signalized intersection *for all areas* where the baseline level of service is LOS E;

5. At a signalized intersection *for all areas* where the baseline level of service is LOS F, cause:

   (a) The total intersection average vehicle delay to increase by two or more seconds, or

   (b) An increase in average vehicle delay for any of the critical movements of four seconds or more;

6. Add ten or more vehicles, and after project completion satisfy the Caltrans peak-hour volume warrant at an unsignalized intersection *for all areas*.

Intersection Impacts

The following discussion replaces Impact B.3 discussion in the EIR.

2025 Conditions

This section presents the assessment of the project's contribution to cumulative traffic conditions at intersections that are forecast to operate at unacceptable levels of service, as shown in **Table II.B-1** (Draft EIR Table IV.B-7). This cumulative impact methodology judges potential impacts by first describing the 2025 With Project Conditions, and then determining the significance of project impacts for those study intersections forecast to operate at unacceptable LOS with the project. Impact significance is determined by comparing the change in LOS and delay under 2025 With Project Conditions versus 2025 Without Project Conditions. The project would have a significant impact if it would exceed at least one of the intersection-related thresholds listed on page II.B-1.

Impact B.3: Traffic generated by buildout of the project would contribute to cumulatively significant impacts at local intersections in the project vicinity in 2025. (Significant Impact at the intersections described below under Impacts B.3a through B.3q)

As shown in **Table II.B-1**, pages II.B-4 and II.B-5, the following 18 intersections would operate at an unacceptable (as defined by location, within or outside the Downtown area; see page II.B-1) LOS E or F under 2025 With Project peak-hour conditions:

a) Atlantic Avenue and Webster Street (AM and PM Peak Hours); Study Intersection #1
b) Embarcadero and Broadway (PM Peak Hour); Study Intersection #3
c) 5th Street and Broadway (PM Peak Hour); Study Intersection #5
d) 5th Street and Oak Street (PM Peak Hour); Study Intersection #9

e) 6th Street and Jackson Street (AM and PM Peak Hours); Study Intersection #12
f) West Grand Avenue and Harrison Street (AM Peak Hour); Study Intersection #27
g) Lakeshore Avenue and Foothill Boulevard (AM Peak Hour); Study Intersection #30
h) Lakeshore Avenue and MacArthur Boulevard (PM Peak Hour); Study Intersection #34
i) Lakeshore Avenue and Lake Park Avenue (PM Peak Hour); Study Intersection #35
j) Embarcadero and 5th Avenue (PM Peak Hour); Study Intersection #36
k) Embarcadero and I-880 Northbound Off-Ramp (PM Peak Hour); Study Intersection #37
l) Embarcadero and I-880 Southbound On-Ramp (PM Peak Hour); Study Intersection #38
m) 5th Avenue and 7th/8th Streets (PM Peak Hour); Study Intersection #40
n) 14th Avenue and 7th/East 12th Streets (Southbound) (PM Peak Hour); Study Intersection #41
o) Foothill Boulevard and 14th Avenue (Westbound) (AM Peak Hour); Study Intersection #49
p) Foothill Boulevard and 14th Avenue (Eastbound) (PM Peak Hour); Study Intersection #50
q) 16th Street and 23rd Avenue (PM Peak Hour); Study Intersection #52
r) West Grand Avenue and Market Street (PM Peak Hour); Study Intersection #25

At West Grand Avenue / Market Street (study intersection #25), the project would cause the total intersection average vehicle delay to increase by 0.3 second, which is less than the four-second threshold of significance at a signalized intersection *outside* the Downtown area where the baseline level of service is LOS E, i.e., a less-than-considerable contribution. The other 17 deficient locations are described below.

Impact B.3a: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the cumulative traffic increases, causing the signalized intersection of *Atlantic Avenue and Webster Street* in Alameda to degrade from LOS E to LOS F during the AM peak hour. (Significant)

Mitigation Measure B.3a: The project applicant shall pay its fair share contribution to the cost of improvements proposed by the City of Alameda at the signalized intersection of *Atlantic Avenue and Webster Street*. Intersection reconfiguration would consist of adding and restriping lanes to provide the following lanes per approach:

TABLE II.B-1

(DRAFT EIR TABLE IV.B-7)

2025 AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE (LOS) AND DELAY (seconds/vehicle)

			AM Peak Hour				PM Peak Hour			
		Traffic	w/o Project		With Project [a]		w/o Project		With Project [a]	
No.	Intersection	Control	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
#1	Atlantic & Webster (Alameda)	Signal	E	74.6	**F**	**82.0**	E	57.9	E	61.7
#2	Atlantic & Constitution (Alameda)	Signal	D	44.0	D	45.4	D	38.5	D	40.8
#3	Embarcadero & Broadway	AWSC	A	9.4	B	14.5	C	21.3	**F**	**>70**
#4	Embarcadero & Oak Street	SSSC/ Signal [a]	F	63.6	C	20.2	F	57.4	D	39.0
#5	5th Street & Broadway	Signal	E	77.6	E	75.2	F	* [b]	**F**	* [b]
#6	5th Street & Webster Street	SSSC	A	10.0	B	10.1	A	9.5	A	9.7
#7	5th Street & Jackson Street	Signal	B	10.9	B	11.2	B	10.6	B	12.7
#8	5th Street & Madison Street	Signal	A	8.2	A	8.3	B	14.6	B	17.8
#9	5th Street & Oak Street	Signal	C	21.9	D	52.9	E	60.7	**F**	**>100**
#10	6th Street & Broadway	Signal	C	25.3	C	28.8	C	23.1	C	25.6
#11	6th Street & Webster Street	SSSC	B	10.3	B	10.3	A	9.5	A	9.6
#12	6th Street & Jackson Street	Signal	E	77.0	**F**	**>100**	F	>100	**F**	**>100**
#13	7th Street & Market Street	Signal	B	15.2	B	15.2	C	26.2	C	26.7
#14	7th Street & Broadway	Signal	B	14.9	B	15.5	C	22.3	E	57.6
#15	7th Street & Webster Street	Signal	B	13.2	B	13.7	B	14.8	B	15.7
#16	7th Street & Jackson Street	Signal	B	14.3	B	16.0	C	23.6	D	36.9
#17	7th Street & Madison Street	Signal	B	13.9	B	13.9	B	16.7	B	17.2
#18	7th Street & Oak Street	Signal	B	13.4	B	12.6	E	61.4	E	60.3
#19	8th Street & Market Street	Signal	B	10.3	B	10.4	B	14.2	B	14.2
#20	8th Street & Broadway	Signal	B	12.7	B	13.2	B	13.0	B	14.3
#21	8th Street & Webster Street	Signal	D	38.2	D	45.5	E	* [c]	E	* [c]
#22	8th Street & Jackson Street	Signal	C	24.4	D	39.6	B	16.5	C	19.5
#23	8th Street & Madison Street	Signal	A	10.0	A	10.0	A	9.6	A	9.4
#24	8th Street & Oak Street	Signal	B	15.5	B	15.5	B	15.4	B	15.2
#25	West Grand Ave. & Market Street	Signal	B	15.6	B	15.6	E	73.8	E	74.1
#26	West Grand Ave. & Broadway	Signal	E	60.4	E	60.3	E	78.0	E	78.9
#27	West Grand Ave. & Harrison Street	Signal	F	>100	**F**	**>100**	D	49.3	D	50.6
#28	10th Street & Oak Street	Signal	B	10.4	B	10.4	B	10.4	B	10.4
#29	1st Ave. & International Blvd	Signal	B	16.3	B	16.5	C	22.1	C	22.4
#30	Lakeshore Ave. & Foothill Blvd	Signal	E	58.1	**E**	**64.1**	B	18.3	B	19.7
#31	Lakeshore Ave. & East 18th Street	Signal	D	39.9	D	39.3	D	37.5	D	40.2
#32	Lakeshore Ave. & Hanover Avenue	Signal	A	6.2	A	6.2	A	7.4	A	7.4
#33	Lakeshore Ave. & Brooklyn Ave.	Signal	A	7.7	A	7.7	A	6.8	A	6.9
#34	Lakeshore Ave. & MacArthur Blvd	Signal	C	25.5	C	26.2	F	>100	**F**	**>100**
#35	Lakeshore Ave. & Lake Park Ave.	Signal	D	43.5	D	43.9	E	55.8	**E**	**58.9**

(*Continued*)

TABLE II.B-1 (continued)

(DRAFT EIR TABLE IV.B-7)

2025 AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE (LOS) AND DELAY (seconds/vehicle)

No.	Intersection	Traffic Control	AM Peak Hour				PM Peak Hour			
			w/o Project		With Project [a]		w/o Project		With Project [a]	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
#36	Embarcadero & 5th Avenue	SSSC/ Signal [a]	F	>70	D	49.2	F	>70	**F**	**>100**
#37	Embarcadero & I-880 Northbound Off-Ramp – 6th Avenue	SSSC/ Signal [a]	B	12.6	B	19.0	B	14.8	**F**	**>100**
#38	Embarcadero & I-880 Southbound On-Ramp – 10th Avenue	AWSC	B	11.1	D	29.4	B	14.3	**E**	**42.7**
#39	Embarcadero & I-880 Southbound Off-Ramp – 16th Avenue	SSSC	B	14.7	C	15.5	B	13.0	C	16.5
#40	5th Avenue & 7th/8th Streets	Signal	B	14.7	B	16.8	D	37.4	**F**	**81.5**
#41	14th Avenue & 7th/12th St. (SB)	Signal	C	24.9	C	27.2	E	72.0	**F**	**87.7**
#42	14th Avenue & East 12th St. (NB)	Signal	B	16.0	B	16.0	B	12.1	B	12.6
#43	East 12th Street & 23rd Avenue	Signal	B	19.0	C	20.8	B	16.8	B	18.9
#44	East 12th Street & 5th Avenue	Signal	B	16.5	C	28.3	B	19.1	D	40.5
#45	International Blvd & 14th Avenue	Signal	B	12.8	B	13.1	B	16.8	B	17.3
#46	International Blvd & 23rd Avenue	Signal	B	19.0	C	21.0	B	19.0	C	24.2
#47	International Blvd & 5th Avenue	Signal	B	14.6	B	15.0	B	14.9	B	14.9
#48	Foothill Blvd & 5th Avenue	Signal	B	12.1	B	13.2	C	20.2	C	28.2
#49	Foothill Blvd & 14th Ave. (WB)	Signal	D	54.1	**E**	**55.8**	C	21.2	C	21.5
#50	Foothill Blvd & 14th Ave. (EB)	Signal	C	27.4	C	27.4	F	>100	**F**	**>100**
#51	Foothill Blvd & 23rd Avenue	Signal	C	21.5	C	21.3	B	13.1	B	13.7
#52	16th Street & 23rd Avenue	Signal	B	17.3	B	17.6	E	70.7	**E**	**74.2**

[a] Mitigation measures required for impacts in 2010 are assumed to be in-place under 2025 With Project Conditions. For example, intersection shown with traffic control shown as SSSC/Signal are currently unsignalized with Side-Street Stop-Control, and would be signalized by mitigation measures required for impacts in 2010.

[b] See text on page IV.B-8 of the Draft EIR about how field observations show substantially worse LOS than calculated LOS under existing conditions.

[c] See text on page IV.B-10 of the Draft EIR about how field observations show worse LOS than calculated LOS under existing conditions**.**

Note: The LOS/Delay for Side-Street Stop-Control (SSSC) intersections represents the worst movement or approach; for Signalized and All-Way Stop-Control (AWSC) the LOS/Delay represent overall intersection.

SB = Southbound; NB = Northbound; WB = Westbound; EB = Eastbound

Significant impacts are denoted in **Bold** typeface.

SOURCE: Fehr & Peers Transportation Consultants

- Webster Street (from Oakland) – 1 Left-turn lane, 2 Through lanes, and 1 Right-turn lane (non-channelized right turn)
- Webster Street (to Oakland) – 2 Left-turn lanes, 1 Through lane, and 1 Through/Right-turn lane
- Atlantic Avenue (towards Alameda Point) – 1 Left-turn lane, 1 Through lane, and 1 Through/Right-turn lane
- Atlantic Avenue (away from Alameda Point) – 2 Left-turn lanes, 2 Through lanes, and 1 Right-turn lane

This mitigation measure was identified by the City of Alameda as the required improvement to accommodate redevelopment of the former Naval Air Station. The project would contribute to the implementation of this mitigation measure through payment of a fair share cost of the improvement (to be determined). During the AM and PM peak hours, the project's contribution to the estimated growth in traffic between the existing and cumulative traffic volumes (including project traffic) would be 5 and 6 percent, respectively. The project applicant would pay this fair share amount to the City of Alameda, which would then be responsible for the implementation of this improvement.

After implementation of this measure, the intersection would operate at LOS E in the AM peak hour, and at LOS D in the PM peak hour. LOS E is an unacceptable condition, but the average delay would be lower than under the 2025 Without Project Condition, and the project's contribution to the cumulative impact would be less than the threshold of significance established by the City of Oakland for determining whether the project's impact is cumulatively considerable.

Significance after Mitigation: This cumulative impact would be significant and unavoidable, because it is not certain that the measure could be implemented because the City of Oakland, as lead agency, could not implement Measure B.3a without the approval of the City of Alameda. However, in the event that Mitigation Measure B.3a could be implemented, the project's contribution to the cumulative impact would be less than considerable.

Impact B.3b: Traffic generated by buildout of the project under 2025 With Project Conditions would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Broadway* during the PM peak hour, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the PM peak hour. (Significant)

Mitigation Measure B.3b: Install traffic signals at the unsignalized intersection of *Embarcadero and Broadway*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include the traffic signal equipment and optimization of signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections. Traffic signal equipment shall include pedestrian signal heads (with adequate time for pedestrians to cross the streets). Signal installation shall meet City of Oakland and Caltrans design standards.

Prior to the installation of this traffic signal, a complete traffic signal warrant analysis would be conducted at this location to verify that this location meets MUTCD signal warrants, which include both daily and peak-hour volume, accidents, and pedestrian volumes.

The Jack London Square Redevelopment Project EIR identified a number of improvements in the project study area that would be required to mitigate that project's traffic impacts, including installation of traffic signals at this intersection prior to occupancy of buildout of the Jack London Square project. However, the exact timing of implementation of this improvement has not been established. If the Jack London Square project were to install traffic signals at the intersection of Embarcadero and Broadway prior to buildout of the Oak to Ninth project, then the Oak to Ninth project applicant would pay a fair share contribution to the cost of this traffic signal. However, if development of the Jack London Square project were to lag behind, and the intersection of Embarcadero and Broadway was unsignalized prior to buildout of the Oak to Ninth project, then the Oak to Ninth project applicant would pay to install the traffic signals. After implementation of this measure, the intersection would operate at an acceptable LOS B or better in both the AM and PM peak hours.

Significance after Mitigation: Less than Significant.

Impact B.3c: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the LOS F conditions during the PM peak hour at the signalized intersection of *5th Street and Broadway*. The intersection would operate at LOS F during the PM peak hour under 2025 Without Project Conditions and the proposed project would result in an increase in the total intersection average vehicle delay of more than two seconds. (Significant)

As described on page IV.B-8 of the Draft EIR, based on field observations of 2004 existing intersection operations, the intersection of 5th Street and Broadway is judged to operate at LOS F during the PM peak hour due to backups along 5th Street caused by downstream bottlenecks in the Webster Tube.

Mitigation: No feasible mitigation measures are available that would improve its operations to acceptable levels. While improvements such as reconfiguring lanes on Broadway and adding directional signage, as discussed in the Jack London Square Redevelopment Project EIR, would improve traffic flow conditions on some movements, downstream bottlenecks in the Webster Tube would continue to cause substantial backups and delay on 5th Street approaching Broadway, and the previously described unacceptable LOS F conditions would continue. The constrained capacity of the tube is an issue of multi-jurisdictional concern (solutions are being explored by the cities of Oakland and Alameda, Caltrans, and the Alameda County Congestion Management Agency), and no feasible measures to increase the tube's capacity have been identified to date.

Significance after Mitigation: Significant and Unavoidable.

Impact B.3d: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the cumulative traffic increases, causing the signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp* to degrade from LOS E to LOS F during the PM peak hour. (Significant)

Mitigation Measure B.3d: Optimize the traffic signal timing at the signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

To ensure that signal timing optimization occurs, the project applicant shall pay for this measure. After implementation of this measure, the intersection would operate at an acceptable LOS E or better in both the AM and PM peak hours.

Significance after Mitigation: This cumulative impact would be significant and unavoidable because it is not certain that the measure could be implemented because the City of Oakland, as lead agency, could not implement Measure B.3d without the approval of Caltrans. However, in the event that Mitigation Measure B.3d could be implemented, the impact would be reduced to less than significant.

Impact B.3e: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the cumulative traffic increases, causing the signalized intersection of *6th and Jackson Streets at the I-880 Northbound On-Ramp* to degrade from LOS E to LOS F during the AM peak hour, and would contribute to the LOS F conditions during the PM peak hour. The intersection would operate at LOS F during the PM peak hour under 2025 Without Project Conditions, and the proposed project would result in an increase of more than two seconds in the total intersection average vehicle delay. (Significant)

Mitigation: No feasible mitigation measures are available. The 2010 analysis concluded that the impact from Phase 1 development could be mitigated through optimization of signal timing (see Mitigation Measure B.1c in the Draft EIR). However, with the additional growth in background traffic and the growth in project traffic that would occur from 2010 to 2025, this retiming could not mitigate the impact from Project Buildout to a less than significant level. Given the constrained right-of-way at this location, the addition of turn lanes or other similar improvements would not be feasible.

Significance after Mitigation: Significant and Unavoidable.

Impact B.3f: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the LOS F conditions during the AM peak hour at the signalized intersection of *West Grand Avenue and Harrison Street.* The intersection would operate at LOS F during the AM peak hour under 2025 Without Project Conditions, and

the proposed project would result in an increase of more than two seconds in total intersection average vehicle delay. (Significant)

Mitigation Measure B.3f: Optimize the traffic signal timing for the AM peak period at the signalized intersection of *West Grand Avenue and Harrison Street*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

To ensure that signal timing optimization occurs, the project applicant shall pay for this measure. After implementation of this measure, the intersection would operate at an acceptable LOS D or better in both the AM and PM peak hours.

Significance after Mitigation: Less than Significant.

Impact B.3g: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the LOS E conditions during the AM peak hour at the signalized intersection of *Lakeshore Avenue and Foothill Boulevard*. The intersection would operate at LOS E during the AM peak hour under 2025 Without Project Conditions, and the proposed project would result in an increase in the total intersection average vehicle delay of more than four seconds. (Significant)

Mitigation Measure B.3g: Optimize the traffic signal timing for the AM peak period at the signalized intersection of *Lakeshore Avenue and Foothill Boulevard*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

To ensure that signal timing optimization occurs, the project applicant shall pay for this measure. After implementation of this measure, the intersection would operate at LOS E in the AM peak hour, which is an unacceptable condition, but the increase in average delay from the 2025 Without Project Condition would be less than the threshold of significance established by the City of Oakland for determining whether the project's impact is cumulatively considerable.

Assessment of possible further mitigation measures (to achieve an acceptable LOS D or better condition) such as addition of a right-turn lane on Foothill Boulevard indicates that there is not sufficient right-of-way available for this additional lane at the intersection.

Significance after Mitigation: Less than Significant

Impact B.3h: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the LOS F conditions during the PM peak hour at the signalized intersection of *Lakeshore Avenue and MacArthur Boulevard.* The intersection would operate at LOS F during the PM peak hour under 2025 Without Project Conditions

and the proposed project would result in an increase in the average vehicle delay for a critical movement of more than four seconds. (Significant)

Mitigation: No feasible mitigation measures are available. Assessment of possible mitigation measures indicates that optimization of signal timing at this intersection would reduce delays, but would not mitigate the impact. Other improvements (to achieve an acceptable LOS D or better condition), such as additional turn lanes, are not feasible because there is not sufficient right-of-way available for additional lanes at the intersection.

Significance after Mitigation: Significant and Unavoidable.

Impact B.3i:Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the LOS E conditions during the PM peak hour at the signalized intersection of *Lakeshore Avenue and Lake Park Avenue.* The intersection would operate at LOS E during the PM peak hour under 2025 Without Project Conditions, and the proposed project would result in an increase in the average vehicle delay for a critical movement of more than six seconds. (Significant)

Mitigation Measure B.3i: Optimize the traffic signal timing for the PM peak period at the signalized intersection of *Lakeshore Avenue and Lake Park Avenue*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

To ensure that signal timing optimization occurs, the project applicant shall pay for this measure. After implementation of this measure, the intersection would operate at an acceptable LOS D or better in both the AM and PM peak hours.

Significance after Mitigation: Less than Significant

Impact B.3j: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the LOS F conditions during the PM peak hour at the intersection of *Embarcadero and 5th Avenue*. The intersection would operate at LOS F during the PM peak hour under 2025 Without Project Conditions, and those LOS F conditions would continue under traffic signal control (installed by Mitigation Measure B.1d, required for project impacts in 2010) with the addition of traffic generated by buildout of the project. (Significant)

Mitigation Measure B.3j: Widen Embarcadero to provide two through travel lanes in each direction along the project site frontage (i.e., from north of 4th Avenue to 9th Avenue), with separate left-turn lanes provided at the intersections, and provide appropriate lane configurations on the streets that intersect Embarcadero within the above-cited limits.

The project applicant shall pay for this measure. After implementation of this measure, the intersection would operate at an acceptable LOS D or better in both AM and PM peak hours.

Significance after Mitigation: Less than Significant

Impact B.3k: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the LOS F conditions during the PM peak hour at the intersection of *Embarcadero and I-880 Northbound Off-Ramp*. The intersection would operate at LOS F during the PM peak hour under 2025 Without Project Conditions, and those LOS F conditions would continue under traffic signal control (installed by Mitigation Measure B.1e, required for project impacts in 2010) with the addition of traffic generated by buildout of the project. (Significant)

Mitigation Measure B.3k: Widen Embarcadero to provide two through travel lanes in each direction along the project site frontage (i.e., from north of 4th Avenue to 9th Avenue), with separate left-turn lanes provided at the intersections, and provide appropriate lane configurations on the streets that intersect Embarcadero within the above-cited limits.

The project applicant shall pay for this measure. After implementation of this measure, the intersection would operate at an acceptable LOS C or better in both AM and PM peak hours.

Significance after Mitigation: Less than Significant

Impact B.3l: Traffic generated by buildout of the project under 2025 With Project Conditions would add more than ten vehicles to the unsignalized intersection of *Embarcadero and I-880 Southbound On-Ramp – 10th Avenue,* and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the PM peak hour. (Significant)

Mitigation Measure B.3l: Install traffic signals at the unsignalized intersection of *Embarcadero and I-880 Southbound On- Ramp – 10th Avenue*. Installation of traffic signals shall include the traffic signal equipment and optimization of signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections. Traffic signal equipment shall include pedestrian signal heads (with adequate time for pedestrians to cross the streets). Signal installation shall meet City of Oakland and Caltrans design standards. To minimize the effects of queuing and "spill-backs" to adjacent intersections, coordination with signal phasing and timing of adjacent intersections shall include signal interconnects.

Prior to the installation of this traffic signal, a complete traffic signal warrant analysis would be conducted at this location to verify that this location meets MUTCD signal warrants, which include both daily and peak-hour volume, accidents, and pedestrian volumes.

The project applicant shall pay for this measure. After implementation of this measure, the intersection would operate at LOS B in both the AM and PM peak hours.

Significance after Mitigation: This cumulative impact would be significant and unavoidable because it is not certain that the measure could be implemented because the City of Oakland, as lead agency, could not implement Measure B.3l without the approval of Caltrans. However, in the event that Mitigation Measure B.3l could be implemented, the impact would be less than significant.

Impact B.3m: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the cumulative traffic increases, causing the signalized intersection of *5th Avenue and 7th/8th Streets* to degrade from LOS D to LOS F during the PM peak hour. (Significant)

Mitigation Measure B.3m: Optimize the traffic signal timing for the PM peak period at the signalized intersection of *5th Avenue and 7th/8th Streets*. Additionally, the westbound and eastbound (5th Avenue) approaches of the intersection would be restriped within the current paved approach, and on-street parking spaces adjacent to the intersection would be removed, to provide separate left-turn, through, and through/right-turn lanes. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

To ensure that signal timing optimization occurs, the project applicant shall pay for this measure.

The City of Oakland, which has jurisdiction over this intersection, would be responsible for its implementation. After implementation of this measure, the intersection would operate at an acceptable LOS D or better in both the AM and PM peak hours.

Significance after Mitigation: Less than Significant.

Impact B.3n: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the cumulative traffic increases, causing the signalized intersection of *14th Avenue and 7th/East 12th Streets (Southbound) to* degrade from LOS E to LOS F during the PM peak hour. (Significant)

Mitigation Measure B.3n: Optimize the traffic signal timing for the PM peak period at the signalized intersection of *14th Avenue and 7th/12th Streets (Southbound)*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

To ensure that signal timing optimization occurs, the project applicant shall pay for this measure.

The City of Oakland, which has jurisdiction over this intersection, would be responsible for its implementation. After implementation of this measure, the intersection would operate at

LOS E in the PM peak hour, which is an unacceptable condition, but the average delay would be lower than under the 2025 Without Project Condition, and the project's contribution to the cumulative impact would be less than the threshold of significance established by the City of Oakland for determining whether the project's impact is cumulatively considerable.

Assessment of possible further mitigation measures (to achieve an acceptable LOS D or better condition) such as addition of a right-turn lane, and conversion of the through/right lane to through movements only, on 14th Avenue indicates that there is not sufficient right-of-way available for this additional lane at the intersection.

Significance after Mitigation: Less than Significant

Impact B.3o:Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the cumulative traffic increases, causing the signalized intersection of *Foothill Boulevard and 14th Avenue (Westbound) to* degrade from LOS D to LOS E during the AM peak hour. (Significant)

Mitigation Measure B.3o: Optimize the traffic signal timing for the AM peak period at the signalized intersection of *Foothill Boulevard and 14th Avenue (Westbound).* Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

To ensure that signal timing optimization occurs, the project applicant shall pay for this measure. The City of Oakland, which has jurisdiction over this intersection, would be responsible for its implementation.

After implementation of this measure, the intersection would operate at an acceptable LOS C in both the AM and PM peak hours.

Significance after Mitigation: Less than Significant

Impact B.3p: Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the LOS F conditions during the PM peak hour at the signalized intersection of *Foothill Boulevard and 14th Avenue (Eastbound)*. The intersection would operate at LOS F during the PM peak hour under 2025 Without Project Conditions, and the proposed project would result in an increase of more than two seconds in total intersection average vehicle delay. (Significant)

Mitigation Measure B.3p: Optimize the traffic signal timing for the AM peak period at the signalized intersection of *Foothill Boulevard and 14th Avenue (Eastbound).* Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

To ensure that signal timing optimization occurs, the project applicant shall pay for this measure. The City of Oakland, which has jurisdiction over this intersection, would be responsible for its implementation. After implementation of this measure, the intersection would operate at an acceptable LOS C in both the AM and PM peak hours.

Significance after Mitigation: Less than Significant

Impact B.3q:Traffic generated by buildout of the project under 2025 With Project Conditions would contribute to the LOS E conditions during the PM peak hour at the signalized intersection of *16th Street and 23rd Avenue*. The intersection would operate at LOS E during the PM peak hour under 2025 Without Project Conditions; and the proposed project would result in an increase in the average vehicle delay for a critical movement of more than six seconds. (Significant)

Mitigation Measure B.3q: Optimize the traffic signal timing for the PM peak period at the signalized intersection of *16th Street and 23rd Avenue*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

To ensure that signal timing optimization occurs, the project applicant shall pay for this measure. The City of Oakland, which has jurisdiction over this intersection, would be responsible for its implementation. After implementation of this measure, the intersection would operate at an acceptable LOS C or better in both the AM and PM peak hours.

Significance after Mitigation: Less than Significant

Table II.B-2 (Draft EIR Table IV.B-8) presents levels of service (and average vehicle delay) under mitigated conditions at the 17 study intersections where the proposed project's contribution to cumulatively significant impacts would be considerable (i.e., significant) upon implementation of each of the mitigation measures identified above. The following summarizes the above full discussion of Significance after Mitigation for Impacts B.3a through B.3q:

TABLE II.B-2

(DRAFT EIR TABLE IV.B-8)

2025 CONDITIONS
AM AND PM PEAK HOUR MITIGATED INTERSECTION
LEVEL OF SERVICE (LOS) AND DELAY (seconds/vehicle)

			With Project Condition				Mitigated Condition			
			AM Peak		PM Peak		AM Peak		PM Peak	
No.	Intersection	Mitigation	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
#1	Atlantic & Webster (Alameda)	Add Lanes	**F**	**82.0**	E	61.7	E [a,c]	62.3	D	48.3
#3	Embarcadero & Broadway	Signal	B	14.5	**F**	**>70**	A	7.5	B	10.7
#5	5th Street & Broadway	None feasible	E	75.2	**F** [b]	**>100**	E	75.2	**F** [b]	**>100**
#9	5th Street & Oak Street	Optimize Timing	D	52.9	**F**	**>100**	D	52.9	E [c]	62.2
#12	6th Street & Jackson Street	None feasible	**F**	**>100**	**F**	**>100**	**F**	**>100**	**F**	**>100**
#27	West Grand Ave. & Harrison St.	Optimize Timing	**F**	**>100**	D	50.6	C	31.4	D	50.6
#30	Lakeshore Ave. & Foothill Blvd	Optimize Timing	**E**	**64.1**	B	19.7	E [a]	59.3	B	19.7
#34	Lakeshore Ave. & MacArthur Blvd	None feasible	C	26.2	**F**	**>100**	C	26.2	**F**	**>100**
#35	Lakeshore Ave. & Lake Park Ave.	Optimize Timing	D	43.9	**E**	**58.9**	D	43.9	D	47.5
#36	Embarcadero & 5th Avenue	Widen Embarcadero	D	49.2	**F**	**>100**	D	49.2	C	29.9
#37	Embarcadero & I-880 NB Off-Ramp	Widen Embarcadero	B	19.0	**F**	**>100**	B	10.1	C	30.8
#38	Embarcadero & I-880 SB On-Ramp	Signal	D	29.4	**E**	**42.7**	B	17.6	B [c]	19.0
#40	5th Avenue & 7th/8th Streets	Optimize Timing	B	16.8	**F**	**81.5**	D	38.7	D	47.9
#41	14th Avenue & 7th/12th St. (SB)	Optimize Timing	C	27.2	**F**	**87.7**	C	27.2	E [a]	63.8
#49	Foothill Blvd & 14th Ave. (WB)	Optimize Timing	**E**	**55.8**	C	21.5	C	26.7	B	17.9
#50	Foothill Blvd & 14th Ave. (EB)	Optimize Timing	C	27.4	**F**	**>100**	C	25.1	C	28.7
#52	16th Street & 23rd Avenue	Optimize Timing	B	17.6	**E**	**74.2**	B	17.6	C	29.3

[a] After implementation of the identified mitigation measure, the average delay would be less than the average delay under the 2025 Without Project Condition, and the project impact would be mitigated to a less-than-significant level, even with an unacceptable LOS.

[B] See text on page IV.B-8 of the DEIR about how field observations show substantially worse LOS than calculated LOS under existing conditions.

[C] As described in the full discussion of Significance after Mitigation for Impacts B.3a, B.3d, and b.3l, the mitigated conditions shown in this table for this intersection requires approval by a jurisdiction other than the City of Oakland (i.e., the City of Alameda or Caltrans). Because it is not certain that the measure could be implemented, this cumulative impact would be significant and unavoidable.

Significant impacts are denoted in Bold typeface.

SOURCE: Fehr & Peers Transportation Consultants

A. Measures Identified to Mitigate Cumulatively Significant Impact to Acceptable LOS –

b) Embarcadero and Broadway (PM Peak Hour); Study Intersection #3
f) West Grand Avenue and Harrison Street (AM Peak Hour); Study Intersection #27
i) Lakeshore Avenue and Lake Park Avenue (PM Peak Hour); Study Intersection #35
j) Embarcadero and 5th Avenue (PM Peak Hour); Study Intersection #36
k) Embarcadero and I-880 Northbound Off-Ramp (PM Peak Hour); Study Intersection #37
m) 5th Avenue and 7th/8th Streets (PM Peak Hour); Study Intersection #40
o) Foothill Boulevard and 14th Avenue (Westbound) (AM Peak Hour); Study Intersection #49
p) Foothill Boulevard and 14th Avenue (Eastbound) (PM Peak Hour); Study Intersection #50
q) 16th Street and 23rd Avenue (PM Peak Hour); Study Intersection #52

B. Measures Identified to Mitigate Cumulatively Significant Impact (but requires approval of an agency other than the City of Oakland to implement the identified improvement) –

a) Atlantic Avenue / Webster Street (AM peak hour); Study Intersection #1
d) 5th Street and Oak Street (PM Peak Hour); Study Intersection #9
l) Embarcadero and I-880 Southbound On-Ramp (PM Peak Hour); Study Intersection #38

For intersection "a", in the event the identified mitigation measures could be implemented (i.e., if the other agency approved its implementation), the project's contribution to the cumulative impact would be mitigated to a less-than-significant level because the average delay would be lower than under the 2025 Without Project Condition.

For intersections "d" and "l", in the event the identified mitigation measures could be implemented (i.e., if the other agency approved their implementation), the cumulatively significant impacts would be mitigated to an acceptable LOS.

C. Measures Identified to Mitigate Project's Contribution to Cumulatively Significant Impact (but LOS after mitigation remains unacceptable) –

g) Lakeshore Boulevard / Foothill Boulevard (AM peak hour); Study Intersection #30
n) 14th Avenue / 7th/12th Streets (PM peak hour); Study Intersection #41

For these two intersections, implementation of the identified mitigation measure would mitigate the project's contribution to the cumulative impact to a less-than-considerable level because either the increase in average delay from the 2025 Condition would be less than the four-second threshold of significance established by the City of Oakland (at Lakeshore Boulevard / Foothill Boulevard), or the average delay would be lower than under the 2025 Condition (at 14th Avenue / 7th/12th Streets).

D. No Feasible Mitigation Measures are Available –

c) 5th Street / Broadway (PM peak hour); Study Intersection #5
e) 6th Street / Jackson Street (AM and PM peak hours); Study Intersection #12
h) Lakeshore Boulevard / MacArthur Boulevard (PM peak hour); Study Intersection #34

For these intersections, physical constraints (i.e., inability to widen the Webster Tube; and insufficient available right-of-way for additional travel lanes) cause mitigation to be

infeasible, and the project contribution to the cumulative impact would be significant and unavoidable.

F. Geology, Soils, and Seismicity

Summary of Court Order on Geology, Soils and Seismicity

The Court Order found that the EIR failed to comply with CEQA by not providing a sufficient analysis to support the finding that the exposure of project residents and structures to seismic hazards would be mitigated to less than significant. In addition, the Court found that the EIR failed to comply with CEQA by not including a sufficient analysis of the cumulative geology, soils, and seismicity impacts of the project when added to other closely related past and present projects.

The information and analysis in this chapter addresses the Court's order. The first section, *Adequacy of Seismic Hazard Mitigation,* provides supplemental information and discussion regarding seismic impacts. The second section, *Cumulative Impacts Analysis,* analyzes the potential for the project, when added to other closely related past, present and reasonably foreseeable projects, to result in cumulative geologic or seismic impacts.

Adequacy of Seismic Hazard Mitigation

This section 1) presents the EIR impacts F.1 and F.2, 2) explains the significance criteria and discusses how it was applied to evaluate whether these impacts are significant, and 3) provides an analysis as to how the current California laws regarding earthquake hazard mitigation, in concert with engineering requirements prescribed in the mitigation measures, would reduce the significant impacts associated with seismic hazards to less than significant.

Seismic-Related Impacts Identified in the EIR

The EIR identified two potentially significant impacts related to seismic hazards. Impact F.1 (EIR, Page IV.F-14) addressed the potential for the project to expose people or structures to ground failures during strong earthquake ground shaking. The text of Impact F.1, is provided below.

Impact F.1: In the event of a major earthquake in the region, seismic ground shaking could potentially injure people and cause collapse or structural damage to proposed structures. (Potentially Significant)

Impact F.2 (EIR, Page IV.F-15) identified the potential of the project to expose people or structures to ground failure caused by liquefaction and earthquake-induced settlement. The text of Impact F.1 is provided below.

Impact F.2: In the event of a major earthquake in the region, seismic ground shaking could potentially expose people and property to liquefaction and earthquake-induced settlement. (Potentially Significant).

Significance Criteria

In California, an earthquake can cause injury or property damage by (1) rupturing the ground at the surface causing damage or destroying structures, (2) violently shaking the ground, (3) causing the underlying ground to fail due to liquefaction, or (4) causing enough ground motion to initiate failure in a slope resulting in a landslide. The significance criteria presented below are those recommended under CEQA that pertain to potential seismic-related hazards; these criteria were applied to the EIR analysis of the proposed Oak to Ninth project. The EIR determined that fault rupture was not an impact due to the distance of the proposed project site from an active fault. Similarly, earthquake-induced slope stability (i.e. landslides) was determined not to be an impact because the site is flat and located on the margin of the Oakland Inner Harbor. A project would have a significant effect if it would:

- Expose people or structures to geologic hazards, soils, and/or seismic conditions so unfavorable that they could not be overcome by special design using reasonable construction and maintenance practices. Specifically,

  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 (refer to Division of Mines and Geology Special Publications 42 and 117 and PRC §2690 et. seq.);

  - Strong seismic ground shaking;

  - Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or

  - Landslides

The CEQA criteria reflects the potential for large earthquakes to occur in California and thus, requires analysis of (1) the potential for the project property to be impacted by existing geologic conditions on the site that would lead to seismic hazards and (2) whether the project would increase the potential of seismic hazards or exacerbate the effects from earthquake ground motion on a particular property. In accordance with the significance criteria, impacts associated with seismic hazards would be considered significant if the potential effects of an earthquake on a particular site could not be mitigated by an engineered solution. The significance criteria do not require elimination of the potential for structural damage from seismic hazards. Instead, the criteria require an evaluation of whether the seismic conditions on a site can be overcome through engineering design solutions that will reduce to less than significant the substantial risk of exposing people or structures to loss, injury or death. State and local code requirements ensure buildings are designed and constructed in a manner that, although the buildings may sustain damage during a major earthquake, will reduce the substantial risk that buildings will collapse resulting in a potential for injury or death. As discussed below, the potentially significant seismic impacts on the Oak to Ninth project site could be reduced to less than significant through

conformance to existing state laws, City ordinances, and application of accepted, proven construction engineering practices.

Regulations and Mitigation to Reduce Seismic Hazards

California Regulations to Mitigate Seismic Hazards

Introduction

California has passed several laws regulating development and construction in areas susceptible to seismic hazards. One of the first was the Field Act in 1933, which required public schools to be constructed to withstand earthquake shaking without collapse. More recently, the Alquist-Priolo Earthquake Fault Zoning Act of 1972 prohibited construction over active fault traces. In 1990, the State passed the Seismic Hazards Mapping Act (SHMA) to protect public safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failures or hazards caused by earthquakes. Although the proposed Oak to Ninth Project site is not within an Alquist-Priolo Earthquake Fault Zone, it is in an area designated by the SHMA as a liquefaction zone. Because of this, site design and construction must comply with the SHMA and guidelines for evaluating and mitigating liquefaction hazards prescribed under Special Publication 117. In addition to the SHMA, adequate investigation and mitigation of failure-prone soils is also required by the mandatory provisions of the California Building Code (CBC, California Code of Regulations Title 24). The City of Oakland Building Construction Code (Municipal Code, Title 15 Buildings and Construction), adopts the CBC with certain local amendments.

These stringent state and local regulatory requirements exist to ensure the exposure of people or structures to substantial risk of loss, injury, or death due to significant damage or collapse of a newly constructed building in a seismic event is less than significant. The requirements have been developed after years of study and the observed performance of structures throughout history during previous significant earthquakes such as Loma Prieta and others around the world. The codes provide a methodology for assessing the potential ground shaking at a particular project site using the relative distance to known active faults.

The following sections describe the relevant requirements of the SHMA, the CBC, and local ordinances.

Seismic Hazard Mapping Act

The purpose of the SHMA is to protect public safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure. The SHMA establishes a statewide public safety standard for mitigation of earthquake hazards. This means that the minimum level of mitigation for a project should reduce the risk of ground failure during an earthquake to a level that does not

cause the collapse of a building intended for human occupancy, but in most cases, not to a level of no ground failure at all.[1]

Special Publication 117 (SP-117) is the guideline for evaluating seismic hazards related to ground shaking and for determining mitigation measures as required by the Public Resources Code Section 2695(a). The objectives of the guideline are to assist in the evaluation and mitigation of earthquake-related hazards for projects within designated zones of required investigations and to promote uniform and effective statewide implementation of the evaluation and mitigation elements of the SHMA. SP-117 assists owners or developers seeking approval of specific development project within a Seismic Hazard Zone and assists the lead agency's technical review of a project's geotechnical conditions and mitigations. The methods and procedures contained in SP-117 are those which the State Mining and Geology Board, the Seismic Hazard Mapping Act Advisory Committee, and its Working Groups have determined are currently representative of quality practice.

The State's criteria that meet the standard required for project approval within zones of required investigation are defined in CCR Title 14, Section 3724, from which the following has been excerpted:

> "The following specific criteria for project approval shall apply within seismic hazard zones and shall be used by affected lead agencies in complying with the provisions of the Act:
>
> (a) A project shall be approved only when the nature and severity of the seismic hazards at the site have been evaluated in a geotechnical report and appropriate mitigation measures have been proposed.
>
> (b) The geotechnical report shall be prepared by a registered civil engineer or certified engineering geologist, having competence in the field of seismic hazard evaluation and mitigation. The geotechnical report shall contain site-specific evaluations of the seismic hazard affecting the project, and shall identify portions of the project site containing seismic hazards. The report shall also identify any known off-site seismic hazards that could adversely affect the site in the event of an earthquake. The contents of the geotechnical report shall include, but shall not be limited to, the following:
>
> (1) Project description.
>
> (2) A description of the geologic and geotechnical conditions at the site, including an appropriate site location map.

[1] In this context, "minimum" does not imply the least amount of mitigation. Mitigation measures and design requirements must meet the state's high standard of protecting public safety. This standard is the minimum requirement and the guideline for state and local code requirements under the SHMA and the CBC. Projects must meet, but can exceed, the comprehensive and exacting requirements necessary to meet this high, minimum standard.

(3) Evaluation of site-specific seismic hazards based on geological and geotechnical conditions, in accordance with current standards of practice.

(4) Recommendations for appropriate mitigation measures as required in Section 3724(a), above.

(5) Name of report preparer(s), and signature(s) of a certified engineering geologist and/or registered civil engineer, having competence in the field of seismic hazard evaluation and mitigation.

(c) Prior to approving the project, the lead agency shall independently review the geotechnical report to determine the adequacy of the hazard evaluation and proposed mitigation measures and to determine the requirements of Section 3724(a), above, are satisfied. Such reviews shall be conducted by a certified engineering geologist or registered civil engineer, having competence in the field of seismic hazard evaluation and mitigation."

California Building Code, Title 24

The California Building Code (CBC) is part (Part 2) of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. Title 24 sets forth the fire, life-safety and other building related regulations applicable to any structure fit for occupancy statewide for which a building permit is sought. Title 24 establishes general standards for the design and construction of buildings, including provisions related to seismic safety. The CBC provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 applies to all occupancies in California except for modifications adopted by state agencies and local governing bodies. The current 2007 CBC, which became law on January 1, 2008, incorporates, by adoption, the 2006 edition of the International Building Code of the International Code Council with the California amendments. These amendments include significant building design and construction criteria that have been tailored for California earthquake conditions.

The California Building Standards Commission (CBSC), established in 1953 by the California Building Standards Law, is an independent commission within the State and Consumer Services Agency. Commission members are appointed by the Governor, confirmed by the State Senate, and include building and construction design professionals. The CBSC is charged with many tasks associated with the CBC including review and approval of building standards proposed and adopted by state agencies, codifying and publishing approved building standards in one state building standards code (California Code of Regulations, Title 24), administering California's building code adoption processes, and resolving conflict, duplication, and overlap in building standards.

Chapter 18 of the CBC, *Soils and Foundations*, specifies the required level of soil investigation, required by law in California, for the Oak to Ninth Project.[2] Requirements in Chapter 18 apply to building and foundations systems and consider reduction of potential seismic hazards. The proposed project includes soils categories C, D, E, and F, as determined by the CBC. The categories range from Category C soils, which are more competent dense soil or soft rock to Category E and F soils, which are vulnerable to potential failure under seismic loading (liquefaction). The provisions outlined in the following excerpted sections directly apply to the regulatory context of the proposed project and its geotechnical characteristics.[3]

> Section 1802.1: Foundation and soils investigations shall be conducted in conformance with Section 1802.2 through 1802.8. Where required by the building official, the classification and investigation of soil shall be made by a registered design professional.
>
> Section 1802.2 The owner or applicant shall submit a foundation and soils report to the building official if the certain conditions exist on the project site or certain foundation strategies are proposed. These conditions/foundations include questionable soils (Section 1802.2.1), expansive soils (Section 1802.2.2), groundwater table (Section 1802.2.3), pile and pier foundations (Section 1802.2.4) Rock Strata (Section 1802.2.5), Seismic Design Category C (Section 1802.2.6), and Seismic Design Category D, E, or F (1802.2.7). The investigation required for soil types under classified under Section 1802.2.7 shall include:
>
> 1. A determination of lateral pressure on basement and retaining walls due to earthquake motions.
>
> 2. An assessment of potential consequences of any liquefaction and soil strength loss, including estimation of differential settlement, lateral movement or reduction in foundation soil-bearing capacity, and shall address mitigation measures. Such measure shall be given consideration in the design of the structure and can include but are not limited to ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements of any combination of these measures. The potential for liquefaction and soil strength loss shall be evaluated for site peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions. Peak ground acceleration shall be determined from a site-specific study taking into account soil amplification effects, as specified in Chapter 21 of ASCE Standard 7-05.[4]

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2 It is important to note that the CBC, which was in effect when the EIR was published and approved, was the 1997 CBC which was based on the Uniform Building Code. The project would be required to comply with provisions in the most current code (2007 CBC), which would likely be in effect for at least the next three years.

3 Please note that the CBC Sections provided in this chapter is partial and represent those most relevant to the mitigation of the potential seismic hazards.

4 Developed by the American Society of Civil Engineers (ASCE) ASCE Standard 7-05 Standard provides requirements for general structural design and includes means for determining dead, live, soil, flood, wind, snow, rain, atmospheric ice, and earthquake loads, and their combinations that are suitable for inclusion in building codes

1802.7 Engineering Geologic Reports

Section 1802.7.1 Geologic and earthquake engineering reports shall be required for all proposed construction. The purpose of the engineering report shall be to identify geologic and seismic conditions that may require mitigations. The reports shall contain data which provide an assessment of the nature of the site and potential for earthquake damage based on appropriate investigations of the regional and site geology, project foundations conditions and potential seismic shaking at the site. The report shall be prepared by a California certified engineering geologist in consultation with a California-registered geotechnical engineer.

The preparation of the engineering geologic report shall consider the most recent California Geological Survey Note 48 (Checklist for the Review of Engineering Geology and Seismology Reports California Public Schools, Hospitals, and Essential Services Buildings). In addition, the most recent version of CGS Special Publication 42: Fault Rupture hazard Zones in California, shall be considered for projects sites within an Alquist-Priolo Earthquake Fault Zone. The most recent version of CGS Special Publication 117: Guidelines for Evaluating and Mitigating Seismic Hazard in California, shall be considered for project sites proposed within a Seismic Hazard Zone. All conclusions shall be fully supported by satisfactory data and analysis.

The report shall include, but not be limited to, the following:

1. Geologic investigation.
2. Evaluation of the known active and potentially active faults, both regional and local.
3. Ground motion parameters, as required by Section 1613 and ASCE 7.
4. Evaluation of slope stability at or near the site, and:
5. The liquefaction and settlement potential of the earth materials in the foundation.

Section 1802.8 Geotechnical and Supplemental Ground-Response reports:

1802.8.1 Geotechnical Report. The geotechnical report shall provide completed evaluations of the foundation conditions of the site and the potential geologic/seismic hazards affecting the site. The geotechnical report shall include, but shall not be limited to, site-specific evaluations of design criteria related to the nature and extent of foundation materials, groundwater conditions, liquefaction potential, settlement potential and slope stability. The report shall contain the results of the analysis of problem areas identified in the engineering geologic report. The geotechnical report shall incorporate estimates of the

and other documents. The earthquake load provisions in ASCE 7-05 are substantially adopted by reference in the 2006 International Building Code. Numerous other provisions of all other ASCE 7-05 sections are also adopted by reference by both model building codes including the provisions for calculating wind loads and snow loads.

> characteristics of site ground motion provided in the engineering geologic report. The geotechnical report shall be prepared by a geotechnical engineer registered in the state of California with the advice of the certified engineering geologist and other technical experts, as necessary. The approved engineering geologic report shall be submitted with or as part of the geotechnical report.

City of Oakland Building Ordinances

The City of Oakland has City ordinances aimed at mitigating seismic and other geologic hazards (City of Oakland, 2004). The City's subdivision ordinance requires that developers file soil reports indicating any soil characteristics which may create hazards, and identifying measures to avoid soil hazards and prevent grading from creating unstable slopes. The ordinance requires that a state-registered civil engineer prepare the soils report and direct all grading work. The City's Grading, Erosion and Sedimentation Ordinance (Section 15.04.780 of the Municipal Code) sets forth requirements for grading permits and erosion control and sedimentation control plans, and prohibits the discharge or channel concentrated flow of storm water.

The Unreinforced Masonry Ordinance (Chapter 15.28 of the Municipal Code) implements the state's unreinforced masonry building law (or "potentially hazardous building" law) by, among other things, requiring building owners to retrofit their properties within a specified time. The "Earthquake-Damaged Structures" Ordinance (Chapter 15.24 of the Municipal Code) establishes regulations and standards governing the alteration, repair, restoration and rehabilitation of earthquake-damaged buildings (other than unreinforced masonry buildings) in a "just, equitable, expedient and practicable" way.

The City's "Geologic Reports" Ordinance (Chapter 15.20 of the Oakland Municipal Code) implements the state's Alquist-Priolo Earthquake Fault Zoning Act (see above). The Creek Protection, Storm Water Management and Discharge Control Ordinance (Chapter 13.16 of the Municipal Code) prevents activities that would contribute significantly to erosion or sedimentation.

Finally, the City's building construction standards are based on the California Building Standards Code, especially the CBC (see above); Oakland, like many other localities in California, has amended the CBC to reflect local conditions. Local amendments to the California Building Code are found in chapter 15.04 of the Municipal code.

Text from the most pertinent Oakland City Municipal Code is provided below.

> 16.20.060 Preliminary soil report required--Waiver**.** Prior to the submission of the final subdivision map, the subdivider shall file with the City Engineer a preliminary soil report, prepared by a civil engineer who is registered by the state of California, based on such examination, borings, excavations and tests, as may be necessary, of every subdivision, as defined in Section 16.04.030. This report shall specify what measures are necessary so that any proposed grading will result in slopes that are, in accordance with good engineering practices, reasonably stable against sliding and excessive erosion. The reports all state whether critically expansive soils are present, and shall indicate any other

characteristics of the soil which may created hazards or problems, and recommend what measures are necessary to avoid these hazards or problems. The preliminary soil report may be waived if the Building Inspector and City Engineer shall each determine that, due to his or her knowledge as to the soil qualities of the subdivision site and the amount of grading work involved, no preliminary analysis is necessary. (Ord. 11924 § 4, 1996: prior code § 7-4.361)

16.20.070 Grading work to be done under direction of registered engineer--Engineer certificate. All grading work shall be done under the direction of a civil engineer, registered as such by the state of California. Prior to the acceptance of the subdivision improvements, said civil engineer shall file with the Director of Public Works a certificate stating:

> (A) That the grading work was done under his or her direction and in accordance with the recommendations of the preliminary report, if a preliminary report was required, or with such modifications thereof, if any, as may have been made by him or her. All modifications made by the civil engineer shall be specifically set forth in his or her certificate;
>
> (B) That in his or her professional opinion the graded slopes are, in accordance with good engineering practices, reasonably stable against sliding;
>
> (C) That adequate measures have been taken to prevent erosion on the site, and/or deposition of eroded material on the site or on lower or adjacent properties;
>
> (D) The magnitude of the total settlements and differential settlements which are likely to occur, the allowable loads or bearing pressures which may be imposed, and that compaction is adequate for the uses proposed for the property and to develop the recommended bearing pressures;
>
> (E) Any limitations which should be imposed on the development of the property because of soil conditions, including the designation of such areas as he or she may determine to be unsafe for building.

The Director of Public Works may reject a certificate, which in his or her judgment does not adequately meet the requirements of this section. (Prior code § 7-4.362)

16.20.080 Soil Investigations--When required for each lot in subdivision--Recommendation for corrective action. If the preliminary report indicates the presence of critically expansive soils, instability of slopes, or other soil problems which would lead to structural damage, a soil investigation of each lot in the subdivision shall be made by a civil engineer who is registered by the state of California. The soil investigation shall be made after grading, and a report shall be submitted recommending corrective action which is likely to prevent structural damage to each structure proposed to be constructed in the subdivision. Copies of the report shall be filed with the Building Inspector and the

Street Engineering Department. The information contained in the report of the soils investigation may be included in the certificate respecting the grading work. (Prior code § 7-4.363)

Implementation of Regulatory Requirements and Responsibilities

The preceding section presented the state and local laws that are currently in effect to ensure that proposed development sites are adequately investigated and that earthquake effects are evaluated and mitigated in the project design and construction. This section discusses the roles and responsibilities of the engineers and building officials and processes that ensure site investigations, grading, and construction is completed in accordance with the state and local laws developed to protect the public and property from adverse effects of earthquake shaking and ground failure.

Implementing the regulatory requirements in the CBC and Oakland Ordinances and ensuring that a building is constructed in compliance with the law is the responsibility of the project engineers and Building Officials. The geotechnical engineer, as a registered professional with the State of California, is required to comply with the CBC and local codes while applying standard engineering practice and the appropriate standard of care for the particular region in California, which, in the case of the proposed project, the San Francisco Bay Area.[5] The California Professional Engineers Act (Building and Professions Code Sections 6700-6799), and the Codes of Professional Conduct, as administered by the California Board of Professional Engineers and Land Surveyors, provides the basis for regulating and enforcing engineering practice in California. The local Building Officials are typically with the local jurisdiction (i.e. City of Oakland) and are responsible for inspections and ensuring CBC compliance.

The geotechnical engineer is responsible for investigating the underlying soils and bedrock on a site and, if necessary, developing remedies to improve soil conditions based on standard, accepted, and proven engineering practices. The geotechnical investigation must characterize, log, and test soils and bedrock conditions and determine the response of those underlying materials to ground shaking generated during an earthquake. Seismic response to varying material types is especially critical in the San Francisco Bay Area where a considerable percentage of construction occurs over soft, clay and fills at the San Francisco Bay margin (i.e. the Oak to Ninth project area).

The geotechnical investigation and the recommendations developed during the investigation are presented in a report, which is reviewed, signed, and stamped by the professional engineer in charge. Based on the site's geotechnical conditions, the geotechnical report includes methods and materials for all aspects of the site development, including the site preparation, building foundations, structural design, utilities, sidewalks and roadways, to remedy any geotechnical conditions related to seismic impacts. Once finalized, the geotechnical report is submitted to the

[5] A geotechnical engineer (GE) specializes in structural behavior of soil and rocks. GEs conduct soil investigations, determine soil and rock characteristics, provide input to structural engineers, and provide recommendations to improve problematic soils.

local permitting agency, in this case the City of Oakland, for review and comment. The City Building Officials then work with the applicant and the geotechnical engineer to resolve inconsistencies and ensure that the investigation complies with the CBC and local ordinances. In connection with grading, foundation, building, and other site development permits, the City Building Department engineers review the geotechnical investigation and recommendations and impose permit requirements based on the geotechnical recommendations and CBC provisions. On certain projects, especially larger scale development, the City of Oakland relies on expertise of outside professionals to peer review geotechnical studies, conclusions, and recommendations.

While the geotechnical report is a required element for the project review and issuance of a building permit, it also provides the necessary soil and foundation information required by the structural engineer designing the building; a structure can not be designed without adequate information on the underlying soils and response of those soils to earthquake ground motion. Grading plans, foundation designs, and structural designs are also prepared based on the geotechnical recommendations and other pertinent requirements of the CBC.

Geologic/Geotechnical Investigations

For certain large projects, such as the proposed Oak to Ninth Project, the applicant conducts a preliminary or "Master Plan" geotechnical investigation to determine the overall engineering feasibility of site development and to inform the preliminary designs. The objective of the preliminary geologic/geotechnical investigation is to compile existing information and develop enough new data to establish a "Master Plan" of the proposed development. At the "Master Plan" stage, geotechnical engineers acquire a broad understanding of the site conditions while delimiting areas on the site that are especially favorable for development or could be problematic from a soils engineering perspective. The scope of the preliminary geotechnical studies is intended to develop a general understanding of the site, however, this level of investigation is not rigorous enough to generate the adequate "design-level" data needed to complete final grading or structural designs.[6] Furthermore, it is typically not prudent or effective to conduct a design-level design at the "Master Plan" stage of a project because project layout or density may change considerably due to the outcome of the CEQA project review. Nevertheless, in most cases, a preliminary geotechnical study is adequate to complete necessary CEQA analyses because the level of detail and information obtained on the subsurface effectively evaluates whether geologic or seismic impacts exist and whether mitigation would be required. Often, remedial measures developed by the geotechnical engineers in the preliminary geotechnical study are used as mitigation measures in the EIR.

The typical geotechnical investigation and review process in the City of Oakland is summarized in the following outline.

[6] "Design-level" investigations provide seismic and engineering parameters for specific building sites and proposed building footprints. The design level data and analysis is used by the structural engineer to complete final foundation and structural design.

Applicant prepares of a Preliminary Geotechnical Investigation or a Master Plan Geotechnical Investigation.

1. City of Oakland fulfills environmental review requirements under CEQA, including approval of any relevant mitigation measures identified therein.
2. City approves project entitlements.
3. Applicant prepares Site Specific Geotechnical Investigations, which entail the following:
    a. Conduct subsurface exploration of project site;
    b. Submit soil samples for laboratory analysis;
    c. Review results of soil sample engineering properties;
    d. Conduct seismic hazards evaluation based on site location and engineering properties of site soils;
    e. Assessment of effects of seismic hazards;
    f. Include appropriate mitigation measures of seismic hazards.
4. Applicant submits Site Specific Geotechnical Investigation report and plans to Oakland Building Services Division.
5. Oakland Building Services Division reviews Site Specific Geotechnical Investigation report and plans and recommendations for adherence to the Building Services Division and Building Code requirements.
6. Applicant addresses Building Services Division's comments.
7. Applicant resubmits modified construction plans based on Building Services Division's comments.
8. Building Services Division approves grading and foundation permit.

Geotechnical Investigation for the Oak to Ninth Avenue Project

The preparers of the EIR relied upon the *Draft Geotechnical Investigation prepared for the Oak to Ninth District Master Plan* (geotechnical investigation) prepared in 2002 by Treadwell and Rollo. The Treadwell and Rollo document is not a final site-specific, design-level geotechnical study, rather, it determines project feasibility in light of the site geotechnical conditions and identifies areas of development opportunity and areas of development constraint. The geotechnical investigation included 12 test borings, 34 cone penetrations[7], and laboratory testing of soil samples. Seismic considerations examined in the geotechnical investigation included strong ground shaking, ground rupture, liquefaction, lateral spreading, and differential compaction. The geotechnical investigation identified areas that could present significant ground failure hazards beneath proposed structures during an earthquake, which include, the presence of undocumented artificial fills and soft compressible Bay Muds. Based on the data collected and engineering analysis, the geotechnical investigation determined the estimated settlement that could be expected across the site. Specifically, the geotechnical investigation determined that deep foundation systems would be required for the foundation of all substantial structures in the proposed project and surface foundation systems would not be adequate for any structures, other

[7] Cone penetrations measure tip resistance and frictional resistance used to determine strength characteristics of the soil.

than very small non-habitable structures.[8] The geotechnical investigation also determined that deep foundation systems would be necessary to anchor the foundations of project buildings into more solid materials which are found at depths below the Bay Mud.

Numerous requirements for installing these foundations are contained in the geotechnical investigation depending on the specifics of the final project design. Additionally, the geotechnical investigation calls for removal of existing foundation systems which may obstruct the new construction, dewatering requirements, installation of wick drains through any dredged fill, specifications for the size and strength of pile foundations, preliminary lateral load capacities for piles, specifications for pile installation and indicator piles, monitoring requirements for pile installation, demolition requirements for existing foundations and utilities, site grading requirements including soil moisture content and fill material requirements, requirements for conditioned Bay Mud, utility trench backfill requirements, landscaping limitations, slab on grade construction requirements, trenching and excavation requirements, seismic design requirements for structural designs, flexible pavement requirements, rigid pavements and concrete flatwork requirements, and materials requirements to avoid soil corrosivity. All of the remedial methods and design measures contained in the geotechnical investigation are standard, accepted and proven engineering practices used throughout the Bay Area to overcome unfavorable soil conditions.

The geotechnical investigation acknowledges its remedial methods and materials must be verified, and adjusted if necessary, and additional investigation and engineering analysis performed for the final development plans. Consequently, subsequent "site-specific investigations" that would be required, before final project design, to develop further specificity about site conditions. These recommended site-specific investigations are incorporated as elements of Mitigation Measures F.1 and F.2 and will include more detailed evaluations for foundation systems needed for individual structures. The site-specific investigations completed in the design phase of the project would identify which measures would be most appropriate for each specific area. Through Mitigation Measures F.1 and F.2, the project sponsor will be required to implement one or more of the design measures identified in the geotechnical investigation, pursuant to existing state and local regulatory requirements.

The site-specific investigations recommended by the geotechnical study and incorporated as mitigation measures would be used for final design of the foundations systems for each structure. The foundation system for each building site must be designed with consideration of the engineering properties beneath the proposed structure and the projected loads (weight of the structure). These design criteria can only be developed with information obtained from a site-specific geotechnical investigation. The site-specific investigations would more precisely determine the depth of the artificial fill and Bay Muds at each building site, which influences the distribution of deep foundation piles. In addition, site-specific information would specify exact

8 There may be minor structures such as restroom buildings or maintenance storage sheds that can be placed on shallow foundations without significant risk of injury or collapse.

design coefficients that are needed by structural engineers to determine the type and sizing of structural building materials.

Seismic Hazard Mitigation

Impacts related to the exposure of project residents and structures to seismic hazards would be reduced to less than significant because state laws and local ordinances require that, prior to construction, potential seismic hazards be identified and remedied to protect public health and safety from substantial risks through appropriate engineering practices. The mitigation measures (F.1 and F.2) prescribed for the project are based on recommendations of a California-registered geotechnical engineer who is responsible, under professional registration, to conduct a thorough investigation and provide recommendations to remedy unfavorable geologic and seismic conditions. Mitigation measures, therefore, must be consistent with the laws regulating seismic risk reduction contained in CBC (Title 24), the Seismic Hazard Mapping Act, the California Code of Regulations (CCR) Title 14, and City of Oakland Municipal Code. Considering the rigorous investigation process required under the engineering standard of care, compliance with state laws and local ordinances, and regulatory agency technical reviews, the mitigation measures presented in F.1 and F.2 will reduce the risk of seismic hazards and ensure that impacts associated with development Oak to Ninth Project area would remain less than significant.

These mitigation measures call for a design-level geotechnical investigation to gather additional data. It is common practice to initially investigate the site broadly to determine project development feasibility, opportunities, and constraints before detailed design-level data is obtained at each building site. The initial broad geotechnical investigation is adequate to comply with CEQA requirements for identifying potential impacts and mitigation measures. The mitigation measures also list various possible mitigation approaches, because it may not be possible to predict the most effective remedy without more detailed study. However, all remedies to correct unfavorable soil conditions are standard engineering approaches, which are accepted in the geotechnical engineering community and proven on sites throughout California. (Chapter 6 of Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California, which contains guidelines for mitigation measures developed by experienced geotechnical practitioners based on extensive research about effective geotechnical solutions.) These measures shall be evaluated during the site specific geotechnical investigation and the most effective and practical methods should become part of the project. Prior to incorporation into the project, geotechnical engineering recommendations regarding the mitigation and reduction of liquefaction for each site shall be reviewed for compliance with the CGS Geology Guidelines. The purpose of these guidelines is to protect the public safety from seismic effects such as liquefaction.

Revisions to Mitigation Measures F.1 and F.2

In order to clarify the requirements of Mitigation Measures F.1 and F.2, this document revises the mitigation measures contained in the EIR.

Mitigation Measure F.1 (For Seismic Ground Shaking) - Prior to the issuance of a building permit for any portion of the project site, the project sponsor shall:

1. **Submit to the City Building Services Division a site-specific, design level geotechnical investigation prepared for each development parcel by a registered geotechnical engineer. The investigation shall comply with all applicable state and local code requirements and:**

    a) **Include an analysis of the expected ground motions at the site from known active faults using accepted methodologies;**

    b) **Determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults;**

    c) **Determine the final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements;**

2. **Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site specific investigations.**

3. **The project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet Building Code requirements, and incorporate all applicable mitigations from the investigation in the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements.**

4. **The City Building Services Division registered geotechnical engineer or third-party registered engineer retained to review the geotechnical reports shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure and all other relevant construction permits.**

5. **The City Building Services Division shall review all project plans for grading, foundations, structural, infrastructure and all other relevant construction permits to ensure compliance with the applicable geotechnical investigation and other applicable Code requirements.**

Significance after Mitigation: Less than Significant.

Mitigation Measure F.2 (For liquefaction and earthquake induced settlement) - Prior to the issuance of a building permit for any portion of the project site, the project sponsor shall:

1. **Submit to the City Building Services Division a site-specific, design level geotechnical investigation prepared for each building site by a registered geotechnical engineer. The investigation shall comply with all applicable state and local code requirements and:**

    a) **Provide site specific engineering requirements for mitigation of liquefiable soils;**

    b) **Specify liquefaction mitigations that shall use proven methods, generally accepted by registered engineers, to reduce the risk of liquefaction to a less than significant level such as:**

        - subsurface soil improvement,
        - deep foundations extending below the liquefiable layers,
        - structural slabs designed to span across areas of non-support,
        - soil cover sufficiently thick over liquefaction soil to bridge liquefaction zones,
        - dynamic compaction,
        - compaction grouting,
        - jet grouting,
        - mitigation for liquefaction hazards suggested in the California Geological Survey's Geology (CGS) Guidelines for Evaluating and Mitigating Seismic Hazards (CGS Special Publication 117, 1997) including edge containment structures (berms, dikes, sea walls, retaining structures, compacted soil zones), removal or treatment of liquefiable soils, modification of site geometry, lowering the groundwater table, in-situ ground densification, deep foundations, reinforced shallow foundations, and structural design that can withstand predicted displacements.

2. **The geotechnical investigation shall evaluate these mitigations and identify the most effective and practicable mitigation methods for inclusion in the project plans. These identified mitigations shall be reviewed to ensure compliance with the CGS Geology Guidelines related to protection of the public safety from liquefaction.**

3. **Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site specific investigations.**

4. **The project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet Building Code requirements, and incorporate all applicable mitigations from the investigation in the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements.**

5. **The City Building Services Division registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure and all other relevant construction permits.**

6. **The City Building Services Division shall review all project plans for grading, foundations, structural, infrastructure and all other relevant construction permits to ensure compliance with the applicable geotechnical investigation and other applicable Code requirements.**

Significance after Mitigation: Less than Significant.

Cumulative Impacts Analysis of Geology, Soils, and Seismicity

This analysis determines that the project would not result in any cumulative geology, soils, and seismicity impact given the federal, state, and local regulatory requirements pertaining to building safety and construction permitting and that apply to the project and to other projects (Impact F.8).

Geographic Context

The Bay Area is within a seismically active region with a wide range of geologic and soil conditions. These conditions can vary widely within a short distance, making the cumulative context for potential impacts from exposing people and structures to seismic related risks localized or even site-specific.

Past, Present and Reasonably Foreseeable Projects

The project site is generally physically isolated from other developed areas providing limited opportunity for any project structural damage resulting from a seismic event to combine with structural damage from other past, present, or reasonably foreseeable future projects. All of the past development on the project site, except 20,000 square feet of the Ninth Avenue Terminal, will be demolished. The Fifth Avenue Point existing development, which is surrounded by the project site, is located close to future project structures. A segment of the Embarcadero Roadway

is adjacent to the project boundary, much of which will be improved by the project. There are no other past, present, or reasonably future development projects located close enough to the project buildings to result in combined structural impacts with the project.

Cumulative Effect Considering Past, Present and Reasonably Foreseeable Future Projects, in Addition to the Project

As documented in the analysis above, existing state and local regulatory requirements, and adherence to specific mandatory performance standards therein, are designed to ensure the integrity of structures during maximum ground shaking and seismic events determined possible at the site. The proposed project would be constructed in compliance with all applicable codes and in accordance with the mitigation measures provided above, which are designed to reduce the exposure of people or structures to substantial risk of loss, injury, or death related to geological conditions or seismic events. Consequently, the potential for project impacts will be mitigated to less than significant. Compliance with these requirements in addition to the intervening setback requirements and project streets, which create a significant distance between project structures and existing buildings and improvements, will avoid any combination of structural damage from project buildings with the existing Fifth Avenue Point buildings, the remaining portion of the Ninth Avenue Terminal, or the Embarcadero Roadway. The project's compliance with the strict requirements of the codes and mitigation measures will protect surrounding existing development. No present or reasonably foreseeable future projects occur near enough to the project site to combine with any project impacts.

In general, past projects were built in accordance with building codes and regulations regarding geotechnical and seismic safety in effect at the time the project was constructed. As past projects are replaced, new projects adhere to more recent and enhanced code requirements. Additionally, Oakland requires older unreinforced masonry buildings to be retrofitted. The project will replace the older structures on the site with structures that comply with the most up to date seismic requirements. Current building codes and regulations to all present and reasonably foreseeable future projects, which could also be subject to even more rigorous requirements.

Therefore, the project, in combination with past, present, and reasonably foreseeable future projects, will not result in a cumulatively significant impact by exposing people or structures to risks related to geologic hazards, soils, or seismic conditions.

Summary

In summary, the regulations discussed in this section mandate all past, present and future projects to comply with local and state codes and applicable permitting requirements, which would ensure the project and other development from resulting in a significant impact.

Revised for clarity in response to the Court Order, the EIR impact statement is modified as follows *(inserted text is shown in <u>double underlined</u> format; deleted text is shown as ~~strikeout~~ format)*:

Impact F.8: The development proposed as part of the project, when combined with other closely related past, present and reasonably foreseeable development in the vicinity, would not result in significant cumulative impacts with respect to geology, soils or seismicity. (Cumulative Impact: Less than Significant.)

Mitigation: None Required.

References – Geology, Soils, and Seismicity

California Building Standards Commission, California Building Code, Title 24, Part 2, 2008.

California Geological Survey (CGS), Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117. March 13, 1997.

G. Noise

Summary of Court Order on the Traffic Noise Cumulative Analysis

The Court Order found that the EIR failed to comply with CEQA by not including a sufficient analysis of the cumulative traffic noise impacts of the proposed project when added to other closely related past and present projects. This section analyzes the potential cumulative traffic noise impact of the project when added to other closely related past, present, and reasonably foreseeable future projects.

EIR Traffic Noise Cumulative Analysis

This analysis concludes that cumulative traffic noise impacts would be less than significant based on an evaluation of potential roadway noise increases in the project area comparing existing conditions to expected conditions in 2010 and 2025 (Impact G.5). No mitigation is required.

Geographic Context

The geographic context considered for the cumulative traffic noise analysis includes the Oak to Ninth District and surrounding roadways that would experience the greatest increase in traffic volume in 2025, as identified in the Oak to Ninth Project Traffic Study prepared by Fehr & Peers Transportation Consultants. As specified in Table IV.G-6 of the EIR (Draft EIR pp. IV.G-25), these roadway segments are:

1. 5th Street, between Madison and Oak Streets
2. Oak Street, between 5th Street and Embarcadero
3. Embarcadero, West of 5th Avenue
4. Embarcadero, between 5th Avenue and 6th Avenue
5. Embarcadero, between 6th Avenue and 10th Avenue
6. 5th Avenue, South of Embarcadero
7. East 8th Street between Oak Street and 5th Avenue
8. 5th Avenue between East 8th Street and Embarcadero.

Past, Present, and Reasonably Foreseeable Future Projects

This cumulative traffic noise analysis considers past, present, and reasonably foreseeable future projects because this analysis is based on the cumulative traffic analysis, which is based on the cumulative growth scenario projections information in EIR Appendix D. The cumulative growth projections in Appendix D account for all existing development, past projects, and reasonably foreseeable future projects in the traffic study area.

Cumulative Analysis Considering Past, Present and Reasonably Foreseeable Future Projects, in Addition to the Project

Significance Criteria

Based on the EIR's traffic noise significance criteria, a cumulative traffic noise impact would result if the project would result in a 5-dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Traffic Noise

Both measured and modeled existing noise levels are reported in the traffic noise analysis the EIR. Existing traffic noise levels are based on AM and PM peak-hour traffic counts conducted by Fehr & Peers in May and June 2004 (the EIR traffic analysis also relies upon these traffic counts), as well as measured long- and short-term measurement data collected by Charles M. Salter Associates in 2002, and by ESA in 2005. The existing traffic noise levels reported in the EIR reflect existing traffic from past projects within the study area. Because roadway noise is never constant, the noise level is always changing with the number, type and speed of vehicles. Therefore, a more practical method is to convert the noise data to a single representative number. One of the most common statistical descriptors used for traffic noise is L_{eq}[1], which is used for the traffic noise analysis in the EIR using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model (FHWA-RD-77-108). The results of the modeling effort are shown in the EIR within the *Existing* scenario (Draft EIR Table IV.G-6).

To assess the cumulative impact of traffic noise from the proposed project in combination with past, present and reasonably foreseeable future projects, noise level projections are analyzed using traffic data from Fehr & Peers and the FHWA Noise Prediction Model. The traffic data captures existing noise conditions and projected future noise conditions from past, present and reasonably foreseeable future development as specified for the cumulative traffic noise context. The results of the modeling effort are shown in the EIR for the *Existing*, *Interim (Year 2010)*, *Interim Plus Project (Year 2010)*, *Cumulative (Year 2025)*, and *Cumulative Plus Project* scenarios. The *Plus Project* scenarios assume traffic from the proposed project and past, present and reasonably foreseeable future projects would be distributed over the local street network. PM peak hour traffic volumes during weekdays are used to project future *Plus Project* scenarios. In other words, the vehicle trip generation from the proposed project, as well as background traffic that will exist in future years (existing conditions plus proposed and future projects), are converted to the single representative number (L_{eq}) to describe future traffic noise using the FHWA Noise Prediction Model, as was done to assess existing traffic noise. The results of the modeling effort are shown in the EIR as the aforementioned scenarios in Table IV.G-6 in the Draft EIR. The incremental increase in traffic noise under the *Cumulative Plus Project* scenario would be less than significant.

[1] L_{eq} is the constant, average sound level, which over a period of time contains the same amount of sound energy as the varying levels of the traffic noise.

Summary

In summary, the proposed project, combined with closely related past, present, and reasonably foreseeable projects would not result in a significant traffic noise cumulative impact. No mitigation measures are necessary. The EIR impact statement is modified for clarity in response to the Court Order as follows *(inserted text is shown in double underlined format; deleted text is show in ~~strikeout~~ format)*:

Impact G.5: The proposed project, when combined with other closely related past, present and reasonably foreseeable ~~together with anticipated~~ future development in the vicinity ~~Oakland~~, would not result in a significant adverse cumulative traffic noise impact.~~could result in long-term traffic increases that could cumulatively increase noise levels.~~ (Cumulative Impact: Less than Significant)

Mitigation: None Required.

H. Hazardous Materials

Summary of Court Order on the Hazardous Materials Cumulative Analysis

The Court Order found that the EIR failed to comply with CEQA because it did not include a sufficient analysis of the cumulative hazardous materials impacts from the proposed project when added to impacts from other closely related past and present projects. This section analyzes the potential cumulative hazardous materials impact of the project when combined with impacts from those closely related past, present , and reasonably foreseeable future projects.

EIR Hazardous Materials Cumulative Analysis

This analysis determines that the project would not result in any cumulative hazardous materials impact given the federal and state regulatory requirements that apply to the project and to other projects in connection with remediation activities, handling of hazardous materials, and the transport of hazardous materials (Impact H-7).

Geographic Context

The Oak to Ninth project site is separated from surrounding development by the transportation facilities to the north, the Estuary to the south, and open space buffers to the east and west. Because hazardous materials impacts are generally site specific, little potential exists for hazardous materials impacts from the project site to combine with impacts from other development sites in a cumulatively considerable manner absent unusual circumstances such as a simultaneous accidental release during the transportation of hazardous materials during remediation or the combined accidental release of hazardous materials into the environment. This section analyzes the potential for such cumulative impacts.

Past, Present, and Reasonably Foreseeable Future Projects

Generally, past projects would not combine with the project to cause a cumulative hazardous materials effect because these past projects have completed remediation efforts. Past projects, such as existing Jack London Square or other redevelopment of former industrial areas in West Oakland, along the Estuary and industrial routes south of the project site (i.e., the Fruitvale/San Antonio area defined in the Estuary Policy Plan[1]) have completed remediation efforts and generally require no further action other than potential monitoring to ensure that remediation goals were achieved. Existing development near the project site includes some industrial uses that may involve the use and transport of hazardous materials. Present projects also would be unlikely to combine with the project to cause a cumulative hazardous materials impact because the remediation work associated with these projects should be completed prior to the start of

[1] From 9th Avenue to 66th Avenue, generally west of I-880.

remediation at the project site. Reasonably foreseeable future projects that could combine with the project are included in the cumulative growth projections and are among the projects listed in EIR Appendix D.4. Some of these projects may involve remediation activities that could require transport of hazardous materials to an off-site location. Although predicting which, if any, of the future projects might result in the transport of hazardous materials at the same time as the project is speculative, this scenario could potentially occur and is analyzed below.

Cumulative Effect Considering Past, Present, and Reasonably Foreseeable Future Projects in Addition to the Project

Significance Criteria

Remediation of contaminated sites has an overall beneficial effect on the environment by reducing contaminants and health risks from subsurface soil and groundwater. Under the significance criteria for hazardous materials, however, potential cumulative impacts could occur if the project combined with past, present, and future development to (1) create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or (2) 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. Other significance criteria are not applicable, because the project site is not within one-quarter mile of an existing or proposed school (criterion no. 3), the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (criterion no. 4), and the project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Consequently, the project could not combine with or otherwise contribute to a cumulative impact related to these criteria.

Cumulative Effect of Routine Transport Upset

The proposed project consists of the redevelopment of a former industrial area. Remediation of the existing subsurface contamination would occur prior to development of the project. Remediation would employ of various technologies, including excavation and off-site disposal of contaminated soils. The off-site disposal of contaminated soils requires appropriate containment and transport procedures performed by a licensed trucking company in strict adherence with numerous regulatory requirements. Nonetheless, a potential cumulative hazardous materials impact could occur if: (1) a truck removing the excavated soil off-site collides with a truck transporting similar material from a wholly separate site undergoing remediation, or (2) trucks from the site have an accidental release near an existing industrial facility that is also experiencing a release of contaminants at that time.

Significantly, the potential for a significant adverse impact to occur from such accidents is eliminated or substantially reduced due to the comprehensive regulatory and licensing requirements that apply to the transportation of hazardous materials. To ensure safe handling procedures, numerous federal, state, and local laws regulate the off-site transportation of contaminated soils for treatment or disposal. The comprehensive regulatory framework under which the contaminants from the Oak to Ninth project will be disposed of off-site includes:

- **Federal Law: The Hazardous Materials Transportation Act**

  Pursuant to the federal Hazardous Materials Transportation Act, 49 U.S.C. § 5101 *et seq.*, the United States Department of Transportation (DOT) promulgated strict regulations applicable to all trucks transporting hazardous materials. These regulations require, among other things:

  - Specific packaging, labeling and placarding of hazardous materials for transport ~~,~~(*see* 49 C.F.R. §§ 172 -73);

  - Preparation and maintenance of manifests to accompany all hazardous materials, including (1) detailed information on the materials being transported; (2) a 24-hour emergency response plan to mitigate the possible impacts or hazards to health in the event of an accident or other exposure of the hazardous materials; (3) a plan describing initial methods for handling spills or leaks; and (4) a plan to administer first-aid treatment as needed (*see* 49 C.F.R. §§ 172.200, 172.201(d), 172.205(a), 172.602(a); *see also* 40 C.F.R. 263.20(a)); and,

  - The annual registration of hazardous materials transporters.~~(~~(*see* 49 C.F.R. § 107.608(b)).

- **California State and Local Law**

  - Department of Toxic Substances Control Regulations
    State regulations administered by the California Department of Toxic Substances Control (DTSC) contain similar, and in many cases more stringent, registration, labeling and manifest requirements. For example, each registered hazardous waste transporter must submit and maintain proof of financial responsibility for damages resulting from transport operations (*See* 22 C.C.R. §§ 66263.10(a), 66263.11(a), 66263.15(a)).

  - California Highway Patrol Regulations
    California Highway Patrol (CHP) regulations incorporate a significant portion of the DOT hazardous materials requirements and impose certain additional mandates. California regulations, for example, permit the CHP to stop and inspect commercial vehicles used to transport hazardous materials ~~.~~ at any time (*See* Cal. Veh. Code ~~§~~ §§ 34060, 34064; *see also* 22 C.C.R. § 66263.13). Additionally, unless there is no practical alternative, California laws require that motor vehicles containing hazardous wastes be operated over routes that do not go through congested thoroughfares, tunnels, residential districts, or any places where crowds are assembled

  (*See* Cal. Veh. Code § 31303(c)).

  - Alameda Country Environmental Health Department Regulations

> Finally, the Alameda County Environmental Health Department (ACEHD) requires a site specific Hazardous Materials Management Plan (HMMP) that must include measures to ensure the safe transport of hazardous materials, including documentation regarding the specific method of compliance with each specific requirement.

Taken together, these well established regulatory requirements ensure that contaminants are appropriately contained and transported to a treatment or landfill facility in a manner that does not create a significant hazard to the public or the environment. All nearby projects involving remediation activities requiring the transport of hazardous materials are subject to the same regulatory requirements. Thus, the potential for a significant cumulative impact due to the combined transport and disposal activities are minimal, and is further reduced by the above regulatory requirements.

Development that will occur at the Jack London Square Redevelopment Project site (the closest boundary of which is one-quarter mile northeast of the proposed project) is the only reasonably foreseeable major project nearby that involves remediation activity. The Jack London Square project would be required to adhere to all existing regulatory requirements discussed above. In addition, it is unlikely that the remediation for the Jack London Square project would occur at the same time as remediation at the Oak to Ninth project, further reducing the likelihood of any cumulative effect from a transport upset.

The project's future residential and commercial use of hazardous materials would involve only common household and commercial products that would not cause a significant public hazard. (See Impact H.4 in the Draft EIR.) Use of these products on the project site would not combine with the use of similar products or other hazardous materials on other sites. No industrial uses are included in the proposed project, which removes the existing industrial uses from the site. Thus, there would be no routine use of hazardous materials that could be released in a manner that would combine with other development ,whether past, present , or future, to cause a significant hazard.

Cumulative Effect of Accidental Release of Hazardous Materials into the Environment

Remediation activities associated with past projects in the area surrounding the project have been completed and generally no further actions would be required except for the possibility of ongoing monitoring. Similarly, present projects should complete any remediation activities before the project remediation and construction begins. Although remote, it is possible for the remediation activities of other future projects to combine with the project and result in a cumulative impact related to a release of contaminants into the environment during excavation/disposal or demolition. The only future nearby project with remediation activities is the Jack London Square Redevelopment Project, located one quarter mile from the proposed project site. The Jack London Square Redevelopment Project's remediation activities should be completed before the project remediation activities begin. Thus, the remediation activities associated with these two projects would not have the potential to combine for a cumulative effect related to materials disturbance. Additionally, the distance between the project and the Jack

London Square Redevelopment Project site makes it unlikely that accidental releases from one project would combine with an accidental release from the other project. It is possible that other reasonably foreseeable future projects in the project area could undertake remediation activities at the same time as the project. There are, however, no reasonably foreseeable future projects in close proximity to the project site (given the relatively isolated nature of the site) making it unlikely that any combined impact of an accidental release from remediation activities could occur.

In addition, beyond the environmental laws and regulations described above related to the transportation of hazardous materials, comprehensive federal, state and local regulatory and oversight requirements applicable to all remediation projects, make a threat related to cumulative impacts from accidental releases during remediation even more unlikely. Such laws and regulations include:

- **Federal Laws and Regulations**

  - The Resource Conservation and Recovery Act of 1976

    Pursuant to the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 9601 et seq., Congress and the Environmental Protection Agency (EPA) have created a comprehensive "cradle-to-grave" monitoring system to track the treatment, storage, and disposal of hazardous materials. RCRA and its related regulations set standards for generators and transporters of hazardous wastes in cases where the unregulated use or disposal of such wastes could endanger human health and/or the environment. Under RCRA, EPA (and/or local agencies with delegated RCRA authority), among other things: issue permits for the operation of hazardous waste treatment, storage, and disposal facilities; require that detailed manifests accompany such hazardous materials through the chain of operation from start to finish; and have the authority to bring suit against any person who is contributing or has contributed to an "imminent and substantial endangerment to health or the environment."

  - The Toxic Substances Control Act

    The Toxic Substances Control Act (TSCA), 15 U.S.C. § 2601 *et seq*., establishes regulations for chemical manufacturers, processors, and distributors of certain hazardous materials potentially located at the site, including polychlorinated biphenyls (PCBs). Requirements imposed by the TSCA include stringent testing, reporting, and record-keeping requirements for PCBs, as well as use restrictions.

  - The Occupational Safety and Health Act

    The Occupational Safety and Health Act (OSH Act), 29 U.S.C. § 651 *et seq.*, creates standards that regulate employee exposure to hazardous materials. Such rules include procedures to counteract dangers that arise when handling hazardous materials, workplace recordkeeping requirements, training programs for employees, and an enforcement mechanism for any violations of such standards.

  - The Clean Air Act

The Clean Air Act (CAA), 42 U.S.C. 7401 *et seq.*, regulates ambient air quality and imposes standards to minimize fugitive dust related to remediation or transport of hazardous materials.

- **State and Local Laws and Regulations**

  - The California Land Reuse and Revitalization Act

    Pursuant to the California Land Reuse and Revitalization Act (CLRRA), Cal. Health & Safety Code § 25395.60 *et seq.*, DTSC will oversee the proposed cleanup and require: a detailed site assessment plan evaluating any releases or threats of releases on the property (*see* Health & Safety Code § 25395.94(1)); a health risk assessment if necessary (*see* Health & Safety Code § 25395.94(2)), and a response plan to prevent or eliminate an unreasonable risk that requires rigorous oversight by government agencies and an extensive public comment period (*see* Health & Safety Code § 25395.96).

  - California's Hazardous Waste Control Law

    Like its federal counterpart, RCRA, California's Hazardous Waste Control Law, Health & Safety Code § 25100 *et seq.*, outlines requirements for the handling, processing and disposal of hazardous waste in a manner that protects the public and environment and provides enforcement authority to applicable State agencies in the event or a violation.

  - California Department of Industrial Relations Regulations

    The State Department of Industrial Relations has promulgated numerous regulations requiring the safe handling of hazardous materials at construction sites. For example, particular safeguards must be employed to eliminate or minimize employee exposure to lead. (*See* 8 C.C.R. § 1532.1). Such precautions include the use of specific exposure monitoring techniques, adherence to emergency medical protocols, and restrictions on employee activity while on site.

  - Local Requirements Related to Underground Storage Tanks

    The Alameda County Department of Environmental Health (ACDEH) Certified Unified Program Agency (CUPA) oversee the regulatory program that requires the safe handling, maintenance, and removal of Underground Storage Tanks (USTs) (*see* California Health & Safety Code § 25280). Applicable policies include requirements for remediation of releases from USTs, which must be satisfied as part of the proposed project.

- **Site Specific Hazardous Materials Requirements**

  - Response Plan

    Under CLRRA (*see* above), a comprehensive Response Plan for the Oak to Ninth project must be approved by DTSC before the project can proceed. The environmental consulting firm of Erler & Kalinowski, Inc. (EKI) is preparing a draft Response Plan on behalf of the project proponent, Oakland Harbor Partners (OHP). OHP would submit the draft Response Plan to the DTSC for preliminary review. Once DTSC approves the draft Response Plan, a formal public comment program would be initiated pursuant to CLRRA. The public participation program is designed

to inform and receive input from the public, including interested citizens, local government officials, and potentially-responsible parties regarding the recommended response activities for the project. The following activities, among others, would be conducted according to DTSC protocols to obtain public input regarding the investigation and remediation:

- Distribution of fact sheets and flyers to members of the public identified on the mailing list for the project;
- Solicitation of comments from interested citizens and local government officials concerning the draft Response Plan;
- A public meeting to obtain input from interested citizens and local governmental officials concerning the draft Response Plan; and
- Creation of an information repository where the draft Response Plan and other project-related technical documents are available for review by the public.

DTSC would consider and respond to all comments received during the comment period prior to approval of the Response Plan.

– Implementation Plans

Based upon the approved Response Plan, Implementation Plans (IPs) would be prepared addressing each portion of the project site. The IPs would be prepared in connection with foreseeable redevelopment activities and would include the design details of the planned and approved remedial measures. They will also incorporate proposals for post-remediation environmental sampling and health risk analysis, as appropriate. The IPs will provide schedules for implementation location-specific response actions.

In addition, the IPs are anticipated to include specifications for: development of contractor worker health and safety plans that will include worker protection procedures and health and safety training requirements for remediation or earthwork construction workers; personal air monitoring for contractor workers, if needed; dust control plans with ambient air monitoring, if needed; Storm Water Pollution Prevention Plans (SWPPPs) that meet the objectives of the Regional Water Quality Control Board to minimize risks associated with storm water runoff during construction; and import soil/soil reuse/TPH treatment and soil reuse plans.

The response actions recommended in the approved Response Plan will be described in detail in IPs for each area. The IPs will provide the area-specific remediation strategies to be used to achieve the established remediation goals and will include a description of any additional investigations required in connection with the recommended remediation work.

- Environmental Management Plans

  Environmental Management Plans (EMPs) would be drafted to describe procedures and protocols for risk management activities before, during, and after development and would include the following risk management measures:

  - Installing fences and gates to restrict unauthorized access to soil with contaminants of concern (COCs). Fencing will also limit the potential for vehicles to travel on unauthorized areas and generate dust.

  - Posting of "No Trespassing" signs approximately every 250 feet to inform individuals that access to the fenced area is prohibited.

  - Conducting periodic monitoring to verify that the risk management measures that are implemented remain effective in restricting unauthorized access to soil impacted by COCs. Copies of the annual inspections will be submitted to DTSC by January 31 of each year.

- Response Action Completion Reports

  Following implementation of the response actions described in the approved IPs, Closure Reports would be prepared. The Closure Reports would provide a description of the work completed and a summary of the confirmation testing results that verify that established remediation goals were met. The Closure Reports would include a request that DTSC issue a Certificate of Completion confirming that the particular area is suitable for redevelopment consistent with its proposed use.

Summary

In summary, no significant adverse cumulative impact associated with hazardous materials would result from the project in combination with other past, present ~~,~~ or reasonably foreseeable future projects. The proposed project would involve large-scale remediation activities that would substantially improve the environmental conditions on the site as well as for the adjacent Estuary. The remediation activities associated with closely related past, present, and reasonably foreseeable future development in the project area also have and will improve the human and environmental health in the project area. Thus, the project's remediation activities would combine with other past, present and reasonably foreseeable future remediation activities to result in a considerable beneficial impact for human and environmental health.

The EIR impact statement is modified for clarity in response to the Court Order as follows *(inserted text is shown in double underlined format; deleted text is show in ~~strikeout~~ format)*:

Impact H.7: ~~Development proposed as part of the~~ The project, when combined with other closely related past, present, and reasonably foreseeable development in the vicinity, would not result in cumulative hazardous materials impacts. (Cumulative Impact: Less than Significant)

Mitigation: None Required.

I. Biological Resources/Wetlands

Summary of Court Ruling on the Biological Resources/Wetlands Cumulative Analyses

The Court Order found that the EIR failed to comply with CEQA by not including a sufficient analysis of the cumulative biological resources impacts of the proposed project when added to other closely related past and present projects. This section analyzes the potential cumulative biological resources impact of the project when added to other closely related past, present, and reasonably foreseeable future projects.

EIR Biological Resources/Wetlands Cumulative Analysis

This analysis determines that the project in combination with cumulative development would not result in any significant cumulative biological services impacts on wetlands, other waters of the U.S. and special status species because of the comprehensive regulatory requirements and programs that protect these resources (Impact I.8). No mitigation is required.

Geographic Context

The geographic context considered for this cumulative biological resources analysis includes the areas of Lake Merritt and Lake Merritt Channel, the Oakland Estuary, and central San Francisco Bay.

Past, Present and Reasonably Foreseeable Future Projects

This cumulative biological resources analysis considers past projects because these projects exist as part of the physical setting and are reflected in the environmental baseline biological conditions. Past projects are principle determinants of existing conditions in the proposed project area and adjacent portions of Lake Merritt, the Estuary, and central San Francisco Bay. Past development projects in the cumulative geographic context are described on pages III-4 - III-6, IV.A-4 - IV.A-5, and IV.I-1 - IV.I-2 of the EIR. Past and present development projects are also included among the projects listed in Tables D.4-5a-b and D.4-6a-b in Appendix D of the EIR. Other relevant past and present projects in the cumulative context are various wetlands restoration projects, including namely the restoration of 15,100 acres of Cargill's former salt ponds in South San Francisco Bay (by State of California and the federal government), the California Coastal Conservancy's large-scale program to control non-native vegetation in the Bay salt marshes, the Clinton Basin Wetland Restoration and Enhancement Project, and the natural and restored wetlands at Martin Luther King Jr. Regional Shoreline Park and San Leandro Bay (Draft EIR, p. IV.I-2.)

Reasonably foreseeable future projects expected to be completed in the geographic area context of the project by 2025 are included among the project's listed in Appendix D of the EIR which include housing opportunity sites in the Estuary Channel area and the area of East 10th Street and

9th Avenue; small lot single family residences in Embarcadero Cove; new commercial and infill/intensification commercial projects in Embarcadero Cove, in addition to the Jack London Square Redevelopment Project. The City of Oakland's Measure DD bond program, which includes shoreline and wetland improvements along Lake Merritt and Lake Merritt Channel, as well as the 10th Street culvert/bridge project and the 7th Street flood control pump station that will improve water flow and enhance flood control through the Channel, are also reasonably foreseeable future projects known when the EIR was prepared and discussed in the EIR (Final EIR p. V-15).

Cumulative Analysis Considering Past, Present and Reasonably Foreseeable Future Projects, in Addition to the Project

Significance Criteria

In Oakland, a project could combine with other past, present, and reasonably foreseeable future projects to result in a significant cumulative impact to biological resources and wetlands if cumulative development would have substantial adverse effects to (1) special-status species, (2) riparian habitat or other sensitive natural communities, (3) federally protected wetlands, (4) the movements of native resident or migratory fish or wildlife, or conflict with (5) applicable habitat conservation plans, (6) the Oakland Tree Ordinance, or (7) the Oakland Creek Protection Ordinance.

These criteria are applied to the EIR analysis of the proposed Oak to Ninth project. The EIR determines that the project would not fundamentally conflict with the City's Tree Preservation and Removal Ordinance (criterion no. 6) because the project would provide extensive new trees (and other landscaping) throughout the project site and would obtain a tree permit for the removal and replacement of any protected trees for the project pursuant to the ordinance. Similarly, the EIR determines that the project would not fundamentally conflict with the City's *C*reek Protection, Stormwater Management and Discharge Control Ordinance (criterion no. 7) because the project would obtain and comply with all regulatory permits and Best Management Practices (BMPs) to avoid adverse effects. The project also would not conflict with a habitat conservation plan as none exists on the project site.

The project could combine with other past, present, and reasonably foreseeable future projects, to result in a cumulative impact if it would:

- 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 CDFG or USFWS;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS;

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool,

coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors.

Relevant Laws, Regulations and Policies the Reduce Impacts

Most closely related past projects (within the last approximately 30 years) that have influenced biological resource conditions in the project area were developed or implemented in accordance with numerous local, state, and federal laws, policies regulations, and permitting requirements that are administered by various regulatory agencies. All present and reasonably foreseeable future projects must also comply with these comprehensive requirements, which have been applied by the regulatory agencies with increasing rigor since the early 1970s. Compliance with the various requirements discussed below ensures that potential impacts on biological resources, specifically wetlands and other waters of the U.S., and special-status species are avoided or fully mitigated.

Federal and State Endangered Species Acts

Applicable laws and regulations include the *Federal Endangered Species Act* (FESA), by which the Secretary of the Interior and the Secretary of Commerce jointly list a species as threatened or endangered, candidate species for listing, and "Species of Concern."[1] (16 United States Code [USC] 1533(c)) Also, the *California Endangered Species Act* (CESA), by which the California Department of Fish and Game (CDFG) formally lists endangered or threatened species. (California Fish and Game Code [CFG] Section 2070) The CDFG also maintains lists of "Species of Special Concern." Once listed, a species is generally afforded the full range of protections available under FESA and CESA, including prohibitions on killing, harming or otherwise "taking" a species.[2] Most relevant to the proposed project, Section 9 of the ESA prohibits the taking of federal endangered species within the U.S or violating any regulation pertaining to such species, or to any threatened species of fish or wildlife. Similar regulations apply to prohibit taking threatened species. (16 USC 1538(a)) State regulations prohibit the taking of threatened, endangered, or candidate species listed by the California Fish and Game Commission. (CFG Section 2070) Taking of a listed or candidate species would be a significant adverse impact.

If a development project is determined to have the potential to adversely affect a listed or candidate species, mitigations are identified in consultation with federal and state agencies to offset losses of these species. Adherence to various permitting mitigations, conditions and standards ensure that a project would not jeopardize the continued existence of the listed or candidate species. Mitigations can include avoidance of species and associated habitats by

1 "Species of Concern," "Species of Special Concern" and "special-status" species are terms-of-art used to describe the entire realm of taxa whose conservation status may be of concern for the USFWS or other resource agencies.

2 Section 86 of the Fish and Game Code defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." 16 USC Section 1532 (19) defines "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or attempt to engage in such conduct."

limiting and managing construction activities and development areas, which are measures typically defined (along with implementation funding and monitoring procedures) in a Habitat Conservation Plan (HCP) that must be prepared if the project would result in a potential "take." A determination of whether a development project would result in a take typically is made prior to or during the environmental review process and by working closely with state agency staff. A determination is made based on thorough site reconnaissance and survey of the project area by a qualified biologist or other comparable qualified professional (e.g., botanist, arborist) to determine the potential for the listed or candidate species to exist in the proposed project area.

An incidental take permit pursuant to an HCP must meet six requirements in accordance with Section 10(a)(2)(B) of the Endangered Species Act and associated Federal regulations. These six requirements are: (1) All takings must be incidental; (2) Impacts must be minimized and mitigated "to the maximum extent practicable;" (3) There must be both adequate funding, and provisions to address "unforeseen circumstances;" (4) The taking must "not appreciably reduce the likelihood of the survival and recovery of the species in the wild;" (5) The applicant must ensure that additional measures required by federal regulators will be implemented; and (6) Federal regulators must be certain that the HCP can and will be implemented.

Clean Water Act

The *Clean Water Act* (CWA) encompasses several regulations and requirements of various federal agencies (e.g., U.S. Army Corps of Engineers [Corps]), U.S. Environmental Protection Agency [EPA] and U.S. Fish and Wildlife Service [USFWS]) concerning waters and wetlands. The construction of structures in, over, or under navigable waters, or the excavation of material from, or deposition of material into navigable waters, are highly regulated by these agencies. (Clean Water Act, Section 404; Rivers and Harbors Act, Section 10). The CWA includes requirements and standards to restore and maintain the chemical, physical, and biological integrity of the nation's waters. (33 USC 1251(a)) The regulatory requirements include review of potential impacts during the permitting process, avoidance of impacts, compensatory and other mitigation for any allowed fill of wetlands, and avoidance and comprehensive mitigation for impacts to species and habitat resources.

The *State Water Resources Control Board* (SWRCB), acting through the *San Francisco Regional Water Quality Control Board* (RWQCB), regulates activities in wetlands and other waters to ensure that any permitted activities comply with state water quality objectives. (Clean Water Act, Section 401). Specifically, before construction activities for a project can commence, the project must obtain RWQCB approval of a Section 401 Water Quality Certification permit approval as well as various related approvals by all other agencies with permitting responsibilities for construction activities within jurisdictional waters, namely, permits issued by the S*an Francisco Bay Conservation and Development Commission* (BCDC), discussed below (Section 404 permits and Section 10 permits from the Corps). In accordance with Section 401, among several standards that a project must meet to obtain Section 401 permits, a project must not substantially disrupt the movement of those species of aquatic life indigenous to the waterbody (including those species that normally migrate through the area); jeopardize the continued existence of a threatened or

endangered species (or a species proposed for such designations); destroy or adversely modify the critical habitat of such species; discharge dredged or fill material that will consist of unsuitable material (including toxic amounts of toxic pollutants); or discharge in spawning areas during spawning seasons, or breeding areas for migratory waterfowl, to the extent practicable. To assess a project's compliance with these and numerous other standards specified in Section 401 related to quality of wetlands and other waters of the U.S., the Section 401 Water Quality Certification permit review considers detailed information about proposed construction techniques to be used for the project, the areas of construction activity, and the impacted waters to ensure that the project is not counter to the state water quality objectives to maintain beneficial uses, quality and anti-degradation of wetlands and other waters affected by the project. The standards also require that a project provide a pre-construction notification to the Corps which provides the Corps an opportunity to impose special conditions on the project and/or require mitigations. Upon completion of construction, the standards also require that a project must obtain a signed compliance certification regarding the completed work and completed mitigations.

Section 404 of the Clean Water Act prohibits anyone from dredging or filling a wetland without a permit. Section 404 gives the Corps authority over the discharge of dredge or fill material into wetlands and other waters of the U.S. and allows the Corps to issue permits (general or nationwide, and individual or project-specific) for these activities, pursuant to EPA guidelines and the standards discussed above. (Section 404 (b)(1); 40 C.F.R. Section 230.10) BCDC regulates filling and dredging in the San Francisco Bay and certain creeks and tributaries that are part of the Bay system. BCDC permits include conditions that require projects to implement specific construction methods to assure safety and protect water quality (as well as to construct, guarantee, and maintain public access to the Bay). BCDC permits identify mitigations to ensure adverse impacts are avoided, minimized, repaired, and/or compensated for. This is achieved through compensatory mitigation methods that can include forming or re-establishing new habitat, enhancing habitat by improving existing functions, or preserving habitat through a legally enforceable mechanism (such as deed restrictions). BCDC also emphasizes that replacement habitat mitigations should occur on site and be implemented prior to or concurrent with the construction activity causing the impact to minimize the time that resources would be lost or impaired. Mitigations are also made commensurate with the degree of impact in terms of geographic size, duration, uniqueness of impacted resources, etc., and include a specific monitoring period tailored to the characteristics of the impact and duration of the project. (BCDC, 2008)

The *National Pollution Discharge Elimination System* (NPDES) permit program under the CWA (authorized by the *State Porter-Cologne Water Quality Control Act*) controls water pollution by regulating stormwater discharges into the waters of the U.S. Standard Best Management Practices (BMPs) and design standards are required to maintain water quality and control soil erosion, pollution and sedimentation during construction and operation of a project to ensure that projects will not adversely affect waters of the U.S. or other biological resources. As discussed in detail in the EIR (Draft EIR p.IV.D-11), projects must comply with BMPs in a stormwater prevention plan (SWPPP) which is required to be prepared for projects over one-acre in area, before project construction begins and, in certain cases, before demolition begins. Examples of typical BMPs

include scheduling or limiting activities to certain times of the year, installing sediment barriers such as silt fences and fiber rolls, ensuring equipment and vehicles used for construction are well maintained, tracking controls such as stabilizing entrances to the construction site, as well as developing and implementing a spill prevention and cleanup plan, or equivalent approaches to avoid potential adverse effects to water quality resulting from soil erosion, pollution and sedimentation during construction.

Example BMPs are also outlined in the *Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region* (LTMS) (Corps, 2001). To avoid potential adverse effects and standardize mitigation for dredging projects, the LTMS specifies restricting dredging and other in-water construction activities to specified work periods, and implementing BMPs to isolate the work area and prevent silt and sediment from entering waterways, to avoid direct and indirect impacts on special-status fish species**.** In addition, the *Magnuson-Stevens Fishery Conservation and Management Act*, as amended, specifically addresses habitat conservation issues and designates "Essential Fish Habitat," which it broadly defines as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity."

Oakland Creek Protection Ordinance

In addition to the numerous laws and regulations established through the CWA, there are local ordinances with which past projects have been required to comply and all present and reasonably foreseeable future projects must comply. The City of Oakland's *Creek Protection, Stormwater Management and Discharge Control Ordinance* (Creek Protection Ordinance) specifies permitting guidelines and enforcement provisions for development and construction projects taking place on creekside properties. (Oakland Municipal Code, Chapter 13.16) The provisions deter and reduce the discharge of pollutants to the storm drain system, local creeks, and San Francisco Bay, pursuant to the CWA permit program. Under the Creek Protection Ordinance, creekside properties are required to obtain a Creek Protection Permit, the requirements of which vary depending on how close the property is to the creek. For example, for properties within 100 feet of the centerline of the creek, the Creek Protection Permit evaluates the relationship of the project site and the creek, as well as methods employed to protect the creek, creek banks, riparian vegetation, wildlife, surrounding habitat, and the creek's natural appearance during and after construction. These methods are specified in a Creek Protection Plan, as are litter prevention and dust control measures, methods of cleaning tools and equipment, sediment and erosion control measures. The Plan also specifies information on required permits or approvals from other regulatory agencies (e.g., CDFG, Corps, RWQCB) discussed above. In cases where the project is in close proximity to the creek, the permit requires that a hydrology report be prepared by a licensed engineer with creek hydrology expertise and reviewed by City engineers to ensure the creek flows (volume and direction) are not adversely affected, which could result in adverse affects to riparian habitat and special-status fish species.

Oakland Tree Protection and Tree Preservation Removal Ordinance

The *Oakland Tree Protection and Tree Preservation and Removal Ordinance* (Tree Ordinance) (Oakland Municipal Code Chapter 12.36) requires a permit for removal of protected trees[3], or if work might damage or destroy a protected tree. The Oakland Public Works Agency reviews and approves tree permit and the Tree Services Department of the Office of Parks and Recreation reviews and approves tree planting plans. Compliance with the Tree Ordinance, and conditions that generally applied to tree permits (e.g., removal replacement, protection measures for trees near construction areas) minimize and avoid potential adverse effects to special-status plant species (through removal or planting of invasive species) as well as special status species (typically birds and/or bats) that may be nesting or roosting in trees during certain times of year.

Mitigations and Effects of Past, Present and Future Projects

Overall, past, present and reasonably foreseeable future projects would implement mitigation measures consistent with the above regulations and thereby avoid adverse effects to existing resources. Mitigation measures identified for the proposed project are typical examples of the types of mitigation measures required for all development projects located adjacent to wetlands or other jurisdictional waters and that involve construction activities near or in such waters. Measures identified in the EIR (Mitigation Measures I.2a through I.2e, I.3, I.4a, I.4b, and I.5 for biological resources impacts, and D.1 and D.4 for hydrology and water quality impacts) include the following, most as summarized from above:

- **Avoidance** - Avoidance of resources such as wetlands, special status species habitat, or trees with nesting birds during project design, construction, and operation; more specifically avoidance measures tailored to specific activities (e.g., in-water construction activities) and periods when those activities shall not occur to avoid direct and indirect impacts to certain species, based on behaviors of such species (e.g., spawning periods of certain fish species);

- **Permit Approvals** - Permit approvals obtained from the Corps, RWQCB, BCDC, and all other agencies with permitting responsibilities for construction activities within jurisdictional waters prior to the start of construction activities for the project;

- **Best Management Practices** - Implementation of BMPs to address impacts on water quality during construction and operations of the project;

- **Preconstruction Surveys** - Preconstruction surveys and avoidance of construction during breeding seasons or avoidance of construction in areas with identified special status species;

[3] A "protected tree" is a coast live oak four inches or larger in diameter measured four-and-a-half feet above the ground (diameter at breast height), or any other species nine inches in diameter or larger at breast height, except eucalyptus and Monterey pine trees.

- **Compensatory Mitigation** - Compensatory mitigation to address temporary impacts to, or permanent loss of, resources (e.g., waters of the U.S.) by providing replacement resources, usually at greater amounts than the resources impacted.

- **Species Relocation** - Species relocation, in certain cases, such as the relocation of roosting bats to a temporary on-site roosting structure during construction.

- **Monitoring** - Monitoring to ensure no significant adverse effect to natural resources, usually involving documenting baseline conditions against which to measure future change, anticipated habitat to be enhanced, mitigation obligations (temporary and permanent); thresholds of success; monitoring and reporting requirements, and adaptive management standards that allow for adjustments if necessary and ensuring effective mitigation; and long-term management and maintenance.

Like the project site, many waterfront areas within the geographic context are developed and/or characterized by historically industrial uses dominated by warehousing/storage, manufacturing, distribution, and transportation activities. These sites are typically ruderal in nature and dominated by non-native vegetation and also have contaminated conditions on all or portions of the project site. These conditions can cause adverse effects to biological resources (through the soils contamination and uncontrolled stormwater runoff over contaminated conditions and directly into the Estuary) and the projects improve biological conditions on these sites. Projects on sites with such conditions have been and would be required to implement measures to avoid uncontrolled stormwater drainage conditions and reduce hazardous onsite conditions. Both result in beneficial effects on water quality, storm water, wetlands, as determined for the proposed project (Impact D.1 in the Draft EIR). The proposed project and other past, present and reasonably foreseeable future projects would comply with existing laws and regulations that are administered and enforced by regulatory agency-issued permit requirements and/or a mitigation monitoring and reporting program, pursuant to CEQA. In addition, all the past and present restoration projects, as well as the Clinton Basin Wetland Restoration and Enhancement Project on the project site, have resulted in improved biological conditions and controlled non-native vegetation in the geographic area by restoring and enhancing wetlands restoration projects, including the conversion of former salt ponds to wetlands.

Summary

In summary, the regulations discussed in this section mandate all past, present and future projects to comply with local, state, and federal laws, policies and applicable permitting requirements, which would preclude the project and other development from resulting in a significant impact. In addition, compliance with each of these regulations is a condition of project approval. Thus, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would have a less than significant cumulative impact to biological resources (i.e., sensitive natural communities [rare or endangered plant] or animal community) or wetland, particularly considering the positive effects of past and present projects to natural plant or animal

communities or wetlands at Lake Merritt and Lake Merritt Channel, the Oakland Estuary, and central San Francisco Bay. No mitigation is required.

The EIR impact statement is modified for clarity in response to the Court Order as follows *(inserted text is shown in double underlined format; deleted text is show in ~~strikeout~~ format)*:

Impact I.8: The proposed project, when combined with other closely related past, present and reasonably ~~Construction activity and new development resulting from the project, in conjunction with other~~ foreseeable development in the vicinity, would not result in a significant adverse cumulative impacts on biological resources / wetlands~~. city and along its shoreline, could result in impacts on wetlands, other waters of the U.S., and special-status species~~. (Cumulative Impact: Less than Significant)

Mitigation: None Required.

References – Biological Resources / Wetlands

California Endangered Species Act, http://ceres.ca.gov/wetlands/permitting/cesa_summary.html, website accessed September 12, 2008

California Department of Fish and Game, Incidental Take of State Listed Species under the California Endangered Species Act, http://www.dfg.ca.gov/habcon/cesa/, website accessed September 12, 2008

City of Oakland, Measure DD Expenditure Plan, January 26, 2005, http://www.oaklandparks.org/ExhA(1).Project%20update%201-27-05.htm, website accessed September 25, 2008.

Curtin and Talbert, *Curtin's California Land Use and Planning Law*, Solano Press, 2005

San Francisco Bay Conservation and Development Commission (BCDC), Mitigation Report, http://www.bcdc.ca.gov/pdf/planning/reports/mitigation.pdf, website accessed September 12, 2008

U.S. Fish and Wildlife Service, Endangered Species Program, http://www.fws.gov/endangered/listing/index.html, website accessed September 12, 2008

J. Population, Housing, and Employment

Summary of Court Order on the Cumulative Analysis of Population, Housing, and Employment[1]

The Court Order found that the EIR failed to comply with CEQA by not including a sufficient analysis of the cumulative population, housing and employment impacts of the proposed project. This section analyzes the potential cumulative population, housing and employment impact of the project when added to other closely related past, present, and reasonably foreseeable future projects.

EIR Summary of Population, Housing, and Employment Impacts

The EIR analyzes the impacts of the project related to population, housing, business activity, and employment. The *Setting* discussion in this section of the EIR presented a comprehensive discussion of the project site, the neighborhoods near the project site, the City, and the region documenting the past, present, and reasonably foreseeable future conditions related to changes in population, housing, and employment. (Draft EIR pp. IV.J-1 – IV.J-19.) This information allows for the assessment of the project within these geographic contexts considering past, present, and reasonably foreseeable future projects. This analysis determines that, under the applicable significance criteria, the project would have either no impact or a less than significant impact without imposition of any mitigation measures.

Cumulative Analysis of Population, Housing, and Employment

Geographic Context

The geographic context of the EIR's cumulative analysis of population, housing and employment related impacts covered the adjacent Fifth Avenue Point area, and neighborhoods near the project site, including the Estuary Waterfront, Jack London Square District, the Oak to Ninth District north of the Embarcadero, the San Antonio/Fruitvale District of the Estuary Waterfront, the San Antonio District, and Downtown Oakland. For some topics, conditions in the entire City of Oakland were also considered. Certain regional information was presented in order to provide a context for Oakland's role in the region.

Past, Present, and Reasonably Foreseeable Future Projects

The EIR analysis of population, housing, and employment relied on a narrative description of the existing conditions in the neighborhoods and areas near the project site. This discussion and data

[1] The Court Order refers to this section of the EIR as "population and housing." In order to maintain consistency between this document and the EIR, this document uses the full title of this section: Population, Housing, and Employment.

covered past projects. Information regarding past, present, and reasonably foreseeable future projects are presented throughout this section in the Draft EIR in Tables IV.J1–IV.J19. These Tables include information about the project, population, employment, housing and related topics. Where relevant, the Tables document past and existing conditions in the years 2000 and 2005 and existing conditions in combination with present and reasonably foreseeable future projects in the years 2010 and 2025. Sources for this data include the U.S. Census for housing information, and the Association of Bay Area Governments (ABAG), as incorporated into the Alameda County Congestion Management Agency (CMA) travel demand model and the cumulative growth scenario projections in Appendix D to the EIR reflecting existing conditions and present and future growth and development. For ease of reference, these Tables are reproduced in this document in Appendix A.1.

Cumulative Effect Considering Past, Present, and Reasonably Foreseeable Future Projects, in Addition to the Project

Significance Criteria

The following analysis discusses the project's potential to contribute to cumulative impacts in relation to the significance criteria included in this section of the EIR (Draft EIR, pp. IV.J-27–IV.J-28). A significant cumulative impact could occur if the project combined with past, present, and reasonably foreseeable future development to criteria would: (1) displace substantial numbers of existing housing units or people; (2) displace businesses and employment necessitating the construction of replacement facilities or increasing distances traveled; (3) induce substantial population growth in a manner not contemplated in the General Plan, directly or indirectly; or (4) have social or economic effects that result in indirect changes in the physical environment. Each of the criteria is identified by the headings below.

Potential for Displacement of Substantial Numbers of Existing Housing Units or People

The project site does not contain any existing housing units or a residential population. Consequently, development of the project would not require demolition of any housing units or displacement of any residents. Thus, the project could not contribute to any local or city-wide cumulative impact associated with the displacement of housing units or residents. Instead, by providing new housing, the project would benefit the City's market rate and affordable housing stock.

Potential for Displacement of Substantial Numbers of Businesses and Jobs, Necessitating the Construction of Replacement Facilities Elsewhere in Excess of that Contemplated in the City's General Plan or Increasing the Distances Traveled Between Individual Uses and the Markets they Serve

Development of the project would require the 18 existing businesses and two public agencies employing approximately 230 workers to relocate. (See Draft EIR Table IV.J-2.) These businesses would not likely construct replacement facilities. The industrial and construction-related businesses would likely relocate to available existing space in other industrial areas of the

City or along the I-880 or I-80 corridor. The marine-oriented businesses would relocate to other waterfront areas. The police department office space could relocate to other office space in the vicinity and there would be a police substation included in the project that could replace this lost space. The Port of Oakland would relocate its storage facility to other storage facilities elsewhere on its property. In the unlikely circumstance that any of the existing businesses seek to construct a new facility in Oakland, the City's General Plan provides sufficient areas designated for industrial uses to accommodate new facilities.

The EIR notes that, in addition to the project, other past, present, and reasonably foreseeable future development in the project area, such as the Jack London Square Redevelopment Project and some of the areas to the east, have displaced and will in the future require certain industrial uses to relocate to other industrial areas (EIR p. IV.J-24). The City's Land Use and Transportation Element (LUTE) of the General Plan contains policies supporting the growth and retention of industrial uses. The LUTE reports that land demand for industrial activities in Oakland is 4,185 acres. The land use designations in the LUTE allow for 4,720 acres of industrial uses, all of which are located near rail, sea, freeway and other distribution points near the Port areas. (LUTE p.23) Thus, the General Plan accommodates the past, present, and reasonably foreseeable future relocation of such uses and anticipates and supports future growth of industrial activities in areas that conveniently serve the industrial and marine-related markets. Consequently, there is little or no potential for displacement of substantial numbers of businesses and jobs that would require the construction of replacement facilities elsewhere in excess of that contemplated in the General Plan as a result of the project in combination with other closely related past, present or reasonably foreseeable future development.

Although some of the business relocations from the project and other past, present and reasonably foreseeable future projects in the project area could slightly increase vehicle miles traveled, other relocations may slightly reduce vehicle miles traveled depending on the business and its markets. Because all of the industrial relocations would likely occur in existing industrial areas along the I-880 and I-80 corridors, little or no net change in vehicle miles traveled between the industrial uses and their markets would be expected. Moreover, industrial areas in Oakland are located near the project site, providing the opportunity for businesses to relocate near their existing location.

Consequently, no significant adverse cumulative impacts are anticipated from the relocation of industrial uses in this area of Oakland to other industrial areas as a result of the project in combination with other closely related past, present or reasonably foreseeable future development.

Induce Substantial Population Growth In a Manner Not Contemplated In The General Plan, Either Directly Or Indirectly Such That Additional Infrastructure Is Required But The Impact Of Such Was Not Previously Considered Or Analyzed

The project would not induce population growth beyond the growth contemplated in the General Plan such that additional infrastructure would be required that could result in an extension of infrastructure that was not anticipated by the City. The project is located on an infill site in an

existing urban area that is served by existing infrastructure. The project would improve the existing infrastructure serving the site in order to accommodate project uses and meet current service, construction, and environmental requirements. These infrastructure improvements would be limited to the project site and the immediately adjacent roadways. The General Plan LUTE and Estuary Policy Plan anticipate that the project site would be redeveloped and that infrastructure serving the site would be improved as necessary. The project would not extend new infrastructure to a site or an area that is not currently served by infrastructure and not anticipated for development. Thus, the project would not contribute to any cumulative impact related to impacts from the addition of unforeseen infrastructure.

Have Social Or Economic Effects That Result In Indirect Changes In The Physical Environment, Such As In Ripple Effects That Would Lead To Physical Deterioration And Urban Decay

Retail

As documented in the analysis in the EIR (Draft EIR pp. IV.J-33 – IV.J-41 and for ease of reference reproduced in this document in Appendix A.2), the project would have no adverse social or economic impact on the areas near the project site or the City of Oakland due to the retail included in the project. In general, as a result of past market and economic conditions Oakland is underserved by retail. (Draft EIR pp. IV.J-34–35.) The project would have a beneficial effect on current retail conditions in the project area and the City by increasing retail activity, contributing to retail spending by project residents, and complementing nearby retail areas. (Draft EIR pp. IV.J-35–40.) The EIR analysis examined the project retail component in the context of existing conditions (past projects) and nearby retail projects that were under construction (present projects) and proposed future projects. (Draft EIR p. IV.J-44.) There is sufficient market support for the retail included in the project in combination with existing, under construction, and reasonably foreseeable future retail projects. The EIR concluded that the project would not draw customers and tenants away from other areas resulting in physical deterioration and urban decay in the nearby existing commercial districts including the Eastlake District. (Draft EIR pp.IV.J40–41.) Thus, the project would not have any adverse indirect physical impact relating to its retail component. Instead, the project would have the beneficial effect of contributing to the revitalizing of retail in the project area and Oakland. Consequently, the project would not cause or contribute to any potential cumulative impact. Other past, present, and reasonably foreseeable future projects in this area of Oakland, such as the existing Jack London Square project and the Embarcadero Cove commercial development, also have had a beneficial impact in revitalizing this area.

Housing

The project would increase the supply of market rate and affordable housing in Oakland. (Draft EIR, pp. IV.J 41–42.) This increase in will improve the City's jobs housing balance. (Draft EIR IV.J pp. 42–43.) Additionally, the project's housing would ease current pressures on housing rents and prices throughout the City, thereby benefiting housing availability and affordability in Oakland. (Draft EIR IV.J p. 43.) The project would also enhance the attractiveness of this area of Oakland for new housing, but is not anticipated to affect housing rents or prices in the

surrounding inland neighborhoods. (Draft EIR IV.J p. 43.) The EIR analyzes the project in relation to the closest neighborhoods discussing the potential for the impacts of the project in combination with the existing housing environment and present and future projects. (Draft EIR IV.J 45–47 and for ease of reference reproduced in this document in Appendix A.3.) The analysis concludes that the project would not cause any social or economic impacts that would lead to deterioration or urban decay. Many of the project's effects would be beneficial. Thus, the project would not contribute any such cumulative impact. Moreover, there is no evidence to suggest that closely related past, present, and reasonably foreseeable future development have or will create such an impact of urban decay.

Summary

In summary, the proposed project, combined with past, present and reasonably foreseeable future projects would not result in any significant adverse cumulative impacts to population, housing and employment. The impact is less than significant. No mitigation is required. The following impact statement is added to the EIR in response to the Court Order as follows:

Impact J.6: The proposed project, when combined with other closely related past, present, and reasonably foreseeable development in the vicinity, would not result in a significant adverse cumulative population, housing, and employment impact. (Cumulative Impact: Less than Significant)

Mitigation: None Required.

K. Visual Quality and Shadow

Summary of Court Order on the Visual Quality and Shadow Cumulative Analysis

The Court Order found that the EIR failed to comply with CEQA by not including a sufficient analysis of the cumulative visual quality impacts of the proposed project when added to other closely related past and present projects. This section analyzes the potential cumulative visual quality impact of the project when added to other closely related past, present, and reasonably foreseeable future projects.

Visual Quality and Shadow Cumulative Analysis in the EIR

This analysis concludes that cumulative visual quality impacts would be less than significant based on an evaluation of development in the project area compared to existing conditions. The EIR determines that the proposed project's most dominant towers features (towers) would combine with those of other cumulative development along the waterfront, but the effect would not substantially degrade existing visual quality. The EIR identifies a beneficial effect. The EIR concludes that the shadow effects of the project would not combine with other waterfront development due to the distance of those developments, thus no cumulative shadow effects would occur. No mitigation is required (Draft EIR pp. IV.K-63).

Geographic Context

The geographic context used for the cumulative visual quality analysis is the Oakland Estuary and surrounding area, generally Jack London Square to the west and Embarcadero Cove to the east.

Past, Present and Reasonably Foreseeable Future Projects

This cumulative visual quality analysis considers past projects because these projects are described as part of the physical setting and are the environmental baseline in the impact analysis. These projects include all existing development within the geographic context and captured by photographs used in the EIR analysis (Figures IV.K-2 through IV.K-19, which are reproduced in Appendix B.1 to this document). Past and present projects are also described in the *Setting* section on pages IV.K-3-IV.K-5 of the EIR. Additionally, past and present projects are included among the projects listed in EIR Appendix D.4. These projects generally are small to medium sized residential and commercial projects or rehabilitations and reuse of existing space. Given the dense urban setting, none of these projects are significant in the visual context of the area. Visually prominent past projects in the geographic context area are the nearby residential condominiums known as The Landing and The Portobello. Less prominent projects include a low rise commercial/warehouse distribution buildings located west of the project site, between the project site and Jack London Square; and low-rise hotel and commercial marine-oriented development along the Embarcadero Roadway to the east.

The most visually prominent future project in the area will be the Jack London Square Redevelopment Project, which will be located approximately one-quarter mile west of the project site. Other reasonably foreseeable future developments in the project area are included among the projects listed in EIR Appendix D.4. These future projects include housing opportunity sites in the Estuary Channel area and the area of East 10th Street and 9th Avenue; small lot single family residences in Embarcadero Cove; and new commercial and infill/intensification commercial projects in Embarcadero Cove. None of these reasonably foreseeable future projects involve development that would substantially change the visual setting in the area, as they are primarily renovations, rehabilitations or use conversions of existing structures and do not involve substantial change to the buildings form or appearance.

Cumulative Analysis Considering Past, Present and Reasonably Foreseeable Future Projects, in Addition to the Project

Significance Criteria

A project could combine with other past, present, and reasonably foreseeable future projects to result in a significant cumulative visual quality and shadow impacts if the project combined with other development would have substantial adverse effects on (1) a scenic vista, (2) a scenic resource, or (3) existing visual character or quality; create (4) new substantial light or glare; create new shadow on (5) solar collectors (cause by landscape), (6) a building using passive solar heat collection or photovoltaic solar collectors, (7) public or quasi-public parks or open space (impairing its beneficial use), or (8) an historic resource; or (9) require an exception (variance) to the policies and regulations that addresses the provision of adequate light.

These criteria are applied to the EIR analysis of the proposed Oak to Ninth project. The EIR determined that the project would not have a significant effect under any of the above criteria. The analysis in this document addresses whether cumulative impacts would result due to adverse effects on visual character and quality (criterion no. 3), views and scenic vistas and resources (criteria nos. 1 and 2), light and glare (criterion no. 4), and shadow (criteria nos. 5 through 9).

Visual Character and Quality Analysis

Figures IV.K-1 through IV.K-19 in the Draft EIR, and Figure II-3 in the Final EIR, support this cumulative analysis of visual character and quality impacts. (Figure IV.K-1 is the viewpoint location map for the simulations presented in the subsequent figures.) Each of these figures is provided as Appendix B.1 to this document.

The proposed project and other closely related past, present and reasonably foreseeable future projects visible in the vicinity of the Oak to Ninth Project site would change the existing visual character and views of the project area. The visual character and quality of the area attributable to past projects is depicted in each of the simulations in the EIR. Development of the proposed project is considered in combination with the existing conditions in all of the simulations in the EIR. The existing visual setting consists of a dense urban environment with a variety of uses and building types and sizes. The Embarcadero Roadway, the I-880 freeway and the Estuary are also

important components of the existing setting. Certain simulations shown in the EIR (Figures IV.K-2 and IV.K-17 in the Draft EIR; Figure II-3 in the Final EIR) illustrate the proposed project in combination with the future Jack London Square Redevelopment Project. Each of these simulations shows that cumulative development would alter the visual character of the waterfront from distant vantage points that capture the waterfront development, including the project and the nearby Jack London Square Redevelopment Project. Figure IV-17 from the Draft EIR shows the cumulative scenario with the Increased Height Variant of the proposed project.

The Oak to Ninth project would have a beneficial impact in the because it would redevelop an expansive blighted, deteriorating industrial site into a new mixed use neighborhood of well-designed buildings (including towers up to 240 feet in height) and vast open spaces along the waterfront. The existing Jack London Square area would be intensified with the future Jack London Square Redevelopment Project that would develop nine sites generally between Clay, Jackson, 2nd Streets and the Embarcadero Roadway with up to 960,700 square feet of new building space that will contain office, retail, restaurant, hotel/conference, and entertainment uses. Future building heights at Jack London Square would range from 24 feet to 175 feet, with the average height of just under 100 feet. Both projects would add visual interest and well-designed buildings in this urban environment. Additionally, these projects would complement other visually prominent existing development in the area, such as The Landing and The Portobello condominiums. Other reasonably foreseeable future projects in the geographic context defined above would be primarily renovations, rehabilitations or use conversions of existing structures that would not stand out in the visual setting but would add to the visual interest in the area and would upgrade current conditions at degraded sites.

Like the proposed project, larger past and present projects that substantially contribute to the existing visual character in the geographic context area have been subject to the City's Design Review process to consider the design treatments and relationship of buildings to the surroundings. All reasonably foreseeable future projects would continue to be subject to the City's Design Review process. Criteria specified in Oakland Planning Code Section 17.136.050 specifically address the setting, scale, bulk, height, material and textures of development of various projects to ensure compatibility with or improvement of the existing conditions. Thus, adherence to the City's Design Review criteria also would ensure that cumulative development would not adversely affect visual character or visual quality of the area when combined with other development.

Thus, the proposed project, combined with closely related past, present and reasonably foreseeable future projects, would not result in a significant adverse cumulative visual character and visual quality impact.

Views and Scenic Vistas Analysis

Figures IV.K-1 through IV.K-19 in the Draft EIR, and Figure II-3 in the Final EIR, support this cumulative analysis of view and scenic vistas. (Figure IV.K-1 is the viewpoint location map for

the simulations presented in the subsequent figures.) Each of these figures is provided as Appendix B.1 to this document.

Past and present projects that create the context for existing views or create scenic vistas are depicted in the existing setting photos in the EIR. Certain simulations shown in the EIR illustrate the Oak to Ninth Project in combination with existing conditions and the reasonably foreseeable future project at Jack London Square (Figures IV.K-2, IV.K-8, and IV.K-17 in the Draft EIR; Figure II-3 in the Final EIR). Figures IV.K-2 and IV.K-17 show that cumulative conditions would increase the development visible in views looking north from the waterfront. The relevant cumulative waterfront developments – the Oak to Ninth project and the future Jack London Square Redevelopment Project - would create distinctive elements in the panoramic views from mid- and long-range viewpoints, with clusters of Oak to Ninth and Jack London Square buildings creating an extension of the downtown Oakland skyline. Other reasonably foreseeable future projects in the geographic context defined above would be primarily renovations, rehabilitations or use conversions of existing structures and do not involve substantial change to the buildings form or appearance and therefore would not change the cumulative view and scenic vistas impact. Although the proposed project, combined with past, present and reasonably foreseeable future projects, would add to the visual interest in the views of this area of the city no adverse cumulative view and scenic vistas impact would result.

Light and Glare Analysis

Sources of light and glare in the project area from past and present projects are generally limited to the interior and exterior lights of buildings and lighting visible through windows, in parking lots, and on city streets. These sources of light are typical of a developed urban area. Existing light sources from nearby past and present projects include the Jack London Aquatic Center parking lot, the Oakland-Berkeley Ready-Mix industrial operation, and Clinton Basin Marina. The proposed project would not introduce new uses that result in adverse light or glare. Additionally, many past projects have been, and all present and reasonably foreseeable future projects, including the proposed project, would continue to comply with the City's adopted standards, policies to reduce cumulative adverse light and glare effects. These include the City's Outdoor Lighting Standards (City of Oakland, 2002) adopted by the City to prevent glare and light pollution, encourage energy efficiency, and improve safety. These standards include measures such as the use of shields to direct light and eliminate glare for drivers; less-powerful Light Emitting Diode (LED) up-lights; and photocells and time switches to control outdoor lights. Potential adverse light and glare effect of past, present and future projects in the area would also be limited by adherence with the Port of Oakland's Dark Skies Program (Port of Oakland, 2003), as well as the City's Design Review processes that required projects adhere to criteria that incorporate consideration of exterior façade materials and lighting fixtures to avoid adverse effects to surrounding uses.

The proposed project would consist of development and lighting treatments typical of residential mixed-use buildings and open spaces in the general area and would be consistent with City standards for outdoor lighting. With the project, a mix of fixed and indirect exterior lighting

would be incorporated at building entrance points, along public streets and walkways, and in open space areas, and lighting would be designed with downward-pointing lights (except for up-lighting as appropriate for landscaping or building features), side shields, and visors, consistent with the standards, policies and Design Review criteria discussed above. Other past and present projects have, and future projects would continue to comply with these standards, policies and Design Review criteria. The City has reviewed many of the past and present projects in the area and would continue to review future projects as part of the City's Design Review Process to ensure that lighting and building materials do not result in adverse light effects. Thus, the proposed project, combined with other past, present or reasonably foreseeable future projects, would not result in a significant cumulative light or glare impact.

Shadow Analysis

As summarized under *Significance Criteria* in this section, the EIR determines that the proposed project would not shade historic resources, would not introduce landscaping conflicting with the California Public Resources Code, would not cast shadow on buildings using solar facilities, and would not cast shadows that would impair the use of public parks and recreation areas.

Figures IV.K-20 through IV.K-33 in the Draft EIR, and Figures II-5 through II-16 in the Final EIR, support this cumulative analysis of shadow impacts. Each of these figures is provided as Appendix B.2 to this document.

Shadow from past projects is depicted in each of the existing condition shadow studies. Shadow from the proposed project is considered in combination with the existing conditions in all of the shadow studies in the EIR (Figures IV.K-20 through IV.K-33 in the Draft EIR; Figures II-5 through II-16 in the Final EIR.) The shadow studies in the EIR illustrate that the project's potential shadow effects would fall to areas within and immediately adjacent to the project site. No present or reasonably foreseeable future projects are known that would create increased shadow near the proposed project site that could combine with the project shadows for a cumulative shadow effect. The present and reasonably foreseeable future projects are located too far away from the project site, such as the Jack London Square Redevelopment Project one-quarter mile west, or are primarily renovations, rehabilitations or use conversions of existing structures and do not involve substantial change to the buildings form or appearance. Therefore, past, present and reasonably foreseeable future projects in the geographic area relevant for considering cumulative shadow projects would not result in any significant cumulative shadow impacts.

Provision of Adequate Light Analysis

The EIR analysis determines that the project is consistent with relevant policies and regulations regarding the provision of adequate light. Like most past, present and reasonably foreseeable projects, the City's Design Review process has and would ensure each project's consistency with all Codes standards pertinent to adequate light provision, including consistency with the light and ventilation section of the Uniform Building Code (Section 1203). Moreover, as demonstrated by the shadow analysis above and in the EIR (Draft EIR pp.IV.K-42-62), the project shadows would

not combine with shadows from any past, present or reasonably foreseeable future development to cause inadequate light to any surrounding uses.

Thus, the proposed project would not combine with other past, present and reasonably foreseeable future projects to result in a significant cumulative impact regarding the provision of adequate light.

Summary

In summary, the proposed project, combined with closely related past, present, and reasonably foreseeable projects would not result in a significant visual quality or shadows cumulative impact. No mitigation measures are necessary. The following impact statement is added to the EIR for clarity in response to the Court Order:

Impact K.5: The project when combined with other closely related past, present and reasonably foreseeable future projects in the project area would not result in a significant cumulative impact. (Cumulative Impact: Less than Significant)

Mitigation: None Required.

References – Visual Quality and Shadow

City of Oakland, *Jack London Square Redevelopment Project Environmental Impact Report*, SCH No. 20030333086, 2004.

L. Public Services and Recreational Facilities

Summary of Court Order on the Public Services and Recreational Facilities Cumulative Analysis

The Court Order found that the EIR failed to comply with CEQA by not including a sufficient analysis of the cumulative public services and recreational facilities impacts of the proposed project when added to other closely related past and present projects. The Court Order, however, found the cumulative analysis of park and recreation impacts to be adequate, because the project would have a beneficial impact and the EIR's "method of analysis of the impact on parks and recreation was appropriate." This section addresses the potential cumulative impacts to police services, fire protection/emergency medical response services, public schools, and libraries when added to other closely related past, present, and reasonably foreseeable future projects.

EIR Public Services Cumulative Analysis

Past, Present, and Reasonably Foreseeable Future Projects

This public services and recreational facilities analysis considers past projects because these projects are currently served by existing public services and recreational facilities. Past, present and reasonably foreseeable future projects are included among the projects listed in the Oakland cumulative growth projections scenario in EIR Appendix D.4.

The population figures presented for past (2000), present (2005) and projected (2010 and 2025) in the Draft EIR (which are also provided in Appendix A.1 to this document) capture past, present and reasonably foreseeable future projects e in the geographic context described below for each of the public services addressed in this section. These growth projections capture the population in existing development throughout the city as well as the present and foreseeable future projects in the population tables.

Significance Criteria

Significant cumulative public services and recreation impacts could occur if the project combined with past, present and reasonably foreseeable future development to (1) require new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives for police services and fire protection/emergency medical response services, public schools, parks or libraries; or (2) increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No mitigation was required. Each criterion is addressed by the detailed headings below.

Police Services and Fire Protection/Emergency Medical Response Services

Geographic Context

The geographic context considered for the cumulative analysis of police services and fire protection/emergency medical response services impacts is the City of Oakland.

Cumulative Effect Considering Past, Present, and Reasonably Foreseeable Future Projects in Addition to the Project

Based on the EIR's significance criteria, cumulative impacts would result if the project, in combination with closely related past, present, and reasonably foreseeable future development, would require the construction of new facilities or the alteration of existing facilities that could cause significant environmental impacts.

Police

Assessment of Need for New Facilities/Capital Improvement Program

The Oakland Police Department (OPD) has a headquarters facility in downtown Oakland and one substation in East Oakland. OPD staff include 741 sworn police officers and 380 civilian employees. The OPD serves existing development (past projects) through these facilities and staff. With the tax revenues from Measure Y, the Violence Prevention and Public Safety Act of 2004, the City is hiring an additional 63 officers. These additional officers and existing officers and staff will serve past projects, present projects (under construction at the time of the Draft EIR), reasonably foreseeable future projects (as described in the Oakland Growth Scenario), and the project. No new facilities or alteration of existing facilities are anticipated to accommodate these additional officers. The City's recent Capital Improvements Program (CIP), the budgetary process through which the OPD assesses whether any new facilities or expansion of existing facilities would be necessary to maintain service levels, did not include any requests for new police facilities.[1]

Although the project in combination with past, present and reasonably foreseeable future projects would increase the demand for police services, in the foreseeable future the City does not expect to construct new facilities to accommodate additional officers and staff based on its CIP. Many officers work in the field, thereby reducing the need for additional facilities. Additionally, any future increase in OPD space needs could be accommodated through the lease or purchase of existing structures. Consequently, although the cumulative demand for police services would increase over time, the addition of new officers and equipment to serve the demand is not likely to result in any significant adverse cumulative impacts associated with the construction of new facilities or the alteration of existing facilities. Moreover, should any new or altered facilities be required in the future, mitigations measures imposed through the CEQA review process and the City's standard conditions of approval likely would reduce any potential impacts to a less than

[1] The Oakland Police Department's requests in the City's approved 2005-2010 CIP focused on staffing, training, maintenance and repair of existing facilities, and new equipment. No new facilities or significant alteration of existing facilities were requested or expected.

significant level. This finding is consistent with the City's finding in the Oakland General Plan Land Use and Transportation Elements.

Project Review and Standard Design and Performance Measures

As part of the City's review of project plans, the OPD reviews projects to ensure that preventive design measures associated with landscaping placement, outdoor lighting design, security alarms and door locks, and the need for a site-specific security plan are properly addressed to enhance security. This review has been conducted for most past projects, for all present projects, and will be undertaken for all reasonably foreseeable future development, including the project. The performance standards imposed through this process reduces the demand for police services. The project condition of approval no. 35 requires the project sponsor to prepare a Site Security and Management Plan in conjunction with the Oakland Police Department for each development parcel. The Plan must cover parking garage security and lighting, building security features, security personnel staffing organization and management and emergency protocol procedures.

Fire Protection / Emergency Medical Response Services

The Oakland Fire Department (OFD) operates 25 fire stations located throughout the City and a public communications center in Downtown Oakland, which handles calls for fire or emergency medical response service. Total OFD staffing consists of 562 personnel. OFD's response time goal is seven minutes or less, 90 percent of the time, measured from the time a call is received in the Fire Dispatch Center until the time the first unit arrives on the scene of the emergency (Sierra, 2004).

The OFD assesses its facilities through the City's regular CIP budgetary process. This process has, and will continue to, facilitate the assessment of facilities necessary to adequately meet performance objectives for demand from past and present projects, as well as for future demand from the proposed project and other reasonably foreseeable future projects. Based on OFD requests in the City's approved budget, the construction of new or physically altered facilities will not be necessary in the foreseeable future to meet OFD performance objectives[2]. Any increase in demand that may result from the proposed project together with other cumulative development would be met through the existing OFD facilities. Moreover, should any new or altered facilities be required in the future, mitigations measures imposed through the CEQA review process and the City's standard conditions of approval likely would reduce any potential impacts to a less than significant level. This finding is consistent with the City's finding in the Oakland General Plan Land Use and Transportation Elements.

Project Review and Standard Design and Performance Measures

As part of the City's review of project plans, the OFD provides comments to ensure that fire prevention measures and safety measures are incorporated into the project. This review has been

[2] Both the 2005-2010 and 2007-2012 CIP focus on staffing, training and maintenance and repair of existing facilities, and do not include any new or physically altered facilities.

conducted for most past projects, for all present projects, and will be undertaken for all reasonably foreseeable future development, including the project. Typical requirements include automatic sprinklers, smoke detectors, fire alarm systems, fire resistant construction, provisions for onsite access and egress that ensure adequate fire suppression and emergency medical response, onsite provisions of any special equipment to assist firefighters on-site, availability of adequate water supply and pressure during emergency situations, and compliance with the State Fire Code and Unified Building Code. As warranted in certain circumstances, OFD requires projects to prepare an emergency response plan to address project or site-specific constraints to access. The requirements imposed through this review process reduces demand for fire protection / emergency medical services. The project condition of approval no. 35 requires the project sponsor to meet certain standards and requirements regarding fire hydrants, sprinkler systems, entry gate access, standpipes smoke detectors, a comprehensive fire alarm system, and an Emergency Response Protocol Plan.

Beneficial Effect on Police and Fire Protection/Emergency Medical Services

Past, present, and reasonably foreseeable future projects, in addition to the proposed project, have had and would continue to have beneficial effects related to police and fire protection/emergency medical services. As discussed in the LUTE EIR (pp. III.D-22 and III.D-28), increased employment, economic activity and public activity and surveillance resulting from development has a beneficial effect on the safety of an area. Existing vacant and underused areas that have low daytime and nighttime population and that are often difficult to police or service are often replaced with high intensity uses that increase daytime and nighttime activities; incidence of vagrancy and arson could decline. Projects that replace older, non-code complying structures with development that complies with fire and other safety requirements improve existing conditions and reduce public service impacts. Additionally, projects provide an increased economic base for the City through increased tax revenue, thereby creating greater financial resources for police or fire protection/emergency medical response services.

Benefits that would occur with the proposed project include: (1) increased safety in the project area through the development of an active mixed use neighborhood; (2) replacement of old industrial buildings with new development that will comply with current fire codes and safety requirements; (3) improved access to the site for police, fire and medical response services; and (4) increased City tax revenues.

Summary

In summary, the project in combination with other past, present and reasonably foreseeable future projects would not cause a significant cumulative impact involving police services or fire protection/emergency medical response services. Development, including the proposed project, would not require new or physically altered governmental facilities that could cause significant environmental impacts in order to maintain acceptable performance objectives. Moreover, as described above, development, including the project, has a number of public safety beneficial effects. Thus, the cumulative public services impact with respect to police services and fire protection/emergency services would be less than significant. No mitigation is required.

Schools

Geographic Context

The geographic context considered for the cumulative analysis of schools is the Oakland Unified School District (OUSD) service area, which provides public education service within the City of Oakland. The EIR also considered the localized study area defined by OUSD for the Central City East Redevelopment Plan EIR.

Cumulative Effect Considering Past, Present, and Reasonably Foreseeable Future Projects in Addition to the Project

Based on the EIR's significance criteria, cumulative impacts would result if the project, in combination with closely related past, present, and reasonably foreseeable future development, would require the construction of new facilities or the alteration of existing facilities that could cause significant environmental impacts.

The existing demand from past projects is reflected in the school enrollment numbers for elementary and secondary students. As stated in the Draft EIR, "total school enrollment for elementary and secondary students for the 2003/2004 academic year was 50, 437 showing a decline in enrollment from 52, 501 students in 2002/2003 and 52 545 students in 2001/2002." Enrollment has continued to decline with 2006/2007 enrollment at 39,694 students. Enrollment figures for Oakland schools are consistent with statewide trends. The California Department of Education indicates statewide public school enrollment through 2011 is expected to increase**.** As discussed in the EIR, while the availability of classrooms to serve student populations citywide varies throughout the neighborhood schools, OUSD recognized that it continues to experience a decreasing student enrollment and therefore has no plans to construct new schools in the foreseeable future. (Chambers, 2004). If future student enrollment rises above current expectations, OUSD would evaluate options to accommodate increased enrollment, including the reuse of existing facilities where capacity exists.

The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB50), restricts the ability of local agencies to deny land use approvals on the basis that public school facilities are inadequate. SB50 provides that developer payment of these fees must be deemed full and complete mitigation of school impacts. SB50 establishes the base amount of allowable developer fees at $2.24 per square foot of residential construction and $0.36 per square foot of commercial construction.[3] These fees are intended to address local school facility needs resulting from development. The project sponsor, the sponsors of all past projects since the passage of SB50, all present projects, and reasonably foreseeable future projects, would be required to pay school

3 These are current base fees adopted by State Allocation Board (SAB), which is the policy-level body for the programs administered by the Office of Public School Construction within the State Department of General Services. The SAB is authorized by Government Code Section 65995(b)(3) to increase the base fee every two years. In order to levy the fees, school districts must prepare a “nexus” analysis demonstrating why the fees are required and how they will be used.

impact fees established to offset potential impacts on school facilities. Payment of these fees is considered to be full and complete mitigation of school impacts. Therefore, although the project and other past, present, and reasonably foreseeable future projects could result in additional students and overcrowding within OUSD facilities, payment of the fees mandated under SB 50 is the mitigation measure prescribed by the statute, and payment of the fees is deemed full and complete mitigation.

The cumulative public services impact of the project, considered with past, present and reasonably foreseeable future projects, with respect to schools, would be less than significant. No mitigation is required.

Libraries

Geographic Context

The geographic context considered for the cumulative analysis of library facilities is the City of Oakland which includes a Main Library, 16 branch libraries and a Bookmobile.

Cumulative Effect Considering Past, Present and Reasonably Foreseeable Future Projects in Addition to the Project

Based on the EIR's significance criteria, cumulative impacts would result if the project, in combination with past, present, and reasonably foreseeable future development, would require the construction of new facilities or the alteration of existing facilities that could cause significant environmental impacts.

The Draft Oakland Public Library Master Plan evaluates the need for new library services and facilities based on existing demand from past projects while taking into account anticipated future growth in the City through 2020, which captures present and reasonably foreseeable future projects. The needs assessment for the Draft Plan relied in part on technical demographic analysis of both current and future trends in the City. The Draft Plan recommends the construction of five new library branches throughout the City, one of which is under construction (81st Avenue/East Oakland) and part of the City's adopted 2005-2010 CIP.

The construction of new or expanded library facilities is not expected to result in any significant environmental impacts. Branch libraries are low impact facilities; they are not large facilities and they can be accommodated in existing structures. In addition, they do not generate significant peak hour traffic or significant noise. In an urban environment, they are unlikely to have any significant land use or natural resource impacts. All development in the Oakland would be required to comply with the CEQA-required mitigation measures and/or the stringent existing *Standard Conditions of Approval and General Conditions and Uniformly Applied Development Standards* (standard conditions) and all regulatory requirements that, together, the City has determined will reduce impacts to less than significant.

Thus, the project, combined with the demand from citywide population growth from past, present and reasonably foreseeable future projects, would generate demand for library facilities throughout the city, and that demand is accounted for in the Draft Plan recommendations for new and expanded facilities. The cumulative public services impact with respect to library facilities would be less than significant, as determined in the EIR. No mitigation is required.

Summary

In summary, the proposed project, combined with closely related past, present, and reasonably foreseeable projects would not result in a significant public services impact. No mitigation measures are necessary. The following EIR impact statement is modified for clarity in response to the Court Order as follows *(inserted text is shown in double underlined format; deleted text is show in ~~strikeout~~ format)*:

Impact L.6: ~~The increased population and density resulting from the project, in conjunction with population and density of other~~ The proposed project, when combined with other closely related past, present and reasonably foreseeable future development in the vicinity ~~city,~~ would result in a significant adverse cumulative ~~increase in the demand for~~ public services and recreation impact; no new or physically altered facilities will be required or result in substantial or accelerated physical deterioration of existing parks and recreational facilities~~parks. However, the project's contribution to such impacts would not be cumulatively considerable~~. (Cumulative Impact: Less than Significant)

Mitigation: None Required.

M. Utilities and Service Systems

Summary of Court Order on the Utilities Cumulative Analysis

The Court Order found that the EIR failed to comply with CEQA by not including a sufficient analysis of the cumulative utilities impacts of the project when added to other closely related past and present projects. The Court Order found the cumulative analysis of the storm water drainage to be adequate, because the project would reduce the amount of impervious surface area on the project site. This section analyzes the potential for the project, when added to other closely related past, present, and reasonably foreseeable future projects, to result in cumulative water supply, wastewater treatment, solid waste service, and energy service impacts.

EIR Utilities and Service Systems Cumulative Analysis

This analysis determines that the project would not result in any significant cumulative utilities service systems impacts (Impact M.6). Pursuant to the significance criteria and found that the project would not cause or contribute to any cumulative impact related to water supply, wastewater treatment requirements and capacity, stormwater drainage facilities, landfill capacity, or energy utility capacity.

Significance Criteria

A project could combine with other past, present, and reasonably foreseeable future projects to result in significant impacts to utilities and service systems, if the project combined with other development would result in

- Water supply impacts by (1) exceeding water supplies available or result in new water or expanded water facilities, the construction of which could cause significant environmental effects;

- Wastewater impacts by (2) exceeding wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board or (3) exceeding the wastewater treatment provider's capacity to serve project demand from existing commitments and require new or expanded wastewater facilities, the construction of which could cause significant environmental effects;

- Stormwater impacts by (4) requiring construction of new or expanded stormwater drainage facilities, the construction of which could cause significant environmental effects;

- Solid waste impacts by (5) requiring construction or expansion of landfill facilities, the construction of which could cause significant environmental effects, or (6) violating applicable federal, state, and local statutes and regulations related to solid waste; and

- Energy impacts by (7) violating applicable federal, state and local statutes and regulations relating to energy standards or (8) exceeding the energy provider's capacity to serve the project from existing commitments and require new or expanded energy facilities, the construction of which could cause significant environmental effect.

These criteria are applied to the EIR analysis of the proposed Oak to Ninth project. The EIR determine that the project would not have a significant effect under any of the above criteria. The analysis in this document addresses whether cumulative impact would result due to adverse effects on water supply (criterion no. 1), wastewater (criteria nos. 2 and 3), stormwater (criterion no. 4), solid waste (criteria nos. 5 and 6, and energy (criteria nos. 7 and 8).

Water Supply

Geographic Context

The geographic context considered for the cumulative analysis of water supply impacts is the planning area for East Bay Municipal District (EBMUD), the water district that serves the City of Oakland and other jurisdictions throughout Alameda County and Contra Costa County. Within Oakland, past and present projects are, and reasonably foreseeable future projects would be, located in a largely built-out urban area where water supply service and infrastructure are provided.

Past, Present, and Reasonably Foreseeable Future Projects

The water supply cumulative analysis in the EIR was developed based on the EBMUD Urban Water Management Plan (UWMP) (EBMUD, 2000). The UWMP is a long range planning document that reports on EBMUD's current and projected water usage, water supply programs, and conservation and recycling programs. The UWMP considers past, present, and reasonably foreseeable future projects based on existing service information and regional growth projections using land planning data to project future water demand through 2020.. Thus, the UWMP is a cumulative analysis of water supply and accounts for existing development based on its present users and present (i.e., under construction) and reasonably foreseeable future development, which are covered by future demand projections, which includes the proposed project.

Cumulative Effect Considering Past, Present, and Reasonably Foreseeable Future Projects in Addition to the Project

EBMUD's water demand projections are based on a study entitled *Districtwide Update of Water Demand Projections* in 2000 (2000 Demand Study)[1]. According to the UWMP, this study forecasts a customer demand of 281 million gallons per day (mgd) by 2030. This demand is then adjusted to account for the projected savings to be achieved through EBMUD's conservation and recycled water programs. Assuming projected savings of 35 mgd from conservation efforts and

[1] The 2000 Demand Study uses a land use-based method to forecast water demands. The study also reflects future land uses as designated by adopted general and specific plans. EBMUD developed a land use coverage database for 1996 development and for future years through 2030 (EBMUD, 2005).

14 mgd through recycled water programs, the 2030 planning level of demand forecast is estimated to be 232 mgd.[2] This demand accounts for past, present, and reasonably foreseeable future projects in the EBMUD service area.

The water supply of over 229 mgd would be available through the existing water supply sources as well as new projects such as the Freeport Regional Water Project, a water supply project providing for delivery of water from the Sacramento River to EBMUD customers during drought years, and the Bayside Groundwater Project, a groundwater storage project.[3] Both of these projects will provide supplemental water supplies to address the demand during multiple drought years. In addition, conservation efforts include demand-side conservation, programs for increase water-use efficiency, and recycling water projects. As described in Chapter 3 of the 2005 UWMP, EBMUD determines the level of customer rationing through the Drought Management Program based on the projected storage available by the end of September, for example, if storage is less than 500,000 acre-feet. The Program includes mandatory provisions (e.g., regulations and restrictions on water use), consumption limits, and penalties and charges for excessive use. In addition, EBMUD, along with other area water agencies, continues to explore regional desalination facilities to meet future water needs.

Past and present projects together with the proposed project and other reasonably foreseeable future projects in the EBMUD service area would be required to employ these mandatory water rationing and conservation measures set forth in EBMUD's Drought Management Program. Consistent with the recycled water ordinance for new developments adopted by the City of Oakland in 2002, reclaimed water infrastructure will be installed throughout the proposed project site to enable use of recycled water generated by EBMUD's East Bayshore Recycled Water Project. Recycled water delivery to the project site is expected in 2009. (Draft EIR, p. IV.M-3).

In summary, the water demand from the project together with the water demand from other closely related past, present, and reasonably foreseeable future projects has been accounted for in the EBMUD's water supply and demand projections in the 2005 UWMP. The cumulative increase in water demand would not exceed existing available water supplies or require the construction of new or expanded water supply utilities beyond those planned. The cumulative utilities impact with respect to water supply would be less than significant. No mitigation is required.

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[2] Although the planning horizon of the 2000 Demand Study extends to 2030 (i.e., beyond the planning horizon of 2020 for the Water Supply Management Program), the consumption savings from recycled water and conservation is assumed to remain constant from 2020 through 2030.

[3] Construction of the Freeport Regional Water Project is expected to be completed by 2009 (Draft EIR, p. V.M-3; see also 2005 UWMP, p. 2-15). According to the Draft EIR, the Bayside Groundwater Project was to be considered for approval in 2005; the 2005 UWMP projected completion of Phase 1 by December, 2007. (Draft EIR, p. VIM-3; see also 2005 UWMP, p. 2-18).

Wastewater Treatment

Geographic Context

The geographic context considered for the cumulative analysis of wastewater treatment impacts is EBMUD's Special District No. 1 (SD-1) area. SD-1 treats domestic, commercial, and industrial wastewater for the cities of Alameda, Berkeley, Emeryville, Oakland, and Piedmont, and for the Stege Sanitary District, which includes El Cerrito, Kensington, and parts of Richmond (EBMUD, 2005). The City of Oakland owns, operates and maintains the wastewater collection system throughout the city. Municipal wastewater from the city is discharged into EBMUD interceptor lines and delivered to EBMUD's Main Wastewater Treatment Plant (WWTP) for treatment. Past and present projects are, and reasonably foreseeable future projects would be, located in a largely built-out urban area where wastewater treatment service and infrastructure are provided.

Past, Present, and Reasonably Foreseeable Future Projects

This cumulative wastewater analysis relies on the UWMP and accounts for demand from existing customers (past projects) and future customers from past, present and reasonably foreseeable future projects based on regional population projections.

Cumulative Effect Considering Past, Present, and Reasonably Foreseeable Future Projects, in Addition to the Project

A project would result in a significant cumulative impact with respect to wastewater systems if, in combination with closely related past, present, and reasonably foreseeable future projects, it would: (1) cause the wastewater system to exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board; or (2) result in a determination by the wastewater treatment provider which serves the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which would cause significant environmental effects.

EBMUD Capacity

EBMUD's Main WWTP has permitted wastewater collection and treatment capacity of 320 million gallons per day (mgd) and currently operates at an annual average flow of 80 mgd (EBMUD, 2000; 2005). Wastewater flow projections from 2005 through 2030 are estimated to be 77 mgd, which includes wastewater flows within the SD-1 area that are and would be conveyed to the Main WWTP.

City's Wet Weather Capacity and Water Quality

Led by EBMUD, in 1986 the Wet Weather Program was initiated to improve wastewater treatment capacity for wet weather flows and reduce the amount of inflow and infiltration throughout the EBMUD collection system, which includes Oakland and several surrounding jurisdictions participating in the Program. Since its inception, the Program has resulted in treatment facilities, storage basins, interceptor pipes, and expansion of the Main WWTP— all of

which are designed to accommodate wastewater treatment of past, present, and reasonably foreseeable future projects.

Pursuant to the Wet Weather Program, EBMUD allocates its capacity to treat wet weather flows among its customers/service areas. Based on an inflow/infiltration study conducted by EBMUD as part of the Wet Weather Program, Oakland's allocation of citywide wastewater treatment was divided among multiple subbasins within the City based on existing development at the time of allocation and then-current projections for growth within the various subbasins. The City has been implementing its inflow and infiltration collection maintenance and rehabilitation program following its joint powers agreement with EBMUD in 1986. The City conducts project-by-project review to determine compliance with this program. Past projects have been, and all present and reasonably foreseeable future projects will be required by the City to construct or fund increased wastewater capacity, and thereby improve water quality.

Past and present projects have been or are being, and reasonably future projects will be, developed in accordance with the Program, ensuring that the combined effect is reduced to less than significant.

In summary, given the existing available capacity and continued implementation of the Main WWTP and the Wet Weather Program and the City's inflow and infiltration collection maintenance and rehabilitation program, the combined wastewater treatment needs of the project together with closely related past, present, and reasonably foreseeable future projects would not result in the need for new or expanded wastewater treatment facilities that could result in significant environmental impacts or that could cause the wastewater treatment to exceed the capacity of the wastewater treatment facilities. The cumulative utilities impact with respect to wastewater treatment capacity would be less than significant. No mitigation is required.

When combined with existing conditions and expected growth, the project's estimated sewage flows (1) would not exceed the City's or EBMUD's existing capacity or ability to transport sewage to the treatment plant; (2) would not cause the City to exceed the total treatment capacity allocated to the City by EBMUD; (3) would not exceed EBMUD's existing capacity or ability to treat sewage within its service area; and (4) exceed treatment or water quality standards.

Solid Waste

Geographic Context

The geographic context considered for the cumulative analysis of solid waste impacts consists of the service regions of the Altamont Landfill and Resource Recovery Facility and the Vasco Road Landfill, which includes most of Alameda County.

Past, Present, and Reasonably Foreseeable Future Projects

This solid waste cumulative analysis considers landfill capacity to accommodate past projects, present projects, and reasonably foreseeable projects, because these projects are considered in the plans and projections for the two relevant landfills. Long term landfill disposal and capacity needs projections of the Altamont Landfill and the Vasco Road Landfill are identified in the Alameda County Integrated Waste Management Plan (ACIWMP) (Table 3-8 at P. III-13) (ACWMA, 2003). These disposal and capacity needs' projections account for customers from past projects and future customers from present and reasonably foreseeable future projects. Thus, the ACIWMP, along with jurisdictional and landfill data reported by the California Integrated Waste Management Board (CIWMB) provide the basis for the cumulative impact analysis of solid waste impacts.

Cumulative Effect Considering Past, Present, and Reasonably Foreseeable Future Projects, in Addition to the Project

The project would result in a significant cumulative utilities and service systems impact with respect to solid waste if, in combination with closely related past, present, and reasonably foreseeable future projects, it would (1) 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, the construction of which would cause significant environmental effects; or (2) violate applicable federal, state, and local statutes and regulations related to solid waste standards.

These landfills currently serve past, and will continue to serve present and reasonably foreseeable future, projects for the majority of Alameda County.

The ACIWMP projections for landfill demand or usage are based on a number of factors including lifestyle changes, waste reduction programs, anticipated out-of-county import of landfill waste from other jurisdictions and population growth. Overall, the estimated annual disposal tonnage to the Vasco Road Landfill is anticipated to reduce annually through 2010 and remain steady at approximately 359,000 tons per year through 2030. The estimated annual disposal tonnage to the Altamont Landfill also is anticipated to reduce annually through 2011 and remain steady at approximately 682,000 tons per year through 2030.

The ACIWMP projects long term landfill disposal and capacity needs through the year 2052[4]. Considering settlement occurring in the landfills and technological, operational and design changes, the ACIWMP anticipates that in 2030 the capacity available would be over 3 million tons at the Vasco Road Landfill and over 40 million tons at the Altamont Landfill with an anticipated adequate landfill cap through 2052[4].

Many past projects, and all present and future projects, including the project, would be required to adhere to and participate in the numerous waste reduction and diversion requirements and programs administered by the state, Alameda County, and the City of Oakland. Past projects

[4] The ACIWMP assumes a 2037 closure date for the Vasco Road Landfill. The Vasco Road Landfill tonnage is assumed to go the Altamont Landfill beginning in 2038.

constructed prior to implementation of these requirements and programs are obligated to adhere to those regulations and programs that apply to their ongoing operations. These regulations, requirements and programs establish specific performance measures and include the following:

- **California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939)**, which requires cities and counties to prepare and implement waste management plans to reduce waste generation and disposal and requires local jurisdictions to divert at least 50 percent of all solid waste generated by January 1, 2000 (Public Resources Code Section 41780). (Several county and local programs are initiated by and facilitate implementation of AB 939.)

- **Alameda County Waste Reduction and Recycling Initiative (Measure D)**, which mandates that all cities in Alameda County divert 75 percent of their solid waste from landfills by the year 2010.

- **Oakland Construction and Demolition (C&D) Debris Waste Reduction and Recycling Requirements (Ordinance No. 12253 C.M.S.**), which requires that project applicants prepare and submit a C&D Debris Waste Reduction and Recycling Plan (WRRP) to divert from landfill disposal at least 50 percent of all C&D debris generated by project development.

- **Oakland 75 Percent Waste Reduction Goal and Strategic Plan (Oakland Resolution No. 77500)**, which establishes the City's goal of reducing the amount of waste going to landfills by 75 percent by 2010.

Plans and guidelines that address the planning, achievement and monitoring of reduction and diversion requirements include the *ACIWMP*; the *Alameda County Source Reduction and Recycling Plan*; [e1]Oakland Guidelines for the Development and Evaluation of Recycling Collection and Storage Areas (Policy 100-28); and the Oakland Source Reduction and Recycling Element (SRRE). In addition, in 2005 the City of Oakland adopted the Oakland Green Building Ordinance and Requirements for City Building Projects which encourages the use of green building strategies in private development projects (City of Oakland, 2005). As listed by the U.S. Green Building Council, green building strategies include efforts to reuse portions of the existing buildings thereby reducing demolition waste, and efforts to divert between 50 and 75 percent of construction debris thereby reducing construction waste (USGBC, 2003).

Implementation of the requirements and measures under these plans and programs would further reduce the potential for exceeding landfill capacity. The steady increase in diversion rates for the City of Oakland, as reported by the CIWMB from 1995 through 2004, demonstrates the effectiveness of these plans and programs (CIWMB, 2008) Anticipated continued success is reflected in the long term solid waste disposal and capacity needs projections included in the ACIWMP. Thus, the Altamont Landfill and Vasco Road Landfill have sufficient capacity to accommodate the solid waste projected under cumulative conditions.

In summary, considering current and projected landfill needs and current and projected landfill capacity, as well as the previous and continued implementation of waste reduction activities at the state, county, and city level, the combined landfill needs of the project together with closely

related past, present and reasonably foreseeable future projects would not require new or expanded landfill facilities or impede the City's ability to meet mandated waste diversion requirements. The cumulative utilities impact with respect to solid waste would be less than significant. No mitigation is required.

Energy

Geographic Context

The geographic context considered for the cumulative analysis of energy utilities (natural gas and electrical service) is Pacific Gas & Electric's (PG&E's) service area in north and central California.

Past, Present, and Reasonably Foreseeable Future Projects

This cumulative analysis takes into consideration past projects located in areas with existing energy infrastructure because they are part of the existing physical setting and environmental baseline. PGE's plans for long term energy supply include growth projections that include past, present and reasonably foreseeable future projects.

Cumulative Effect Considering Past, Present, and Reasonably Foreseeable Projects, in Addition to the Project

The project would have a significant cumulative utilities and service systems impact with respect to gas and electricity services if, in combination with closely related past, present, and reasonably foreseeable future projects, it would (1) result in a determination by the energy provider that serves or may serve the project that it does not have adequate capacity to serve the project's demand in addition to the provider's existing commitments and require or result in the construction of new energy facilities or expansion of existing facilities, construction of which would cause significant environmental effects; or (2) violate applicable federal, state and local statutes and regulations relating to energy standards.

The California Public Utilities Commission (CPUC) mandates that PG&E provide service to all existing and new development within its service area**.** PG&E's ability to meet this obligation is established in supply, transmission capacity and demand forecasts as reported in its planning documents. PG&E's ability to provide electricity and natural gas to past, present and reasonably foreseeable projects is established in its planning documents including the 2004 California Gas Report (CGR) and the 2004 Long-Term Procurement Plans**.**

The California Gas Utilities' CGR presents a comprehensive outlook for natural gas requirements and supplies for California through the year 2025. The report provides detail on natural gas availability by source and natural gas demand by customer class. The long-term demand forecasts for PG&E, based largely on California Energy Commission (CEC) assumptions, are developed using a combination of market information, modeling of the electricity market (for gas demand

by power plants), and economic models considering anticipated economic, demographic and technological changes. PG&E reports a stable supply of natural gas with marginal increases in demand resulting in a surplus of approximately 17 percent in 2020 and 12 percent in 2025 (California Gas Utilities, 2004).

In 2004, the CPUC adopted the Long-Term Procurement Plans (2004 LTPP) for utilities serving California including PG&E (CPUC, 2004). PG&E's Integrated Resource Plan (IRP), which includes demand forecasts for the period of 2005 through 2014 and the resources procurement strategy to meet the defined needs, was approved as a part of the 2004 LTPP. The demand forecasts accounted for existing customers and projected future customers. To integrate gas price volatility, possible market structure outcomes and regulatory changes, the IRP includes three realistic demand forecast scenarios reflecting a range of potential conditions. The IRP includes three flexible and financially feasible resource portfolios corresponding to the three demand forecast scenarios. The resource planning process also incorporates approved transmission capacity.[5] Overall, the CPUC's 2004 approval of the IRP establishes PG&E's ability to meet its obligation to provide electricity to its service population through 2014 (CPUC, 2004).

PG&E is currently providing sufficient energy to meet the energy demands of past and present projects. As listed in the CEC's 2005 Integrated Energy Policy Report (IEPR), PG&E's ability to meet future energy demands, including the ongoing demands of past and present projects as well as anticipated demands of reasonably foreseeable projects, is contingent on both reducing energy demand (through efficiency and alternative resources) and improving energy infrastructure (CEC, 2005).

Past projects built after June 20, 1977 are, and any present and future projects will be, compliant with all standards of Title 24 of the California Code of Regulations.

The proposed project and other reasonably foreseeable projects within Oakland and/or the PG&E service area would be required to adhere to several energy reduction regulations and requirements, as did past and present projects**.** Key federal, state and local regulations, requirements, programs and oversight agencies include the following:

- **Federal Energy Policy Act of 2005**, which provides incentives to reduce current demand on renewable energy resources.

- **State of California Energy Action Plan 2005** approved by the California Energy Commission (CEC), the California Public Utilities Commission (CPUC); the Plan establishes goals and actions to ensure availability of reasonably-priced electrical power and natural gas supplies.

- **State of California Integrated Energy Policy Plan 2005** adopted by CEC; the Plan focuses on transportation systems in an effort to improve air quality, reduce congestion, and increase the efficient use of low energy fuel supplies with the least environmental and energy costs.

[5] PG&E's resource planning process assumed all existing and new transmission contained in the California Independent Systems Operator-approved 2003 Electric Transmission Grid Expansion Plan.

- **Title 24, Part 6, Building Energy Efficiency Standards in the California Building Code**, which establishes standards mandating energy efficiency measures in new construction—standards that are implemented through the local plan check and permit process.

- **Oakland General Plan Policies** that encourage site plans for new development which maximizes energy efficiency and call for the programs to foster the incorporation of sustainable design principles, energy efficiency and Smart Growth principles into residential developments.

In summary, energy demands of past, present and reasonably foreseeable future projects are accounted for in PG&E's planning documents (California Gas Utilities, 2004, CPUC, 2004). Therefore, the project together with closely related past, present, and reasonably foreseeable projects is not expected to result in a significant cumulative energy impact. Considering ongoing compliance with all federal, state and local regulations and performance standards which are intended to limit or reduce energy consumption, along with efforts at the state and local levels relating to energy supply and reduction in consumption, the cumulative utilities impact with respect to energy would be less than significant. No mitigation is required.

Summary

In summary, the proposed project, combined with closely related past, present, and reasonably foreseeable projects would not result in a significant utilities and service systems cumulative impact. No mitigation measures are necessary. The following EIR impact statement is maintained for this response to the Court Order:

Impact M.6: The proposed project, when combined with other closely related past, present, and reasonably foreseeable future development in the vicinity, would not result in a significant adverse cumulative utilities and services systems impact. (Cumulative Impact: Less than Significant)

Mitigation: None Required.

References – Utilities and Service Systems

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APPENDIX A

Population, Housing, and Employment Section
Excerpts from the Draft EIR

APPENDIX A.1

DRAFT EIR EXCERPT: POPULATION, HOUSING, AND EMPLOYMENT TABLES - PAST, PRESENT, AND FUTURE

TABLE IV.J-5

TRENDS FOR SURROUNDING AREAS AND THE CITY OF OAKLAND, 2000, 2005, AND 2025 (without Oak to Ninth Avenue Project)

				2005–2025	
	2000	2005	2025	Change	Percent
Employment					
Estuary Waterfront	12,940	13,420	17,740	4,320	32%
San Antonio, north of I-880	11,520	11,810	12,590	780	7%
Downtown Oakland, north of I-880	70,620	75,670	91,660	15,990	21%
City of Oakland	185,160	198,470	240,950	42,480	21%
Households					
Estuary Waterfront	640	2,010	3,330	1,320	66%
San Antonio, north of I-880	22,190	22,450	23,060	610	3%
Downtown Oakland, north of I-880	17,790	18,670	25,810	7,140	38%
City of Oakland	150,790	155,400	171,980	16,580	11%
Total Population					
Estuary Waterfront	1,420	3,950	6,510	2,560	65%
San Antonio, north of I-880	66,310	67,520	68,390	870	1%
Downtown Oakland, north of I-880	31,790	36,570	49,150	12,580	34%
City of Oakland	399,480	417,350	448,460	31,110	7%

NOTE: The numbers presented above for 2025 reflect the No Project scenario, where existing conditions on the Oak to Ninth project site are assumed to remain as-is (2005) in the future.

SOURCE: Oakland Cumulative Growth Scenario as updated for *Oak to Ninth Avenue Project EIR*, November 2004.

TABLE IV.J-6

POPULATION, HOUSEHOLDS, AND EMPLOYMENT FOR OAKLAND, INNER EAST BAY, AND BAY AREA REGION: 1990, 2000, AND 2025
(Without Oak to Ninth Avenue Project)

				1990–2000		2000–2025		
	1990	2000	2025	Change	Annual Rate	Change	Annual Rate	
Total Population								
Oakland [a]	372,240	399,480	448,460	27,240	0.71%	48,976	12%	0.46%
Inner East Bay [c]	649,840	688,220	768,760	38,380	0.58%	80,550	12%	0.44%
Total Bay Area [d]	6,020,150	6,783,760	8,222,660	763,610	1.20%	1,438,900	21%	0.77%
Households								
Oakland [a]	144,520	150,790	171,980	6,270	0.43%	21,190	14%	0.53%
Inner East Bay [c]	260,350	271,400	303,310	11,050	0.42%	31,910	12%	0.45%
Total Bay Area [d]	2,245,870	2,466,020	2,981,330	220,150	0.94%	515,310	21%	0.76%
Employment								
Oakland [b]	173,270	185,160	240,950	11,890	0.67%	55,790	30%	1.06%
Inner East Bay [c]	353,640	368,890	476,230	15,250	0.45%	107,340	29%	1.03%
Total Bay Area [d]	3,201,010	3,744,880	4,930,040	543,870	1.58%	1,185,160	32%	1.11%

a U.S. Census data for 1990 and 2000. For 2025, Oakland Cumulative Growth Scenario as updated for Oak to Ninth Avenue Project EIR, November 2004, assuming the No Project scenario.
b Oakland Cumulative Growth Scenario as updated for Oak to Ninth Avenue Project EIR, November 2004, assuming the No Project scenario.
c Inner East Bay includes Oakland and nearby cities of Albany, Berkeley, Emeryville, Piedmont, Alameda, and San Leandro. Data and projections for nearby cities from ABAG, Projections 2002.
d Totals for the Bay Area are from ABAG, Projections 2002 except data and projections for Oakland per note a above substitute for the ABAG figures for Oakland.

SOURCES: U.S. Census; ABAG Projections 2002; Oakland Cumulative Growth Scenario, November 2004.

TABLE IV.J-7

CHANGES IN HOUSING STOCK IN OAKLAND, 1990–2000

	1990		2000		Change
Total Housing Units	154,737		157,508		2,771
Occupied Housing Units	144,521	93.4%	150,790	95.7%	6,269
Vacant Housing Units	10,216	6.6%	6,718	4.3%	(3,498)
Owner-occupied Housing	60,153	41.6%	62,489	41.4%	2,336
Renter-occupied Housing	84,368	58.4%	88,301	58.6%	3,933

SOURCE: U.S. Census, 1990 and 2000.

TABLE IV.J-8

HOUSING GROWTH IN OAKLAND
(without Oak to Ninth Avenue Project)

	Additional Housing Units	Annual Average
1990–2000[a]	2,771	277
2000–2005[b]	4,980	996
2006–2025[c]	17,220	861

[a] 2000 Census.
[b] Housing units in projects anticipated to be completed by the end of 2005.
[c] Housing in approved projects, in projects in pre-development and planning, and housing on housing opportunity sites and other sites considered likely to be developed by 2025, without the proposed Oak to Ninth Avenue Project.

SOURCE: City of Oakland Housing Element; Oakland Cumulative Growth Scenario, November 2004.

TABLE IV.J-9

TRENDS IN JOBS AND EMPLOYED RESIDENTS: 1990-2025
(without Oak to Ninth Avenue Project)

				1990-2000		2000-2025	
	1990	2000	2025	Change	Annual Rate	Change	Annual Rate
Total Jobs							
Oakland [a]	173,270	185,160	240,950	11,890	0.67%	55,790	1.06%
Inner East Bay [c]	353,640	368,890	476,230	15,250	0.42%	107,340	1.03%
Total Bay Area [d]	3,201,010	3,744,880	4,930,040	543,870	1.58%	1,185,160	1.11%
Employed Residents							
Oakland [b]	162,490	174,740	229,090	12,250	0.73%	54,350	1.09%
Inner East Bay [c]	312,070	320,020	411,190	7,950	0.25%	91,170	1.01%
Total Bay Area [d]	3,147,610	3,611,370	4,646,590	463,760	1.38%	1,035,220	1.01%
Ratio Jobs-to-Employed Residents							
Oakland	1.07:1	1.06:1	1.05:1				
Inner East Bay	1.13:1	1.15:1	1.16:1				
Total Bay Area	1.02:1	1.04:1	1.06:1				
Employed Residents as Percent of Population							
Oakland	44%	44%	51%				
Inner East Bay	48%	46%	53%				
Total Bay Area	52%	53%	57%				

[a] Oakland Cumulative Growth Scenario as updated for *Oak to Ninth Avenue Project EIR*, November 2004; assuming the No Project scenario.
[b] U.S. Census data for 1990 and 2000. For 2025, Oakland Cumulative Growth Scenario as updated for *Oak to Ninth Avenue Project EIR*, November 2004 assuming the No Project scenario.
[c] Inner East Bay includes Oakland and nearby cities of Albany, Berkeley, Emeryville, Piedmont, Alameda, and San Leandro. Data and projections for nearby cities from ABAG, *Projections 2002*.
[d] Totals for the Bay Area are from ABAG, *Projections 2002* except data and projections for Oakland per note a above substitute for the ABAG figures for Oakland.

SOURCES: U.S. Census; ABAG *Projections 2002*; Oakland Cumulative Growth Scenario, November 2004.

TABLE I.J-11

HOUSING, HOUSEHOLDS, POPULATION AND EMPLOYMENT FOR OAKLAND WITH THE OAK TO NINTH AVENUE PROJECT

	2000	2005	2010	2025	2000-2025 Change	2000-2025 Percent	Annual Rate
Housing Units	157,510	162,490	169,880	182,810	25,300	16%	0.60%
Households	150,790	155,400	162,530	174,950	24,160	16%	0.60%
Population	399,480	417,350	431,670	453,520	54,040	13.5%	0.51%
Employed Residents	174,740	181,230	198,340	232,680	57,940	33%	1.15%
Jobs	185,160	198,470	231,770	241,340	56,180	30%	1.07%
Ratio Jobs-to-Employed Residents	1.06:1			1.04:1			

SOURCES: U.S. Census 2000; Oakland Cumulative Growth Scenario with Project, November 2004.

APPENDIX A.2

DRAFT EIR EXCERPT: POPULATION, HOUSING, AND EMPLOYMENT SECTION, RETAIL ANALYSIS EXCERPT, PP. IV.J-33 THROUGH IV.J-41

Potential for Indirect Physical Impacts

This section considers whether social and economic effects of the project may or may not result in indirect changes in the physical environment, such as through ripple effects that could result in physical deterioration and urban decay. Although a project's social and economic effects are not considered to be significant environmental effects under CEQA (CEQA Guidelines, Section 15064(e)), those aspects of a project might affect other conditions in an area that are evaluated for environmental impacts under CEQA. The assessment in this section focuses first on the potential for indirect physical effects as a result of the retail development proposed for the project. It then addresses the potential for indirect physical effects associated with potential housing market effects of the project.

Potential Indirect Impacts of Proposed Retail Development

Analysis was done to addresses the retail market effects of the project and whether the proposed addition of 200,000 sq. ft. of retail/commercial space in the project could cause ripple effects of store closures and consequential long-term vacancies that would result in physical deterioration and urban decay. Public comments on the Notice of Preparation raised concerns about the potential effects of project retail development on existing neighborhood commercial districts and corridors in Oakland, and specifically on the Eastlake District located along International Boulevard and East 12th Street north of the project across the I-880 freeway.

A recent Court of Appeals decision concerning proposed shopping center development (*Bakersfield Citizens for Local Control v. City of Bakersfield, et. al.* (2004) 124 Cal. App. 4th 1184*)* reconfirmed that CEQA requires analysis of a project's potential to indirectly cause physical deterioration and urban decay. The Court held that certain retailers, including Supercenters, large-scale retailers (such as big-box stores and "category killers"), retailers operating 24 hours a day seven days a week, and others may pose unique potential indirect environmental impacts. The retail development in the project does not propose to include those types of large-scale or discount retail uses. However, the potential for indirect physical impacts is still assessed in this EIR as public concerns have been raised about the potential for physical deterioration and urban decay in neighborhood retail districts and corridors as a result of the retail development proposed in the project.

In assessing the potential impact of the proposed retail development, the analysis addressed the following:

- Extent that Oakland is currently underserved or overserved by retailing;

- Types of retailing envisioned for the project, and the retail sales likely to occur in retail businesses to be located there;
- Additional retail spending to be contributed by residents of new housing in the project;
- How additional spending from project residents would compare to additional sales in project businesses;
- Whether the types of retailing in the project would compete with or complement the types of retailing in the Eastlake District and other surrounding neighborhood retail districts and corridors in Oakland;
- Extent and potential significance of other retail development anticipated in Oakland; and
- Conclusions about the potential for indirect physical impacts of the retail development proposed for the project.

The subsections that follow summarize the results of the retail analysis which is presented in more detail in **Appendix D.2**.

Market Context: Oakland Is Underserved By Retailing

Compared to Alameda County and the Bay Area overall, Oakland has substantially less retailing than would be anticipated for a city of its size. Per capita retail sales data summarized in **Table IV.J-16** provide a comparative measure of overall retail activity at the state, regional, and county levels and for retailing in Oakland and its nearby cities of the Inner East Bay. The data show that total retail sales per capita in Oakland are substantially lower (about 40 percent lower) than total sales per capita for Alameda County and the Bay Area overall. Among the different types of retailing, per capita sales in Oakland are low in all categories except service stations. The differences are quite substantial in many of the retail categories.

The low retail sales per capita in Oakland indicate that there is substantial "leakage" of spending by Oakland residents to retail establishments outside of Oakland because of the limited retail opportunities available locally. It also indicates the likelihood that Oakland residents may be spending less overall on retailing because of the lack of retail options within convenient access. Per capita sales data for the Inner East Bay, combining Oakland with its neighboring cities, shows that the Inner East Bay overall is also underserved with retailing relative to other parts of Alameda County and the rest of the region.

Given this market context, new retail development does not necessarily mean competition for sales from existing merchants in Oakland. Retail development is needed in Oakland to better serve the retailing needs of local residents. City economic development efforts are focused on attracting additional retailing to Oakland to improve retail opportunities for residents and to keep more local spending in Oakland.

Mix of Retailing and Other Uses Envisioned for New Space in the Project

A mix of retail and other commercial uses are envisioned to occupy the 200,000 sq. ft. of retail/commercial space proposed for the project, along with community, cultural, and recreational uses. Just over two-thirds of the space is anticipated to be occupied by retail uses, potentially including a neighborhood-serving grocery, specialty food tenants, a drug store,

smaller retail shops, galleries, restaurants, cafés and other eating places, and snack shops. Retail sales for these types of retail tenants are estimated to total approximately $37 million annually. Other uses and tenants in the rest of the space are envisioned to include small offices (health-related, professional services, real estate, financial services, project office), local service uses (dry cleaning, laundry, hair salon/barber shop), a fitness center or health club, the harbor master/marina office, space for Aquatic Center expansion and/or other recreation-oriented activities, community facilities, and cultural uses/exhibit space. A potential scenario for the retail, commercial, and other space is summarized in **Table IV.J-17**.

TABLE IV.J-16
2003 PER CAPITA TAXABLE RETAIL SALES, SELECTED AREAS

	California	Bay Area	Alameda County	Inner East Bay /a/	Oakland	Berkeley	Emeryville	Alameda	San Leandro
2003 Total Population (January 1)	*35,612,116*	*6,960,314*	*1,487,685*	*702,878*	*408,513*	*103,954*	*7,492*	*74,295*	*80,879*
Retail Category									
Apparel stores	426	498	349	299	118	422	6,713	141	705
Home furnishings and appliances	424	519	536	583	253	660	24,807	116	532
Other retail stores	1,529	1,817	1,689	1,656	1,146	2,486	30,029	1,000	1,708
General merchandise stores /b/	1,419	1,513	1,280	907	322	477	2,185	794	4,714
Food stores /b/	545	552	493	483	417	586	2,402	489	660
Eating and drinking places	1,125	1,277	1,037	1,098	903	1,736	7,863	954	1,147
Bldg. materials and farm implements	862	917	1,000	736	512	893	n/a	225	2,455
Auto dealers and auto supplies	1,883	1,813	1,970	1,480	1,308	1,490	n/a	1,140	3,293
Service stations	778	762	762	713	760	496	1,904	557	1,033
Total Taxable Retail Sales /b/	**$8,992**	**$9,669**	**$9,116**	**$7,955**	**$5,740**	**$9,247**	**$75,903**	**$5,417**	**$16,247**

NOTE: The 2003 data were the most current available at the time of the analysis in March 2005.

/a/ Inner East Bay taxable sales data available for Alameda, Berkeley, Emeryville, Oakland, and San Leandro. Inner East Bay population also includes Piedmont and Albany.
/b/ The retail sales data are for taxable sales. However, not all sales in food stores and drug stores are taxable, so that total retail sales in those categories are higher than shown above. It is estimated that taxable sales represent about 30 percent of total sales in food stores, and approximately 46 percent of sales in drug stores.

Source: State of California, Department of Finance, E-5 City/County Population and Housing Estimates, 2004, Revised 2001-2003, with 2000 DRU Benchmark. Sacramento, California, May 2004; State Board of Equalization Taxable Sales in California Annual Report 2003; Hausrath Economics Group.

TABLE IV.J-17

POTENTIAL RETAIL/COMMERCIAL SCENARIO FOR OAK TO NINTH PROJECT, BY USE AND TYPE OF RETAILING

	Total Space (Sq. Ft.)	Retail Space (Sq. Ft.)	Estimated Retail Sales ($ 2004/05)
By Type of Space and Use			
Retail/commercial: neighborhood streets (on interior streets)	41,000	15,000	$2.2 mil.
Central area neighborhood retail (along project's Main Street)	42,000	42,000	14.1 mil.
Waterfront retail/restaurant (around Clinton Basin and Marina)	79,000	71,000	19.9 mil.
Park-oriented/recreational uses (in vicinity of Estuary Park and Channel Park)	20,000	5,000	0.6 mil.
Community, cultural, recreation uses (reuse of portion of Ninth Avenue Terminal)	18,000	3,000	0.4 mil.
Total Project	**200,000**	**136,000**	**$37.2mil.**
By Type of Retailing			
Convenience Retail/Groceries		45,500	$14.6 mil.
Eating and Drinking		58,000	16.8 mil.
Comparison/Specialty Retail		32,500	5.8 mil.
Total Project		**136,000**	**$37.2 mil.**

Source: Oakland Harbor Properties; Hausrath Economics Group.

Project Residents Would Contribute Additional Retail Spending

The Oak to Ninth Avenue project is primarily a residential development that includes retail/commercial space. The additional households to reside in the new housing units in the project would generate additional spending for a variety of retail goods and services. It is estimated that retail expenditures by project residents would total approximately $95 million annually. Their estimated expenditures by type of retailing are summarized in **Table IV.J-18**.

Overall Net Addition of Retail Spending from the Project

Overall, the additional retail spending to be contributed by project residents (approximately $95 million) is estimated to be larger than the amount of retail sales to be captured by the retail development in the project (approximately $37 million). Thus, in the aggregate, the project would contribute a net addition of retail spending to the overall market context. This net addition would support additional retail business activity over and above the amount of retail activity to be accommodated in the project.

TABLE IV.J-18

ESTIMATED RETAIL SPENDING BY PROJECT RESIDENTS

Retail Category	Average Annual Spending	Total Spending

	per Household /a/ ($ 2002/03)	($ 2002/03)
Groceries and Convenience	$8,359	$24.9mil.
Eating and Drinking	4,418	13.1mil.
Comparison and Specialty		
Apparel and Footwear	3,401	10.1mil.
Household Furnishings and Equipment	3,579	10.7mil.
Specialty and Other Comparison Goods	2,223	6.6 mil.
	9,203	27.4mil.
Vehicle-related	9,606	28.6mil.
Building Materials	360	1.1mil.
Total Retail Spending	**$31,946**	**$95.1mil.**

/a/ Data from U.S. Bureau of Labor Statistics, *2002-2003 Consumer Expenditure Survey for U.S. Western Region* " for consumer units" or households with income of $70,000 or more. The estimates of spending may be conservative for the purposes of this study as the survey data from 2002-03 has not been inflated. More recent data on retail expenditures are limited, and it is possible that 2004/05 expenditures have not increased very much from 2002/03 levels.

SOURCE: U.S. Bureau of Labor Statistics, *2002-2003 Consumer Expenditure Survey*; Hausrath Economics Group.

Spending and Sales By Types of Retailing and Consideration of Spending Patterns for the Project

Not all of the spending of project residents would occur in the project and not all of the sales by project retail businesses would come from project residents. People tend to buy groceries and do other convenience shopping close to home. Given the types of convenience retail tenants anticipated for the project, the spending of project residents for groceries and other convenience items (drugs and drug store items, personal care products, paper products, alcoholic beverages, etc.) would provide the primary market support for the convenience retail tenants in the project. The convenience spending of project residents also would support retailers outside the project, primarily those in nearby parts of Oakland. Potentially, about half of the convenience retail expenditures of project residents could be spent within the project and about half outside the project (as evidenced by the comparison of project retail sales and additional spending by project residents in **Table IV.J-19**).

Spending for eating and drinking out and for comparison/specialty retailing typically occur over a larger area than convenience retail spending. The eating and drinking and comparison/specialty retail uses to be located in the project would be supported by spending of project residents and by others, particularly those attracted by the visitor-serving waterfront retail and restaurant uses. People employed in the project also would provide market support for the eating and drinking uses as would people coming to the project site for recreation. Much of the additional expenditures of project residents for eating and drinking out and comparison/specialty retailing would be spent outside the project, elsewhere in Oakland, in nearby cities, and beyond. This additional spending would represent substantial support for restaurants, other eating places, and comparison/specialty retailers in nearby and other areas, as shown by the data in **Table IV.J-19**.

TABLE IV.J-19

COMPARISON OF RETAIL SALES IN THE PROJECT AND ADDITIONAL RETAIL SPENDING BY PROJECT RESIDENTS

Type of Retailing	Estimates Sales in Project Retail Space (2004/05 $)	Estimated Retail Spending by Project Residents (Based on 2002/03 expenditure patterns)
Convenience Retail/Groceries	$14.6 mil.	$24.9 mil.
Eating and Drinking	16.8 mil.	13.1 mil.
Comparison/Specialty Retail	5.8 mil.	27.4 mil.
Vehicle-related	–	28.6 mil.
Building Materials/Supplies	–	1.1 mil.
Overall Totals	**$37.2 mil.**	**$95.1 mil.**

SOURCE: See prior Tables and associated text.

The additional expenditures of project residents also include vehicle-related spending (for vehicle purchases, gas and oil, and auto parts and supplies) and spending for home maintenance/building materials and supplies, as shown in **Table IV.J-19**. As those types of retailing are not anticipated to be located in the project, the additional spending would occur in surrounding areas and elsewhere in Oakland and nearby cities.

Project Retailing Would Complement Retailing in the Eastlake District and Other Neighborhood Retail Corridors; Spending of Project Residents Would Likely Provide Market Support for Neighborhood Districts

Specific consideration was given to potential effects of the project on the Eastlake District and other neighborhood retail corridors in surrounding parts of Oakland. A key issue is how the market orientation and types of retail tenants in the neighborhood districts compare to those for the retailing envisioned for the project. The analysis found that there are notable differences in the types of retailing between surrounding neighborhood retail districts/corridors and the retail proposed for the project. The differences occur because of the rich ethnic and cultural diversity in surrounding Oakland neighborhoods which is clearly reflected in the types and market orientations of businesses in the neighborhood retail districts. Thus, rather than competing, the project and surrounding neighborhood districts are anticipated to be complementary, in that each district would offer different types of goods and services with its own particular market orientation. In addition, project residents could provide market support for retail establishments in surrounding neighborhood areas, particularly for ethnic-oriented foods and eating places and other goods and services of types not available in the project.

The Eastlake Business District is comprised of a unique mix of businesses, many of which are Southeast Asian owned and operated. The area includes Southeast Asian restaurants and other eating places and markets specializing in Southeast Asian produce and other foods. There also are ethnically-oriented apparel and specialty stores. These retailers are catering to neighborhood residents and others seeking the types of specialized foods and other goods and services available here. The unique ethnic character of retailing in the Eastlake District differentiates it from the

types of retailing envisioned in the project. As a result, the retail development in the project is not anticipated to adversely affect retailing in the Eastlake District by drawing customers and tenants away from the area. Further, the specialized character of retailing in the Eastlake could attract spending from project residents, providing merchants with additional market support as a result of the project. In addition, auto-related businesses in the Eastlake also could attract spending from project residents.

Further to the east is the larger Fruitvale Business District. The Fruitvale District has emerged as an active multicultural commercial area with a strong Latino identity. The Fruitvale District includes a rich business mix offering ethnic foods, music, jewelry, and clothing from Mexico, El Salvador, and other countries. Retailing in this district serves nearby residents and others from surrounding areas who are attracted by the ethnic orientation and specialty foods and other goods and services available here. Like the Eastlake, the Fruitvale District has a specific ethnic market orientation that makes it unique and different from retailing anticipated in the project and from that located in other parts of Oakland. Here again, retail development in the project is not anticipated to compete with retailing in this area. Instead, it is likely that project residents could contribute additional spending in the Fruitvale District.

Anticipated To Be Market Support for Other New Retail Developments in Addition to the Project and Existing Retailing

In addition to the retail space in the project, there are other new retail developments underway in Oakland. They include: the Hegenberger Gateway Project (Hegenberger and I-880) under development for a Wal-Mart store and other retailers (245,000 sq. ft. in total) and other potential retail development on a nearby six-acre site (up to 90,000 sq. ft.); rebuilding of an Albertson's grocery store near Lake Merritt (East 18th Street near Lakeshore Avenue) into a larger, modern store (37,000 sq. ft. after expansion); a new Whole Foods grocery store (56,000 sq. ft.) near downtown Oakland (Harrison Street/27th Street/Bay Place); and the Jack London Square redevelopment to include additional space for restaurant, retail, and possible entertainment uses (up to 260,000 sq. ft.) plus a new hotel, conference facility, cinema, and office space to be developed over the next five to 10 years.

Evaluation of these new retail uses within the context of existing retailing, resident spending patterns, growth of retail spending, and development of the project indicates that there is anticipated to be sufficient market support for the project and the other new retail developments as well as for existing retailing. Substantial growth of retail spending is projected for Oakland in the future as a result of the growth of households and population and the real growth of household incomes over time. Growth of spending as well as reduction in leakage of sales could support substantial additional retail activity in Oakland.

Conclusion: Project retail development would not lead to significant indirect physical impacts. (Less than Significant)

Based on the retail market context and analysis of the potential effects of the project, the proposed addition of retail development in the project is not anticipated to create competition for existing retail districts in Oakland, draw customers and tenants from existing areas, and cause ripple effects of store closures and consequential long-term vacancies that would result in

APPENDIX A.3

DRAFT EIR EXCERPT: POPULATION, HOUSING, AND EMPLOYMENT SECTION, HOUSING ANALYSIS EXCERPT, PP. IV.J-45 THROUGH IV.J-47

- **Adjacent Fifth Avenue Point Area** - In this adjacent area, the project's potential effects would be those focused on increases in housing demand. Creation of a new neighborhood on the project site (along with development of park and waterfront amenities) would enhance the desirability of the privately-owned Fifth Avenue Area surrounded by the project site. Market values of property would increase as would interest in additional new development there in the future. Although not a residential area, there are a small number of existing work-live studios that could become more desirable depending on the condition of the older structures, and rents for existing space could be higher in the future as a result of the project.

- **Surrounding Estuary Waterfront and Lake Merritt Channel** - The project would continue the redevelopment of the Estuary waterfront that is already occurring in the Jack London District to the west and along Embarcadero Cove and the Kennedy Tract to the east. The project would further enhance existing potentials for additional new housing development along the waterfront by increasing market interest from both households/housing consumers and landowners and housing developers. Additional new housing development along the waterfront in the future is anticipated to occur on sites with older industrial uses. The effect of the project in enhancing housing demand along the waterfront is not anticipated to substantially affect existing housing areas. Most older, existing housing along the waterfront is in the Kennedy Tract area, where new housing is already being developed, independent of the project.

  The project also is likely to increase market interest and demand for new housing in the vicinity of the Lake Merritt Channel, particularly if improvements are made along the Channel to connect Lake Merritt to the Estuary. Oakland's Housing Element identifies housing opportunity sites on both sides of the Channel. The project could encourage development of these sites sooner than would occur without the project. The new residential development would not replace or substantially affect existing housing as development sites are outside of or on the fringes of existing neighborhoods.

- **San Antonio District, North of I-880** - Concerns about potential housing demand effects of the project in the San Antonio District to the north and northeast of the project site, arise because of the large stock of older housing in the area and the demographic characteristics of residents. Compared to Oakland's population overall, the San Antonio includes proportionally more family households, household incomes are below citywide median income, and a larger share of residents are renters.

  Consideration of potential effects indicates that while the project could increase demand for housing in the western parts of the district, it is not anticipated to noticeably affect housing

rents and prices in the San Antonio District overall. There are several factors that provide explanation.

One is that housing demand and housing prices and rents have been increasing in the San Antonio as a result of broader citywide and regional housing market factors and trends. In addition, renewed interest in downtown Oakland is already enhancing the desirability of parts of the San Antonio that border the downtown to the west. Existing market forces and recent trends are anticipated to continue, independent of the project. To some extent, the project also could contribute to enhancing demand for existing housing at the western end of the San Antonio District, in the vicinity of Lake Merritt Channel as there are connections to the project site at this end and the potential that additional new higher-density housing would be eventually developed here (to be encouraged by project development as discussed above).

Secondly, most of the housing in existing San Antonio neighborhoods would not have proximity and access to the project and the park areas and waterfront amenities to be available there. San Antonio neighborhoods are actually somewhat distant from the Oak to Ninth waterfront and are physically separated from the project by the I-880 freeway, the rail lines and railroad rights-of-way, and industrial and other business uses near the railroad and freeway. Thus, demand effects of the project would be limited by the lack of proximity and access.

Third, the large amount of new housing to be developed in the project (and in nearby downtown Oakland and eventually in the vicinity of Lake Merritt Channel) would capture demand that could otherwise focus on existing housing in the San Antonio, thereby easing upward pressures on prices and rents in the District, including broader market pressures independent of the project as well as any pressures that might result from potential effects of the project. Further, additional affordable housing to be developed as a result of the project could be built in the San Antonio District and/or in nearby areas. Increasing affordable housing opportunities in the district and nearby would further help to offset any potential demand effects of the project.

- **Downtown Oakland, North of I-880** - Housing demand effects of the project also would be limited in downtown Oakland to the north and northwest of the project site. Much of the downtown is somewhat distant from the project site, with the areas near Lake Merritt Channel and parts of Lake Merritt being the most likely to have connections to the project. If anything, the project could further enhance the desirability of new higher density housing development downtown which is already occurring in numerous downtown locations and being encouraged under the Mayor's 10K Housing Initiative.

Conclusion: Project housing market effects would not lead to significant indirect physical impacts. (Less than Significant)

As described above, the project would have effects on both the supply of and demand for housing. The large amount of housing to be added in the project as well as the additional

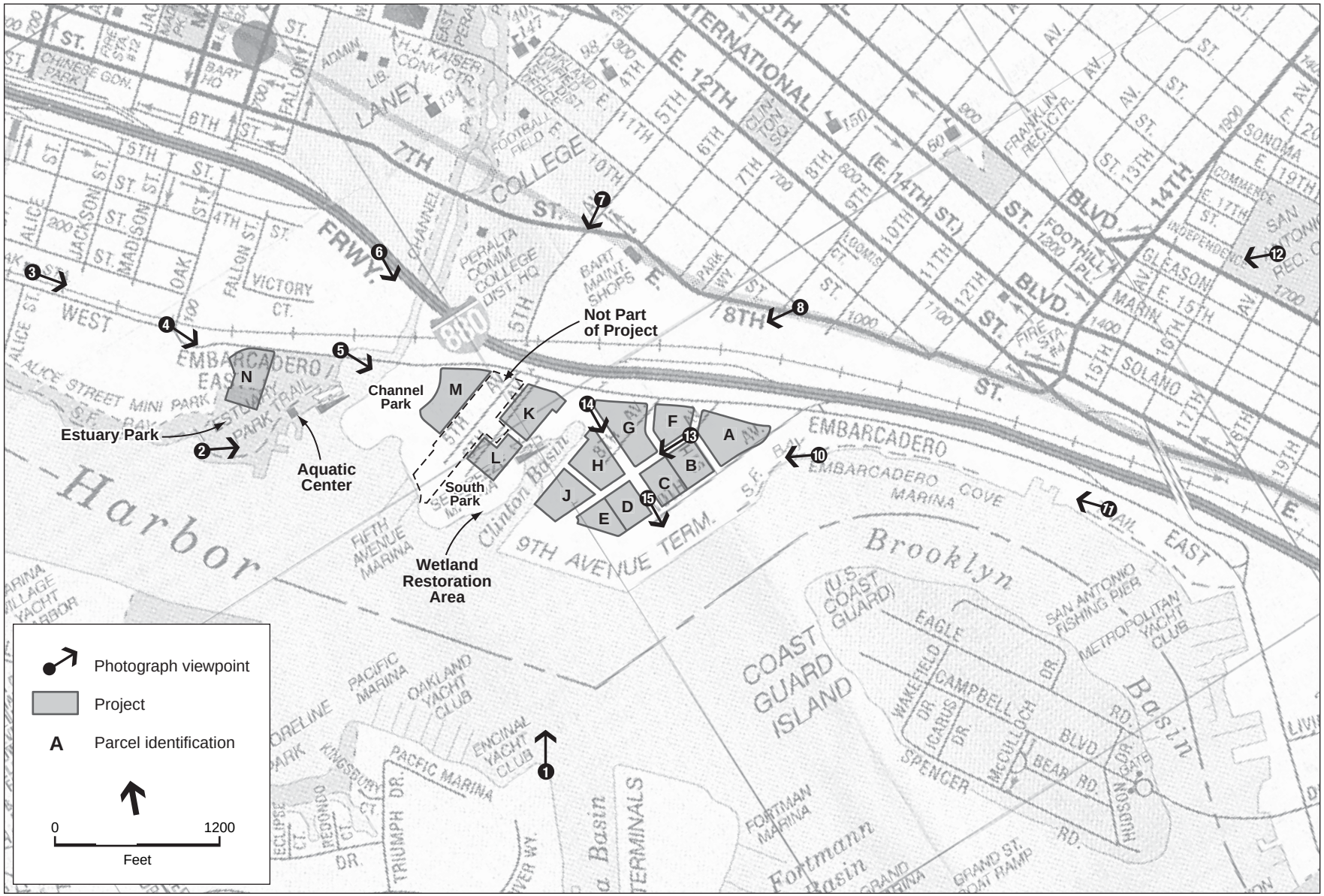
affordable housing to be developed, are anticipated to have the most influential effects on housing market conditions overall and would contribute to easing upward pressures on housing prices and rents in Oakland.

In specific nearby areas, the project would have effects on housing demand that would not be evidenced in other areas or in the city overall. In some cases, the demand effects would enhance already existing market potentials and encourage additional new housing development sooner than it would otherwise occur. In some limited areas, the project would increase demand contributing upward pressures on prices and rents of existing housing. These demand effects are not anticipated to be substantial enough or widespread enough to significantly reduce housing options for individuals and households leading to displacement and homelessness and the need to construct replacement housing and/or new homeless shelters. Similarly, these demand effects are not anticipated to lead to increased physical deterioration of housing or neighborhoods. Further, the development of a large amount of additional affordable housing as a result of the project would provide options to help offset such effects.

physical deterioration and urban decay. The project is not expected to have such effects on existing neighborhood commercial districts and corridors in surrounding areas of Oakland, and specifically not on the Eastlake District.

APPENDIX B.1

Existing Condition Photographs and Project Simulations



SOURCES: Environmental Vision, Environmental Science Associates

Oak to Ninth Avenue . 202622

Figure IV.K-1
Viewpoint Location Map

Existing view from Alameda shoreline at Wind River office building looking north (VP1)

Visual simulation of proposed project

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-2
Simulation

Existing view from Estuary Park shoreline looking east (VP2)

Visual simulation of proposed project

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-3
Simulation

Existing view from Amtrak pedestrian bridge looking southeast (VP3)

Visual simulation of proposed project

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-4
Simulation

Existing view from Oak Street at Embarcadero looking southeast (VP4)

Visual simulation of proposed project

Oak to Ninth Avenue . 202622

SOURCE: Environmental Vision

Figure IV.K-5
Simulation

Existing view from Embarcadero at Lake Merritt Channel looking southeast (VP5)

Visual simulation of proposed project

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-6
Simulation

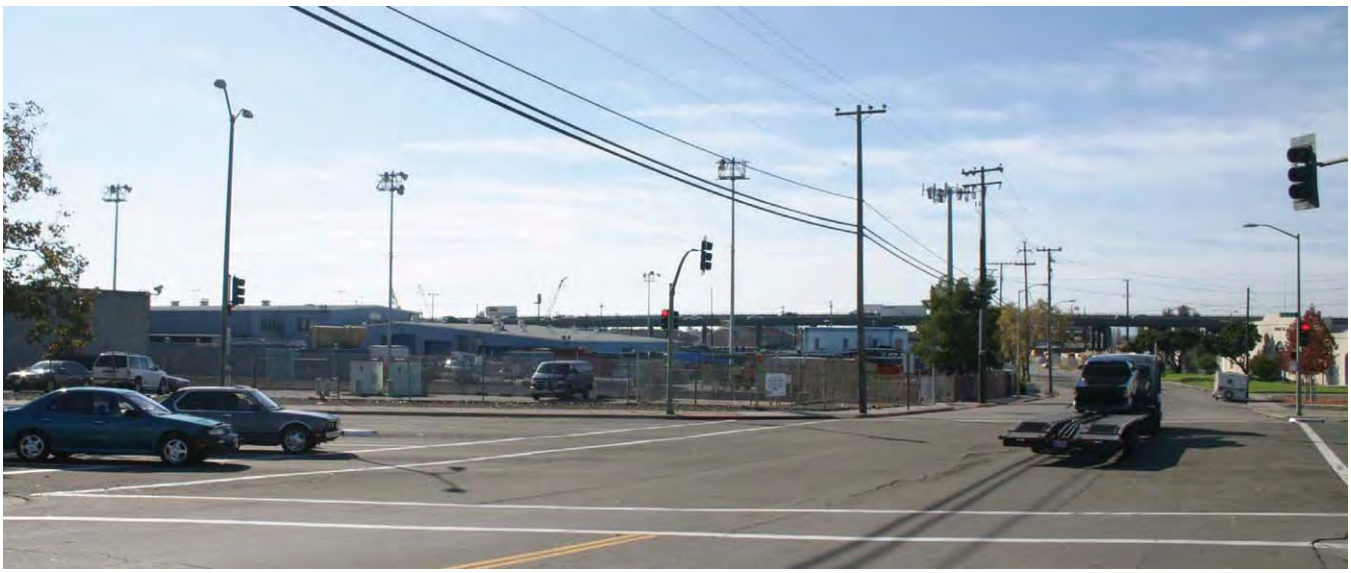
Existing view from Interstate 880 southbound near Oak Street on-ramp looking southeast (VP6)

Visual simulation of proposed project

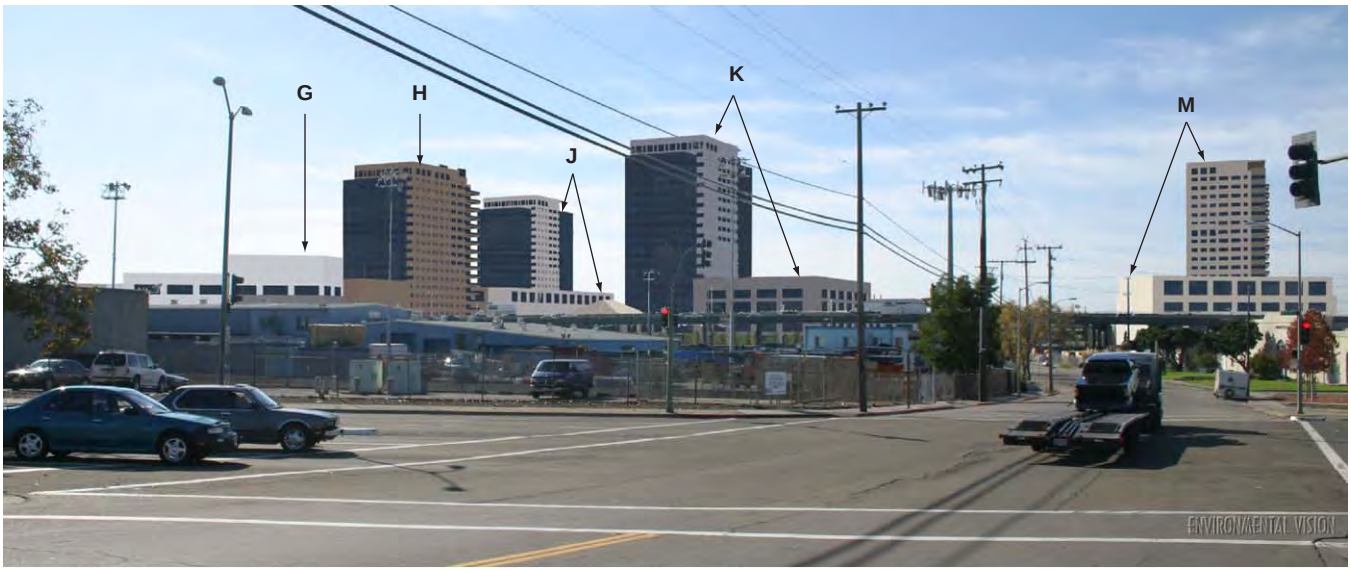
SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-7
Simulation



Existing view from 5th Avenue at 8th Street looking south (VP7)



Visual simulation of proposed project

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-8
Simulation

Existing view from East 8th Street at 10th Avenue looking southwest (VP8)

Visual simulation of proposed project and cumulative Jack London Square (JLS) development to the right

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-9
Simulation

Existing view from Interstate 880 northbound looking southwest (VP9)

Visual simulation of proposed project

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-10
Simulation

Existing view from Shoreline trail near Homewood Suites looking west (VP10)

Visual simulation of proposed project

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-11
Simulation

Existing view from Embarcadero near the Executive Inn looking southwest (VP11)

Visual simulation of proposed project

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-12
Simulation

Existing view from San Antonio Park looking southwest (VP12)

Visual simulation of proposed project

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-13
Simulation

Existing internal view looking southwest (VP13)

Visual simulation of proposed project along 8th Avenue

Oak to Ninth Avenue . 202622

SOURCE: Environmental Vision

Figure IV.K-14
Simulation – Internal View

Existing internal view looking southeast (VP14)

Visual simulation of proposed project along Main Street (6th Avenue)

Oak to Ninth Avenue . 202622

SOURCE: Environmental Vision

Figure IV.K-15
Simulation – Internal View

Existing internal view looking southeast (VP15)

Visual simulation of proposed Shoreline Park from Main Street (6th Avenue)

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-16
Simulation – Internal View

Existing view from Alameda shoreline at Wind River office building looking north (VP1)

Visual simulation of project variant and approved development at Jack London Square

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-17
Simulation–
Increased Height Variant

Existing view from Shoreline trail near Homewood Suites looking west (VP10)

Visual simulation of project variant

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-18
Simulation–
Increased Height Variant

Existing view from Embarcadero near the Executive Inn looking southwest (VP11)

Visual simulation of project variant

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-19
Simulation–
Increased Height Variant

Existing view from Amtrak pedestrian bridge looking southeast (VP3)

Visual simulation of proposed project

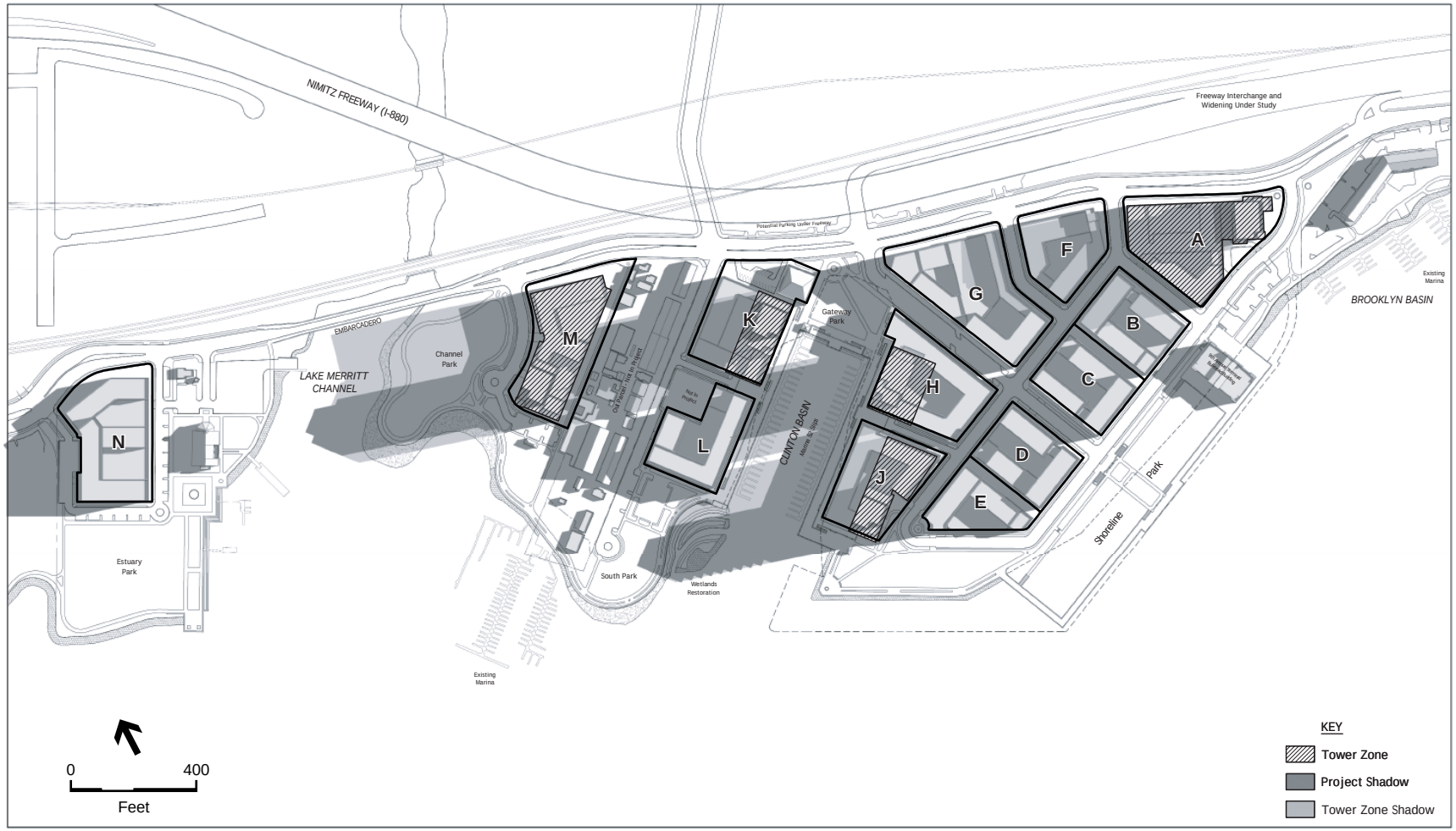
Oak to Ninth Avenue . 202622

SOURCE: Environmental Vision

Figure II-3
Project Parcel N Photo Simulation

APPENDIX B.2

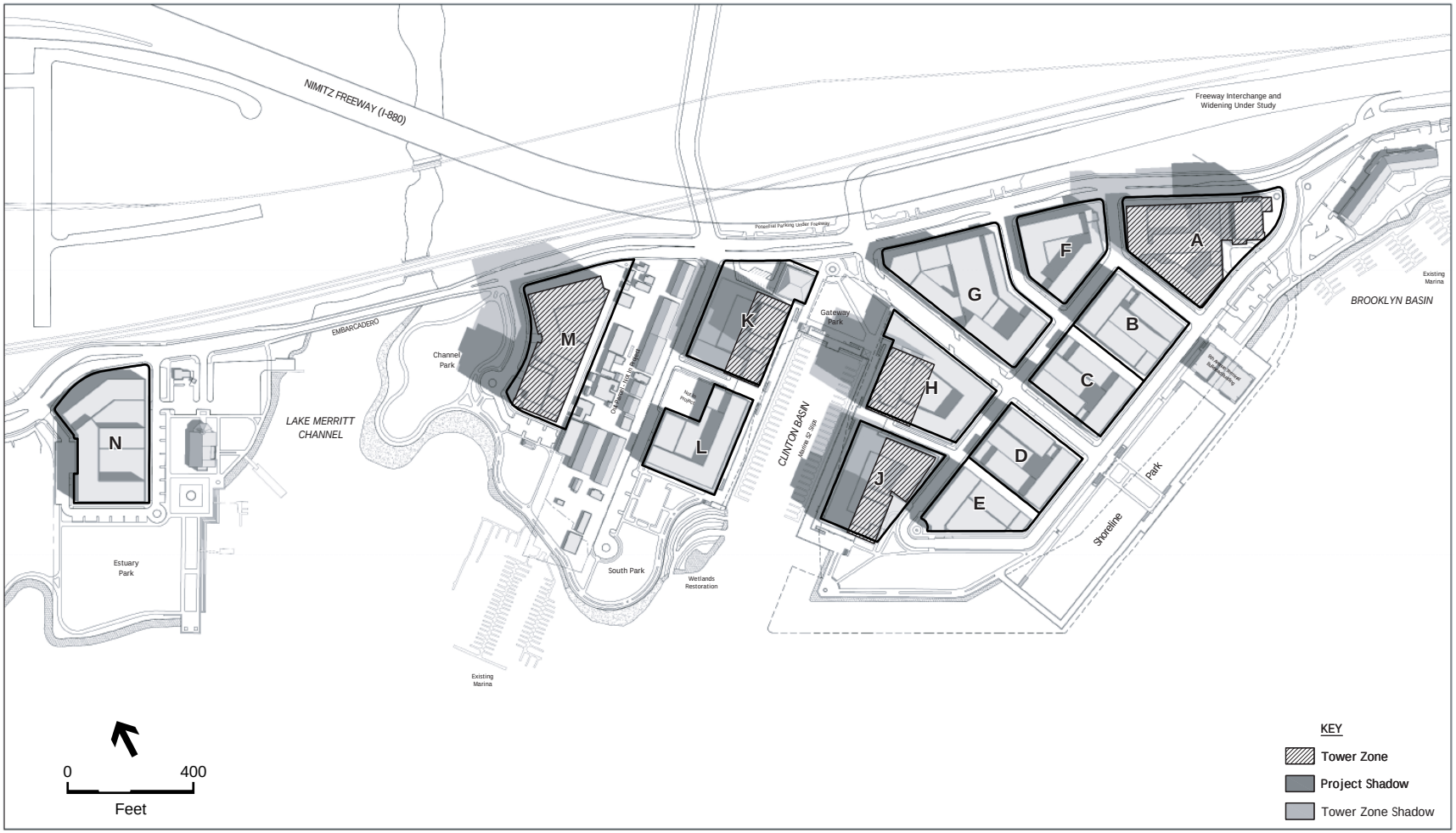
Existing Conditions and Project Shadow Studies



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

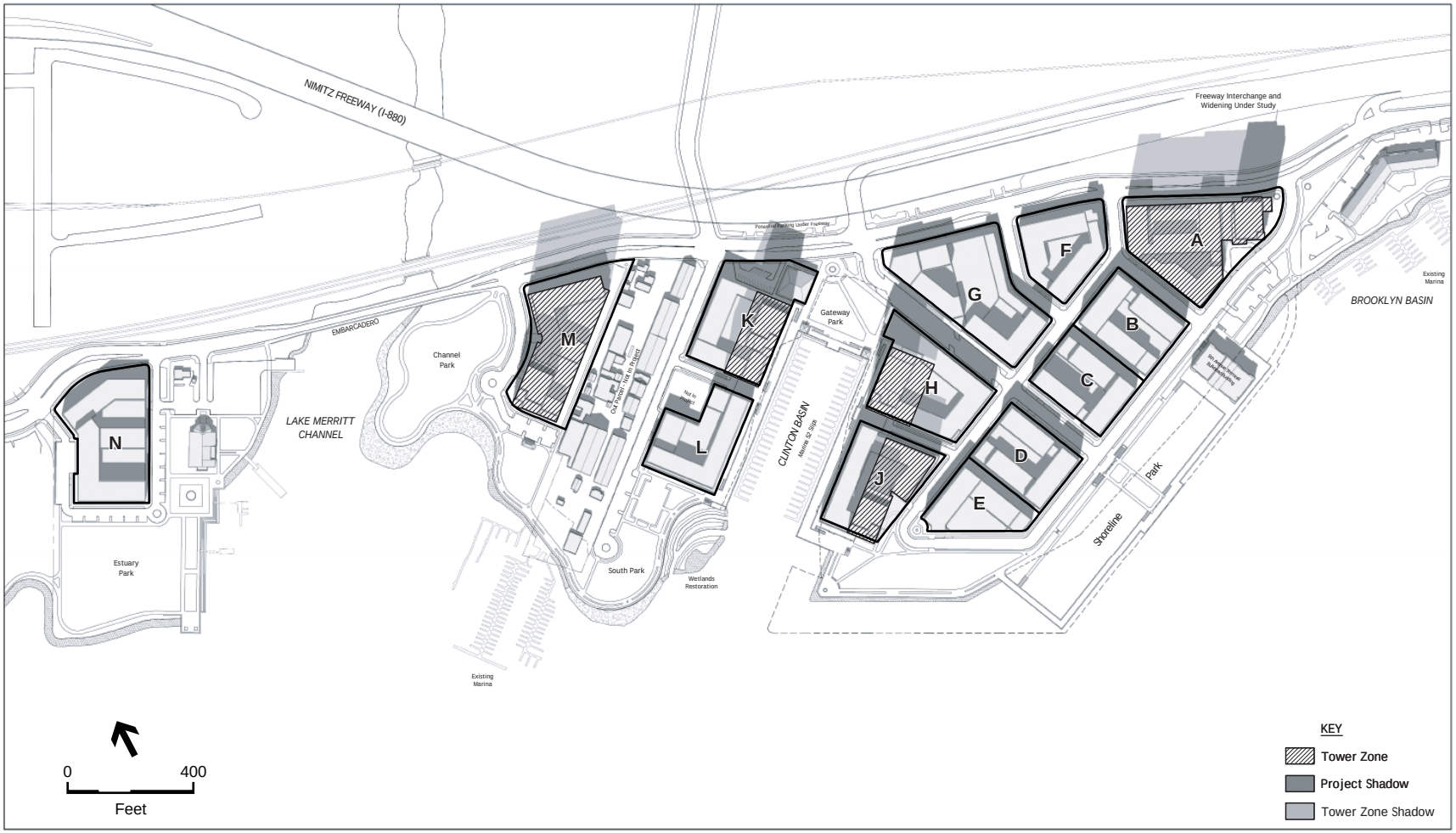
Figure IV.K-20
March Shadow Patterns: 9 am



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

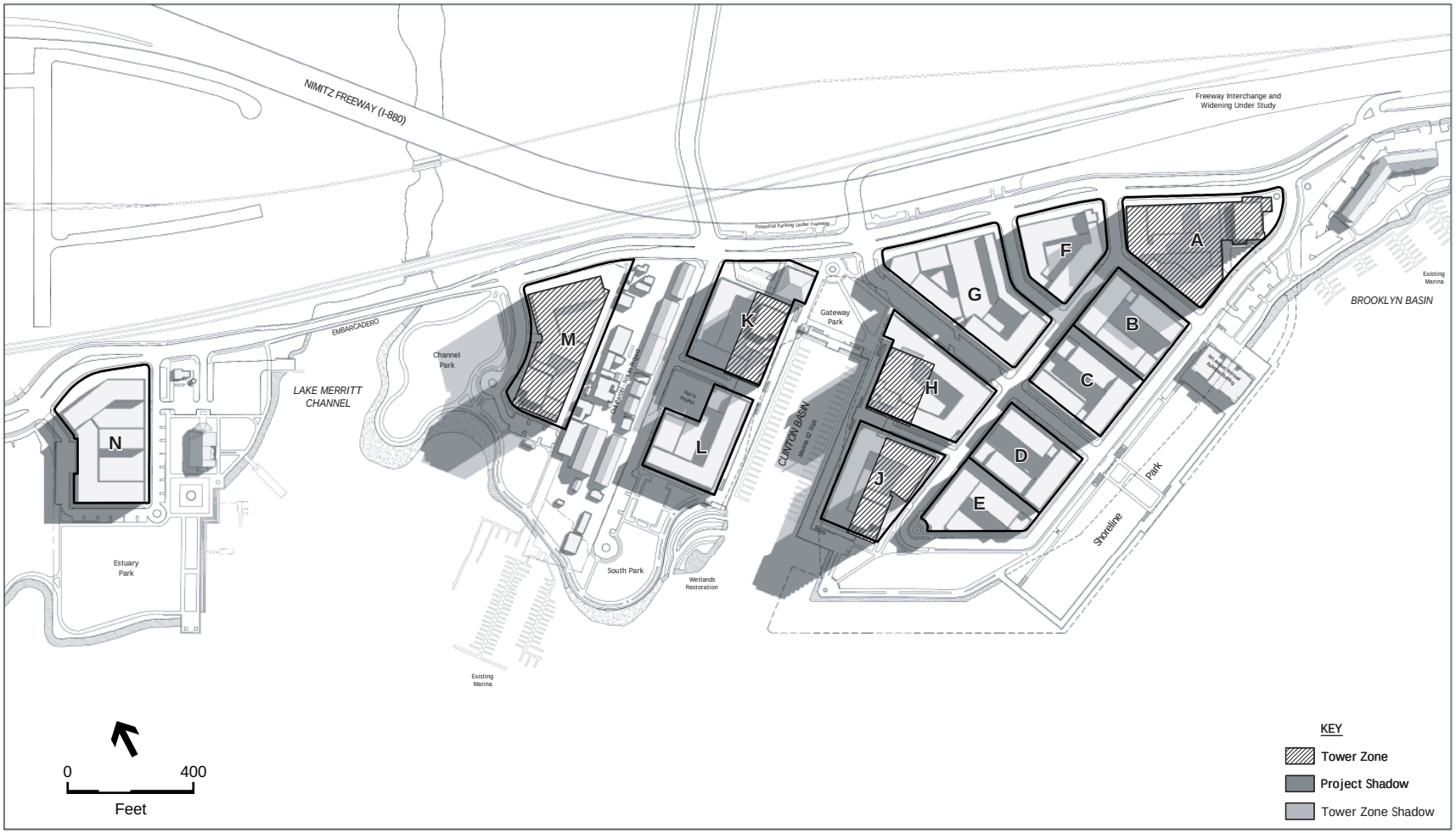
Figure IV.K-21
March Shadow Patterns: 12 noon



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

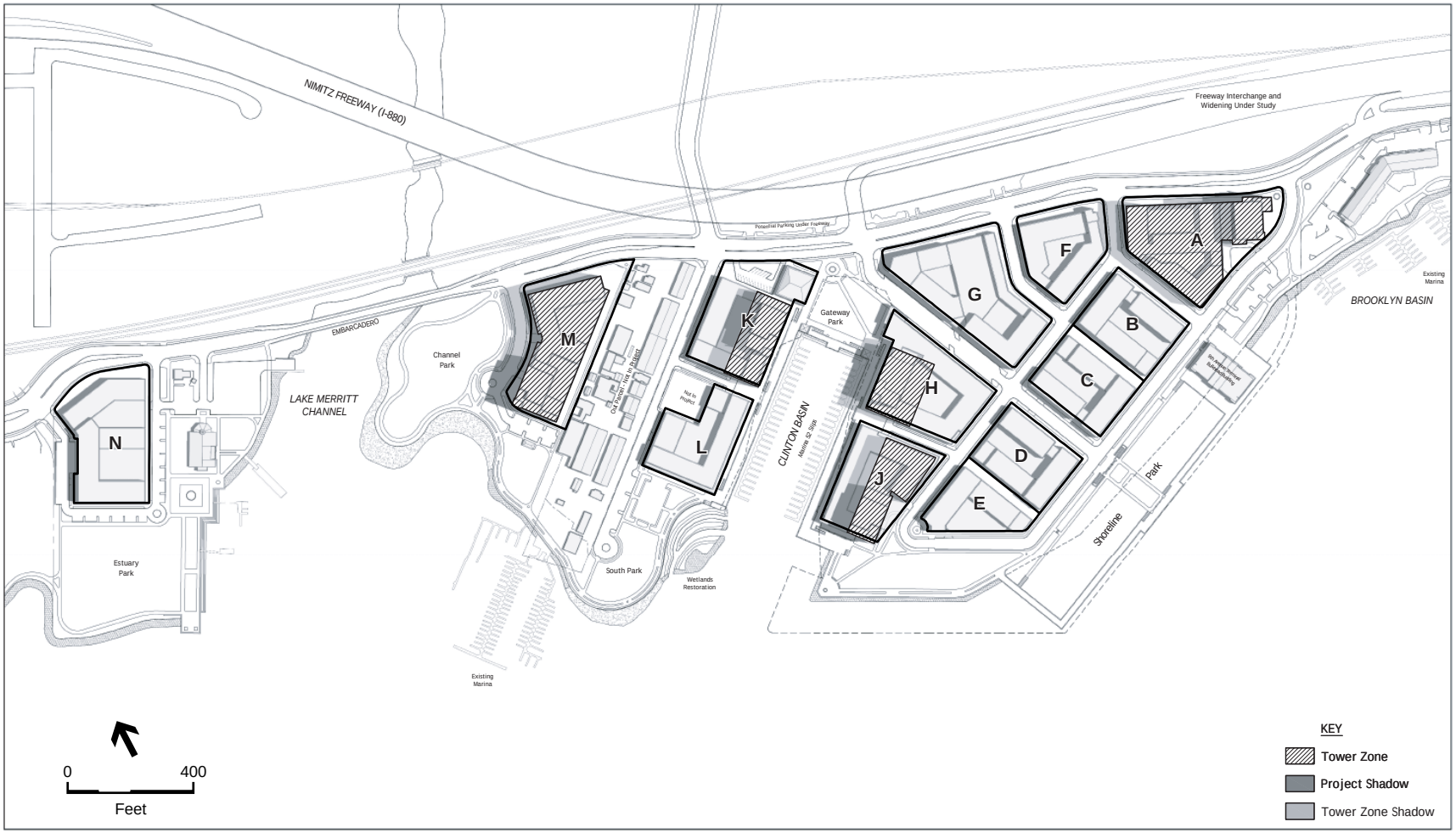
Figure IV.K-22
March Shadow Patterns: 3 pm



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-23
June Shadow Patterns: 9 am

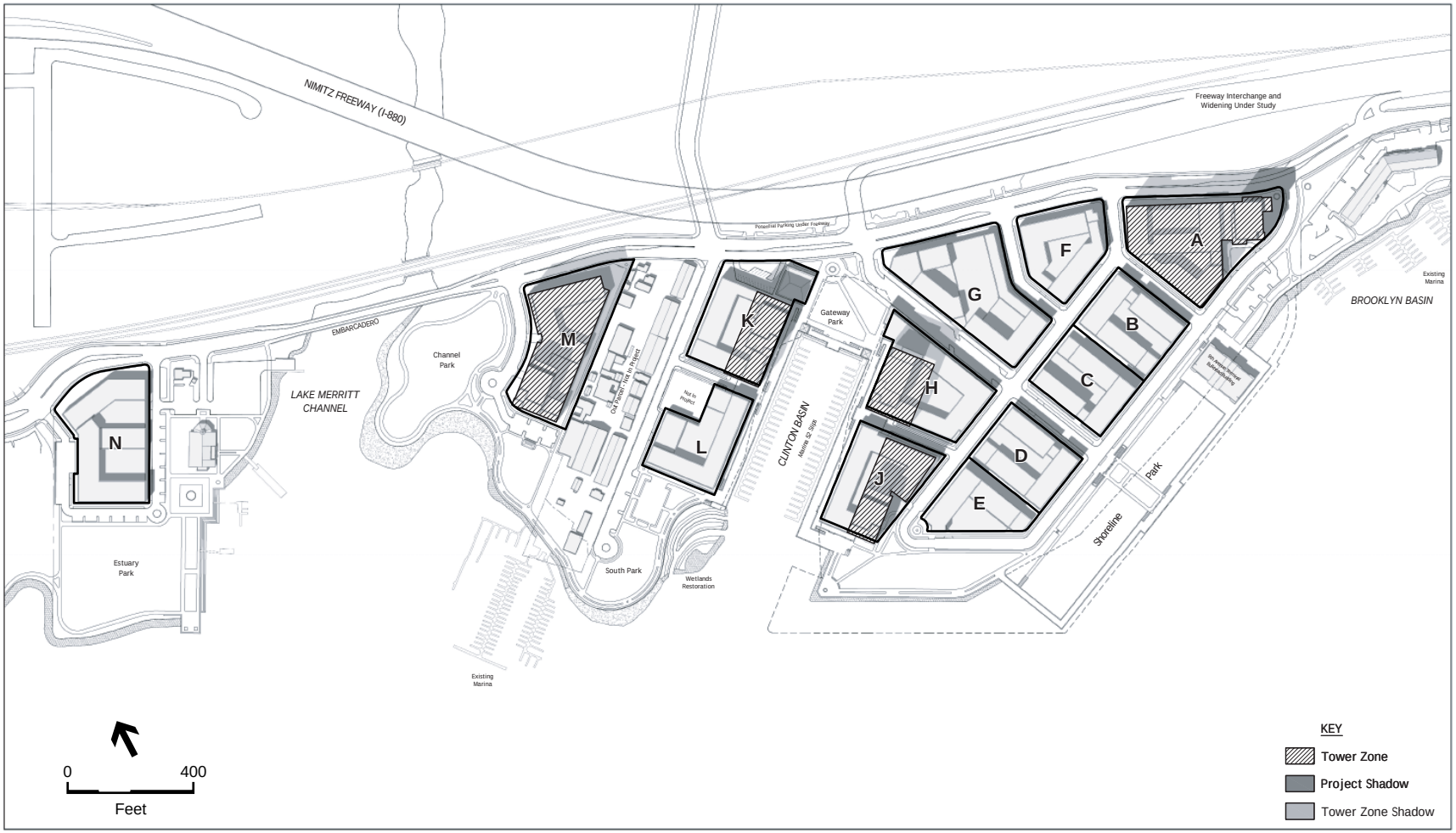


SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-24

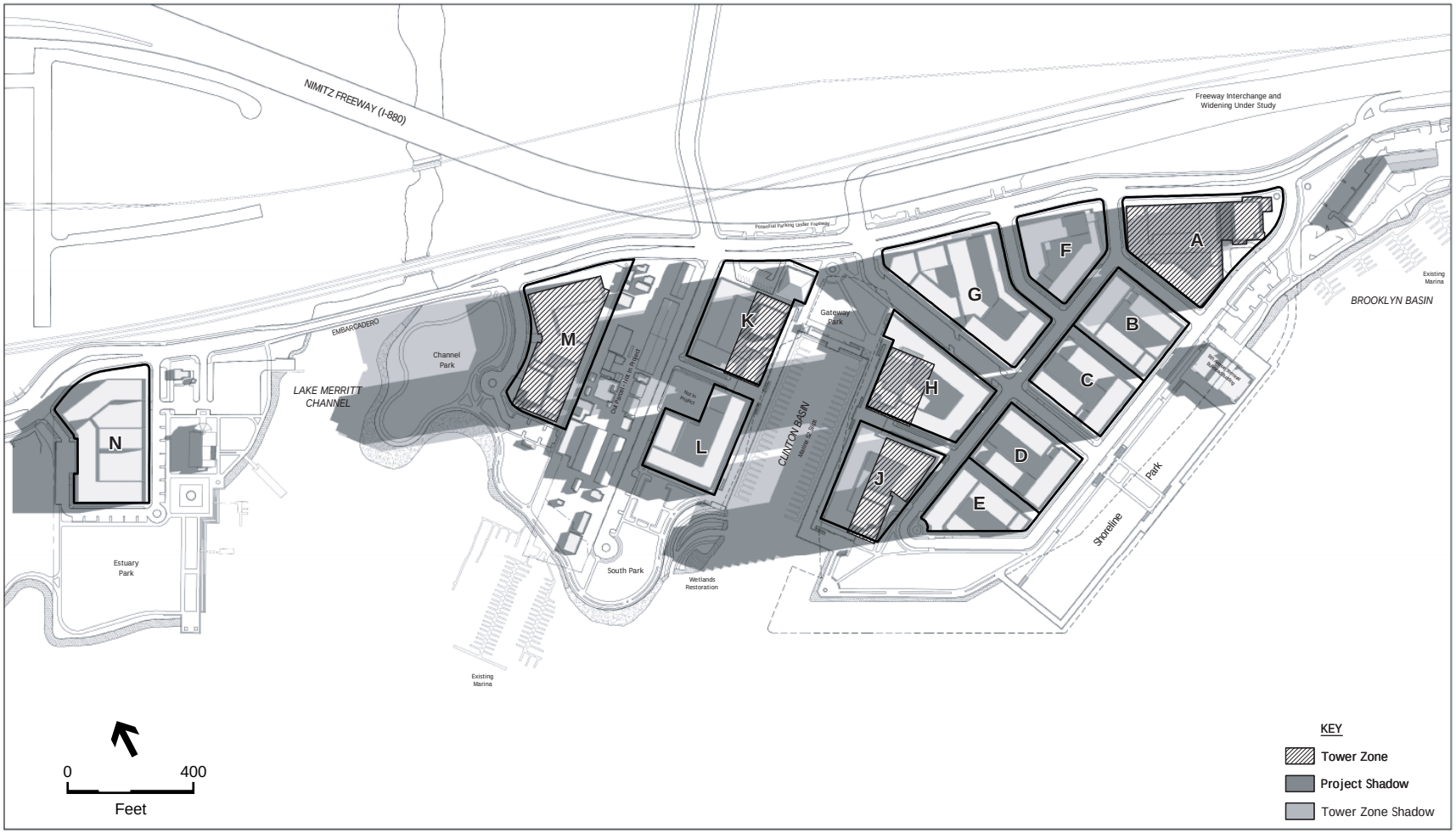
June Shadow Patterns: 12 noon



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

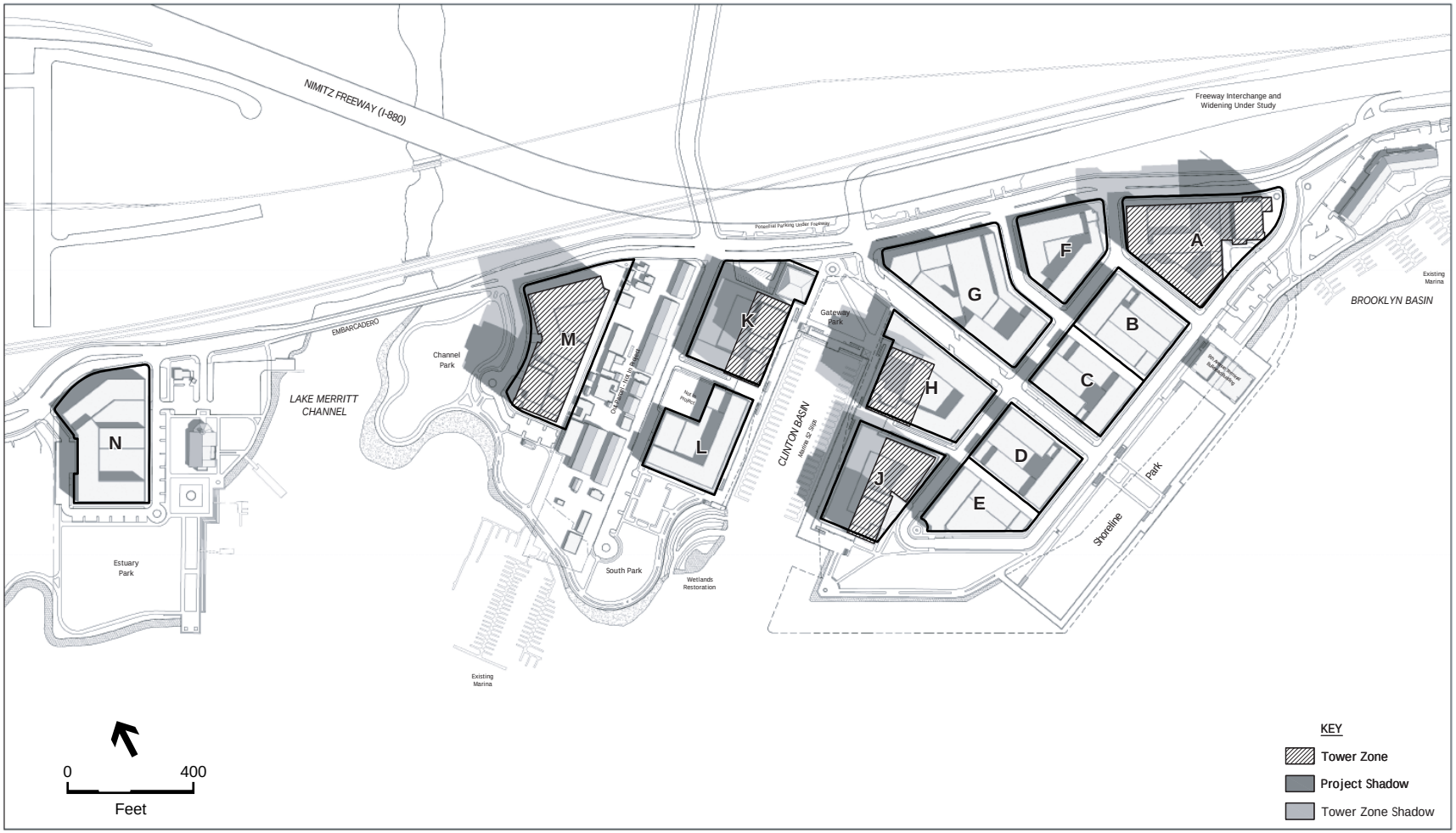
Figure IV.K-25
June Shadow Patterns: 3 pm



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

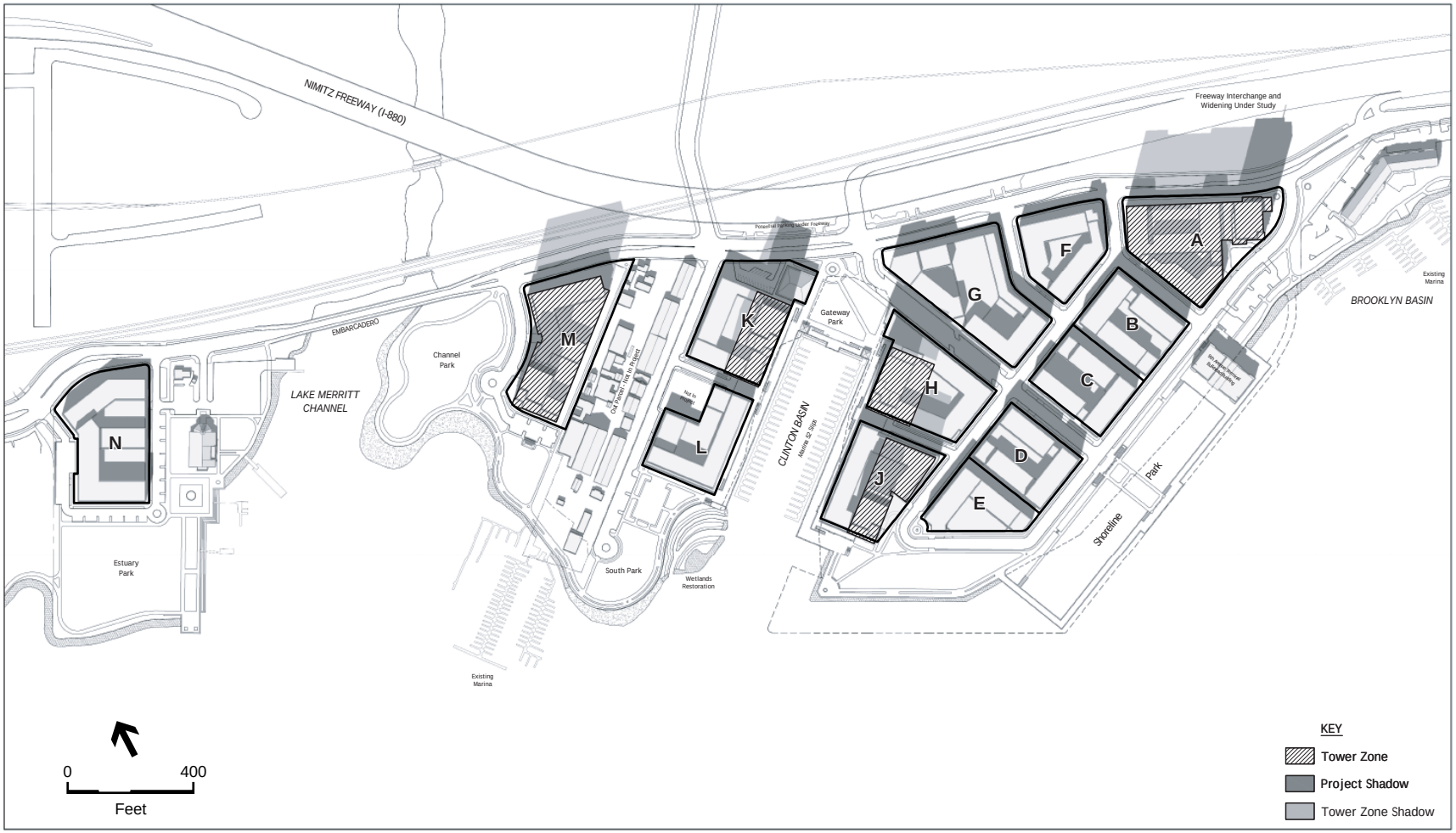
Figure IV.K-26
September Shadow Patterns: 9 am



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

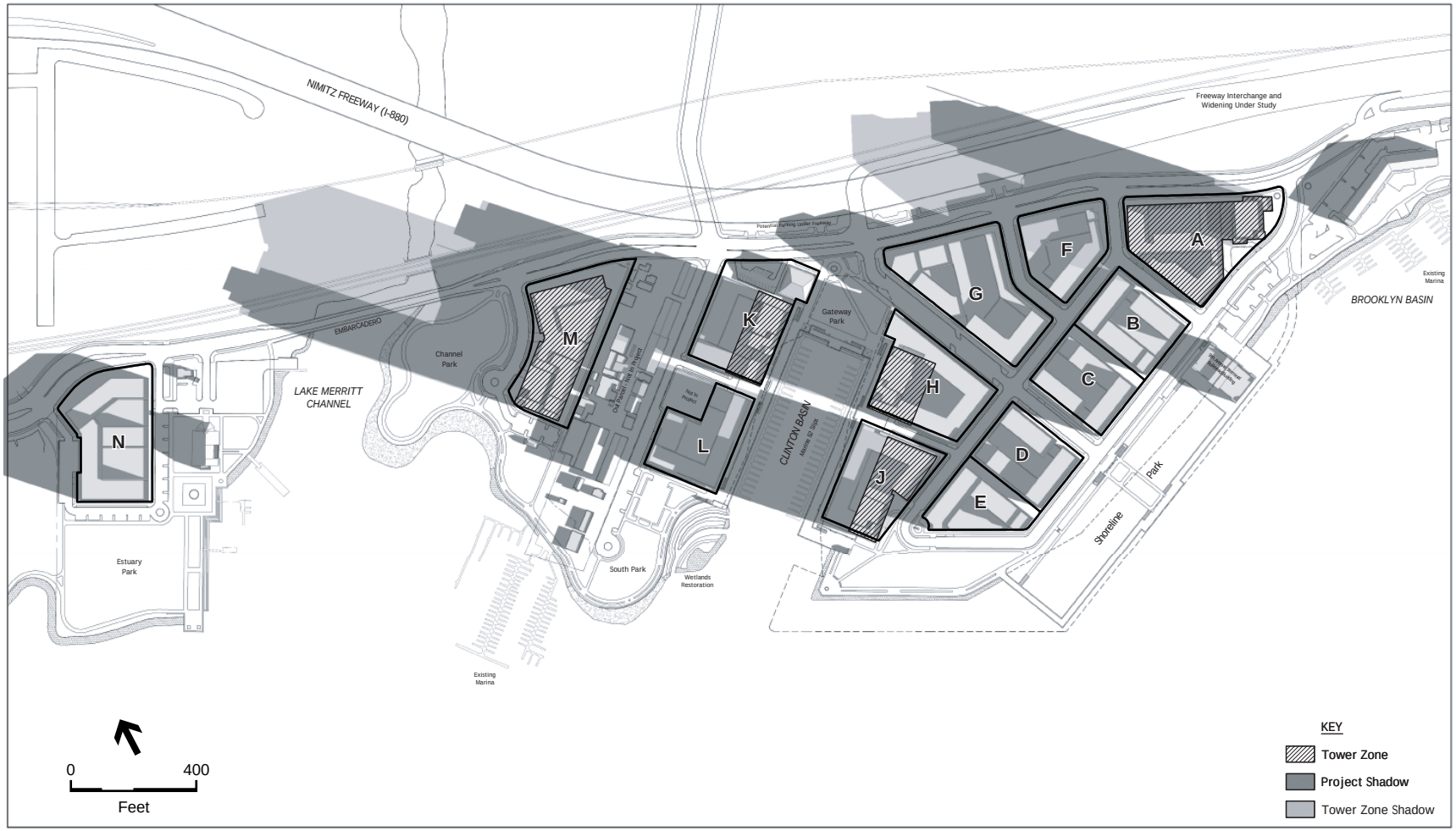
Figure IV.K-27
September Shadow Patterns: 12 noon



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

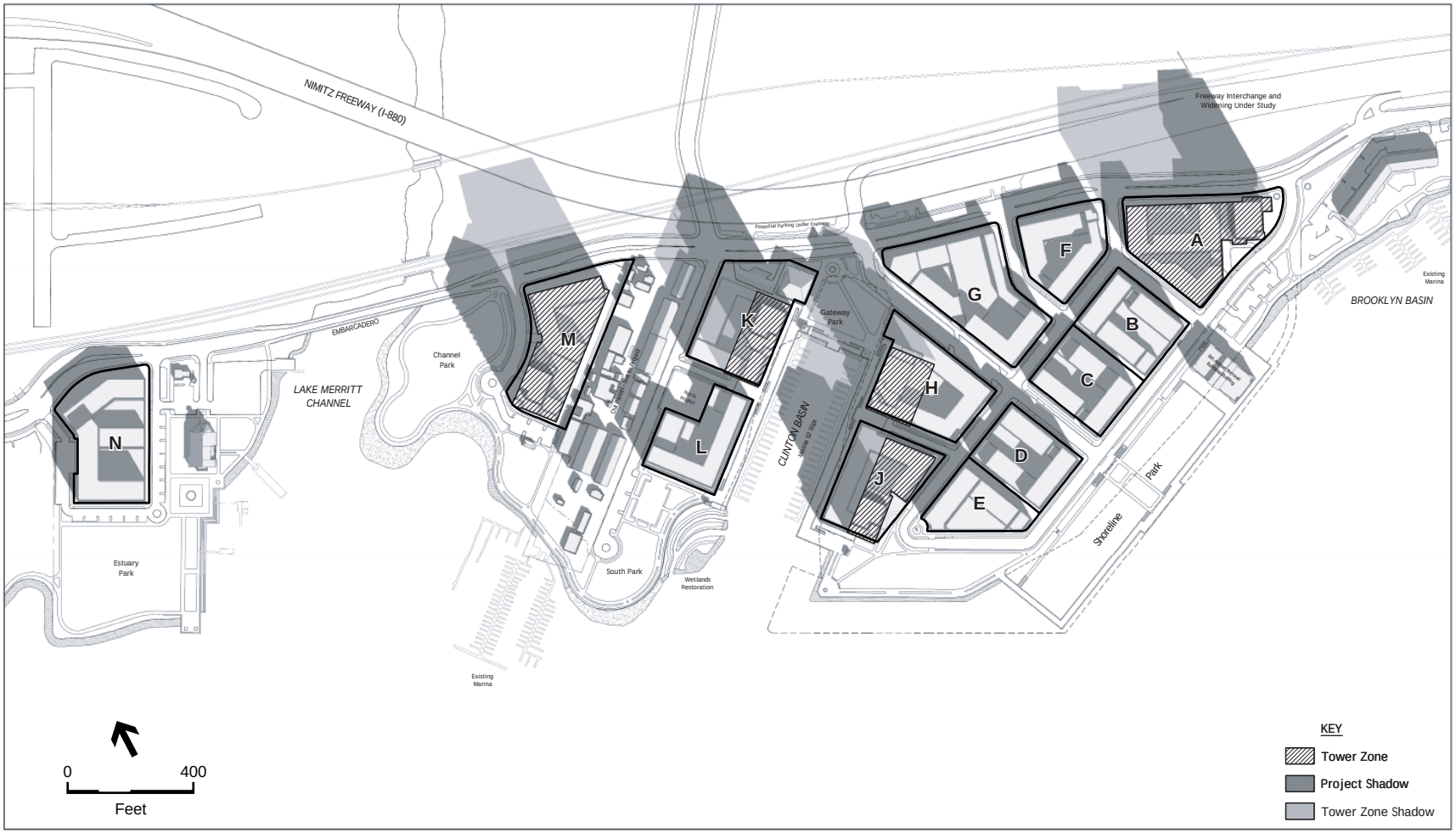
Figure IV.K-28
September Shadow Patterns: 3 pm



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

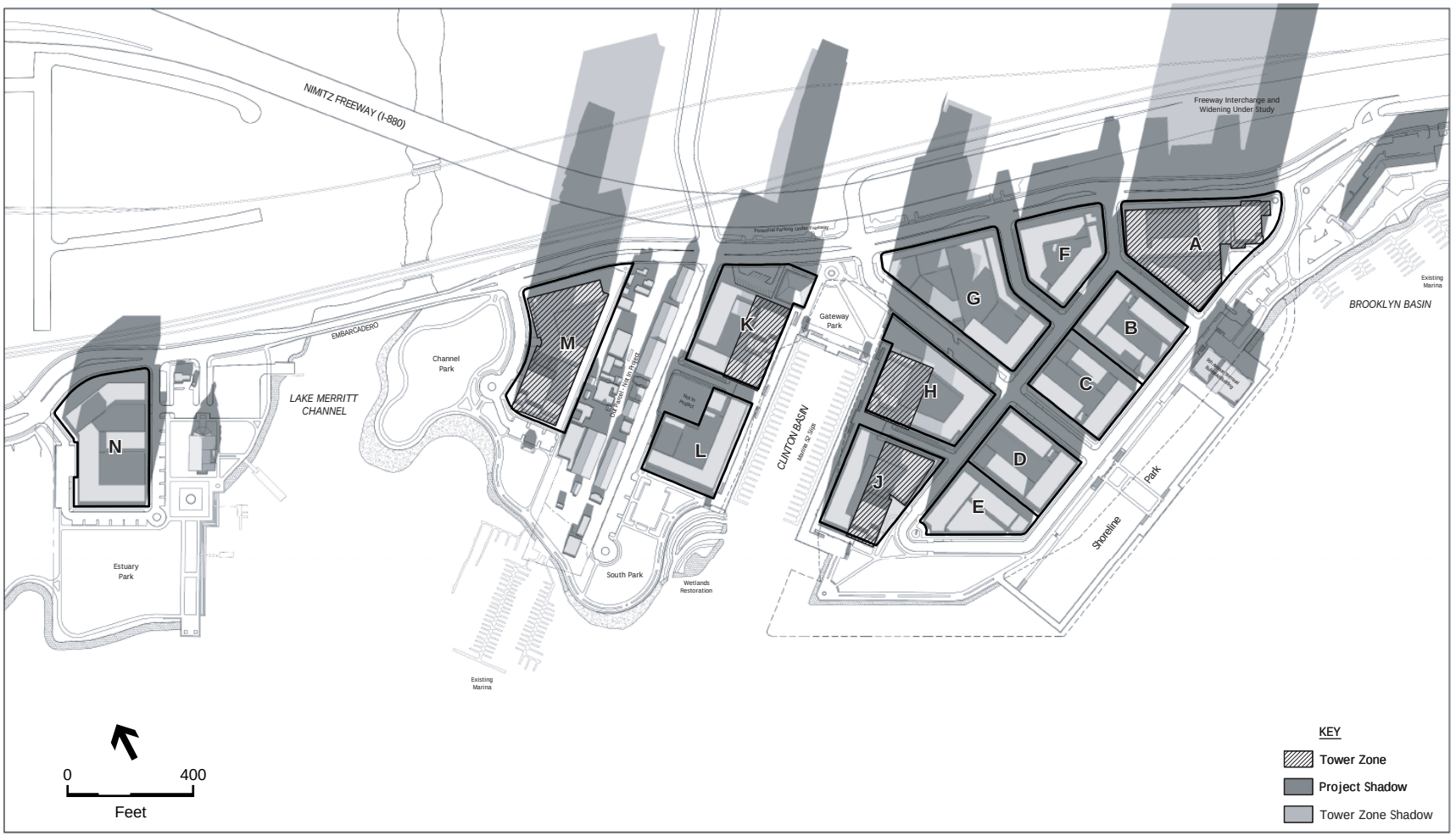
Figure IV.K-29
December Shadow Patterns: 9 am



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

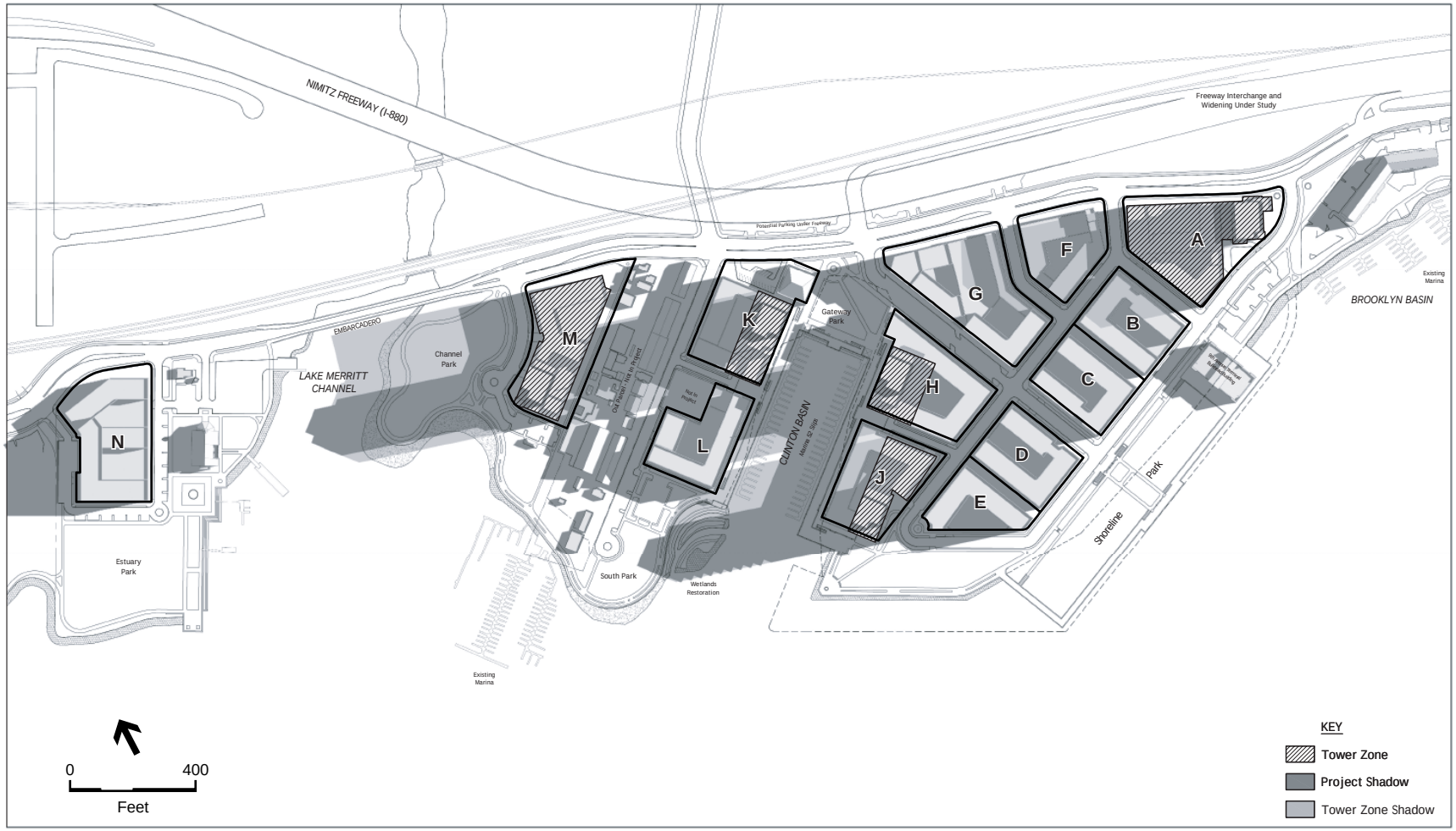
Figure IV.K-30
December Shadow Patterns: 12 noon



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

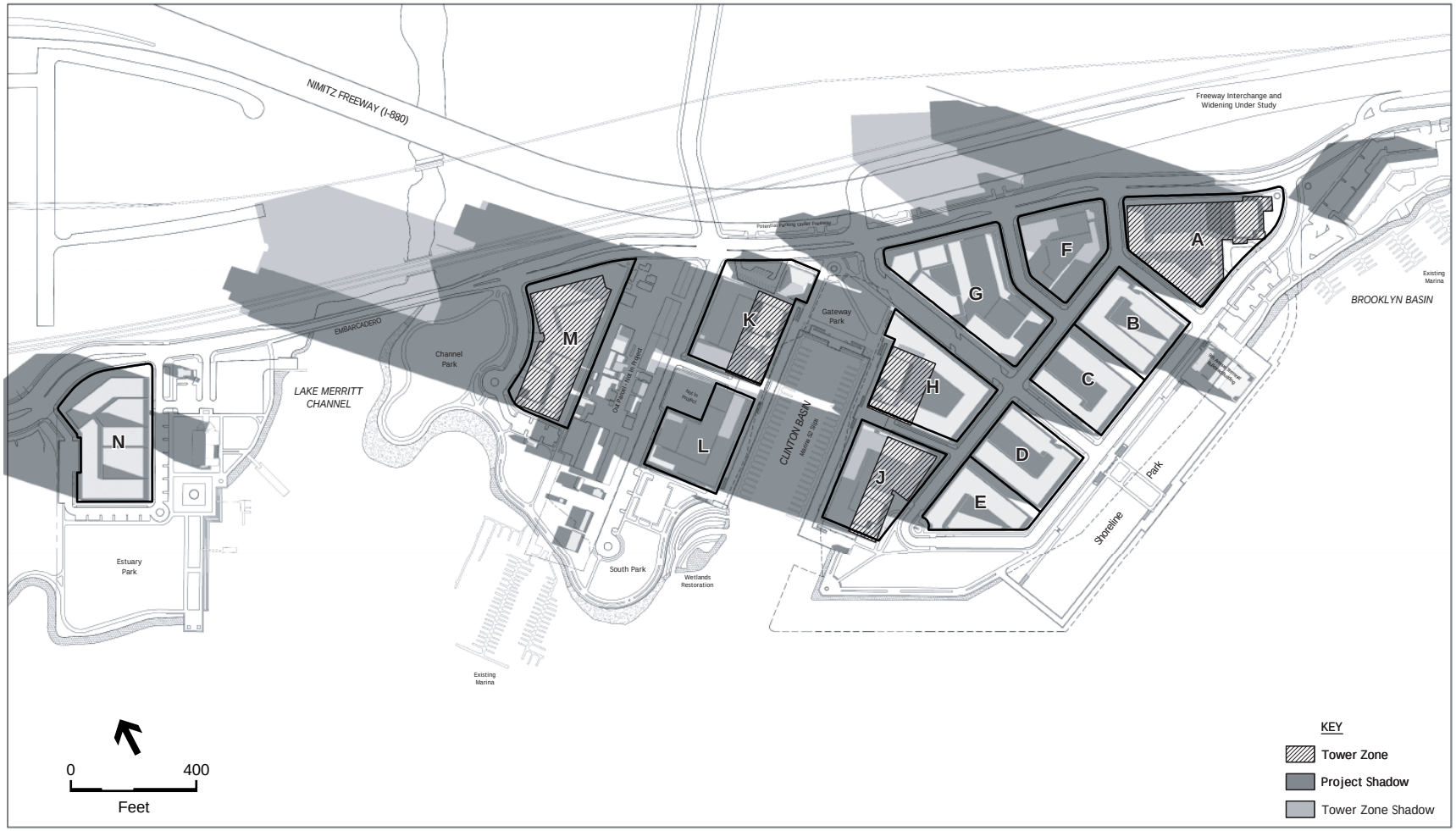
Figure IV.K-31
December Shadow Patterns: 3 pm



SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

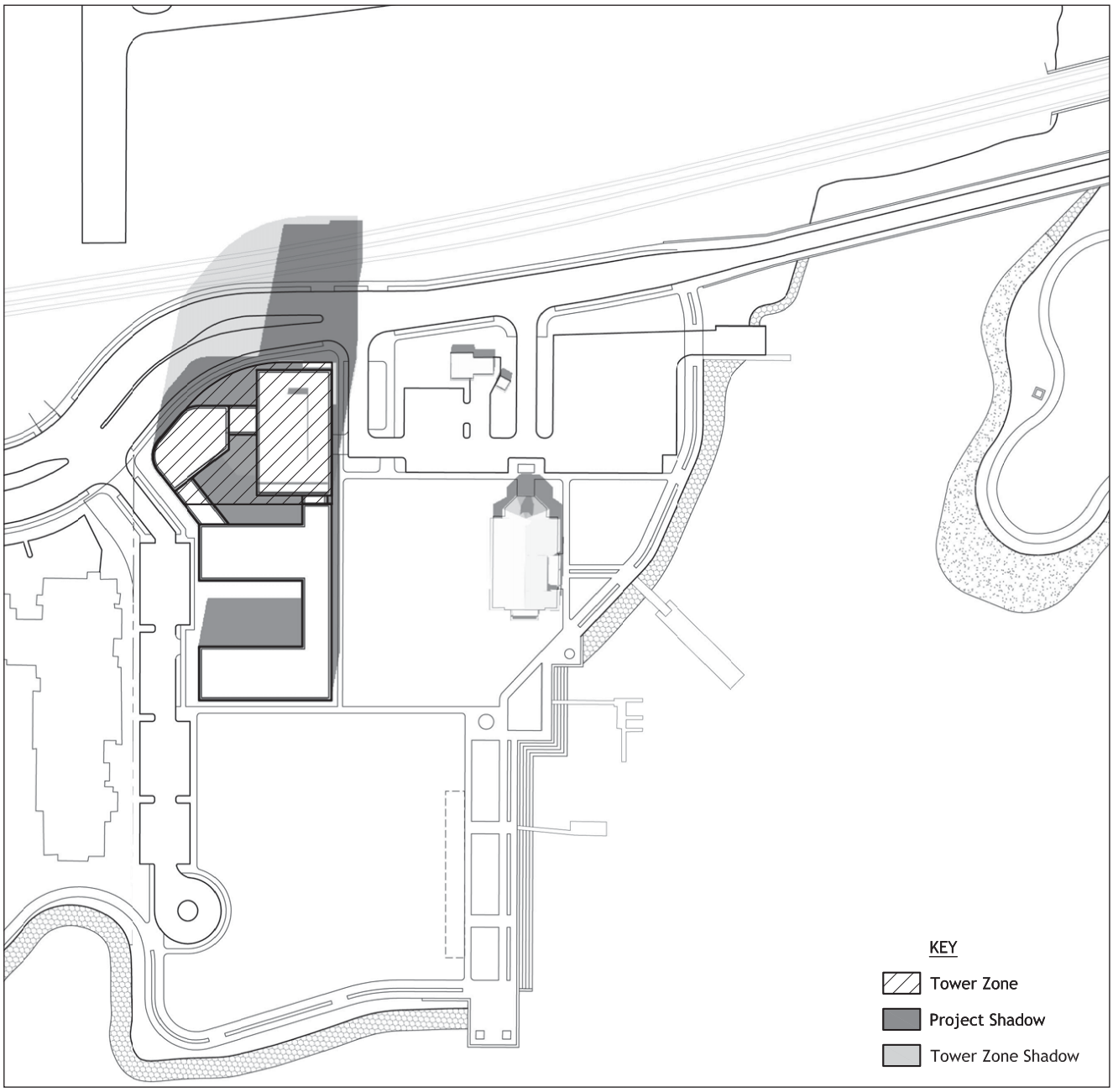
Figure IV.K-32
Increased Height Variant–
March Shadow Patterns: 9 am

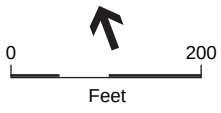


SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure IV.K-33
Increased Height Variant–
December Shadow Patterns: 9 am

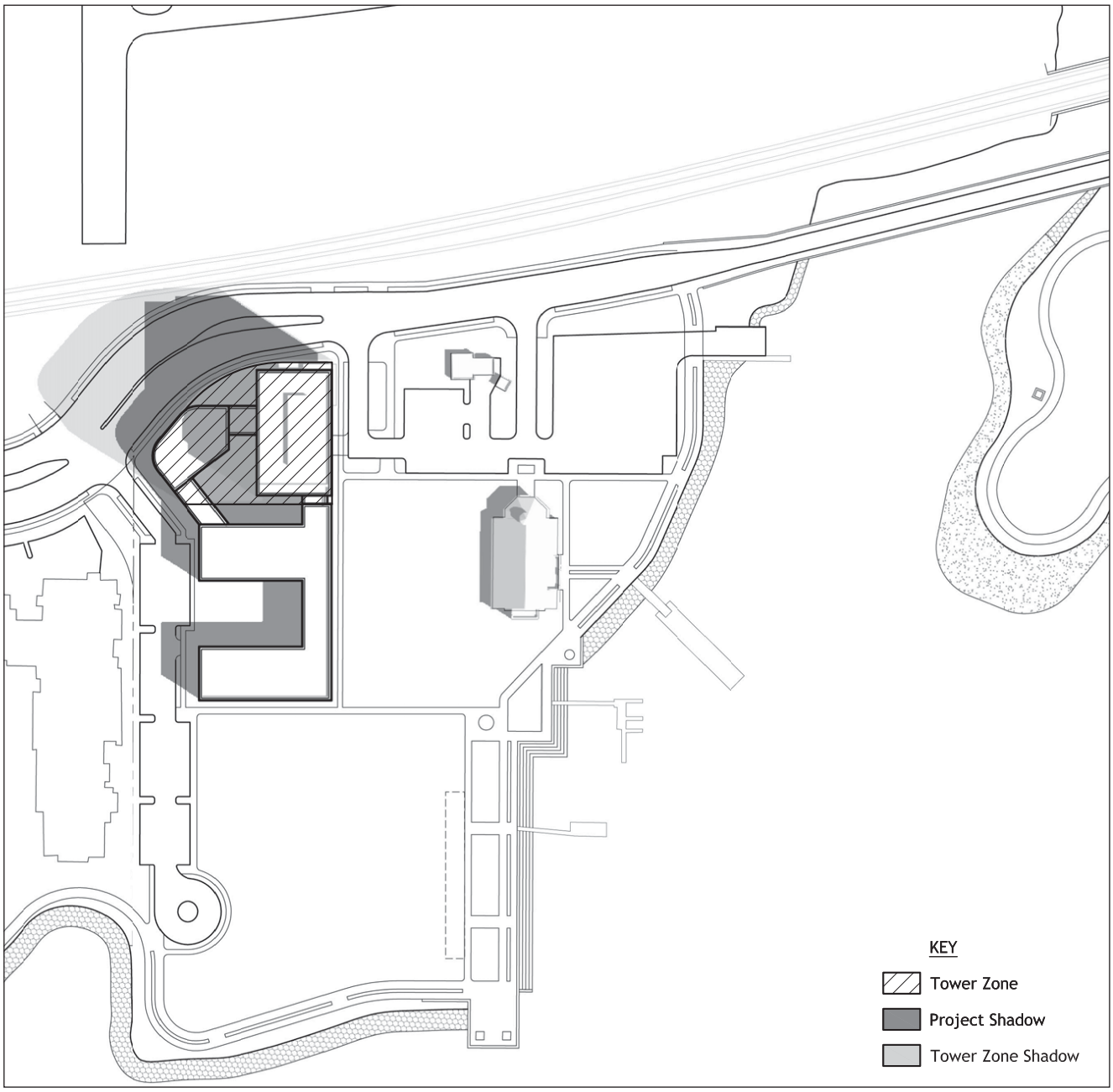


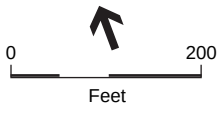


SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure II-5
Variant Parcel N-
March Shadow Patterns, 9 am

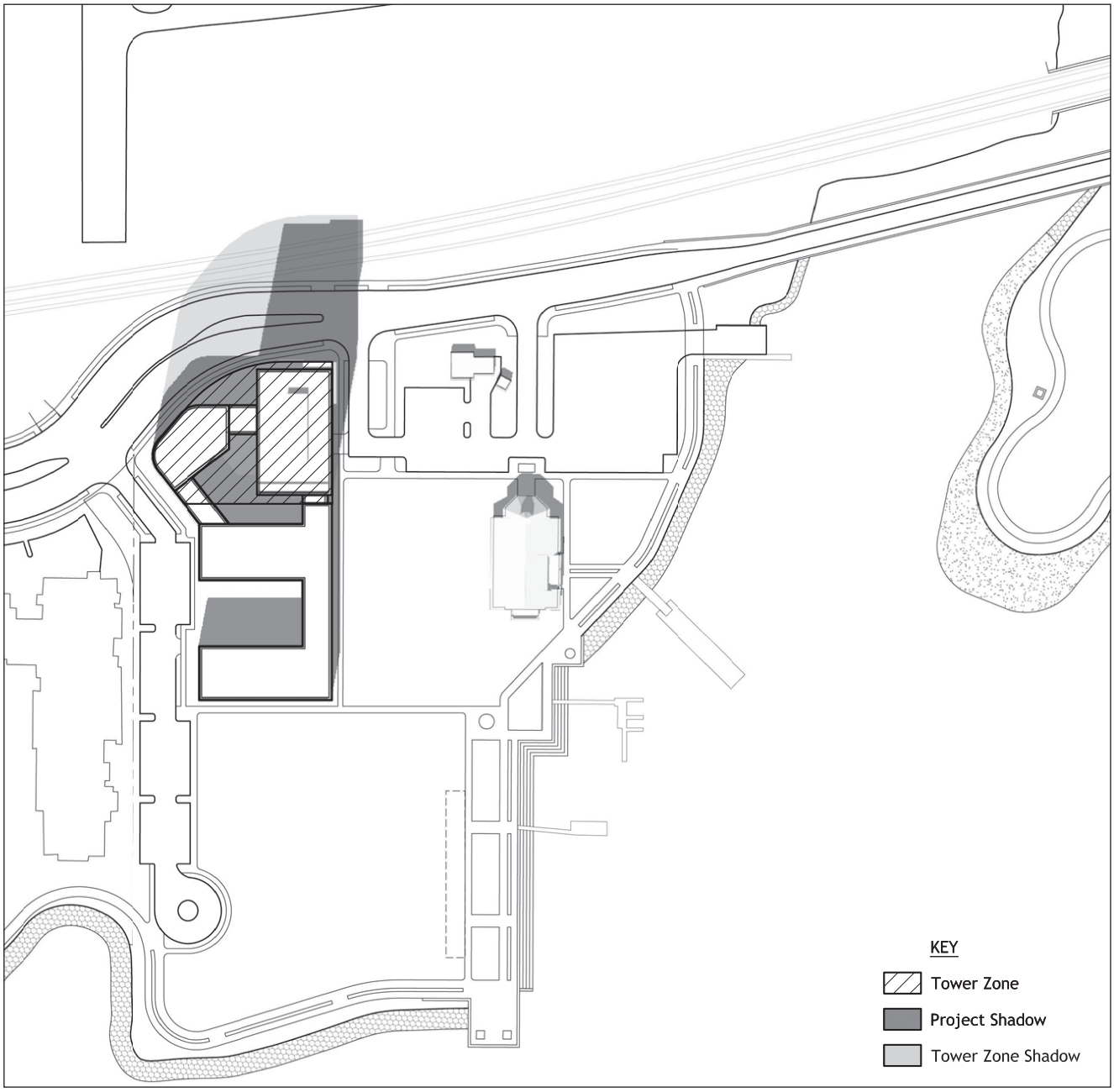




Oak to Ninth Avenue . 202622

SOURCE: Environmental Vision

Figure II-6
Variant Parcel N-
March Shadow Patterns, 12 noon

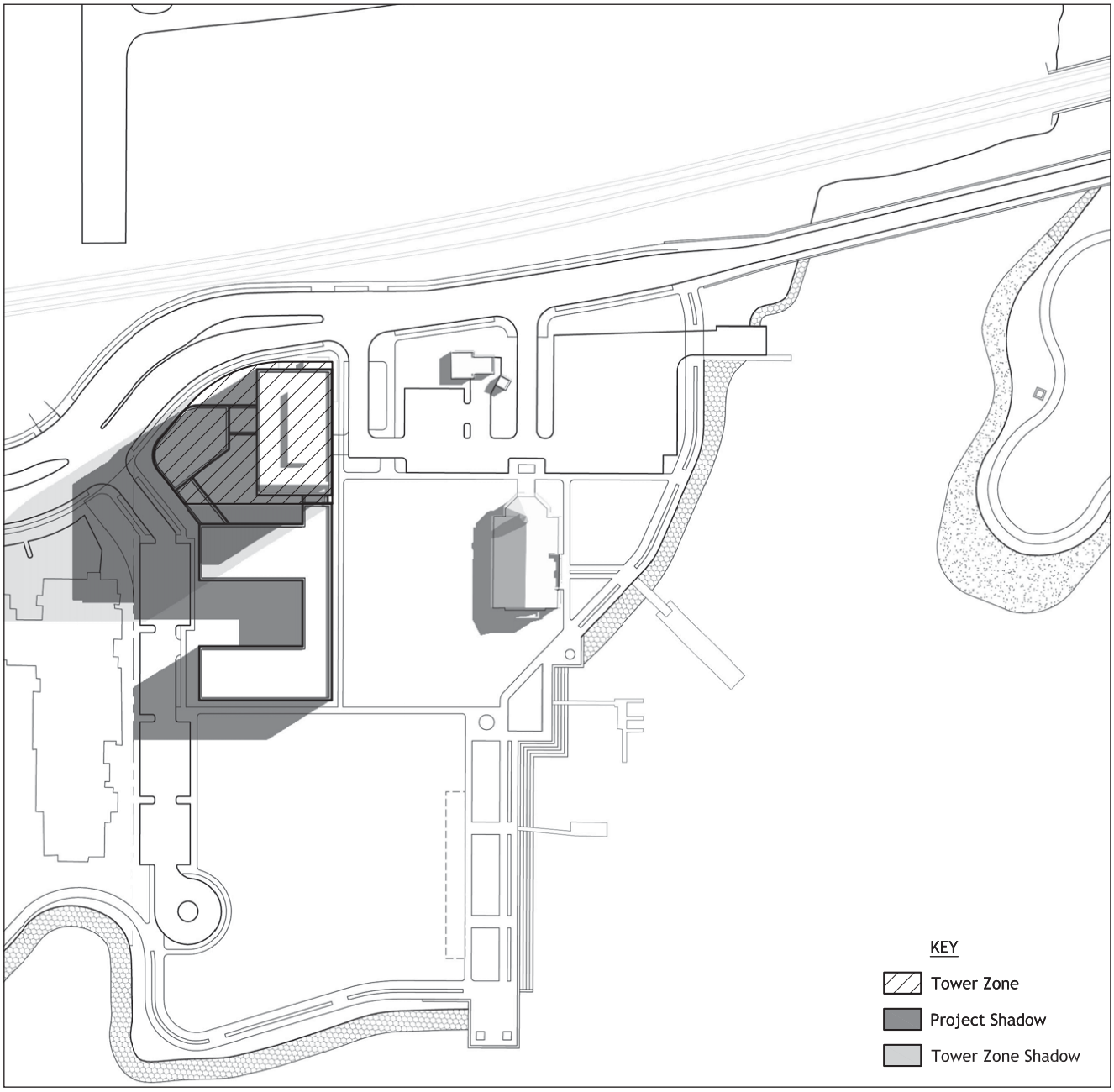


0 200
Feet

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure II-7
Variant Parcel N-
March Shadow Patterns, 3 pm



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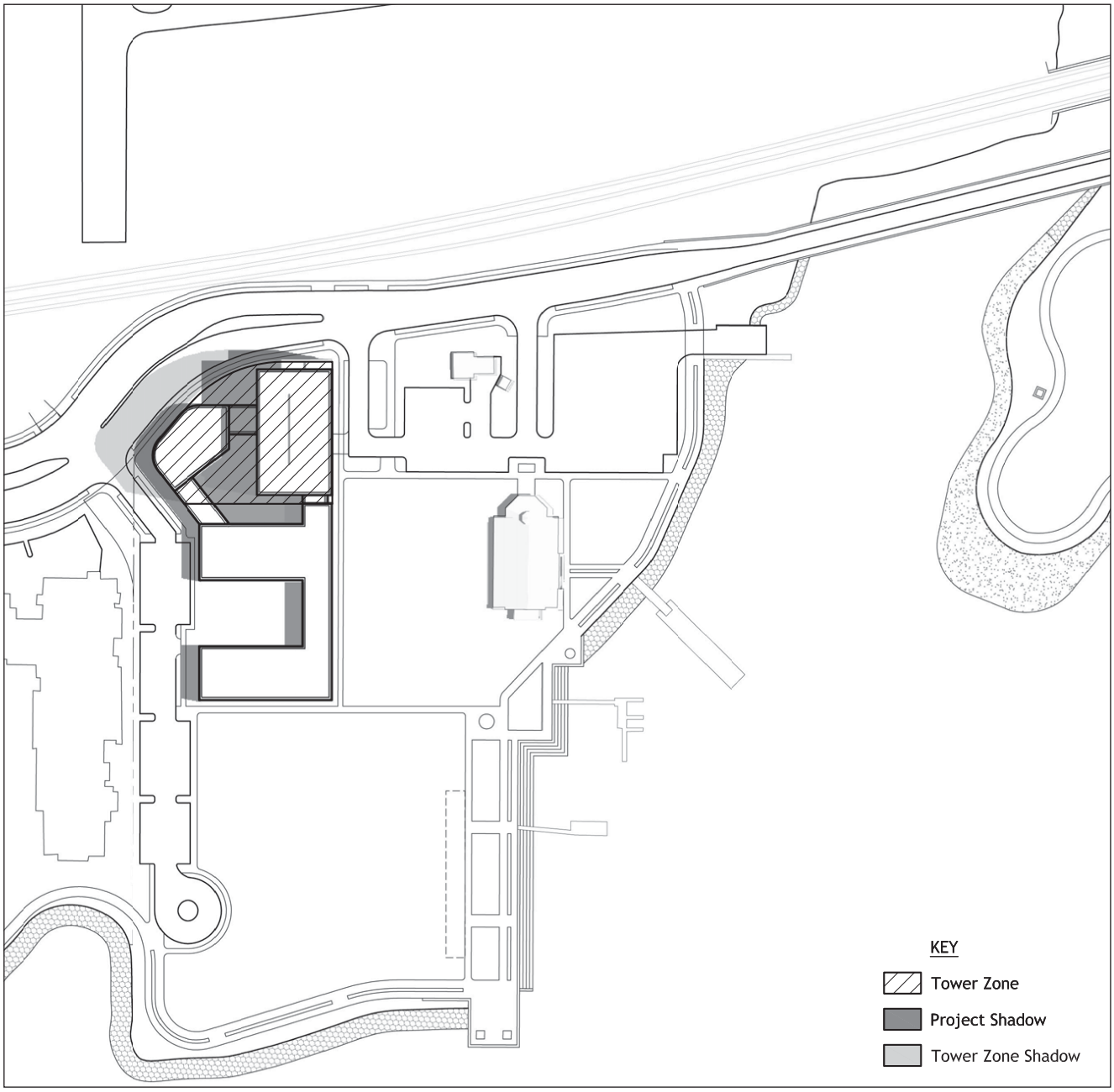
Feet

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure II-8
Variant Parcel N-
June Shadow Patterns, 9 am



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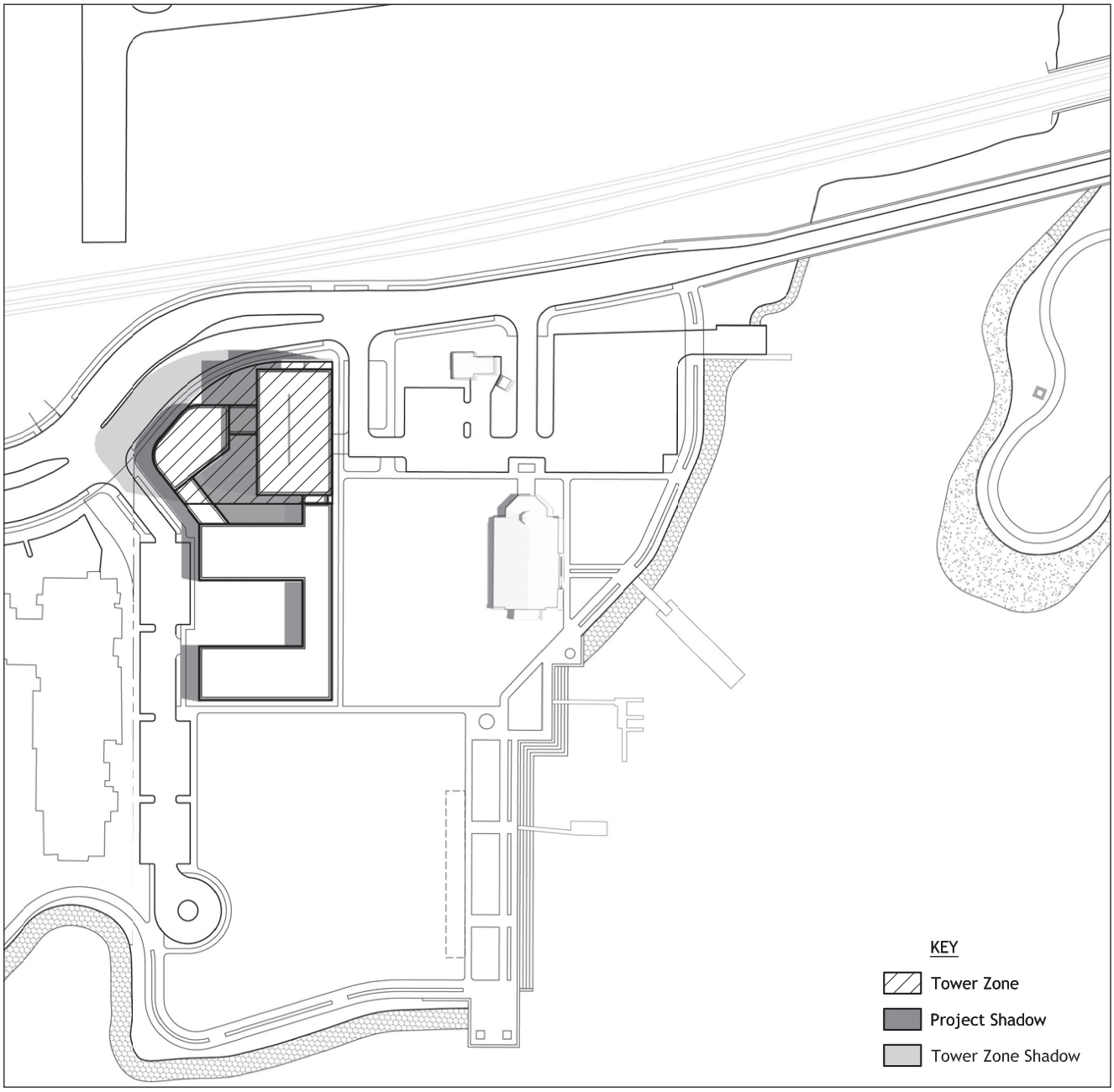
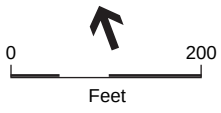
Feet

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure II-9
Variant Parcel N-
June Shadow Patterns, 12 Noon

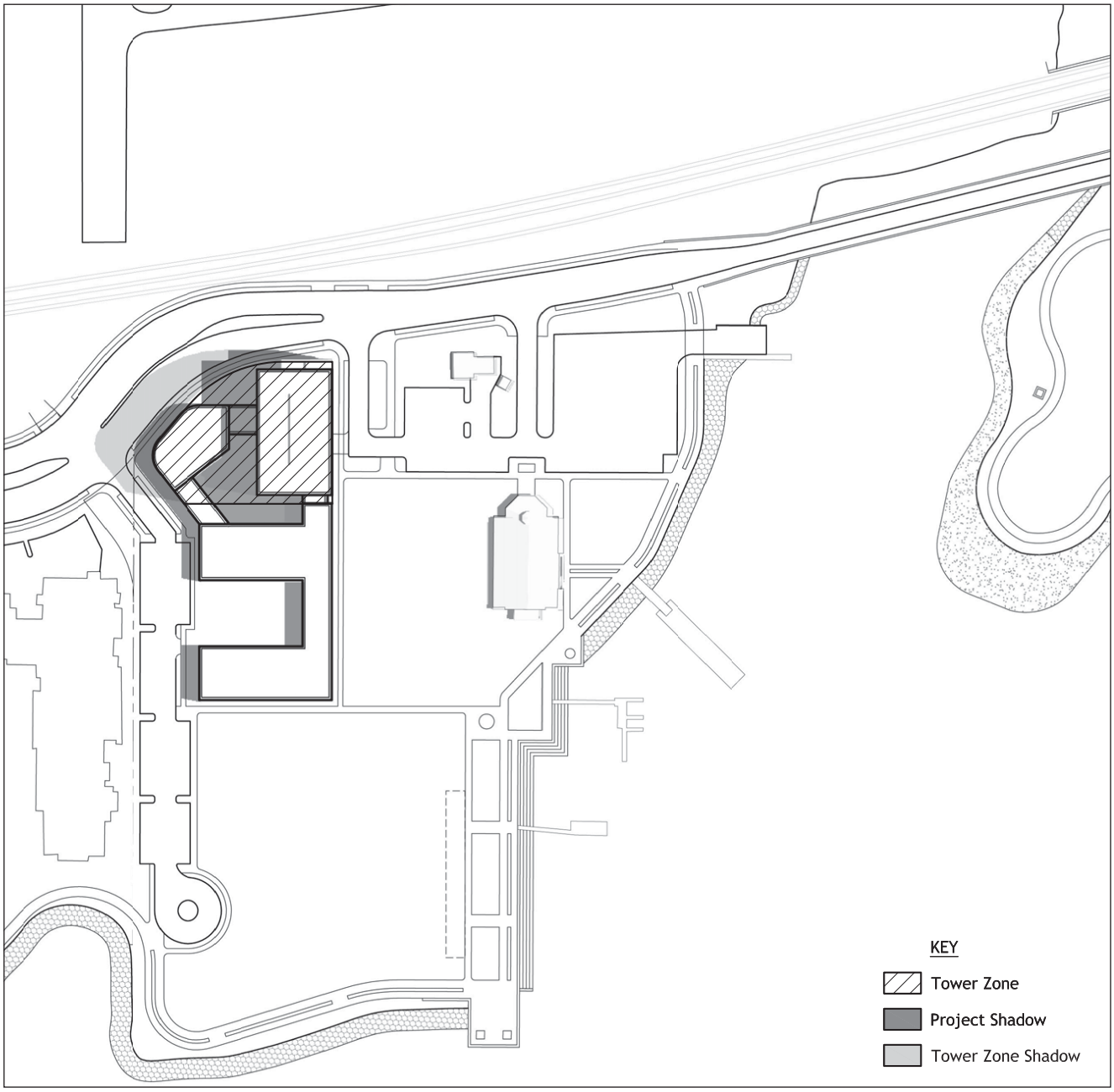




SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure II-10
Variant Parcel N-
June Shadow Patterns, 3 pm

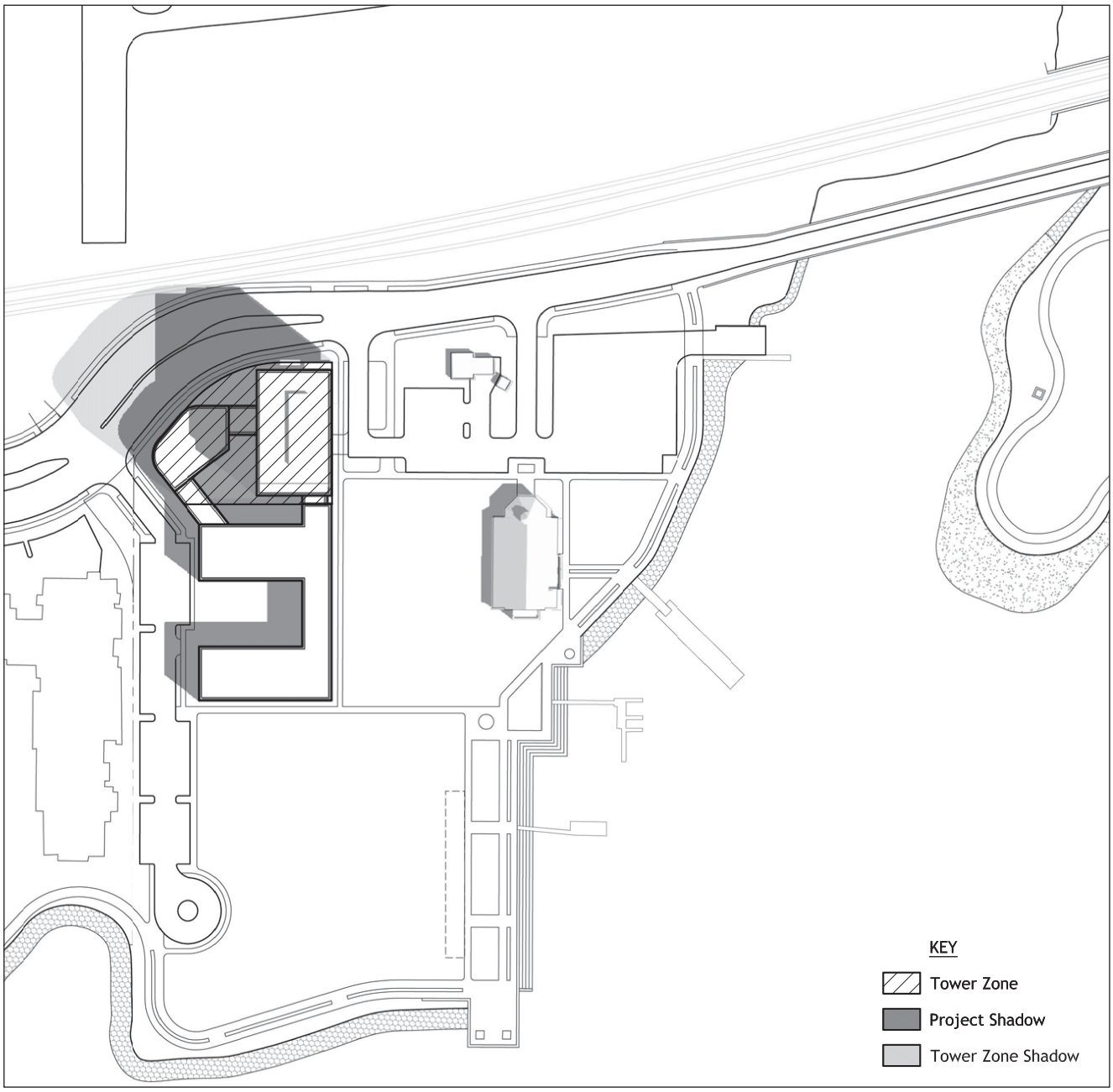


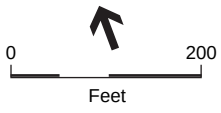
0 200
Feet

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure II-11
Variant Parcel N-
September Shadow Patterns, 9 am

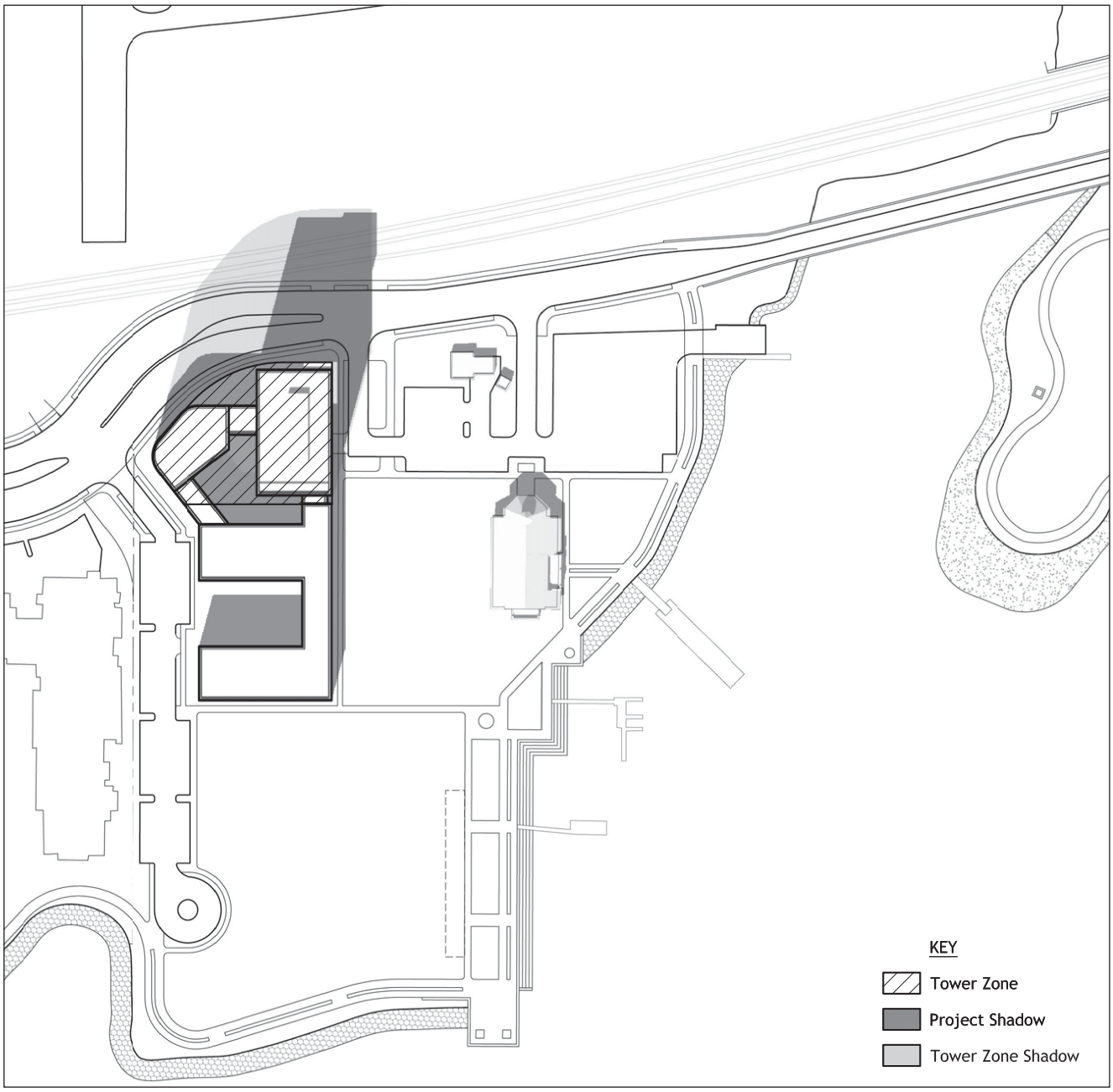


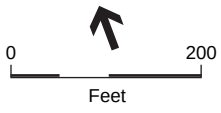


Oak to Ninth Avenue . 202622

SOURCE: Environmental Vision

Figure II-12
Variant Parcel N-
September Shadow Patterns, 12 noon

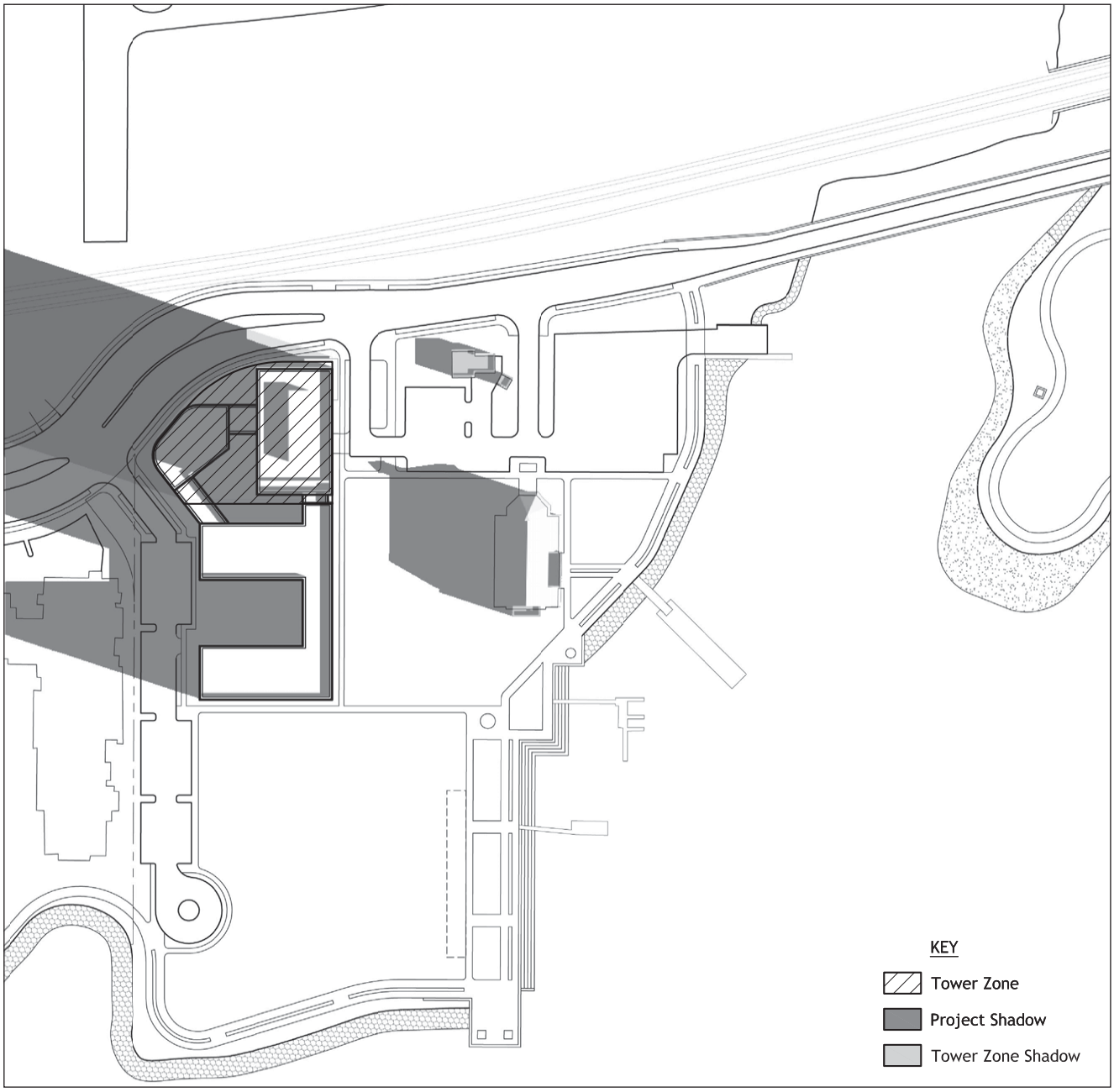


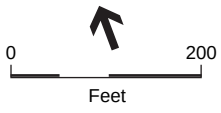


Oak to Ninth Avenue . 202622

SOURCE: Environmental Vision

Figure II-13
Variant Parcel N-
September Shadow Patterns, 3 pm

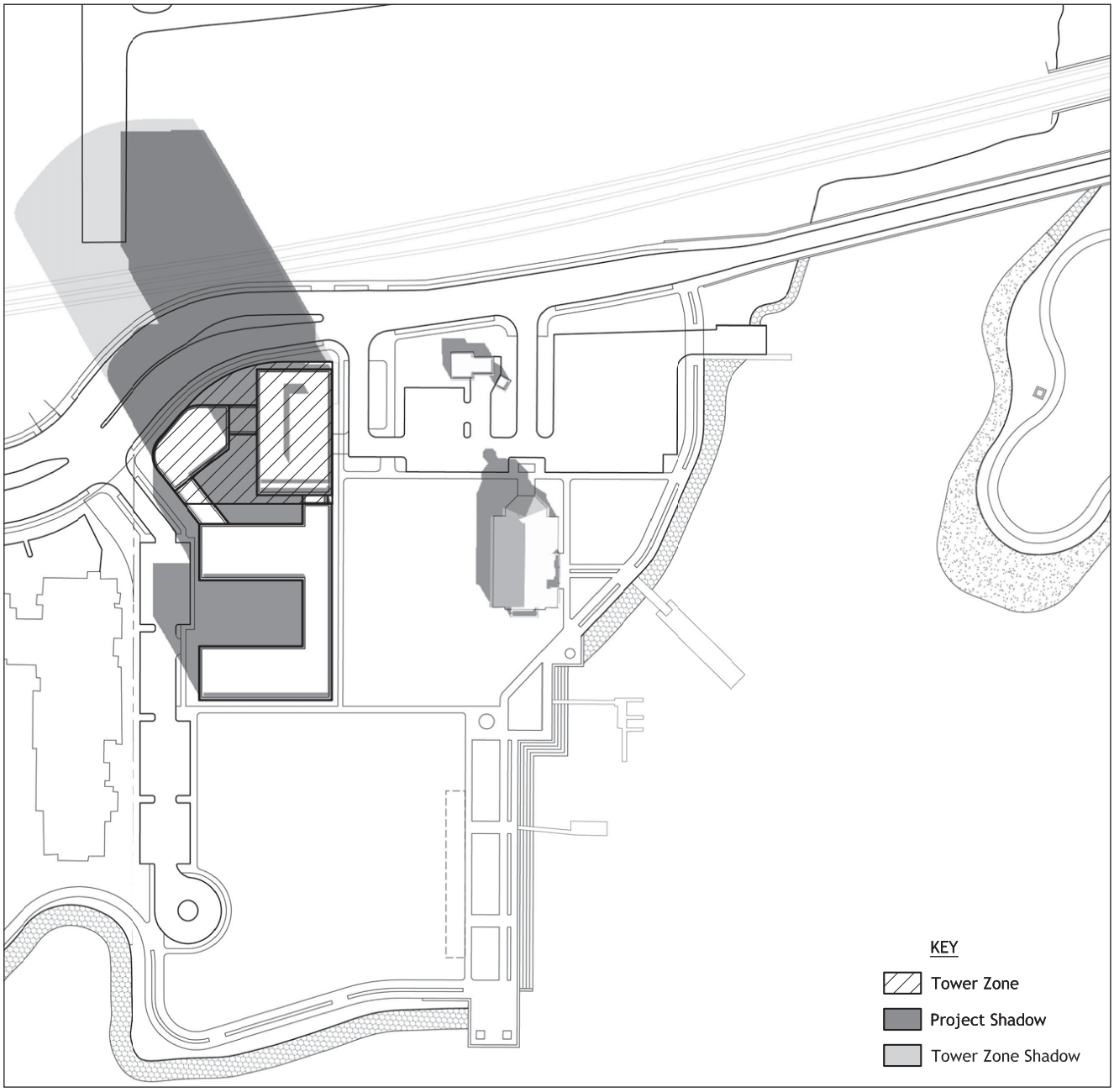




SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure II-14
Variant Parcel N-
December Shadow Patterns, 9 am



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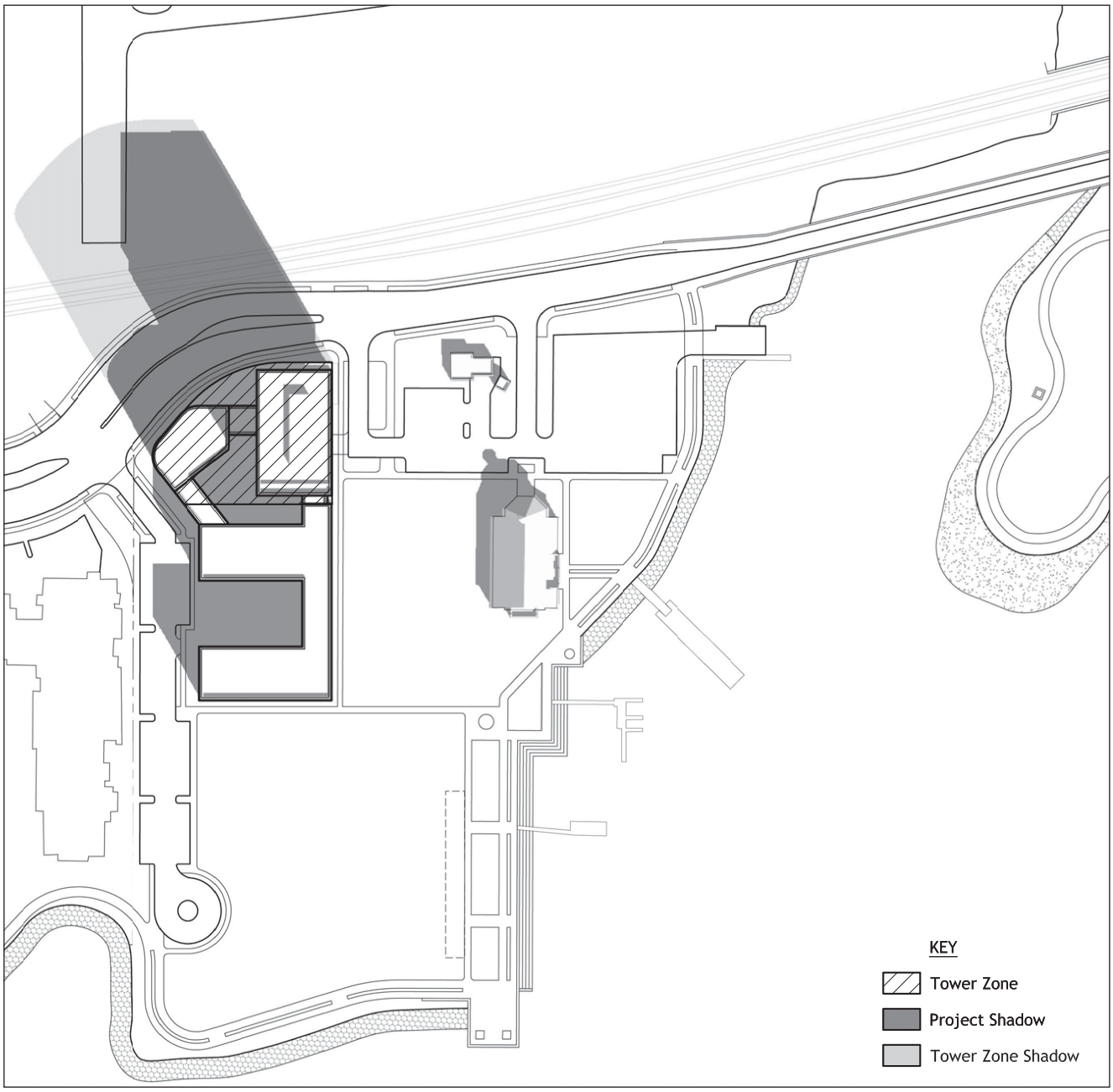
Feet

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure II-15
Variant Parcel N-
December Shadow Patterns, 12 noon



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Feet

SOURCE: Environmental Vision

Oak to Ninth Avenue . 202622

Figure II-16
Variant Parcel N-
December Shadow Patterns, 3 pm