DRAFT ENVIRONMENTAL IMPACT REPORT

1640 BROADWAY MIXED USE DEVELOPMENT PROJECT
City of Oakland

ER 00-002

Prepared for
City of Oakland
Community and Economic Development Agency

by

Lamphier & Associates
1944 Embarcadero
Oakland, CA 94606

August 2000

ER File No. ER00-002
Ref. No. CMDV00-25

DATE: August 1, 2000

RELEASE OF REPORT FOR PUBLIC REVIEW
City of Oakland, California

California Environmental Quality Act (CEQA)
DRAFT ENVIRONMENTAL IMPACT REPORT FOR:

1640 BROADWAY MIXED USE DEVELOPMENT PROJECT

The City of Oakland is hereby releasing this Draft Environmental Impact Report (EIR), finding it to be accurate and complete and ready for public review. Members of the public are invited to respond to the EIR. Comments should focus on the sufficiency of the EIR in discussing possible impacts on the environment, ways in which adverse effects might be minimized, and alternatives to the project in light of the EIR's purpose to provide useful and accurate information about such factors. Please address all comments to the City of Oakland, Community and Economic Development Agency, Planning Division, Attention: Crescentia Brown, Planner IV, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612, or at cbrown@oaklandnet.com. Comments should be received no later than 4:00 p.m. on September 1, 2000.

_x_ The City Planning Commission will conduct a public hearing on the Draft EIR on August 16, 2000 at 6:30 p.m. in Hearing Room 1, City Hall, 1 City Hall Plaza.

_x_ After all comments are received, a Final EIR will be prepared and considered for acceptance by the City Planning Commission on a date to be scheduled.

_x_ The Draft EIR is attached.

_x_ A limited number of copies of the Draft EIR are available for distribution to interested parties at no charge on a first come, first served basis at the City of Oakland Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612, Monday through Friday, 8:00 a.m. to 4:00 p.m., except Wednesday, 9:00 a.m. to 4:00 p.m. When this supply is exhausted, additional copies may be ordered for a fee (not to exceed the cost of copying).

If you challenge the environmental document in court, you may be limited to raising only those issues raised at the public hearing, or in written correspondence or e-mail received by the Community and Economic Development Agency, Planning Division at or prior to September 1, 2000. If you have any questions, please contact Crescentia Brown, Planner IV of the Community and Economic Development Agency at (510) 238-6190.

LESLIE GOULD
Director of Planning and Zoning Department

By: Crescentia L. Brown
Planner IV

Form ER-12.ROR (Rev. 5/95)

DRAFT ENVIRONMENTAL IMPACT REPORT

1640 BROADWAY MIXED USE DEVELOPMENT PROJECT
City of Oakland

ER 00-002

Prepared for
City of Oakland
Community and Economic Development Agency

by

Lamphier & Associates
1944 Embarcadero
Oakland, CA 94606

August 2000

TABLE OF CONTENTS

Figures

Tables

I

INTRODUCTION

A. ENVIRONMENTAL REVIEW

This Draft Environmental Impact Report (EIR) evaluates the potential environmental effects associated with the 1640 Broadway Mixed Use Development project on a 22,210 square foot lot at the southeast corner of Broadway and 17th Street in the City of Oakland, California. The site is currently in use as a paved surface parking lot which provides 75 parking spaces. Development of the project site as proposed would provide 146 market-rate residential loft condominium units (approximately 233,575 square feet), combined with eight floors (approximately 177,600 square feet) of commercial office space and approximately 4,710 square feet of ground floor retail space on Broadway in Oakland's Downtown District. The project would include two levels of parking below grade, and five levels of structured parking at grade, providing 284 automobile parking spaces and parking for up to 241 bicycles. The concrete building would be approximately 389 feet tall at the roof line, with a total floor area of approximately 432,341 square feet.

This Draft EIR has been prepared pursuant to the California Environmental Quality Act (CEQA) as amended (commencing with Section 21000 of the California Public Resources Code), and the CEQA Guidelines. The Lead Agency for the project, as defined by CEQA, is the City of Oakland. The project applicant is 1640 Broadway Associates.

The EIR is meant to provide an objective, impartial source of information to be used by the lead and responsible agencies, as well as the public, in their considerations regarding the project. The basic purposes of CEQA are to:

(a) inform governmental decision-makers and the public about the environmental effects of proposed activities;

(b) involve the public in the decision-making process;

(c) identify ways that damage to the environment can be avoided or significantly reduced; and

(d) prevent environmental damage by requiring changes in the project through the use of alternatives or mitigation measures.[1]

The analysis in the EIR concentrates on the aspects of the project that are likely to have a significant adverse effect on the environment, and identifies reasonable and feasible measures to mitigate (i.e., reduce or avoid) these effects. The CEQA Guidelines define "significant effect on the environment" as "a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project ...."[2] The determination of significance of potential environmental effects is based, in part, on the discussion of environmental effects which are normally considered to be significant found in **Appendix G** of the CEQA Guidelines.

The City of Oakland prepared an Initial Study that identified environmental issues that should be addressed in the EIR and environmental issues that could be excluded from further analysis (see **Appendix A**). Issues fully analyzed in the Initial Study and determined to result in less-than-significant effects, in some cases with mitigation identified in the Initial Study, are briefly summarized below.

Aesthetics: The project would not adversely affect a scenic vista, would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway, nor would it create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Agricultural Resources: The project would not convert farmland to non-agricultural use, would not conflict with existing zoning for agricultural use, or a Williamson Act contract, and would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use.

Biological Resources: The project would not adversely affect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special status species, would not adversely affect any riparian habitat or other sensitive natural community, would not adversely affect any federally protected wetlands, would not

---

1 State of California, Governor's Office of Planning and Research, *California Environmental Quality Act Statutes and Guidelines*, 1995, Section 15002(a).

2 Ibid, Section 15382.

interfere with the movement of any resident species, would not conflict with local policies protecting biological resources, and would not conflict with any adopted habitat conservation plan.

Cultural Resources: Because the project would entail extensive grading and excavation activities to construct the building and below-grade parking, the applicant shall be required to implement measures to ensure that any archaeological or paleontological resources or human remains encountered during excavation or construction are adequately addressed.

Geology and Soils: The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides, nor would the project result in substantial soil erosion or the loss of topsoil, or be located on unstable or expansive soil, creating substantial risks to life or property.

Hazards and Hazardous Materials: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; the project would not cause hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes within one-quarter mile of an existing or proposed school; the project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and the project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The project site is not within an airport land use plan or within two miles of a public airport, nor is it within the vicinity of a private airstrip.

Hydrology and Water Quality: The project would not violate any water quality standards or waste discharge requirements, would not substantially deplete groundwater supplies or interfere with groundwater recharge, would not substantially alter drainage patterns, would not create or contribute to runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, and would not otherwise substantially degrade water quality. The project would not place housing or other structures within a 100-year flood hazard area or

expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or result in inundation by seiche, tsunami, or mudflow.

Land Use and Planning: The project would not physically divide an established community, and would not conflict with any applicable habitat conservati9on plan or natural community conservation plan.

Mineral Resources: The project would have no effect on known valuable mineral resources.

Noise: The project is not within an airport land use plan or within two miles of a public airport, nor is it within the vicinity of a private airstrip.

Population and Housing: The project would not result in any adverse effect resulting from direct or indirect inducement of population growth, nor would it displace existing housing or people.

Public Services: The project would not result in substantial adverse physical impacts associated with the provision of, or need for, governmental facilities or services.

Recreation: The project would not 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, nor would it include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Utilities and Service Systems: The project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; would not require or result in the construction of new water or wastewater treatment or storm water drainage facilities or expansion of existing facilities; would not result in a shortfall in water supply or wastewater treatment capacity or overburden landfill(s); and would comply with federal, state, and local statutes related to solid waste.

The Notice of Preparation (NOP) of the Draft EIR was released on February 25, 2000. It is included in **Appendix A** of this document, along with the Initial Study and responses to the Notice of Preparation. The NOP requested those agencies with regulatory authority over any aspect of the project to describe that authority and to identify the relevant environmental issues that should be addressed in the EIR. All responses to the NOP are

included in **Appendix A**. Although no areas of controversy were identified in response to the NOP, the height of the proposed building (and related physical effects associated with shadows and changes in the Oakland skyline) and the level of traffic and parking demand generated by the proposed project might be expected to generate some controversy during public review of the Draft EIR.

This Draft EIR is now available for public review during the period identified on the notice inside the front cover, during which time written comments on the adequacy of the Draft EIR may be submitted to the City of Oakland Community and Economic development Agency, Planning Division, at the address indicated on the notice. Responses to all substantive comments received on the adequacy of the Draft EIR and submitted within the specified review period will be prepared and included in the Final EIR. The Oakland Planning Commission will then review and consider the Final EIR for certification based on its fulfillment of CEQA requirements. Prior to approval of the project, the City of Oakland must certify the Final EIR as adequate and complete and must adopt a reporting and monitoring program for mitigation measures identified in this report in accordance with the requirements of Public Resources Code Section 21081.

B. ORGANIZATION OF THE DRAFT EIR

The Draft EIR consists of the following major sections:

- **Introduction** - outlines the objectives of the EIR and important preliminary information.

- **Summary** - briefly summarizes the environmental impacts associated with the 1640 Broadway Mixed Use Development project and the identified mitigation measures (where significant impacts have been identified).

- **Project Description** - provides detailed information about the 1640 Broadway Mixed Use Development project as proposed, the site and its surroundings, and which agencies will be required to approve the project to enable its construction and operation.

- **Environmental Setting, Impacts and Mitigation Measures** - address the areas of the environment, from land use plan consistency, traffic and circulation to air quality and all other aspects of the environment which may potentially be significantly affected by the 1640 Broadway Mixed Use Development project.

Within the specific geographical limits of consideration defined in the Project Description chapter, these chapters describe:

- The environmental setting or conditions which may affect or be affected by the proposed 1640 Broadway Mixed Use Development project;
- The significant environmental effects which may result from development of the project site as proposed; and
- The mitigation measures that may be implemented to eliminate or substantially reduce the significant project-related environmental effects which have been identified.

- **Alternatives** - provides an assessment of the likely environmental impacts of implementing alternatives to the proposed project, including the "No Project" alternative, a "Residential Only" alternative, an "Office Only" alternative, and a "Reduced Project" alternative.

- **Impact Overview** - addresses the general project-related impacts as required by CEQA, including significant unavoidable environmental impacts which likely cannot be mitigated, cumulative impacts, and growth-inducing impacts associated with the proposed project.

- **Report Preparation** - lists the persons and firms who prepared the Draft Environmental Impact Report, lists the persons and organizations contacted during the preparation of the Draft EIR and a bibliography of reference materials used.

- **Appendices** - include the Notice of Preparation, the Initial Study, responses to the Notice of Preparation, the discussion of project consistency with applicable City of Oakland policies, the traffic analysis prepared by Dowling Associates, the modeling assumptions used in the air quality analysis, and the analysis of project-related effects on historical resources prepared by Architectural Resources Group.

This EIR has been prepared for the City of Oakland (the Lead Agency) by Lamphier & Associates, Environmental Planners. Each participant in the preparation of the EIR has extensive experience and knowledge in their respective fields. The information in the EIR has been compiled from a variety of sources, including published studies, applicable maps and independent field investigations. Unless otherwise noted, all background documents are incorporated into this EIR by reference, and are available for inspection at the City of Oakland Planning Department.

II

SUMMARY

A. PROJECT DESCRIPTION

The project applicant (1640 Broadway Associates) has proposed the development of a mixed use structure on a 22,210 square foot site located at the corner of 17th Street and Broadway in downtown Oakland, California. The project site is currently used as a 75-space surface parking lot. The project consists of 146 market-rate residential loft condominium units (approximately 233,575 square feet), combined with eight floors (approximately 177,600 square feet) of commercial office space and approximately 4,710 square feet of ground floor retail space on Broadway in Oakland's Downtown District. The project would include two levels of parking below grade, and five levels of parking at grade, providing 284 automobile parking spaces and parking for up to 241 bicycles. The concrete building would be approximately 389 feet tall at the roof line, with a total floor area of approximately 432,341 square feet.

The project sponsor has the following objectives for the site:

1. To redevelop an underused surface parking facility into a vibrant, mixed use project with a distinct high rise urban image, consistent with the City's 10K housing initiative.

2. To reflect the dense high rise character of the downtown Oakland area and to assure that the new building is integrated with the existing and proposed surrounding development.

3. To provide a high density, urban in-fill, mixed use development that relies on transit use by residents, tenants and other users, resulting in less reliance on automobiles.

4. To meet market demand and contribute to the revitalization of the Oakland downtown by providing high quality residential, office and commercial space that is in close proximity to other employment, retail and entertainment uses within walking distance from the site.

5. To develop the ground level of the project with strong pedestrian qualities which foster street level activities and which lend themselves to neighboring commercial and residential uses.

6. To provide a project that is consistent with the City's General Plan policies and objectives of facilitating the construction of housing as a high priority (Policy N3.1) and locating urban density and mixed use housing development near transit or commercial corridors, transit stations, the Downtown, ... and other suitable locations (Objective N8).

B. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential environmental impacts of the project are summarized in **Table II-1** at the end of this chapter. This table lists impacts and mitigation measures in three major categories: significant unavoidable impacts, significant impacts that could be mitigated to a less-than-significant level, and impacts that would not be significant. For each significant impact, the table includes a summary of mitigation measures and an indication of whether the impact would be mitigated to a less-than-significant level. Please refer to **Chapter IV. Environmental Setting, Impacts, and Mitigation Measures**, for a complete discussion of each impact and associated mitigation.

As stated in **Table II-1** and in **Chapter IV**, the project would result in a significant, unavoidable impact related to increased demand for off-street parking in downtown Oakland (Impact B.3). Significant effects that could be mitigated to a less-than-significant level would occur in regard to increased demand for bicycle parking in downtown Oakland (Impact B.5), temporary circulation impacts during construction (Impact B.6), temporary construction dust (Impact C.1) and temporary construction noise (Impact D.1).

C. ALTERNATIVES

Chapter V of this EIR analyzes four separate alternatives to the proposed project, including the No Project Alternative (required by CEQA for all EIRs), the "Residential Only" alternative, the "Office Only" alternative, and the "Reduced Project" alternative.

NO PROJECT ALTERNATIVE

Under the "No Project" alternative, the proposed building would not be constructed, and the project site would remain in its current use as a 75-space surface parking lot. Impacts associated with the proposed project would not occur, and existing conditions at the project site would remain essentially as discussed in the setting sections of **Chapter IV**.

"RESIDENTIAL ONLY" ALTERNATIVE

Under the "Residential Only" alternative, the height and visual appearance of the structure would remain similar to the proposed 1640 Broadway building, although office space on eight floors would be replaced with residential units. A total of 15 residential floors would be built above seven parking levels which would provide 284 parking spaces under this alternative (two parking levels below grade, five parking levels at grade, with ground-floor retail uses along Broadway), and the total number of units would be approximately 255. The mix of residential units would offer 20-foot clear heights and mezzanines, as well as two floors of penthouse units similar in character to the mix which would be provided under the project as proposed. A garden terrace and pavilion identical to that associated with the project as proposed would be provided adjacent to the lowest residential floor, directly above the upper-most parking level.

The "Residential Only" alternative would be generally consistent with the goals, objectives and policies of the Oakland General Plan, and by increasing the number of loft-style, market-rate residential units at the project site, this alternative would go further toward contributing to the "Oakland 10K" goals than would the project as currently proposed.

With a total of 255 residential units, the number of peak hour vehicle trips generated under the "Residential Only" alternative would be approximately 80 percent of the total vehicle trips generated by the proposed project during the AM peak hour, and approximately 50 percent of the total vehicle trips generated by the proposed project

during the PM peak hour. The provision of 284 parking spaces for residential use would be expected to exceed an estimated residential demand for 269 parking spaces.

Temporary construction-related air quality effects associated with this alternative would be similar to those associated with the proposed project, and temporary construction-related noise effects associated with this alternative would be similar to those associated with the proposed project.

As would be the case with the proposed project, the "Residential Only" alternative would be the tallest structure in Oakland to date. The visual appearance of the structure would be very similar to that of the proposed project, and the amount of glare which would be generated by the proposed structure would be similar. Since the height and mass of the structure which would be built under the "Residential Only" alternative would be similar to the proposed project, shadow and wind effects would also be similar. Development of the project site under the "Residential Only" alternative would be expected to have the same type of effects on historic resources as would the project as proposed.

"OFFICE ONLY" ALTERNATIVE

Under the "Office Only" alternative, the height and visual appearance of the structure would remain similar to the proposed 1640 Broadway building, although the residential units would be replaced with office space. A total of 20 office floors would be built above nine parking levels under this alternative (two parking levels below grade, seven parking levels at grade, with ground-floor retail uses along Broadway), and the total floor area in office use would approach 444,200 square feet (or a floor area ratio of 20). All office floors would offer 15-foot clear heights with exposed concrete columns.

The "Office Only" alternative would be generally consistent with the goals, objectives and policies of the Oakland General Plan, but would not meet the project's objectives related to the provision of urban high density housing in downtown Oakland. The elimination of a residential component under this alternative would not contribute toward the goal of bringing 10,000 new residents into downtown Oakland. Unlike the mixed use project currently proposed, the "Office Only" alternative would not promote increased urban activity downtown during non-working hours, and the building would probably be largely vacant between the hours of 6:00 PM and 8:00 AM.

With the level of office development anticipated under this alternative, the vehicle trip generation rate would be expected to be approximately 87 percent greater during the AM peak hour and approximately 77 percent greater during the PM peak hour relative to the

proposed project. Approximately 367 parking spaces would be provided at the project site under this alternative, all of which would be used to support the demand generated by the on-site office space. Under current City policies, the development of 444,200 square feet of office space at the project site would require a minimum of 342 parking spaces, or one space per 1,300 square feet. However, using the same parking demand ratios associated with office space used in evaluating the proposed project, the development of the "Office Only" alternative would generate a parking demand of approximately 868 parking spaces. This would exceed the number of on-site parking spaces by approximately 526 spaces, which would place additional loads on existing and proposed parking facilities in the vicinity, and contribute to unmet parking demand downtown.

Temporary construction-related air quality effects associated with this alternative would be similar to those associated with the proposed project, and temporary construction-related noise effects associated with this alternative would be similar to those associated with the proposed project. Since office uses are not subject to the more stringent noise exposure standards established for residences, it is unlikely that those using the offices proposed at the project site under this alternative would be exposed to noise levels in excess of established standards.

As would be the case with the proposed project, the "Office Only" alternative would be the tallest structure in Oakland. The visual appearance of the structure (as seen from either 17th Street or Broadway) would be very similar to that of the proposed project, and the amount of glare which would be generated by the proposed structure would be similar. The shadows which would be cast onto other structures in the vicinity of the project site under this alternative would be slightly greater than would be the case with the proposed project, due to the elimination of the garden terrace which would be a feature of the proposed project. The structure which would be built under the "Office Only" alternative would be more massive than the project structure, and could be expected to have increased potential to accelerate winds at ground level relative to the proposed project. Development of the project site under the "Office Only" alternative would be expected to have the same type of effects on historic architectural resources as would the project as proposed.

"REDUCED PROJECT" ALTERNATIVE

Under the "Reduced Project" alternative, the total number of dwelling units proposed at the project site would be reduced from the project's 146 to 108, through the elimination of two proposed residential floors of 17 units each. The floor area available for office space at the project site would be reduced by approximately 25 percent relative to the proposed

project, through the elimination of two office floors. The number of on-site parking spaces available to support mixed uses at the project site would be reduced by approximately 29 percent relative to the proposed project, through the elimination of two parking levels. This alternative would, like the proposed project, incorporate a 4,700 square foot ground-floor retail component. The reduction in the number of residential floors, office floors and parking levels relative to the proposed project would result in a "Reduced Project" structure with a height of approximately 300 feet, comparable to the height of the adjacent Pacific Bell building.

The "Reduced Project" alternative would be generally consistent with the policies of the Oakland General Plan. Although residential densities would not be as high as would be the case with the proposed project, the "Reduced Project" alternative would provide the urban, non-traditional housing that is anticipated and desired in this portion of the downtown area, in keeping with the traditional character of the area. This alternative would not go as far as the proposed project toward contributing to the goal of bringing 10,000 new residents to downtown Oakland.

A 26 percent reduction in the total number of units, and a 25 percent reduction in the amount of office space proposed for the project site would be expected to result in a corresponding reduction in the anticipated number of vehicle trips to and from the project site relative to the proposed project. Under this alternative, the parking provided on-site would be insufficient to meet the minimum parking requirements established by the City of Oakland, since approximately 202 spaces would be available, while 108 spaces would be required to support the 108 residential units and approximately 102 additional spaces would be required to support the office space. With residential parking demand estimated at 114 spaces, and office parking demand estimated at 260 spaces, coupled with the loss of 75 spaces currently available at the project site, the theoretical demand for off-site parking under this alternative would be approximately 247 spaces. This would be approximately 37 fewer off-site parking spaces than would be needed under the proposed project, but in either case, this increase in off-site parking demand could not currently be met given the existing and proposed parking supply in the vicinity of the project site.

Temporary construction-related air quality effects associated with this alternative would be similar to those associated with the proposed project, and temporary construction-related noise impacts associated with the "Reduced Project" alternative would be similar to those anticipated under the proposed project.

The development of the project site under the "Reduced Project" alternative would result in a structure with a height approximately 25 percent less than the height of the proposed 1640 Broadway building (approximately 300 feet, compared with approximately 389 feet). With a height similar to that of the adjacent Pacific Bell building, the "Reduced Project" structure would not be expected to contribute to the skyline of downtown Oakland as distinctively as would the proposed 1640 Broadway structure (and from distant vantage points, the "Reduced Project" structure might appear as an "addition" to the existing Pacific Bell Building if the heights were nearly identical). The "Reduced Project" alternative structure would not be expected to block any significant views. Although the level of street lighting required would be similar under either the proposed project or the "Reduced Project" alternative, the "Reduced Project" alternative would produce slightly less glare than the proposed project (which would be regarded as a less than significant impact in either instance), since the amount of glazed area would be reduced. With the reduced height of the "Reduced Project" structure, shadows would not extend as far as would be the case under the proposed project (the impact of such shadows would be considered less than significant in either case). Since the proposed structure under this alternative would be less massive than, and not as tall as, the project structure, it could be expected to have reduced potential to accelerate winds at ground level relative to the proposed project. Development of the project site under the "Reduced Project" alternative would be expected to have the same type of effects on historic resources as would the project as proposed.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The "No Project" alternative would have the fewest impacts, and was identified as the "environmentally superior" alternative. **It should be noted, however, that this alternative meets <u>none</u> of the project objectives**. Under CEQA, when the "No Project" alternative has been identified as the "environmentally superior" alternative, it is necessary to identify another alternative which would represent the "environmentally superior" alternative in the absence of the "No Project" Alternative. In the absence of the "No Project" alternative, the "Residential Only" alternative would be regarded as the "environmentally superior" alternative, since it would have no significant, unavoidable environmental impacts.

TABLE II-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significant Impact	Mitigation Measures	Significance After Mitigation
A. SIGNIFICANT UNAVOIDABLE IMPACTS		
B. Traffic, Circulation and Parking		
B.3: The project could result in a parking deficit of approximately 292 off-street parking spaces at project buildout.	**B.3:**Under existing and cumulative conditions, project parking demand, as calculated using ITE adjusted parking demand rates, will exceed supply by 292 spaces. Given that it is desirable to encourage residents and employees to use transit rather than personal automobiles, the mitigation measure should not include adding more parking, but should instead consist of encouraging residents to use transit, bicycles, or to travel on foot. The project's mitigation measures for this impact should be the following: • Assign only one specific (numbered, perhaps) parking space to each unit, and prohibit residents from parking in any space except their own. • Inform residents that there is only metered, time-limited parking on-street for several blocks around the project location, and indicate that they are therefore strongly discouraged from owning more than one automobile that they might wish to park at or near the project. • Provide current transit information to residents, either by direct delivery (e.g., via U.S. Mail) or at a convenient location, such as a kiosk near the elevators. The mitigation measures associated with resident parking should be accomplished via the usual sales documentation (e.g., "CCR's" or homeowner's association contracts) for the units. Under existing and cumulative conditions, parking demand in the project area will exceed supply, and the office component of the proposed project will contribute to that parking demand. The project could implement one or more mitigation measures that include the following:	**S/U**

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significant Impact	Mitigation Measures	Significance After Mitigation
A. SIGNIFICANT UNAVOIDABLE IMPACTS		
B. <u>Traffic, Circulation and Parking</u>		
	• Provide tenants with general information about parking in the area. Specifically, leases should include a statement informing tenants that, as is typical in most urban downtown areas, parking is extremely scarce and that employees are advised to use public transit instead of personal automobiles in getting to and from the project site. • Provide specific information about transit. To provide information about transit, the building management and/or on-site security staff should maintain a reasonably current supply of AC Transit, BART, and ferry schedules. Additionally, at least once per year, perhaps as part of normal correspondence between management and lessees, the building management should reiterate its recommendation for tenants to take transit to the site. • Designate five percent of the office-related parking spaces (7 spaces) for carpool parking only. The building management should be responsible for designing a method of enforcing the carpool parking. • Implement a shared parking management system. • Implement a valet parking system during daytime weekday use. • Price parking within leases or by other means to help limit the number of tenants who drive to the site. The effective implementation of parking demand reduction programs could be expected to reduce project-related parking demand to some extent. However, it is unlikely that these measures would contribute to a significant reduction in the anticipated increase in demand for parking space in the downtown area as development in that area continues. The increase in downtown parking demand would continue to represent a significant unavoidable impact to which the project-related parking	

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significant Impact	Mitigation Measures	Significance After Mitigation
B. SIGNIFICANT BUT MITIGABLE IMPACTS		
B. Traffic, Circulation and Parking		
B.5: The project is likely to increase the demand for bicycle parking in the downtown area.	**B.5:** The project shall provide an adequate number of bicycle parking spaces, as determined by the City, in location(s) either on-site or within a three-block radius, or through payment of appropriate in-lieu fees.	**LS**
B.6: Project construction could result in temporary circulation impacts in the project vicinity.	**B.6:** Prior to the start of excavation or construction, the project sponsor would submit to the City Traffic Engineering Division for review and approval a plan for managing construction-period traffic and parking. This plan would include information on routing of construction traffic, provision of off-street parking for construction workers, and off-street equipment staging.	**LS**
C. Air Quality		
C.1: Fugitive dust generated by construction activities would be substantial and would temporarily increase PM_{10} concentrations in the immediate project vicinity.	**C.1:** The project sponsor shall require the construction contractor to implement a dust abatement program.	**LS**
D. Noise		
D.1: Construction activities would temporarily generate noise levels above existing ambient levels in the project vicinity.	**D.1a:**Construction activities shall be limited to 7:00 AM to 7:00 PM, Monday through Friday only. Pile driving activity shall be limited to 8:00 AM to 5:00 PM, Monday through Friday. Non-noise generating activity may be permitted during weekends once the building has been closed in and with the express authorization of the City Planning and Building Divisions.	**LS**

LS = Less than Significant

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significant Impact	Mitigation Measures	Significance After Mitigation
B. SIGNIFICANT BUT MITIGABLE IMPACTS		
D. Noise		
	D.1b: Prior to pile driving, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified noise consultant. These measures may include attenuation shields or blankets around the site, pre-drilling of piles, the use of more than one pile driver, if feasible to lessen the total time required for driving piles, and other measures. A specific schedule shall also be confirmed with the Building Divisions and all property owners, businesses and residents shall be notified in writing at least 72 hours prior to pile driving activities.	
	D.1.c: All stationary noise sources, to the greatest extent practical, should be located as far away as possible from sensitive receptors (i.e., residential uses).	
	D.1.d:Prior to the issuance of a building and grading permit, the project applicant shall establish a process for responding to and tracking complaints pertaining to construction activity, including for noise complaints, with at least the following components: • A procedure for notifying City Building Division staff and Oakland Police Department; • A listing of telephone numbers (during regular construction hours and off-hours); • A plan for posting signs on site pertaining to complaint procedures and who to notify in the event of a problem; and • The designation of a construction complaint manager for the project.	

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significant Impact	Mitigation Measures	Significance After Mitigation
C. LESS THAN SIGNIFICANT IMPACTS		
A. Land Use, Plans and Policies		
A.1: The project would be generally consistent with applicable plans and policies of the City of Oakland, although the proposed project would require a Major Conditional Use Permit to enable the proposed structure to be built at a Floor Area Ratio (FAR) of 19.46, a Major Conditional Use Permit as required for Design Review under the S-8 Urban Street Combining Zone, and a Minor Variance to reduce the required amount of open space.	None required	LS
B. Traffic, Circulation and Parking		
B.1: The project would result in slight increases in traffic delay in the downtown.	None required.	LS
B.2: The project would increase traffic on regional roadways in the project vicinity.	None required.	LS
B.4: Project ridership on AC Transit could be accommodated. Project ridership on BART could be accommodated.	None required.	LS
C. Air Quality		
C.2: The project would result in an increase in criteria emissions due to related motor vehicle trips.	None required.	LS

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significant Impact	Mitigation Measures	Significance After Mitigation
C. LESS THAN SIGNIFICANT IMPACTS		
C. Air Quality		
C.3: Project-related traffic would increase carbon monoxide concentrations at intersections in the project vicinity.	None required.	**LS**
C.4: The project together with anticipated future cumulative development in the Bay Area would contribute to regional pollutant problems.	None required.	**LS**
D. Noise		
D.2: Project-generated traffic noise would result in noise impacts to nearby sensitive noise receptors.	None required.	**LS**
D.3: The project would locate multi-family residential land uses in a noise environment characterized as "normally unacceptable" for such uses by the City of Oakland.	None required.	**LS**
D.4: The proposed project together with anticipated future development in the downtown area as well as Oakland in general could result in long-term traffic increases and could cumulatively increase noise levels.	None required.	**LS**
E. Visual Quality		
E.1: The project would consist of a single building approximately 389 feet in height on a surface parking lot in the vicinity of high-rise	None required.	**LS**

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significant Impact	Mitigation Measures	Significance After Mitigation
C. LESS THAN SIGNIFICANT IMPACTS		
F. Shadow and Wind		
F.1: The project would create additional shadow on the blocks to the north, west and east, but would not substantially affect any public open spaces.	None required.	LS
F.2: Any project-related shifts or changes in ground-level wind speeds under prevailing conditions can be expected to be moderate.	None required.	LS
G. Historic Architectural Resources		
G.1: The project would construct a building approximately 389 feet in height across the street from a designated historic district.	None required.	LS

III

PROJECT DESCRIPTION

A. PROJECT SPONSOR'S OBJECTIVES

The project sponsor has the following objectives for the site:

A. To redevelop an underused surface parking facility into a vibrant, mixed use project with a distinct high rise urban image, consistent with the City's 10K housing initiative.

B. To reflect the dense high rise character of the downtown Oakland area and to assure that the new building is integrated with the existing and proposed surrounding development.

C. To provide a high density, urban in-fill, mixed use development that relies on transit use by residents, tenants and other users, resulting in less reliance on automobiles.

D. To meet market demand and contribute to the revitalization of the Oakland downtown by providing high quality residential, office and commercial space that is in close proximity to other employment, retail and entertainment uses within walking distance from the site.

E. To develop the ground level of the project with strong pedestrian qualities which foster street level activities and which lend themselves to neighboring commercial and residential uses.

F. To provide a project that is consistent with the City's General Plan policies and objectives of facilitating the construction of housing as a high priority (Policy N3.1) and locating urban density and mixed use housing development near transit or commercial corridors, transit stations, the Downtown, ... and other suitable locations (Objective N8).

B. PROJECT LOCATION AND CHARACTERISTICS

The 1640 Broadway Mixed Use Development project is proposed within the city limits of Oakland, California, as shown in **Figure III-1**, Project Location. A 75-space surface parking lot currently occupies the approximately 22,210 square foot project site, with frontages on Broadway and 17th Street (see **Figure III-2**, Project Site). The project site encompasses Assessor's Parcel Numbers 008-0622-001-03, 008-0622-001-04 and 008-0622-001-05.

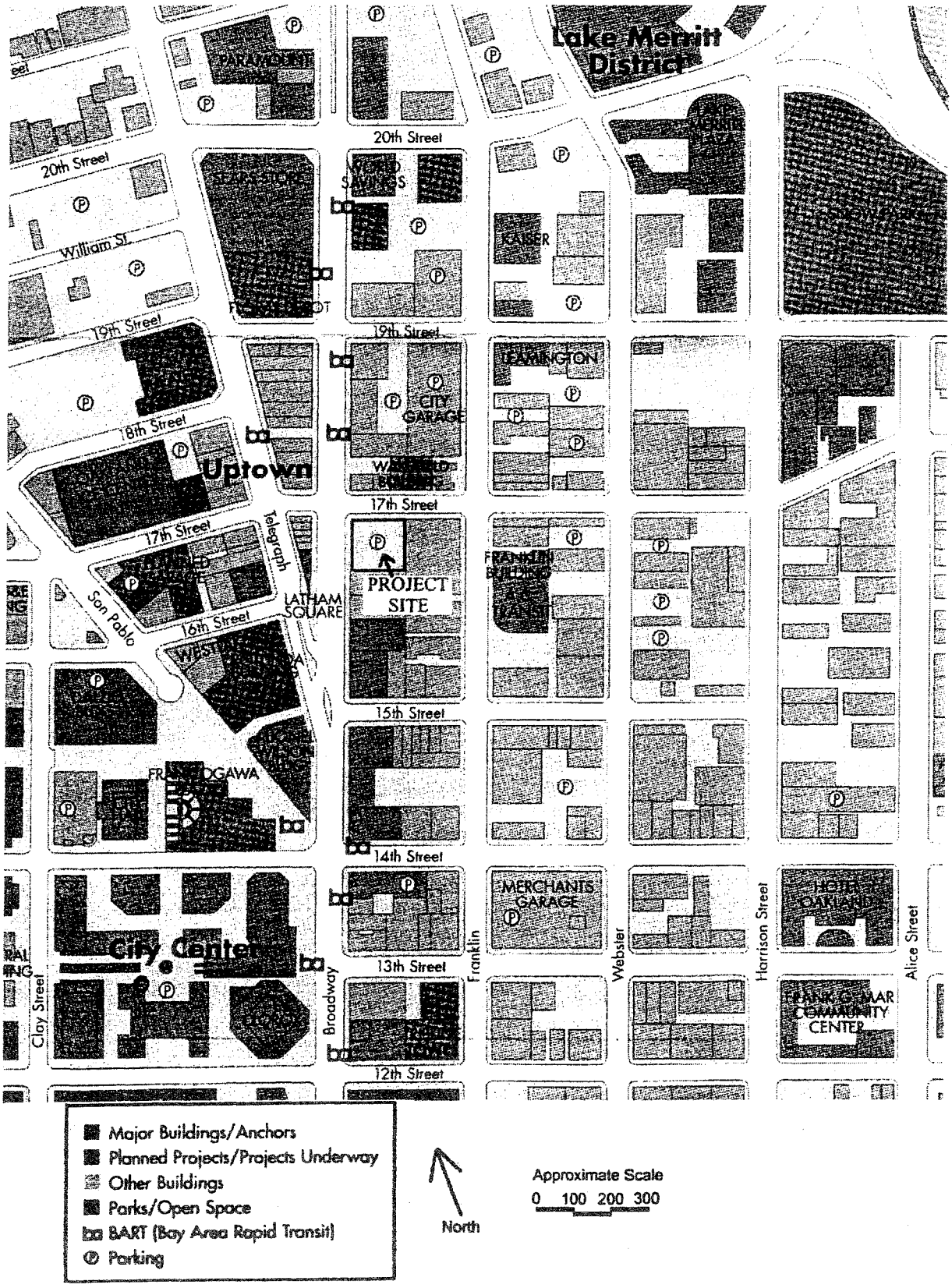
The project site is located at the southeastern corner of 17th Street and Broadway in downtown Oakland (see **Figure III-2**). Land uses in the immediate vicinity of the site can be characterized as high-intensity urban uses, with a mix of ground-level retail and upper level office uses. As indicated in **Figure III-3**, above, the retail building directly adjacent to the project site along Broadway is approximately 55 feet tall, while the Pacific Bell building directly adjacent to the project site along 17th Street is approximately 277 feet tall.

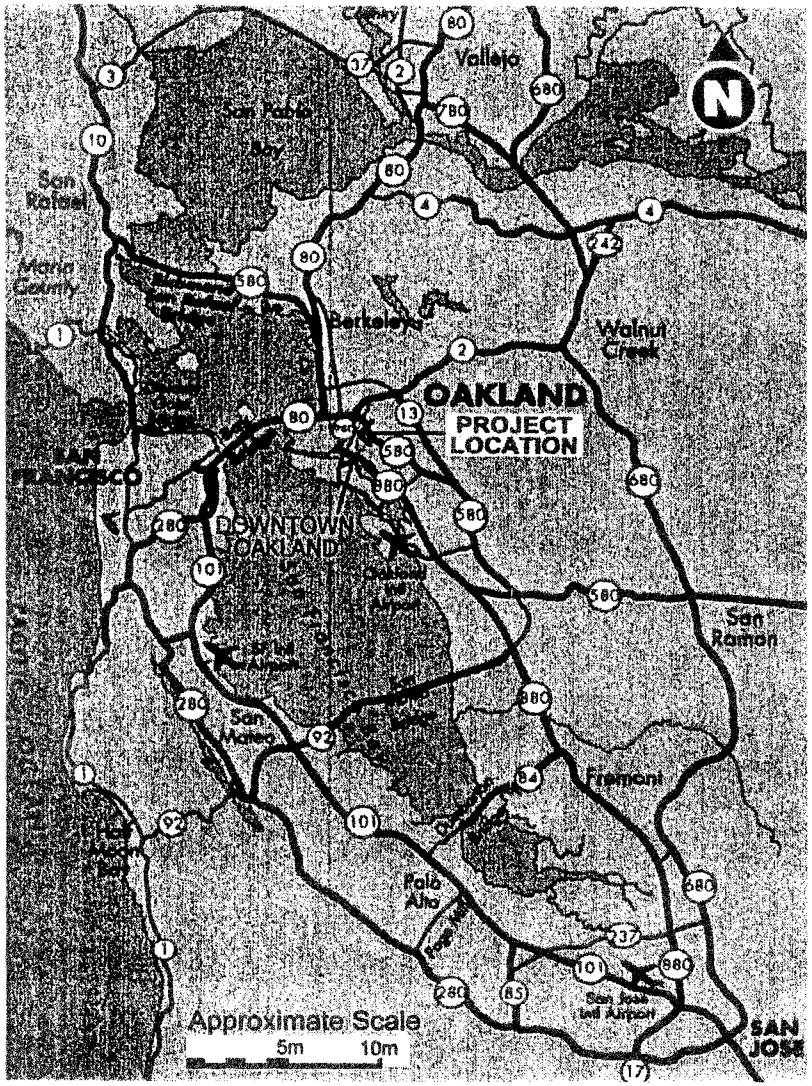
The project applicant (1640 Broadway Associates) has proposed the development of a structure which would support 146 market-rate residential loft condominium units (approximately 233,575 square feet), combined with eight floors (approximately 177,600 square feet) of commercial office space and approximately 4,710 square feet of ground floor retail space on Broadway in Oakland's Downtown District. The project would include two levels of parking below grade, and five levels of parking at grade, providing 284 automobile parking spaces and parking for up to 241 bicycles. The concrete building would be approximately 369 feet tall (see **Figure III-3** and **Figure III-4**), with a total floor area of approximately 432,341 square feet.

Access to the parking area would be from 17th Street, and the total area of the building devoted to parking would be approximately 118,665 square feet. The configuration of the two levels of underground parking is shown in **Figure III-5**, while the configuration of the above-ground parking levels is shown in **Figure III-6**.

At ground level, two retail spaces (one approximately 2,111 square feet and the other approximately 2,599 square feet) would front on Broadway, divided by the entrance to the lobby for the elevators serving the office and parking space (see **Figure III-7**). Along 17th Street, entrances to the parking area, the loading dock and the lobby for the elevators supporting the residential units would be provided. Emergency exists are shown on the Broadway and 17th Street sides of the proposed structure at ground level.

Figure III-2 **Project Site**




OAKLAND
PROJECT LOCATION
DOWNTOWN OAKLAND
Berkeley
Walnut Creek
San Ramon
Fremont
Palo Alto
San Mateo
Vallejo
San Rafael
SAN FRANCISCO
SAN JOSE
Approximate Scale
5m 10m

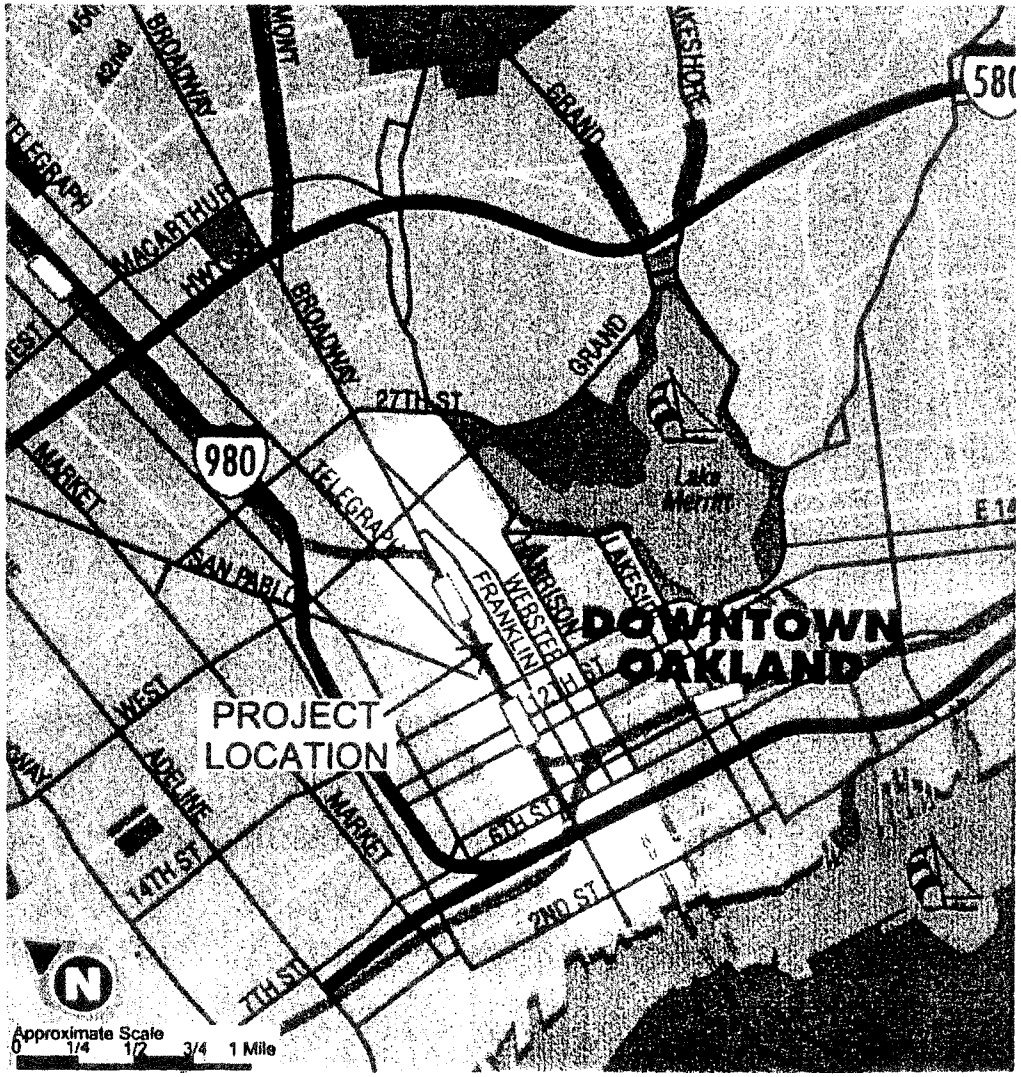
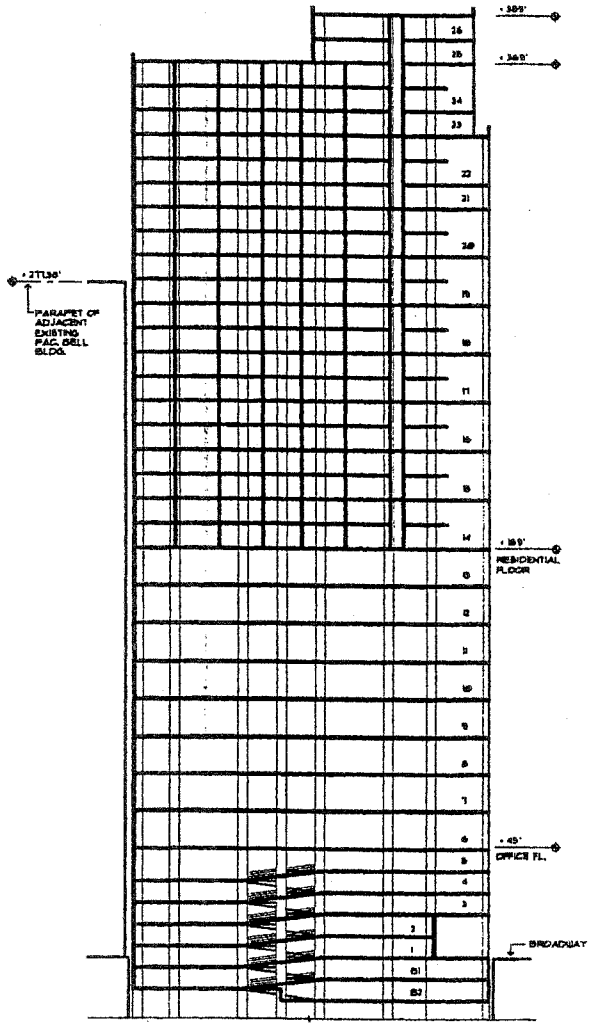
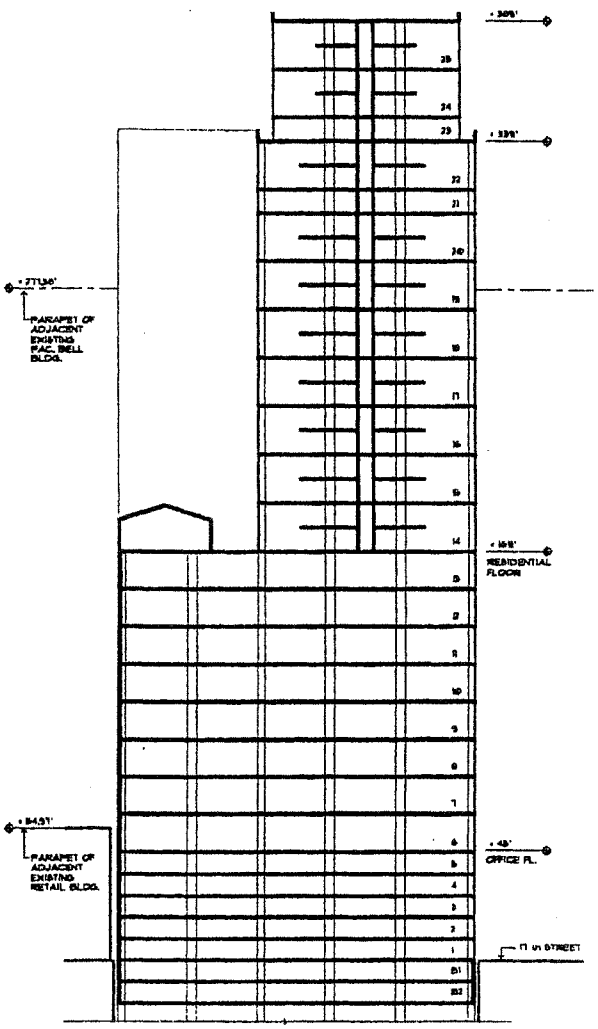

PROJECT LOCATION
DOWNTOWN OAKLAND
980
BROADWAY
MACARTHUR
GRAND
MARKET
WEBSTER
FRANKLIN
HARRISON
OAKLAND
WEST
ADELINE
14TH ST
7TH ST
6TH ST
2ND ST
27TH ST
Lake Merritt
Approximate Scale
1/4 1/2 3/4 1 Mile

Figure III-3

Project Sections

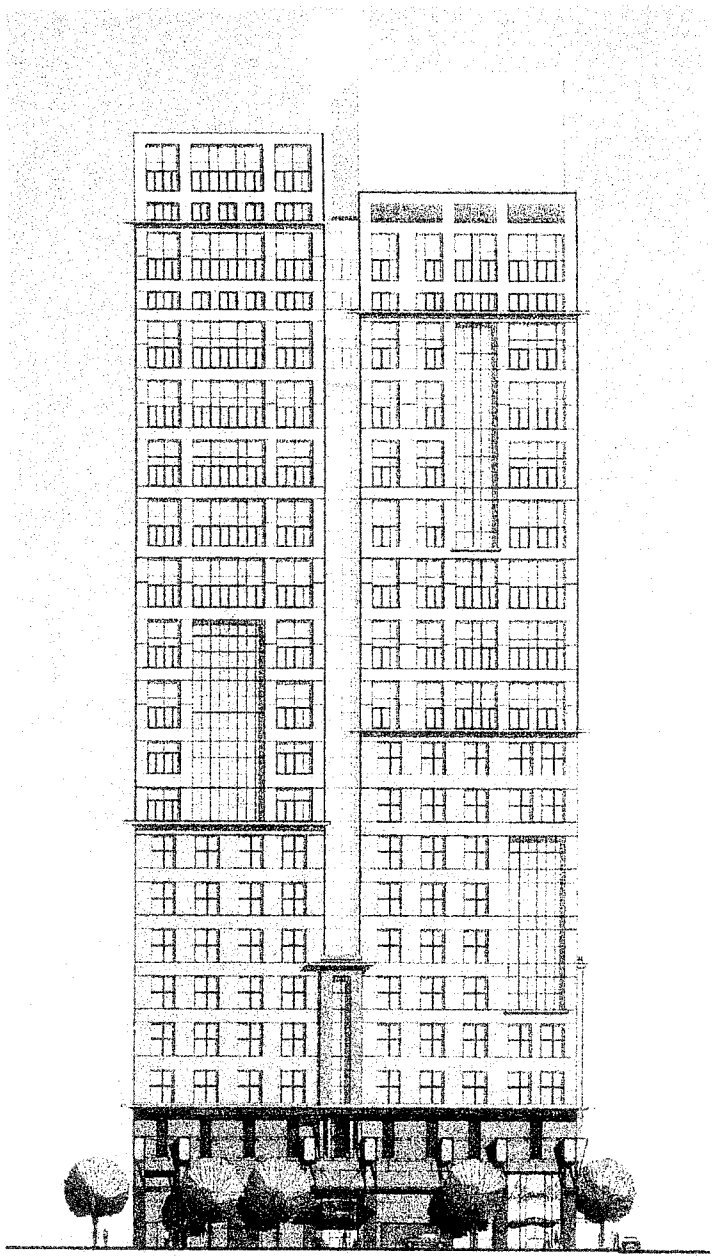




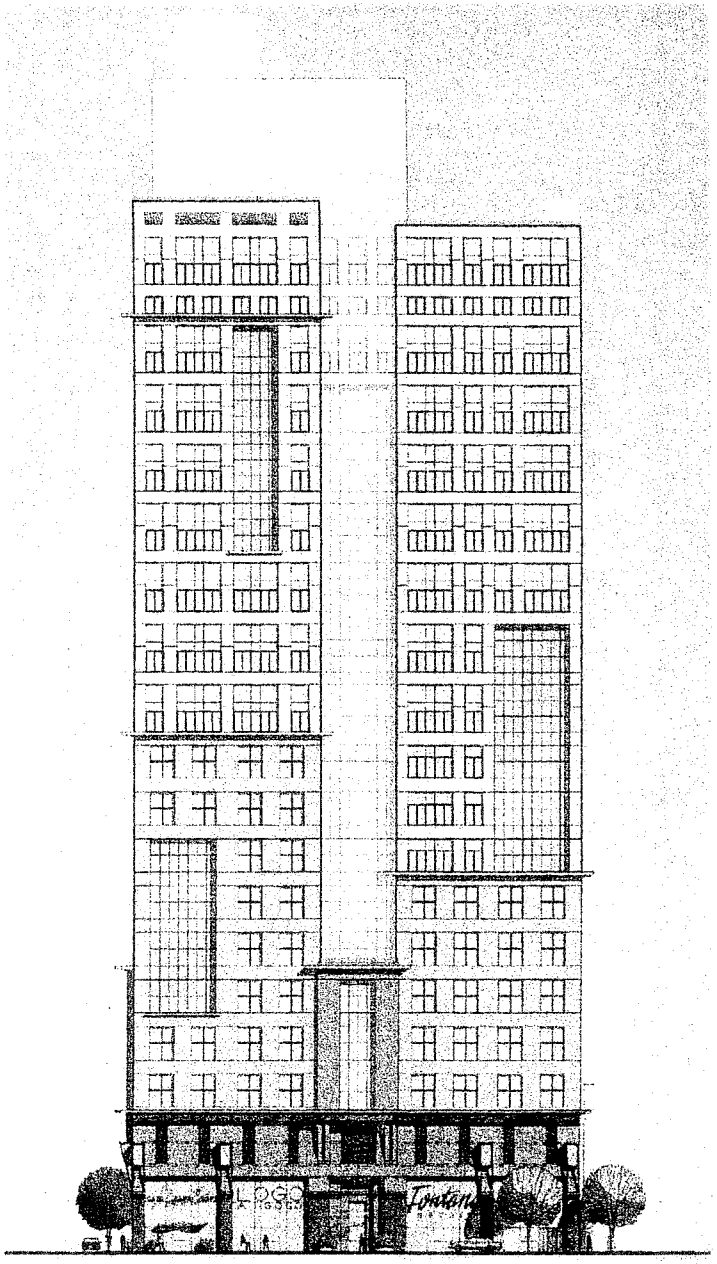
EIP INTERNATIONAL
Architecture
Planning

DOWNTOWN OAKLAND
MIXED USE PROJECT
Oakland, California
1640 Broadway Associates

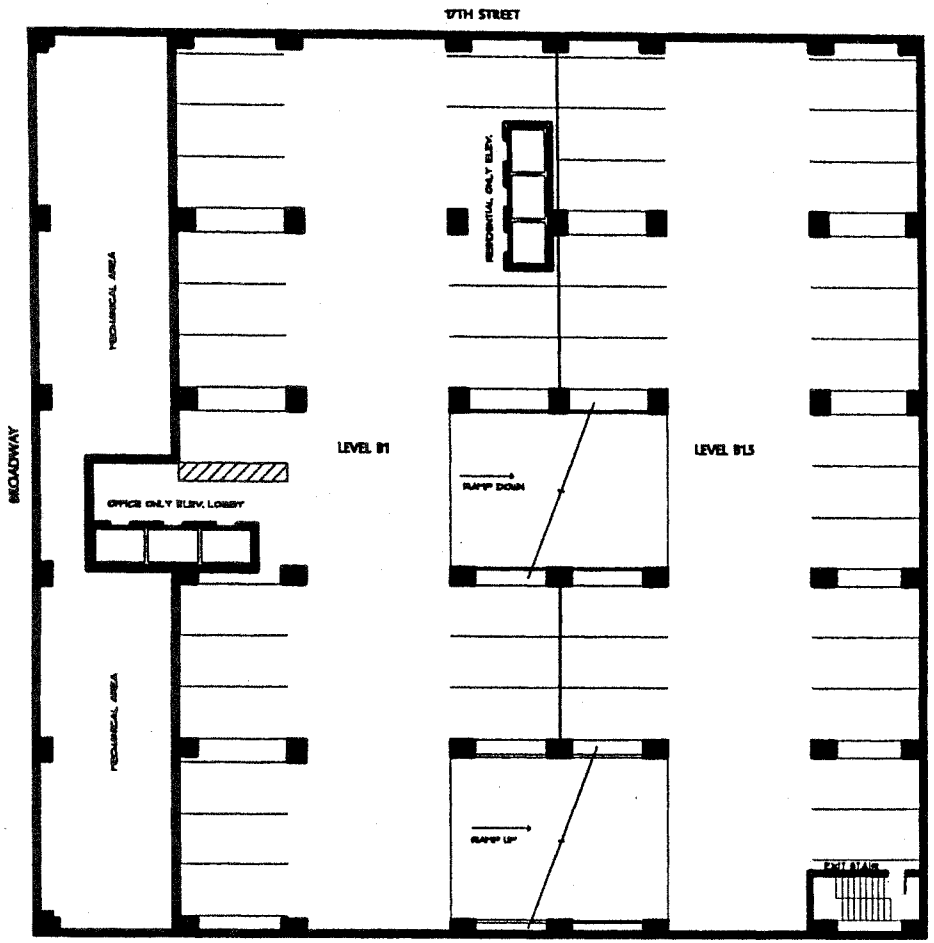
BUILDING SECTION



17TH STREET ELEVATION



BROADWAY ELEVATION

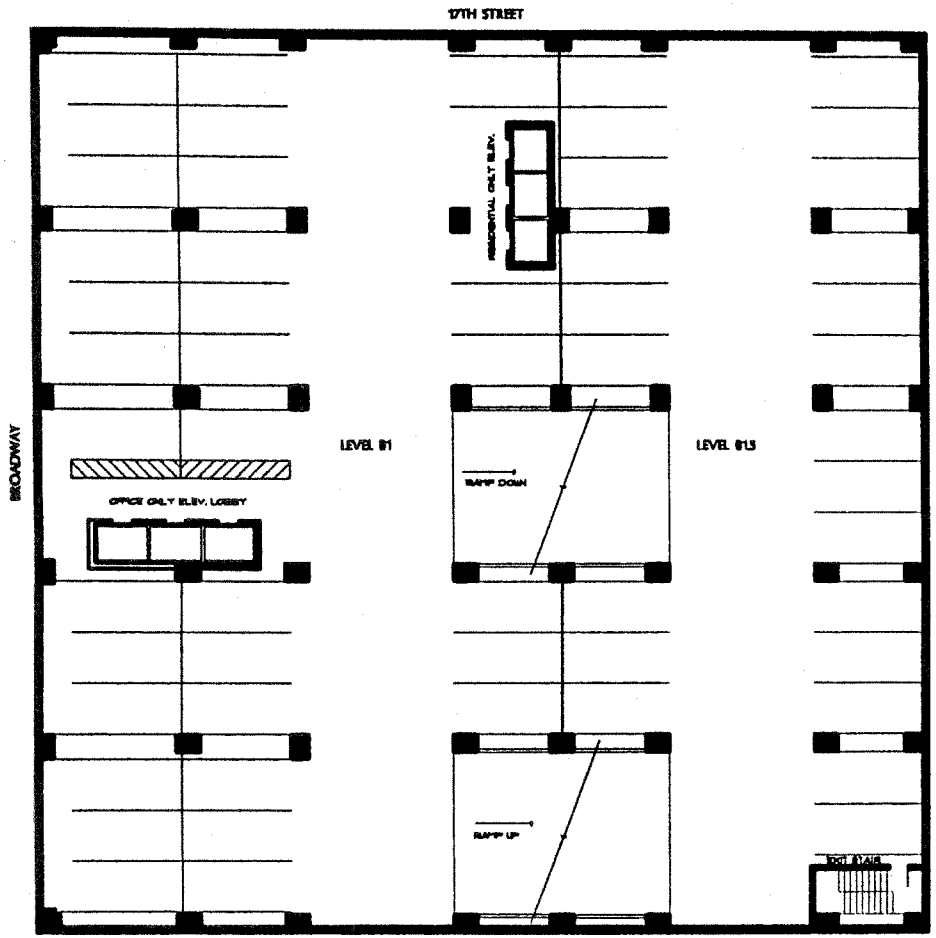


INTERNATIONAL
Architecture
Planning

DOWNTOWN OAKLAND
MIXED USE PROJECT
Oakland, California
1640 Broadway Associates

UNDERGROUND
PARKING

Figure III-6 **Upper Parking**



INTERNATIONAL

DOWNTOWN OAKLAND
MIXED USE PROJECT
Oakland, California
1440 Broadway Associates

UPPER PARKING

Eight floors of office space would be provided above the uppermost parking area, with a typical floor plan shown in **Figure III-8**. These floors would offer 15-foot clear heights with exposed concrete columns. Each floor would provide approximately 22,210 square feet of office space, or a total of approximately 177,600 square feet in this use.

Loft-type residential condominium units are proposed above the office floors, with a typical floor plans shown in **Figure III-9** and **Figure III-10** (the loft areas). A garden terrace and pavilion would be located on the lowest of seven residential floors which each feature units with 20-foot clear heights and mezzanines. Above those seven floors, the two uppermost residential floors would each feature three-story penthouse units (including a mezzanine). A total of 146 market-rate residential condominium units would be provided at the project site.

C. APPROVAL PROCESS AND PLANNING CONSIDERATIONS

The City of Oakland is the Lead Agency responsible for preparation of this EIR (CEQA Guidelines Section 15051).This EIR is intended to address all environmental impacts associated with the project, including without limitation issuance of discretionary city permits. The project applicant has applied for:

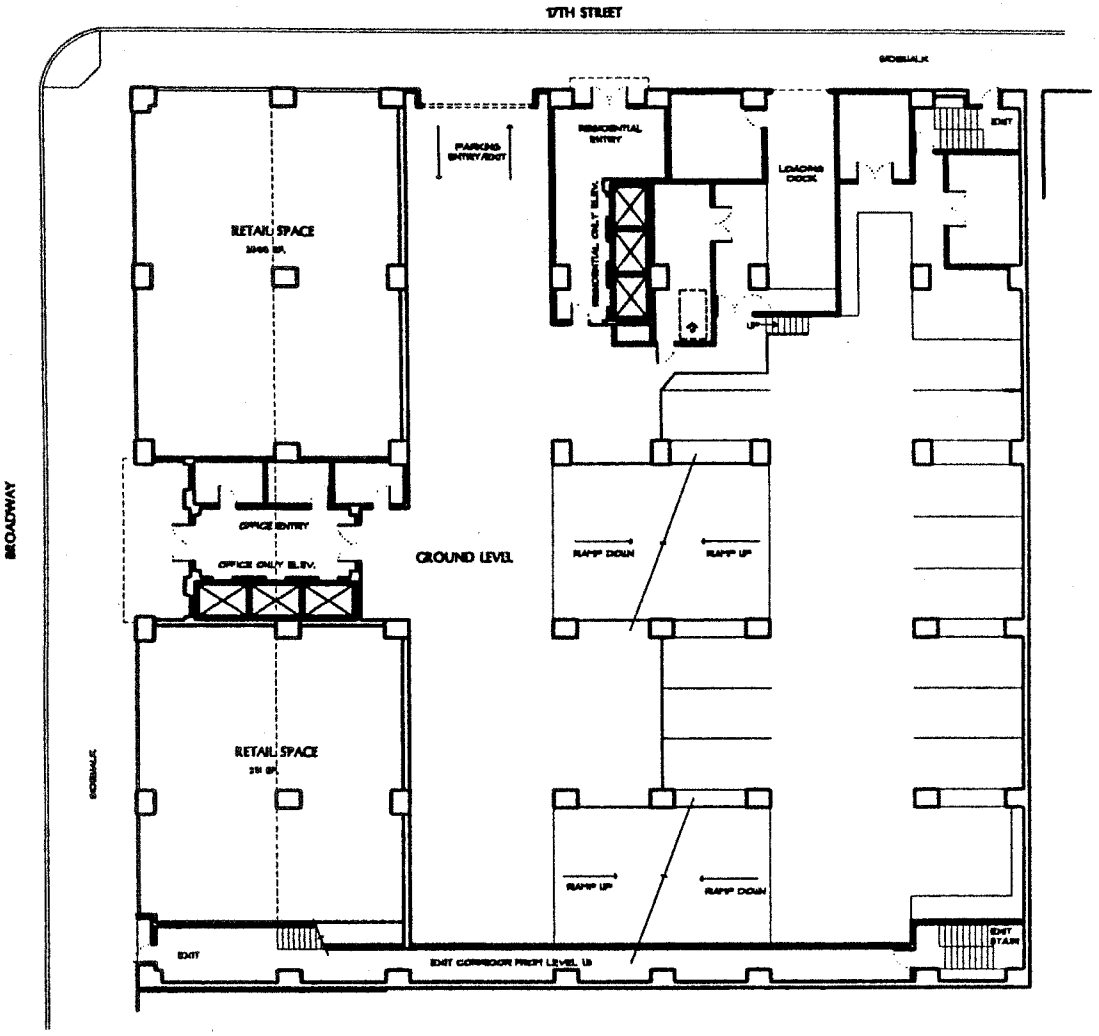
- A Major Interim Conditional Use Permit to enable the proposed structure to be built at a non-residential Floor Area Ratio (FAR) of 19.46 (which conforms to the General Plan, but exceeds the maximum FAR permitted in the R-90 zone), pursuant to the Guidelines for Determining General Plan Conformity;

- A Major Conditional Use Permit to allow certain commercial activities within the first 20 feet facing the abutting streets, and Design Review as required under the S-8 Urban Street Combining Zone; and

- A Minor Variance to reduce the required amount of open space. The project as proposed would provide 4,290 square feet of group open space (the terrace) and 4,832 square feet of private open space (the penthouse decks), while the amount of open space normally required would be either 75 square feet of private open space per residential unit (11,250 square feet) or 150 square feet of group open space per residential unit (22,500 square feet), or some combination of these.

Following certification of the Final EIR, the City Planning Commission would make a decision on the Zoning Permits required by the proposed project.

Figure III-7 **Ground Floor**

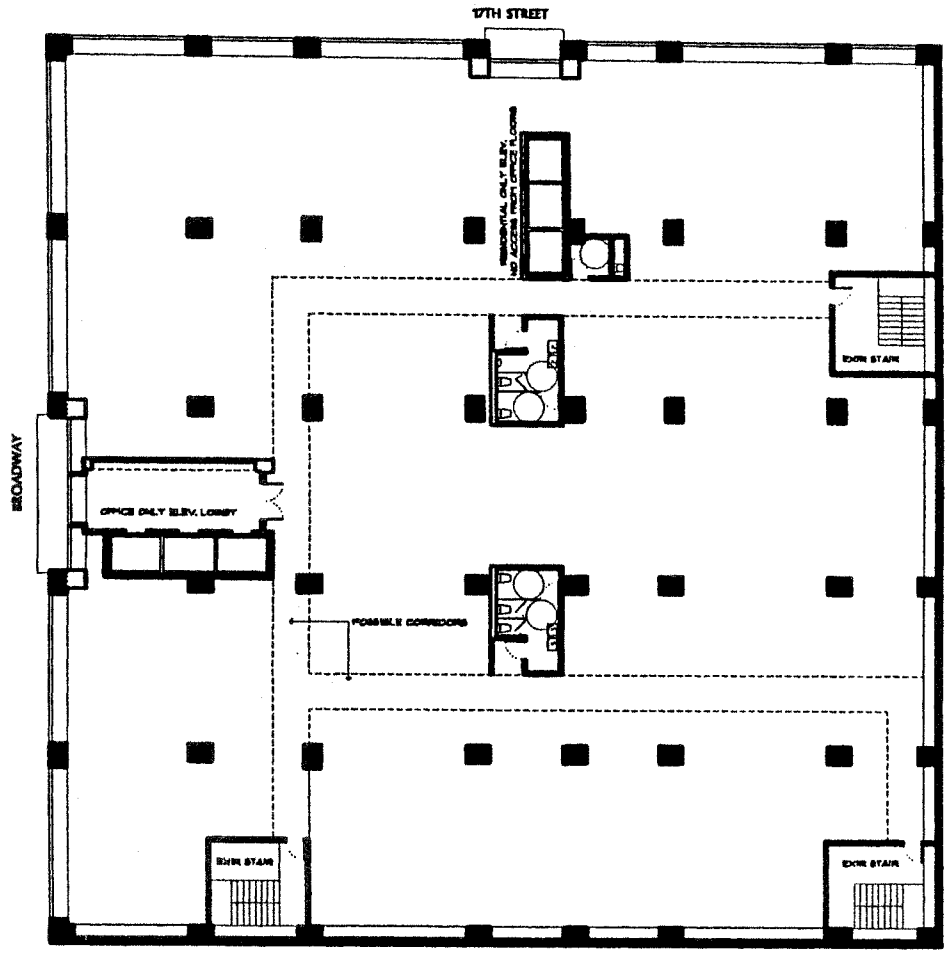


INTERNATIONAL

DOWNTOWN OAKLAND
MIXED USE PROJECT
Oakland, California
1640 Broadway Associates

GROUND FLOOR

Figure III-8 **Typical Office Floor**



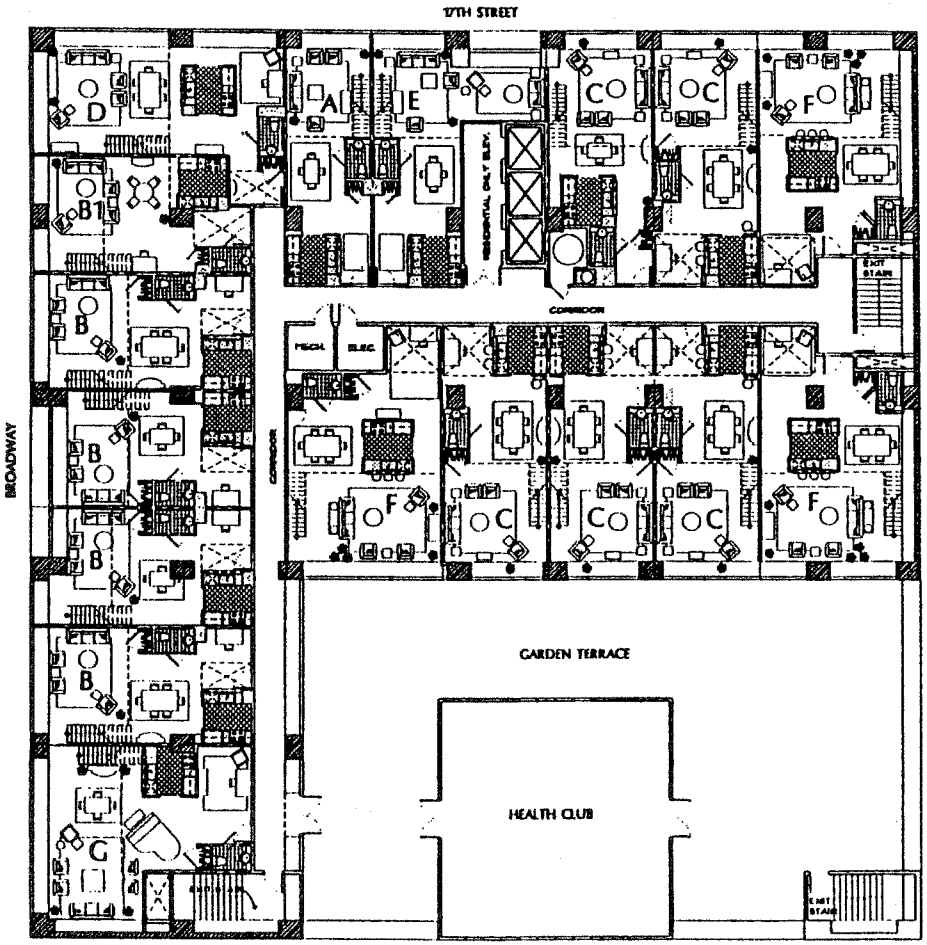
INTERNATIONAL
Architecture
Planning

DOWNTOWN OAKLAND
MIXED USE PROJECT
Oakland, California
1640 Broadway Associates

TYPICAL
OFFICE FLOOR

Figure III-9

Typical Residential Floor



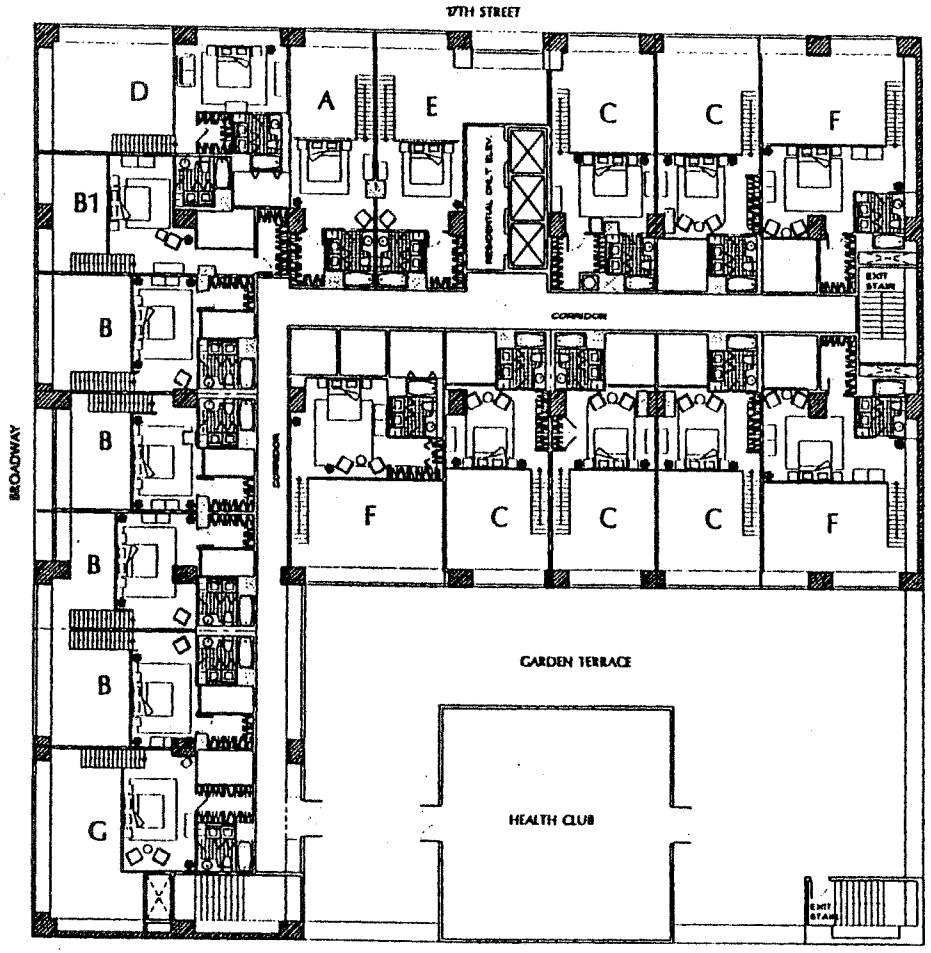
SAN FRANCISCO INTERNATIONAL
Architecture
Planning

DOWNTOWN OAKLAND
MIXED USE PROJECT
Oakland, California
1640 Broadway Associates

TYPICAL
RESIDENTIAL FLOOR

Figure III-10

Typical Residential Loft Floor



SWINERTON INTERNATIONAL

Architecture
Planning

DOWNTOWN OAKLAND
MIXED USE PROJECT
Oakland, California
1640 Broadway Associates

TYPICAL
RESIDENTIAL LOFT
FLOOR

ACTIONS TO WHICH THIS EIR MAY BE APPLIED

This EIR will be the primary document used in the formulation and implementation of a mitigation monitoring and reporting program for the project (Public Resources Code 21081.6). The project sponsor will require the Oakland Planning Commission approval of a Conditional Use Permit and Design Review for the project. Thus, this EIR may be applied to these discretionary actions.

REFERENCES - Project Description

City of Oakland Community and Economic Development Agency, Oakland 10K Initiative, 1999

IV

ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

A. LAND USE PLANS AND POLICIES

INTRODUCTION

The 1640 Broadway Mixed Use Development project is proposed within the city limits of Oakland, California. The principal City policy document that guides development in the project site area is the General Plan Land Use and Transportation Element (adopted March 24, 1998). The proposed project is also subject to the Oakland Zoning Regulations.

SETTING

SITE VICINITY LAND USES

The project site is located at the southeastern corner of 17th Street and Broadway in downtown Oakland. Land uses in the immediate vicinity of the site can be characterized as high-intensity urban uses, with a mix of ground-level retail and upper level office uses. The retail building directly adjacent to the project site along Broadway is approximately 55 feet tall, while the Pacific Bell building directly adjacent to the project site along 17th Street is approximately 277 feet tall.

PROJECT SITE LAND USE

A 75-space surface parking lot currently occupies the approximately 22,210 square foot project site, with frontages on Broadway and 17th Street

RELEVANT PLANS AND POLICIES

City of Oakland General Plan

The Oakland General Plan establishes comprehensive, long-term land use policy for the City. As required by state law, the Oakland General Plan incorporates the following elements: Land Use and Transportation Element (including the Bicycle Master Plan); Housing Element; Open Space, Conservation and Recreation Element; Environmental Hazards Element; and Noise Element. Oakland's General Plan also includes an Historic Preservation Element, and incorporates the Oakland Estuary Policy Plan.

Guidelines for Determining General Plan Conformity

As a general rule, whenever there is an express conflict between the General Plan and the Zoning regulations, a project must conform with the General Plan (Section 17.01.030). As required by Section 17.01.060 of the Planning Code, the Oakland Planning Commission (as amended November 3, 1999) adopted *Guidelines for Determining General Plan Conformity* to determine if a project conforms to the General Plan. These guidelines provide a definition of "express conflict" and state that "[i]n the case where the project clearly does not conform with the General Plan but is permitted by the Zoning and/or Subdivision regulations, the project is not allowed and no applications may be accepted" (p. 3).

Table 3 of the *Guidelines* (p. 15) establishes maximum densities for residential and non-residential development in each of the General Plan Land Use Classifications. Maximum floor area ratio (FAR) and density in principal residential units per *gross* acre are also given an assumed net-to-gross ratio, a maximum density in principal units per *net* acre, and a minimum square feet of site area per principal unit.

The discussion of project conformity with applicable plans and policies is presented in **Appendix B**.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

The project would result in a significant impact related to land use and planning if it would:

- Physically divide an established community;

- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect, resulting in an adverse physical impact on the environment; or

- Conflict with any applicable habitat conservation plan or natural community conservation plan.

The Initial Study indicated that the proposed project would have a less than significant impact related to physically dividing an established community, and the last of these three criteria is not applicable to the proposed project, as there is no habitat conservation plan or natural community conservation plan in place in the project vicinity (see **Appendix A**).

CONSISTENCY WITH PLANS AND POLICIES

Impact A.1: The project would be generally consistent with applicable plans and policies of the City of Oakland, although the proposed project would require a Major Conditional Use Permit to enable the proposed structure to be built at a Floor Area Ratio (FAR) of 19.46, a Major Conditional Use Permit as required for Design Review under the S-8 Urban Street Combining Zone, and a Minor Variance to reduce the required amount of open space. This would be a less than significant impact.

Conflicts with a General Plan or Zoning regulations do not inherently result in a significant effect on the environment within the meaning of CEQA. As stated in the CEQA Guidelines, "Effects analyzed under CEQA must be related to a physical changes" (Section 15358(b)). The Guidelines also state: "The EIR shall discuss any inconsistencies between the proposed project and applicable general plans" in the Setting section of the document (not under Impacts) (Section 15125(d)).

Further, **Appendix G** of the Guidelines (Environmental Checklist Form) makes explicit the focus is on *environmental* policies and plans, asking if the project "would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) *adopted for the purpose of avoiding or mitigating and*

environmental effect" (emphasis added). Even a response in the affirmative, however, does not necessarily indicate that the project would have a significant effect, unless a physical change would occur. To the extent that physical impacts may result from such conflicts, such physical impacts are analyzed in this EIR.

The proposed project is consistent with the intended land uses described in the General Plan and the Zoning Regulations. The General Plan contains many policies, which may, in some cases, address different goals. The Planning Commission, in deciding whether to approve the proposed project, must decide whether, on balance, the project is consistent with the General Plan.

In addition, the General Plan and the Zoning Regulations are clear that if there is a conflict between the General Plan and the Zoning Regulations, the General Plan policies must be applied (see Section 17.01.030 of the Zoning Regulations). On March 24, 1998, the Oakland City Council passed resolution No. 74129 C.M.S. approving the new Land Use and Transportation Element of the Oakland General Plan. The resolution states:

> Until the City's zoning regulations are updated, the City shall apply land use designations, zoning controls and subdivision controls as specified by the planning code and subdivision regulations, except where such action would expressly conflict with the updated General Plan. Where an express conflict does arise, the City shall apply the updated General Plan policies and land use designations.

In conformance with Section 17.01.060 of the Planning Code, the Planning Commission has adopted guidelines to determine General Plan conformity of any specific proposal.

Development of the project site as proposed would result in the construction of a new mixed-use building approximately 389 feet in height. The proposed infill development of a surface parking lot in the downtown area in retail, office and residential uses is in keeping with the City's expressed desire to encourage development to support retail and entertainment uses in the downtown area.

As indicated above, within the downtown area, it is difficult to generalize regarding the character of the existing structures, since there is a mix of older buildings, newer buildings, and remodeled buildings of all sizes within a short distance of the project site. The height of these existing structures ranges from less than 20 feet to approximately 277 feet (the height of the adjacent Pacific Bell building). The proposed building would, at approximately 389 feet, be taller than any of the existing buildings in downtown Oakland.

For the purposes of calculating the proposed residential and commercial density for the proposed mixed used project, the project site has been divided into two portions: one portion which would support residential development, and another portion which would support commercial development. The project site totals approximately 22,210 square feet (or approximately 0.51 acre). Of this area, approximately 13,068 square feet (or approximately 0.30 acre) would support residential development, and approximately 9,142 square feet (or approximately 0.21 acre) would support commercial development.

Under the Zoning Regulations, residential development at the project site would be limited to 1 unit for every 150 square feet of lot area, or in this case, 87 units (13,068 square feet divided by 150 = 87). However, under the General Plan, the total number of residential units is limited to 500 per net acre, which would enable the development of the proposed 146 residential units at the project site (500 units per net acre times 0.30 acre = 150). Since there is express conflict with the Zoning Regulations, the General Plan prevails. The proposed commercial development at the project site would total approximately 182,300 square feet (177,600 square feet of office space and approximately 4,700 square feet of ground-level retail space). This level of development would result in an FAR value of nearly 20.0 over the portion of the project site which would support commercial development (182,300 square feet divided by 9,142 square feet = 19.94). In all other respects (i.e., building height, etc.), the size of the proposed structure is consistent with the Zoning Regulations (see discussion in **Appendix B**).

The Zoning Regulations contain parking requirements and loading berth requirements for new development. The proposed project would be required to provide the number of parking spaces and loading berths required under the most conservative requirement (see additional discussion in Section **IV.B, Traffic, Circulation and Parking**).

Mitigation Measure A.1: None required.

REFERENCES - Land Use, Plans and Policies

City of Oakland, Land Use and Transportation Element of the Oakland General Plan, March 24, 1998.

City of Oakland, Oakland Planning Code, April 1999.

City of Oakland, Open Space, Conservation and Recreation, An Element of the Oakland General Plan, 1996.

Planning Commission, City of Oakland, Guidelines for Determining General Plan Conformity, November 3, 1999.

B. TRAFFIC, CIRCULATION AND PARKING

INTRODUCTION

The traffic and parking impact analysis for the proposed project was conducted by Dowling Associates, Inc., and provides the basis for this Chapter of the EIR. The final Dowling Associates report is included as **Appendix C**.

SETTING

ROADWAYS

Broadway is a major arterial that runs in a roughly north-south orientation from Jack London Square on the south to State Route 24 (SR 24) on the north. Near the project site, there are three lanes in the southbound direction and two lanes in the northbound direction. There are traffic signals at each intersection within several blocks of the project site.

17th Street is a one-way (eastbound) street that intersects Broadway at the project site. It serves as a major connection for traffic coming from Interstate 980 (I-980) to this part of downtown Oakland. It consists of three eastbound lanes west of Broadway, but narrows to two lanes east of Broadway.

With 17th Street, **19th Street** forms a one-way couplet - that is, one of its major functions is to serve traffic traveling from this part of downtown Oakland toward I-980. It consists of two westbound lanes from the project area to San Pablo Avenue, where a left-turn only lane is added for traffic turning south onto Martin Luther King, Jr. Way.

Telegraph Avenue begins in downtown Oakland at Broadway/15th Street and continues into Berkeley to the north. It generally consists of two lanes in each direction.

San Pablo Avenue begins at Frank Ogawa Plaza in downtown Oakland and continues well to the north of Oakland, serving several communities. It is a major arterial that runs parallel to I-80, and is a designated State Route (SR 123) from Emeryville northward to Richmond.

Franklin Street and **Webster Street** form a one-way couplet serving traffic parallel to Broadway. Signals are coordinated on both streets, making it easier for through traffic to traverse the City. Both streets consist of four lanes, with Franklin Street used for northbound traffic and Webster Street for southbound traffic.

STUDY INTERSECTIONS

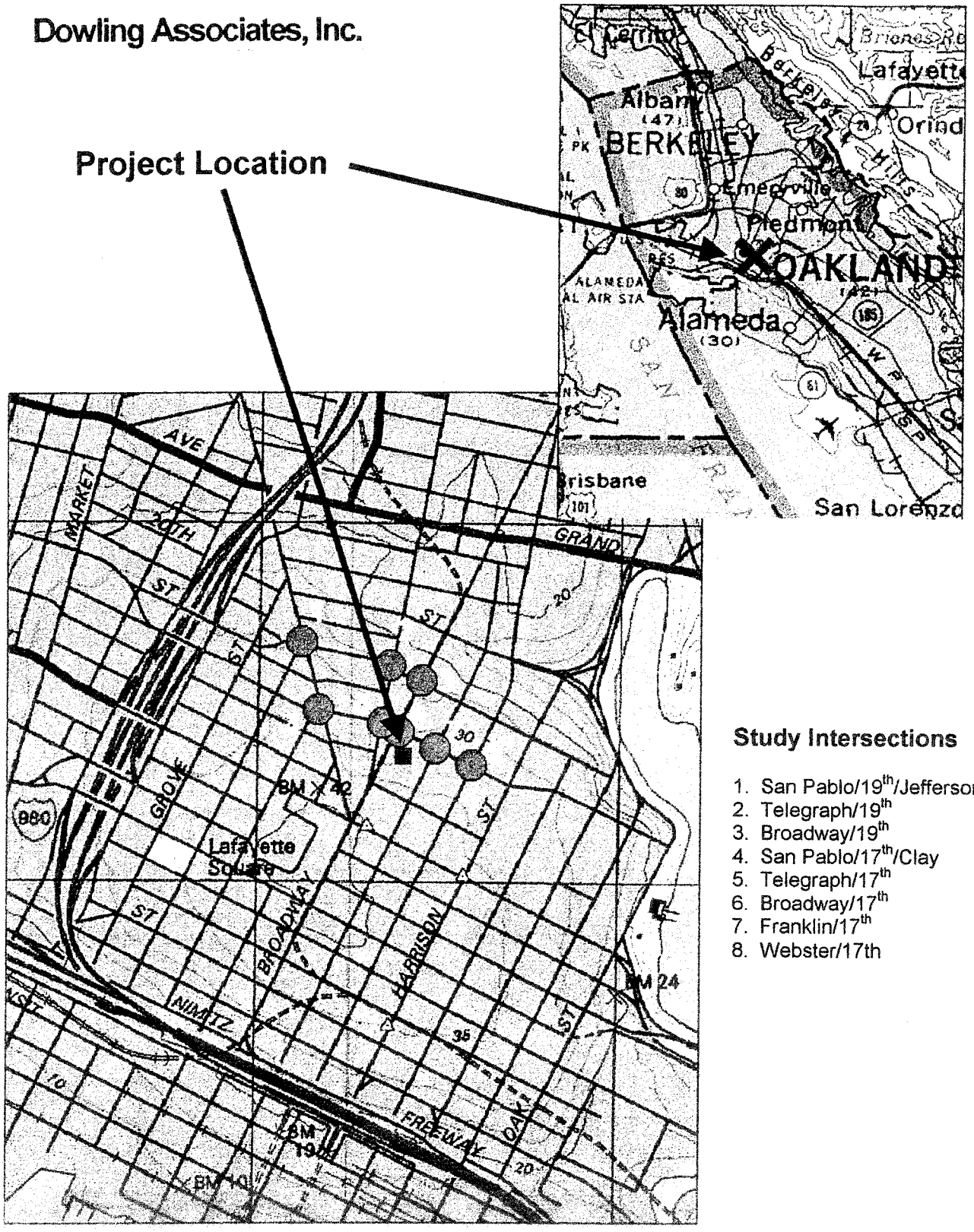
The following intersections were evaluated for the Environmental Impact Report (see **Figure IV.B-1**):

- Broadway/17th Street
- Broadway/19th Street
- Franklin Street/17th Street
- Webster Street/17th Street
- Telegraph Avenue/17th Street
- Telegraph Avenue/19th Street
- San Pablo Avenue/17th Street/Clay Street
- San Pablo Avenue/19th Street/Jefferson Street

PUBLIC TRANSIT SERVICES

The proposed project is located in an area with immediate access to BART and AC Transit, and other transit services (i.e., the Broadway Shopper Shuttle, and the Oakland-San Francisco ferry) are available nearby. The proposed project would be within half a block of the 19th Street BART Station. BART service from the 19th Street Station is summarized in **Table IV.B-1**.

Figure IV.B-1 **Project Location and Study Intersections**



Study Intersections

1. San Pablo/19th/Jefferson
2. Telegraph/19th
3. Broadway/19th
4. San Pablo/17th/Clay
5. Telegraph/17th
6. Broadway/17th
7. Franklin/17th
8. Webster/17th

TABLE IV.B-1: BART SERVICE FROM 19th STREET STATION

Destination	Headways (i.e., service every x minutes) Weekday Peak	Weekday Non-Peak	Weekend
San Francisco	3-5	7-8	10-20
Richmond	6-9	6-9	10-20
Concord	5-10	15	20
Dublin-Pleasanton	15	15	20
Fremont	15	15	20

Notes: Trains that continue beyond San Francisco and Concord to Colma and Pittsburg-Bay Point, respectively, are slightly less frequent. Riders traveling to points between 19th Street and Bayfair can ride either the Dublin-Pleasanton or Fremont trains, making their headways approximately half of those listed for either train. Peak hour capacity ratios range from 1.25 to 1.35 on lines serving the 19th Street Station, where a 1.0 ratio indicates that all seats are taken, and there are no standees. BART's goal is to operate at a peak hour ratio of 1.35 or below (Environmental Science Associates, Oakland City Center Project, Draft Environmental Impact Report, January 31, 2000, from telephone communication with Dean Leonard, BART Manager of Schedules and Services, January 19, 2000).

Several AC Transit routes pass by the project site, enabling passengers originating in this area to get to most areas of Oakland and beyond. **Table IV.B-2** shows a summary of AC Transit routes on Broadway near the study area. The column labeled "Max Load" indicates the peak ridership on each line. AC Transit's standard is not to exceed 125 percent of maximum load for the peak half-hour. The lines exceeding 125 percent of maximum load which are listed below (Line 51 and Line 72/73) do so for only 10 minutes, based on AC Transit's 1998 Boarding and Alighting Survey.

On weekdays, there is a free Broadway Shopper Shuttle that begins at Grand Avenue and travels generally up and down Broadway between there and Jack London Square. Ferries to and from San Francisco are available at Jack London Square, as are Amtrak trains, which include commuter service between San Jose and Sacramento.

TABLE IV.B-.2: AC TRANSIT SERVICE ON BROADWAY

Route	General Destination	Headways (i.e., service every x minutes) Weekday Peak	Weekday Non-Peak	Weekend	Max Load
12	Alameda/Berkeley	15	30	30	72%
42	Alameda	15	None	None	17%
51	Alameda/Berkeley	10	10	15-20	143%
58	Oakland Airport	15	15	30	117%
58X	Jack London Square, East Oakland	15	15	None	123%
72-73	Richmond	10	15	10-15	126%
88	Berkeley	20	20	30	113%

"Max Load" is based on a standard 47-passenger bus.

BICYCLES AND PEDESTRIANS

There are no dedicated bicycle facilities in the immediate project area, although bicyclists are common throughout the day. The City of Oakland Bicycle Master Plan (July 1999) recommends installation of bike lanes along Telegraph Avenue, 17th Street and 18th Street west of Telegraph Avenue, and designation as "bike route" for San Pablo Avenue north of 17th Street. Broadway is identified as a "special study area".

The project area has sidewalks along every street, and pedestrians are quite common during all daylight hours. There are marked crosswalks across all approaches of intersections near the project site, and most intersections include audible pedestrian signals (for assistance to blind pedestrians).

PARKING

There are several surface parking lots and garages available to the public near the project site. The four most likely candidates for off-site parking near the project site are the following:

- The existing garage at Franklin Street/19th Street (the "Franklin garage");
- The existing surface lot and garage between 19th Street and Williams Street, west of Telegraph Avenue (the "Sears lot");

- The existing garage at 13th Street/14th Street/Webster Street/Franklin Street (the "14th Street garage"); and

- The proposed garage (522 spaces) at 17th Street/Telegraph Avenue (the "17th Street garage").

Although a detailed analysis of parking occupancy was not performed for the EIR, brief field observations were made of the surface lots and the three existing garages. Currently, these facilities fill or nearly fill during peak periods each day. The last facility to fill is typically the Sears lot. Since the Sears lot will likely be eliminated at some point during the planned redevelopment of the Uptown area, and the new construction related to the 17th Street garage will have a parking demand sufficient to fill those spaces, it is clear that the theoretical parking demand[1] will exceed supply by the time the proposed project is constructed, with or without the demand added by the project.[2]

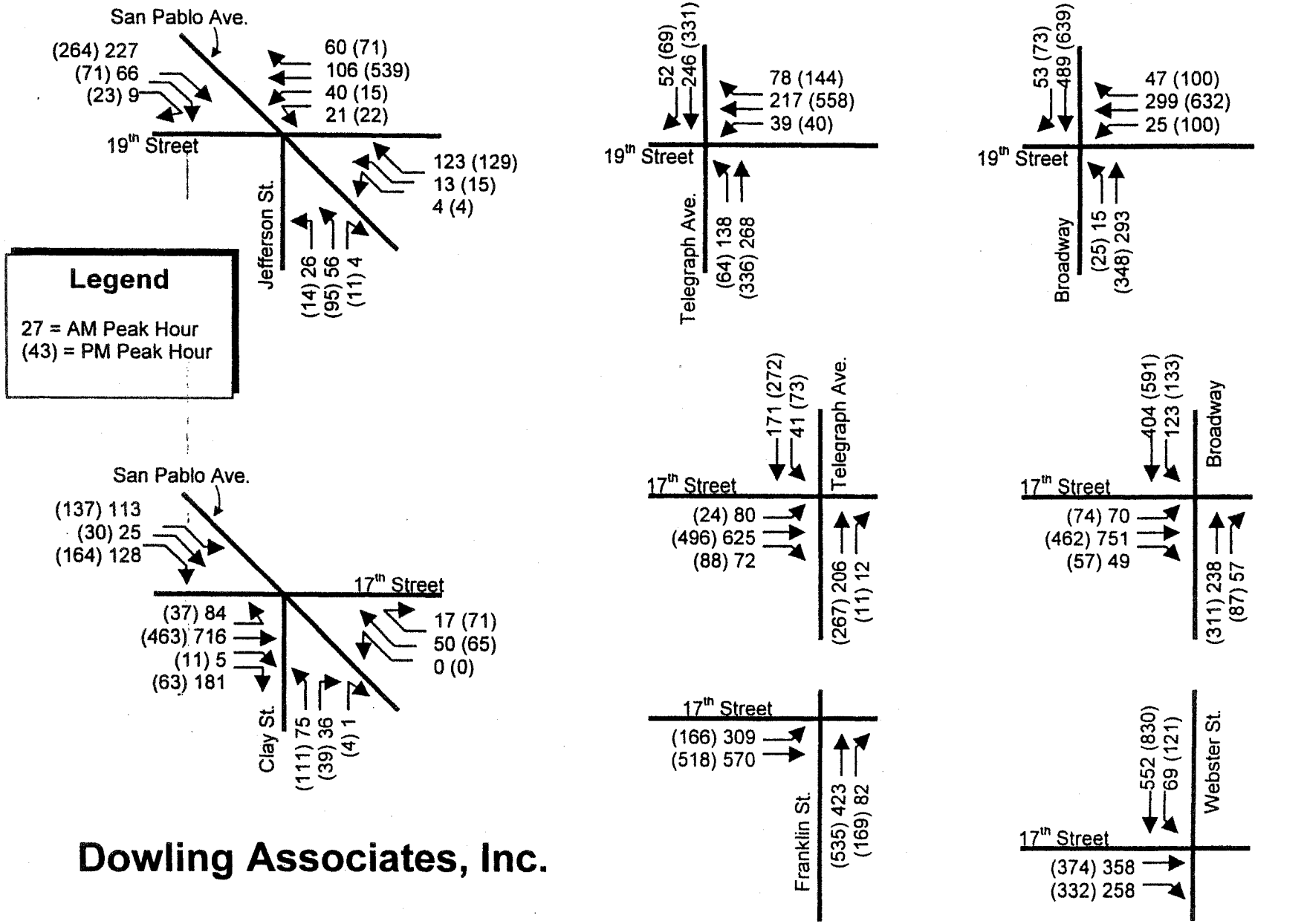
EXISTING TRAFFIC CONDITIONS AND STUDY INTERSECTIONS

Recent traffic counts were available for some of the study intersections from the City of Oakland, and some new traffic counts were performed. The resulting existing traffic volumes are shown in **Figure IV.B-2**. Intersection level of service was then calculated using these traffic volumes and the operations methodology from the 1997 Highway Capacity Manual. Level of service is a way of "grading" the operating conditions at the intersection, with a Level of Service A (LOS A) meaning essentially ideal operating conditions and LOS F meaning "gridlock" conditions, in which the traffic demand exceeds the intersection's capacity. In an urban environment, LOS D is generally considered to be the worst acceptable operating condition for signalized intersections. **Table IV.B-3** describes the traffic conditions under the various levels of service, and **Table IV.B-4** shows the results of the existing conditions LOS analysis.

---

[1] The term "theoretical" is used here because the actual demand that occurs in an urban area is greatly influenced by the supply. That is, the theoretical demand refers to the demand that would occur if an infinite amount of parking were provided - in effect, the way that suburban developments are constructed. In reality, many people know that there is a limited parking supply in an urban area, so they choose other travel modes.

[2] Parking supply and demand figures related to existing and proposed parking facilities from the Oakland Downtown Parking Study Update, Final Report, by Wilbur Smith Associates, December 18, 1998, and update letter, March 31, 2000.



Dowling Associates, Inc.

TABLE IV.B-3: LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Vehicle Delay (Seconds)	Description
A	≤ 10.0	Free Flow or Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.
B	> 10.0 and ≤ 20.0	Stable Operation or Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C	> 20.0 and ≤ 35.0	Stable Operation or Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	> 35.0 and ≤ 55.0	Approaching Unstable or Tolerable Delays: Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly, without excessive delays.
E	> 55.0 and ≤ 80.0	Unstable Operation or Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	> 80.0	Forced Flow or Excessive Delays: Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

Sources: Highway Capacity Manual (1985 and 1997)

TABLE IV.B-4: INTERSECTION LEVEL OF SERVICE - EXISTING CONDITIONS

Intersection	Count Date	AM Peak Hour Delay (sec/veh)	LOS	PM Peak Hour Delay (sec/veh)	LOS
Broadway/17th	2/00	18	B	16	B
Broadway/19th	2/00	16	B	19	B
Franklin/17th	2/00	12	B	19	B
Webster/17th	2/00	18	B	20	B
Telegraph/17th	8/99	15	B	16	B
Telegraph/19th	2/00	15	B	18	B
San Pablo/17th/Clay	8/99	22	C	27	C
San Pablo/19th/Jefferson	8/99	21	C	22	C

Source: Traffic Counts conducted by Dowling Associates, Inc., April 2000.

Based on the LOS calculations, all of the intersections operate at acceptable levels of service during both the AM and PM peak hours.

EXISTING PLANS

The following Oakland General Plan objectives and policies related to transportation are relevant to the proposed project:

General Plan Land Use and Transportation Element

- *Objective T2*: Provide mixed use, transit oriented development that encourages public transit use and increases pedestrian and bicycle trips at major transportation nodes.

- *Policy T2.1, Encouraging Transit-Oriented Development*: Transit-oriented developments should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail.

- *Policy T2.2, Guiding Transit-Oriented Development*: Transit-oriented development should be pedestrian oriented, encourage night and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.

- *Policy T3.3, Allowing Congestion Downtown*: For intersections within Downtown and for those that provide direct access to Downtown locations, the City should accept a lower level of service and a higher level of traffic congestion than is accepted in other parts of Oakland. The desired pedestrian-oriented nature of Downtown activity and the positive effect of traffic congestion in promoting the use of transit or other modes of travel should be recognized.

- *Policy T3.8: Screening Downtown Parking*: Cars parked in downtown lots should be screened from public view through the use of ground floor store fronts, parks, and landscaping, or other pedestrian-friendly, safe, and other attractive means.

- *Policy T3.10: Balancing Parking Demands and Economic Development Activity*: The City should balance the parking demands and parking charges in City-owned facilities with the need to promote economic activity in certain areas (such as Downtown and neighborhood commercial areas).

- *Objective T.4*: Increase the use of alternative modes of transportation.

- *Policy T4.1, Incorporating Design Features for Alternative Travel*: The City will require new development, rebuilding, or retrofitting to incorporate design features in their projects that encourage the use of alternative modes of transportation such as transit, bicycling, and walking.

- *Policy T4.2, Creating Transportation Incentives*: Through cooperation with other agencies, the City should create incentives to encourage travelers to use alternative transportation options.

- *Objective T6*: Make streets safe, pedestrian accessible, and attractive.

- *Policy T6.2, Improving Streetscapes*: The City should make major efforts to improve the visual quality of streetscapes. Design of the streetscape, particularly in neighborhoods and commercial centers, should be pedestrian-oriented, including lighting, directional signs, trees, benches, and other support facilities.

The project would be generally consistent with the above policies because it would be constructed in proximity to the 19th Street BART Station several AC Transit lines; would be a mixed-use project that includes a residential component; would include ground-level commercial uses; would place parking underground or within the proposed building;

would not provide excessive parking (thus encouraging transit use); would provide bicycle parking; and would improve the streetscapes on Broadway and 17th Street.

Oakland "Transit First" Policy

The "Transit First" resolution, passed by the City Council on October 29, 1996, recognizes the importance of striking a balance between economic development opportunities and the mobility needs of those who travel by means other than the private automobile. The policy favors travel modes that have the potential to provide the greatest mobility for people, rather than vehicles. The support for a Transit First policy is indicative of the importance of public transit to the City of Oakland, and the need for cooperative efforts to improve local transit. This policy is reflected in the policies within the Land Use and Transportation Element.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

In evaluating project-related impacts on intersection levels of service, the City of Oakland's standard significance criteria were used. For signalized intersections, a significant impact would consist of one of the following:

- Degradation of level of service from LOS A, LOS B, LOS C or LOS D to LOS E or LOS F;
- Degradation of level of service from LOS E to LOS F; or
- Increase of delay of four percent or more for an intersection operating at LOS E or LOS F.

For parking, the different uses within the project were treated differently. For the residential component, a significant impact would occur if there were not enough spaces provided on-site to accommodate the peak demand. For the office component, the project is proposing to accommodate some of the tenant parking, with the expectation that some of the parking demand would be accommodated off-site in garages and/or surface lots available to the public. Since (as discussed above) the theoretical demand will exceed supply under existing conditions (by the time the project is constructed), any project-related contribution to off-site parking demand would constitute a significant impact.

For transit, a significant impact would occur if the project caused one or more transit lines to exceed the capacity goals set by the respective transit agency. For BART, a typical peak hour train has seating capacity for 708 passengers.[3] Since some lines already run at BART's upper limit goal of 135 percent of capacity, an additional 1 percent of the seating capacity might cause the goal to be exceeded, depending on which line received the new passengers. One percent of 708 is 7, so an expected addition of 7 passengers per train would potentially constitute a significant impact. For AC Transit, which has a capacity goal of 125 percent during the peak half-hour, the worst existing capacity condition in the project area is for the 51 route, which operates at over 140 percent of seating capacity during brief periods (approximately 10 minutes) each day. On this route, the peak observed half-hour ridership was 121 passengers on three busses, or 53 less than the desired maximum of 174 (125 percent times 3 buses time 47 passengers). Therefore, the criterion for a potential significant impact should be 106 passengers per hour per route.

PROJECT TRIP GENERATION

The estimated number of vehicle trips was calculated for the project using the Institute of Transportation Engineers' (ITE) Trip Generation, 6th Edition (1998). The raw trip generation rates from these sources were reduced because of the strong likelihood that many trips related to the project will be taken on transit, by bicycle, and/or on foot (the ITE trip generation rates are based primarily on studies of suburban development, where driving is often the only transportation option). The percent reductions were initially selected based on engineering judgment and general consistency with other concurrent studies in the project area. Subsequent research showed that these reductions are conservative. **Appendix C** includes specific information regarding the research justifying the specific reduction amounts. **Table IV.B-5** shows the project trip generation used in this analysis.

---

[3] Based on a 10-car train with "C" cars at each end and 8 "A" or "B: cars between. Source: BART web site: http://www.bart.gov/general/history/bartcars.htm.

TABLE IV.B-5: PROJECT TRIP GENERATION

Component	Amount	Reduction	AM Peak Hour Trips Total	AM Inbound	AM Outbound	PM Peak Hour Trips Total	PM Inbound	PM Outbound
Residential	146 du	10%	65	12	53	61	38	23
Office	178 ksf	30%	206	181	25	196	34	162
Retail	4.8 ksf	50%	8	5	3	42	20	22
Total			279	198	81	299	92	207

du = dwelling units ksf = thousand square feet
Residential trip generation: Category 232, High Rise Condominium Townhouse.
Office trip generation: Category 710, General Office Building.
Retail trip generation: Category 810, Shopping Center.

TRIP DISTRIBUTION

The distribution of project trips was developed based on the City of Oakland General Plan traffic analyses, modified to be applicable to the specific site of the proposed project. **Table IV.B-6** shows the trip distribution used for this project.

TABLE IV.B-6: PROJECT TRIP DISTRIBUTION

Gateway	AM	PM
Bay Bridge	10%	15%
I-580 West/I-80 East	15%	15%
State Route 24	15%	15%
I-580 East	20%	15%
I-880 South	25%	25%
Alameda	5%	5%
Downtown	5%	5%
Downtown East (Lake Merritt)	5%	5%

TRIP ASSIGNMENT

Based on the trip generation and distribution described above, the project trips were assigned to the roadway network. Note that all of the residential trips were assigned to

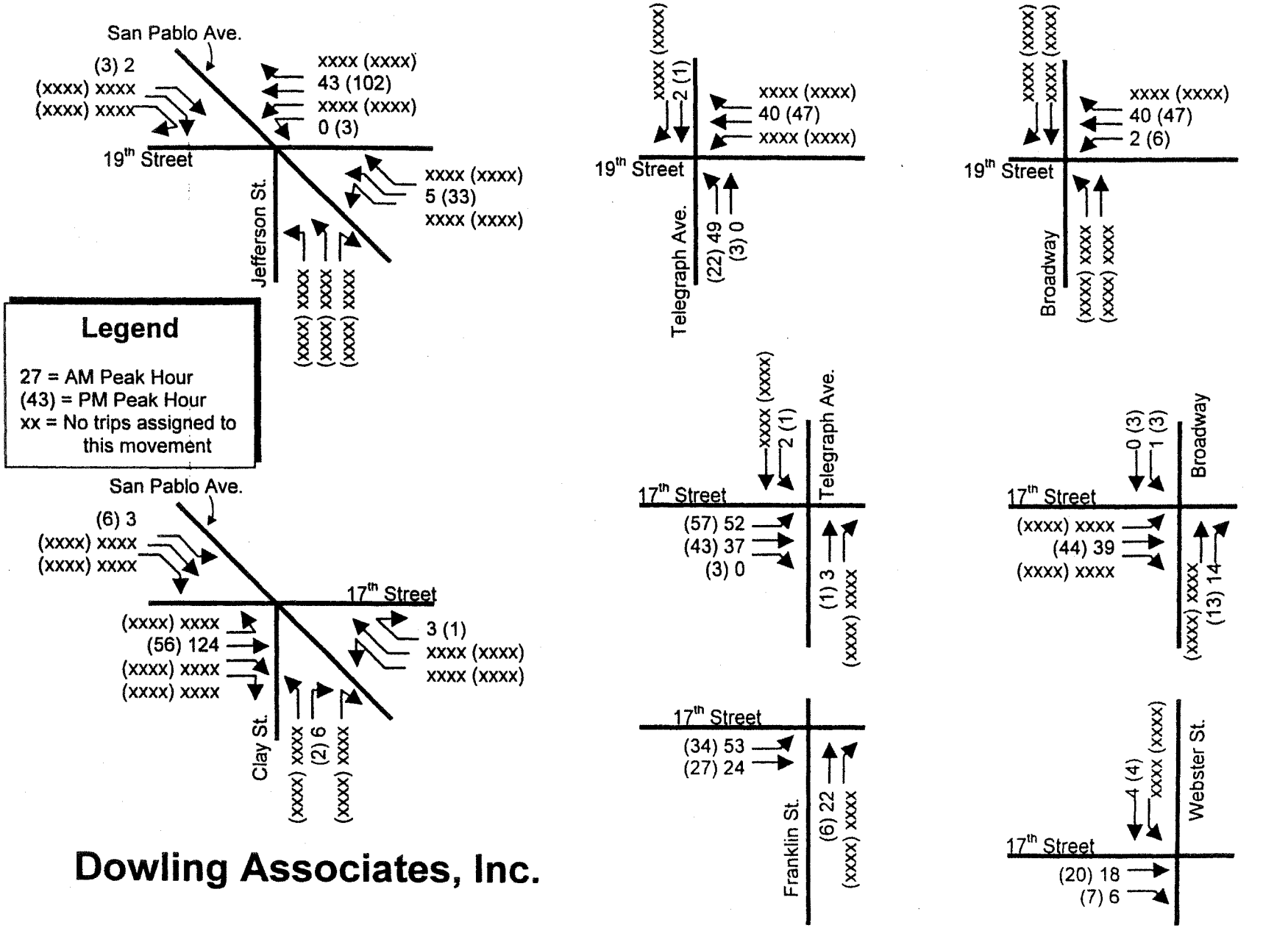
and from the project site itself, while the office- and retail-related trips were assigned to/from the project site and to/from nearby garages (e.g., the Franklin garage). **Figure IV.B-3** shows the trip assignment for the project, and **Figure IV.B-4** shows the Existing plus Project traffic volumes.

GROWTH IN BACKGROUND (NON-PROJECT) TRAVEL

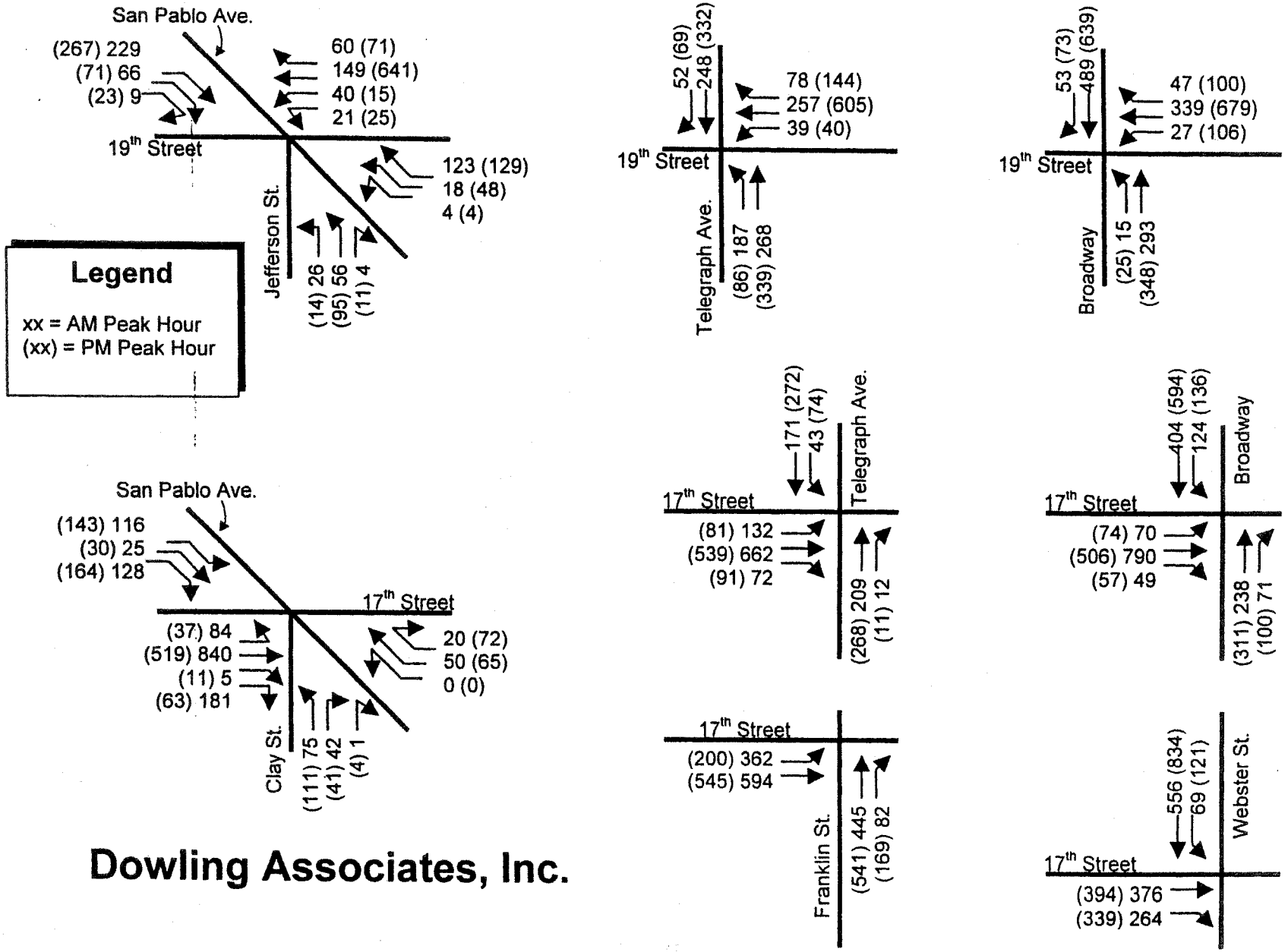
Cumulative base volumes were prepared using a two-step process because of the rapidly changing dynamics of development in the area. Initially, existing volumes at the study intersections were increased consistent with the City's General Plan (½ percent per year to Year 2020), and applicable planned projects were added to those volumes. Since that initial analysis, it has become clear that more development will likely occur in the area, so the cumulative base volumes should clearly be higher than initially calculated. Thus, the second step of this process was to increase the existing volumes by a much greater rate to account for the greater rate of development that is reasonably foreseeable within the planning period.

The greater growth rate assumption to apply to the existing volumes was determined by reviewing the Association of Bay Area Governments' (ABAG's) land use data. The City's General Plan was based on ABAG's Projections '96, so the latest data (Projections 2000) was compared to that. While projections for households and employed residents from Projections 2000 are slightly higher than Projections '96, the projected number of jobs in Oakland is 14 percent higher in Projections 2000 than in Projections '96. Clearly, a detailed modeling of vehicle trips using Projections 2000 data would result in more trips than with Projections '96. In order to be conservative, the difference in job projections was used to calculate an appropriate growth rate for traffic volumes (not the household or employed residents, which showed smaller differences between the two land use projections).

The concept used to determine the growth rate was that future volumes calculated with Projections 2000 data should be about 14 percent higher than volumes calculated with Projections '96 data (consistent with differences in jobs projections). To achieve this result, the existing volumes must be increased by 1.2 percent per year instead of ½ percent per year. In addition to the existing volumes grown by 1.2 percent per year to Year 2020, vehicle trips from the two projects initially identified by City staff (the Rotunda Building and a residential building at 17th Street and Lakeshore Drive) were estimated. The two sources of volumes were added together to comprise the Cumulative base (Without Project) volumes.



Dowling Associates, Inc.



Dowling Associates, Inc.

LEVEL OF SERVICE

Intersection Operations

Impact B.1: The project would result in slight increases in traffic delay in the downtown. This would be a less than significant impact.

Level of service was calculated for the seven study intersections for the existing plus project traffic volumes, and the results are shown in **Table IV.B-7**, below.

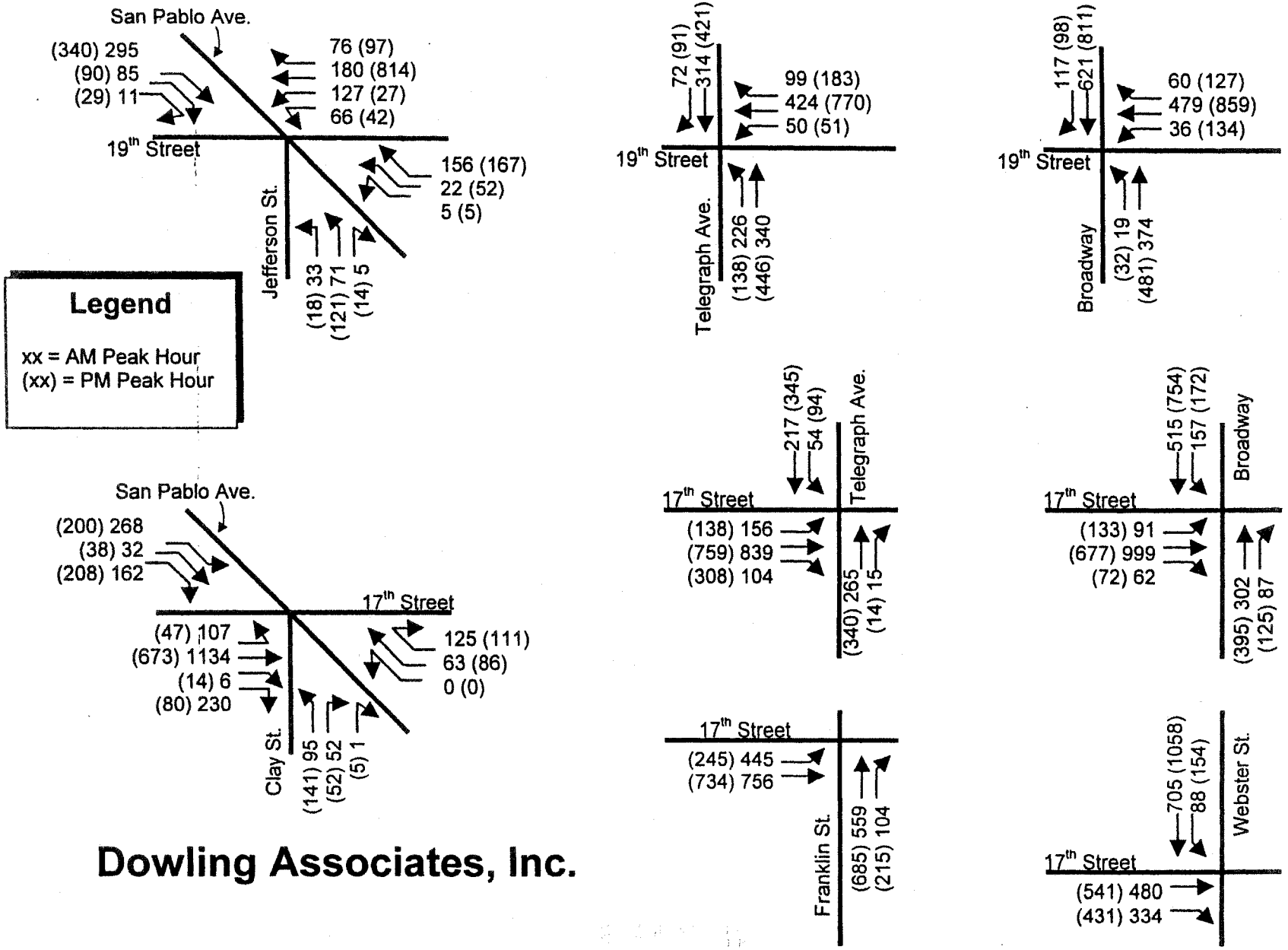
TABLE IV.B-7: INTERSECTION LEVEL OF SERVICE - EXISTING AND EXISTING PLUS PROJECT

	AM Peak Hour				PM Peak Hour			
	Existing Delay		Plus Project Delay		Existing Delay		Plus Project Delay	
Intersection	(sec/veh)	LOS	(sec/veh)	LOS	(sec/veh)	LOS	(sec/veh)	LOS
Broadway/17th	18	B	18	B	16	B	17	B
Broadway/19th	16	B	16	B	19	B	19	B
Franklin/17th	12	B	12	B	19	B	19	B
Webster/17th	18	B	18	B	20	B	20	B
Telegraph/17th	15	B	15	B	16	B	16	B
Telegraph/19th	15	B	15	B	18	B	18	B
San Pablo/17th/Clay	22	C	21	C	27	C	27	C
San Pablo/19th/Jefferson	21	C	22	C	22	C	22	C

Source: Dowling Associates, Inc., April 2000.

The project would increase the calculated delay by one or more seconds at only two of the study intersections, and none of the intersections would have its level of service degraded by one or more letter grades.

Once the Cumulative base volumes were prepared, the project trips were added to them, and level of service was calculated for the Cumulative without Project and Cumulative plus Project scenarios. **Figure IV.B-5** shows the Cumulative plus Project traffic volumes, and **Table IV.B-8** shows the results of the level of service calculations.



Dowling Associates, Inc.

TABLE IV.B-8: INTERSECTION LEVEL OF SERVICE - CUMULATIVE AND CUMULATIVE PLUS PROJECT CONDITIONS

	AM Peak Hour				PM Peak Hour			
	Existing		Plus Project		Existing		Plus Project	
	Delay		Delay		Delay		Delay	
Intersection	(sec/veh)	LOS	(sec/veh)	LOS	(sec/veh)	LOS	(sec/veh)	LOS
Broadway/17th	18	B	19	B	17	B	18	B
Broadway/19th	17	B	17	B	19	B	19	B
Franklin/17th	17	B	17	B	20	B	20	B
Webster/17th	19	B	19	B	21	C	21	C
Telegraph/17th	15	B	15	B	17	B	17	B
Telegraph/19th	17	B	17	B	19	B	20	B
San Pablo/17th/Clay	25	C	25	C	28	C	28	C
San Pablo/19th/Jefferson	22	C	23	C	23	C	23	C

Source: Dowling Associates, Inc., April 2000.

The project would increase the calculated delay by one or more seconds at only three of the study intersections, and none of the study intersections would have its level of service degraded by one or more letter grades.

Mitigation Measure B.1: None required.

Regional Roadway Operations

Impact B.2: The project would increase traffic on regional roadways in the project vicinity. This would be a less than significant impact.

Since the proposed project would generate more than 100 peak hour trips, the impacts of the proposed project on the regional transportation system were assessed using the Alameda County Congestion Management Agency (ACCMA) Countywide Travel Demand Model. The impact analysis for roadways included CMP-designated regional roadways and several local MTS roadways in the project vicinity, as identified by ACCMA staff in their response to the Notice of Preparation (NOP) for this project. The following roadway links were analyzed:

- I-880 - West of I-980
- I-980 - North of I-880
- I-880 - East of Oak Street
- 7th Street - West of Clay Street
- 8th Street - East of Broadway
- 11th Street - West of MLK

I-980 - South of I-580
I-580 - West of I-980
I-580 - East of 14th Avenue
SR 24 - West of Caldecott
SR 260 (Webster Tubes)
Broadway - North of 20th Street
Broadway - South of 12th Street
Harrison Street - South of 11th Street
Franklin Street - South of 12th Street
Webster Street - South of 12th Street
12th Street - East of Broadway
12th Street - West of MLK
14th Street - East of Oak Street
14th Street - East of Broadway
Castro Street - South of 12th Street
Brush Street - South of 12th Street
Clay Street - South of 12th Street
San Pablo Avenue - North of 20th Street
Telegraph Avenue - North of 17th Street

A detailed summary of the approach and results is described in **Appendix C**.

In the ACCMA Analysis, project-related roadway impacts were considered significant if the addition of project traffic would result in LOS conditions worse than the Congestion Management Program (CMP) roadway LOS E standard, except where LOS F was originally measured at the time the CMP was adopted in 1991. For those locations where the future Baseline condition is LOS F, the project impacts were considered significant if the contribution of project traffic is at least 3 percent of the total traffic.

The traffic forecasts were based on the October 1999 version of the Countywide Model, which uses Association of Bay Area Governments' (ABAG) Projections '98 (P'98) socio-economic forecasts as updated by the City of Oakland for the downtown area. For the CMP analysis, the proposed project was added to the 2005 and 2020 baseline socio-economic inputs for the ACCMA Countywide Model.

The Year 2005 and Year 2020 traffic forecasts were extracted at the required CMP and MTS highway segments from the ACCMA Countywide Traffic Model, for both the AM and PM peak hours. The levels of service (LOS) were analyzed using the Florida Department of Transportation LOS methodology, which provides a planning level analysis based on the *Highway Capacity Manual* methods. The analysis found that all project-related impacts to these roadway links would be less than significant

Mitigation Measure B.2: None required.

PARKING IMPACTS

Impact B.3: The project could result in a parking deficit of approximately 292 off-street parking spaces at project buildout. This would be a significant impact.

Using the ITE publication, *Parking Generation* (1987), the peak parking demand for these land uses can be calculated using an average rate or a regression equation.[4] Use of the regression equation is preferred if the statistical reliability[5] is considered to be relatively good. In this case, the statistical reliability of both the residential and office equations are considered to be sufficiently reliable for use in this type of study. In order to be reasonably conservative, however, the greater of the regression equation or the average rate was used as the initial calculation.

The ITE data was collected almost exclusively in suburban areas, where little or no transit service exists, and nearly every trip is made by car. Since the proposed project is located along a heavily used urban transit corridor, it is reasonable to reduce the peak parking demand calculation by some percentage to account for people living in the building who don't own a car and people who come to work at the offices via transit, bicycle, or on foot. Therefore, the peak parking demand rates were reduced by the same percentages as the vehicle trip generation rates (10 percent for residential and 30 percent for office[6]).

The resulting peak demand for residential is 154 spaces (171 spaces by the formula, reduced by 10 percent). The resulting peak demand for the office component of the project is 347 spaces (496 spaces, based on the average rate, then reduced by 30 percent).

Additionally, the project will be replacing an existing lot that members of the public can pay to use (i.e., it is not a dedicated parking lot for a specific business or residence). There are approximately 60 marked parking stalls at that location, although more cars are typically parked there because the operator performs valet parking services. For the

---

[4] A regression equation is a mathematical formula created to describe actual data that occurs in the field.

[5] A measure of the statistical reliability, called "R-squared" and written " R^2", is presented in the ITE manual for each category of land use. For parking demand calculations, an R^2 of about 0.90 is generally considered to be sufficiently reliable to use in a study of this type (an R^2 of 1.00 would indicate a perfect match of an equation to a set of data).

[6] Reducing the office parking demand rate by the same percentage as the trip rate reduction is clearly a logical approach because parking demand is directly related to vehicle trip generation: only office employees choosing to travel by car (a vehicle trip) require a parking space. For residential parking demand, some residents who usually choose to travel by transit may still own a car, thus requiring a parking space. From Weant and Levinson's Parking (1990), Table 6-8 provides justification for the 10 percent reduction (also indicating that the 10 percent reduction in trip generation is probably quite conservative) in parking demand. The range of parking demand for areas of "moderate" transit use (identified as 40 percent transit usage, the same as the mode split found in the ACCMA model) is about 30 percent lower than that for areas of "light" transit use (20 percent transit mode split). Since the ITE parking demand rates are based mostly on areas with less transit usage than Weant and Levinson's "light" category, the 10 percent reduction in parking demand rates is more than justified.

purpose of the EIR analysis, it is assumed that 75 parking spaces will be replaced by the proposed project. This means that, based on the ITE parking demand rates and the approximate peak demand at the existing lot, a total peak demand of 422 office-related parking spaces must be accommodated either on- or off-site.

The retail component of the project is not expected to generate any significant new parking demand. While the specific businesses to lease the "retail" space are unknown at this time, the typical establishment would be one that would serve tenants within and near the proposed building, such as a copy service, stationery store or coffee shop. Field observations of these types of businesses along the Broadway corridor indicate that virtually all of the customers arrived on foot (i.e., they did not arrive by car).

City of Oakland Parking Requirements

The City off-street parking requirement for the residential portion of this project would be a total of 146 parking spaces (based upon the zoning ordinance requirements which specify the provision of one parking space for each residential unit), and a total of 137 parking spaces to support the proposed office uses (at a ratio of one parking space per 1,300 square feet of commercial space [not including the limited amount of ground floor commercial space to be provided at the project site, which would be considered as local serving only, with virtually all customers expected to arrive on foot]).

The proposed project would supply one assigned off-street parking space for each of 146 dwelling units, or a total of 146 residential parking spaces. This would meet the City's current requirement for the number of off-street parking spaces to support the proposed residential development. The proposed project would also provide 138 parking spaces to support office uses at the project site, which would also meet the City's current requirement for the number of off-street parking spaces to support commercial uses.

Parking Supply

The proposed project would provide several floors of parking, with some above ground and some below ground. The proposed total number of spaces would be 284, 146 of which would be dedicated to the residential portion of the project (one parking space per unit). The project would provide 138 spaces to be available for the office component of the project.

Analysis of Parking Demand versus Supply

For the residential component of the proposed project, the calculated peak demand of 154 spaces is slightly greater than what is proposed by the project (146 spaces), indicating a significant project impact. The proposed supply of one parking space per dwelling unit is consistent with typical practice of urban downtown residences in which each unit receives the rights to one parking space.

For office-related parking, there would be a theoretical demand of 209 spaces not accommodated on-site (demand of 347 space minus 138 on-site parking spaces). Adding this to the approximately 75 spaces (primarily related to existing employment in the area) which the proposed project would replace would result in a theoretical peak demand of 284 spaces that would have to be accommodated off-site. Since the theoretical demand is already expected to exceed the supply that will be available at the time the project is completed, this means that the project will contribute to the significant parking impact in the area.

Table IV.B-9 shows a summary of the parking demand and supply for the proposed project.

TABLE IV.B-9: SUMMARY OF PARKING SUPPLY AND DEMAND

Project Component	Demand[a]	Supply	Net
Residential	154	146	-8
Office	347	138	-209
Retail	0	0	0
Existing Surface Lot	75[b]	0	-75
TOTAL:	576	284	-292

Notes
[a] Demand shown does not necessarily fully account for a lack of supply. See footnote #1, above for more discussion of "theoretical" parking demand.
[b] Estimated.

Mitigation Measure B.3: Under existing and cumulative conditions, project parking demand, as calculated using ITE adjusted parking demand rates, will exceed supply by 292 spaces. Given that it is desirable to encourage residents and employees to use transit rather than personal automobiles, the mitigation measure should not include adding more parking, but should instead consist of encouraging residents to use transit, bicycles, or to travel on foot. The project's mitigation measures for this impact should be the following:

- **Assign only one specific (numbered, perhaps) parking space to each unit, and prohibit residents from parking in any space except their own.**

- **Inform residents that there is only metered, time-limited parking on-street for several blocks around the project location, and indicate that they are therefore strongly discouraged from owning more than one automobile that they might wish to park at or near the project.**

- **Provide current transit information to residents, either by direct delivery (e.g., via U.S. Mail) or at a convenient location, such as a kiosk near the elevators.**

The mitigation measures associated with resident parking should be accomplished via the usual sales documentation (e.g., "CCR's" or homeowner's association contracts) for the units.

Under existing and cumulative conditions, parking demand in the project area will exceed supply, and the office component of the proposed project will contribute to that parking demand. The project could implement one or more mitigation measures that include the following:

- **Provide tenants with general information about parking in the area. Specifically, leases should include a statement informing tenants that, as is typical in most urban downtown areas, parking is extremely scarce and that employees are advised to use public transit instead of personal automobiles in getting to and from the project site.**

- **Provide specific information about transit. To provide information about transit, the building management and/or on-site security staff should maintain a reasonably current supply of AC Transit, BART, and ferry schedules. Additionally, at least once per year, perhaps as part of normal**

correspondence between management and lessees, the building management should reiterate its recommendation for tenants to take transit to the site.

- **Designate five percent of the office-related parking spaces (7 spaces) for carpool parking only. The building management should be responsible for designing a method of enforcing the carpool parking.**

- **Implement a shared parking management system.**

- **Implement a valet parking system during daytime weekday use.**

- **Price parking within leases or by other means to help limit the number of tenants who drive to the site.**

The effective implementation of parking demand reduction programs could be expected to reduce project-related parking demand to some extent. However, it is unlikely that these measures would contribute to a significant reduction in the anticipated increase in demand for parking space in the downtown area as development in that area continues. The increase in downtown parking demand would continue to represent a significant unavoidable impact, to which the project-related parking demand would contribute. This impact is also cumulatively significant and unavoidable.

Significance after Mitigation: Significant and Unavoidable. This parking impact could be addressed through a variety of means, including increasing the supply to meet demand or implementing a project alternative which would address more of the peak parking demand. If the parking demand is not met, this impact would remain significant and unavoidable.

The City, in its deliberations for the project, could choose to consider approving the project parking demand as now proposed by making findings of overriding consideration pursuant to CEQA Guidelines Section 15093. These findings must state specific legal, economic, social, technological benefits that the decisionmakers believe outweigh the parking demand impact so it may be considered "acceptable".

TRANSIT IMPACTS

Impact B.4: Project ridership on AC Transit could be accommodated. Project ridership on BART could be accommodated. This would be a less than significant impact.

Based on the transportation demand modeling analysis performed to meet the Alameda County Congestion Management Agency (ACCMA) requirements, the project would result in 80 to 100 peak hour BART trips and about 100 new peak hour AC transit trips.

From the BART schedule information presented above (see **Table IV.B-1**), there are approximately 39 trains passing through the 19th Street BART station during peak hours. Using 100 new BART trips during the peak hour, this would result in an average of approximately 2.6 additional passengers per train. This is below the significance criteria of 7 passengers per train, so there would be no significant impact to BART.

Since the significance criteria for impacts to AC Transit is 106 passengers per hour per route, and the total peak hour AC Transit trips from the project site are estimated to be 100, there would be no significant project-related impact to AC Transit.

Mitigation Measure B.4: None required.

BICYCLE IMPACTS

Impact B.5: The project is likely to increase the demand for bicycle parking in the downtown area. This is a potentially significant impact.

Mitigation Measure B.5: The project shall provide an adequate number of bicycle parking spaces, as determined by the City, in location(s) either on-site or within a three-block radius, or through payment of appropriate in-lieu fees.

Significance after Mitigation: Less than Significant.

CONSTRUCTION-PERIOD IMPACTS

Impact B.6: Project construction could result in temporary circulation impacts in the project vicinity. This would be a potentially significant impact.

Mitigation Measure B.6: Prior to the start of excavation or construction, the project sponsor would submit to the City Traffic Engineering Division for review and approval a plan for managing construction-period traffic and parking. This plan would include information on routing of construction traffic, provision of off-street parking for construction workers, and off-street equipment staging.

Significance after Mitigation: Less than Significant.

REFERENCES - Traffic, Circulation and Parking

Alameda County Congestion Management Agency, Congestion Management Program - 1998 Update, July 29, 1998.

Association of Bay Area Governments, Projections '96.

Association of Bay Area Governments, Projections '98.

Association of Bay Area Governments, Projections 2000.

City of Oakland, Land Use and Transportation Element of the Oakland General Plan, March 24, 1998.

City of Oakland, Bicycle Master Plan, Adopted July 20, 1999.

ITE (Institute of Transportation Engineers), Trip Generation, 6th Edition, 1997.

ITE (Institute of Transportation Engineers), Parking Generation, 1987.

SANDAG (San Diego Association of Governments), Traffic Generators, 1998.

Transportation Research Board, Highway Capacity Manual, Special Report No. 209, 1994 update.

Weant and Levinson, Parking, 1990.

Wilbur Smith Associates, Oakland Downtown Parking Study Update, Final Report, December 18, 1998.

C. AIR QUALITY

SETTING

CLIMATE AND METEOROLOGY

The project site is located in the San Francisco Bay Area, within a large, shallow air basin ringed by hills, with a number of sheltered valleys around the perimeter. The two primary sea-level gaps in the hills (the Golden Gate and the Carquinez Straits) provide important sources of ventilation for the Bay Area.

Summers are warm and relatively dry, while winters are generally mild and wet. Most of the area's rainfall is associated with Pacific storms that usually occur between the months of November and April.

Located almost directly east of the Golden Gate, Oakland generally has good ventilation, particularly in the spring and summer months. However, the Bay Area is subject to inversion conditions in which a layer of warmer air lies over a layer of cooler air (rather than the more common condition in which air temperature decreases with altitude). During inversion conditions, the dispersal of pollutants to the upper atmosphere (via vertical mixing) is severely diminished. The rapid buildup of pollutant concentrations is possible with calm winds and during inversion conditions.

AIR QUALITY PLANS, POLICIES AND STANDARDS

Ambient Air Quality Standards and Attainment/Nonattainment Designations

The Federal Clean Air Act of 1967, as amended, established air quality standards for several "criteria" pollutants. These standards are divided into primary standards (designed to protect the public health) and secondary standards (intended to protect the public welfare from effects such as visibility reduction, soiling, nuisance and other forms of damage). The criteria pollutants of concern in evaluating the air quality impacts associated with the proposed project are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2) and suspended respirable particulate matter (PM_{10}). Air quality standards for the criteria pollutants lead (Pb) and sulfur dioxide (SO_2) are already being met locally, and these pollutants would not be generated in significant quantities by the proposed project or project-related traffic.

In addition, the State of California has adopted its own air quality standards. The State standards, which establish durations of time for specific contaminant levels designed to avoid adverse effects with a margin for safety, are generally more stringent that the corresponding Federal standards, as shown in **Table IV.C-1**, below:

TABLE IV.C-1: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1 Hour	0.12 parts per million	0.09 parts per million
Carbon Monoxide	8 Hour	9.0 parts per million	9.0 parts per million
	1 Hour	35.0 parts per million	20.0 parts per million
Nitrogen Dioxide	Annual	0.053 parts per million	---
	1 Hour	---	0.25 parts per million
Sulfur Dioxide	Annual	80 micrograms per cubic meter	---
	24 Hour	365 micrograms per cubic meter	0.04 parts per million
	1 Hour	---	0.25 parts per million
PM_{10}	Annual	50 micrograms per cubic meter	30 micrograms per cubic meter
	24 Hour	150 micrograms per cubic meter	50 micrograms per cubic meter
Lead	30 Day Average	---	1.5 micrograms per cubic meter
	Calendar Quarter	1.5 micrograms per cubic meter	---

Source: Bay Area Air Quality Management District, BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans, April 1996.

Ozone is a considered a secondary pollutant, since it is not emitted directly into the atmosphere, but is produced through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_x), which are "precursor" compounds for ozone. Because ozone precursors are transported and diffused by wind, ozone is regarded as a regional air pollutant. Ozone is the major component in smog, and exposure to ozone can entail adverse health impacts. When ozone concentrations are predicted to reach or exceed 0.1 parts per million, the Bay Area Air Quality Management District (BAAQMD) issues a "Spare the Air" advisory, telling those who would be adversely affected by unhealthful air (particularly those with respiratory or heart

problems) to avoid exertion and outdoor activity to the extent possible, and requesting voluntary reductions in the number of vehicle trips within the region.

Carbon monoxide is an odorless, colorless gas which can be lethal in high concentrations. The primary sources of carbon monoxide are motor vehicles, and concentrations of this gas are greatest in areas near the intersections of roadways which carry high volumes of traffic.

Nitrogen dioxide is produced through the combustion of fuel, and can contribute to the formation of smog. Nitrogen oxide emissions (the primary sources in the local area motor vehicles) can elevate nitrogen dioxide levels, and also affect visibility.

The use of high sulfur fuels in petroleum refining and electricity generation may result in emissions of sulfur dioxide (SO_2). The San Francisco Bay Area Air Basin meets the established Federal and State ambient air quality standards for this ozone precursor.

Particulates which are 10 microns in diameter or less are identified as PM_{10}. If inhaled deeply, these particulates can cause adverse health effects. The greater proportion of suspended particulates originate from road dust, construction activities and farming. Only a small percentage comes from mobile sources. During the winter, woodsmoke from fireplaces can be the source of up to 40 percent of ambient respirable particulate matter.

Lead has been phased out as a gasoline additive in California, and Federal and State ambient air quality standards for lead are met within the San Francisco Bay Area Air Basin.

Federal Air Quality Program

Based on five consecutive summers of clean air data, in 1995 the San Francisco Bay Area became the largest metropolitan area in the United States to attain the federal ozone standard. However, in response to exceedances of the ground-level ozone standard in 1995 and 1996, the U.S. Environmental Protection Agency re-designated the San Francisco Bay Area Air Basin to an unclassified/non-attainment area in 1998. The federal ozone standard was violated several times during the summer of 1998, and a series of "Spare the Air" days were declared in response ("Spare the Air" days involve public service announcements intended to discourage unnecessary driving, lawnmowing, outdoor painting, etc.).

In terms of the one-hour federal ozone standard, the Environmental Protection Agency downgraded the air basin classification from a "maintenance" area to an "unclassified non-attainment" area in August, 1998. In response to this re-designation of the air basin, the BAAQMD and regional metropolitan planning and transportation agencies were required to develop an ozone attainment plan to meet this federal ozone standard (the *1999 Ozone Attainment Plan*).

The air basin was designated "attainment" for carbon monoxide by the Environmental Protection Agency in March, 1998, and is an "attainment" area (or is unclassified) for all other federal ambient air quality standards.

State Air Quality Program

Under the California Clean Air Act (CCAA), the Bay Area Air Basin is a non-attainment area for ozone and PM_{10} (respirable particulate matter). The State standard for ozone was violated more than a dozen times in the San Francisco Bay Area during the summer of 1998. The air basin is an "attainment" area (or is unclassified) for all other State ambient air quality standards.

The CCAA required local air pollution control districts to prepare Air Quality Attainment Plans. These plans must provide for a reduction of district-wide emissions of each non-attainment pollutant or its precursors of five percent per year averaged over consecutive three-year periods or, if not, provide for adoption of "all feasible measures on an expeditious schedule". The CCAA also grants air districts explicit statutory authority to adopt indirect source regulations (related to land uses or facilities that attract or generate motor vehicle trips and thus result in air pollutant emissions [e.g., shopping centers, office buildings and airports]) and transportation control measures, including measures to encourage or require the use of ridesharing, flexible work hours or other measures which reduce the number or length of vehicle trips.

The current Bay Area Clean Air Plan (CAP) was adopted in December, 1997. It proposes the imposition of controls on stationary sources (factories, power plants, industrial sources, etc.) and transportation control measures designed to reduce emissions from motor vehicles. The CAP proposes the adoption of "all feasible measures on an expeditious schedule".

Regional Air Quality Plans

The Clean Air Act of 1962 and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate the areas where the Federal or State ambient air quality standards are not met as "non-attainment areas". Because of the differences between the Federal and State standards, the designation of non-attainment areas is different under Federal and State legislation.

City of Oakland General Plan

The Oakland General Plan Open Space, Conservation and Recreation Element contains the following Air Quality objective and policies that would apply to the proposed project:

Objective

1. To improve air quality in Oakland and the surrounding Bay Region.

Policies

CO-12.1. Promote land use patterns and densities which help improve regional air quality conditions. The City supports efforts of the responsible public agencies to reduce air pollution.

CO-12.4. Require that development projects be designed in a manner which reduces potential adverse air quality impacts.

The proposed mixed-use project would locate residential units near major transportation corridors and would include a local-serving commercial component, making it generally consistent with the objective and policies above.

REGULATORY AGENCIES

The Air Resources Board (ARB), California's air quality management agency, regulates mobile emission sources such as automobiles, trucks and construction equipment, and oversees the activities of regional air districts. The Bay Area Air Quality Management District (BAAQMD) is the regional agency empowered to regulate pollutant emissions from stationary sources in the San Francisco Bay Area. BAAQMD regulates air quality through its permit authority over most types of stationary emission sources, and through

planning and review activities, but the District's permit authority does not extend to on-road motor vehicles.

EXISTING AIR QUALITY CONDITIONS

The Bay Area Air Quality Management District (BAAQMD) operates a network of air quality monitoring stations throughout the Bay Area. The closest station to the project site is located on Alice Street near 8th Street in downtown Oakland. **Table IV.C-2** summarizes the air quality data from this monitoring station during the period 1996 - 1998 with the number of days that the State or Federal standard was exceeded for the two pollutants measured in Oakland (ozone and carbon monoxide).

TABLE IV.C-2: AIR QUALITY DATA FOR OAKLAND*, 1996 - 1998

Pollutant	Standard	Statistic	1996	1997	1998
Ozone	Federal 1 Hour (0.12 PPM)	Days Over Standard	0	0	0
		Maximum Concentration (PPM)	0.09	0.08	0.06
Ozone	State 1 Hour (0.09 PPM)	Days Over Standard	1	0	0
		Maximum Concentration (PPM)	0.09	0.08	0.06
Carbon Monoxide	State/Federal 8 Hour (9.0 PPM)	Days Over Standard	0	0	0
		Maximum Concentration (PPM)	3.9	3.6	4.6
Particulate Matter (PM_{10})	Federal 24 Hour (150 $\mu g/m^3$)	Days Over Standard	0	0	0
Particulate Matter (PM_{10})	State 24 Hour (50 $\mu g/m^3$)	Days Over Standard	1	1	0
		Annual Geometric Mean ($\mu g/m^3$)	18.6	15.9	0

PPM = parts per million
$\mu g/m^3$ = Micrograms per cubic meter

* Note: The Oakland air quality monitoring station does not monitor PM_{10}. The PM_{10} values shown represent those monitored nearest the project site at the San Leandro air quality monitoring station.

Source: Bay Area Air Quality Management District, Summary of Air Pollution in the Bay Area for 1996, 1997 and 1998.

Table IV.C-2 shows that the ambient air quality standards are met in the project area with the exception of the State standard for PM_{10}. State and Federal standards for ozone and carbon monoxide have been exceeded in other portions of the San Francisco Bay Air Basin. Although the State PM_{10} standard for 24-hour concentrations was exceeded in San Leandro on at least one day during either December or January in recent years, Oakland has generally lower PM_{10} concentrations because of its proximity to San Francisco Bay and the Golden Gate.

SENSITIVE RECEPTORS

The BAAQMD defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals and medical clinics. The nearest public school/playground (Lincoln Elementary School/Lincoln Neighborhood Center) is located between 11th Street and 10th Street, in the blocks on either side of Alice Street, approximately six blocks west and two blocks south of the project site. While the presence of more distant sensitive receptors within a two-mile radius can be of concern when projects have the potential to produce offensive odors or other significant pollutants, a mixed-use retail/office/residential project such as that proposed for the site would not be expected to have any potentially significant effect on any sensitive receptors except during the on-site construction period. Since construction-related impacts are highly localized, a one-block radius is regarded as an adequate distance within which to consider potential impacts to sensitive receptors.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

A project would generally have a significant effect on the environment if it would: (1) conflict with or obstruct implementation of the applicable air quality plan; (2) violate any air quality standard or contribute substantially to an existing or projected air quality violation; (3) result in a cumulatively considerable net increase of any nonattainment pollutant; (4) expose sensitive receptors to substantial pollutant concentrations; or (5) create objectionable odors affecting a substantial number of people. The following air quality analysis addresses the first four of these general criteria; the fifth is not discussed since the project would not include development of the types of land uses generally associated with potential odor impacts.

METHODOLOGY

Construction-phase impacts are discussed qualitatively, and the applicable BAAQMD-recommended dust abatement measures are identified.

Trips to and from the project site would result in emissions of ozone precursor compounds that will eventually become pollutants affecting the entire San Francisco Bay Area Air Basin. Using the trip generation estimates provided by Dowling Associates (see discussion in Section **IV.B, Traffic, Circulation and Parking**), regional emissions of air pollutants associated with project-related traffic have been calculated using the URBEMIS-5 computer program developed by the California Air Resources Board. The URBEMIS-5 program estimates the pollution emissions for total organic gases (TOG - reactive organic gases [ROG] represent 92 percent of TOG), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur oxides (SO_x) and particulates which are 10 microns in diameter or less (PM_{10}). The calculations are based on the use of the URBEMIS-5 program together with the BAAQMD CEQA Guidelines manual and the user guide to the computer program (see **Appendix D**). As required by the BAAQMD, carbon monoxide is analyzed for winter conditions (worst case). The analysis of all other pollutants is based on summer conditions, because of the high potential for violations of the State and Federal ambient air quality standards during the summer.

On the local scale, the project would increase traffic on the street network, changing existing carbon monoxide levels. Concentrations of carbon monoxide are highest near intersections of major streets and freeways. The CALINE-4 computer simulation model was applied to eight signalized study intersections. The model results were used to predict the maximum 1-hour and 8-hour concentrations of carbon monoxide, corresponding to the 1-hour and 8-hour averaging times specified in the State and Federal ambient air quality standards for carbon monoxide. The CALINE-4 model and the assumptions made in its use for this project are described in **Appendix D**.

PROJECT IMPACTS

Impact C.1: Fugitive dust generated by construction activities would be substantial and would temporarily increase PM_{10} concentrations in the immediate project vicinity. This would be a significant impact.

Mitigation Measure C.1: The project sponsor shall require the construction contractor to implement a dust abatement program.

Elements of this program shall include the following:

- Water all active construction areas at least twice daily;
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer);
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites;
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets; and
- Designate a person or persons to oversee the implementation of a comprehensive dust control program and to increase watering, as necessary.

The above list of measures are recommended by BAAQMD as feasible control measures to reduce construction dust emissions at sites which are less than four acres in area. In dust control efforts, watering alone is estimated to reduce dust emissions by approximately 50 percent. The combined effect of the above measures, including the use of a dust suppressant, would have a control efficiency of 70 to 80 percent. With implementation of these mitigation measures, the residual effects associated with construction-related dust would be less than significant.

In addition, the following measures, which are identified in the EIR on the Oakland General Plan Land Use and Transportation Element for future development projects, are recommended to minimize construction equipment emissions during the construction period:

- Demonstrate compliance with BAAQMD Regulation 2, Rule 1 (General Requirements) for all portable construction equipment subject to that rule. BAAQMD Regulation 2, Rule 1 requires an authority to construct and permit to operate certain types of portable equipment used for construction purposes (e.g., gasoline or diesel-powered engines used in conjunction with power generation, pumps, compressors, and cranes) unless such equipment complies with all

applicable requirements of the CAPCOA Portable Equipment Registration Rule" of with all applicable requirements of the Statewide Portable Equipment Registration Program. This exemption is provided in BAAQMD Rule 2-1-105.

- Perform low-NO_x tune-ups on all diesel-powered construction equipment greater than 50 horsepower (no more than 30 days prior to the start of use of that equipment). Periodic tune-ups (every 90 days) should be performed for such equipment used continuously during the construction period.

Significance after Mitigation: Less than Significant.

Impact C.2: The project would result in an increase in criteria emissions due to related motor vehicle trips. This would be a less than significant impact.

The results of the URBEMIS-5 program analysis of the project are shown in **Table IV.C-3.**

TABLE IV.C-3: MOBILE SOURCE EMISSIONS - THRESHOLDS & PROJECT CONDITIONS

	ROG	CO	NO_x	PM_{10}	SO_x
Threshold for Significance (pounds per day)	80.00	550.00	80.00	80.00	80.00
Project-Related Emissions - Year 2000 (pounds per day)	36.97	464.56	45.43	40.54	1.46

Notes: Threshold levels are taken from Bay Area Air Quality Management District, BAAQMD CEQA Guidelines, April 1996, page 15.

The emissions associated with the project's traffic were generated using the BAAQMD's URBEMIS-5 computer model. Carbon monoxide emissions determined for winter conditions. All other pollutant emissions determined for summer conditions.

The URBEMIS-5 computer model incorporates projections by the BAAQMD that, due to continued implementation of vehicle pollution control requirements, the use of cleaner fuels and the gradual elimination of older vehicles from use, air quality within the air basin will improve by the year 2000, and will improve substantially more by the year 2010. Therefore, future conditions have not been calculated for the project for the year 2010, since the addition of project-related traffic to the year 2000 conditions represents the "worst-case" condition.

As shown in **Table IV.C-3**, above, the estimated incremental daily emissions associated with project-related traffic (based on year 2000 conditions) would be 36.97 pounds per day of reactive organic gases, 464.56 pounds per day of carbon monoxide, 45.43 pounds per day of nitrogen oxides, 40.54 pounds per day of PM_{10} and 1.46 pounds of sulfur oxides. Since these emission levels are well below the thresholds of significance defined by the Bay Area Air Quality Management District, project-related emissions would not have a significant impact on local air quality.

Mitigation Measure C.2: None required.

Impact C.3: Project-related traffic would increase carbon monoxide concentrations at intersections in the project vicinity. This would be a less than significant impact.

The CALINE-4 prediction of worst-case concentrations near the eight intersections evaluated in the traffic analysis of the EIR (Section **IV.B, Traffic, Circulation and Parking**) is shown in **Table IV.C-4**. Existing concentrations are currently below the most stringent State and Federal standards. The addition of project-related traffic would increase concentrations by 0.19 parts per million or less. Concentrations would be below current levels due to expected reductions in per-mile emission rates resulting from emission control programs implemented by the California Air Resources Board (e.g., vehicle emissions inspections). Since the CALINE-4 projected concentrations of carbon monoxide would remain below the most stringent State and Federal standards, the project-related carbon monoxide emissions would not have a significant effect on local air quality.

Mitigation Measure C.3: None required.

CUMULATIVE EFFECTS

Impact C.4: The project together with anticipated future cumulative development in the Bay Area would contribute to regional pollutant problems. This would be a less than significant impact.

Under the Bay Area Air Quality Management District's CEQA Guidelines, cumulative air quality impacts which may be associated with those projects that do not individually have a significant effect on air quality will be evaluated based on project consistency with the local general plan and with the Clean Air Plan.

TABLE IV.C-4: PREDICTED WORST-CASE CARBON MONOXIDE CONCENTRATIONS AT SELECTED INTERSECTIONS, IN PARTS PER MILLION

	Existing (2000)		Existing + Project (2000)		Cumulative (2010)*	
Intersection	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Broadway/17th	8.99	7.18	9.05	7.23	7.12	5.68
Broadway/19th	9.08	7.25	9.11	7.27	7.19	5.72
Franklin/17th	8.40	6.77	8.49	6.83	6.58	5.30
Webster/17th	8.84	7.03	8.86	7.09	6.95	5.56
Telegraph/17th	8.16	6.60	8.32	6.71	6.82	5.47
Telegraph/19th	8.55	6.88	8.61	6.92	6.80	5.45
San Pablo/17th/Clay	8.20	6.63	8.27	6.68	6.50	5.24
San Pablo/19th/Jefferson	8.28	6.69	8.47	6.82	6.65	5.35
Most Stringent Standard	20.00	9.00	20.00	9.00	20.00	9.00

* Note: CALINE-4 parameters extend to the Year 2010 only, while the traffic analysis prepared for the EIR projected cumulative traffic values for the Year 2020. For the purposes of this air quality analysis, projected worst-case cumulative traffic values would be attained by the Year 2010, ten years prior to when projected by the EIR traffic analysis.

The project as proposed would be generally consistent with the Oakland General Plan, and would be consistent with the Clean Air Plan, which encourages local governments to promote high density, mixed-use developments near transit stations and along transit corridors. Since the project would not, by itself, result in any significant air quality impact, a judgment is warranted that the project's potential cumulative impacts would not be deemed "considerable". In addition, the project site is located in an area identified for infill development and adjacent to the 19th Street BART Station and various AC Transit routes, and it is consistent with adopted plans and policies from an air quality standpoint. In light of the average number of daily vehicle trips which would be generated by the proposed project, these considerations taken together, deem the cumulative air quality impacts associated with the project to be regarded as less than significant.

Mitigation Measure C.4: None required.

REFERENCES - Air Quality

Bay Area Air Quality Management District, BAAQMD CEQA Guidelines, Assessing Air Quality Impacts of Projects and Plans, April 1996.

City of Oakland, Open Space, Conservation and Recreation, An Element of the Oakland General Plan, 1996.

D. NOISE

SETTING

AMBIENT NOISE SOURCES AND LEVELS

Environmental noise is generally measured in A-weighted decibels (dBA). A decibel (dB) is simply a unit of sound energy intensity, with sound waves exerting a sound pressure level measured in dB. An A-weighted decibel (dBA) is a decibel level corrected for the variation in the frequency response of the typical human ear at commonly encountered noise levels.

Typically, environmental noise fluctuates over time. The term "L_{EQ}" comes from the concept of an equivalent sound level which contains the same acoustical energy as the time-varying sound level actually measured during the same period, and represents the average A-weighted sound level in a stated time period. This value is useful in describing the subjective change in an environment where the source of noise remains the same, but there is a change in the level of activity (such as an increase in traffic). "L_{DN}" is a weighted 24-hour average noise level, with noise levels between 10:00 PM and 7:00 AM adjusted upwards by 10 dBA to take the greater annoyance associated with nighttime noise into account.

There is no completely predictable measure for the subjective effects of noise, due to the wide variation in individual thresholds of annoyance and habituation to noise. However:

- Except in carefully controlled laboratory experiments, a change of only 1 dBA in sound level cannot be perceived.
- Outside of the laboratory, a 3 dBA change is considered a just-noticeable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected.
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse community response.

Motor vehicles are the primary source of noise in the immediate vicinity of the project site. Broadway is one of Oakland's arterial streets where noise levels generally exceed 70 dBA within 50 feet of the roadway centerline. Noise levels measured at Broadway and 14th Street (in City Hall Plaza) by Orion Environmental Associates on August 5, 1992, indicated a CNEL or L_{DN} of 71 dBA within 300 feet of the centerline of Broadway (CNEL or L_{DN} both represent 24-hour measurements). Noise at this level is generally incompatible with residential and other noise-sensitive uses.

SENSITIVE RECEPTORS

The effects of noise at various levels can include interference with sleep, concentration and communication; physiological and psychological stress and hearing loss. In general, residences, schools and health care facilities are the land uses considered to be the most sensitive to noise. Industrial and commercial uses are generally considered to be the least noise-sensitive land uses.

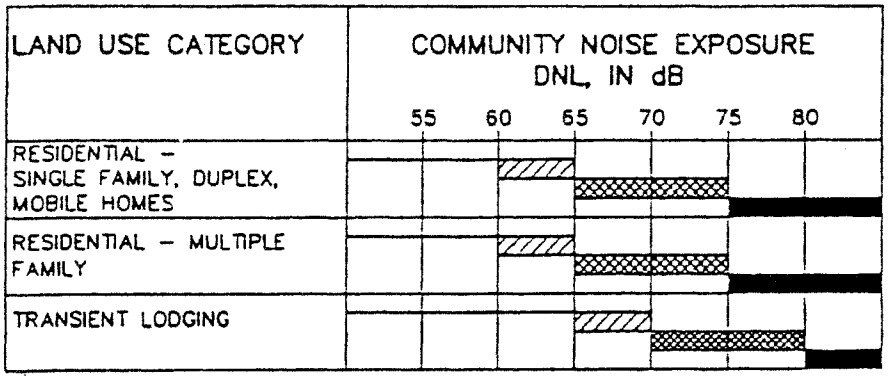
The project site is located in an areas generally consisting of commercial land uses, although there is a church located on the corner of northwest corner of 17th Street and Franklin Street, approximately one-half block from the project site.

REGULATORY SETTING

Under Title 24, Part 2, California Code of Regulations (Appendix Chapter 35), the State of California requires that the indoor noise level in any habitable room in multi-family housing with all doors and windows closed not exceed a Day/Night Average Sound Level (L_{DN}) (24-hour weighted average) of 45 decibels (dB). Where such dwelling units are proposed in areas subject to transportation noise levels greater than 60 dB (L_{DN}), an acoustical analysis demonstrating how these dwelling units have been designed to meet this interior standard is required. Title 24 standards are generally enforced through the building permit process.

The City of Oakland's Noise Element (1974) contains guidelines for land use compatibility (**Figure IV.D-1**). For multi-family residential units, it states that an outdoor DNL of 60 dB or less is "clearly acceptable", while outdoor DNL between 60 dB and 65 dB is "normally acceptable", between 65 dB and 75 dB is "normally unacceptable" and above 75 dB is "clearly unacceptable".

Figure IV.D-1 **City of Oakland Land Use Compatibility Guidelines**



INTERPRETATION

CLEARLY ACCEPTABLE
The noise exposure is such that the activities associated with the land use may be carried out with essentially no interference from aircraft noise. (Residential areas: both indoor and outdoor noise environments are pleasant.)

NORMALLY ACCEPTABLE
The noise exposure is great enough to be of some concern, but common building construction will make the indoor environment acceptable, even for sleeping quarters.

NORMALLY UNACCEPTABLE
The noise exposure is significantly more severe so that unusual and costly building construction is necessary to insure adequate performance of activities. (Residential areas: barriers must be erected between site and prominent noise sources to make the outdoor environment tolerable.)

CLEARLY UNACCEPTABLE
The noise exposure is so severe that construction costs to make the indoor environment acceptable for performance of activities would be prohibitive. (Residential areas: the outdoor environment would be intolerable for normal residential use.)

The City of Oakland also regulates noise through enforcement of its noise ordinance, which is found in Municipal Code Section 17.120. This ordinance specifies the maximum allowable noise levels at variance land uses, and also specifies construction noise standards. The standards are shown in **Table IV.D-1**. The first set of standards apply to long-term noise exposure at specific land uses, while the second set of standards apply to temporary exposure to short and long-term construction noise. It should be noted, however, that the Noise Ordinance specifies that if the measured ambient noise level exceeds the applicable noise level standard in any category, the stated applicable noise level shall be adjusted so as to equal the ambient noise level (Section 17.120.050). Since the ambient noise measured at the edge of the project site currently exceeds the standards, a column adjusting the standard as appropriate for the project site is shown in **Table IV.D-1**.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

Temporary construction impacts are evaluated with reference to typical noise levels generated during various phases of construction and to the proximity of sensitive land uses. Long-term noise impacts are evaluated both with respect to the impact of the project on existing uses and the impact of the existing noise environment on future residents at the project site.

This analysis relies in part on the noise analysis conducted for the General Plan Land Use and Transportation Element EIR.

SIGNIFICANCE CRITERIA

Generally, a project would have a significant effect on the environment if it would result in a substantial, temporary or permanent, increase in ambient noise levels in the project vicinity or if it would expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards or other agencies. The significance of temporary increases in ambient noise levels is evaluated with reference to the duration of construction and noise standards established in the Oakland Noise Ordinance (refer to **Table IV.D-1**).

With respect to permanent effects, an increase in ambient noise is "substantial" if it is (a) L_{DN} 5 dB or more where the resultant noise is still considered "normally acceptable" for the affected land use, (b) L_{DN} 3 dB or more where the resultant noise level us within the "conditionally acceptable" range, or (c) L_{DN} 1.5 dB or more where the resultant noise level is within the "normally unacceptable" range.

TABLE IV.D-1: OAKLAND NOISE ORDINANCE - MAXIMUM ALLOWABLE RECEIVING NOISE STANDARDS

NOISE LEVEL STANDARD FOR RESIDENTIAL AND CIVIC LAND USES, dBA

Cumulative Number of Minutes in either Daytime or Nighttime One-Hour Period[b]	Daytime 7:00 AM to 10:00 PM	Nighttime 10:00 PM to 7:00 AM	Project Specific Adjusted Noise Standards (dBA)[a] Daytime	Nighttime
20	60	45	65	62
10	65	50	68	64
5	70	55	70[c]	70[c]
1	75	60	72[c]	72[c]
0	80	65	83	81

NOISE LEVEL STANDARDS FOR TEMPORARY CONSTRUCTION OR DEMOLITION ACTIVITIES, dBA

Operation/Receiving Land Use	Daily 7:00 AM to 7:00 PM	Weekends 9:00 AM to 8:00 PM
Short Term Operation (less than 10 days)		
Residential	80	65
Commercial, Industrial	85	70
Long Term Operation (more than 10 days)		
Residential	65	55
Commercial, Industrial	70	60

[a] Adjusted noise standards apply to the proposed project because existing ambient noise monitored on the project site exceeds the published standard for some time periods (refer to Section 17.020.050 of the City of Oakland Planning Code related to the Zoning Standards and Regulations for Noise and Vibration).

[b] The concept of "20 minutes in an hour" is equivalent to the $L_{33.3}$, which is a noise descriptor identifying the noise level exceeded one-third (33.3 percent) of the time. Likewise, "10 minutes in an hour", "5 minutes in an hour", and "1 minute in an hour" are equivalent to the $L_{16.7}$, $L_{8.3}$ and $L_{1.7}$, respectively. L_{max}, or maximum noise level, represents the standard defined in terms of "0 minutes in an hour".

[c] Because of statistical limitations of monitoring equipment, these values are estimates.

Source: Oakland Municipal Code, Chapter 17.120.

As applied to multi-family residential uses in Downtown Oakland, this set of criteria would mean that a permanent increase would be substantial, and significant, if it would be L_{DN} 5 dB or more with a resultant noise level up to L_{DN} 65 dB or less, L_{DN} 3 dB or more with a resultant noise level up to L_{DN} 65 dB or less, L_{DN} 3 dB or more with a resultant noise level of L_{DN} 65 to 70 dB, or L_{DN} 1.5 dB or more where the resultant noise level exceeds L_{DN} 70 dB.

PROJECT EFFECTS

Impact D.1: Construction activities would temporarily generate noise levels above existing ambient levels in the project vicinity. This would be a significant impact.

The potential impact due to construction noise varies, and depends on the type of construction equipment used, the duration of its operation, the time of day and the distance to receptors. In the case of the proposed project, there are no residents or other "sensitive receptors" located within one block of the project site, although those working or conducting business in buildings near the site would be exposed to increased noise levels during the construction period. **Table IV.D-2**, below, presents typical noise levels generated by construction equipment.

Mitigation Measure D.1.a: Construction activities shall be limited to 7:00 AM to 7:00 PM, Monday through Friday only. Pile driving activity shall be limited to 8:00 AM to 5:00 PM, Monday through Friday. Non-noise generating activity may be permitted during weekends once the building has been closed in and with the express authorization of the City Planning and Building Divisions.

Mitigation Measure D.1.b: Prior to pile driving, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified noise consultant. These measures may include attenuation shields or blankets around the site, pre-drilling of piles, the use of more than one pile driver, if feasible to lessen the total time required for driving piles, and other measures. A specific schedule shall also be confirmed with the Building Divisions and all property owners, businesses and residents shall be notified in writing at least 72 hours prior to pile driving activities.

Mitigation Measure D.1.c: All stationary noise sources, to the greatest extent practical, should be located as far away as possible from sensitive receptors (i.e., residential uses).

TABLE IV.D-2: TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Noise Level (dBA) at 50 feet	With Feasible Noise Control*
Earthmoving:		
Front Loader	79	75
Backhoe	85	75
Dozer	80	75
Tractor	80	75
Scraper	88	80
Grader	85	75
Paver	89	80
Materials Handling:		
Concrete Mixer	85	75
Concrete Pump	82	75
Crane	83	75
Stationary:		
Pump	76	75
Generator	78	75
Impact:		
Pile Driver	101	95
Jack Hammer	88	75
Rock Drill	98	80
Pneumatic Tools	86	80
Other:		
Saw	78	75
Vibrator	76	75

* Estimated levels obtainable by selecting quieter procedures or machines and implementing noise-control features requiring no major redesign or extreme cost.

Source: U.S. Environmental Protection Agency, December 1971 (in Oakland General Plan Land Use and Transportation Element Draft Environmental Impact Report, October 31, 1997, page III.L-20.

Mitigation Measure D.1.d: Prior to the issuance of a building and grading permit, the project applicant shall establish a process for responding to and tracking complaints pertaining to construction activity, including for noise complaints, with at least the following components:

- **A procedure for notifying City Building Division staff and Oakland Police Department;**

- **A listing of telephone numbers (during regular construction hours and off-hours);**

- **A plan for posting signs on site pertaining to complaint procedures and who to notify in the event of a problem; and**

- **The designation of a construction complaint manager for the project.**

Significance after Mitigation: Less than Significant.

Impact D.2: Project-generated traffic noise would result in noise impacts to nearby sensitive noise receptors. This would be a less than significant impact.

The anticipated project-related traffic would not result in any noticeable increase in what are already relatively high ambient noise levels near the project site. Although this particular project was not evaluated within the development context assumed in the Draft EIR on the Land Use and Transportation Element of the Oakland General Plan, anticipated traffic-related noise level increases along Broadway with major development taking place north and south of the project site was projected to result in only minimal increases (e.g., 0 dB CNEL to 0.5 dB CNEL) above existing noise levels (see Table III.L-5 of the Oakland General Plan Land Use and Transportation Element Draft EIR). The existing noise environment in the vicinity of the project site is dominated by noise from the nearby street network which would, in effect, "drown out" the comparatively minor vehicle noise associated with project-related traffic. Vehicles entering and exiting the parking area at the project site would generate noise on a sporadic basis, but this noise would not be expected to result in a noticeable (i.e., greater than 1.5 dB L_{DN}) increase in the existing noise levels.

Mitigation Measure D.2: None required.

Impact D.3: The project would locate multi-family residential land uses in a noise environment characterized as "normally unacceptable" for such uses by the City of Oakland. This would be a less than significant impact.

As indicated above, the ambient noise level at ground level in the vicinity of the project site has been measured at approximately 71 dBA, which is considered "normally unacceptable" for multi-family residential land uses based on the Land Use Compatibility Guidelines in the Noise Element of the Oakland General Plan. However, all project construction shall be required to meet the requirements of Title 24 of the California Code

of Regulations (a maximum interior noise level standard of 45 CNEL in any habitable room with doors and windows closed). Prior to the issuance of any building permit, the project applicant shall be required to submit a comprehensive acoustical analysis to the City demonstrating how all proposed dwelling units have been designed to meet this Title 24 interior noise level standard.

Mitigation Measure D.3: None required.

CUMULATIVE EFFECTS

Impact D.4: The proposed project together with anticipated future development in the downtown area as well as Oakland in general could result in long-term traffic increases and could cumulatively increase noise levels. This would be a less than significant impact.

As indicated above, anticipated project-related traffic would be expected to contribute to a local noise environment which is already relatively loud. However, the existing noise from the nearby street network is so great that it would be expected to mask the comparatively minor traffic-related noise which would be generated by the proposed project and other projects proposed in the immediate vicinity of the project site.

Mitigation Measure D.4: None required.

REFERENCES - Noise

City of Oakland, Oakland Comprehensive Plan Noise Element, September 1974.

City of Oakland, Oakland General Plan Land Use and Transportation Element, Draft Environmental Impact Report, October 1997.

E. VISUAL QUALITY

INTRODUCTION

This section of the EIR evaluates the existing visual quality of the project site and the potential impacts of the proposed project on the visual resources of the immediate surroundings and the local community. The project's potential impacts on shade and solar access are also assessed.

The perception of change in the visual environment can differ according to the visual sensibility of the observer. Few objective or quantitative standards exist for determining the aesthetic or visual quality of the environment, since individuals respond differently to changes in the visual character of their surroundings. Some changes in visual character which can result from development activity which might give one person an adverse visual impression might be viewed as beneficial, or as a positive improvement in visual character by another.

For most people, the perception of visual quality is created by the impression formed when viewing a place from several vantage points, as when traveling on foot or by car. In addition, the history and character of an area, expectations of continuity within and between areas, as well as desired changes in the character of an area can influence the observer's response to visual changes.

For this analysis, a visual survey of the project site and its surroundings was conducted to assess the existing visual quality and the character of the adjacent areas. The field reconnaissance and accompanying photo survey were combined to characterize the existing visual features on and in the vicinity of the project site. The photographs of existing views are shown in **Figure IV.E-1** through **Figure IV.E-6**.

Figure IV.E-1 Existing Condition: View of Site from 17th Street Between Broadway and Franklin Street

Figure IV.E-2 **Existing Condition: View of Site from Northwest Corner of Broadway and 17th Street**

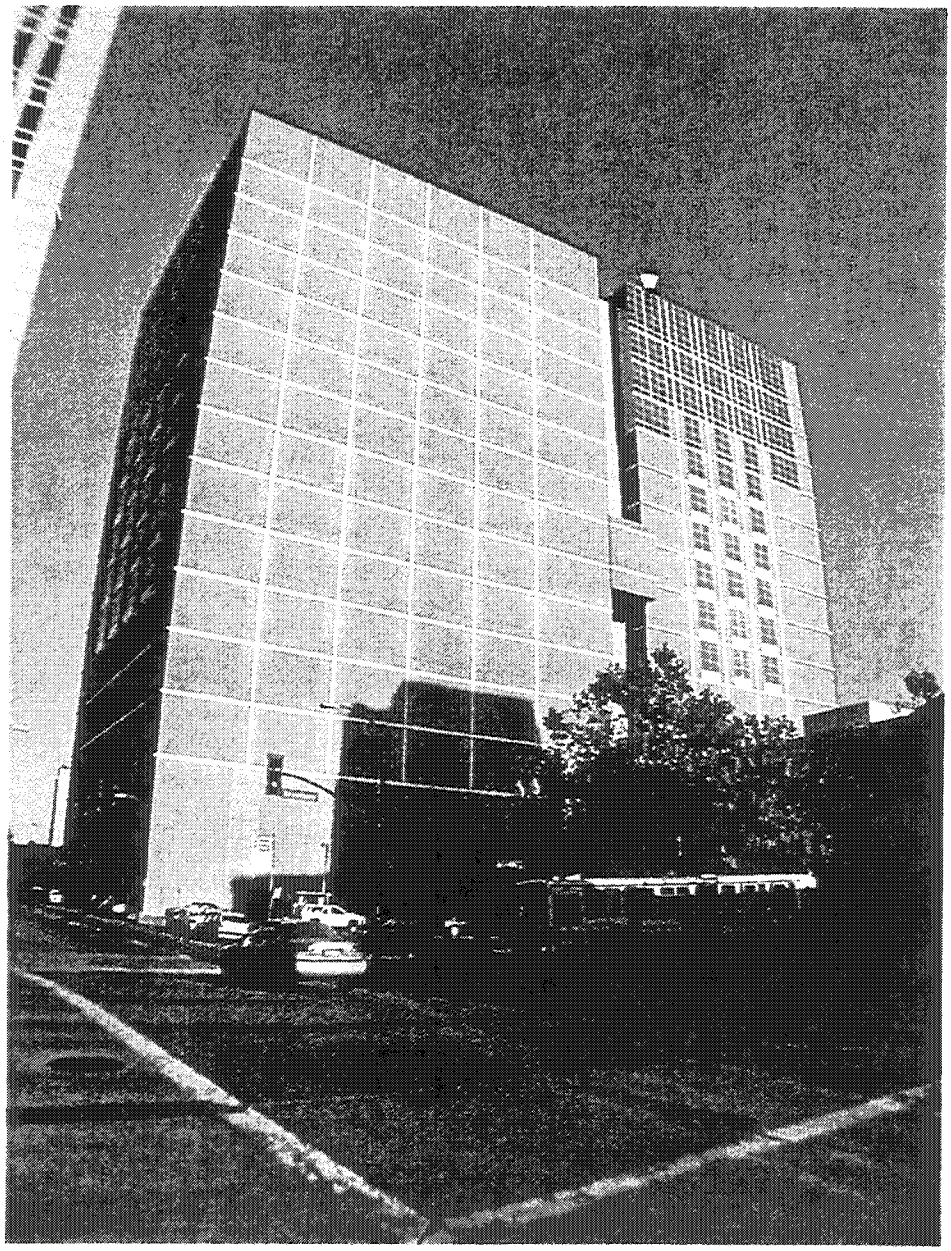


Figure IV.E-3 **Existing Condition: View of Site Looking North from Broadway**

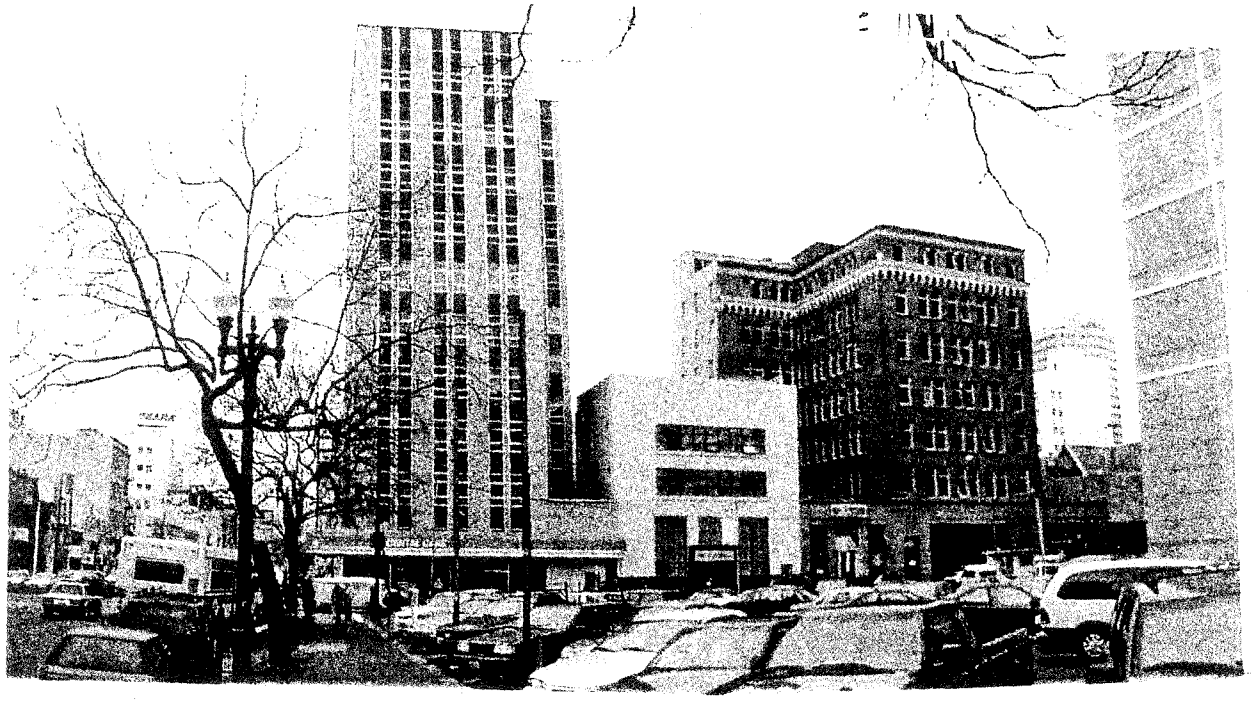


Figure IV.E-4 **Existing Condition: View of 17th Street Opposite Project Site, Looking East**

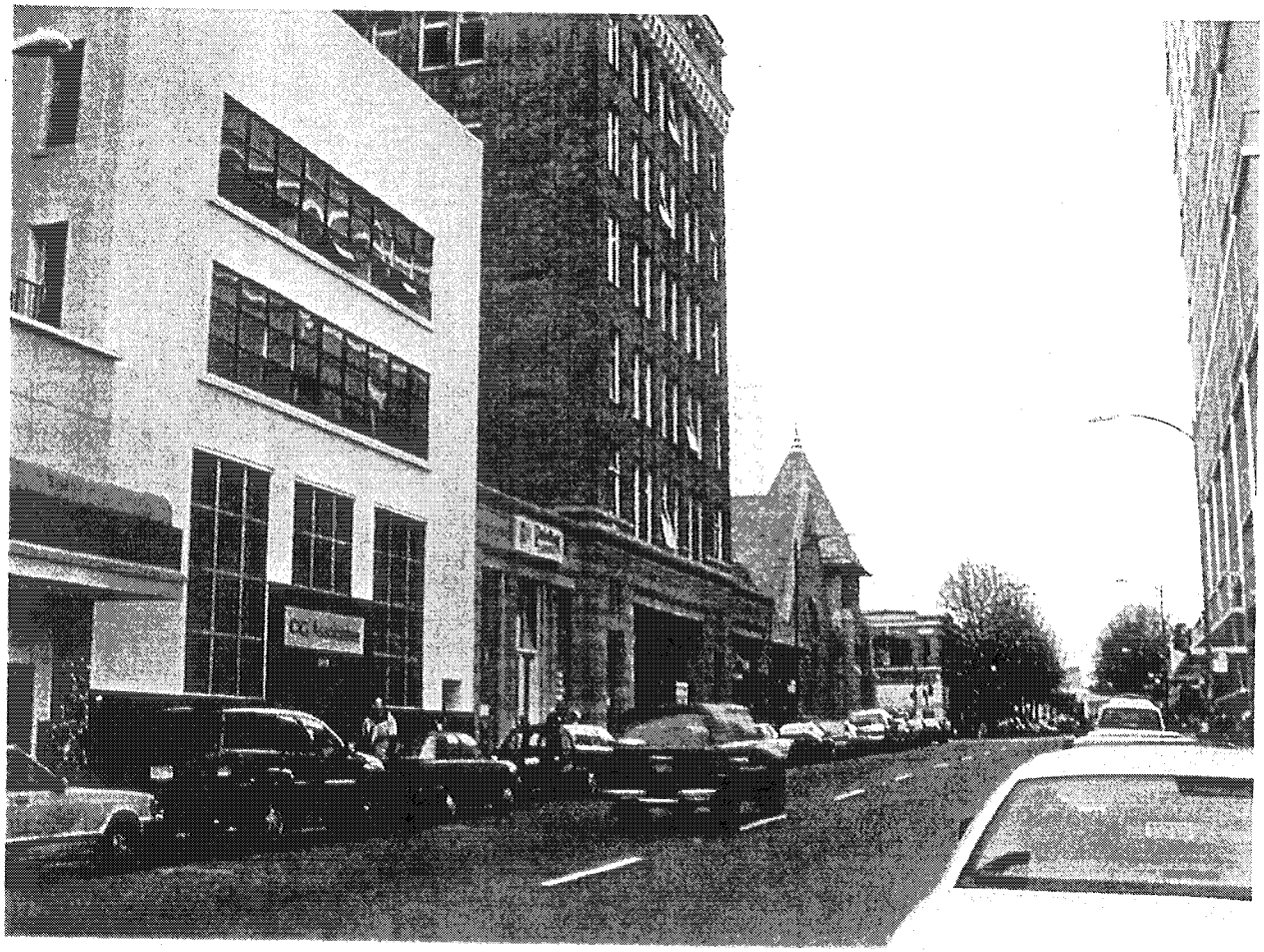


Figure IV.E-5 **Existing Condition: View of 17th Street Opposite Project Site, Looking West**

Figure IV.E-6 **Existing Condition: View of Broadway Opposite Project Site, Looking South**

SETTING

As shown in **Figure IV.E-1, Figure IV.E-2** and **Figure IV.E-3**, the existing visual characteristics of the project site reflect the current land use: a surface parking lot. Depending on the time of day and the number of vehicles parked at the project site, the visual appearance of the site can range from a flat, paved vacant lot with a small kiosk for the parking lot attendant near the 17th Street side of the property, to an area filled to capacity with parked vehicles.

The project site is located in an area which can be characterized as "high-density urban". **Figure IV.E-1**, **Figure IV.E-5** and **Figure IV.E-6** reflect the historic character of several of the buildings located opposite the project site in the Downtown Historic District (the boundary of the district is located along Broadway in the vicinity of the project site), as well as the wide variation in building heights and styles near the project site. **Figure IV.E-2** shows the Pacific Bell building located directly east of the project site, as well as the existing streetscape along Broadway and 17th Street near the site. **Figure IV.E-3** shows the relative size of the buildings located north of the project site across 17th Street, while **Figure IV.E-4** shows the street-level appearance of buildings on this block.

Figure IV.E-1, **Figure IV.E-2** and **Figure IV.E-3** provide a sampling of the types of views of the project site currently available to those walking or driving along 17th Street and Broadway, as well as to those with access to windows facing the project site. There are no formally identified "scenic resources" currently associated with the project site.

Views from ground level at the project site are of the streets and buildings surrounding the site (see **Figure IV.E-1**, **Figure IV.E-2** and **Figure IV.E-3**). Since the project site is currently flat, it is possible to view adjacent buildings, and those across Broadway and 17th Street, at their full heights. While several historic structures can currently be seen from the project site, no "view corridors" have been formally identified in relation to the site.

EXISTING PLANS

The following Oakland General Plan objectives and policies related to visual quality are relevant to the proposed project:

General Plan Land Use and Transportation Element

- *Policy D2.1, Enhancing the Downtown*: Downtown development should be visually interesting, harmonize with its surroundings, respect and enhance important views in and of the downtown, respect the character, history, and pedestrian-orientation of the downtown, and contribute to an attractive skyline.

- *Policy D6.1, Developing Vacant Lots*: Construction on vacant land or to replace surface parking lots should be encouraged throughout the downtown, where possible.

- *Policy D10.3, Framework for Housing Densities*: Downtown residential areas should generally be within the Urban Density Residential and Central Business District density range, whether or not otherwise specified. The height and bulk should reflect existing and desired district character, the overall city skyline, and the existence of historic structures or areas.

- *Policy D10.5, Designing Housing*: Housing in the downtown should be safe and attractive, of high quality design, and respect the downtown's distinct neighborhoods and its history.

- *Policy D12.5, Incorporating Art in the Downtown*: Art should be part of the fabric of the downtown, located in public and private facilities, and in public spaces.

- *Policy N3.8, Requiring High Quality Design*: High-quality design standards should be required of all new residential construction. Design requirements and permitting procedures should be developed and implemented in a manner that is sensitive to the added costs of those requirements and procedures.

- *Policy N3.9, Orienting Residential Development*: Residential developments should be encouraged to face the street, and orient their units to desirable sunlight and views, while avoiding unreasonably blocking sunlight and views for neighboring buildings, respecting the privacy needs of residents of the development and surrounding properties, providing for sufficient conveniently located on-site open space, and avoiding undue noise exposure.

- *Policy N9.7, Creating Compatible but Diverse Development*: Diversity in Oakland's built environment should be as valued as the diversity in population. Regulations and permit processes should be geared toward creating compatible and attractive development, rather than "cookie cutter" development.

The proposed project would generally be consistent with the above policies, in that it would be visually and functionally compatible with existing downtown development; would feature interesting design; and would develop an underutilized parcel.

Open Space, Conservation and Recreation Element

- *Policy OS-10.1, View Protection*: Protect the character of existing scenic views in Oakland, paying particular attention to: (a) views of the Oakland Hills from the flatlands; (b) views of downtown and Lake Merritt; (c) views of the shoreline; and (d) panoramic views from Skyline Boulevard, Grizzly Peak Road, and other hillside locations.

- *Policy OS-10.2, Minimizing Adverse Visual Impacts*: Encourage site planning for new development which minimizes adverse visual impacts and takes advantage of opportunities for new vistas and scenic enhancement.

The proposed project would be generally consistent with the above policies, in that it would provide a new visual element in the view of downtown Oakland, and would provide residents at the site with opportunities for new vistas.

IMPACTS AND MITIGATION MEASURES

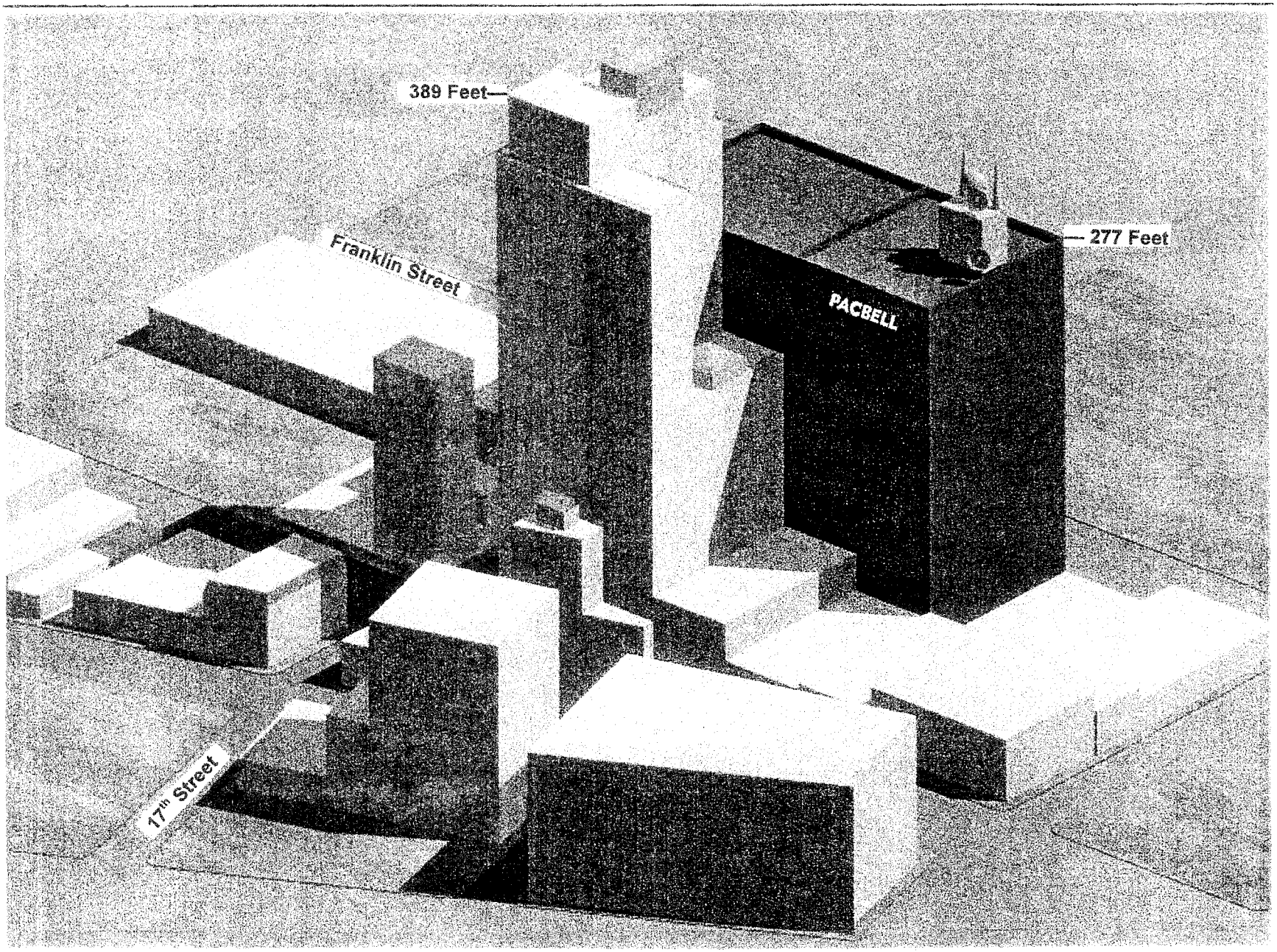
SIGNIFICANCE CRITERIA

A project would have a significant effect if it would have a substantial adverse effect on a scenic vista; substantially damage scenic resources, substantially degrade the existing visual character of the site and its surroundings; or create a new source of substantial light or glare that would adversely affect day or nighttime views in the area; or create visual intrusion and annoyance effects.

PROJECT IMPACTS

The Initial Study prepared for the project (see **Appendix A**) determined that the project would have less than significant impacts in regard to effects on scenic vistas, damage to scenic resources, and the creation of substantial light or glare. This analysis focuses on the potential of the proposed project to substantially degrade the existing visual character of the site and its surroundings. The visual character of the structure would reflect the construction methods, and would relate to the existing visual character of the immediate vicinity of the project site as shown in **Figure IV.E-7**.

Figure IV.E-7 **Projected Visual Appearance of 1640 Proposed Broadway Building**



Impact E.1: The project would consist of a single building approximately 389 feet in height on a surface parking lot in the vicinity of high-rise development in downtown Oakland. This would be a less than significant impact.

Although the proposed building would be taller than existing structures in the immediate vicinity of the project site, and would change the skyline of Oakland, this would not substantially degrade the existing visual character or quality of the site and its surroundings.

Mitigation Measure E.1: None required.

REFERENCES - Visual Quality

City of Oakland, Land Use and Transportation Element of the Oakland General Plan, March 24, 1998.

City of Oakland, Open Space, Conservation and Recreation, An Element of the Oakland General Plan, 1996.

F. SHADOW AND WIND

SETTING

SHADOW

The project site is currently a paved surface parking lot. The vehicles which currently park at the project site (and the attendant kiosk) cast relatively short shadows which do not have a noticeable effect on any structures in the vicinity.

EXISTING PLANS

The following Oakland General Plan objectives and policies related to sunlight and view preservation and provision of open space are relevant to the proposed project:

General Plan Land Use and Transportation Element

- *Policy N3.9, Orienting Residential Development*: Residential developments should be encouraged to face the street, and orient their units to desirable sunlight and views, while avoiding unreasonably blocking sunlight and views for neighboring buildings, respecting the privacy needs of residents of the development and surrounding properties, providing for sufficient conveniently located on-site open space, and avoiding undue noise exposure.

Open Space, Conservation and Recreation Element

- Policy OS-11.1, Access to Downtown Open Space: Provide better access to attractive, sunlit open spaces for persons working or living in downtown Oakland. The development of rooftop gardens is encouraged, especially on parking garages.

The proposed project would be generally consistent with the above policies because it would orient residential units toward sunlight and views without unreasonably blocking sunlight and views for neighboring buildings, and would provide a rooftop area above the non-residential portion of the structure.

WIND

The closest source of long-term wind data to the project site is the former Alameda Naval Air Station, located about 4 miles west-southwest of the project site.[7] A summary of wind data based upon 23 years of measurements collected at the former Alameda Naval Air Station shows that westerly winds are the most frequent and strongest winds during all seasons.[8] This is the primary wind direction during the spring and summer months when sea breezes predominate. A secondary maxima in wind direction frequency is evident for southeasterly winds. This the wind direction associated with winter storms. While the average wind speed for southeasterly winds is not the highest of all wind directions, this is the likely wind direction of peak winds measured over the year.

Wind in the project area has a strong daily variation related to seabreeze conditions in the spring and summer. Winds peak in the late afternoon (3:00 PM to 5:00 PM) and generally slowly diminish after sunset. The calmest time of day is the early morning. Calm winds occur about 10 percent of the time, and the average speed (averaged annually) is 7.5 miles per hour.

SIGNIFICANCE CRITERIA

Shadow

A project would have a significant effect if it would create a new shadow such that the use and enjoyment of any public open space would be substantially diminished, or result in substantial shading by residential development on neighboring buildings. (Shadow on sidewalks would not normally be considered significant, because persons are typically on the sidewalk for a limited duration, in transit between one place and another.)

Wind

CEQA does not list any specific criterion for the evaluation of wind effects of a project. Neither the State of California nor City of Oakland have established criteria or standards for wind. The City of San Francisco has, however, established both standards and criteria for the evaluation of wind impacts. For the purposes of CEQA, San Francisco has

---

[7] California Department of Water Resources, Wind in California, Bulletin No. 185, 1978.

[8] Wind direction refers to the direction from which the wind is moving. Thus, a westerly or west wind moves from west to east.

established a pedestrian wind hazard criterion of 1 occurrence per year of winds greater than 36 mph as representing a significant adverse impact.

The hazard criterion developed for San Francisco is based on research conducted in several locations, and would be appropriate for a project located in Oakland. For this analysis, the project is considered to have a potentially significant wind impact if the exposure, orientation and massing of the structure can be expected to substantially increase ground-level winds in pedestrian corridors or public spaces near the project site. Since the ambient wind (undisturbed by buildings) in Oakland seldom exceeds 36 mph, a project must substantially increase winds for this threshold to be exceeded.

PROJECT IMPACTS

Shadow

Impact F.1: The project would create additional shadow on the blocks to the north, west and east, but would not substantially affect any public open spaces. This would be a less than significant impact.

Development of the project site as proposed would create shadows across portions of the surrounding area, depending on the angle of the sun at any particular time. However, areas which would be shaded by the proposed structure are, in many instances, already shaded by intervening buildings which are currently in place.

Sandy & Babcock International, the architects for the proposed 1640 Broadway building, conducted shadow studies to determine the length of shadows which would be generated by the structure during winter solstice (with the sun lowest in the sky, and shadows in the northern hemisphere longest), during summer solstice (with the sun highest in the sky and shadows in the northern hemisphere shortest) and during vernal equinox (three months after winter solstice and three months before summer solstice, with shadows identical to those during autumnal equinox). These studies provide a sense of the shadows which would be anticipated in the vicinity of the project site if developed as proposed at 9:00 AM, at noon, and at 3:00 PM on each of the three days modeled.

Figure IV.F-1 shows the length of the shadow from the proposed 1640 Broadway building extending to the northwest of the project site at 9:00 AM during the winter solstice. At this time of morning, the building's shadow would extend beyond the Fox Theater and across San Pablo Avenue, shading buildings, parking areas and streets. At noon the same day, the building's shadow would extend to the Floral Depot, shading the facades of buildings located to the north of the project site along Broadway and Broadway itself (see **Figure IV.F-2**). At 3:00 PM that day, the shadow of the building would extend out toward the corner of 20th Street and Harrison Street, shading buildings, streets and parking areas between there and the project site (see **Figure IV.F-3**).

Figure IV.F-4, **Figure IV.F-5** and **Figure IV.F-6** show the limited shadows associated with the 1640 Broadway building during the summer solstice. Project-related shading on this day would be limited to the buildings and streets located within approximately one block of the Project site during the three time periods modeled.

During the vernal and autumnal equinoxes, Project-related shadows would extend slightly longer than during the summer solstice (see **Figure IV.F-7**, **Figure IV.F-8** and **Figure IV.F-9**), shading buildings and streets within approximately a block and a half of the project site.

Table IV.F-1 summarizes the shading effects of the proposed structure at 1640 Broadway on nearby historic buildings and other significant buildings in the vicinity of the project site. At 3:00 PM on the winter solstice, the proposed project would increase shading on the Kaiser Buildings from the existing 20 percent to 30 percent, and on the Lake Merritt Plaza building from no shading to 1 percent shading. At 9:00 AM on the summer solstice, the proposed project would increase shading on the Cathedral Building from the existing 10 percent to 45 percent. At 3:00 PM during the vernal and autumnal equinoxes, project- related shadow would place 45 percent of the Leamington Building in shade, while none of that building is currently shaded at that particular time on those two days. For the dates and times modeled for the shadow analysis, no other project-related shading of nearby buildings would be anticipated (see **Table IV.F-1**), and development of the project site as proposed would not place any nearby parks or public plazas within the shadows created by the proposed structure.

Mitigation Measure F.1: None required.

Figure IV.F-1 **1640 Broadway Shadow Study - Winter Solstice, 9:00 AM**

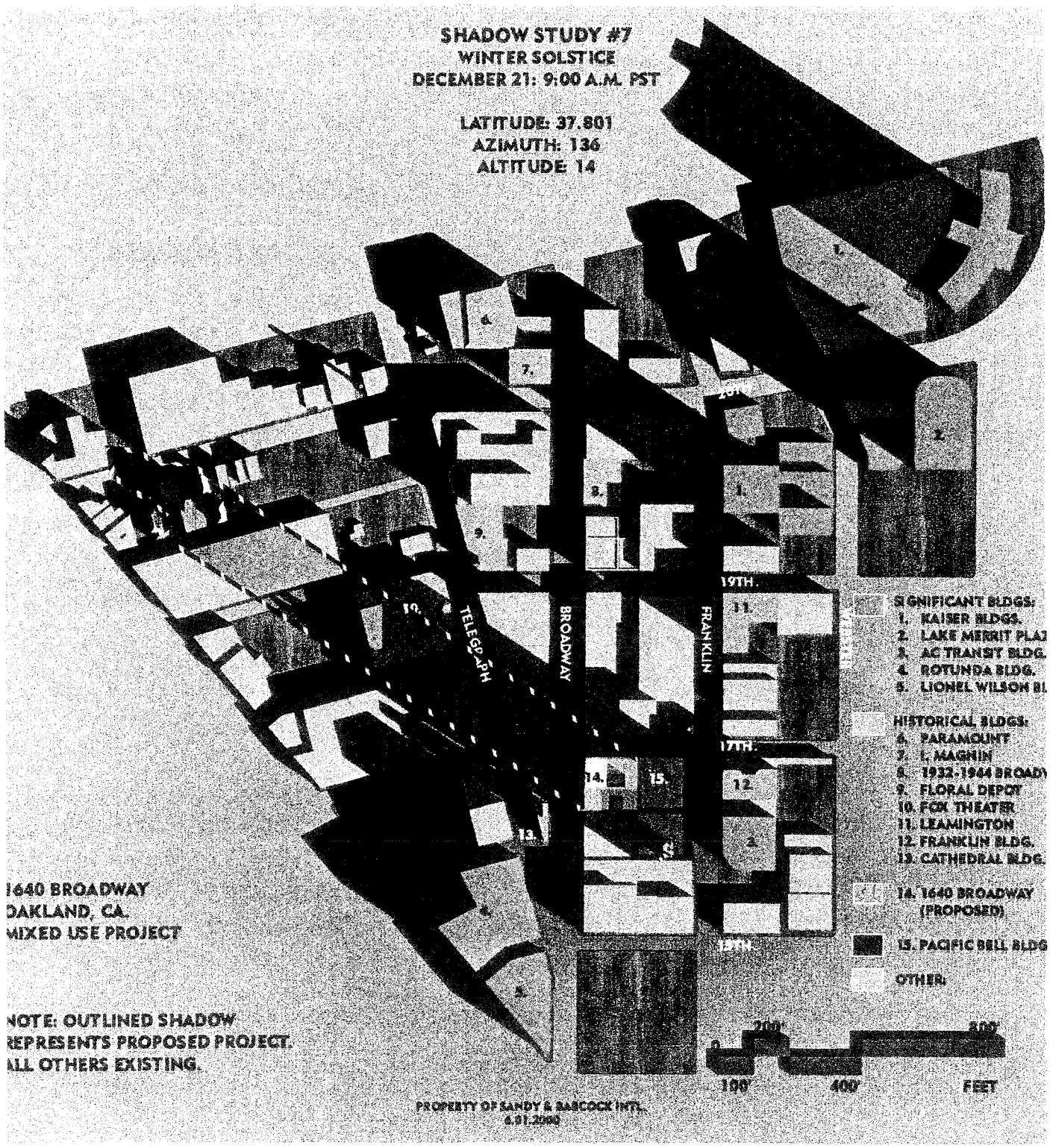


Figure IV.F-2 1640 Broadway Shadow Study - Winter Solstice, Noon

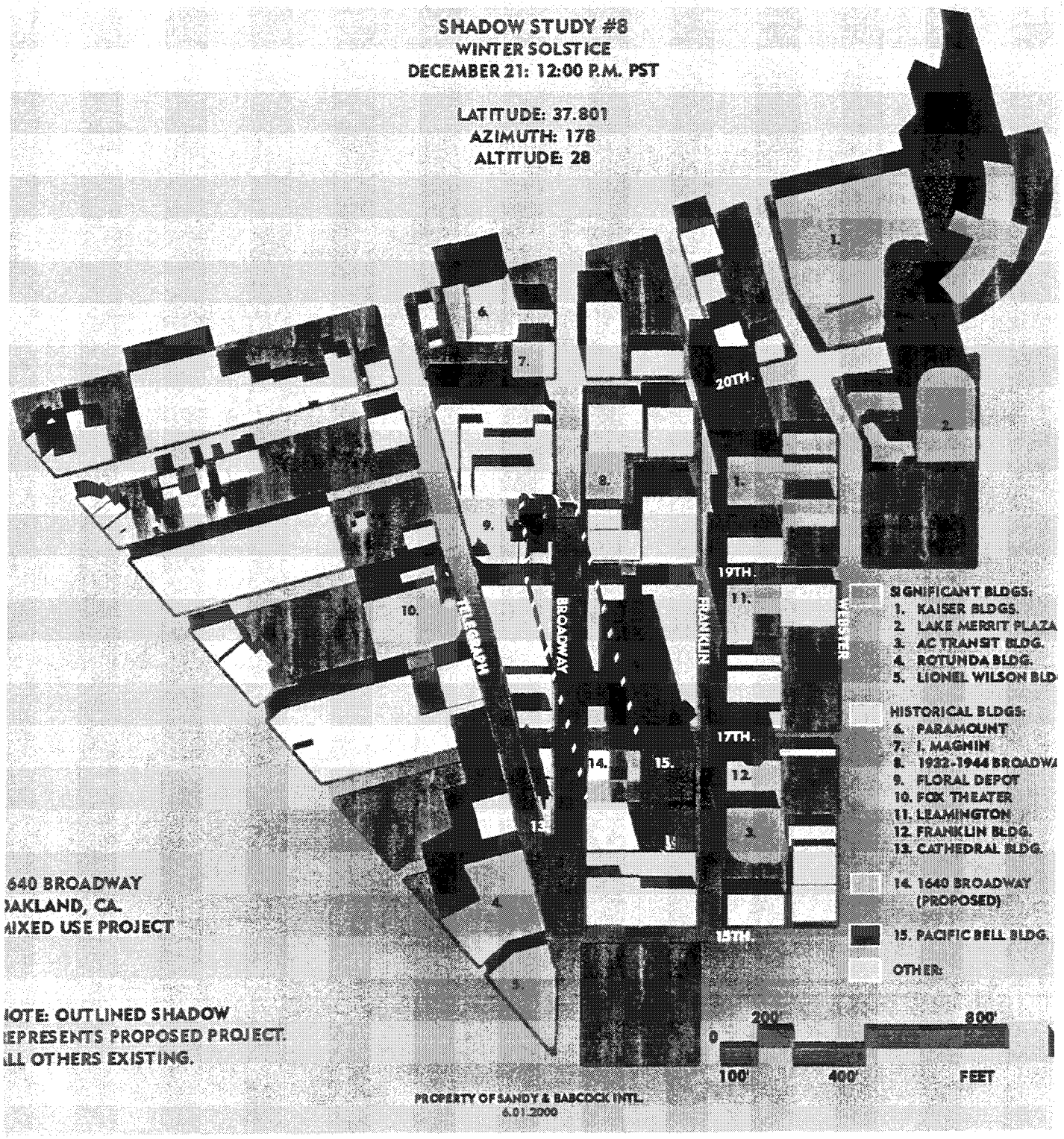


Figure IV.F-3 **1640 Broadway Shadow Study - Winter Solstice, 3:00 PM**

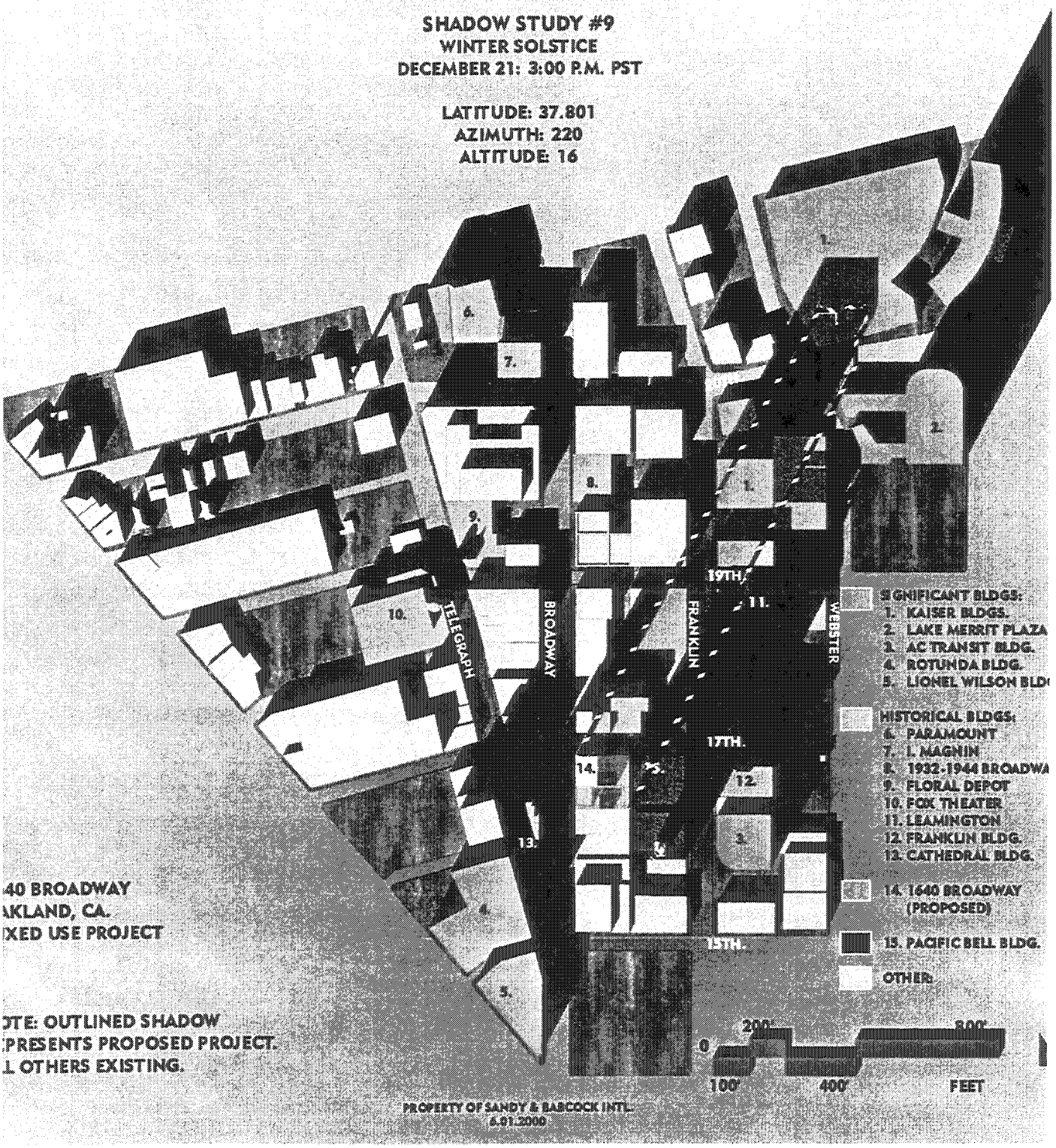


Figure IV.F-4 **1640 Broadway Shadow Study - Summer Solstice, 9:00 AM**

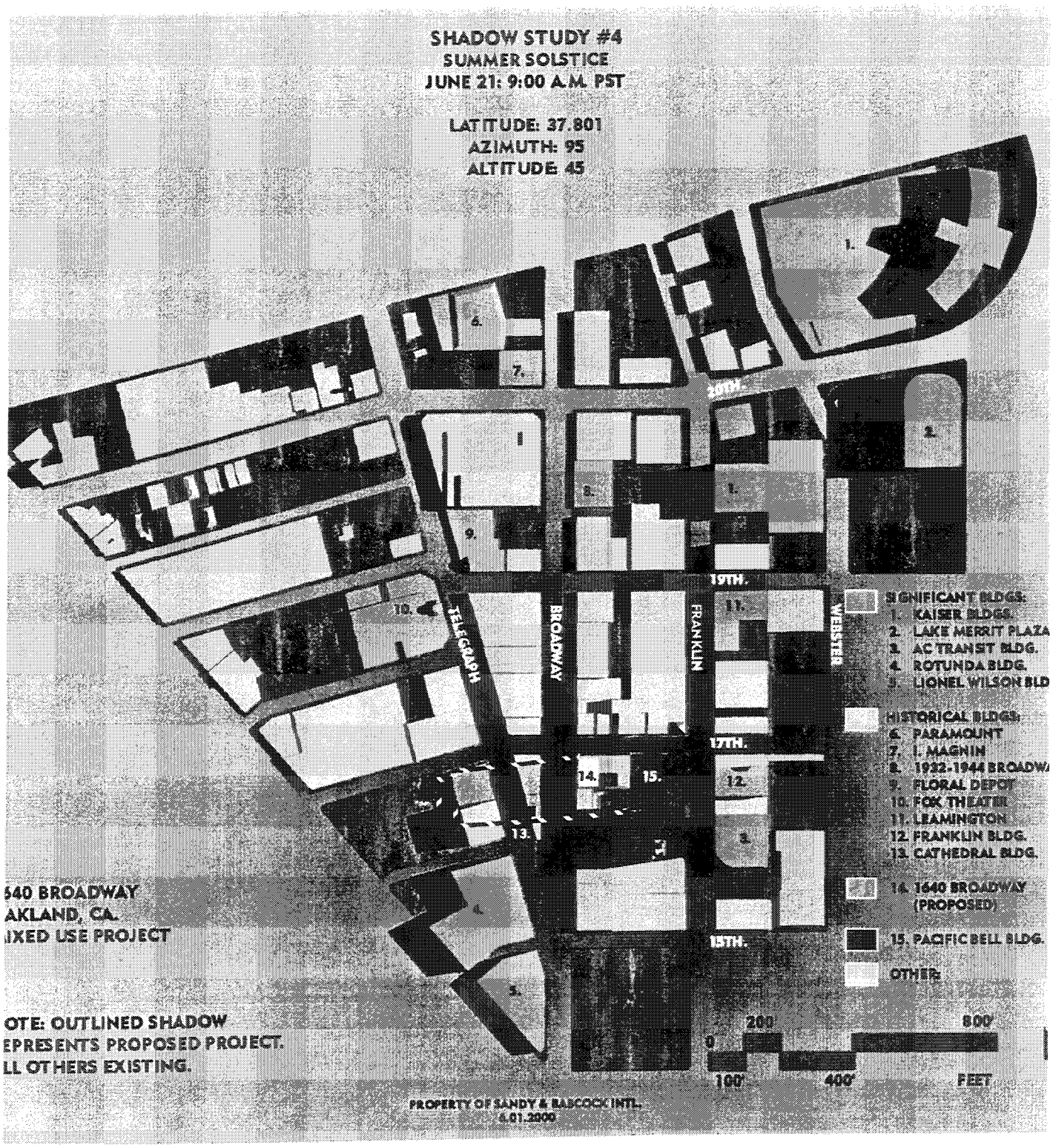


Figure IV.F-5 **1640 Broadway Shadow Study - Summer Solstice, Noon**

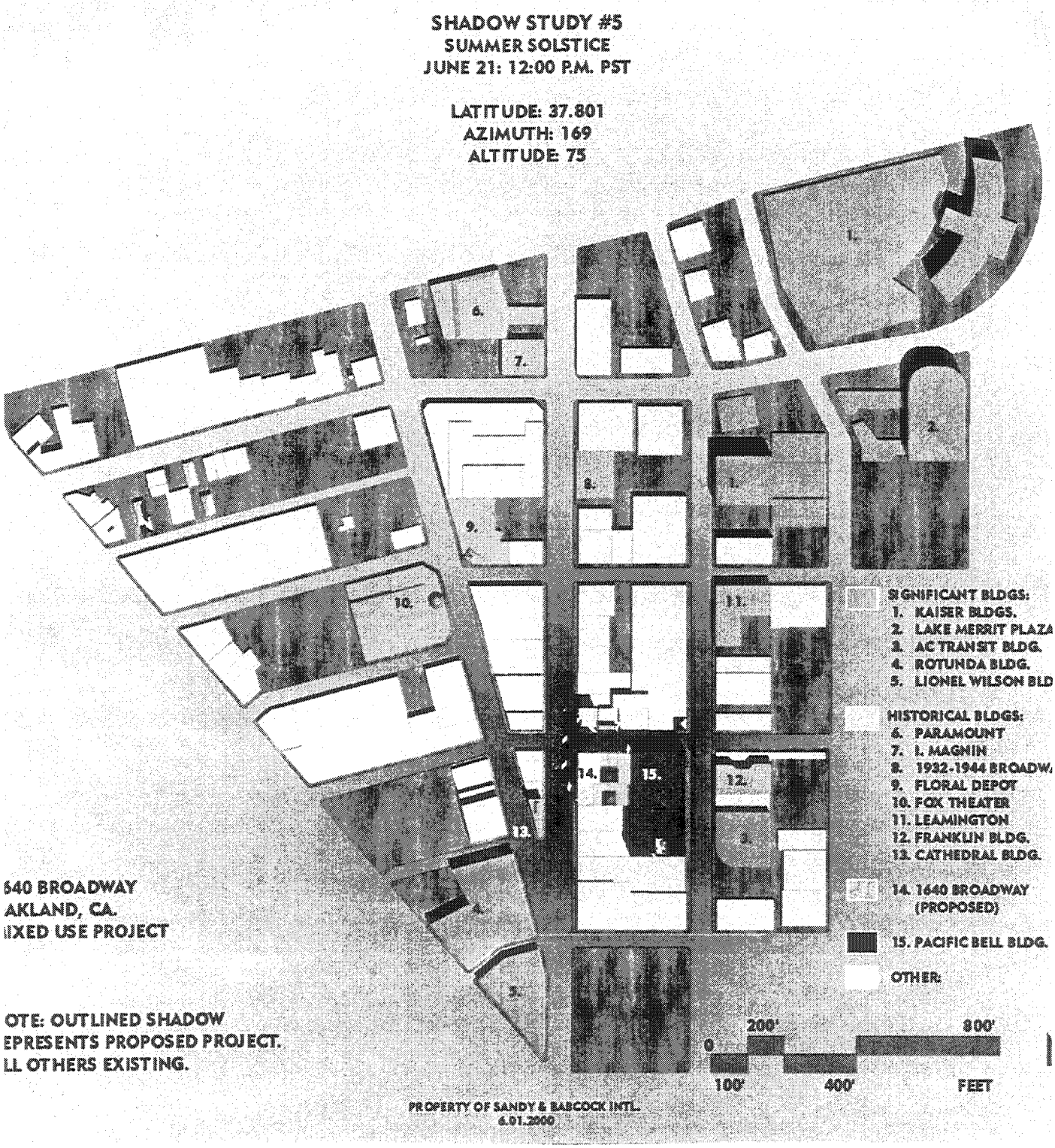


Figure IV.F-6 **1640 Broadway Shadow Study - Summer Solstice, 3:00 PM**

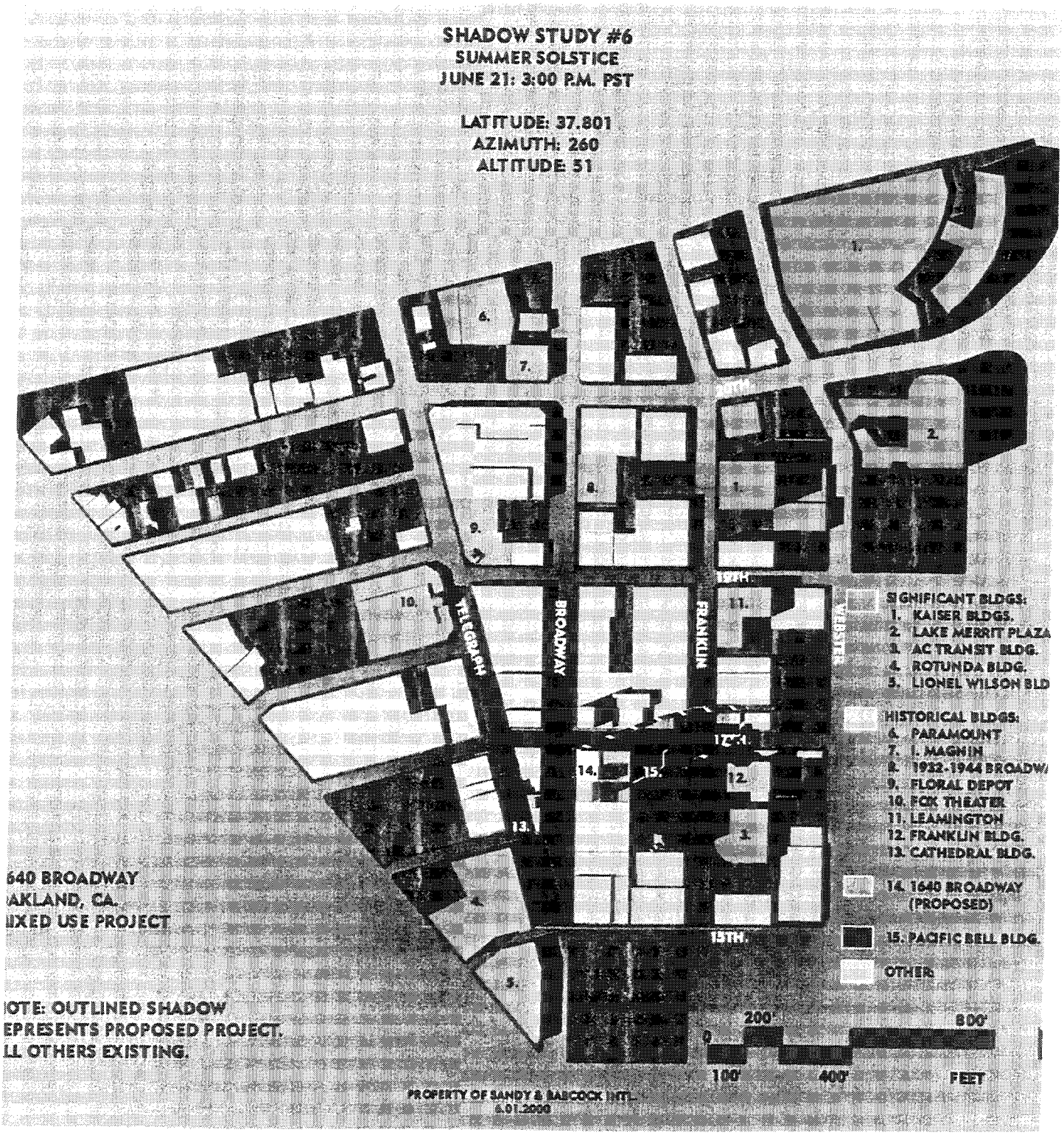


Figure IV.F-7 **1640 Broadway Shadow Study - Vernal Equinox, 9:00 AM**

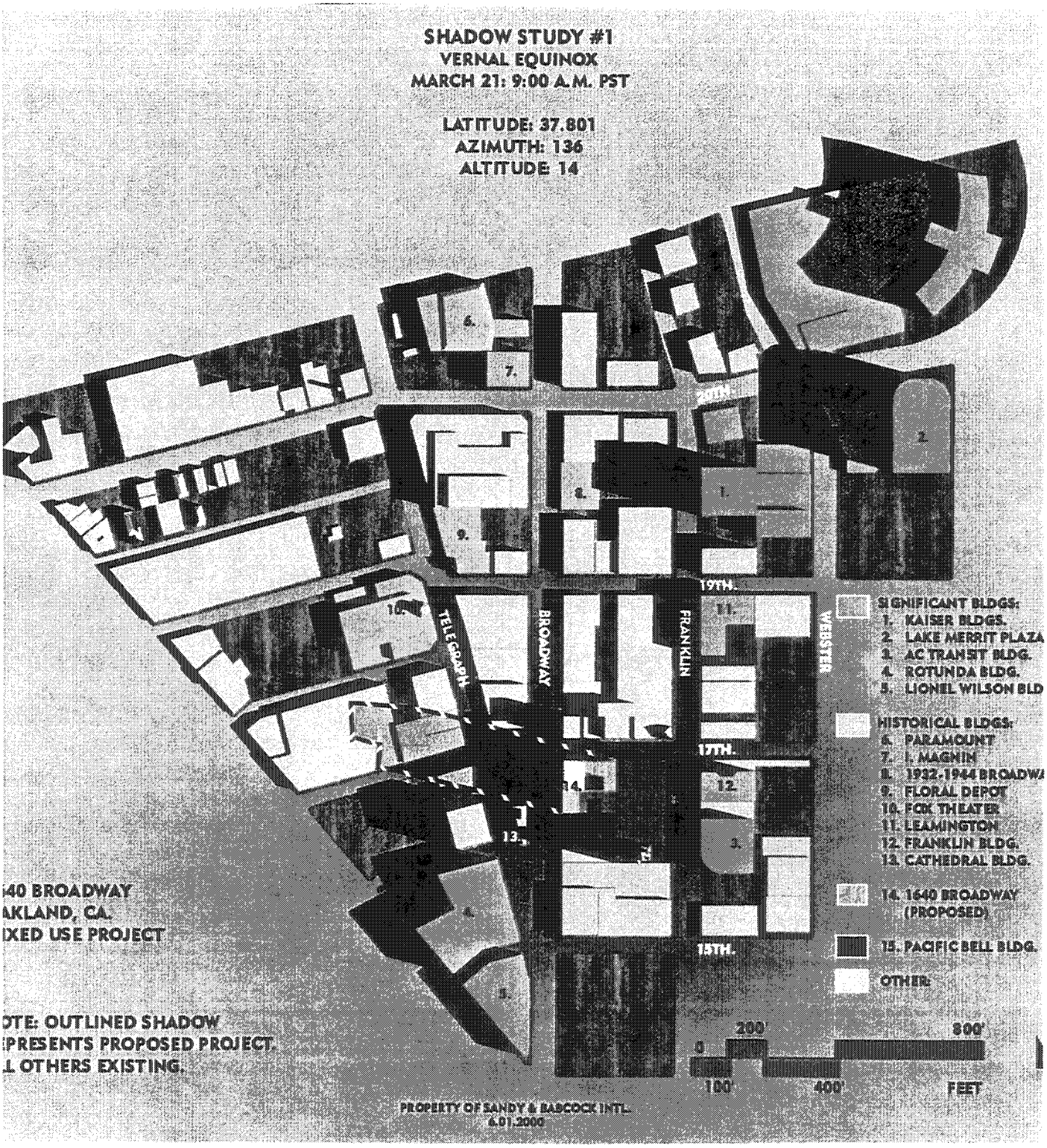


Figure IV.F-8 **1640 Broadway Shadow Study - Vernal Equinox, Noon**

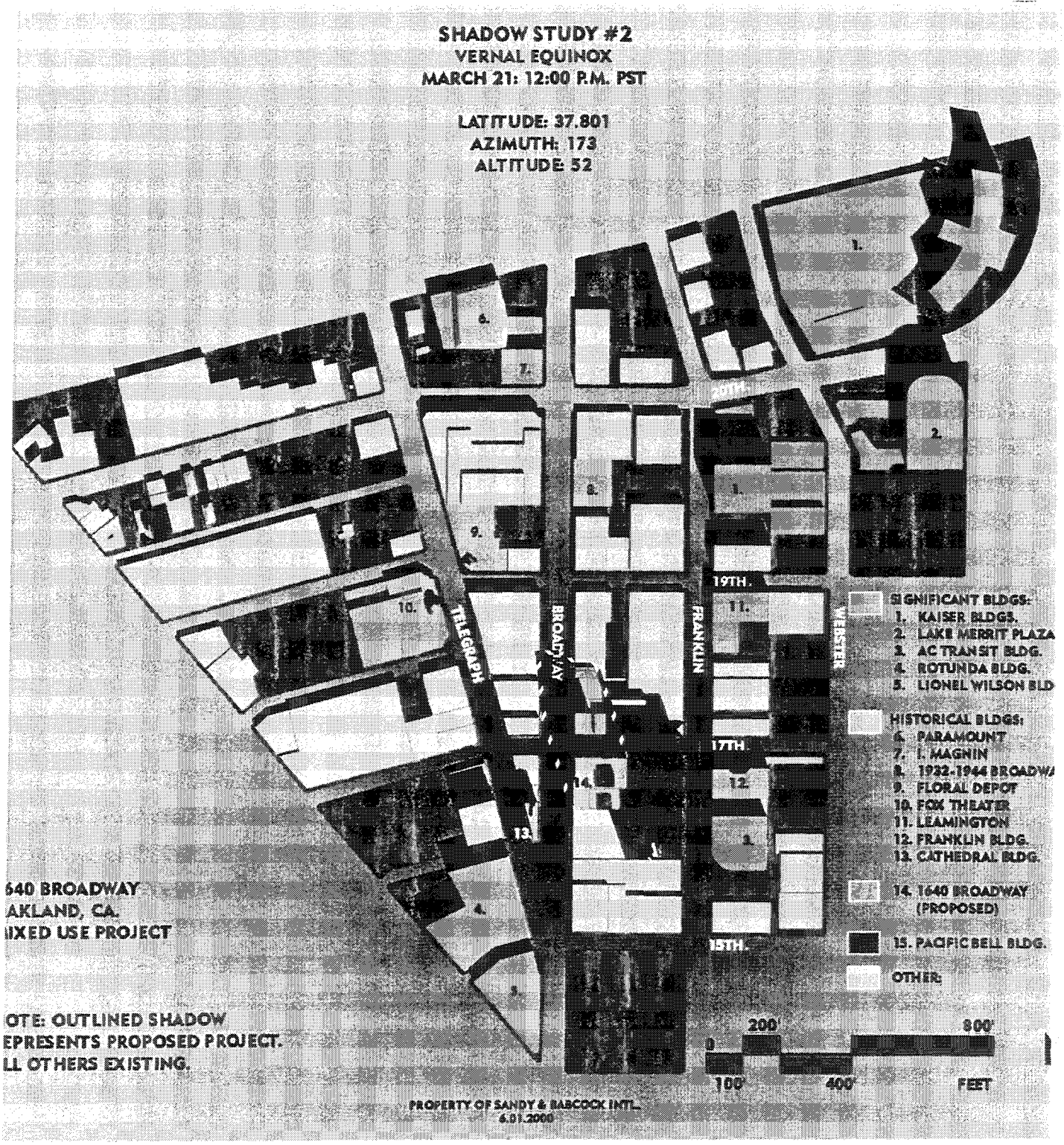


Figure IV.F-9 **1640 Broadway Shadow Study - Vernal Equinox, 3:00 PM**

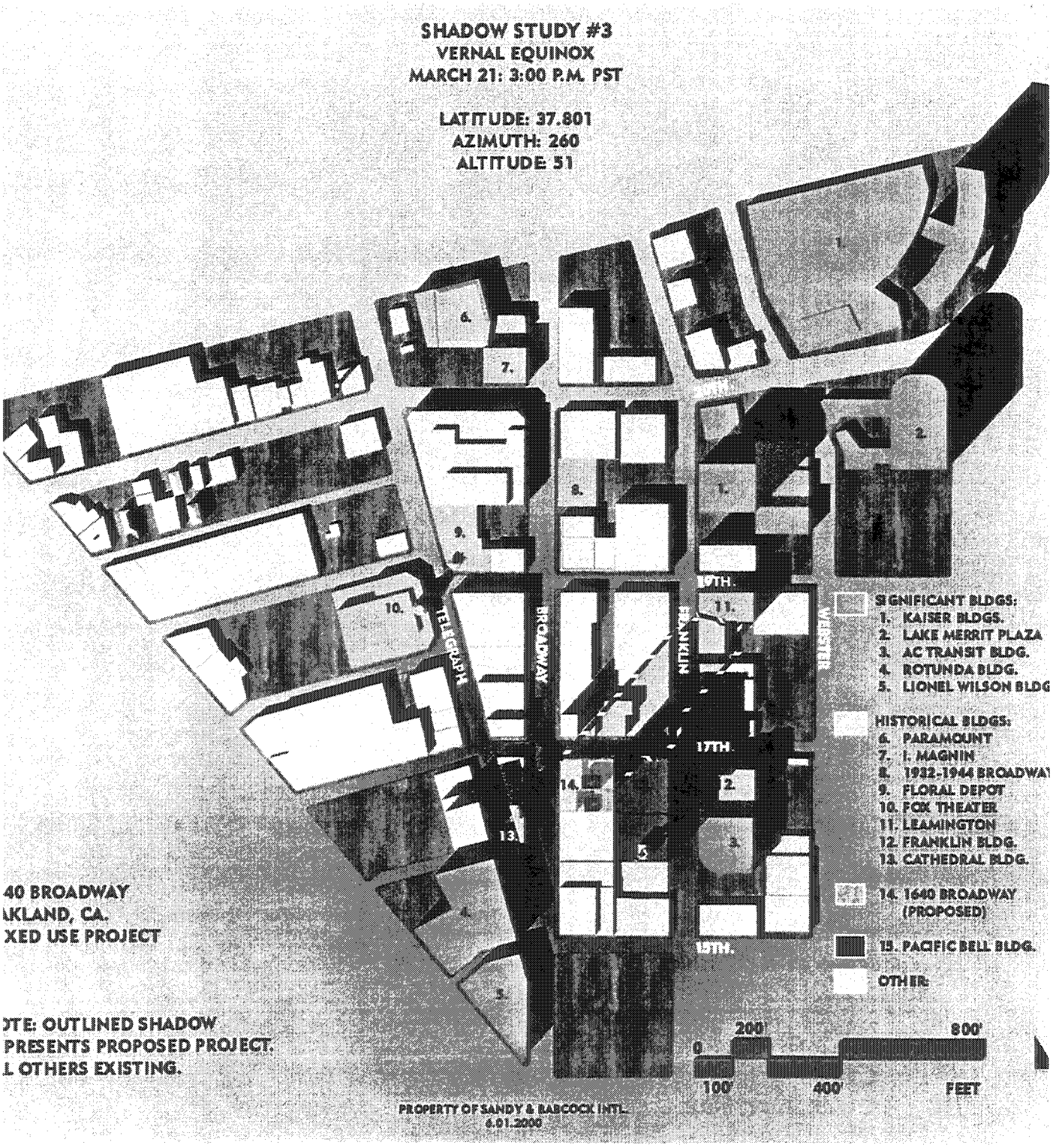


TABLE VI.F-1: EXISTING AND PROJECT-GENERATED SHADOW

ANALYZED BLDGS.	APPROXIMATE PERCENTAGE OF AREA IN SHADE					
	9:00 A.M.		12:00 P.M.		3:00 P.M.	
HISTORIC BLDGS:						
CATHEDRAL BLDG.	EXIST	PROJECT	EXIST	PROJECT	EXIST	PROJECT
MARCH 21	50%	--	0	0	30%	--
JUNE 21	10%	45%	0	0	20%	--
DECEMBER 21	5%	--	0	0	10%	--
FLORAL DEPOT BLDG.*						
MARCH 21	0	0	0	0	0	0
JUNE 21	5%	--	0	0	0	0
DECEMBER 21	15%	--	5%	--	10%	0
FOX THEATER						
MARCH 21	0	0	0	0	0	0
JUNE 21	0	0	0	0	0	0
DECEMBER 21	90%	--	5%	--	10%	--
FRANKLIN BLDG.						
MARCH 21	0	0	0	0	35%	--
JUNE 21	0	0	0	0	20%	--
DECEMBER 21	0	0	0	0	20%	--
LEAMINGTON BLDG.						
MARCH 21	0	0	0	0	0	45%
JUNE 21	0	0	0	0	0	0
DECEMBER 21	0	0	5%	--	100%	--
PARAMOUNT BLDG.						
MARCH 21	0	0	0	0	5%	--
JUNE 21	0	0	0	0	0	0
DECEMBER 21	5%	--	5%	--	15%	--
1932-1944 BROADWAY						
MARCH 21	10%	--	0	0	0	0
JUNE 21	0	0	0	0	0	0
DECEMBER 21	30%	--	0	0	15%	--
SIGNIFICANT BLDGS:						
AC TRANSIT						
MARCH 21	0	0	0	0	5%	--
JUNE 21	0	0	0	0	15%	--
DECEMBER 21	0	0	0	0	0	0
KAISER BLDG(S). (OVER 100' HT)						
MARCH 21	0	0	0	0	0	0
JUNE 21	0	0	0	0	0	0
DECEMBER 21	0	0	0	0	20%	30%
LAKE MERRIT PLAZA						
MARCH 21	0	0	0	0	0	0
JUNE 21	0	0	0	0	0	1%
DECEMBER 21						
LIONEL WILSON BLDG.						
MARCH 21	0	0	0	0	0	0
JUNE 21	0	0	0	0	0	0
DECEMBER 21	0	0	0	0	0	0
ROTUNDA BLDG.						
MARCH 21	0	0	0	0	0	0
JUNE 21	0	0	0	0	0	0
DECEMBER 21	0	0	0	0	0	0

-- or 0 Project does not contribute any *additional* shade to the bldg.(s) in question.
* Project does not add shade to the bldg. in questions at the time analyzed.
Note: Shadows are approximate and do not include HVAC equip., etc. Surrounding bldgs. provided for reference only.

Wind

Impact F.2: Any project-related shifts or changes in ground-level wind speeds under prevailing conditions can be expected to be moderate. This would be a less than significant impact.

The proposed construction of a new building in what is currently a parking lot will result in distortions of the wind field. The proposed building would act as an obstacle to wind flow. Near the building, some areas will experience accelerated winds, while other areas will experienced diminished winds. Ground-level wind accelerations near buildings are controlled by exposure, massing and orientation.

Exposure is a measure of the extent that the building extends above surrounding structures into the wind stream. A building that is surrounded by taller structures is not likely to cause adverse wind accelerations at ground level, while even a small building can cause wind problems if it is freestanding and exposed. The project site is partially exposed to prevailing westerly winds. The site is on the southeast corner of the intersection of 17th Street and Broadway. While structures directly across Broadway are only three stories in height, several substantial buildings are located west of the site, including the a 13-story building at 1615 Broadway and the 14-story Latham Square on the opposite side of Telegraph Avenue. The terrain in the project area is mostly flat. The site is even more sheltered from southeasterly winds associated with winter storms. For southeasterly winds, the site is sheltered by the Pacific Bell building located east of the project site and the adjacent 1610 Broadway building.

Massing is important in determining wind impact because it controls how much wind is intercepted by the structure and whether building-generated wind accelerations occur above-ground or at ground level. In general, slab-shaped buildings have the greatest potential for wind problems. Buildings that have an unusual shape, rounded faces or utilize set-backs have a lesser effect. A general rule is that the more complex the building is geometrically, the lesser the probable wind impact at ground level. The massing of the proposed structure provides a slender profile to westerly winds. Substantial setbacks and cut-outs occur at the upper levels, breaking up the continuity of the building faces. The project would also intercept a portion of the wind currently intercepted by the western facade of the Pacific Bell building, which is monolithic. The geometry of the two buildings together is more complex with less potential for strong wind accelerations.

Orientation determines how much wind is intercepted by the structure, a factor that directly determines wind acceleration. In general, buildings that are oriented with their wide axis across the prevailing wind direction will have a greater impact on ground-level winds than a building oriented with its long axis along the prevailing wind direction. The proposed building faces are aligned with the street grid. The Broadway facade runs roughly southwest to northeast. No building face is aligned across the prevailing wind direction.

The proposed structure does not appear to have the potential to cause substantial wind accelerations in pedestrian corridors or public spaces adjacent the site for prevailing westerly winds. The proposed structure would be partially sheltered from prevailing winds by existing structures, does not have a massing that would bring strong winds to ground level, and is not oriented with any wide building faces across the prevailing wind direction. Any shifts or changes in ground-level wind speeds under prevailing conditions can be expected to be moderate. The Broadway frontage of the project site can be expected to have increased wind speed, while the 17th Street frontage can be expected to have decreased wind speeds.

For southeasterly winds associated with winter storms the project is mostly sheltered by the existing Pacific Bell building and does not offer a wide, continuous profile to winds from this direction. Any wind accelerations caused by the structure during southeasterly winds would be intercepted by the adjacent 1610 Broadway building, and therefore would occur above pedestrian levels.

Based on consideration of the exposure, massing and orientation of the proposed design the project does not appear to have the potential to cause significant changes to the wind environment in pedestrian corridors or public spaces adjacent to or near the site. Project impacts would be a moderate increase in ground-level winds along sidewalks on the Broadway frontage of the project and a diminishment of winds along sidewalks on the 17th Avenue frontage of the project. Neither of these effects would be considered to represent a significant impact, as they do not have the potential to expose pedestrians to adverse wind conditions.

Mitigation Measure F.2: None required.

REFERENCES - Shadow and Wind

City of Oakland, Land Use and Transportation Element of the Oakland General Plan, March 24, 1998.

City of Oakland, Open Space, Conservation and Recreation, An Element of the Oakland General Plan, 1996.

G. HISTORIC ARCHITECTURAL RESOURCES

SETTING

PROJECT AREA HISTORY

Downtown Oakland began its urbanization approximately 150 years ago, beginning with the sale of individual lots in 1850 by a small group of squatters on land that had been sparsely populated by the native Ohlone tribes, and briefly held as part of the Peralta rancho. Development of the commercial district began near the Estuary at the foot of Broadway, and expanded over a half a century up Broadway, typically displacing earlier residential uses. With the completion of the transcontinental railroad in 1869, Oakland grew rapidly. The completion of a telegraph line and adjacent roadway (Telegraph Avenue), and the development of streetcar lines led to the evolution of the area along Broadway around 14th Street as the civic and commercial center of the city. Following the 1906 earthquake and fire in San Francisco, many conspicuous buildings were built in the central downtown area. By the 1920s, the Paramount Theater area was the retail center of the downtown. Oakland reached its peak population (approximately 405,000) shortly after World War II. In the subsequent fifty years, the pace of new development in downtown Oakland has been slower, and the construction of new downtown buildings has taken place on a lot-by-lot basis, resulting in the existing pattern of numerous older buildings (both large and small, built more than fifty years ago) mixed with relatively modern buildings (built within the past thirty years) and with older buildings which have been "modernized". The relative concentration of older buildings makes portions of downtown Oakland unlike many other American cities, where wide-spread replacement of older structures in the downtown areas with modern office towers took place in the closing years of the 20th century.

HISTORIC RESOURCES IN THE VICINITY OF THE PROJECT SITE

Architectural Resources Group (ARG) has prepared a review of the proposed project based on the requirements of CEQA for identifying the impacts of proposed projects on historic resources (see **Appendix E**). Although ARG identified no existing historic resources at the project site, several adjacent historic districts were identified as historic resources in relation to the proposed project. The California Public Resources Code states that an historic district is a definable unified geographic entity that possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. No portion of the project site is located within any formally-designated historic district. However, there are two

historic districts identified by the Oakland Cultural Heritage Survey (OCHS) within one block of the project site: The Downtown Historic District and the 17th Street Commercial District.

Oakland's Downtown Historic District includes many fine examples of large-scale early-twentieth century commercial architecture. The district covers approximately 17 blocks in Oakland's most densely developed business district, and was listed on the National Register of Historic Places in July, 1998. The Downtown Historic District was found to be locally significant for its architectural and historical importance as a major concentration of well-preserved commercial structures that document the economic and architectural development of Oakland between 1900 and 1929.

The Downtown Historic District contains approximately 60 buildings, and its boundaries meander from 11th Street at Broadway, around City Hall along 14th Street, up to Jefferson Street and then along 17th Street, with Franklin Street and Webster Street forming the eastern edge. The OCHS has identified National Register-eligible historic districts as areas of primary importance. Since the Oakland Downtown Historic District is a listed National Register district, it is assumed to be an area of primary importance.

Additionally, the 17th Street Commercial District is located one block from the project site. This small district was originally composed of both sides of 17th Street between Franklin Street to Webster Street, with one building in the block to the east (325-43 17th Street). It was subsequently amended to include the structures at 300-320 17th Street, a 1920s decorative brick one-story plus mezzanine commercial block. The district is characterized by low-rise commercial structures, and was identified as potentially eligible for the National Register because it is an extremely cohesive group of 1920s commercial structures. Many buildings are unaltered, and three were designed by the same architect. The district's uniformity of horizontal massing and Chicago-style fenestration is also noteworthy.

EXISTING PLANS

The following Oakland General Plan goals, objectives and policies related to historic architectural resources are relevant to the proposed project.

General Plan Land Use and Transportation Element

- *Policy D2.1, Enhancing the Downtown*: Downtown development should be visually interesting, harmonize with its surroundings, respect and enhance important views in and of the downtown, respect the character, history, and pedestrian-orientation of the downtown, and contribute to an attractive skyline.

- *Policy D10.3, Framework for Housing Densities*: Downtown residential areas should generally be within the Urban Density Residential and Central Business District density range, whether or not otherwise specified. The height and bulk should reflect existing and desired district character, the overall city skyline, and the existence of historic structures or areas.

General Plan Historic Preservation Element

The City of Oakland adopted the General Plan Historic Preservation Element in 1994. Through the implementation of the Historic Preservation Policies presented in this element, the City seeks to: use historic preservation to foster economic vitality and quality of life in Oakland; increase the number of protected structures through additional research, inventories and public awareness; create regulatory and financial incentives for preservation; and encourage the protection, rehabilitation and restoration of historic buildings.

The proposed project would be generally consistent with the above goals, objectives and policies in that it would not adversely affect the significance of any historical resources.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

CEQA Section 21084.1 states that "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." An "historical resource" is defined as one that is listed in, or determined eligible for listing in, the California Register of Historical Resources. A resource that is officially designated or recognized as significant in a local register of historical resources or one that is identified as significant in an historical resources survey meeting the requirements of Public resources Code Section 5024.1(g), is presumed to be significant under CEQA "unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant." A "substantial adverse change" is

defined in Section 15064.5(b)(1) of the state CEQA Guidelines as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired."

The Historic Preservation Element (Policy 3.8) defines the City's "local register of historical resources" as including all designated Historic Properties and Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance. In addition, until complete implementation of Action 2.1.2 (Redesignation), the Local Register of Historical resources also includes Oakland Landmarks, S-7 Preservation Combining Zone properties, and Preservation Study List properties.

PROJECT IMPACTS

Impact G.1: The project would construct a building approximately 389 feet in height across the street from a designated historic district. This would be a less than significant impact.

The project site currently provides 75 parking spaces, and is vacant (with the exception of a kiosk for the parking lot attendant). There are no historic resources present at the project site, and development of the site as proposed would not involve the demolition, destruction, or relocation of historic resources that meet the California Register of Historical Resources criteria. The proposed project does not affect the physical characteristics that convey the significance of the two adjacent historic districts (the 17th Street Historic District and the Downtown Oakland Historic District). While the construction of the proposed structure would change the overall urban context in this portion of downtown Oakland, this urban fabric has been changing and evolving for some time (for example, the relatively recent construction of the adjacent Pacific Bell Building). There are no design guidelines currently in place that define the parameters of new construction in downtown Oakland, and there are no existing height limits in this area. Therefore, construction of the proposed structure would not result in a substantial adverse change in either of the two historic districts in the project vicinity.

Mitigation Measure G.1: None required.

REFERENCES - Historic Architectural Resources

City of Oakland, Land Use and Transportation Element of the Oakland General Plan, March 24, 1998.

City of Oakland, Historic Preservation - An Element of the Oakland General Plan, February 2, 1994 (Amended July 21, 1998).

(This page has been intentionally left blank.)

V

ALTERNATIVES

A. INTRODUCTION

The California Environmental Quality Act (CEQA, 1970, as amended, Section 15126 [d]) requires an EIR to include a discussion of a reasonable range of alternatives to the proposed project "which could feasibly attain the basic objectives of the project" and an evaluation of their comparative merits. CEQA also requires that the EIR explain why specific project alternatives which were considered at one time in developing the project proposal were rejected in favor of the project proposal. The selection of alternatives is to be guided by the provision of reasonable choices, and the promotion of informed decision-making and informed public participation. An EIR need not evaluate alternatives which would have effects that cannot be determined, or for which implementation would be remote and speculative.

Among the alternatives to be addressed, CEQA (Sections 15126 [d] [2] and 15126 [d] [5]) requires that the EIR evaluate the "no project" alternative, and identify an "environmentally superior" alternative based on the comparative analysis, among project alternatives (but not including the "no project" alternative). The discussion of alternatives is intended to focus on those alternatives which are capable of avoiding any significant environmental impacts or reducing them to a level of "less than significant". Such alternatives should be discussed, even if they may "impede to some degree the attainment of the project objectives, or would be more costly." (CEQA, Section 15126 [d] [3]).

One possibility, an alternative that would involve construction of the proposed project at a different location, was removed from consideration early in the decision-making process, in part, because the project as proposed has been designed specifically for the project site in downtown Oakland, and an alternative site would not fulfil the project objectives of providing urban high density housing in the Oakland Downtown. The project applicant has expressed no interest in pursuing a project of this nature elsewhere in Oakland or in the surrounding area. In addition, analysis of an off-site alternative is not required where (as here) the project is proposed on property which is privately owned, does not require General Plan or zoning amendments, does not require approval of significant new infrastructure and is not regional in character. Moreover,

the only significant unavoidable impact relates to parking. This impact would not be further reduced by moving the project to another location - either in downtown or outside of downtown. With the focus of the alternatives analysis limited to the project site, changes in the basic characteristics of the proposed project would present a range of possible alternatives.

An on-site alternative was considered that would provide sufficient parking capacity to meet the projected demand for the project by adding 7 parking levels. This alternative was rejected from further consideration because it would require a substantially taller structure, would involve difficult design issues with the lower levels of the building with regard to facade treatment, and most importantly, this alternative would not be consistent with the Oakland General Plan policies that encourage transit and discourage automobile use in the downtown (see discussion in **Appendix B**, particularly Policy T2.1). In addition, this alternative would not be consistent with the project sponsor's objective to provide a mixed-use development that relies on transit use by residents, tenants and other users, resulting in less reliance on automobiles. For these reasons, this on-site alternative was rejected as infeasible.

It was determined that alternatives to the project as currently proposed which would incorporate more housing units, fewer housing units, less office space, and a lower and/or smaller structure would, therefore, provide a reasonable range of alternatives as required by CEQA.

The EIR will include a discussion of the following alternatives to the project:

- The "No Project" alternative, under which there would be no new construction at the project site.

- The "Residential Only" alternative, which would provide a structure similar in size to the proposed 1640 Broadway building, but with residential space replacing the eight floors of office space currently proposed.

- The "Office Only" alternative, which would provide a structure similar in size to the proposed 1640 Broadway building, but with office space replacing all of the residential space currently proposed.

- The "Reduced Project" alternative, which would reflect a reduction in the total number of dwelling units, in the total area of office space, and the total number of parking spaces to be built at the project site, with a corresponding reduction in the height of the proposed structure.

Following a discussion of each of the alternatives, a comparison of the alternatives with the project as currently proposed is presented, which is then followed by an evaluation of the alternatives.

B. NO PROJECT ALTERNATIVE

DESCRIPTION

Under the "No Project" alternative, the proposed building would not be constructed, and the project site would remain in its current use as a 75-space surface parking lot.

IMPACTS

LAND USE PLAN CONSISTENCY

The Oakland General Plan encourages the development of vacant areas and surface parking lots in the downtown area with appropriate uses. While leaving the project site in its current use would not be inconsistent with any City policies, it would not further the goals and objectives of the Oakland General Plan with respect to the encouragement of housing and mixed use development in this area.

TRAFFIC, CIRCULATION AND PARKING

Traffic conditions in the vicinity of the project site would reflect changes resulting from increased traffic generated by other projects in the area under the "No Project" alternative. The anticipated increase in the total number of vehicles under this alternative would not be expected to result in any significant adverse traffic or circulation impacts within the local area. However, as indicated in the discussion of parking demand in **Chapter IV.B**, existing parking facilities in the vicinity of the project site currently fill or nearly fill during peak periods each day, and the theoretical parking demand will exceed supply, even without the demand added by the project.

AIR QUALITY

Under the "No Project" alternative, there would be no construction activity taking place at the project site, and, therefore, no adverse temporary construction-related air quality impacts. With no new development at the project site, there would be no new vehicle trips generated, and no project-related emissions of air pollutants.

NOISE

With no new development at the project site, there would be no temporary construction-related noise impacts associated with the "No Project" alternative. The absence of residential development at the project site would preclude the exposure of any new residents to high ambient noise levels under this alternative.

VISUAL QUALITY

Under the "No Project" alternative, no change in the existing visual character of the project site would take place. Depending on the sensibilities of the viewer, this could be regarded as either a positive feature associated with this alternative, or a drawback. While the visual appearance of the project site in its current condition (a surface parking lot) is consistent with the existing character of much of the downtown area, it is inconsistent with the desired and anticipated character of the area, as expressed in the Oakland General Plan. There would be no change in existing patterns of lighting and glare at the project site under the "No Project" alternative.

SHADOW AND WIND

Existing shadow and wind patterns in the vicinity of the project site would remain unchanged under the "No Project" alternative.

HISTORIC ARCHITECTURAL RESOURCES

Leaving the project site in its existing use would have no effects on historic architectural resources.

C. "RESIDENTIAL ONLY" ALTERNATIVE

DESCRIPTION

Under the "Residential Only" alternative, the height and visual appearance of the structure would remain similar to the proposed 1640 Broadway building, although office space on eight floors would be replaced with residential units. A total of 15 residential floors would be built above seven parking levels which would provide 284 parking spaces under this alternative (two parking levels below grade, five parking levels at grade, with ground-floor retail uses along Broadway), and the total number of units would be approximately 255. The mix of residential units would offer 20-foot clear heights and mezzanines, as well as two floors of penthouse units similar in character to the mix which would be provided under the project as proposed. A garden terrace and pavilion identical to that associated with the project as proposed would be provided adjacent to the lowest residential floor, directly above the upper-most parking level.

IMPACTS

LAND USE PLAN CONSISTENCY

The "Residential Only" alternative would be generally consistent with the goals, objectives and policies of the Oakland General Plan, and by increasing the number of loft-style, market-rate residential units at the project site, this alternative would go further toward contributing to the "Oakland 10K" goals than would the project as currently proposed.

TRAFFIC, CIRCULATION AND PARKING

With a total of 255 residential units, the number of peak hour vehicle trips generated under the "Residential Only" alternative would be approximately 80 percent of the total vehicle trips generated by the proposed project during the AM peak hour, and approximately 50 percent of the total vehicle trips generated by the proposed project during the PM peak hour. A total of 284 parking spaces would be available to support residential development at the project site under this alternative. Under current City policies, the development of 255 residential units at the project site would require the provision of a minimum of 255 parking spaces, and the provision of 284 parking spaces for residential use would be expected to exceed an estimated residential demand for 269 parking spaces.

AIR QUALITY

Temporary construction-related air quality effects associated with this alternative would be similar to those associated with the proposed project. Although the "Residential Only" alternative would result in an increase in the number of trips generated by residents at the project site relative to the project as currently proposed, no office-related trips would be generated.

NOISE

Temporary construction-related noise effects associated with this alternative would be similar to those associated with the proposed project. In the absence of office space between the upper parking level and the residential units under this alternative, those living in units on the six lowest residential floors would be exposed to urban noise levels which, under the proposed project, would only affect those utilizing office space. Since established noise exposure standards are more stringent for residential uses than for commercial uses, it might be necessary to take additional noise abatement measures during the construction of the residential units on these lower floors to ensure that these units will fully comply with established noise exposure standards for residential areas.

VISUAL QUALITY

As would be the case with the proposed project, the "Residential Only" alternative would be the tallest structure in Oakland to date. The visual appearance of the structure would be very similar to that of the proposed project, and the amount of glare which would be generated by the proposed structure would be similar.

SHADOW AND WIND

Since the height and mass of the structure which would be built under the "Residential Only" alternative would be similar to the proposed project, shadow and wind effects would also be similar.

HISTORIC ARCHITECTURAL RESOURCES

Development of the project site under the "Residential Only" alternative would be expected to have the same type of effects on historic resources as would the project as proposed.

D. "OFFICE ONLY" ALTERNATIVE

DESCRIPTION

Under the "Office Only" alternative, the height and visual appearance of the structure would remain similar to the proposed 1640 Broadway building, although the residential units would be replaced with office space. A total of 20 office floors would be built above nine parking levels under this alternative (two parking levels below grade, seven parking levels at grade, with ground-floor retail uses along Broadway), and the total floor area in office use would approach 444,200 square feet (or a floor area ratio of 20). All office floors would offer 15-foot clear heights with exposed concrete columns.

IMPACTS

LAND USE PLAN CONSISTENCY

The "Office Only" alternative would be generally consistent with the goals, objectives and policies of the Oakland General Plan, but would not meet the project's objectives related to the provision of urban high density housing in downtown Oakland. The elimination of a residential component under this alternative would not contribute toward the goal of bringing 10,000 new residents into downtown Oakland. Unlike the mixed use project currently proposed, the "Office Only" alternative would not promote increased urban activity downtown during non-working

hours, and the building would probably be largely vacant between the hours of 6:00 PM and 8:00 AM.

TRAFFIC, CIRCULATION AND PARKING

With the level of office development anticipated under this alternative, the vehicle trip generation rate would be expected to be approximately 87 percent greater during the AM peak hour and approximately 77 percent greater during the PM peak hour relative to the proposed project. Approximately 367 parking spaces would be provided at the project site under this alternative, all of which would be used to support the demand generated by the on-site office space. Under current City policies, the development of 444,200 square feet of office space at the project site would require a minimum of 342 parking spaces, or one space per 1,300 square feet. However, using the same parking demand ratios associated with office space used in evaluating the proposed project, the development of the "Office Only" alternative would generate a parking demand of approximately 868 parking spaces. This would exceed the number of on-site parking spaces by approximately 526 spaces, which would place additional loads on existing and proposed parking facilities in the vicinity, and contribute to unmet parking demand downtown.

AIR QUALITY

Temporary construction-related air quality effects associated with this alternative would be similar to those associated with the proposed project. Although the "Office Only" alternative would result in an increase in the number of trips generated those using the office space at the site, no residential-based trips would be generated.

NOISE

Temporary construction-related noise effects associated with this alternative would be similar to those associated with the proposed project. Since office uses are not subject to the more stringent noise exposure standards established for residences, it is unlikely that those using the offices proposed at the project site under this alternative would be exposed to noise levels in excess of established standards.

VISUAL QUALITY

As would be the case with the proposed project, the "Office Only" alternative would be the tallest structure in Oakland. The visual appearance of the structure (as seen from either 17th Street or Broadway) would be very similar to that of the proposed project, and the amount of glare which would be generated by the proposed structure would be similar.

SHADOWS AND WIND

The shadows which would be cast onto other structures in the vicinity of the project site under this alternative would be slightly greater than would be the case with the proposed project, due to the elimination of the garden terrace which would be a feature of the proposed project. The structure which would be built under the "Office Only" alternative would be more massive than the project structure, and could be expected to have increased potential to accelerate winds at ground level relative to the proposed project.

HISTORIC ARCHITECTURAL RESOURCES

Development of the project site under the "Office Only" alternative would be expected to have the same type of effects on historic architectural resources as would the project as proposed.

E. REDUCED PROJECT ALTERNATIVE

DESCRIPTION

Under the "Reduced Project" alternative, the total number of dwelling units proposed at the project site would be reduced from the project's 146 to 108, through the elimination of two proposed residential floors of 17 units each. The floor area available for office space at the project site would be reduced by approximately 25 percent relative to the proposed project, through the elimination of two office floors. The number of on-site parking spaces available to support mixed uses at the project site would be reduced by approximately 29 percent relative to the proposed project, through the elimination of two parking levels. This alternative would, like the proposed project, incorporate a 4,700 square foot ground-floor retail component. The reduction in the number of residential floors, office floors and parking levels relative to the proposed project would result in a "Reduced Project" structure with a height of approximately 300 feet, comparable to the height of the adjacent Pacific Bell building.

IMPACTS

LAND USE PLAN CONSISTENCY

The "Reduced Project" alternative would be generally consistent with the policies of the Oakland General Plan. Although residential densities would not be as high as would be the case with the proposed project, the "Reduced Project" alternative would provide the urban, non-traditional housing that is anticipated and desired in this portion of the downtown area, in keeping with the traditional character of the area. This alternative would not go as far as the proposed project toward contributing to the goal of bringing 10,000 new residents to downtown Oakland.

TRAFFIC, CIRCULATION AND PARKING

A 26 percent reduction in the total number of units, and a 25 percent reduction in the amount of office space proposed for the project site would be expected to result in a corresponding reduction in the anticipated number of vehicle trips to and from the project site relative to the proposed project. Under this alternative, the parking provided on-site would be insufficient to meet the minimum parking requirements established by the City of Oakland, since approximately 202 spaces would be available, while 108 spaces would be required to support the 108 residential units and approximately 102 additional spaces would be required to support the office space. With residential parking demand estimated at 114 spaces, and office parking demand estimated at 260 spaces, coupled with the loss of 75 spaces currently available at the project site, the theoretical demand for off-site parking under this alternative would be approximately 247 spaces. This would be approximately 37 fewer off-site parking spaces than would be needed under the proposed project, but in either case, this increase in off-site parking demand could not currently be met given the existing and proposed parking supply in the vicinity of the project site.

AIR QUALITY

Temporary construction-related air quality effects associated with this alternative would be similar to those associated with the proposed project. Since the anticipated number of vehicle trips would be reduced under the "Reduced Project" alternative relative to the proposed project, air quality impacts associated with traffic generated at the project site would also be reduced.

NOISE

Temporary construction-related noise impacts associated with the "Reduced Project" alternative would be similar to those anticipated under the proposed project. With a reduction in traffic generated at the project site relative to the proposed project, the "Reduced Project" alternative would not contribute as much traffic-related noise to the ambient noise environment as would the proposed project. However, in either case, the presence of the noise from the street network would render any anticipated traffic noise generated at the project site less than significant. Fewer people would be exposed to high ambient noise levels on-site under the "Reduced Project" alternative, but (as with the proposed project) the requirement to meet all Title 24 construction standards for noise abatement would reduce these impacts to a level of less than significant in either instance.

VISUAL QUALITY

The development of the project site under the "Reduced Project" alternative would result in a structure with a height approximately 25 percent less than the height of the proposed 1640 Broadway building (approximately 300 feet, compared with approximately 389 feet). With a

height similar to that of the adjacent Pacific Bell building, the "Reduced Project" structure would not be expected to contribute to the skyline of downtown Oakland as distinctively as would the proposed 1640 Broadway structure (and from distant vantage points, the "Reduced Project" structure might appear as an "addition" to the existing Pacific Bell Building if the heights were nearly identical). The "Reduced Project" alternative structure would not be expected to block any significant views. Although the level of street lighting required would be similar under either the proposed project or the "Reduced Project" alternative, the "Reduced Project" alternative would produce slightly less glare than the proposed project (which would be regarded as a less than significant impact in either instance), since the amount of glazed area would be reduced.

SHADOW AND WIND

With the reduced height of the "Reduced Project" structure, shadows would not extend as far as would be the case under the proposed project (the impact of such shadows would be considered less than significant in either case). Since the proposed structure under this alternative would be less massive than, and not as tall as, the project structure, it could be expected to have reduced potential to accelerate winds at ground level relative to the proposed project.

HISTORICAL ARCHITECTURAL RESOURCES

Development of the project site under the "Reduced Project" alternative would be expected to have the same type of effects on historic resources as would the project as proposed.

F. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table V-1 provides a comparison of key impacts associated with the project as currently proposed and each of the four alternatives. The "No Project" alternative would have the fewest impacts, and was identified as the "environmentally superior" alternative. **It should be noted, however, that this alternative meets none of the project objectives.**

Under CEQA, when the "No Project" alternative has been identified as the "environmentally superior" alternative, it is necessary to identify another alternative which would represent the "environmentally superior" alternative in the absence of the "No Project" Alternative.

In the absence of the "No Project" alternative, the "Residential Only" alternative would be regarded as the "environmentally superior" alternative, since it would have no significant, unavoidable environmental impacts.

TABLE V-1: COMPARISON OF KEY IMPACTS: PROPOSED PROJECT AND PROJECT ALTERNATIVES

	Proposed Project	No Project	Residential Project	Office Project	Reduced Project
Description					
Residences	146 Units	None	255 Units	None	108 Units
Office Space	177,600 ft^2	None	None	444,200 ft^2	133,260 ft^2
Retail Space	4,700 ft^2	None	4,700 ft^2	4,700 ft^2	4,700 ft^2
Height	389 feet	N/A	389 feet	389 feet	300 feet
On-Site Parking	284 spaces	75 spaces	284 spaces	284 spaces	202 spaces
Impacts					
Traffic	299 New PM Peak Trips (LS)	No New PM Peak Trips	149 New PM Peak Trips (LS)	531 New PM Peak Trips (LS)	233 New PM Peak Trips (LS)
Parking Demand Surplus/Shortfall	576 spaces Shortfall = 292 (S/U)	0	269 spaces Surplus = 15 (LS)	868 spaces Shortfall = 584 (S/U)	449 spaces Shortfall = 247 (S/U)
Air Quality	Construction Dust (S/MLS)	No Impacts	Construction Dust (S/MLS)	Construction Dust (S/MLS)	Construction Dust (S/MLS)
Noise	146 Units Exposed (LS)	No Units Exposed	255 Units Exposed (LS)	No Units Exposed	108 Units Exposed (LS)
Visual Quality	Changes (LS)	No Changes	Changes (LS)	Changes (LS)	Changes (LS)
Shadow	Longest Shadows Created (LS)	No Shadows Created	Longest Shadows Created (LS)	Longest Shadows Created (LS)	Shadows Similar to Pac Bell (LS)
Wind	Potential Changes (LS)	No Changes	Potential Changes (LS)	Potential Changes (LS)	Potential Changes (LS)
Historic Architectural Resources	LS	No Impact	LS	LS	LS

LS = Less than Significant
S/U = Significant/Unavoidable
S/MLS = Significant/Mitigated to Less than Significant

(This page has been intentionally left blank.)

VI

IMPACT OVERVIEW

A. INTRODUCTION

This section summarizes the findings with respect to significant unavoidable environmental impacts, cumulative impacts, and growth-inducing impacts of the proposed project.

B. SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL IMPACTS

The following project-related impact has been identified as significant and unmitigable:

Impact B.3: The project could result in a parking deficit of approximately 292 off-street parking spaces at project buildout. This would be a significant impact.

Mitigation Measure B.3: Under existing and cumulative conditions, project parking demand, as calculated using ITE adjusted parking demand rates, will exceed supply by 292 spaces. Given that it is desirable to encourage residents and employees to use transit rather than personal automobiles, the mitigation measure should not include adding more parking, but should instead consist of encouraging residents to use transit, bicycles, or to travel on foot. The project's mitigation measures for this impact should be the following:

- **Assign only one specific (numbered, perhaps) parking space to each unit, and prohibit residents from parking in any space except their own.**

- **Inform residents that there is only metered, time-limited parking on-street for several blocks around the project location, and indicate that they are therefore strongly discouraged from owning more than one automobile that they might wish to park at or near the project.**

- **Provide current transit information to residents, either by direct delivery (e.g., via U.S. Mail) or at a convenient location, such as a kiosk near the elevators.**

The mitigation measures associated with resident parking should be accomplished via the usual sales documentation (e.g., "CCR's" or homeowner's association contracts) for the units.

Under existing and cumulative conditions, parking demand in the project area will exceed supply, and the office component of the proposed project will contribute to that parking demand. The project could implement one or more mitigation measures that include the following:

- **Provide tenants with general information about parking in the area. Specifically, leases should include a statement informing tenants that, as is typical in most urban downtown areas, parking is extremely scarce and that employees are advised to use public transit instead of personal automobiles in getting to and from the project site.**

- **Provide specific information about transit. To provide information about transit, the building management and/or on-site security staff should maintain a reasonably current supply of AC Transit, BART, and ferry schedules. Additionally, at least once per year, perhaps as part of normal correspondence between management and lessees, the building management should reiterate its recommendation for tenants to take transit to the site.**

- **Designate five percent of the office-related parking spaces (7 spaces) for carpool parking only. The building management should be responsible for designing a method of enforcing the carpool parking.**

- **Implement a shared parking management system.**

- **Implement a valet parking system during daytime weekday use.**

- **Price parking within leases or by other means to help limit the number of tenants who drive to the site.**

The effective implementation of parking demand reduction programs could be expected to reduce project-related parking demand to some extent. However, it is unlikely that these measures would contribute to a significant reduction in the anticipated increase in demand for parking space in the downtown area as development in that area continues. The increase in downtown parking demand would continue to represent a significant unavoidable impact, to which the project-related parking demand would contribute. This impact is also cumulatively significant and unavoidable.

C. CUMULATIVE IMPACTS

Cumulative impacts are identified as those project-related impacts which are minor or incremental individually, but which, when combined with the impacts associated with past projects, projects which have already been approved, and/or future projects that can be reasonably anticipated, can become significant.

Cumulative impacts associated with the proposed project are discussed in the appropriate topical issue sections of **Chapter IV**. In summary, the only significant cumulative impact to which the project would contribute is an increased demand for off-street parking in downtown Oakland (**Impact B.3**), which would remain cumulatively significant and unavoidable following mitigation.

D. GROWTH-INDUCING IMPACTS

The Oakland General Plan anticipates development similar to that proposed at the project site, and the project itself is considered "growth-accommodating", rather than "growth-inducing". In some cases, new development may require an expansion of existing utility distribution systems and other public service networks in order to adequately serve the new uses, which can induce additional growth that might take advantage of any increased capacity in these systems or networks. In the case of the proposed project, however, the site is located in an area already served by utilities and other public services, and no significant expansion in infrastructure would be required to support the project. For this reason, development of the project site as proposed would not be expected to entail any significant growth-inducing impacts.

(This page has been intentionally left blank.)

VII

REPORT PREPARATION

A. EIR PREPARERS

This Draft EIR has been prepared for the City of Oakland as the Lead Agency by Lamphier & Associates, Environmental Planners:

Lamphier & Associates

1944 Embarcadero
Oakland, CA 94607
510-535-6690

Joan Lamphier, Principal
John Courtney, Associate Planner
Andrew Young, Associate Planner

Donald Ballanti, Certified Meteorological Consultant

B. REFERENCES AND BIBLIOGRAPHY

AC Transit, 1998 Boarding and Alighting Survey, 1998.

Association of Bay Area Governments, Projections '96.

Association of Bay Area Governments, Projections '98.

Association of Bay Area Governments, Projections 2000.

Bay Area Air Quality Management District, BAAQMD CEQA Guidelines, April 1996.

City of Oakland Community and Economic Development Agency, Envision Oakland - City of Oakland General Plan: Land Use and Transportation Element, adopted March 24, 1998.

City of Oakland, Bicycle Master Plan (Part of the Land Use & Transportation Element of the Oakland General Plan), Adopted July 20, 1999.

City of Oakland Community and Economic Development Agency, Downtown Oakland - Retail Opportunities, 1999.

City of Oakland Community and Economic Development Agency, Oakland 10K Initiative, 1999

City of Oakland, Central District Urban Renewal Plan, adopted June 12, 1969, as amended through October 27, 1998.

City of Oakland, The Retail Center and Rehabilitation Area Project - a Supplement to the Central District Urban Renewal Plan of 1990, February 18, 1997.

Environmental Science Associates, Oakland General Plan Land Use and Transportation Element - Draft Environmental Impact Report, October 31, 1997.

Environmental Science Associates, Oakland General Plan Land Use and Transportation Element - Final Addendum to the Draft EIR, February 1998.

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

Institute of Transportation Engineers, Trip Generation, 6th Edition, 1998.

Institute of Transportation Engineers, Parking Generation, 1987.

Weant and Levinson, Parking, 1990.

William Dubovsky Environmental, Phase I Environmental Site Assessment, 1640 Broadway, Oakland, California, prepared for Hernon Construction, Inc., August 31, 1999.

C. PERSONS CONTACTED

Claudia Cappio, Manager of Major Projects, Community and Economic Development Agency, City of Oakland
Crescentia L. Brown, AICP, Community and Economic Development Agency, City of Oakland
Margaret L. Cafarelli, Urban Developments
John Eller, Frank Hyde and Eric Freed, Sandy & Babcock International
Marty Beene, Dowling Associates, Inc.
Bridget Maley, Architectural Resources Group

APPENDIX A

NOTICE OF PREPARATION, INITIAL STUDY AND RESPONSES TO NOTICE OF PREPARATION

CITY OF OAKLAND

50 FRANK H. OGAWA PLAZA, SUITE 5313 • OAKLAND, CALIFORNIA 94612-2034

ommunity and Economic Development Agency
conomic Development Division

(510) 238-3015
FAX (510) 238-3691
TDD (510) 839-6451

NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT

ıe Oakland Community and Economic Development Agency, Planning Division, will prepare an Environme ıpact Report (EIR) for the project identified below and is requesting your comments on the scope and conten ıe EIR. The areas of possible environmental effects from the project, which have been identified for analysis in R, are summarized below. The City of Oakland is the Lead Agency for this project and is the public agency v ıe greatest responsibility for either approving or carrying out the project. We are sending this notice esponsible Agencies and other interested parties. Responsible Agencies are those public agencies, besides ity of Oakland, that also have a role in approving or carrying out the project. Responsible Agencies will nee se the EIR that we prepare when considering approvals related to the project. When the Draft EIR is publishe ill be sent to all Responsible Agencies. Other persons who respond to this Notice of Preparation may obta ɔpy of the Draft EIR when it is published. Please send any response you may have within 30 days from the ou receive this notice. Your response, and any questions or comments, should be directed to Crescentia Bro lanner III, City of Oakland, Community and Economic Development Agency, Planning Division, 250 Frank gawa Plaza, Suite 3330, Oakland, CA 94612, phone (510) 238-6190, or e-mail cbrown@oaklandnet.com, hould reference Case File No. ER00-02.

ROJECT TITLE: 1640 Broadway Project

ROJECT LOCATION: 1640 Broadway, Oakland

ROJECT SPONSOR: Urban Developments

ROJECT DESCRIPTION: The proposed project entails the construction of 24-story, mixed-use building. uilding will include of ground-floor commercial space (approximately 5,400 s.f.); 8 floors of commercial o pace (approximately 177,680 s.f.); and approximately 150 residential units on the 11 uppermost floors. roject will provide a total of approximately 286 parking spaces on 5 levels of aboveground parking and 2 leve nderground parking. The ground floor parking level is located behind the commercial frontage on Broadway. roposed building is approximately 369 feet in height. The building will essentially cover the entire 22,210- ite, which is approximately 150 feet in length along its two street frontages. The project site is located in Central Business District General Plan Land Use Classification and in the C-55 Central Core Commercial/S-8 U Street Combining Zone.

ROBABLE ENVIRONMENTAL EFFECTS: It is anticipated that the proposed project may have the follo nvironmental effects: Cultural Resources; Air Quality; Transportation, Circulation, Traffic and Parking; Noise; S Access (Aesthetics); and Impacts on approved Land Use Plans or Policies affecting the site.

Crescentia Bro

DATE: February 25, 2000
FILE NO: ER00-02

LESLIE GC
Director of Plar

City of Oakland
File No. ER00-02
Reference No. CMDV00-25

INITIAL STUDY AND ENVIRONMENTAL REVIEW CHECKLIST

California Environmental Quality Act (CEQA)

1. Project Title: 1640 Broadway

2. Lead Agency Name and Address:
   City of Oakland
   Community and Economic Development Agency, Planning Division
   250 Frank H. Ogawa Plaza, Suite 3330
   Oakland, CA 94612

3. Contact Person and Phone Number:
   Crescentia Brown, Planner III (510) 238-6190

4. Project Location: 1640 Broadway, Downtown Oakland

5. Project Sponsor's Name and Address:
   Urban Developments
   Margaret Cafarelli
   283 Fourth Street – Second Floor
   Oakland California 94607

6. General Plan Designation: Central Business District

7. Zoning: C-55 Central Core Commercial/S-8 Urban Street Combining Zone

8. Description of Project: The proposed project entails the construction of 24-story, mixed-use building. The building will include ground-floor commercial space (approximately 5,400 s.f.); approximately 8 floors of commercial office space (approximately 177,680 s.f.); and approximately 150 residential units on the 11 uppermost floors. The project will provide a total of approximately 286 parking spaces on 5 levels of aboveground parking and 2 levels of underground parking. The ground floor parking level is located behind the commercial frontage on Broadway.

   The proposed building is approximately 369 feet in height. The building will essentially cover the entire 22,210-acre site, which is approximately 150 feet in length along its two street frontages.

This initial study is intended to address all aspects of construction and operation of the proposed project and all necessary land use permits which may include a Conditional Use Permit, Design Review and any other discretionary permits required by the City of Oakland. The proposed project may also include application for a Tentative Tract/Condominium Map to merge the 3 existing parcels that currently comprise the 22,210-acre site and to create new parcels for condominium space.

9. Surrounding Land Uses and Setting:

The project site is a one-half acre site located at the northeast corner of Broadway and 17th Street in Central Business District in Downtown Oakland. The site is primarily surrounded by commercial buildings with a mix of retail and offices. The site is "cornered" by a 4-story office building on the south (toward 16th Street) that fronts on Broadway and the high-rise Pacific Bell building on the east that fronts primarily on Franklin Street. Across Broadway to the west are 3-4 story commercial buildings that contain offices and ground-floor retail uses. Across 17th Street to the north is a vacant 11-story office building and the 4-story historic Wakefield Building. The project site is currently a paved surface parking lot. No trees or unpaved surfaces exist on the site.

The proposed project will front on Broadway, which is a primary downtown thoroughfare. Entrance to the 19th Street BART station, which is 3 blocks from the 12th Street BART Station (a major transfer station on the regional BART system), is located within one-half block of the project site. The project site is located within the C-55 Central Core Commercial Zone and the S-8 Urban Street Combining Zone and the Central Business District designation of the General Plan.

10. Other Public Agencies Whose Approval Is Required: N/A

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

✓ Aesthetics	☐ Agricultural Resources	✓ Air Quality
☐ Biological Resources	✓ Cultural Resources	☐ Geology/Soils
☐ Hazards/Hazardous Materials	☐ Hydrology/Water Quality	✓ Land Use/Planning
☐ Mineral Resources	✓ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	✓ Transportation/Traffic
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared. ☐

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ✓

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

Signature

Date February 22, 00

Crescentia Brown, AICP
Planner III

For Leslie Gould
Director of Planning and Zoning

EVALUATION OF ENVIRONMENTAL IMPACTS

CEQA requires that an explanation of all answers except "No Impact" answers be provided along with this checklist, including a discussion of ways to mitigate any significant effects identified. As defined here, a significant effect is considered a substantial adverse effect.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	✓	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	✓	☐

Comments to Questions I a and b: The proposed project would be located on a vacant site within downtown Oakland, which includes a broad mix of low- and high-rise buildings. At approximately 369 feet in height, the proposed building is consistent in scale and bulk with other high-rise buildings in the Central Business District and with the pattern of development in this urban setting, particularly in close proximity to the Broadway "spine". Furthermore, the proposed building will further articulate the existing city skyline, thereby contributing to a built scenic resource. Therefore, the proposed project would not result in significant impacts on a scenic vista or scenic resources.

Source:
Project Description and Plans.
Field Survey.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?	✓	☐	☐	☐

Comment to Question Ic: The proposed project would entail the construction of a 24-story building that is approximately 369 feet in height in the downtown area. Therefore, the building will be similar in height and scale to many high-rise buildings located nearby, particularly within City Center, along the Broadway spine and in the Kaiser Center financial hub. Because the proposed project would be constructed on an existing vacant lot, the new building will create shadows on the adjacent area. The focused EIR will analyze the impacts of the proposed project on the existing visual character or quality of the site and its surroundings as well as the potentially impacts of the project on solar access of nearby structures and spaces.

Source:
Project Description and Plans.
Field Survey.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	✓	☐

Comments: The proposed project will be located in a built-out urban area in downtown Oakland, which includes many land uses, including commercial office, retail and entertainment, that produce light and glare during evening hours. The proposed project is anticipated to provide some fixed exterior lighting, particularly at building entrance points, in addition to that provided by City street lights adjacent to the project site, particularly on Broadway which is a major thoroughfare through the downtown. However, the applicant will be required to submit a detailed exterior lighting plan to the Building and Planning Divisions for review and approval prior to installation of any such exterior lighting in accordance with standard City practices and procedures. If applicable, the need for replacement of street lights within the public right of way will be determined by the Building Division and Public Works Electrical Division prior to the installation of such fixtures. Thus, the proposed project would not result in significant new light or glare impacts.

Source:
Project Description and Plans.
Field Survey.

II. AGRICULTURAL RESOURCES -- Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use?	☐	☐	☐	✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✓
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use?	☐	☐	☐	✓

Comments to Questions II a, b, and c:
The proposed project will be located in a built-out urban area that contains a mix of office and retail uses. Agricultural or farmland uses do not exist on or adjacent to the project site. Thus, the proposed project will not have any impacts on agricultural resources.

Sources:
Oakland General Plan: Open Space, Conservation, & Recreation Element, October 1995.
Oakland General Plan: Land Use & Transportation Element, March 24, 1998.
Field Survey.
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY -- Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	✓	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	✓	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	✓	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	✓	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	✓	☐	☐	☐

Comments to Questions III a, b, c, d, and e: The focused EIR will analyze the potential air quality impacts resulting from the project.

IV. BIOLOGICAL RESOURCES - - Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	✓	☐
b)Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	✓	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act? (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	✓	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	✓	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	✓	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	✓	☐

Comments to Questions III a, b, c, d, e, and f: The project site is an in-fill site located in an urban area where approximately 75 years of development has previously replaced any former biotic habitats and natural vegetation. A paved, surface parking lot currently exists on the site, and no trees or pervious surfaces exist on the site. There are no known special status species or sensitive habitats located on the site, furthermore, it is apparent that the site's conditions are not suitable for sustaining significant biological resources or habitats. Additionally, the proposed site does not interfere with the movement of any native resident or migratory wildlife species, nor does it interfere with any native resident or migratory wildlife corridors. Therefore, the project would not result in any significant impacts on biological resources.

Sources:
Oakland General Plan, Open Space, Conservation and Recreation Element, October 1995.
Field Survey.

V. CULTURAL RESOURCES -- Would the project?

a) Cause a substantial adverse change in the significance of a historical resource as defined in δ15064.5?	✓	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to δ15064.5?	✓	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	✓	☐	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	✓	☐	☐	☐

Comments to Questions V a, b, c, and d: The project site is not located within a historic district. The "Uptown Shopping Entertainment District" and the "Downtown District" - historic districts designated by the Oakland Cultural Heritage Survey as Areas of Primary Importance that contain several historic structures – extend along the west side of Broadway, opposite the project site.

The proposed project site is vacant, and it was previously developed and subsequently cleared. Because the proposed project would entail extensive grading and excavation activities to construct the building and the below-grade parking, the applicant shall be required to implement measures to ensure that any archaeological or paleontological resources or human remains encountered during excavation or construction are adequately addressed. The focused EIR will analyze the potential historic cultural resource impacts resulting from the project.

Sources:
Oakland Cultural Heritage Survey.
Oakland General Plan, Historic Preservation Element, July 21, 1998
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map for the area or based on other substantial evidence of a known fault?	☐	☐	✓	☐
ii) Strong seismic ground shaking?	☐	☐	✓	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	✓	☐

Comments to Questions VI a(i), a(ii), a(iii): The proposed project site is located approximately 3 miles southwest of the Hayward Fault and outside of the Alquist-Priolo Geologic Hazards Special Studies Zone. However, the project site is located in soil zone II which may experience a variety of types of ground failure due to ground motion, particularly if there is strong seismic activity. The applicant will be required to submit an engineering analysis along with detailed engineering drawings to the Building Services division prior to excavation, grading, or construction activities on the site. This is consistent with standard City practices, to ensure that all buildings are designed and built in conformance with the seismic requirements of the City of Oakland Building Code. Therefore, the proposed project would not result in any significant impacts with respect to rupture of a known earthquake fault, ground shaking, or seismic-related ground failure.

Sources:
Oakland General Plan, Environmental Hazards Element, September 1974.
Oakland Environmental Factors Analysis, Technical Report #6, October 1995.
Oakland General Plan, Open Space, Conservation, and Recreation Element, October 1995.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) Landslides?	☐	☐	✓	☐

Comments: The proposed project site is located in an area designated as least susceptible to landslides. The site is not subject to contributing factors such as slopes over 15 percent or a history of landslide problems, and is relatively flat, in-fill urban site located within a built-out environment in downtown Oakland. Furthermore, the project applicant will be required to comply with all applicable City regulations and standards to address potential geologic and soils impacts, as required prior to the issuance of grading or building permits. Therefore, the proposed project will not result in significant impacts related to unstable earth conditions or geologic substructures. Therefore, the project would not result in significant impacts with respect to landslides.

Sources:
Oakland General Plan, Environmental Hazards Element, September 1974.
Oakland Environmental Factors Analysis, Technical Report #6, October 1995.
Oakland General Plan, Open Space, Conservation, and Recreation Element, October 1995.

b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	✓	☐

Comments: The project site is a paved surface parking lot that would be excavated and graded to construct the building and the below-grade parking garage. The project would maintain the same amount of impervious surface area on the site that currently exists.

In order to minimize wind or water erosion on the site during construction, the applicant shall be required to submit a construction period erosion control plan to the Building Services division for approval prior to the issuance of grading and building permits, consistent with standard City practices. The plan shall be in effect for a period of time sufficient to stabilize the construction site throughout all phases of the project if more than one phase is proposed. Furthermore, storm drainage facilities shall be designed to meet applicable regulations. Thus, the proposed project would not result in significant impacts with respect to erosion.

Sources:
Oakland General Plan, Open Space, Conservation, and Recreation Element, October 1995.
Project Description and Plans.
Field Survey.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	✓	☐
d) Be located on expansive soil creating substantial risks to life or property?	☐	☐	✓	☐

Comments to Questions VI c and d: According to the U.S.D.A. Soil Conservation Service soils classification, the soils in the project area are characterized as Urban Land-Danville complex, which have some development limitations that will be addressed in the required geotechnical studies and project engineering to be prepared for the proposed project. The subject sites are not located on land identified as fill material, which would be subject to liquefaction hazards. In conformance with current codes and regulations, the applicant shall be required to submit detailed engineering drawings and material to the Building Services division prior to excavation, grading, or construction on the sites to ensure that all buildings are designed and built in conformance with the requirements of the City of Oakland Building Code. Therefore, the proposed project would not result in substantial risks to life or property.

Sources:
Oakland General Plan: Open Space, Conservation, and Recreation Element, Earth Resources Technical Report 4, July, 1992.
Oakland Environmental Factors Analysis Report, October 1995.
Oakland General Plan, Open Space, Conservation, and Recreation Element, October 1995.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	✓

Comments: Because the project sites are located in a built-out, urban area and have been previously developed, the proposed project would be able to connect to the existing sewer system, which provides wastewater collection service for the City of Oakland. Therefore, the project would not result in any significant impacts on soils incapable of adequately supporting septic tanks or alternative wastewater disposal systems since neither septic tanks or alternative wastewater disposal are proposed to serve the project.

Sources:
Oakland General Plan: Land Use & Transportation Element, Community Services Analysis, Technical Report 5, October 1995.
Field Study.

VII. HAZARDS AND HAZARDOUS MATERIALS - -

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	✓	☐

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
involving the release of hazardous materials into the environment?	☐	☐	✓	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	✓	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	✓	☐

Comments to Question VII a, b, c and d: An environmental site assessment was completed for the project site. Additional site assessment and remediation may be required on the project site prior to construction in accordance with all applicable requirements of the Alameda County Environmental Health Department, Bay Area Air Quality Management District, Regional Water Quality Control Board, Department of Toxic Substance Control, California Occupational Safety and Health Administration (OSHA), and the City of Oakland Building Services Division regarding the remediation, removal, and ongoing monitoring of any hazardous substances that may be discovered on the site. Although operation of the proposed project, which includes office, retail, and residential uses, is not expected to involve the substantial storage or use of hazardous substances, some hazardous substances may be used during construction and could expose workers to potential health hazards. The applicant will be required to comply with all applicable OSHA regulations regarding worker safety, consistent with standard City practices. Thus, the proposed project would not create a significant hazard to the public or the environment.

Sources:
Oakland General Plan: Land Use & Transportation Element, Community Services Analysis, Technical Report 5, October 1995.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✓

Comments to Question VII e and f: The project site is not located within two miles of a public airport, public use airport, or any airstrip; thus, the project would not result in a safety hazard for people residing or working on the project site.

Sources:
Project Description and Plans.
Oakland General Plan: Land Use & Transportation Element, March 1998.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	✓	☐

Comments: In evaluating the project as it relates to the City of Oakland's Multi-Hazard Functional Plan ("City Emergency Plan"), the proposed project would not significantly interfere with emergency response plans or evacuation plans. Nor will it adversely affect the City's response and operational procedures in the event of a large scale disaster or emergency situation.

Sources:
Draft Multi-Hazard Functional Plan of the City of Oakland, 1993.
Project Description and Plans.

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	✓

Comments:
The project site is located in a built-out, urban area in downtown Oakland and is not intermixed or located adjacent to land uses related to wildland or open land. Furthermore, the urban infill site is a completely paved, vacant site, and any new structures built on the site will need to comply with all applicable Fire Code and suppression systems, as routinely required by the City. Therefore, the proposed project would not expose people or structures to significant risks associated with wildland fires.

Sources:
Project Description and Plans.
Field Survey.

VIII. HYDROLOGY AND WATER QUALITY - - Would the project:

a) Violate any water quality standards or waste discharge requirements?	☐	☐	✓	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support				

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
existing land uses or planned uses for which permits have been granted)?	☐	☐	✓	☐

Comments to Questions VIII a and b:
Some watering may be required on-site as part of remediation for construction activities for the proposed project, such as dust control, but this watering is not anticipated to substantially lower or affect the groundwater level. The local groundwater is not considered potable and is not utilized in the public drinking water supply. The applicant shall be required to comply with all applicable regulatory standards and regulations pertaining to remediation and to project-related grading and excavation prior to issuance of grading and building permits, consistent with standard City practices. Thus, the project would not result in significant impacts on water quality or on groundwater supplies.

Sources:
Project Description.
City of Oakland CEDA, Building and Engineering Services Divisions.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	✓	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	✓	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	✓	☐
f) Otherwise substantially degrade water quality?	☐	☐	✓	☐

Comments to Questions VIII c, d, e and f: The existing use on the proposed project site is a paved surface parking lot. There are no known streams or rivers on the project sites or in the vicinity. The amount of impervious surface area on the sites would not substantially increase as a result of the project, therefore the project would not substantially increase the amount of runoff to the City's stormwater drainage system. In order to minimize any construction-related or long-term impacts on surface water quality or quantity, the applicant shall be required to comply with applicable standards and regulations, which typically include the following:

- The applicant shall be required to pay fees to compensate the City for the cost of any system upgrades required to accommodate increased runoff from the proposed project; and

- The applicant shall be required to grade unpaved areas to control surface drainage and redirect surface water away from areas of activity during excavation and construction; and

- The applicant shall be required to comply with applicable provisions of the Clean Water Act with regard to preparing a storm water discharge plan.

In addition, consistent with current regulations, the applicant will be required to submit on-site grading and drainage plans to the Building Division for review prior to commencement of construction or grading activities on site, to ensure that surface runoff during construction and operation of the project is adequately controlled. Thus, the proposed project would not result in significant impacts with respect to erosion, flooding, stormwater drainage system capacity, surface water quality or quantity.

Sources:
Oakland General Plan, Open Space, Conservation, and Recreation Element, October 1995.
Oakland Community Services Analysis, Technical Report #5, October 1993.
Project Description and Plans.
Field Survey.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	✓
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	✓
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	✓

Comments to Questions VIII g, h, i:
According to the Flood Insurance Rate Map (FIRM) Floodplain Map, the project site is located within Area C which indicates that the site is neither in a 100-year or 500-year floodplain. In addition, the project site is not located near a levee or dam. Therefore, the project would not result in significant impacts by exposing people or structures to risk of flooding.

Sources:
Flood Insurance Rate Map (FIRM) Floodplain Map, Federal Emergency Management Administration (FEMA). Effective date 9/30/82.
City of Oakland, CEDA Planning and Building, Engineering Services Division.
Field Survey.

j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☐	✓

Comments: The project site is not located in an area that would be subject to inundation by seiche, tsunami, or mudflow. However, the applicant shall be required to comply with applicable City regulations and standards to address potential geologic and seismic impacts prior to the issuance of grading or building permits, consistent with standard City practices. Therefore, the project would not result in significant impacts with respect to unstable soils or seismic-related flood hazards.

Sources:
Oakland General Plan, Open Space, Conservation, and Recreation Element, October 1995.
Oakland Environmental Factors Analysis, Technical Report #6, October 1995.

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

Comments to Questions IX a, b and c: The proposed project site is located in an area which is not governed by any habitat conservation plan or natural community conservation plan, and is an in-fill urban vacant lot located within downtown Oakland. Therefore, the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan affecting the area. However, the focused EIR will evaluate the potential impacts of the proposed project on land use and planning and any applicable adopted land use plans, policies or regulations affecting the project.

Sources:
Oakland General Plan, Land Use and Transportation Element, March 1998.
Zoning Regulations.
Project Description and Plans.

X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	✓

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	✓

Comments to Questions X a and b: The proposed project would be located on an urban in-fill site which has been previously developed and that has no known existing mineral resource. The project would not require quarrying, mining, dredging, or extraction of locally important mineral resources on site, nor would it deplete any nonrenewable natural resource.

Sources:
Oakland General Plan, Open Space, Conservation, and Recreation Element, October 1995.
Oakland Environmental Factors Analysis, Technical Report #6, October 1995.
Project Description and Plans.

XI. NOISE -- Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	✓	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	✓	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	✓	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	✓	☐	☐	☐

Comments to Questions XI a, b, c and d: The focused EIR will address the potential noise impacts of the proposed project.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✓

Comments to Questions XI e and f: The proposed project site is not located within two miles of a public airport, or in the vicinity of a private airstrip; thus, the project would not result in significant noise impacts with respect to this airport/airstrip proximity perspective.

Sources:
Oakland General Plan, Land Use and Transportation Element, March 1998.
Project Description and Plans.
Field Survey.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	✓	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	✓	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	✓	☐

Comments to Questions XII a, b and c: The proposed project would provide approximately 177,680 square feet of additional office space, approximately 5,400 square feet of retail space, and 150 residential units in an urban infill location within the downtown area. The project would replace an existing surface parking lot. Therefore, the project would result in both additional residents and workers in the downtown area, but would not displace any people or existing housing units. The project is consistent with many policies from the General Plan Land Use and Transportation Element. Furthermore, additional in-fill urban housing opportunities are presently encouraged by the General Plan in an effort to provide additional housing opportunities in close proximity to employment centers and alternative transportation options. Thus the proposed project will not result in a significant impact related to population growth or housing and population displacement.

Sources:
Oakland General Plan, Land Use and Transportation Element, March 1998.
Oakland General Plan Land Use and Transportation Element, Final Addendum to the Draft EIR, February 1998.
Project Description and Plans.

XIII. PUBLIC SERVICES - - Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	☐	☐	✓	☐
b) Police protection?	☐	☐	✓	☐
c) Schools?	☐	☐	✓	☐
d) Parks?	☐	☐	✓	☐
e) Other public facilities?	☐	☐	✓	☐

Comments to Questions XIII a, b, c, d and e: The proposed project sites are located in an urban area already served by public services. The Community Services Analysis prepared for the Land Use and Transportation Element of the General Plan stated that future in-fill development through the General Plan horizon year of 2015 would not be likely to impose a burden on existing public services. In accordance with standard City practices, the Fire Services division will review the project plans at the time of building permit issuance to ensure that adequate fire and life safety measures are designed into the project. In addition, prior to issuance of building permits, the applicant shall contribute the required amount of school impact fees to offset any impacts to school facilities from the proposed project. Therefore, the proposed project is not anticipated to result in significant impacts on public services.

Sources:
Oakland General Plan: Land Use & Transportation Element, Community Services Analysis, Technical Report 5, October 1995.
City of Oakland, CEDA Building Services Division.
Project Description and Plans.

XIV. RECREATION - - Would the project:

a) 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?	☐	☐	✓	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	✓	☐

Comments to Questions XIV a and b: The proposed project would provide approximately 20 percent of the on-site, group open space required by the Zoning Ordinance in common recreation area. Additional private open space will be provided for some residential units as required by the Zoning Regulations for this type of development in this location. In addition, the project will be located in an urban area already served by the existing parks and urban open space areas. Thus, the proposed project will not increase the use of the existing parks or recreational facilities such that substantial deterioration would occur or be accelerated, nor would recreational facilities need expansion.

Source:
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC - - Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	✓	☐	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways ?	✓	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	✓	☐	☐	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	✓	☐	☐	☐
e) Result in inadequate emergency access?	✓	☐	☐	☐
f) Result in inadequate parking capacity?	✓	☐	☐	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	✓	☐	☐	☐

Comments: The focused EIR will address the potential transportation and circulation impacts of the proposed project.

XVI. UTILITIES AND SERVICE SYSTEMS - - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	✓	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities,				

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
the construction of which could cause significant environmental effects?	☐	☐	✓	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	✓	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	✓	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	✓	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	✓	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	✓	☐

Comments to Questions XVI a, b, c, d, e, and f: The proposed project sites are located in an urban area already served by utilities and service systems. The Community Services Analysis prepared for the Land Use and Transportation Element of the General Plan stated that future in-fill development through the General Plan horizon year of 2015 would not be likely to impose a burden on existing utilities and service systems. The proposed project will not limit capacity for solid waste disposal nor be inconsistent with the Regional Water Quality Control Board or federal, state, and local statues and regulations related to solid waste. Any necessary infrastructure improvements that may be required to service the proposed project will be required by the affected public utilities prior to issuance of service connections, as applicable. Furthermore, the applicant would be required to provide any additional capacity or infrastructure improvements or pay required installation and hookup fees to the affected service providers to ensure provision of adequate service, prior to service connection. Thus, the proposed project would not result in significant impacts related to the utilization of water supplies, wastewater treatment facilities, storm water drainage facilities, or solid waste disposal systems.

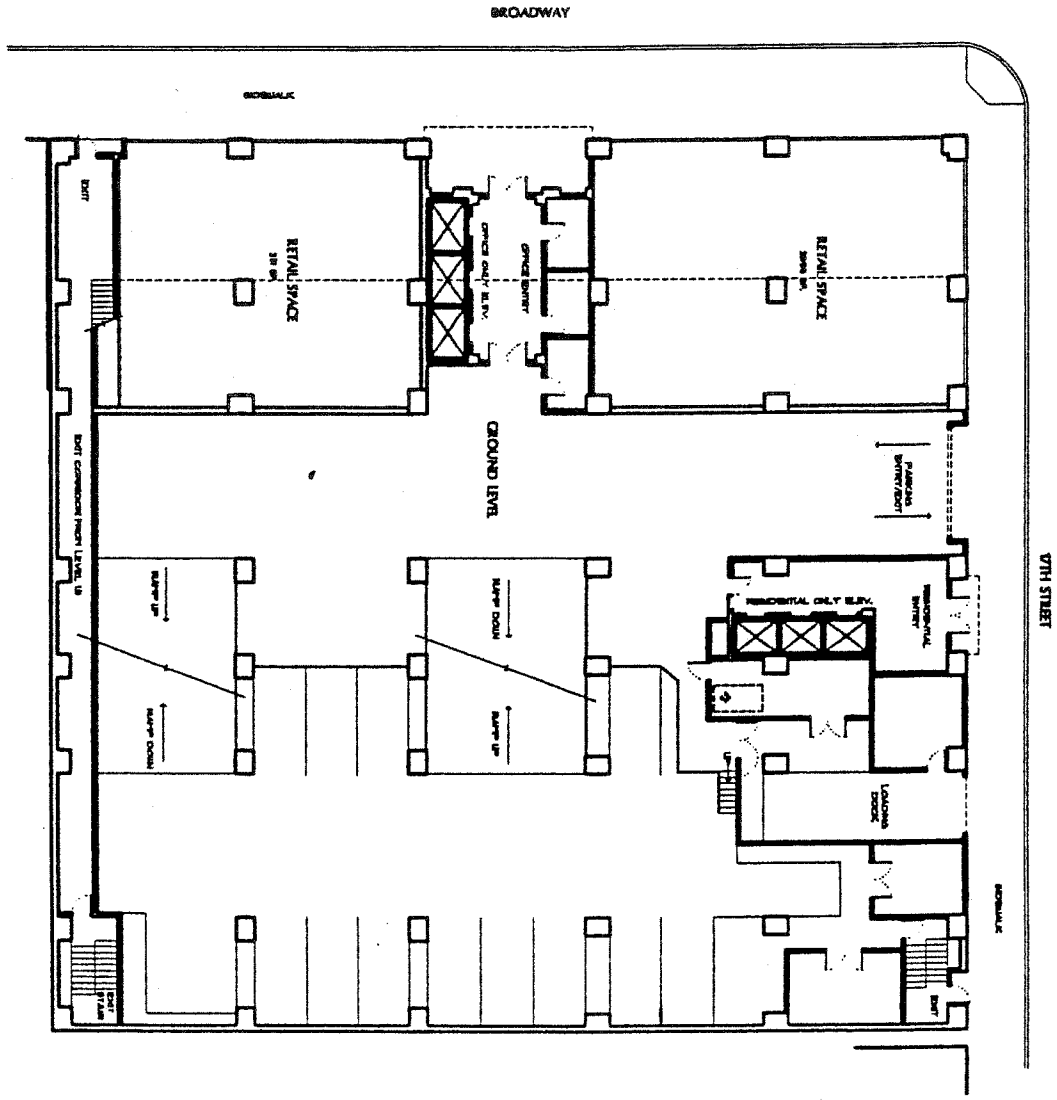
Sources:

Oakland General Plan: Land Use & Transportation Element, Community Services Analysis, Technical Report 5, October 1995.
Oakland General Plan: Land Use and Transportation Element Environmental Impact Report, February 1998.
Oakland Community Services Analysis, Technical Report #5, October 1995
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	✓
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	✓	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	✓

Comments to Mandatory Findings of Significance: The proposed project will not degrade the quality of the environments with respect to plant or animal habitats as the proposed project site is an urban infill surface parking lot in downtown where no known significant wildlife species currently exist. Nor to any important examples of major periods of California history or prehistory exist on the site. The cumulative effects of the project with respect to traffic, air quality and noise will be analyzed within the appropriate sections of the focused Environmental Impact Report. The project does not have any potential environmental effects which will cause substantial adverse effects on human beings, as the proposed land uses are consistent and compatible with existing and planned land uses surrounding the site, and the proposed project does not entail the use, storage or handling of any significant amounts of hazardous substances.

Sources:
Oakland Zoning Regulations.
Oakland General Plan, Land Use and Transportation Element, March 1998.
Oakland General Plan, Open Space, Conservation and Recreation Element, October 1995.
Oakland Cultural Heritage Survey.
Project Description and Plans.



A2.01

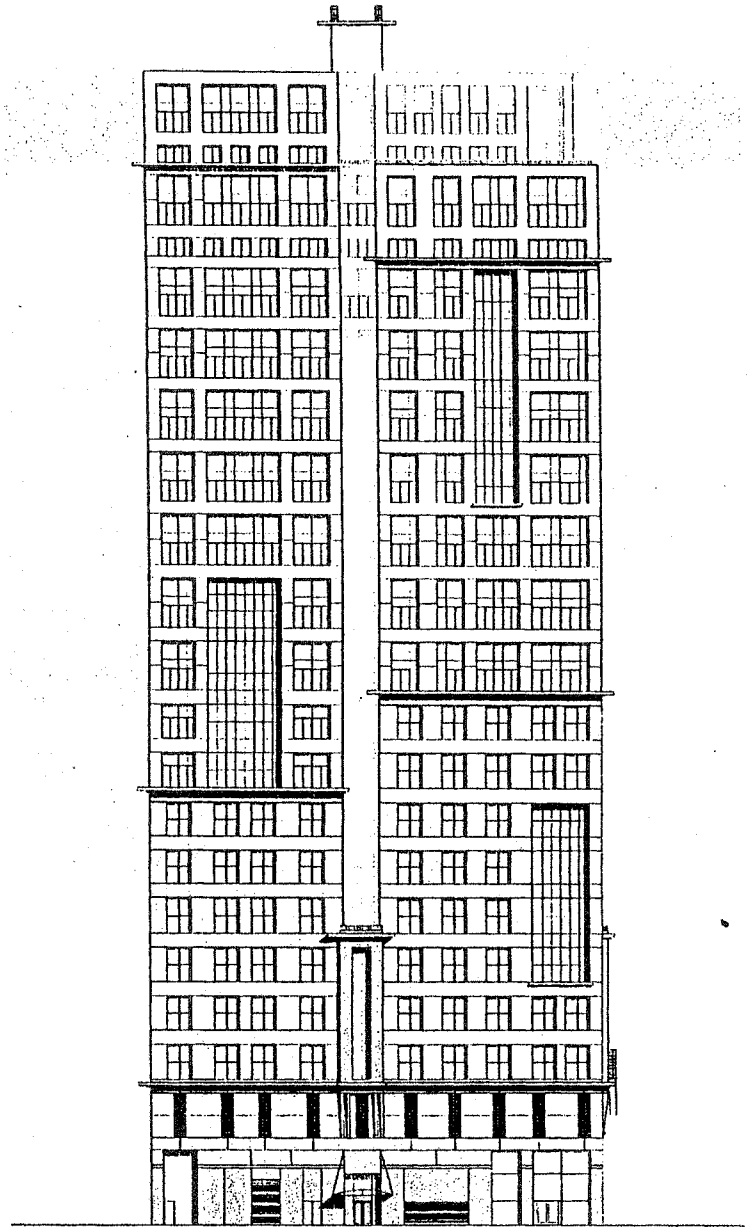
GROUND FLOOR

DOWNTOWN OAKLAND
MIXED USE PROJECT

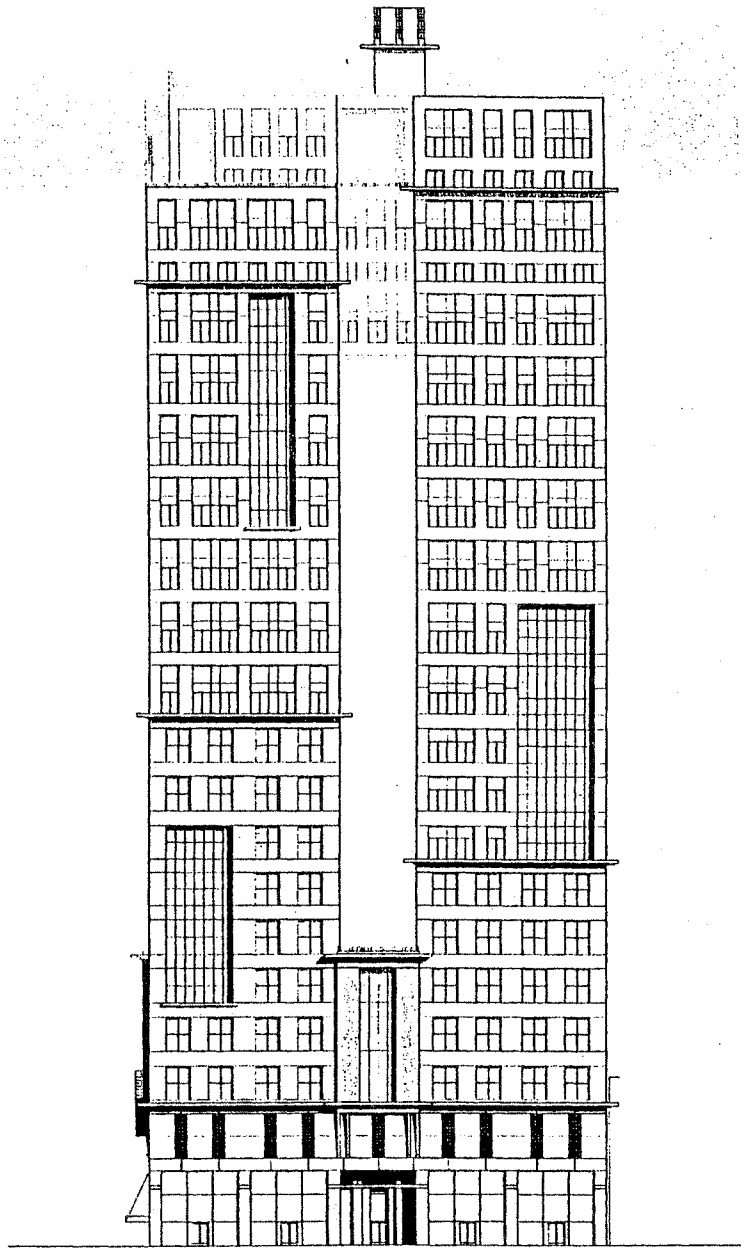
Oakland, California

1640 Broadway Associates

INTERNATIONAL



17TH STREET ELEVATION



BROADWAY ELEVATION

1640 BROADWAY

OAKLAND, CALIFORNIA

1640 BROADWAY ASSOCIATES

prepared by Sandy & Babcock International, Architecture & Planning

ALAMEDA COUNTY
CONGESTION MANAGEMENT AGENCY

March 14, 2000

Ms. Crescentia Brown
City of Oakland
Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3330
Oakland, CA 94612

SUBJECT: Comments on the Notice of Preparation for a Draft Environmental Impact Report for the 1640 Broadway Project in the City of Oakland (Case Number ER00-02)

Dear Crescentia:

Thank you for the opportunity to comment on the City of Oakland's Notice of Preparation (NOP) for a Draft Environmental Report (DEIR) on the 1640 Broadway Project. The project would consist of construction of a 24-story, mixed-use building with 5,400 square feet of commercial, 177,680 of commercial office, and 150 residential units. The project is located at 1640 Broadway. The ACCMA respectfully submits the following comments:

- The City of Oakland adopted Resolution No. 69475 on November 19, 1992 establishing guidelines for reviewing the impacts of local land use decisions consistent with the Alameda County Congestion Management Program (CMP). Based on our review of the NOP, the proposed project appears to generate at least 100 p.m. peak hour trips over existing conditions. If this is the case, the CMP Land Use Analysis Program requires the City to conduct a traffic analysis of the project using the Countywide Transportation Demand Model for Year 2005 conditions. Please note the following paragraph as it discusses the responsibility for modeling.

- The Countywide Model has been updated to Projections '98 for base years 2005 and 2020. The CMA Board amended the CMP on March 26th, 1998 so that local jurisdictions are now responsible for conducting the model runs themselves or through a consultant. The Countywide model is available to the local jurisdictions for this purpose. The City of Oakland and the ACCMA have signed a Countywide Model Agreement on March 22, 1999. However, before the model can be released to your consultant, a letter must be submitted to the ACCMA requesting use of the model and describing the project. A copy of a sample letter agreement is available upon request.

- Potential impacts of the project on the Metropolitan Transportation System (MTS) need to be addressed. (See 1999 CMP Figures E-2 and E-3, pages ix and x and Figure 2, pages 10-12). The DEIR should address all potential impacts of the project on the MTS roadway and transit systems. These include I-980, I-880, I-580, SR 24, Broadway, 12th Street, 14th Street, 7th Street, 8th Street, Castro Street, Brush Street, Harrison Street, San Pablo Avenue, Telegraph Avenue, Webster Street, as well as BART and AC Transit. Potential impacts or

1333 BROADWAY, SUITE 220 • OAKLAND, CA 94612 • PHONE: (510) 836-2560 • FAX: (510) 836-2185
E-MAIL: AlaCoCMA@aol.com • WEB SITE: accma.cagov

the project must be addressed for 2005 and 2020 conditions. Please note that the ACCMA does not have a policy for determining a threshold of significance. Rather, it is expected that professional judgment will be applied to determine project level impacts.

- The CMA requests that there be a discussion on the proposed funding sources of the transportation mitigation measures identified in the environmental documentation. The CMP establishes a Capital Improvement Program (See 1999 CMP, Chapter 7) that assigns priorities for funding roadway and transit projects throughout Alameda County. The improvements called for in the DEIR should be consistent with the CMP CIP. Given the limited resources at the state and federal levels, it would be speculative to assume funding of an improvement unless it is consistent with the project funding priorities established in the Capital Improvement Program (CIP) of the CMP, the federal Transportation Improvement Program (TIP), or the adopted Regional Transportation Plan (RTP). Therefore, we are requesting that the environmental documentation include a financial program for all roadway and transit improvements.

- The adequacy of any project mitigation measures should be discussed. On February 25, 1993 the CMA Board adopted three criteria for evaluating the adequacy of DEIR project mitigation measures:

✓ Project mitigation measures must be adequate to sustain CMP service standards for roadways and transit;
✓ Project mitigation measures must be fully funded to be considered adequate;
✓ Project mitigation measures that rely on state or federal funds directed by or influenced by the CMA must be consistent with the project funding priorities established in the Capital Improvement Program (CIP) section of the CMP or the Regional Transportation Plan (RTP).

It would be helpful to indicate in the DEIR the adequacy of proposed mitigation measures relative to these criteria. In particular, the DEIR should detail when proposed roadway or transit route improvements are expected to be completed, how they will be funded, and what would be the effect on LOS if only the funded portions of these projects were assumed to be built prior to project completion.

- Potential impacts of the project on CMP transit levels of service must be analyzed. (See 1999 CMP, Chapter 4). Transit service standards are 15-30 minute headways for bus service and 3.75-15 minute headways for BART during peak hours. The DEIR should address the issue of transit funding as a mitigation measure in the context of the CMA's policies as discussed above.

- The DEIR should consider demand-related strategies that are designed to reduce the need for new roadway facilities over the long term and to make the most efficient use of existing facilities (see 1999 CMP, Chapter 5). The DEIR could consider the use of TDM measures, in conjunction with roadway and transit improvements, as a means of attaining acceptable levels of service. Whenever possible, mechanisms that encourage ridesharing, flextime, transit, bicycling, telecommuting and other means of reducing peak hour traffic trips should

be considered. Street layout and design strategies would foster pedestrian and bicycle connections and transit-friendly site design should also be considered. The Site Design Guidelines Checklist may be useful during the review of the development proposal. A copy of the checklist is enclosed.

- We have been asked to inform you about the success of the Financial Incentives Program and the Guaranteed Ride Home Program, both of which are supported by the ACCMA. Employee oriented financial incentive programs, such as parking cashout programs, have proven to be successful in encouraging solo drivers to choose other commute alternatives. We would like you to consider applying the Financial Incentive Program as part of the conditions of approval and/or developer agreements as a way to reduce congestion. The Guaranteed Ride Home Program, sponsored by the ACCMA, ensures that any carpooler or transit rider at participating worksites can get home in case of an emergency.

Once again, thank you for the opportunity to comment on this Notice of Preparation. Please do not hesitate to contact me at 510/836-2560 ext. 13 if you require additional information.

Sincerely,

Beth Walukas

Beth Walukas
Senior Transportation Planner

cc: Jean Hart, Deputy Director
file: CMP - Environmental Review Opinions - Responses - 2000

EAST BAY
MUNICIPAL UTILITY DISTRICT

April 4, 2000

Crescentia Brown, Planner III
City of Oakland
Community and Economic Development Agency
Planning Division
250 Frank H. Ogawa Plaza, Suite 3330
Oakland, CA 94612

Dear Ms. Brown:

Subject: Notice of Preparation - Draft Environmental Impact Report
1640 Broadway Project (Case File No. ER00-02)

Thank you for the opportunity to comment on the subject project. East Bay Municipal Utility District (District) has the following comments regarding water and wastewater service to the project site.

WATER SERVICE

Property currently has water service. If additional water service is required, it can be provided from the existing water mains in 17th Street and Broadway (see attached map). However, some of the pipelines may need to be replaced, depending on the fire flow requirements set by the local fire agency and the project's new water service requirements. The project sponsor should contact the District's New Business Office at (510) 287-1008 and request a water service estimate to determine costs and conditions for providing water service to the proposed development. Engineering and installation of water mains often require substantial lead-time, which should be provided for in the project sponsor's development schedule.

Regarding Item VII a-d on page 11, the District is concerned about the potential for contaminated soil in this area. The District will not install services or pipelines in contaminated soil or hazardous soil conditions. When the applicant applies for water service, any environmental assessment information and analytical data, if available, should be submitted. The District will review the information and may require additional sampling and testing at the applicant's expense.

To help mitigate the impacts of additional water demands on the District's finite water supply, the District recommends that water conservation measures for both internal and external use be incorporated in the design and construction of the proposed project. The District encourages the use of equipment, devices and methodology that furthers water conservation and provides for long term efficient water use. The District also

recommends the use of drought resistant plants, use of inert materials, and minimal use of turf areas. The project sponsor should contact the District's Manager of Water Conservation at (510) 287-0591 for more information.

WASTEWATER SERVICE

Wastewater discharges from the project must comply with the requirements specified in the District's Wastewater Control Ordinance Number 311. In addition, the Ordinance requires appropriate charges and fees to be paid for use of the wastewater treatment facility, including the Wastewater Capacity Fees. The District will provide credit for prior capacity use. The Environmental Impact Report (EIR) should address such wastewater quality and financial impacts of the project.

On page 21 of 22, the reference cited from the Community Services Analysis prepared for the Land Use and Transportation Element of the General Plan, "that future in-fill development through the General Plan horizon year of 2015 would not be likely to impose a burden on existing utilities," is not conclusive that there is available wastewater flow allocation within the affected subbasin for this project.

The District's Main Wastewater Treatment Plant has adequate dry weather capacity to treat the proposed wastewater flow increase for this project, provided this wastewater meets the standards of the District's Source Control Division. However, as stated in past requests for information regarding new developments, the City of Oakland's Infiltration/Inflow (I/I) Correction Program set a maximum allowable peak wastewater flow from each subbasin and the District agreed to design and construct wet weather conveyance and treatment facilities to accommodate these flows. The projected flow increase for this development must not increase the peak flow of the subbasin that this project would be tributary to above the agreed flow allocation. Conveyance and treatment capacity for wet weather flows may be adversely impacted by flows above the agreed limit. The District prohibits discharge of wastewater flows above the allocated peak flow for a subbasin. The developer for this project should confirm with the City of Oakland Public Works Department that there is available capacity within the subbasin flow allocation and that it has not been allocated to other developments. Information should be provided on the projected average daily and peak wet weather wastewater flows from this project.

In general, all major developments should address the replacement or rehabilitation of the existing sanitary sewer collection system to prevent an increase in I/I. A provision to control or reduce the amount of I/I should be addressed in the environmental documentation for this project. As the collection system ages and I/I increases, replacement/rehabilitation is necessary to control I/I.

The District's Office of Reclamation is currently working on the East Bayshore Recycled Water Project. This project will provide recycled water to the Oakland area for non-

potable purposes, such as landscape irrigation and toilet water. The District's Policy 73 mandates that customers use non-potable water for non-domestic purposes when it is available at reasonable cost, not detrimental to public health and not injurious to plant life, fish and wildlife.

If there is significant landscaping or other non-consumptive uses as part of the 1640 Broadway Project, the District suggests that the Oakland Community and Economic Development Agency look at providing dual plumbing for these uses. If you have any questions, please contact Laura Johnson in the Office of Reclamation at (510)-287-2063.

If you have any questions or if the District can be of further assistance, please contact Ana R. Ulloa, Assistant Civil Engineer, Water Service Planning at (510) 287-1258.

Sincerely,

WILLIAM R. KIRKPATRICK
Manager of Water Distribution Planning

WRK:ARU:sb
sb00_079.doc

Attachment

CITY OF
OAKLAND
PUBLIC WORKS AGENCY
DESIGN & CONSTRUCTION

Memorandum

To: Crescentia Brown, Community and Economics Development Agency

From: Trang Tran, TT Public Works Agency - Design and Construction Services

Date: May 02, 2000

Re: 1640 Broadway Project

Based on the submitted proposed square footage, we have determined that it is within the anticipated growth allowance for the sub-basin 52-05.

The developer will be required to fund the proportional cost (based on the anticipated sewer flow) for the relief sanitary sewer scheduled to be constructed in this basin. A condition of approval should be included with the PUD to this effect.

Should you have any question concerning this project, please contact me at (510) 238-3437x251.

APPENDIX B

PLANS AND POLICIES
CONFORMITY DISCUSSION

APPENDIX B: PLANS AND POLICIES CONFORMITY DISCUSSION

Oakland General Plan - Land Use and Transportation Element

The Land Use and Transportation Element includes a City Structure Diagram that shows Downtown Oakland as one of five Showcase Districts. This diagram also identifies three Transit-Oriented Districts (one at each of the three downtown-area BART stations) and four commercial corridors (extending along Broadway, San Pablo Avenue, Telegraph Avenue and Grand Avenue). The Land Use and Transportation Element includes the following policies which may be relevant to the proposed project:

I/C1.1 *Attracting New Business.* The City will strive to attract new businesses to Oakland which have job or revenue benefits, by economic development activities.

I/C1.6 *Promoting Downtown as a Regional "Hub".* Downtown Oakland should be center of government, services, high technology and institutional uses.

I/C1.8 *Providing Support Amenities Near Employment Centers.* Adequate cultural, social and support amenities to serve workers should be provided in close proximity to employment centers.

I/C3.3 *Clustering Activity in "Nodes".* Retail uses should be focused in activity centers or concentrated corridors which are accessible by a wide range of transportation modes.

I/C4.2 *Minimizing Nuisances.* The potential impacts of new industrial and commercial uses on residential land uses should be minimized by appropriate siting and efficient implementation and enforcement of environmental and development controls.

T2.1 *Encouraging Transit-Oriented Development.* Transit-oriented development (TODs) should be encouraged at existing or proposed transit nodes, where two or more modes of public transit converge, including BART, bus, shuttle service, ferry or intercity rail.

(The Policy Framework defines Transit-Oriented Districts (TODs) as districts consisting of mixed use development in a pedestrian-oriented setting, incorporating a variety of commercial and residential uses with structural parking (enclosed single or multi-level; garages), day- and night-time activity, additional public open space, and strengthened surrounding neighborhoods. A comparatively specific "vision" of the 12th Street BART Station and the 19th Street BART Station TODs in the Policy Framework calls for increased variety and intensity of activity in the City Center area, and in the Uptown Retail/Entertainment district. Within the Downtown TODs, mixed use commercial, office and residential development is encouraged, to the extent that uses and development

standards "reinforce the area's urban quality, pedestrian-friendly nature, and access to BART Stations.")

D1.5 *Planning for the Gateway District.* New development and rehabilitation in the Gateway District should contribute to greater neighborhood cohesion and identity, emphasizing mixed housing type and urban density residential development.

D2.1 *Enhancing the Downtown.* Downtown development should be visually interesting, harmonize with its surroundings, respect and enhance important views in and of the downtown, respect the character, history and pedestrian-orientation of the downtown, and contribute to an attractive skyline.

D3.2 *Promoting Pedestrians.* New parking facilities for cars and bicycles should be incorporated into the design of any project in a manner that encourages and promotes safe pedestrian activity.

D5.1 *Encouraging Twenty-Four Hour Activity.* Activities and amenities that encourage pedestrian traffic during the work week, as well as evenings and weekends, should be promoted.

D6.1 *Developing Vacant Lots.* Construction on vacant land or to replace surface parking lots should be encouraged throughout the downtown, where possible.

N1.9 *Locating Major Office Development.* While office development should be allowed in commercial areas in the neighborhoods, the City should encourage major office development to locate in the downtown.

N3.1 *Facilitating Housing Construction.* Facilitating the construction of housing units should be considered a high priority for the City of Oakland.

N3.2 *Encouraging Infill Development.* In order to facilitate the construction of needed housing units, development that is consistent with the General Plan should take place throughout the City of Oakland.

N3.8 *Requiring High Quality Design.* High quality design standards should be required of all new residential construction. Design requirements and permitting procedures should be developed and implemented in a manner that is sensitive to the added costs of those requirements and procedures.

N3.9 *Orienting Residential Development.* Residential developments should be encouraged to face the street, and orient their units to desirable sunlight and views, while avoiding unreasonably blocking sunlight and views for neighboring buildings, respecting the privacy needs of residents of the development and surrounding properties, providing for sufficient conveniently located on-site open space, and avoiding undue noise exposure.

N3.10 *Guiding the Development of Parking.* Off-street parking for residential buildings should be adequate in amount and conveniently laid out, but its visual prominence should be minimized.

The project site is designated as CBD (Central Business District) by the General Plan Land Use Diagram. The Central Business District is intended to "encourage, support, and enhance the downtown area as a high density mixed urban center of regional importance and a primary hub for business, communications, office, government, high technology, retail entertainment and transportation". Land uses in this district include large-scale offices, a wide range of commercial retail sales and services, urban (high density) residential development, institutional, open space, cultural, educational, arts, entertainment, community facilities and services and visitor-serving uses. In general, with the exception of large industrial, distribution or transportation facilities, most land uses are permitted within the CBD, although the desired character is one of large-scale, high-density uses. The CBD classification permits a maximum non-residential floor area ratio (FAR) of 20.0, and a maximum residential density of 500 units per acre for the net site area (or approximately 300 units per gross acre).

Other Plans in Project Area

General Plan policies for downtown Oakland recognize and incorporate a "Downtown Redevelopment Plan" (formally, the Central District Urban Renewal Plan, or CDURP), The 1969 CDURP (with amendments through October, 1998) encompasses a broad extent of downtown Oakland, and provides development objectives, land use designations, urban renewal techniques, land acquisition guidelines, and finance methods for achieving the Plan's goals. The development objectives emphasize the downtown's role as an office center, revitalizing its historic role as a major retail center, future development as a cultural and entertainment center, residential development for all economic levels in specified parts of the downtown, employment and economic benefits for disadvantaged persons in the area, restoration of historically significant structures, and improved environmental design (such as a sense of place, clear gateways, dynamic focal points and retention of each sub-area's unique character).

The Land Use Plan Map identifies the predominant and desired land uses, and specifies appropriate uses and densities for each major land use category. The project site is within the Commercial Core area, which extends south through the City Center area, north along Broadway, and east between 20th Street and 22nd Street. The Commercial Core is intended to include the full

range of commercial and office uses, with retail, restaurants, services, hotels and motels, governmental offices and schools, cultural and religious functions, group assembly, health care, and similar types of uses.

In February, 1997, a supplement to the CDURP was adopted for the Retail Center and Rehabilitation Area Project (also known as The Uptown Retail and Rehabilitation Area, or the Uptown Project) for the Broadway/San Pablo Avenue corridor. The Uptown Project establishes specific land use and urban design standards, including parking requirements, and authority for closures of certain streets. The desired land uses are to include primarily retail and entertainment uses (supplemented by office uses), and should support the creation of a vital hub of activity with a pedestrian-friendly environment "which compliments the unique flavor of the Uptown Area." In contrast to the parking requirement of the overall CDURP, the Uptown Project requires only one parking space per 2,000 square feet of gross floor area of commercial development, and one space per two dwelling units. These standards may be adjusted subject to agreement between the developer and the City of Oakland Redevelopment Agency. The Uptown Project includes the following urban design standards and objectives relevant to the proposed project:

- Development should emphasize pedestrian use and mobility focused around the 19th Street BART Station, with pedestrian promenades or plazas, also integrated with access to the City Center (12th Street) BART Station.

- Location , size, design, scale and operating characteristics of all proposed uses should be compatible with and not detract from the success of the Uptown Project as a retail and entertainment complex.

- Signage in windows and on buildings, roof tops, billboards and awnings should conform visually with the historic and urban character of the area.

- Service facilities such as off-street parking and loading docks should be sufficient to ensure the success of the Project, with minimal adverse impact on the Project and surrounding Central District.

- Parking garage facilities and on-street parking is encouraged, but driveways and other features should respect pedestrian corridors and not detract from economic vitality (e.g., replace an existing business with surface parking), and should be designed to benefit from public transit facilities in the area.

- The height, bulk and appearance of development should contribute to the establishment of a "strong sense of a central urban space, with an open and inviting atmosphere, while creating a festive streetscape for patrons and employees of the area" while respecting the area's architectural heritage.

- All electric power, telephone, street lighting and other utility lines shall be place underground.

- The nature and size of development should also conform to the CDURP.

- Development should encourage and promote the establishment of 24-hour activity within the area, incorporating an appropriate mix of retail, entertainment, office and residential activities.

Redevelopment Agency Programs

Two major Strategy Plans for the downtown area are currently being advanced by the Oakland Redevelopment Agency (ORA):

- The ***10K Initiative*** is intended to attract 10,000 new residents to the downtown area by promoting residential development in seven different "cluster" areas of the downtown.

- ***Retail Strategy***, intended to encourage retailers and developers to expand retail activities along Broadway between the waterfront and the Paramount Theater. The Retail Strategy is an effort to communicate to developers and retailers the advantages of investing in retail business development in downtown Oakland, and highlights the City's activities to support such development, including:

  - Developing catalyst retail projects on Broadway (such as the Rotunda Center);

  - Bringing key retailers to targeted sites;

  - Building parking facilities and other public improvements; and

  - Focusing development in retail clusters.

  The Retail Strategy identifies three main subareas, including the Uptown Area, which extends from 14th Street to 21st Street, between Franklin Street and San Pablo Avenue. On the map associated with the Downtown Oakland Retail Opportunities promotional material, the project site is classified as "Available Buildings & Development Sites".

ZONING

The project site is located in the C-55 Central Core Commercial Zone, which is "intended to preserve, and enhance a very high intensity regional center of employment, shopping, culture, and recreation", and is intended to be exclusively applied to the core of the central district.

Specifically permitted activities include residential and civic activities, and commercial activities (limited to general food and retail sales, convenience sales and services, medical services, general personal services, consultative and financial services, laundries, administrative, business and communications services, retail business supply, research service, transient habitation and custom manufacturing).

Pursuant to the *Guidelines for Determining General Plan Conformity*, a Major Interim Conditional Use Permit is required for structures proposed in the CBD with FARs which exceed 7.0 plus 10 percent for corner lots but that are within the maximum 20.0 non-residential FAR allowable in the CBD. A Major Conditional Use Permit is also required for new construction of commercial activities in the C-55 zone and Design Review for structures proposed in the S-8 Overlay district.

Pursuant to Section 17.56.180, a Minor Variance is required to reduce the required open space (4,290 square feet of group open space (the terrace) and 4,832 square feet of private open space would be provided, while either 75 square feet of private open space per residential unit (10,950 square feet) or 150 square feet of group open space per residential unit (21,900 square feet), or some combination of these would normally be required).

There are no height limitations for the project site established in the Oakland Zoning Regulations or the Oakland General Plan.

The Proposed Project and Applicable Plans and Policies

Development of the project site as proposed would result in the construction of a new mixed-use building approximately 389 feet in height. The proposed infill development of a surface parking lot in the downtown area in retail, office and residential uses is in keeping with the City's expressed desire to encourage development to support retail and entertainment uses in the downtown area.

As indicated above, within the downtown area, it is difficult to generalize regarding the character of the existing structures, since there is a mix of older buildings, newer buildings, and remodeled buildings of all sizes within a short distance of the project site. The height of these existing structures ranges from less than 20 feet to approximately 277 feet (the height of the adjacent Pacific Bell building). The proposed building would, at approximately 389 feet, be taller than any of the existing buildings in downtown Oakland.

Pursuant to the General Plan, for the purposes of calculating the proposed residential density and non-residential FAR for the proposed mixed used project, the project site has been divided into two portions: one portion which would support residential development, and another portion which would support non-residential development. The project site totals approximately 22,210

square feet (or approximately 0.51 acre). Of this area, approximately 13,068 square feet (or approximately 0.30 acre) would support residential development, and approximately 9,142 square feet (or approximately 0.21 acre) would support commercial development.

Under the Zoning Regulations, residential development at the project site would be limited to 1 unit for every 150 square feet of lot area, or in this case, 87 units (13,068 square feet divided by 150 = 87). However, under the General Plan, the total number of residential units is limited to 500 per net acre, which would enable the development of the proposed 146 residential units at the project site (500 units per net acre times 0.30 acre = 150). The proposed commercial development at the project site would total approximately 182,300 square feet (177,600 square feet of office space and approximately 4,700 square feet of ground-level retail space). This level of development would result in an FAR value of 19.94 on the portion of the project site which would support non-residential (commercial) development (182,300 square feet divided by 9,142 square feet = 19.94).

Development of the project site as proposed would require the following approvals requested by the project applicant:

- A Major Interim Conditional Use Permit to enable the proposed structure to be built at a non-residential Floor Area Ratio (FAR) of 19.46 (which conforms to the General Plan, but exceeds the maximum FAR permitted in the R-90 zone), pursuant to the Guidelines for Determining General Plan Conformity;

- A Major Conditional Use Permit to allow certain commercial activities within the first 20 feet facing the abutting streets, and Design Review as required under the S-8 Urban Street Combining Zone; and

- A Minor Variance to reduce the required amount of open space. The project as proposed would provide 4,290 square feet of group open space (the terrace) and 4,832 square feet of private open space (the penthouse decks), while the amount of open space normally required would be either 75 square feet of private open space per residential unit (11,250 square feet) or 150 square feet of group open space per residential unit (22,500 square feet), or some combination of these.

If, after careful consideration, the requested permits and variance are granted by the City of Oakland, this action would represent an acknowledgment that the proposed project meets the goals and objectives of the City.

Oakland General Plan: Land Use and Transportation Element

The proposed project is consistent with the goals, objectives and policies of the Oakland General Plan Land Use and Transportation Element. The project would:

- Attract new businesses to the downtown area (consistent with Policy I/C1.1);
- Contribute to the promotion of the development of the downtown area as a regional hub (consistent with Policy I/C1.6);
- Provide support amenities to support employment centers in the downtown area (consistent with Policy I/C1.8);
- Contribute to the concentration of retail uses along the Broadway corridor in the downtown area (consistent with Policy I/C3.3);
- Be designed to minimize potential nuisances (consistent with Policy I/C4.2);
- Represent a major transit-oriented development directly adjacent to the 19th Street BART Station and to A/C Transit routes along Broadway (consistent with Policy T2.1);
- Contribute to greater neighborhood cohesion in the Gateway District by providing urban density residential development (consistent with Policy D1.5);
- Be visually interesting, harmonize with the surrounding area, provide enhanced views in the downtown area, respect the character, history and pedestrian orientation of the downtown area, and contribute to an attractive skyline (consistent with Policy D2.1);
- Incorporate new parking facilities for cars and bicycles in a manner that encourages safe pedestrian activity (consistent with Policy D3.2);
- Provide downtown residential development which would promote pedestrian traffic during the work week, as well as evenings and weekends (consistent with Policy D5.1);
- Result in the development of a site which currently supports a surface parking lot in the downtown area (consistent with Policy D6.1);
- Result in additional office development downtown (consistent with Policy N1.9);
- Result in additional housing units (consistent with Policy N3.1);
- Represent infill development downtown (consistent with Policy N3.2);

- Reflect high-quality residential design (consistent with Policy N3.8);

- Provide residential development with units oriented to desirable sunlight and views (without unreasonably blocking sunlight and views for neighboring buildings), which respects privacy needs of those nearby and provides an area of on-site open space greater than that normally provided by other high-density buildings in downtown Oakland while avoiding undue noise exposure (consistent with Policy N3.9); and

- Provides adequate and convenient off-street parking for residents while minimizing the visual prominence of the parking area (consistent with Policy N3.10).

Under the Oakland General Plan, the maximum residential density permitted at the project site is 500 units per net acre. As indicated above, development of the project site as proposed would result in the construction of 146 residential units on 0.30 acre, which would represent nearly the maximum level of residential development permitted under the General Plan for a site of this size (500 units per net acre times 0.30 acre = 150).

The proposed project would be generally consistent with the goals, objectives and policies of the Bicycle Master Plan. It would provide secure and conveniently located bicycle parking at the site (consistent with Bicycle Master Plan Policy 5: Promote secure and conveniently located bicycle parking at destinations throughout Oakland), and would reflect consideration of the needs of bicyclists in the design of the structure (consistent with Bicycle Master Plan Policy 8: Insure that the needs of bicyclists are considered in the design of new development and redevelopment projects.).

The project would be generally consistent with the Central District Urban Renewal Plan (CDURP), with the 10K Initiative, and with the Retail Strategy.

Zoning

The project applicant is requesting approval of a Major Interim Conditional Use Permit to allow construction of a structure with an FAR of 19.46 at a site where the FAR is normally limited to 7. Pursuant to the *Guidelines for Determining General Plan Conformity*, a Major Interim Conditional Use Permit is required for structures proposed in the CBD with FARs which exceed 7.0 plus 10 percent for corner lots but that are within the maximum 20.0 non-residential FAR allowable in the CBD. A Major Conditional Use Permit is also required for new construction of commercial activities in the C-55 zone and Design Review for structures proposed in the S-8 Overlay district. A Minor Variance would be required to enable the project to proceed with the provision of 4,290 square feet of common open space (the terrace) and 4,832 square feet of private open space (the penthouse decks), which would be less than the amount of open space required under the Zoning Regulations. Although the need for a Minor Variance indicates that

the project as proposed is not fully consistent with the established requirements of the C-55 Central Core Commercial Zone, it should be noted that all property owners have the right to request such permits and variances in the interest of enabling them to utilize their property as desired, consistent with the goals, objectives and policies of the City of Oakland. If, after careful consideration of all of the issues involved, the City of Oakland grants the Minor Variance requested in this case, then it will have determined that the requested decrease in the amount of open space to be provided at the project site if developed as proposed would still result in a project which would be generally consistent with the goals, objectives and policies of the City. If this is the case, then the provision of a total of 9,222 square feet of open space at the project site would not represent a significant adverse environmental impact.

Under the Zoning Regulations, the maximum residential density permitted in an R-90 zone is one dwelling unit per 150 square feet of lot area, which would allow up to 87 units on the 13,068 square feet of the project site which would support residential development. With 146 units proposed at the project site, the project would not be consistent with the density limitations established in the Zoning Regulations. As indicated above, however, the total number of residential units proposed at the project site would be consistent with the residential density limitations established under the Oakland General Plan.

APPENDIX C

TRAFFIC IMPACT ANALYSIS OF THE 1640 BROADWAY MIXED USE DEVELOPMENT PROJECT

DOWLING ASSOCIATES

June 20, 2000

TRAFFIC IMPACT ANALYSIS FOR DRAFT ENVIRONMENTAL IMPACT REPORT

of

THE 1640 BROADWAY PROJECT

prepared for

URBAN DEVELOPMENTS

Dowling Associates

Transportation Engineering • Planning • Research • Education
A California Corporation

June 20, 2000

Dowling Associates, Inc.
Transportation Engineering • Planning • Research • Education

June 20, 2000

Ms. Marge Cafarelli
Urban Developments
300 Beale Street, Suite 412
San Francisco, CA 94105

Subject: 1640 Broadway – Traffic Report for Draft EIR P990119

Dear Marge:

We are pleased to present the attached report documenting the traffic analyses we performed on the subject project. This report will be incorporated into the Draft Environmental Impact Report being prepared by Lamphier & Associates.

The report includes analyses of intersection, parking, transit, and other impacts. We found that the project would have significant parking impacts. That is, development in the project area will cause significant parking impacts by the time the project is constructed, as well as under cumulative conditions, and the project will contribute to that impact. We have identified several mitigation measures to reduce the project's contribution to the impacts.

Please contact me if you have any questions about this report. We look forward to assisting you in the response-to-comments / Final EIR phase of the project.

Sincerely,
Dowling Associates, Inc.

Marty Beene, P.E.
Principal

cc: John Courtney, Lamphier & Associates

180 Grand Avenue • Suite 995 • Oakland, CA 94612 • (510) 839-1742 • FAX (510) 839-0871
www.dowlinginc.com

Table of Contents

I. Introduction

This report summarizes the traffic analysis for the proposed "1640 Broadway" project, which is proposed to be constructed on the southeast corner of the Broadway/17th Street intersection in Oakland, California. Figure 1 shows the location of the proposed project site. The remainder of the report consists of the following sections: Setting, Project Analysis, Cumulative Analysis, and Impacts and Mitigations Summary.

II. Setting

The project is proposed to be located on the southeast corner of the Broadway/17th Street intersection, where a pay parking lot currently exists. The following paragraphs describe the key transportation features of the project area.

Roadways

Broadway

This street is a major arterial that runs in a roughly north-south orientation from Jack London Square on the south to State Route 24 (SR 24) on the north. Near the project, there are three lanes in the southbound direction and two lanes in the northbound direction. There are traffic signals at each intersection within several blocks of the project.

17th Street

This street is a one-way (eastbound) street that intersects Broadway at the project site. It serves as a major connection for traffic coming from Interstate 980 (I-980) to this part of downtown Oakland. It consists of three eastbound lanes west of Broadway, but narrows to two lanes east of Broadway.

19th Street

With 17th Street, 19th Street forms a one-way couplet – that is, one of its major functions is to serve traffic traveling from this part of downtown Oakland toward I-980. It consists of two westbound lanes from the project area to San Pablo Avenue, where a left-turn only lane is added for traffic turning south onto Martin Luther King, Jr. Way.

Telegraph Avenue

This street begins in downtown Oakland at Broadway/15th Street and continues into Berkeley to the north. It generally consists of two lanes in each direction.

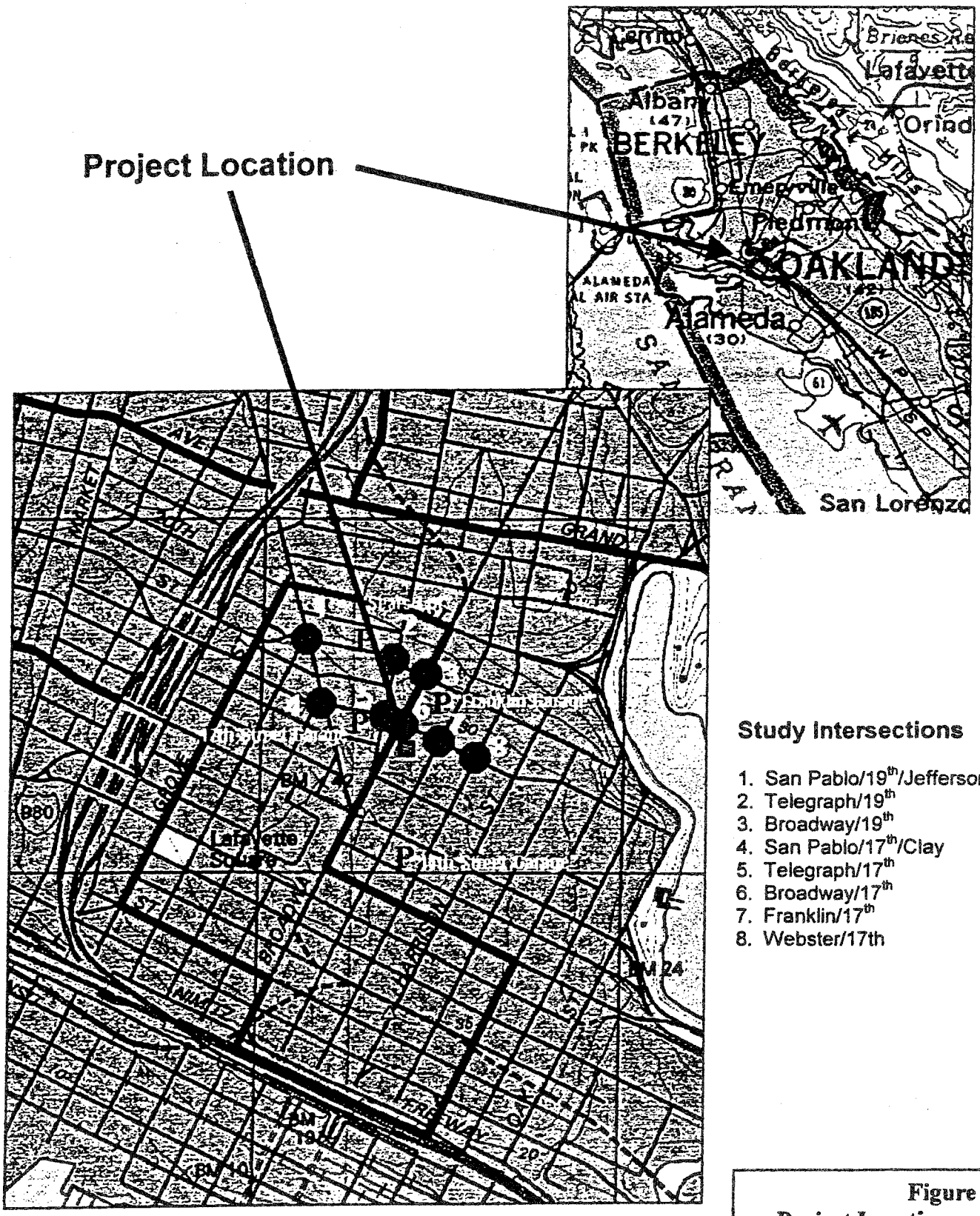


Figure 1
Project Location and Study Intersections

Maps created with TOPO!™ ©1998 Wildflower Productions (www.topo.com)

San Pablo Avenue

San Pablo Avenue begins at Frank Ogawa Plaza in downtown Oakland and continues well to the north of Oakland, serving several communities. It is a major arterial that runs parallel to I-80, and is designated as State Route 123 (SR 123) from Emeryville northward to Richmond.

Franklin Street and Webster Street

These two streets form a one-way couplet serving traffic parallel to Broadway. Signals are coordinated on both streets, making it easier for through traffic to traverse the City. Both streets consist of four lanes, with Franklin Street used for northbound traffic and Webster Street for southbound traffic.

Study Intersections

The following intersections were studied for this report:

- Broadway/17th Street
- Broadway/19th Street
- Franklin Street/17th Street
- Webster Street/17th Street
- Telegraph Avenue/17th Street
- Telegraph Avenue/19th Street
- San Pablo Avenue/17th Street /Clay Street
- San Pablo Avenue/19th Street /Jefferson Street

Existing Traffic Conditions at Intersections

Recent traffic counts were available for some of the study intersections from the City of Oakland, and some new traffic counts were performed. The resulting existing traffic volumes are shown in Figure 2. Intersection level of service was then calculated using these traffic volumes and the operations methodology from the 1997 Highway Capacity Manual. Level of service is a way of "grading" the operating conditions at the intersection, with Level of Service A (LOS A) meaning essentially ideal operating conditions and LOS F meaning "gridlock" conditions, in which the traffic demand exceeds the intersection's capacity. A table showing the formal definitions of each level of service grade is included in the appendix. In an urban environment, LOS D is generally considered to be the worst acceptable operating condition for signalized intersections. Table 1 below shows the results of the existing conditions LOS analysis.

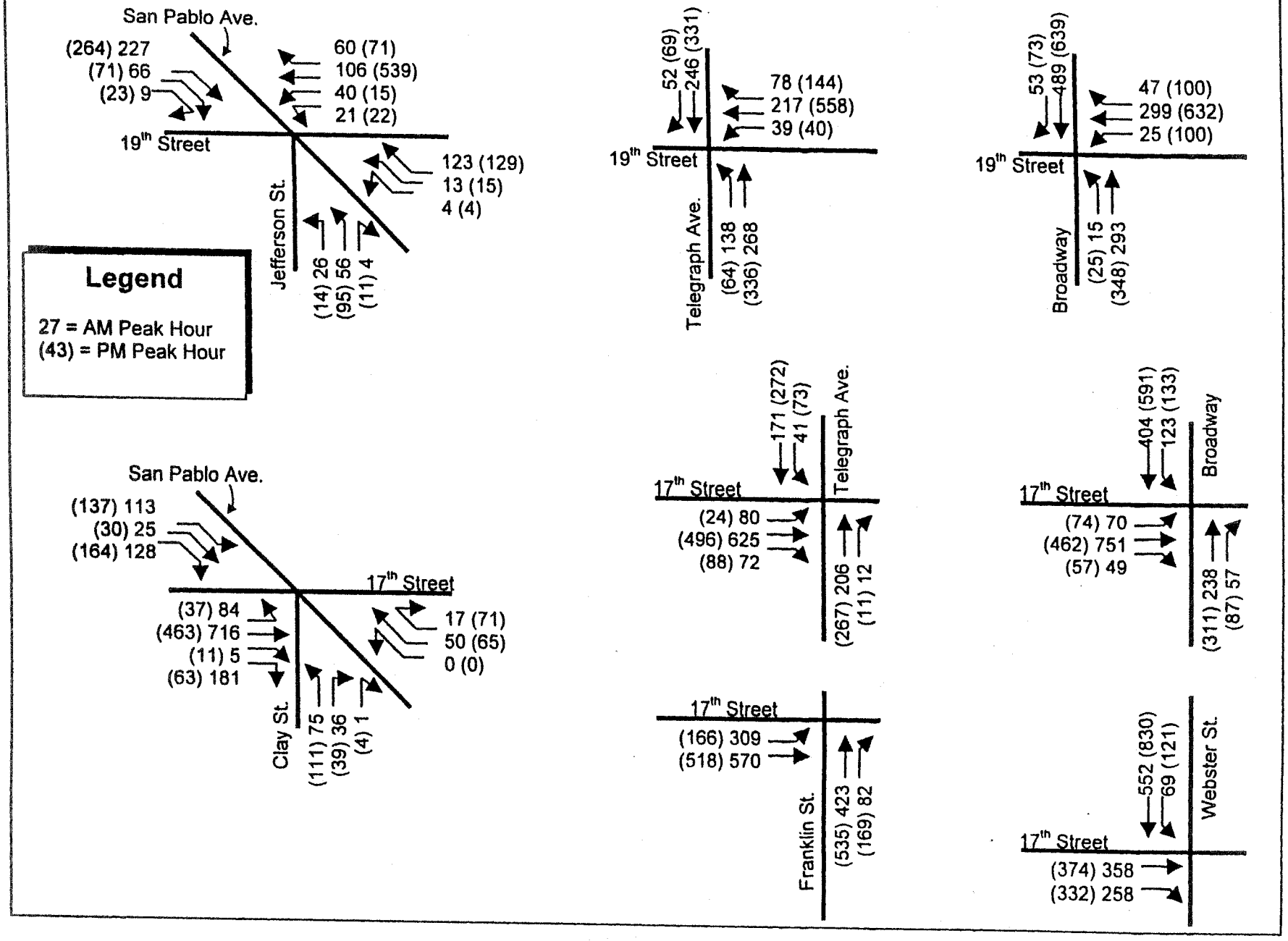


Figure 2
Existing Traffic Volumes

Table 1
Intersection Level of Service
Existing Conditions

Intersection	Count Date	AM Peak Hour Delay (sec/veh)	AM Peak Hour LOS	PM Peak Hour Delay (sec/veh)	PM Peak Hour LOS
Broadway/17th	2/00	18	B	16	B
Broadway/19th	2/00	16	B	19	B
Franklin/17th	2/00	12	B	19	B
Webster/17th	2/00	18	B	20	B
Telegraph/17th	8/99	15	B	16	B
Telegraph/19th	2/00	15	B	18	B
San Pablo/17th/Clay	8/99	22	C	27	C
San Pablo/19th/Jefferson	8/99	21	C	22	C

Based on the LOS calculations, all of the intersections operate at acceptable levels of service during both the AM and PM peak hours.

Transit

The proposed project is located in an area with immediate access to BART and AC Transit, and other transit services are available nearby. Transit services are described in the sections below.

BART

The proposed project within a half block of the 19th Street BART station. BART service from 19th Street is summarized in Table 2 below.

AC Transit

Several bus routes pass by the project site, enabling passengers originating in this area to get to most areas of Oakland and beyond. Table 3 shows a summary of bus routes on Broadway near the study area. The column labeled "Max Load" indicates the peak ridership on each line. AC Transit's standard is to not exceed 125% for the peak half-hour. The lines exceeding 125% listed below (51 and 72/73) do so for only 10 minutes.[1]

Other

On weekdays, there is a free Broadway Shopper Shuttle that begins at Grand Avenue and travels generally up and down Broadway between there and Jack London Square. Ferries to

[1] AC Transit, *1998 Boarding and Alighting Survey*, 1998.

and from San Francisco are available at Jack London Square, as are Amtrak trains, which include commuter service between San Jose and Sacramento.

Table 2
BART Service at 19th Street Station

	Headways (i.e., service every x minutes)		
Destination	Weekday Peak	Weekday Non-Peak	Weekend
San Francisco-Colma	3-5	7-8	10-20
Richmond	6-9	6-9	10-20
Concord / Pittsburg-Bay Point	5-10	15	20
Dublin-Pleasanton	15	15	20
Fremont	15	15	20

Notes:

- *Trains that continue beyond San Francisco and Concord to Colma and Pittsburg-Bay Point, respectively, are slightly less frequent.*
- *Riders traveling to points between 19th Street and Bayfair can ride either the Dublin-Pleasanton or Fremont trains, making their headways approximately half of those listed for either train.*
- *Peak hour capacity ratios range from 1.25 to 1.35 on lines serving the 19th Street station, where a 1.0 ratio indicates that all seats are taken, and there are no standees. BART's goal is to operate at a peak hour ratio of 1.35 or below.*[2]

Table 3
AC Transit Service on Broadway

		Headways (i.e., service every x minutes, each direction)			
Route	General Destination	Weekday Peak	Weekday Non-Peak	Weekend	Max Load
12	Alameda, Berkeley	15	30	30	72%
42	Alameda	15	None	None	17%
51	Alameda, Berkeley	10	10	15-20	143%
58	Oakland Airport	15	15	30	117%
58X	J. Lond. Sq., E. Oakland	15	15	None	123%
72-73	Richmond	10	15	10-15	126%
88	Berkeley	20	20	30	113%

"Max Load" is based on a standard 47-passenger bus.

[2] Environmental Science Associates, *Oakland City Center Project, Draft Environmental Impact Report, January 31, 2000,* from telephone communication with Dean Leonard, BART Manager of Schedules and Services, January 19, 2000.

Bicycles and Pedestrians

There are no dedicated bicycle facilities in the immediate project area, although bicyclists are common throughout the day. The City of Oakland *Bicycle Master Plan (July, 1999)* recommends installation of bike lanes along Telegraph Avenue, 17th and 18th Streets west of Telegraph, and designation as "bike route" for San Pablo Avenue north of 17th Street. Broadway is identified as a "special study area."

The project area has sidewalks along every street, and pedestrians are quite common during all daylight hours. There are marked crosswalks across all approaches of intersections near the project, and most intersections include audible pedestrian signals (for assistance to blind pedestrians).

Parking

There are several surface parking lots and garages available to the public near the project site. The four most likely candidates for off-site parking near the project site are the following:

- The existing garage at Franklin/19th Street (the "Franklin garage")
- The existing surface lot and garage between 19th and Williams Streets, west of Telegraph (the "Sears lot")
- The existing garage at 13th/14th/Webster/Franklin ("the 14th Street garage")
- The proposed garage (522 spaces) at 17th Street/Telegraph (the "17th Street garage")

A detailed analysis of parking occupancy was not performed for this study, but brief field observations were made of the surface lots and the three existing garages. Currently, these facilities fill or nearly fill during peak periods each day. The last facility to fill is typically the Sears lot. Since the Sears lot will likely be eliminated at some point during the planned redevelopment of the Uptown area, and the new construction related to the 17th Street garage will have a parking demand sufficient to fill those spaces, it is clear that the theoretical parking demand[3] will exceed supply by the time the proposed project is constructed, with or without the demand added by the project.[4]

III. Project Analysis

Project Description

The proposed project consists of three land use components, which are listed below:

[3] The term "theoretical" is used here because the actual demand that occurs in an urban area is greatly influenced by the supply. That is, the theoretical demand refers to the demand that would occur if an infinite amount of parking were provided – in effect, the way that suburban developments are constructed. In reality, many people know that there is a limited parking supply in an urban area, so they choose other travel modes.
[4] Parking supply and demand figures related to existing and proposed parking facilities from the *Oakland Downtown Parking Study Update, Final Report,* by Wilbur Smith Associates, December 18, 1998 and update letter, March 31, 2000.

- Residential – 150 loft style condominiums
- Office – approximately 178,000 square feet of office space
- Retail – two undetermined retail establishments totaling 4,800 square feet

In addition to the three land uses, the proposed project would provide 284 parking spaces, of which 150 would be dedicated to the residential component of the project (one per unit).

The project analysis consisted of two primary components: impacts related to the number of vehicle trips generated by the project, and the parking needs for the project. Access, bicycle-pedestrian issues, and transit were also evaluated.

Significance Criteria

For intersection level of service, we used the City of Oakland's standard criteria. For signalized intersections, a significant impact would consist of one of the following:

- Degradation of level of service from LOS A, B, C, or D to LOS E or F
- Degradation of level of service from LOS E to LOS F
- Increase of delay of four percent or more for an intersection operating at LOS E or F

For parking, the different uses within the project were treated differently. For the residential component, a significant impact would occur if there were not enough spaces provided on-site to accommodate the peak demand. For the office component, the project is proposing to accommodate some of the tenant parking, with the expectation that some of the parking demand would be accommodated off-site in garages and/or surface lots available to the public. Since (as discussed in the Setting section) the theoretical demand will exceed supply under existing conditions (by the time the project is constructed), any contribution to off-site parking demand would constitute a significant impact.

For transit, a significant impact would occur if the project caused one or more transit lines to exceed the capacity goals set by the respective transit agency. For BART, a typical peak hour train has seating capacity for 708 passengers[5]. Since some lines already run at BART's upper limit goal of 135% of capacity, an addition of 1% of the seating capacity might cause the goal to be exceeded, depending on which line received the new passengers. One percent of 708 is 7, so an expected addition of 7 passengers per train would potentially constitute a significant impact. For AC Transit, which has a capacity goal of 125% during the peak half-hour, the worst existing capacity condition in the project area is for the 51 route, which operates at over 140% of seating capacity during brief periods (approximately 10 minutes) each day. On this route, the peak observed half-hour ridership was 121 passengers on three buses, or 53 less than the desired maximum of 174 (125% times 3 buses times 47 passengers). Therefore, the criterion for a potential significant impact should be 106 passengers per hour per route.

[5] Based on a 10-car train with "C"-cars at each end and 8 "A" or "B" cars in between. Source: BART web site: http://www.bart.gov/general/history/bartcars.htm

Intersection Analysis

Trip Generation, Distribution, and Assignment

The estimated number of vehicle trips was calculated for the project using the Institute of Transportation Engineers' (ITE) *Trip Generation, 6th Edition* (1998). The raw trip generation rates from these sources were reduced because of the strong likelihood that many trips related to the project will be taken on transit, by bicycle, and/or on foot (the ITE trip generation rates are based primarily on studies of suburban developments, where driving is often the only transportation option). The percent reductions were initially selected based on engineering judgment and general consistency with other concurrent studies in the project area. Subsequent research showed that these reductions are conservative. The appendix includes specific information regarding the research justifying the specific reduction amounts. Table 4 shows the project trip generation used in the analysis.

Table 4
Project Trip Generation

			AM Peak Hour Trips			PM Peak Hour Trips		
Component	Amount	Reduction %	Total	Inbound	Outbound	Total	Inbound	Outbound
Residential	150 du	10%	65	12	53	61	38	23
Office	178 ksf	30%	206	181	25	196	34	162
Retail	4.8 ksf	50%	8	5	3	42	20	22
		Total:	279	198	81	299	92	207

du = dwelling units
ksf = thousand square feet
Residential trip generation: Category 232, High Rise Condominium-Townhouse.
Office trip generation: Category 710, General Office Building.
Retail trip generation: Category 810, Shopping Center.

The distribution of project trips was developed based on the City of Oakland General Plan traffic analyses, modified to be applicable to the specific site of the proposed project. Table 5 shows the trip distribution used for this project.

Table 5
Project Trip Distribution

Gateway	AM	PM
Bay Bridge	10%	15%
I-580 West / I-80 East	15%	15%
State Route 24	15%	15%
I-580 East	20%	15%
I-880 South	25%	25%
Alameda	5%	5%
Downtown	5%	5%
Downtown East (Lake Merritt)	5%	5%

Based on the trip generation and distribution described above, the project trips were assigned to the roadway network. Note that all of the residential trips were assigned to

and from the project site itself, while the office- and retail-related trips were assigned to/from the project site and to/from nearby garages (e.g., the Franklin Garage). Figure 3 shows the trip assignment for the project, and Figure 4 shows the Existing plus Project traffic volumes.

Level of Service was calculated for the seven study intersections for the Existing plus Project traffic volumes, and the results are shown in Table 6 below.

Table 6
Intersection Level of Service
Existing and Existing plus Project Conditions

	AM Peak Hour				PM Peak Hour			
	Existing		Plus Project		Existing		Plus Project	
Intersection	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Broadway/17th	18	B	18	B	16	B	17	B
Broadway/19th	16	B	16	B	19	B	19	B
Franklin/17th	12	B	12	B	19	B	19	B
Webster/17th	18	B	18	B	20	B	20	B
Telegraph/17th	15	B	15	B	16	B	16	B
Telegraph/19th	15	B	15	B	18	B	18	B
San Pablo/17th/Clay	22	C	21	C	27	C	27	C
San Pablo/19th/Jefferson	21	C	22	C	22	C	22	C

The project would increase the calculated delay by one or more seconds at only two of the intersections, and none of the intersections would have its level of service degraded by one or more letter grades.

Transit

Based on the transportation demand modeling analysis performed to meet the Alameda County Congestion Management Agency (ACCMA) requirements described in the Cumulative section below, the project would result in 80-100 new peak hour BART trips and about 100 new peak hour AC transit bus trips.

From the BART schedule information presented in Table 2 above, there are approximately 39 trains passing through the 19th Street BART station during peak hours. Using 100 new BART trips during the peak hour, this would result in an average of approximately 2.6 additional passengers per train. This is below the significance criteria of 7 passengers per train, so there would be no significant impact to BART.

Since the significance criteria for impacts to AC Transit is 106 passengers per hour per route and the total peak hour AC Transit trips from the project are estimated to be 100, there would be no significant impact to AC Transit.

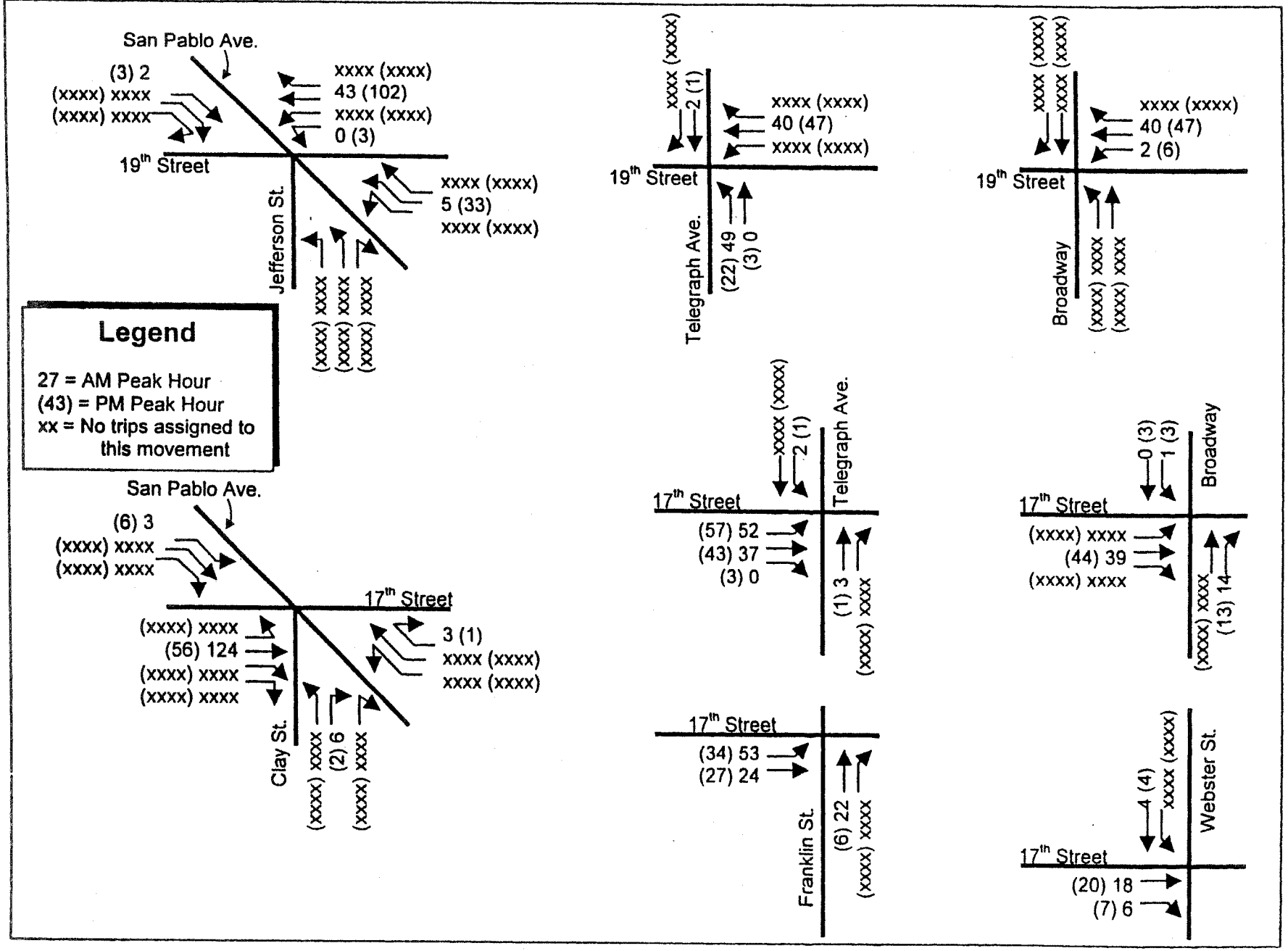


Figure 3
Project Trip Assignment

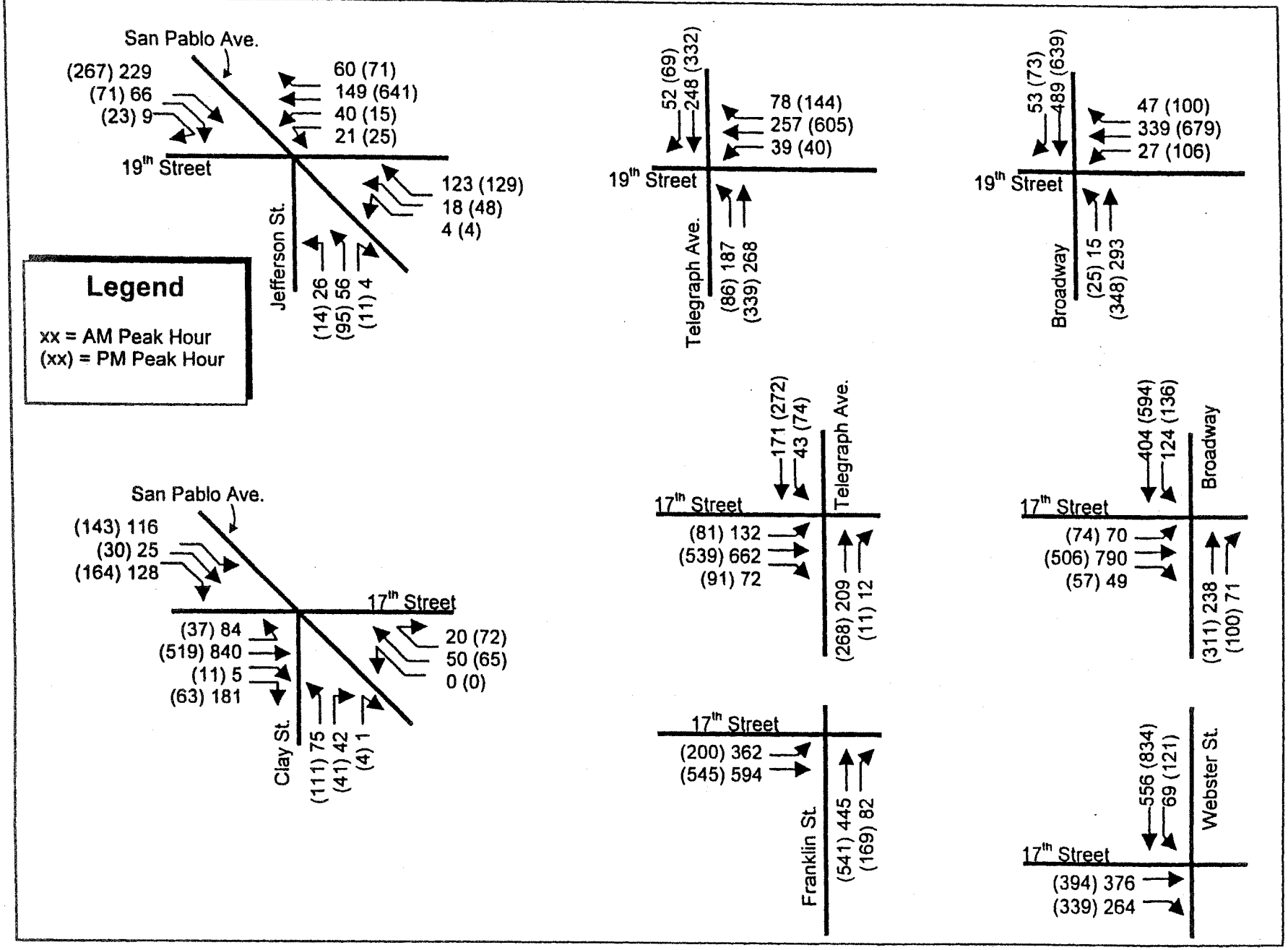


Figure 4
Existing plus Project Traffic Volumes

Parking

Parking Demand

Using the ITE publication, *Parking Generation* (1987), the peak parking demand for these land uses can be calculated using an average rate or a regression equation[6]. Use of the regression equation is preferred if the statistical reliability[7] is considered to be relatively good. In this case, the statistical reliability of both the residential and office equations are considered to be sufficiently reliable for use in this type of study. In order to be reasonably conservative, however, the greater of the regression equation or the average rate was used as the initial calculation.

The ITE data was collected almost exclusively in suburban areas, where little or no transit service exists, and nearly every trip is made by car. Since the proposed project site is located along a heavily used urban transit corridor, it is reasonable to reduce the peak parking demand calculation by some percentage to account for people living in the building who don't own a car and people who come to work at the offices via transit, bicycle, or on foot. Therefore, the peak parking demand rates were reduced by the same percentages as the vehicle trip generation rates (10% for residential and 30% for office[8]).

The resulting peak demand for residential is 154 spaces (171 spaces by the formula, reduced by 10%). The resulting peak demand for the office component of the project is 347 spaces (496 spaces, based on the average rate, then reduced by 30%).

Additionally, the project will be replacing an existing lot that members of the public can pay to use (i.e., it is not a dedicated parking lot for a specific business or residence). There are approximately 60 marked parking stalls at that location, although more cars are typically parked there because the operator performs valet parking services. For the purpose of this study, it is assumed that 75 parking spaces will be replaced by the proposed project. This means that, based on the ITE parking demand rates and the approximate peak demand at the

---

[6] A regression equation is a mathematical formula created to describe actual data that occurs in the field.

[7] A measure of the statistical reliability, called "R-squared" and written "R^2," is presented in the ITE manual for each category of land use. For parking demand calculations, an R^2 of about 0.90 is generally considered to be sufficiently reliable to use in a study of this type (an R^2 of 1.00 would indicate a perfect match of an equation to a set of data).

[8] Reducing the office parking demand rate by the same percentage as the trip rate reduction is clearly a logical approach because parking demand is directly related to vehicle trip generation: only office employees choosing to travel by car (a vehicle trip) require a parking space. For residential parking demand, some residents who usually choose to travel by transit may still own a car, thus requiring a parking space. From Weant and Levinson's *Parking (1990)*, Table 6-8 provides justification for the 10% reduction (also indicating that the 10% reduction in trip generation is probably quite conservative) in parking demand. The range of parking demand for areas of "moderate" transit use (identified as 40% transit usage, the same as the mode split found in the ACCMA model) is about 30% lower than that for areas of "light" transit use (20% transit mode split). Since the ITE parking demand rates are based mostly on areas with less transit usage than Weant and Levinson's "light" category, the 10% reduction in parking demand rates is more than justified.

existing lot, a total peak demand of 422 parking spaces must be accommodated either on or off site.

The retail component of the project is not expected to generate any significant new parking demand. While the specific businesses to lease the "retail" space are unknown at this time, the typical establishment would be one that would serve tenants within and near the proposed building, such as a copy service, stationery store, or coffee shop. Field observations of these types of businesses along the Broadway corridor indicate that virtually all of the customers arrived on foot (i.e., they did not arrive by car).

Parking Supply

The proposed project would provide several floors of parking, with some above ground and some below. The proposed total number of spaces would be 284, 150 of which would be dedicated to the residential portion of the project (one parking space per unit). The project would provide 134 spaces to be available for the office component of the project.

Analysis of Parking Demand versus Supply

For the residential component of the proposed project, the calculated peak demand of 154 spaces is slightly greater than what is proposed by the project (150 spaces), indicating a significant project impact. The proposed supply of one space per dwelling unit is consistent with typical practice of urban downtown residences in which each unit receives the rights to one parking space.

For office-related parking, there would be a theoretical demand of 213 spaces not accommodated on-site (demand of 347 spaces minus 134 on-site parking spaces). Adding this to the approximately 75 spaces (primarily related to existing employment in the area) which the proposed project would replace would result in a theoretical peak demand of 288 spaces that would have to be accommodated off-site. Since the theoretical demand is already expected to exceed the supply that will be available at the time the project is completed, this means that the project will contribute to the significant parking impact in the area.

Table 7 shows a summary of the parking demand and supply for the proposed project.

Access and Circulation

The project access is proposed to be on 17th Street, slightly west of the center of the site. A driveway should be located to provide some queuing distance from the nearest upstream intersection for vehicles entering the site, and so that queuing from a downstream intersection won't block vehicles attempting to exit the site. This location is a favorable one because it provides a few car lengths of distance from Broadway for vehicles entering the garage, while nearly maximizing the distance from the Franklin/17th Street intersection.

Once on the site, vehicles would circulate to the various parking floors by means of ramps, which appear to be of standard dimensions and orientation.

A loading dock is provided as part of the project. Trucks will be able to back into the loading dock, although they will probably need assistance from an on-site staff person, and they would probably block traffic briefly on 17th Street while backing in. This arrangement is common in urban areas, and should be considered adequate.

Table 7
Summary of Parking Supply and Demand

Project Component	Demand[a]	Supply	Net
Residential	154	150	– 4
Office	347	134	– 213
Retail	0	0	0
Existing Surface Lot	75[b]	0	– 75

Notes
[a] *Demand shown does not necessarily fully account for a lack of supply. See footnote number "3" above for more discussion of parking demand.*
[b] *Estimated.*

IV. Cumulative Analysis

Intersection Analysis

Cumulative base volumes were prepared using a two-step process because of the rapidly changing dynamics of development in the area. Initially, existing volumes at the study intersections were increased consistent with the City's General Plan (½% per year to Year 2020), and applicable planned projects were added to those volumes. Since that initial analysis, it has become clear that more development will likely occur in the area, so the cumulative base volumes should clearly be higher than initially calculated. Thus, the second step of this process was to increase the existing volumes by a much greater rate to account for the greater rate of development that is reasonably foreseeable within the planning period.

The greater growth rate assumption to apply to the existing volumes was determined by reviewing the Association of Bay Area Governments' (ABAG's) land use data. The City's General Plan was based on ABAG's Projections '96, so the latest data (Projections 2000) was compared to that. While projections for households and employed residents from Projections 2000 are slightly higher than Projections '96, the projected number of jobs in Oakland is 14% higher in Projections 2000 than in Projections '96. Clearly, a detailed modeling of vehicle trips using Projections 2000 data would result in more trips than with Projections '96. In order to be conservative, the difference in job projections was used

calculate an appropriate growth rate for traffic volumes (not the households or employed residents, which showed smaller differences between the two land use projections).

The concept used to determine the growth rate was that future volumes calculated with Projections 2000 data should be about 14% higher than volumes calculated with Projections '96 data (consistent with differences in jobs projections). To achieve this result, the existing volumes must be increased by 1.2% per year instead of ½% per year. In addition to the existing volumes grown by 1.2% per year to Year 2020, vehicle trips from the two projects initially identified by City staff were estimated. The two sources of volumes were added together to comprise the Cumulative base (Without Project) volumes.

Once the Cumulative base volumes were prepared, the project trips were added to them, and level of service was calculated for the Cumulative without Project and Cumulative plus Project scenarios. Figure 5 shows the Cumulative plus Project traffic volumes, and Table 8 shows the results of the level of service calculations.

Table 8
Intersection Level of Service
Cumulative and Cumulative plus Project Conditions

	AM Peak Hour				PM Peak Hour			
	Existing		Plus Project		Existing		Plus Project	
Intersection	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Broadway/17th	18	B	19	B	17	B	18	B
Broadway/19th	17	B	17	B	19	B	19	B
Franklin/17th	17	B	17	B	20	B	20	B
Webster/17th	19	B	19	B	21	C	21	C
Telegraph/17th	15	B	15	B	17	B	17	B
Telegraph/19th	17	B	17	B	19	B	20	B
San Pablo/17th/Clay	25	C	25	C	28	C	28	C
San Pablo/19th/Jefferson	22	C	23	C	23	C	23	C

The project would increase the calculated delay by one or more seconds at only three of the intersections, and none of the intersections would have its level of service degraded by one or more letter grades.

Parking

Under cumulative conditions, as in the existing scenario, the theoretical demand for parking spaces in the area will surpass the supply, a result that is normal for a thriving urban downtown. This constitutes a significant cumulative impact to which the project contributes. Proposed mitigation measures are identified in the Impacts and Mitigations Summary section below.

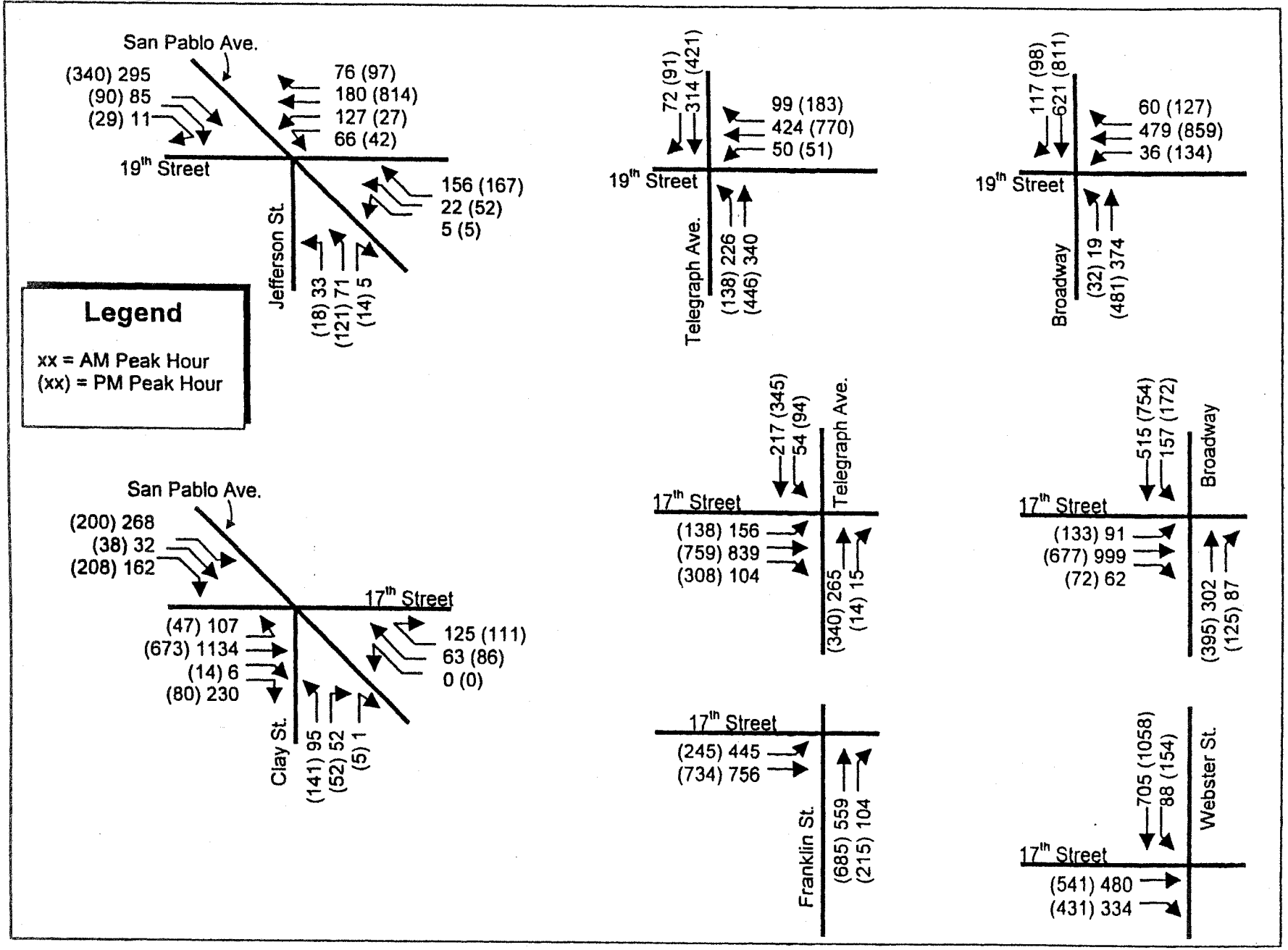


Figure 5
Cumulative plus Project Traffic Volumes

Alameda County Congestion Management Agency (ACCMA) Analysis

Since the proposed project would generate more than 100 peak hour trips, the impacts of the proposed project on the regional transportation system were assessed using the Alameda County Congestion Management Agency (ACCMA) Countywide Travel Demand Model. The impact analysis for roadways included CMP-designated regional roadways and several local MTS roadways in the project vicinity, as identified by ACCMA staff in their response to the Notice of Preparation (NOP) for this project. The following roadway links were analyzed.

- I-880 - W of I-980
- I-880 - E of Oak St.
- I-980 - N of I-880
- I-980 - S of I-580
- I-580 - W of I-980
- I-580 - E of 14th Avenue
- SR 24 - W of Caldecott
- SR 260 (Webster Tubes)
- Broadway - N of 20th St.
- Broadway - S of 12th St.
- Harrison St - S of 11th St.
- Franklin St - S of 12th St.
- Webster St - S of 12th St.
- 7th St. - W of Clay St.
- 8th St. - E of Broadway
- 11th St. - W of MLK
- 12th St. - E of Broadway
- 12th St. - W of MLK
- 14th St. - E of Oak St.
- 14th St. - E of Broadway
- Castro St. - S of 12th St.
- Brush St. - S of 12th St.
- Clay St. - S of 12th St.
- San Pablo Ave - N of 20th St.
- Telegraph Ave. - N of 17th St.

A summary of the approach and results is described in the paragraphs below, and more details are included in the appendix.

Significance Criteria

The project roadway impacts were considered significant if the addition of project traffic would results in LOS conditions worse than the Congestion Management Program (CMP) roadway LOS E standard, except where LOS F was originally measured at the time the CMP was adopted in 1991. For those locations where the future Baseline condition is LOS F, the project impacts were considered significant if the contribution of project traffic is at least 3 percent of the total traffic.

Forecasts

The traffic forecasts were based on the October 1999 version of the Countywide Model, which uses Association of Bay Area Government's (ABAG) Projections '98 (P'98) socio-economic forecasts as updated by the City of Oakland for the downtown area. For the CMP analysis, the proposed project was added to the 2005 and 2020 baseline socio-economic inputs for the ACCMA Countywide Model.

Results

The years 2005 and 2020 traffic forecasts were extracted at the required CMP and MTS highway segments from the ACCMA Countywide Travel Model, for both the AM and PM

peak hours. The levels of service (LOS) were analyzed using the Florida Department of Transportation LOS methodology, which provides a planning level analysis based on the *Highway Capacity Manual* methods. The analysis found that all of the impacts to these roadway links were less than significant.

The impacts of the proposed project to the transit system were assessed using the Countywide Model. The analysis showed that the project would result in increased ridership on BART and AC Transit, both of which would be less-than-significant impacts.

V. Impacts and Mitigations Summary

Intersection Impacts

Based on the level of service calculations, there were no significant impacts under the existing or cumulative scenarios.

Parking Impacts

Under existing and cumulative conditions, residence-related parking demand, as calculated using ITE parking demand rates, will exceed supply by four spaces. Given that it is desirable to encourage residents to use transit rather than personal automobiles, the mitigation measure should not include adding more parking, but should instead consist of encouraging residents to use transit, bicycles, or to travel on foot. The project's mitigation measures for this impact should be the following:

1. Assign only one specific (numbered, perhaps) parking space to each unit, and prohibit residents from parking in any space except their own.
2. Inform residents that there is only metered, time-limited parking on-street for several blocks surrounding the project location, and indicate that they are therefore strongly discouraged from owning more than one automobile that they might wish to park at or near the project.
3. Provide current transit information to residents, either by direct delivery (e.g., via US Mail) or at a convenient location, such as a kiosk near the elevators.

The mitigation measures associated with resident parking should be accomplished via the usual sales documentation (e.g., "CCR's" or homeowners' association contracts) for the units.

Under existing and cumulative conditions, parking demand in the project area will exceed supply, and the office component of the proposed project will contribute to that parking demand. The project's share of mitigation should include the following:

1. Provide tenants with general information about parking in the area. Specifically, leases should include a statement informing tenants that, as is typical in most urban downtown areas, parking is extremely scarce and that employees are advised to use public transit instead of by personal automobile.
2. Provide specific information about transit. To provide information about transit, the building management and/or on-site security staff should maintain a reasonably current supply of AC Transit, BART, and ferry schedules. Additionally, at least once per year, perhaps as part of normal correspondence between management and lessees, the building management should reiterate its recommendation for tenants to take transit to the site.
3. Designate 5% of the office-related parking spaces (7 spaces) for carpool parking only. The building management should be responsible for designing a method of enforcing the carpool parking.

Access and Circulation

No significant impacts were identified.

Congestion Management Program Analysis (Regional Impacts)

No significant impacts were identified.

APPENDIX A

Level of Service Definitions

Level of Service Definitions
For Signalized Intersections

Level of Service	Vehicle Delay (Seconds)	Description
A	≤ 10.0	Free Flow or Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.
B	> 10.0 and ≤ 20.0	Stable Operation or Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C	> 20.0 and ≤ 35.0	Stable Operation or Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	> 35.0 and ≤ 55.0	Approaching Unstable or Tolerable Delays: Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly, without excessive delays.
E	> 55.0 and ≤ 80.0	Unstable Operation or Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	> 80.0	Forced Flow or Excessive Delays: Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

Sources: Highway Capacity Manual (1985 and 1997)

APPENDIX B

Trip Generation Reduction Justification

Justification for Trip Generation Reductions from ITE Rates

Initially, trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation, 6th Edition* (1998) were identified for the project as follows:

- Residential – Land Use Category 232, High-Rise Condominium/Townhouse
- Office – Land Use Category 710, General Office Building
- Retail – Land Use Category 820, Shopping Center

The ITE is clear that the data on which the manual is based was collected almost entirely in suburban locations where there are few, if any, transit options. This means that the vehicle trip generation rates can and should be reduced for use in an urban area with abundant transit options. However, the ITE makes no recommendation as to the percentage by which the basic rates should be reduced. Initially, a 10% reduction for residential, a 30% reduction for office, and a 50% reduction for retail were selected based on engineering judgment and for consistency with another concurrent traffic study (the 17th Street Garage). Often, engineering judgment is considered sufficient justification for environmental documentation. For this project, however, staff from the lead agency (the City of Oakland) requested that data be provided to justify these reductions.

Office Trip Generation

For the office trip generation rate reduction, the methodology from the Draft EIR for the Oakland City Center Project (January 31, 2000) was reviewed. The methodology for estimating trip generation in that EIR utilized data from the Alameda County Congestion Management Agency (ACCMA) travel demand model. The model showed that of the office-related person-trips based in zones in the downtown area, 40% took transit and 16% carpooled with one or more people. The vehicle-trip rate (PM peak hour) used for office development in that study began by taking the ITE average vehicle-trip rate of 1.49 vehicle trips per 1,000 square feet of office space times a vehicle occupancy rate of 1.13 persons per vehicle (from San Diego Association of Governments, *Traffic Generators*) to get a person-trip rate per 1,000 square feet of office space. This person-trip rate of 1.68 was then subjected to the ACCMA model's mode split, which resulted in a vehicle trip rate of 0.88. A vehicle trip rate of 0.88 trips per 1,000 square feet is 41% lower than the standard ITE rate. Thus, the 30% reduction used in the analysis is conservative.

In order to double-check that the ACCMA model information was reasonable, MTC data was reviewed. Specifically, MTC's *Working Paper #7* (which is one of a series of analyses of 1990 census data) includes several tables that identify the mode splits for workers residing and working in areas known as "superdistricts" defined by MTC. For MTC Superdistrict 18, which consists of Oakland and Alameda, MTC reports (Table 1.4) that about 30% of workers arrive by means other than automobile. Note that this superdistrict includes Alameda, which has no BART service and less AC Transit service than Oakland, so the 30% figure is lower than would be expected for the 1640 Broadway project. Superdistrict 1, Downtown San Francisco, which has characteristics that more closely resemble Broadway in Oakland, has a

corresponding non-auto percentage of about 60%. The 30% and 60% figures should be construed as lower and upper bounds of what to expect for 1640 Broadway, and, indeed, the 40% reduction drawn from the ACCMA model is within these bounds.

Residential Trip Generation

The zones in the ACCMA model used for the analysis of office-related trip generation were not applicable to residence-related trips because there is little housing in the land use for those model zones. Instead, the MTC data was used. Similar to the data reviewed for the office trip generation reduction, *Working Paper #7* also includes data based on workers' superdistrict of residence (Table 1.2). For residents of suburban superdistricts (e.g., superdistricts 9, 15, and 21, in Sunnyvale/Mountain View, Livermore/ Pleasanton, and Concord/Martinez), the share of people traveling to work by auto is about 80%, while it is about 65% for superdistrict 18 (Oakland/Alameda). This makes the Oakland auto travel mode about 20% lower (0.65 divided by 0.80, subtracted from 1.00 = 0.19) than the suburban rates, thus showing that the 10% reduction used in the study was slightly conservative.

Retail Trip Generation

Finally, for the retail component of the proposed project, the ITE manual suggests the option of applying the office trip generation rate to the combined floor area of the office space and the "lobby" space instead of calculating trips for a small retail component. Instead, we selected the more conservative approach (resulting in 36 more PM peak hour trips, even with the 50% reduction) of calculating the retail trips separately.

APPENDIX C

Alameda County Congestion Management Agency (ACCMA) Analysis

Alameda County Congestion Management Agency Analysis

Significance Criteria

The project roadway impacts were considered significant if the addition of project traffic would results in LOS conditions worse than the Congestion Management Program (CMP) roadway LOS E standard, except where LOS F was originally measured at the time the CMP was adopted in 1991. For those locations where the future Baseline condition is LOS F, the project impacts were considered significant if the contribution of project traffic is at least 3 percent of the total traffic. This criterion has been included to address impacts along roadway segments currently operating under unacceptable levels. A change of v/c ratio of 3% has been found to be the threshold for which a perceived change in congestion is observed. This change is equivalent to about one-half of the change from one level of service to the next.

Congestion Management Program Land Use Analysis

Since the proposed project at 1640 Broadway would generate more than 100 peak hour trips, the impacts of the proposed project on the regional transportation system were assessed using the Alameda County Congestion Management Agency (ACCMA) Countywide Travel Demand Model. The impact analysis for roadways included CMP-designated regional roadways and several local MTS roadways in the project vicinity.

The traffic forecasts were based on the October 1999 version of the Countywide Model, which uses Association of Bay Area Government's (ABAG) *Projections '98* (P'98) socio-economic forecasts as updated by the City of Oakland for the downtown area. A review of the socio-economic data used by the model for the 2005 and 2020 forecasts indicated that the inputs for traffic analysis zone 500 may include some of the proposed project. However, since the project area covers only a portion of zone 500 and other developments in this zone may not be represented, the approach was to add the entire proposed project to the 2005 and 2020 P'98 baseline socio-economic data. This approach was considered more conservative since some small portion of the growth already assumed by the model may be attributed to the project.

For the CMP analysis, the proposed project was added to the 2005 and 2020 baseline socio-economic inputs for the ACCMA Countywide Model. The land uses for the proposed project were translated into households and jobs by sector for input into the model. For the 2005 and 2020 analysis, a total of 608 employees and 150 multi-family residences were added to the land use in zone 500. The full project was added to both 2005 and 2020. To convert the office and retail square footages into employees a ratio of one employee per 300 square feet was applied. Office employment was considered to be one-half service and one-half other, while retail employment was considered to be one-half retail and one-half other.[1] The Baseline and With Project model inputs are summarized in the Table below.

[1] These conversion factors were obtained from Oakland General Plan/Estuary Plan work and detailed in March 15, 1999 memo from Barry Miller to Pam Kershaw, Katrina Koh, and David Full.

Table. ACCMA Countywide Model Socio-Economic Inputs

Baseline Model (No Project)						
For Year 2005		Employment				
TAZ	Households	Manufacturing	Other	Retail	Service	Total
500	108	113	1209	163	1146	2630
For Year 2020		Employment				
TAZ	Households	Manufacturing	Other	Retail	Service	Total
500	108	112	1237	180	1166	2695
Project						
For Year 2005		Employment				
TAZ	Households	Manufacturing	Other	Retail	Service	Total
500	150	0	535	7	66	608
For Year 2020		Employment				
TAZ	Households	Manufacturing	Other	Retail	Service	Total
500	150	0	535	7	66	608
Baseline Model With Project						
For Year 2005		Employment				
TAZ	Households	Manufacturing	Other	Retail	Service	Total
500	258	113	1744	170	1212	3238
For Year 2020		Employment				
TAZ	Households	Manufacturing	Other	Retail	Service	Total
500	258	112	1772	187	1232	3303

Source: ACCMA Countywide Travel Demand Model, October 1999 version.
Dowling Associates, Inc., 2000.

CMP and MTS Highway Segments

The levels of service (LOS) were analyzed using the Florida Department of Transportation LOS methodology,[2] which provides a planning level analysis based on the *Highway Capacity Manual* methods. As planning level analysis, the level of service is based on forecasts of traffic and assumptions for roadway and signalization control conditions, such as facility type (freeway, expressway, and arterial classification), speeds, and number of lanes. The assumption for the number of lanes at each link location was extracted from the model and confirmed through field observations.

The years 2005 and 2020 traffic forecasts were extracted at the required CMP and MTS highway segments from the ACCMA Countywide Travel Model, for both the AM and PM peak hours. The tables compare the Baseline results to the With Project results for each model horizon year. The AM and PM peak hour volumes and the LOS for Baseline and With Project conditions represent the peak directional volume. (See appendices for more detail on the non-peak direction and assumptions.)

Impact A.1: The proposed project would contribute to the 2005 cumulative impacts on the regional and local roadways. This results in a less than significant impact.

[2] Florida Department of Transportation. Level of Service Standards and Guidelines Manual for Planning, 1995.

The addition of project traffic to the regional and local roadways **would not result in a change in LOS** when compared to the 2005 Baseline condition.

Under 2005 conditions with the proposed project, all analysis roadways would continue to operate at LOS "E" or better, with the exception of SR 24 during the AM and PM peak hours and SR 260 (Posey-Webster Tubes)[3] south of I-880 during the AM and PM peak hours. However, at these locations, the CMP LOS "F" standard applies. On SR 24 at the Caldecott Tunnel, the project trips would represent less than one percent of AM and PM peak hour forecasts. The project trips using the Posey-Webster Street Tubes would also represent less than one percent of the AM and PM peak hour forecasts. When compared to normal daily fluctuations in traffic volumes (and model assignment fluctuations), the project impacts at these locations would not be considered significant.

Mitigation Measure A.1: None required.

Impact A.2: The proposed project would contribute to the 2020 cumulative impacts on the regional and local roadways. This would be a less than significant impact.

The addition of project traffic to the regional and local roadways **would result in a change in LOS on one roadway segment** when compared to the 2020 Baseline condition. During the PM peak hour, the segment of 12th Street west of MLK, Jr. Way would change from LOS D to E. The increase in project trips at this segment represents two percent of the PM peak hour forecasts.

Under 2020 conditions with the proposed project, all analysis roadways would continue to operate at LOS "E" or better, with the exception of SR 24 during the AM and PM peak hours and SR 260 (Posey-Webster Tubes) south of I-880, during the AM and PM peak hours. However, at these locations, the CMP LOS "F" standard applies. On SR 24 at the Caldecott Tunnel, the project trips would represent less than two percent of AM and PM peak hour forecasts. Similarly, on SR 260 at the Webster Tube, project trips would represent between two and three percent of the AM and PM peak hour forecasts. When compared to normal daily fluctuations in traffic volumes, the project impacts at these locations would not be considered significant.

Mitigation Measure A.2: None required.

MTS Transit Corridors

The impacts of the proposed project to the transit system were assessed using the Countywide Model. The number of daily transit trips generated by the proposed project was estimated using the production-attraction table for home-based work trips that is generated by the Countywide Model. This home-based work trip table was assumed to represent one-way trips occurring during a two- to three-hour AM peak period. To estimate the number of transit trips occurring

[3] The level of service calculation for the SR 260 (Posey-Webster Tubes) assumes a functional classification of Arterial Class 1, which is consistent with the classification used in the 1999 Congestion Management Program. The actual capacity of this segment would be closer to that of an expressway at up to 4,000 vehicles per hour per lane, but the operations of this segment is mostly affected by the signals on the arterials at the ends of the tunnels.

during the peak hour, half of the AM peak period trips were assumed to occur during the AM peak hour. The transit trips were divided between AC Transit buses (local and express) and BART trains (walk/bus to BART and drive to BART).

For the purposes of the CMP analysis, the proposed project is located within the key service area surrounding downtown Oakland. The frequency of transit service in the project vicinity meets or exceeds the performance measures proposed in Table 8 of the *1999 Congestion Management Program*. The proposed project is located within ¼ mile of existing transit services.

Impact A.3: The proposed project would increase ridership on AC Transit buses. This would be a less than significant impact.

The impacts of the proposed project to the existing AC Transit bus system were assessed. Based on the modal split assumptions derived from the Countywide Model, the proposed project has the potential to generate about 100 express and local bus trips in 2005 and 2020, during the AM peak hour. Most of these trips were assumed to be inbound to the project site. Thirteen AC Transit bus lines with frequencies ranging from 5 to 20 minutes during the peak hours serve the study area. Although based on the recent survey conducted by AC Transit, one or two buses on some lines are approaching or exceed the maximum load factor of 1.25, most existing buses during the peak hour have sufficient capacity to accommodate this increase in bus trips. So the project is not expected to require an increase in bus frequencies.

Mitigation Measure A.3: None required.

Impact A.4: The proposed project would increase ridership on BART. This would be a less than significant impact.

Based on the modal split assumptions derived from the Countywide Model, the proposed project would generate an estimated 80 to 100 BART trips in 2005 and 2020 during the AM peak hour. Since the Oakland City Center/12th Street BART station is a major transfer point served by three BART lines, the increase in passengers caused by the project in 2005 and 2020 would be accommodated (although during the peak hour many transbay trains would arrive at the station with standing room only during the peak hours).

Mitigation Measure A.4: None required.

Several spreadsheets, which provide the supporting data for the text above, are included following this page.

Project: 1640 Broadway - Segment Comparison

2005 AM & PM Peak Hour	AM								PM							
Comparison of No-Project vs Project																
Link Location	No-Proj 2005 AM Vol	Proj 2005 AM Vol	% Vol Diff	Vol Diff	No-Proj 2005 AM LOS	Proj 2005 AM LOS	Change in V/C > 3%	Change in LOS	No-Proj 2005 PM Vol	Proj 2005 PM Vol	% Vol Diff	Vol Diff	No-Proj 2005 PM LOS	Proj 2005 PM LOS	Change in V/C > 3%	Change in LOS
State Highways																
I-880 - west of I-980	4,322	4,313	*-0.2%*	-9	C	C	no	no change	4,749	4,800	*1.1%*	51	D	D	no	no change
I-880 - east of Oak Street	7,653	7,654	*0.0%*	1	E	E	no	no change	8,077	8,100	*0.3%*	23	E	E	no	no change
I-980 - north of I-880	3,413	3,548	*3.8%*	135	C	C	no	no change	3,224	3,270	*1.4%*	46	C	C	no	no change
I-980 - south of I-580	5,758	5,908	*2.5%*	150	E	E	no	no change	5,266	5,268	*0.0%*	2	D	D	no	no change
I-580 - west of I-980	8,244	8,237	*-0.1%*	-7	D	D	no	no change	9,742	9,750	*0.1%*	8	E	E	no	no change
I-580 - east of 14th Avenue	8,316	8,281	*-0.4%*	-35	E	E	no	no change	8,680	8,688	*0.1%*	8	E	E	no	no change
SR 24 - west of Caldecott Tunnel	10,408	10,466	*0.6%*	58	F	F	no	no change	9,432	9,411	*-0.2%*	-21	F	F	no	no change
SR 260 (Webster Tubes) - south of I-880	2,785	2,792	*0.3%*	7	F	F	no	no change	3,120	3,109	*-0.4%*	-11	F	F	no	no change
Arterials																
Broadway - north of 20th Street	447	467	*4.3%*	20	D	D	no	no change	256	257	*0.4%*	1	D	D	no	no change
Broadway - south of 12th Street	227	229	*0.9%*	2	D	D	no	no change	152	154	*1.3%*	2	D	D	no	no change
Harrison St - south of 11th Street	1,055	1,059	*0.4%*	4	D	D	no	no change	1,122	1,131	*0.8%*	9	D	D	no	no change
Franklin St - south of 12th Street	188	206	*8.7%*	18	D	D	no	no change	203	212	*4.2%*	9	D	D	no	no change
Webster St - south of 12th Street	933	953	*2.1%*	20	D	D	no	no change	1,378	1,401	*1.6%*	23	D	D	no	no change
7th Street - west of Clay Street	495	468	*-5.8%*	-27	D	D	no	no change	510	506	*-0.8%*	-4	D	D	no	no change
8th Street - east of Broadway	590	590	*0.0%*	0	D	D	no	no change	298	298	*0.0%*	0	D	D	no	no change
11th Street - west of MLK	1,550	1,549	*-0.1%*	-1	D	D	no	no change	648	645	*-0.5%*	-3	D	D	no	no change
12th Street - east of Broadway	285	283	*-0.7%*	-2	D	D	no	no change	448	448	*0.0%*	0	D	D	no	no change
12th Street - west of MLK	460	458	*-0.4%*	-2	D	D	no	no change	1,958	1,959	*0.1%*	1	D	D	no	no change
14th Street - east of Oak Street	313	315	*0.6%*	2	D	D	no	no change	394	402	*2.0%*	8	D	D	no	no change
14th Street - east of Broadway	115	115	*0.0%*	0	D	D	no	no change	110	115	*4.3%*	5	D	D	no	no change
Castro Street - south of 12th Street	238	240	*0.8%*	2	D	D	no	no change	648	647	*-0.2%*	-1	D	D	no	no change
Brush Street - south of 12th Street	1,835	1,833	*-0.1%*	-2	D	D	no	no change	1,196	1,200	*0.3%*	4	D	D	no	no change
Clay Street - south of 12th Street	498	497	*-0.2%*	-1	D	D	no	no change	763	760	*-0.4%*	-3	D	D	no	no change
San Pablo Ave - north of 20th Street	243	242	*-0.4%*	-1	D	D	no	no change	346	376	*8.0%*	30	D	D	no	no change
Telegraph Avenue - north of 17th Street	310	320	*3.1%*	10	D	D	no	no change	355	367	*3.3%*	12	D	D	no	no change
	60,681	**61,023**		**342**					**63,075**	**63,274**		**199**				

Note: Comparison Table shows only peak direction volume
Note: All volumes are in vehicles per hour (vph)
Note: Impact is indicated by change in LOS with the addition of project traffic

Project: 1640 Broadway - Segment Comparison

2020 AM & PM Peak Hour	AM								PM							
Comparison of No-Project vs Project																
Link Location	No-Proj 2020 AM Vol	Proj 2020 AM Vol	% Vol Diff	Vol Diff	No-Proj 2020 AM LOS	Proj 2020 AM LOS	Change in V/C > 3%	Change in LOS	No-Proj 2020 PM Vol	Proj 2020 PM Vol	% Vol Diff	Vol Diff	No-Proj 2020 PM LOS	Proj 2020 PM LOS	Change in V/C > 3%	Change in LOS
State Highways																
I-880 - west of I-980	4,567	4,574	0.2%	7	D	D	no	no change	4,677	4,707	0.6%	30	D	D	no	no change
I-880 - east of Oak Street	8,027	7,977	-0.6%	-50	E	E	no	no change	8,659	8,663	0.0%	4	E	E	no	no change
I-980 - north of I-880	4,875	4,993	2.4%	118	D	D	no	no change	4,446	4,526	1.8%	80	C	C	no	no change
I-980 - south of I-580	6,379	6,453	1.1%	74	E	E	no	no change	5,873	5,908	0.6%	35	E	E	no	no change
I-580 - west of I-980	8,436	8,419	-0.2%	-17	D	D	no	no change	9,793	9,770	-0.2%	-23	E	E	no	no change
I-580 - east of 14th Avenue	8,595	8,555	-0.5%	-40	E	E	no	no change	8,968	8,978	0.1%	10	E	E	no	no change
SR 24 - west of Caldecott Tunnel	11,092	11,160	0.6%	68	F	F	no	no change	10,315	10,428	1.1%	113	F	F	no	no change
SR 260 (Webster Tubes) - south of I-880	3,292	3,373	2.4%	81	F	F	no	no change	3,426	3,512	2.4%	86	F	F	no	no change
Arterials																
Broadway - north of 20th Street	506	523	3.3%	17	D	D	no	no change	290	292	0.7%	2	D	D	no	no change
Broadway - south of 12th Street	260	264	1.5%	4	D	D	no	no change	154	156	1.3%	2	D	D	no	no change
Harrison St - south of 11th Street	1,066	1,091	2.3%	25	D	D	no	no change	1,415	1,515	6.6%	100	D	D	no	no change
Franklin St - south of 12th Street	204	220	7.3%	16	D	D	no	no change	225	245	8.2%	20	D	D	no	no change
Webster St - south of 12th Street	614	627	2.1%	13	D	D	no	no change	990	995	0.5%	5	D	D	no	no change
7th Street - west of Clay Street	105	116	9.5%	11	D	D	no	no change	88	88	0.0%	0	D	D	no	no change
8th Street - east of Broadway	713	716	0.4%	3	D	D	no	no change	452	460	1.7%	8	D	D	no	no change
11th Street - west of MLK	1,426	1,417	-0.6%	-9	D	D	no	no change	611	608	-0.5%	-3	D	D	no	no change
12th Street - east of Broadway	324	320	-1.3%	-4	D	D	no	no change	539	599	10.0%	60	D	D	no	no change
12th Street - west of MLK	520	507	-2.6%	-13	D	D	no	no change	2,129	2,173	2.0%	44	D	E	no	change
14th Street - east of Oak Street	459	469	2.1%	10	D	D	no	no change	436	428	-1.9%	-8	D	D	no	no change
14th Street - east of Broadway	117	117	0.0%	0	D	D	no	no change	173	208	16.8%	35	D	D	no	no change
Castro Street - south of 12th Street	242	240	-0.8%	-2	D	D	no	no change	471	471	0.0%	0	D	D	no	no change
Brush Street - south of 12th Street	1,281	1,274	-0.5%	-7	D	D	no	no change	807	792	-1.9%	-15	D	D	no	no change
Clay Street - south of 12th Street	509	498	-2.2%	-11	D	D	no	no change	835	817	-2.2%	-18	D	D	no	no change
San Pablo Ave - north of 20th Street	306	310	1.3%	4	D	D	no	no change	447	462	3.2%	15	D	D	no	no change
Telegraph Avenue - north of 17th Street	232	253	8.3%	21	D	D	no	no change	195	211	7.6%	16	D	D	no	no change
	64,147	64,466		319					66,414	67,012		598				

Note: Comparison Table shows only peak direction volume
Note: All volumes are in vehicles per hour (vph)
Note: Impact is indicated by change in LOS with the addition of project traffic

Project: 1640 Broadway EIR - MTS Segment Evaluation for CMP Analysis
2005 AM Peak Hour
No-Project

Link Location	NB/EB Volume	Cap.	V/C	Lanes	SB/WB Volume	Cap.	V/C	Lanes	Peak Dir. Volume	Peak Dir. Lanes	Peak Dir. V/C	Peak Dir. LOS	Facility Type
State Highways													
I-880 - west of I-980	3,331	6760	0.49	3	4,322	6760	0.64	3	4,322	3	0.64	C	FWY
I-880 - east of Oak Street	6,045	9020	0.67	4	7,653	9020	0.85	4	7,653	4	0.85	E	FWY
I-980 - north of I-880	2,903	6760	0.43	3	3,413	6760	0.50	3	3,413	3	0.50	C	FWY
I-980 - south of I-580	2,510	6760	0.37	3	6,758	6760	0.85	3	6,758	3	0.85	E	FWY
I-580 - west of I-980	7,137	11270	0.63	5	8,244	11270	0.73	5	8,244	5	0.73	D	FWY
I-580 - east of 14th Avenue	5,739	9020	0.64	4	8,316	9020	0.92	4	8,316	4	0.92	E	FWY
SR 24 - west of Caldecott Tunnel	4,027	4510	0.89	2	10,408	9020	1.15	4	10,408	4	1.15	F	FWY
SR 260 (Webster Tubes) - south of I-880	2,785	3200	0.87	2	2,489	3200	0.78	2	2,785	2	0.87	F	Class I
Arterials													
Broadway - north of 20th Street	65	1740	0.04	2	447	1740	0.26	2	447	2	0.26	D	Class 2
Broadway - south of 12th Street	17	1700	0.01	2	227	1700	0.13	2	227	2	0.13	D	Class 3
Harrison St - south of 11th Street	1,055	2570	0.41	3	0	#N/A	#N/A	0	1,055	3	0.41	D	Class 3
Franklin St - south of 12th Street	1186	3140	0.06	4	0	#N/A	#N/A	0	188	4	0.06	D	Class 3
Webster St - south of 12th Street	0	#N/A	#N/A	0	933	3140	0.30	4	933	4	0.30	D	Class 3
7th Street - west of Clay Street	1,495	3230	0.15	4	0	#N/A	#N/A	0	1,495	4	0.15	D	Class 2
8th Street - east of Broadway	0	#N/A	#N/A	0	590	3140	0.19	4	590	4	0.19	D	Class 3
11th Street - west of MLK	1,550	3230	0.48	4	0	#N/A	#N/A	0	1,550	4	0.48	D	Class 2
12th Street - east of Broadway	0	#N/A	#N/A	0	285	2570	0.11	3	285	3	0.11	D	Class 3
12th Street - west of MLK	0	#N/A	#N/A	0	460	2640	0.17	3	460	3	0.17	D	Class 2
14th Street - east of Oak Street	75	1740	0.04	2	313	1740	0.18	2	313	2	0.18	D	Class 2
14th Street - east of Broadway	115	1700	0.07	2	29	1700	0.02	2	115	2	0.07	D	Class 3
Castro Street - south of 12th Street	238	2640	0.09	3	0	#N/A	#N/A	0	238	3	0.09	D	Class 2
Brush Street - south of 12th Street	0	#N/A	#N/A	0	1,835	2640	0.70	3	1,835	3	0.70	D	Class 2
Clay Street - south of 12th Street	498	1740	0.29	2	23	1740	0.01	2	498	2	0.29	D	Class 2
San Pablo Ave - north of 20th Street	248	1740	0.01	2	248	1740	0.14	2	248	2	0.14	D	Class 2
Telegraph Avenue - north of 17th Street	30	1740	0.02	2	310	1740	0.18	2	310	2	0.18	D	Class 2
	38,835				56,298				60,681				

Project: 1640 Broadway EIR - MTS Segment Evaluation for CMP Analysis
2005 PM Peak Hour
No-Project

Link Location	NB/EB Volume	Cap.	V/C	Lanes	SB/WB Volume	Cap.	V/C	Lanes	Peak Dir. Volume	Peak Dir. Lanes	Peak Dir. V/C	Peak Dir. LOS	Facility Type
State Highways													
I-880 - west of I-980	4,749	6760	0.70	3	4,437	6760	0.66	3	4,749	3	0.70	D	FWY
I-880 - east of Oak Street	8,077	9020	0.90	4	6,547	9020	0.73	4	8,077	4	0.90	E	FWY
I-980 - north of I-880	3,224	6760	0.48	3	3,040	6760	0.45	3	3,224	3	0.48	C	FWY
I-980 - south of I-580	5,268	6760	0.78	3	2,987	6760	0.44	3	5,268	3	0.78	D	FWY
I-580 - west of I-980	9,742	11270	0.86	5	7,406	11270	0.66	5	9,742	5	0.86	E	FWY
I-580 - east of 14th Avenue	8,680	9020	0.96	4	6,008	9020	0.67	4	8,680	4	0.96	E	FWY
SR 24 - west of Caldecott Tunnel	9,432	9020	1.05	4	6,033	4510	1.34	2	9,432	4	1.05	F	FWY
SR 260 (Webster Tubes) - south of I-880	2,592	3200	0.81	2	3,120	3200	0.98	2	3,120	2	0.98	F	Class1
Arterials													
Broadway - north of 20th Street	256	1740	0.15	2	240	1740	0.14	2	256	2	0.15	D	Class 2
Broadway - south of 12th Street	77	1700	0.05	2	152	1700	0.09	2	152	2	0.09	D	Class 3
Harrison St - south of 11th Street	1122	2570	0.44	3	0	#N/A	#N/A	0	1122	3	0.44	D	Class 3
Franklin St - south of 12th Street	203	3140	0.06	4	0	#N/A	#N/A	0	203	4	0.06	D	Class 3
Webster St - south of 12th Street	0	#N/A	#N/A	0	1378	3140	0.44	4	1378	4	0.44	D	Class 3
7th Street - west of Clay Street	510	3230	0.16	4	0	#N/A	#N/A	0	510	4	0.16	D	Class 2
8th Street - east of Broadway	0	#N/A	#N/A	0	298	3140	0.09	4	298	4	0.09	D	Class 3
11th Street - west of MLK	648	3230	0.20	4	0	#N/A	#N/A	0	648	4	0.20	D	Class 2
12th Street - east of Broadway	0	#N/A	#N/A	0	448	2570	0.17	3	448	3	0.17	D	Class 3
12th Street - west of MLK	0	#N/A	#N/A	0	1956	2640	0.74	3	1956	3	0.74	D	Class 2
14th Street - east of Oak Street	394	1740	0.23	2	82	1740	0.05	2	394	2	0.23	D	Class 2
14th Street - east of Broadway	88	1700	0.05	2	110	1700	0.06	2	110	2	0.06	D	Class 3
Castro Street - south of 12th Street	646	2640	0.25	3	0	#N/A	#N/A	0	646	3	0.25	D	Class 2
Brush Street - south of 12th Street	0	#N/A	#N/A	0	1196	2640	0.45	3	1196	3	0.45	D	Class 2
Clay Street - south of 12th Street	765	1740	0.44	2	38	1740	0.02	2	765	2	0.44	D	Class 2
San Pablo Ave - north of 20th Street	155	1740	0.09	2	346	1740	0.20	2	346	2	0.20	D	Class 2
Telegraph Avenue - north of 17th Street	51	1740	0.03	2	355	1740	0.20	2	355	2	0.20	D	Class 2
	56,675				46,179				63,075				

Project: 1640 Broadway EIR - MTS Segment Evaluation for CMP Analysis
2005 AM Peak Hour
With-Project

Link Location	NB/EB Volume	Cap.	V/C	Lanes	SB/WB Volume	Cap.	V/C	Lanes	Peak Dir. Volume	Peak Dir. Lanes	Peak Dir. V/C	Peak Dir. LOS	Facility Type
State Highways													
I-880 - west of I-980	3,189	6760	0.47	3	4,313	6760	0.64	3	4,313	3	0.64	C	FWY
I-880 - east of Oak Street	6,042	9020	0.67	4	7,654	9020	0.85	4	7,654	4	0.85	E	FWY
I-980 - north of I-880	2,884	6760	0.43	3	3,548	6760	0.52	3	3,548	3	0.52	C	FWY
I-980 - south of I-580	2,496	6760	0.37	3	5,908	6760	0.87	3	5,908	3	0.87	E	FWY
I-580 - west of I-980	7,306	11270	0.65	5	8,237	11270	0.73	5	8,237	5	0.73	D	FWY
I-580 - east of 14th Avenue	5,745	9020	0.64	4	8,281	9020	0.92	4	8,281	4	0.92	E	FWY
SR 24 - west of Caldecott Tunnel	4,013	4510	0.89	2	10,466	9020	1.16	4	10,466	4	1.16	F	FWY
SR 280 (Webster Tubes) - south of I-880	2,782	3200	0.87	2	2,476	3200	0.77	2	2,782	2	0.87	F	Class1
Arterials													
Broadway - north of 20th Street	65	1740	0.04	2	467	1740	0.27	2	467	2	0.27	D	Class 2
Broadway - south of 12th Street	18	1700	0.01	2	229	1700	0.13	2	229	2	0.13	D	Class 3
Harrison St - south of 11th Street	1,059	2570	0.41	3	0	#N/A	#N/A	0	1,059	3	0.41	D	Class 3
Franklin St - south of 12th Street	206	3140	0.07	4	0	#N/A	#N/A	0	206	4	0.07	D	Class 3
Webster St - south of 12th Street	0	#N/A	#N/A	0	953	3140	0.30	4	953	4	0.30	D	Class 3
7th Street - west of Clay Street	468	3230	0.14	4	0	#N/A	#N/A	0	468	4	0.14	D	Class 2
8th Street - east of Broadway	0	#N/A	#N/A	0	590	3140	0.19	4	590	4	0.19	D	Class 3
11th Street - west of MLK	1,549	3230	0.48	4	0	#N/A	#N/A	0	1,549	4	0.48	D	Class 2
12th Street - east of Broadway	0	#N/A	#N/A	0	283	2570	0.11	3	283	3	0.11	D	Class 3
12th Street - west of MLK	0	#N/A	#N/A	0	458	2640	0.17	3	458	3	0.17	D	Class 2
14th Street - east of Oak Street	175	1740	0.04	2	315	1740	0.18	2	315	2	0.18	D	Class 2
14th Street - east of Broadway	115	1700	0.07	2	29	1700	0.02	2	115	2	0.07	D	Class 3
Castro Street - south of 12th Street	240	2640	0.09	3	0	#N/A	#N/A	0	240	3	0.09	D	Class 2
Brush Street - south of 12th Street	0	#N/A	#N/A	0	1,833	2640	0.69	3	1833	3	0.69	D	Class 2
Clay Street - south of 12th Street	497	1740	0.29	2	223	1740	0.01	2	497	2	0.29	D	Class 2
San Pablo Ave - north of 20th Street	24	1740	0.01	2	242	1740	0.14	2	242	2	0.14	D	Class 2
Telegraph Avenue - north of 17th Street	386	1740	0.02	2	320	1740	0.18	2	20	2	0.18	D	Class 2
	38,821				56,624				61,023				

Project: 1640 Broadway EIR - MTS Segment Evaluation for CMP Analysis
2005 PM Peak Hour
With-Project

Link Location	NB/EB Volume	Cap.	V/C	Lanes	SB/WB Volume	Cap.	V/C	Lanes	Peak Dir. Volume	Peak Dir. Lanes	Peak Dir. V/C	Peak Dir. LOS	Facility Type
State Highways													
I-880 - west of I-980	4,600	6760	0.71	3	4,488	6760	0.66	3	4,600	3	0.71	D	FWY
I-880 - east of Oak Street	8,100	9020	0.90	4	6,538	9020	0.72	4	8,100	4	0.90	E	FWY
I-980 - north of I-880	3,157	6760	0.47	3	3,270	6760	0.48	3	3,270	3	0.48	C	FWY
I-980 - south of I-580	5,268	6760	0.78	3	6,034	6760	0.45	3	6,268	3	0.78	D	FWY
I-580 - west of I-980	9,750	11270	0.87	5	7,369	11270	0.65	5	9,750	5	0.87	E	FWY
I-580 - east of 14th Avenue	8,688	9020	0.96	4	6,011	9020	0.67	4	8,688	4	0.96	E	FWY
SR 24 - west of Caldecott Tunnel	9,411	9020	1.04	4	6,032	4510	1.34	2	9,411	4	1.04	F	FWY
SR 260 (Webster Tubes) - south of I-880	2,593	3200	0.81	2	3,109	3200	0.97	2	3,109	2	0.97	F	Class1
Arterials													
Broadway - north of 20th Street	257	1740	0.15	2	249	1740	0.14	2	267	2	0.15	D	Class 2
Broadway - south of 12th Street	84	1700	0.05	2	154	1700	0.09	2	154	2	0.09	D	Class 3
Harrison St - south of 11th Street	1,131	2570	0.44	3	0	#N/A	#N/A	0	1,131	3	0.44	D	Class 3
Franklin St - south of 12th Street	212	3140	0.07	4	0	#N/A	#N/A	0	212	4	0.07	D	Class 3
Webster St - south of 12th Street	0	#N/A	#N/A	0	1,401	3140	0.45	4	1,401	4	0.45	D	Class 3
7th Street - west of Clay Street	506	3230	0.16	4	0	#N/A	#N/A	0	506	4	0.16	D	Class 2
8th Street - east of Broadway	0	#N/A	#N/A	0	298	3140	0.09	4	298	4	0.09	D	Class 3
11th Street - west of MLK	645	3230	0.20	4	0	#N/A	#N/A	0	645	4	0.20	D	Class 2
12th Street - east of Broadway	0	#N/A	#N/A	0	448	2570	0.17	3	448	3	0.17	D	Class 3
12th Street - west of MLK	0	#N/A	#N/A	0	1,959	2640	0.74	3	1,959	3	0.74	D	Class 2
14th Street - east of Oak Street	402	1740	0.23	2	82	1740	0.05	2	402	2	0.23	D	Class 2
14th Street - east of Broadway	88	1700	0.05	2	115	1700	0.07	2	115	2	0.07	D	Class 3
Castro Street - south of 12th Street	647	2640	0.25	3	0	#N/A	#N/A	0	647	3	0.25	D	Class 2
Brush Street - south of 12th Street	0	#N/A	#N/A	0	1,200	2640	0.45	3	1,200	3	0.45	D	Class 2
Clay Street - south of 12th Street	760	1740	0.44	2	38	1740	0.02	2	760	2	0.44	D	Class 2
San Pablo Ave - north of 20th Street	157	1740	0.09	2	376	1740	0.22	2	376	2	0.22	D	Class 2
Telegraph Avenue - north of 17th Street	50	1740	0.03	2	367	1740	0.21	2	367	2	0.21	D	Class 2
	56,704				46,538				63,274				

Project: 1640 Broadway EIR - MTS Segment Evaluation for CMP Analysis
2020 AM Peak Hour
No-Project

Link Location	NB/EB Volume	Cap.	V/C	Lanes	SB/WB Volume	Cap.	V/C	Lanes	Peak Dir. Volume	Peak Dir. Lanes	Peak Dir. V/C	Peak Dir. LOS	Facility Type
State Highways													
I-880 - west of I-980	3,215	6760	0.48	3	4,567	6760	0.68	3	4,567	3	0.68	D	FWY
I-880 - east of Oak Street	5,877	9020	0.65	4	8,027	9020	0.89	4	8,027	4	0.89	E	FWY
I-980 - north of I-880	2,641	6760	0.42	3	4,875	6760	0.72	3	4,875	3	0.72	D	FWY
I-980 - south of I-580	2,600	6760	0.38	3	6,379	6760	0.94	3	6,379	3	0.94	E	FWY
I-580 - west of I-980	6,871	11270	0.61	5	8,436	11270	0.75	5	8,436	5	0.75	D	FWY
I-580 - east of 14th Avenue	5,502	9020	0.61	4	8,595	9020	0.95	4	8,595	4	0.95	E	FWY
SR 24 - west of Caldecott Tunnel	4,188	4510	0.92	2	11,092	9020	1.23	4	11,092	4	1.23	F	FWY
SR 260 (Webster Tubes) - south of I-880	2,923	3200	0.91	2	3,292	3200	1.03	2	3,292	2	1.03	F	Class1
Arterials													
Broadway - north of 20th Street	71	1740	0.04	2	506	1740	0.29	2	506	2	0.29	D	Class 2
Broadway - south of 12th Street	17	1700	0.01	2	260	1700	0.15	2	260	2	0.15	D	Class 3
Harrison St - south of 11th Street	1,066	2570	0.41	3	0	#N/A	#N/A	0	1,066	3	0.41	D	Class 3
Franklin St - south of 12th Street	204	3140	0.06	4	0	#N/A	#N/A	0	204	4	0.06	D	Class 3
Webster St - south of 12th Street	0	#N/A	#N/A	0	614	3140	0.20	4	614	4	0.20	D	Class 3
7th Street - west of Clay Street	105	3230	0.03	4	0	#N/A	#N/A	0	105	4	0.03	D	Class 2
8th Street - east of Broadway	0	#N/A	#N/A	0	713	3140	0.23	4	713	4	0.23	D	Class 3
11th Street - west of MLK	1,428	3230	0.44	4	0	#N/A	#N/A	0	1,428	4	0.44	D	Class 2
12th Street - east of Broadway	0	#N/A	#N/A	0	324	2570	0.13	3	324	3	0.13	D	Class 3
12th Street - west of MLK	0	#N/A	#N/A	0	520	2640	0.20	3	520	3	0.20	D	Class 2
14th Street - east of Oak Street	74	1740	0.04	2	456	1740	0.26	2	456	2	0.26	D	Class 2
14th Street - east of Broadway	117	1700	0.07	2	35	1700	0.02	2	117	2	0.07	D	Class 3
Castro Street - south of 12th Street	242	2640	0.09	3	0	#N/A	#N/A	0	242	3	0.09	D	Class 2
Brush Street - south of 12th Street	0	#N/A	#N/A	0	261	2640	0.49	3	128	3	0.49	D	Class 2
Clay Street - south of 12th Street	509	1740	0.29	2	22	1740	0.01	2	509	2	0.29	D	Class 2
San Pablo Ave - north of 20th Street	30	1740	0.02	2	306	1740	0.18	2	306	2	0.18	D	Class 2
Telegraph Avenue - north of 17th Street	423	1740	0.02	2	232	1740	0.13	2	232	2	0.13	D	Class 2
	37,900				60,535				64,147				

Project: 1640 Broadway EIR - MTS Segment Evaluation for CMP Analysis
2020 PM Peak Hour
No-Project

Link Location	NB/EB Volume	Cap.	V/C	Lanes	SB/WB Volume	Cap.	V/C	Lanes	Peak Dir. Volume	Peak Dir. Lanes	Peak Dir. V/C	Peak Dir. LOS	Facility Type
State Highways													
I-880 - west of I-980	4,677	6760	0.69	3	4,480	6760	0.66	3	4,677	3	0.69	D	FWY
I-880 - east of Oak Street	8,659	9020	0.96	4	6,932	9020	0.77	4	8,659	4	0.96	E	FWY
I-980 - north of I-880	3,345	6760	0.49	3	4,446	6760	0.66	3	4,446	3	0.66	C	FWY
I-980 - south of I-580	5,873	6760	0.87	3	3,463	6760	0.51	3	5,873	3	0.87	E	FWY
I-580 - west of I-980	9,793	11270	0.87	5	7,454	11270	0.66	5	9,793	5	0.87	E	FWY
I-580 - east of 14th Avenue	8,968	9020	0.99	4	5,230	9020	0.69	4	8,968	4	0.99	E	FWY
SR 24 - west of Caldecott Tunnel	10,315	9020	1.14	4	5,773	4510	1.28	2	10,315	4	1.14	F	FWY
SR 260 (Webster Tubes) - south of I-880	3,209	3200	1.00	2	3,426	3200	1.07	2	3,426	2	1.07	F	Class1
Arterials													
Broadway - north of 20th Street	290	1740	0.17	2	259	1740	0.15	2	290	2	0.17	D	Class 2
Broadway - south of 12th Street	77	1700	0.05	2	154	1700	0.09	2	154	2	0.09	D	Class 3
Harrison St - south of 11th Street	1,415	2570	0.55	3	0	#N/A	#N/A	0	1,415	3	0.55	D	Class 3
Franklin St - south of 12th Street	225	3140	0.07	4	0	#N/A	#N/A	0	225	4	0.07	D	Class 3
Webster St - south of 12th Street	103	#N/A	#N/A	0	990	3140	0.32	4	990	4	0.32	D	Class 3
7th Street - west of Clay Street	88	3230	0.03	4	0	#N/A	#N/A	0	88	4	0.03	D	Class 2
8th Street - east of Broadway	0	#N/A	#N/A	0	452	3140	0.14	4	452	4	0.14	D	Class 3
11th Street - west of MLK	611	3230	0.19	4	0	#N/A	#N/A	0	611	4	0.19	D	Class 2
12th Street - east of Broadway	0	#N/A	#N/A	0	536	2570	0.21	3	536	3	0.21	D	Class 3
12th Street - west of MLK	0	#N/A	#N/A	0	2,129	2640	0.81	3	2,129	3	0.81	D	Class 2
14th Street - east of Oak Street	436	1740	0.25	2	85	1740	0.05	2	436	2	0.25	D	Class 2
14th Street - east of Broadway	87	1700	0.05	2	173	1700	0.10	2	173	2	0.10	D	Class 3
Castro Street - south of 12th Street	471	2640	0.18	3	0	#N/A	#N/A	0	471	3	0.18	D	Class 2
Brush Street - south of 12th Street	0	#N/A	#N/A	0	807	2640	0.31	3	807	3	0.31	D	Class 2
Clay Street - south of 12th Street	835	1740	0.48	2	38	1740	0.02	2	835	2	0.48	D	Class 2
San Pablo Ave - north of 20th Street	220	1740	0.13	2	447	1740	0.26	2	447	2	0.26	D	Class 2
Telegraph Avenue - north of 17th Street	61	1740	0.04	2	195	1740	0.11	2	195	2	0.11	D	Class 2
	59,655				48,482				66,414				

Project: 1640 Broadway EIR - MTS Segment Evaluation for CMP Analysis
2020 AM Peak Hour
Project

Link Location	NB/EB Volume	Cap.	V/C	Lanes	SB/WB Volume	Cap.	V/C	Lanes	Peak Dir. Volume	Peak Dir. Lanes	Peak Dir. V/C	Peak Dir. LOS	Facility Type
State Highways													
I-880 - west of I-980	3,197	6760	0.47	3	4,574	6760	0.68	3	4,574	3	0.68	D	FWY
I-880 - east of Oak Street	5,837	9020	0.65	4	7,977	9020	0.88	4	7,977	4	0.88	E	FWY
I-980 - north of I-880	2,868	6760	0.42	3	4,993	6760	0.74	3	4,993	3	0.74	D	FWY
I-980 - south of I-580	2,817	6760	0.39	3	6,453	6760	0.95	3	6,453	3	0.95	E	FWY
I-580 - west of I-980	6,882	11270	0.61	5	8,419	11270	0.75	5	8,419	5	0.75	D	FWY
I-580 - east of 14th Avenue	5,464	9020	0.61	4	8,555	9020	0.95	4	8,555	4	0.95	E	FWY
SR 24 - west of Caldecott Tunnel	4,209	4510	0.93	2	11,160	9020	1.24	4	11,160	4	1.24	F	FWY
SR 260 (Webster Tubes) - south of I-880	2,697	3200	0.94	2	3,373	3200	1.05	2	3,373	2	1.05	F	Class1
Arterials													
Broadway - north of 20th Street	715	1740	0.04	2	523	1740	0.30	2	523	2	0.30	D	Class 2
Broadway - south of 12th Street	117	1700	0.01	2	264	1700	0.16	2	264	2	0.16	D	Class 3
Harrison St - south of 11th Street	1,091	2570	0.42	3	0	#N/A	#N/A	0	1,091	3	0.42	D	Class 3
Franklin St - south of 12th Street	220	3140	0.07	4	108	#N/A	#N/A	0	220	4	0.07	D	Class 3
Webster St - south of 12th Street	0	#N/A	#N/A	0	627	3140	0.20	4	627	4	0.20	D	Class 3
7th Street - west of Clay Street	116	3230	0.04	4	0	#N/A	#N/A	0	116	4	0.04	D	Class 2
8th Street - east of Broadway	0	#N/A	#N/A	0	716	3140	0.23	4	716	4	0.23	D	Class 3
11th Street - west of MLK	1,417	3230	0.44	4	0	#N/A	#N/A	0	1,417	4	0.44	D	Class 2
12th Street - east of Broadway	0	#N/A	#N/A	0	320	2570	0.12	3	320	3	0.12	D	Class 3
12th Street - west of MLK	0	#N/A	#N/A	0	507	2640	0.19	3	507	3	0.19	D	Class 2
14th Street - east of Oak Street	74	1740	0.04	2	469	1740	0.27	2	469	2	0.27	D	Class 2
14th Street - east of Broadway	117	1700	0.07	2	35	1700	0.02	2	117	2	0.07	D	Class 3
Castro Street - south of 12th Street	240	2640	0.09	3	0	#N/A	#N/A	0	240	3	0.09	D	Class 2
Brush Street - south of 12th Street	0	#N/A	#N/A	0	1274	2640	0.48	3	1274	3	0.48	D	Class 2
Clay Street - south of 12th Street	488	1740	0.29	2	21	1740	0.01	2	488	2	0.29	D	Class 2
San Pablo Ave - north of 20th Street	30	1740	0.02	2	310	1740	0.18	2	310	2	0.18	D	Class 2
Telegraph Avenue - north of 17th Street	43	1740	0.02	2	283	1740	0.15	2	283	2	0.15	D	Class 2
	38,025				60,825				64,466				

Project: 1640 Broadway EIR - MTS Segment Evaluation for CMP Analysis
2020 PM Peak Hour
Project

Link Location	NB/EB Volume	Cap.	V/C	Lanes	SB/WB Volume	Cap.	V/C	Lanes	Peak Dir. Volume	Peak Dir. Lanes	Peak Dir. V/C	Peak Dir. LOS	Facility Type
State Highways													
I-880 - west of I-980	4,707	6760	0.70	3	4,530	6760	0.67	3	4,707	3	0.70	D	FWY
I-880 - east of Oak Street	8,663	9020	0.96	4	6,898	9020	0.76	4	8,663	4	0.96	E	FWY
I-980 - north of I-880	3,286	6760	0.49	3	4,526	6760	0.67	3	4,526	3	0.67	C	FWY
I-980 - south of I-580	5,908	6760	0.87	3	3,548	6760	0.52	3	5,908	3	0.87	E	FWY
I-580 - west of I-980	9,770	11270	0.87	5	7,320	11270	0.65	5	9,770	5	0.87	E	FWY
I-580 - east of 14th Avenue	8,978	9020	1.00	4	6,221	9020	0.69	4	8,978	4	1.00	E	FWY
SR 24 - west of Caldecott Tunnel	10,428	9020	1.16	4	5,784	4510	1.28	2	10,428	4	1.16	F	FWY
SR 260 (Webster Tubes) - south of I-880	3,340	3200	1.04	2	3,512	3200	1.10	2	3,512	2	1.10	F	Class1
Arterials													
Broadway - north of 20th Street	292	1740	0.17	2	288	1740	0.15	2	292	2	0.17	D	Class 2
Broadway - south of 12th Street	178	1700	0.05	2	156	1700	0.09	2	156	2	0.09	D	Class 3
Harrison St - south of 11th Street	1,515	2570	0.59	3	0	#N/A	#N/A	0	1,515	3	0.59	D	Class 3
Franklin St - south of 12th Street	245	3140	0.08	4	0	#N/A	#N/A	0	245	4	0.08	D	Class 3
Webster St - south of 12th Street	0	#N/A	#N/A	0	995	3140	0.32	4	995	4	0.32	D	Class 3
7th Street - west of Clay Street	68	3230	0.03	4	0	#N/A	#N/A	0	68	4	0.03	D	Class 2
8th Street - east of Broadway	0	#N/A	#N/A	0	480	3140	0.15	4	480	4	0.15	D	Class 3
11th Street - west of MLK	606	3230	0.19	4	0	#N/A	#N/A	0	606	4	0.19	D	Class 2
12th Street - east of Broadway	0	#N/A	#N/A	0	599	2570	0.23	3	599	3	0.23	D	Class 3
12th Street - west of MLK	0	#N/A	#N/A	0	2,173	2640	0.82	3	2,173	3	0.82	E	Class 2
14th Street - east of Oak Street	428	1740	0.25	2	86	1740	0.05	2	428	2	0.25	D	Class 2
14th Street - east of Broadway	861	1700	0.05	2	208	1700	0.12	2	208	2	0.12	D	Class 3
Castro Street - south of 12th Street	471	2640	0.18	3	0	#N/A	#N/A	0	471	3	0.18	D	Class 2
Brush Street - south of 12th Street	0	#N/A	#N/A	0	792	2640	0.30	3	792	3	0.30	D	Class 2
Clay Street - south of 12th Street	817	1740	0.47	2	39	1740	0.02	2	817	2	0.47	D	Class 2
San Pablo Ave - north of 20th Street	254	1740	0.15	2	482	1740	0.27	2	482	2	0.27	D	Class 2
Telegraph Avenue - north of 17th Street	821	1740	0.04	2	215	1740	0.12	2	821	2	0.12	D	Class 2
	60,034				48,798				67,012				

APPENDIX D

AIR QUALITY ANALYSIS
MODELING ASSUMPTIONS

APPENDIX D

AIR QUALITY METHODOLOGY AND ASSUMPTIONS

A. URBEMIS-7G

Estimates of regional emissions generated by project-related traffic were made using a program called URBEMIS-5, prepared by the California Air Resources Board (URBEMIS-5 Computer Program Version 5.0 User Guide, July, 1995). This is a program which estimates the emissions that result from various land use development projects. Land use projects can include residential uses such as single-family dwelling units, apartments and condominiums, and non-residential uses such as shopping centers, office buildings and industrial parks. URBEMIS-5 contains default values for much of the information needed to calculate emissions, although project-specific information provided by the user can also be applied, when available.

Inputs to the URBEMIS-5 program include trip generation rates, vehicle mix, average trip length by trip type and average speed. Trip generation rates for project land uses were taken from the Dowling Associates' traffic analysis (**Appendix C**). Average trip lengths and vehicle mix for the Bay Area Air Basin were used. Average speed for all types of trips was assumed to be 25 miles per hour.

The URBEMIS runs assumed summer conditions for all pollutants except carbon monoxide, since winter conditions would represent worst-case values in the case of that particular pollutant. Default values for cold-start percentages were used. The URBEMIS-5 program provides emission rates for Total Organic Gases (TOG). The TOG emission was multiplied by 0.915 to estimated Reactive Organic Gases.

B. CALINE-4 MODELING

The CALINE-4 model is a fourth-generation line source air quality model based on the Gaussian diffusion equation. It employs a mixing zone concept in characterizing pollutant dispersion over roadways and intersections. Given source strength, meteorology, site geometry and site characteristics, this model predicts pollutant concentrations for receptors located within 150 meters of the roadway or intersection of concern.

A screening-level form of the CALINE-4 program provided in the Bay Area Air Quality Management District CEQA Guidelines (1996) was used to predict carbon monoxide concentrations associated project-related traffic. Normalized concentrations for each intersection evaluated were adjusted for two-way traffic volume and emission factor. Calculations were made for a receptor at a corner of each intersection, 25 feet equidistant from the two roadways in each case.

Emission factors were derived from the California Air Resources Board EMFAC-7F computer program. An average vehicle speed of 10 miles per hour was used to represent conditions at each intersection evaluated.

The screening form of the CALINE-4 model calculates the local contribution of nearby roads to total concentration. The other contribution is the background level attributed to more distant traffic. For 2000, the 1-hour background level was taken as 6.75 PPM, while the 8-hour background concentration was taken as 5.62 PPM. For 2010, the 1-hour background level was taken as 5.22 PPM, while the 8-hour background concentration was taken as 4.35 PPM. These backgrounds were estimated using isopleth maps and correction factors developed by the Bay Area Air Quality Management District.

Eight-hour concentrations were obtained from the 1-hour output of the CALINE-4 model using a persistence factor of 0.7.

APPENDIX E

HISTORIC RESOURCES ANALYSIS FOR THE 1640 BROADWAY MIXED USE DEVELOPMENT PROJECT

ARCHITECTURAL RESOURCES GROUP

April 12, 2000

Introduction
In response to the request of Urban Developments and Lamphier & Associates, Architectural Resources Group (ARG) has prepared a review of the proposed project at 1640 Broadway in downtown Oakland, California. Our review is based on the requirements of the California Environmental Quality Act (CEQA) for identifying the impacts of proposed projects on historic and cultural resources. An ARG representative viewed the project site. In addition, the surrounding historic districts were visited to gain a sense of the overall architectural character and historical context of the adjacent historic districts. ARG has reviewed the drawings, color elevations, and project description prepared by Sandy & Babcock International dated February 10, 2000. The potential for archaeological resources has not been assessed as part of this review.

California Environmental Quality Act
Under CEQA, a project that results in a substantial adverse change in the significance of an historical resource is a project that may have a significant adverse effect on the environment. (Guidelines 15064.5 b) An historical resource is a resource listed in, or determined to be eligible for listing in, the California Register. Certain resources are automatically listed in the California Register, including California properties which are listed in or formally determined eligible for the National Register of Historic Places (National Register). Under CEQA, substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource is materially altered.

Historic Resources
The identified historical resources in relation to this project are several adjacent historic districts, as there are no existing resources on the project site. The California Public Resources Code states that an historic district is a definable unified geographic entity that possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.

There are two historic districts identified by the Oakland Cultural Heritage Survey (OCHS) within one block of the project vicinity: The Downtown Historic District and the 17th Street Commercial District. The project site is not located within the boundaries of either of these districts, but is adjacent and within one block of these resources.

Oakland's Downtown Historic District includes many fine examples of large-scale early-twentieth-century commercial architecture. The district includes approximately 17 blocks in Oakland's densest business district. This district was listed on the National Register of Historic Places in July 1998. The district was found to be locally significant for its architectural and historical importance as a major concentration of well-preserved commercial structures that document the economic and architectural development of Oakland between 1900 and 1929.

The Downtown Historic District contains approximately 60 buildings and its boundaries meander from 11th Street at Broadway, around City Hall along 14th, up to Jefferson and then along 17th Street with Franklin and Webster forming the eastern edge. The OCHS has identified National Register eligible historic districts as areas of primary importance. Since the Oakland Downtown Historic District is a listed National Register district it is assumed to be an area of primary importance.

Additionally the 17th Street Commercial District is located one block from the project site. This small district was originally composed of both sides of 17th Street between Franklin and Webster, with one building in the block to the east (325-43 17th Street). It was subsequently amended to include the structures at 300-320 17th Street, a 1920s decorative brick one-story

plus mezzanine commercial block. The district is characterized by low-rise commercial structures and was identified as potentially eligible for the National Register because it is an extremely cohesive group of 1920s commercial structures. Many buildings are unaltered and three were designed by the same architect. The district's uniformity of horizontal massing and Chicago-style fenestration is also noteworthy.

Project Description

The proposed project consists of construction of a high-rise building facing both Broadway and 17th Streets on what is presently a vacant lot. The zoning for the site is C-55/R-90 and is in the Design Review, S-8 Urban Street Combining Zone which concerns street frontage design and amenities

The project will have commercial, retail, office and residential components including 146 residential condominium lofts totaling 233,575 square feet. Additionally, there will be eight floors of office space totaling 177,600 square feet and 4,710 square feet of commercial spaces at the first floor accessible from the street. The project will include two floors of parking below grade and five floors of parking at grade. The building as proposed will be 389 feet tall and will be of concrete construction with large components of glass.

The Broadway elevation offers commercial retail space and the office entry at the first floor providing a pedestrian friendly street elevation. The 17th Street elevation continues the commercial space at the west end and provides the parking lot entry, residential entry and a loading dock at the east end of this elevation.

Project Impacts To Historic Resources

There are no historic resources present on the project parcel – it is a vacant lot and does not appear to be associated with any significant historic contexts. The proposed project does not involve the demolition, destruction, or relocation of historic resources that meet the California Register of Historical Resources criteria. Additionally, the proposed project does not affect the physical characteristics that convey the significance of the two adjacent historic districts (the 17th Street Historic District and the Downtown Oakland Historic District). While the construction of this retail/office/residential complex will change the overall urban context in this region of downtown Oakland, this urban fabric has been changing and evolving for some time including the recent construction of the Pacific Bell Building. There are no design guidelines in place that define the parameters of new construction in downtown Oakland. Additionally, there are no existing height limits and all uses are permitted outright within this zoning area.

It is the opinion of Architectural Resources Group that the construction of this building will not result in the substantial adverse change of either of the historic districts in the project vicinity. However, we suggest that any potential shadow issues be reviewed by the developer and the City of Oakland.