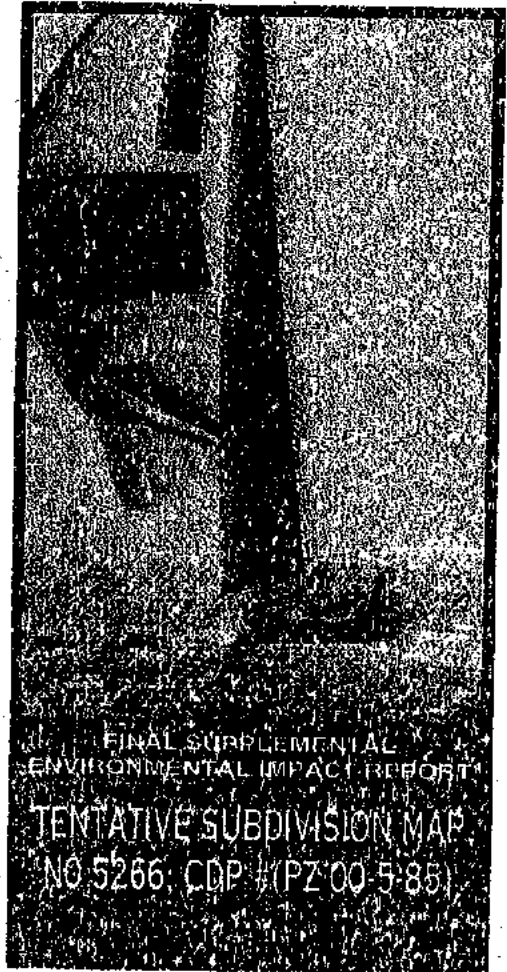
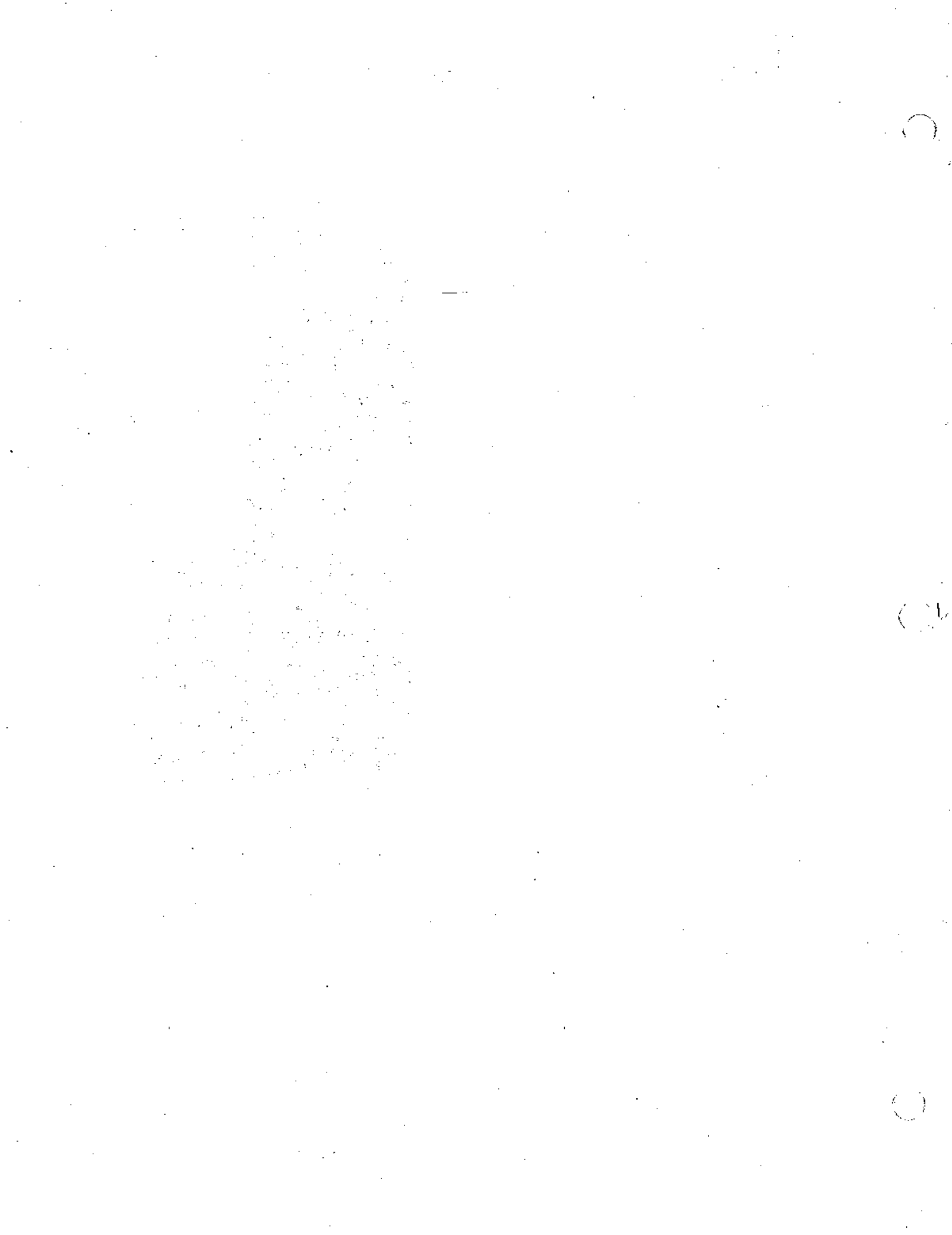


SCH No. 2001091020



FINAL SUPPLEMENTAL
ENVIRONMENTAL IMPACT REPORT

TENTATIVE SUBDIVISION MAP
NO 5266, CDP #PZ'00-5-85



**Final Supplemental
Environmental Impact Report**

**Tentative Subdivision Map No. 5266;
CDP # (PZ 00-5-85)**

State Clearinghouse No. 2001091020

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June 2002

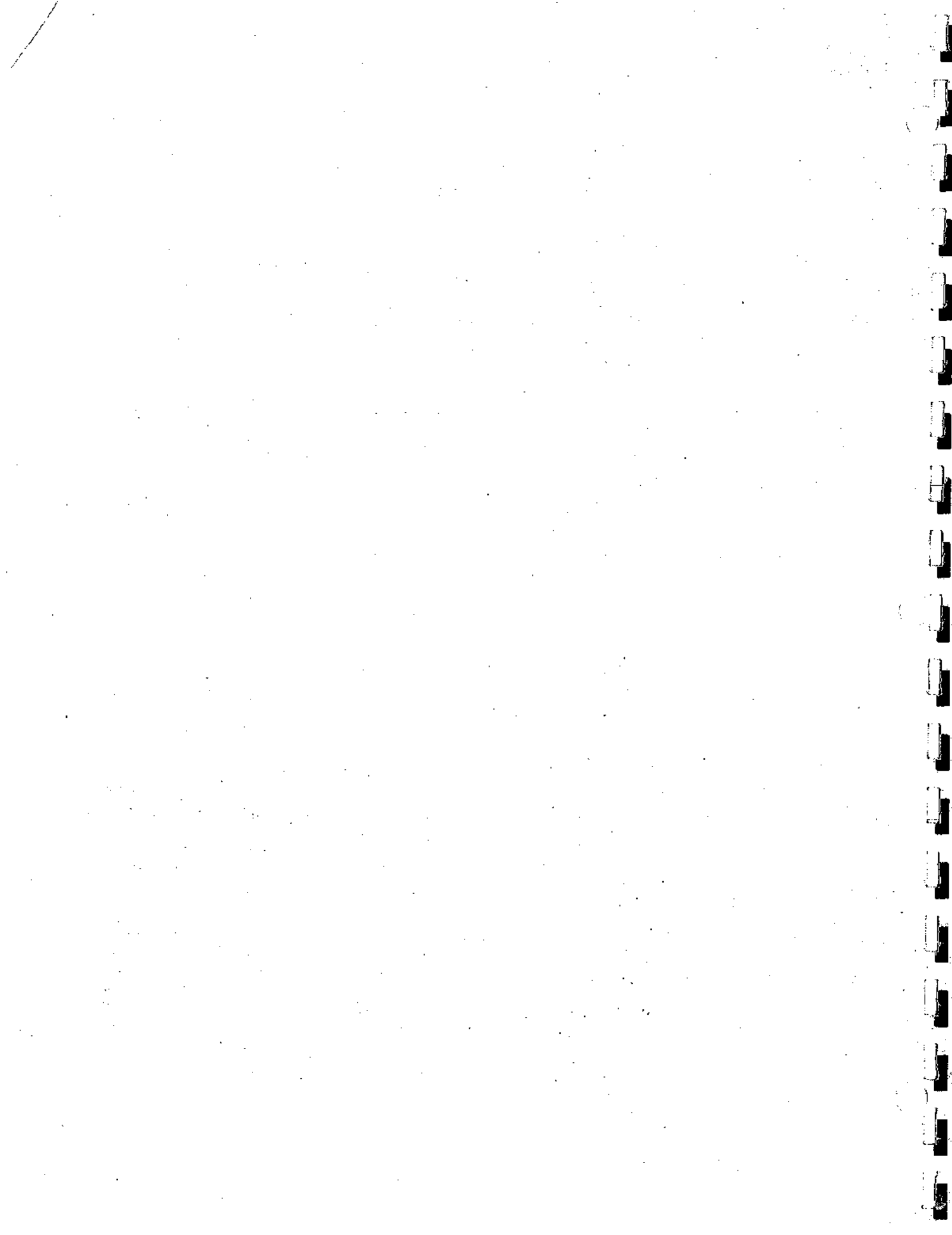


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APPENDICES

The Appendices have remained unchanged since the Draft Environmental Impact Report was circulated for public review and have not been included in the Final Environmental Impact Report (with the exception of Appendix 4.7, Air Quality, which can be found in Section 12, Errata). They are, however, available at the City of Oxnard offices, located at 305 West Third Street, Oxnard, California 93030, and are hereby incorporated by reference.

- Appendix 1.0(A)- FEIR 81-2 Mitigation Measure Applicability Analysis
- Appendix 1.0(B)- Notice of Preparation
- Appendix 1.0(C)- Notice of Preparation Response Letters
- Appendix 4.1 - Agricultural Soil Transfer Program
- Appendix 4.2 - Geotechnical Engineering Report
- Appendix 4.3 - Drainage Concept Plan, Post-Construction Storm Water Mitigation Plan, Hydrogeologic Investigation
- Appendix 4.4 - Public Boat Dock Plan and Water Quality Model Study
- Appendix 4.5(A)- Traffic Impact Study
- Appendix 4.5(B)- Boat Traffic Study
- Appendix 4.6 - Noise Calculations
- Appendix 4.7 - Air Quality Calculations and Tables (See Section 12.0 Errata)
- Appendix 4.9.1 - Sewer Study
- Appendix 5.0 - Fiscal Impact Analysis

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EXECUTIVE SUMMARY

PURPOSE

It is the intent of the Executive Summary to provide the reader with a clear and simple description of the proposed project and its potential environmental impacts. Section 15123 of the CEQA Guidelines requires that the summary identify each significant effect, recommended mitigation measure(s), and alternatives that would minimize or avoid potential significant impacts. The summary is also required to identify areas of controversy known to the lead agency, including issues raised by agencies and the public and issues to be resolved, including the choice among alternatives and whether or how to mitigate significant effects. This section focuses on the major areas of the proposed project that are important to decision-makers and utilizes non-technical language to promote understanding.

Site Location and Description

The 135.3-acre project site is located in coastal Ventura County within the incorporated boundary of the City of Oxnard. The project is located south of Wooley Road, west of Victoria Avenue, and north of Hemlock Street. The western boundary abuts a future navigation channel planned as part of the approved Tentative Subdivision Map No 5196 (TSM 5196) also called the Westport Project.

The Coastal Land Use Plan indicates that the project is located within the Mandalay Bay Phase IV Specific Plan Area, which was adopted by the California Coastal Commission in January of 1985. The Mandalay Bay Specific Plan encompasses 220 acres of land and guides development of a water-oriented community, consisting of residential, mixed use, visitor-serving commercial, public recreation, and open water for use in boater recreation and marinas. The proposed Tract 5266 that is the subject of this EIR analysis implements the final phase of the Mandalay Bay Phase IV Specific Plan.

As part of the project approval for the Mandalay Bay Phase IV Specific Plan, the City of Oxnard prepared and certified an EIR that analyzed the potential environmental effects of Specific Plan implementation. The City Council found that with mitigation, buildout of the Specific Plan would not have a significant environmental effect.

Project Description

The project represents a water-oriented, mixed-use development consisting of residential, commercial, and recreational land uses, as well as associated marina channels, roadways, and other improvements. The land plan places sensitive single family residential uses away from the primary roadways that surround the site. Less sensitive mixed use and visitor serving commercial uses are found along Wooley Road and Victoria Avenue. In addition, the tract map incorporates a development setback along Wooley Road that provides a 200-foot buffer separating proposed uses from active agricultural fields located to the north. This arrangement enhances the water-oriented nature of the community by focusing the residences along the waterfront.

Direct access to the project site would be provided via three driveways along Wooley Road, four access points along Victoria Avenue, and a proposed new road connecting to Hemlock Street. The primary access for the northern residential area would be off Wooley Road approximately 1,070 feet west of the Victoria Avenue/Wooley Road intersection. Primary access for the commercial areas would be off Victoria Avenue at Ketch Street. The internal street network consists of 56 to 60 foot-wide private roadways with collector roads serving the individual neighborhoods.

The project will create four new marina channels, three of which will be connected to the existing network while one is to be shared with the approved TSM 5196. Banks of the marina channels will be of sufficient size to accommodate boats up to 50 feet in length and will consist of either concrete seawall or revetment ("riprap") slopes depending upon location. Boat docks will extend from the banks containing slips for both public and private use. A shallow bay will be created in the northeast portion of the project site for activities such as wading, swimming, wind surfing, or paddleboats.

A total of 709 dwelling units are planned by the project. Approximately 274 single-family dwellings and 42 multi-family units are to be constructed on 33.4 acres of the site, with these units counting towards the maximum allowable density set forth by the Specific Plan. Additional residential units are allowed within the visitor serving and mixed-use areas. Under these designations, the project has an additional 393 residential units, along with approximately 167,000 square feet of commercial space. Both the mixed-use and visitor serving commercial areas are located along Victoria Avenue and Wooley Road. Approximately 35 acres of the project site is designated for such uses. The balance of the project is planned for open water (32 acres), parks and recreation (16.5 acres), and necessary infrastructure improvements.

Topics of Known Concern

City of Oxnard staff prepared a Notice of Preparation ("NOP") in order to receive input from interested public agencies and private parties. A copy of the NOP is presented in Appendix 1.0(B) of this EIR, along with a distribution list. Copies of all written responses to the NOP are presented in Appendix 1.0(C) of this EIR.

Based on the NOP, this EIR addresses the following topics:

- Land Use Planning and Agriculture
- Geotechnical and Soil Resources
- Hydrology and Drainage
- Marine Water Quality
- Transportation and Circulation
- Noise
- Air Quality
- Public Services
- Public Utilities
- Wastewater Disposal

Alternatives

Five alternatives were originally considered in the 1982 FEIR certified for the Specific Plan and this Supplemental Draft EIR has considered one additional alternative. The analysis concluded that the Recreational and Open Space Alternative was environmentally superior, but failed to meet any project objectives and was considered to be fiscally infeasible. The six alternatives are described below:

- **No Project** – This alternative assumes that the Specific Plan would not be approved and that the entire area would remain in its present agricultural state. The EIR found that while this alternative would avoid the significant impacts associated with the project, it was considered to be unlikely that the site would remain undeveloped for long given its proximity to existing urban uses and the presence of the existing urban land use designations for the site.
- **All Residential** – This alternative contemplated the rezoning of the site to R-1 (Single Family Residential), R-W (Townhouse Water Oriented), R-2 (Multi-Family residential) or R-4, (High Rise residential). This alternative was found to produce fewer students than the proposed Specific

Plan. However the three multi-family designations would increase demand for water and wastewater service over those of the proposed Specific Plan. All four would also generate a greater number of vehicle trips than predicted with buildout of the proposed Specific Plan.

- **All Commercial or Industrial** – This alternative considered the environmental effects associated with development of an industrial or commercial business park on the Specific Plan site. The analysis concluded that these uses are not compatible with existing residential development. It also found that such a project would be better suited along U.S. Highway 101, away from coastal resources.
- **Recreational and Open Space Alternative** – This alternative considered the environmental impacts of having the City or other public agency purchase the property for preservation as permanent open space. This alternative avoided all significant impacts but was determined fiscally infeasible due to the cost of land acquisition.
- **Alternative Site Plan** – This alternative considered a modified site plan that altered the configuration and location of various land use components to address aesthetic concerns. This alternative was found preferable to the proposed Specific Plan in the areas of aesthetics and water quality and was found to be feasible.
- **Elementary School Alternative** – Buildout of a school alternative involves construction of an elementary school and a park on 9 acres of land located due west of the entrance to the main island along Wooley Road. This area was originally planned for 87 townhouse units adjacent to a 1.4-acre public park. The balance of the land plan remains unchanged. This alternative was found to result in impacts similar to those of the proposed project, with the exception of air quality.

Table ES-1
Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measure	Residual Impact
<p>LAND USE AND PLANNING</p> <p>The project can be considered consistent with the Coastal Access and Recreation Policies, Coastal Resource Policies, Hazards Policies, and Development Policies of the Coastal Act and Coastal Land Use Plan for the City. Tentative Tract Map 5266 has been designed consistent with the conceptual land use plan identified in the Mandalay Bay Phase IV Specific Plan, contains the amount and type of land uses prescribed by the Specific Plan, and incorporates the development setbacks and buffers required by the Specific Plan.</p> <p>The project will convert agricultural land to urban use consistent with the site's location within the City's Urban Restriction Boundary. As part of the project, the top two feet of prime soil would be removed from the site consistent with the Soil Transfer Program and deposited on another site where the soil can be beneficially used for future agricultural activities.</p>	<p>None Required.</p>	<p>Not Significant</p>
<p>GEOLOGY AND SOILS</p> <p>The proposed project would result in the construction and occupancy of residential and commercial uses, and therefore has the inherent potential to subject persons to ground shaking-related hazards. By incorporating recommendations of the geotechnical engineering study and complying with the UBC and City of Oxnard standards, project impacts related to ground shaking would be less than significant.</p> <p>Due to the high groundwater table beneath the project site, there is a potential for liquefaction during a design level earthquake. By incorporating recommendations of the geotechnical engineering study, project impacts associated with liquefaction would be less than significant.</p> <p>The banks of excavated channels would be subject to hydraulic forces and scour if not properly protected. Such a situation would create erosive or unstable conditions that could undermine adjacent development areas and create a potentially hazardous condition. Compliance with recommendations identified in the geotechnical report and the mitigation listed in the Supplemental Draft EIR will reduce potential impacts to levels considered less than significant.</p>	<p>4.2-1 All structures shall be designed in accordance with the Uniform Building Code (UBC) and applicable City codes to ensure safety in the event of an earthquake.</p> <p>4.2-2 Grading at a minimum shall conform to Chapter 33 of the Uniform Building Code.</p> <p>4.2-3 All conclusions and recommendations contained in the project geotechnical engineering report shall be incorporated into the project design. The measures will be enforced through review of plans and inspection of structures during construction.</p>	<p>Not Significant</p>

Table ES-1
 Summary Table of Project Impacts and Mitigation Measures

Project Impact	Mitigation Measures	Residual Impact
<p>HYDROLOGY AND DRAINAGE</p> <p>The site is neither within a 100-year flood hazard zone nor within an area containing deficient flood control facilities. The project engineer has prepared a conceptual drainage plan that has been designed to the standards of the City of Oxnard. The system is able to contain a design year storm event without causing flooding either on or off-site. No significant impact is expected with construction of the proposed system to the satisfaction of the City of Oxnard.</p> <p>With regard to water quality, the project applicant has prepared a stormwater mitigation plan that identifies the specific BMPs incorporated into the proposed development. Implementation of this program will ensure that the quality of stormwater runoff will meet all regulatory standards and will maintain the beneficial uses of the surface water for public and commerce during project occupancy. No significant impact is anticipated. The City of Oxnard as part of normal project approval and construction practice monitors compliance with these requirements.</p> <p>Grading and excavation necessary for site preparation could result in wind and water driven erosion of soils that would increase sedimentation in the harbor during storm events. The project applicant is required to prepare a SWPPP pursuant to the NPDES that would identify the various BMPs that would be implemented on the site during construction. Compliance with NPDES permit requirements would reduce construction-related sedimentation and erosion to less than significant levels.</p> <p>Also, construction and opening of the navigation channels could increase turbidity in the local waterbody and could possibly introduce soil contaminated with agricultural pesticides. However, Phase 2-soil testing failed to detect commonly used pesticides. Further, mitigation measure contained in the Supplemental Draft EIR requires that the construction contractor place a silt screen/curtain between in-water construction sites and existing canals prior to opening to minimize turbidity. This impact is not anticipated to be significant with implementation of mitigation measure 4.4-2 and compliance with the requirements placed on the NPDES construction permit.</p>	<p>None Required.</p>	<p>Not Significant.</p>

Table ES-1
Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measures	Residual Impact
<p>HYDROLOGY AND DRAINAGE (Cont.) Finally, introduction of the navigation channels could potentially cause brackish water to percolate into the groundwater basin. However, the hydrology report prepared for the project found that the travel time totaled approximately 152.5 years or 0.42 ft/yr. Given the large time interval involved, the transient nature of water levels, and the relatively small area of brackish water that could contribute to groundwater degradation, no significant water quality impacts are expected to occur within the Oxward aquifer.</p>		Not Significant
<p>MARINE WATER QUALITY Construction of the proposed development could result in short-term increases in turbidity within the water areas of adjacent developments (i.e., Westport), particularly when the main channel is opened. Water quality could also be degraded if the excavated soils contain contaminants; particular concern is for the potential presence of pesticides from the historical agricultural use of the excavated area. Construction-related runoff (i.e., sediment, petroleum products) could be introduced into the water areas. These impacts are considered potentially significant, but mitigable. On an operational basis, the circulation pattern is similar to that with the addition of Westport and TTM 5266 projects. The changes that would result with the developments include minor reductions in the amount of water drawn from Mandalay Bay into the Mandalay Generating Station (MGS) canal. The results indicate that with MGS pumping and on a falling, high-amplitude tide, water from Mandalay Bay, Westport and TTM 5266 moves toward the MGS channel. Under this scenario, current speed and direction of the TTM 5266 water areas are similar to that in the existing closed-and channels of northern Mandalay Bay. By extension, and using dissolved oxygen concentration as an indicator, water quality in the TTM 5266 area could be expected to be similar to that in the northern portions of Mandalay Bay. Dissolved oxygen concentrations throughout Mandalay Bay were found to exceed the minimal 5.0 ppm during both the April 1999 and July 2000 surveys. Based on the above, no significant water quality/circulation impacts are expected.</p>	<p>4.4-1 Prior to removing any barriers that would allow water to flow from the development to existing canals, the applicant shall complete a water sampling program within the newly constructed channels. That program shall include the analysis of water samples for Priority Pollutants listed in the RWQCB's Enclosed Bays and Estuaries and Ocean Plans. The barrier(s) shall not be breached until the results of the analyses are approved by the appropriate agency.</p> <p>4.4-2 To reduce turbidity after the main canal is opened, the construction contractor shall place a silt screen/curtain between in-water construction sites and existing canals.</p> <p>4.4-3 Provide adequate curbing and channeling of stormwater runoff away from excavated and existing water areas during construction. Construction vehicle fueling shall not occur within areas where runoff into the water areas is possible.</p> <p>4.4-4 All the provisions of the Public Boat Dock Plan involving restrictions on boat maintenance and required use of Best Management Practices shall be incorporated into boat slip lease agreements.</p>	Not Significant

Table ES-1
Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measures	Residual Impact
<p>MARINE WATER QUALITY (Cont.)</p> <p>Dissolved oxygen concentrations measured within CIH in April 1999 and July 2000 were above 5 mg/l. Historical data from Ventura Harbor and Marina del Rey, two harbors of similar, but not identical configuration and water depths as the CIH, indicate few periods of low dissolved oxygen; lower concentrations appear to be most evident immediately following stormwater input. Water circulation within CIH is influenced by the MGS intake, the general circulation for CIH, Ventura Harbor, and Marina del Rey is tidally driven. That circulation appears to be sufficient to maintain relatively high dissolved oxygen levels throughout the year within those harbors. Therefore, with or without MGS pumping, no significant negative impacts to the circulation or water quality of CIH is expected from the addition of the ITM 5266 water areas.</p>		<p>Not Significant.</p>
<p>TRAFFIC & CIRCULATION</p> <p>Soil export required to construct the project will introduce a number of truck trips onto the local roadway network. This is a temporary impact and is not expected to be significant because the project will be phased over time and the truck trips generated will be distributed throughout the entire day rather than concentrated at the peak traffic periods. Furthermore, trucks will utilize Victoria Avenue, which is designated as a truck route by the City's General Plan. Based on the above, no significant construction traffic impacts are anticipated with development and implementation of a construction traffic control plan.</p> <p>The data presented in the Transportation and Circulation section indicate that the project would have a significant impact to the following intersections prior to mitigation:</p> <ul style="list-style-type: none"> • Victoria Avenue/Wooley Road, • Ventura Road/Wooley Road, • Victoria Avenue/Via Marina Avenue, • Victoria Avenue/Ketch Street and • Victoria Avenue/Channel Islands Boulevard. 	<p>4.5-1 To minimize potential conflicts between construction activity and through traffic, the applicant shall prepare a construction traffic control plan. The plan must identify all traffic control measures, signs, and delineators to be implemented by the construction contractor during the duration of site preparation and construction activity. Measures likely to be used include but are not limited to the following:</p> <ul style="list-style-type: none"> • In areas where traffic control necessitates, the contractor would provide, post, and maintain "No Parking" and "No Stopping" signs, as directed by the City Engineer; • Flagmen would be posted as needed to direct traffic during construction activity; • No travel lane would be less than 10 feet wide; • "Construction Ahead" and appurtenant signs are to be placed 1,000 feet in advance of all approaches to the project area, for the duration of construction; • Cross street closures would be limited to the times of the day that construction is in process. 	<p>Not Significant.</p>

Table ES-1
Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measures	Residual Impact
<p>TRAFFIC & CIRCULATION (Cont.) The project applicant would be required to construct street improvements along its frontage on Woolley Road and Victoria Avenue - curb, gutter, sidewalk, etc. With implementation of these actions and the required mitigation measures, related impacts would be eliminated.</p>	<p>Victoria Avenue/Woolley Road</p> <p>4.5-2 The project applicant shall construct or fund the construction of the following geometric improvements through payment of the traffic impact mitigation fee:</p> <ul style="list-style-type: none"> • Northbound approach. Provide a left-turn lane, two through lanes and a through/right-turn lane. • Southbound approach. Provide a left-turn lane, two through lanes and a through/right-turn lane. • Eastbound approach. Provide one left-turn lane, two through lanes and an exclusive right-turn lane. • Westbound approach. Provide one left-turn lane, two through lanes and one exclusive right-turn lane. <p>Ventura Road/Woolley Road</p> <p>4.5-3 The project applicant shall construct or fund the construction of the following geometric improvements through payment of the traffic impact mitigation fee:</p> <ul style="list-style-type: none"> • Northbound approach. Provide a left-turn lane, two through lanes and a through/right-turn lane. • Southbound approach. Provide a left-turn lane, three through lanes and an exclusive right-turn lane. <p>Victoria Avenue/Via Marina Avenue</p> <p>4.5-4 The project applicant shall construct or fund the construction of the following geometric improvements through payment of the traffic impact mitigation fee:</p> <ul style="list-style-type: none"> • restripe the westbound approach to provide an exclusive left-turn lane and a through/right-turn lane. 	<p>Not Significant</p>

Table ES-1
 Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measures	Residual Impact
<p>TRAFFIC & CIRCULATION (Cont.)</p>	<p>Victoria Avenue/Ketch Street</p> <p>4.5-5 The project applicant shall construct or fund the construction of a traffic signal at Victoria and Leeward which will provide a controlled access for traffic on the new leg of Ketch that desires to go northbound on Victoria.</p> <p>Victoria Avenue/Channel Islands Boulevard</p> <p>4.5-6 The project applicant shall construct or fund the construction of the following geometric improvements through payment of the traffic impact mitigation fee:</p> <ul style="list-style-type: none"> • add an additional left-turn lane on the eastbound approach, providing dual left-turn lanes. 	<p>Not Significant.</p>

Table ES-1
Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measures	Residual Impacts
<p>NOISE</p> <p>The proposed project would generate noise during both construction and operation. Construction activities associated with the proposed project were determined to result in short-term significant unavoidable impacts based on the nature of the activity, the proximity to sensitive residential uses, and the exceedance of the established thresholds despite the use of mitigation.</p> <p>On an operational basis, roadway noise level increases are predicted to range between 0.3 dB(A) and 1.6 dB(A). The greatest increase in ambient noise levels (1.6 dB(A)) attributable to the project would occur along Woolley Road east of Victoria Avenue. It is noted that several noise sensitive uses found along off-site study roadways are expected to experience noise levels in excess of the land use compatibility guidelines for noise thresholds. However, an increase of less than 3.0 dB(A) CNEL would not exceed the off-site mobile source thresholds of significance for this analysis and would hardly be perceptible to the human ear. Therefore, the proposed project would not result in any significant off site noise impacts resulting from vehicular sources.</p>	<p>4.6-1 All construction activity, including pile driving, grading, transport of material or equipment and warming-up of equipment, shall be limited to between the hours of 7 A.M. to 6 P.M. and should not occur on Sundays unless approved by the City of Oxnard. The work schedule shall be posted at the construction site and modified as necessary to reflect deviations approved by the City. The City of Oxnard, or a designee, should spot check and respond to complaints.</p> <p>4.6-2 Contractor shall prohibit off-site heavy truck activities in local residential areas as well as establish City approved haul routes.</p> <p>4.6-3 Contractor shall provide staging areas on-site to minimize off-site transportation of heavy construction equipment. Locate these areas to maximize the distance between activity and residential areas. At a minimum, the staging areas shall be located a distance of 200 feet from the nearest residential property line. This would reduce noise levels associated with most types of idling construction equipment by roughly 12 dB(A).</p> <p>4.6-4 Contractor shall ensure that construction equipment is fitted with modern sound-reduction equipment.</p> <p>4.6-5 When construction operations occur adjacent to occupied residential areas, the contractor shall implement appropriate additional noise reduction measures to the extent practical that include, but are not limited to, changing the location of stationary construction equipment, shutting off idling equipment, notifying adjacent residences in advance of construction work, and installing temporary acoustic barriers around stationary construction noise sources.</p> <p>4.6-6 Where practical, locate loading zones and trash receptacles in commercial, office, and restaurant areas away from adjacent residential areas.</p> <p>4.6-7 Deliveries to commercial uses shall be restricted to daytime operating hours (7:00 AM to 10:00PM).</p>	<p>Unavoidable construction noise impacts.</p> <p>No significant operation noise impacts.</p>

Table ES-1
Summary Table of Project Impacts and Mitigation Measures

Project Impact	Mitigation Measures	Residual Impact
<p>AIR QUALITY Construction activity would generate emissions from construction equipment, trucks hauling equipment and soil, and excavation and grading activities. The VCAPCD does not identify construction air quality impacts as significant assuming standard construction mitigation measures called for by the VCAPCD are implemented for the proposed project. Therefore, although short-term construction impacts could be considered a nuisance, with the implementation of construction mitigation measures, off-site construction air quality impacts would be less than significant.</p>	<p>4.7-1 The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.</p> <p>4.7-2 Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.</p> <p>4.7-3 Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:</p> <ol style="list-style-type: none"> 1. All trucks shall be required to cover their loads as required by California Vehicle Code § 23114. 2. All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible. 	<p>Not Significant</p>
<p>Buildout and operation of uses within the project would generate total emissions that exceed APCD recommended significance thresholds for ROC and NO_x. Consequently, both the ROC and NO_x emissions from the proposed project would be considered a significant impact to air quality in the county prior to mitigation.</p> <p>On a local level, future CO levels at the study intersections are expected to be similar to current levels with the inclusion of vehicle traffic generated by the project and other projects that have been approved or are pending approval which would be operational at project completion. Future CO concentrations at all of the study intersections, with the proposed project would be below Federal and State standards. As such, no significant impacts are expected to result from the proposed project.</p>	<p>4.7-4 Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.</p> <p>4.7-5 Signs shall be posted on-site limiting traffic to 15 miles per hour or less.</p> <p>4.7-6 During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the APCD in determining when winds are excessive.</p> <p>4.7-7 Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.</p>	<p>Not Significant</p>
<p>Airborne odors associated with the uses allowed by the proposed project would primarily result from cooking activities within residences, the use of trash receptacles, and other normal day-to-day activities. Should objectionable odors be generated by the proposed land uses and drift off the site, there would be the potential for impacts to the residential uses located south of the project site. However, the proposed project would be subject to APCD Rule 51 (Nuisance), which is based on the receipt and confirmation of citizen complaints regarding hazardous, odorous, or nuisance-causing substances which may be emitted by a project. Given the above, the potential for the proposed project to generate objectionable odors is not considered to be not significant.</p> <p>Finally, no impacts with regards to off-site 'hot spot' locations were identified. No significant impacts would occur as a result of off site air pollution emitters.</p>		

Table ES-1
Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measures	Residual Impact
<p>AIR QUALITY (Cont.)</p>	<p>4.7-8 Personnel involved in grading operations, including contractors and sub-contractors, should be advised to wear facemask or dustmask protection in accordance with California Division of Occupational Safety and Health regulations.</p> <p>4.7-9 Hire crews from local populations where possible, since it is more likely that they have been previously exposed to the fungus and are therefore immune.</p> <p>4.7-10 Require crews to use facemasks or dustmasks during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations.</p> <p>4.7-11 Require that the cabs of grading and construction equipment be air-conditioned.</p> <p>4.7-12 Require work crews to work upwind from excavation sites whenever possible.</p> <p>4.7-13 Where acceptable to the fire department, control weed growth by mowing instead of diskling, thereby leaving the ground undisturbed and with a mulch covering.</p> <p>4.7-14 During rough grading and construction, the access way into the project site from adjoining paved roadways should be paved or treated with environmentally-safe dust control agents.</p> <p>4.7-15 Minimize equipment idling time.</p> <p>4.7-16 Maintain equipment engines in good condition and in proper tune as per manufactures' specifications.</p> <p>4.7-17 Lengthen the construction period during smog season (May through October), to minimize the number of vehicles and equipment operating at the same time.</p> <p>4.7-18 Use alternatively fueled construction equipment, such as compressed natural gas (CNG), Liquefied natural gas (LNG), or electric, if feasible.</p> <p>4.7-19 Lighting for public streets, parking areas, and recreational areas shall utilize energy-efficient mechanical, computerized, or photo cell switching devices to reduce energy usage.</p> <p>4.7-20 Solar or low emission water heaters shall be installed into proposed buildings to reduce natural gas consumption and emissions.</p>	<p>Not Significant</p>

Table ES-1
 Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measures	Residual Impact
AIR QUALITY (Cont.)	<p>4.7-21 Energy-efficient, automated controls for air conditioners shall be installed into proposed buildings to reduce energy consumption and emissions.</p> <p>4.7-22 Automatic lighting on/off controls and energy-efficient lighting shall be installed into proposed buildings to reduce electricity consumption and associated emissions.</p> <p>4.7-23 Light-colored roofing materials as opposed to dark roofing materials shall be used on proposed buildings. Light colored materials reflect sunlight and minimize heat gains in buildings. This measure would lessen the overall demand for mechanical air conditioning systems.</p> <p>4.7-24 Built-in energy-efficient appliances shall be installed into proposed buildings.</p> <p>4.7-25 Special sunlight filtering window coatings or double-paned windows shall be installed into proposed buildings to reduce thermal gain in hot weather and loss in the cold weather, thus reducing emissions associated with heaters and air conditioners.</p> <p>4.7-26 Shade trees shall be provided to reduce heating/cooling needs.</p> <p>4.7-27 The project applicant shall contribute funds to an off-site Transportation Demand Management (TDM) plan. The contributions shall be calculated based on the amount of emissions that must be reduced to bring the project below the thresholds established by the APCD, and will be based on the year of completion of the development.</p>	Not Significant.

Table ES-1
 Summary Table of Project Impacts and Mitigation Measures

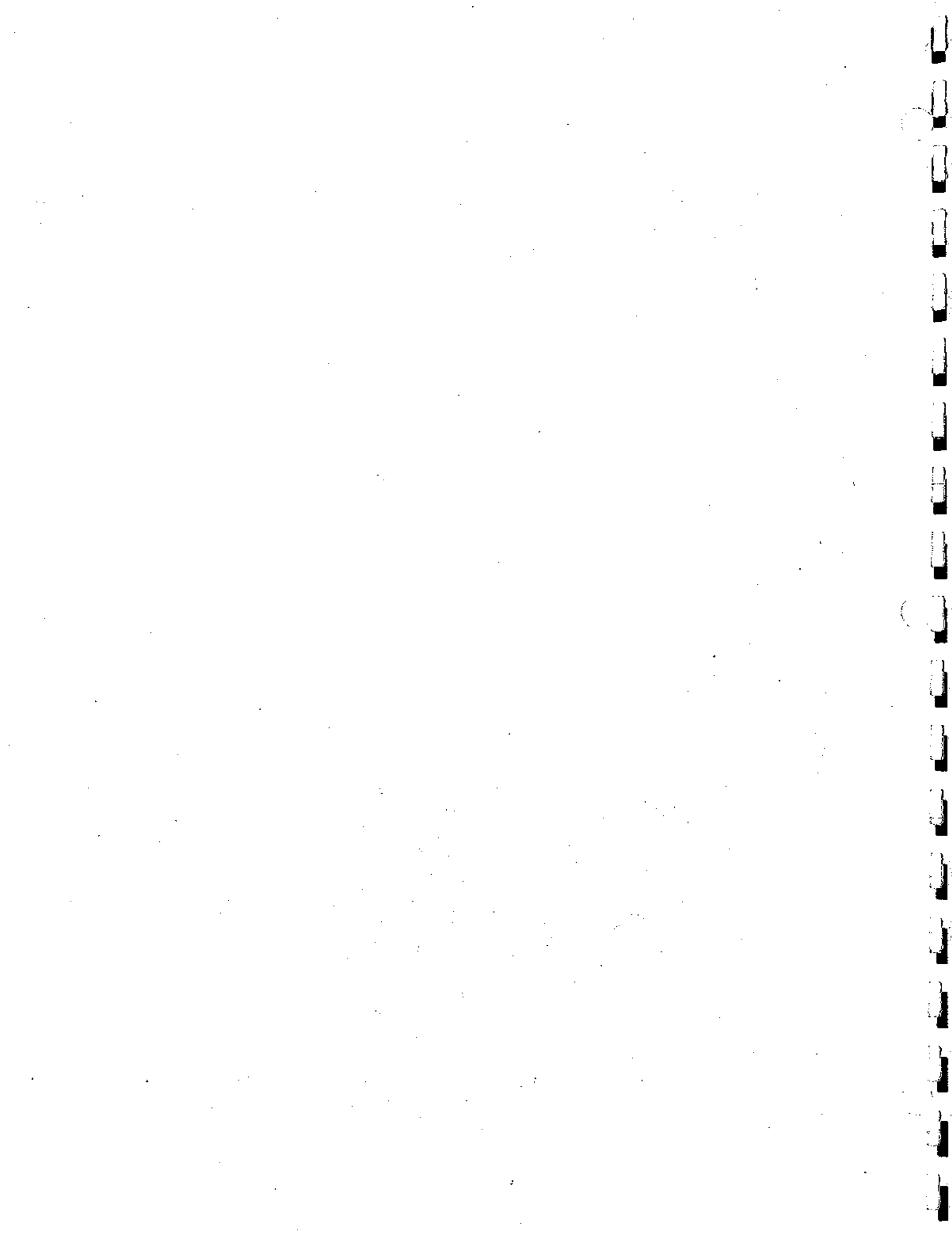
Project Impacts	Mitigation Measures	Residual Impact
<p>PUBLIC SERVICES</p> <p>FIRE SERVICES</p> <p>Construction sites would be subject to City requirements relative to water availability and accessibility to fire fighting equipment and for electrical utilities. Adherence to City codes and requirements during construction would reduce the potential for fire hazards at the project site during construction to below the threshold of significance. Slow-moving, construction-related traffic on local adjacent roadways may temporarily reduce optional traffic flows on local roadways and could conceivably delay emergency vehicles traveling through the area. This potential is considered small given the periodic and short term nature of any construction related traffic and no significant impacts are expected with the use of flagmen and other standard construction practices.</p> <p>The site is located adjacent to an existing service area and the Department estimates the response time to the project at 3.5 minutes for primary response. This equals the Department's goal in response to a primary call for service. The Fire Department indicates their ability to provide emergency fire suppression and medical services to land-side uses without adverse impact to their existing service obligations. Thus, no significant impact upon response times in the City are expected.</p> <p>In addition, the project includes 1,500 square feet of office space and two boat slips for use by the County Harbor Patrol. This will help to ensure adequate access via waterways by emergency response crews.</p>	<p>4.8-1 During construction, all fire hydrants, permanent all-weather surface roadways, curbs and gutters, shall be in place prior to combustible framing. All combustible framing shall be kept within 150 feet of an acceptable access road serviced with active fire hydrants.</p> <p>4.8-2 The Oxnard Fire Department shall be alerted to all temporary road closures or construction-related traffic restrictions to ensure that emergency vehicle access is not constrained in any way by construction activities.</p>	<p>Not Significant.</p>
<p>POLICE SERVICES</p> <p>Site development and construction would not normally require services from the Police Department, except in the cases of trespassing, theft, and vandalism. Such activities at a construction site are not unusual, but are only occasional and do not typically place undue demands on police protection services.</p>		

Table ES-1
Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measures	Residual Impact
<p>PUBLIC SERVICES (Cont.) POLICE SERVICES (Cont.)</p> <p>Land-side development planned within the project is typical of residential, commercial, and recreational developments throughout California and are not considered to be exceptional generators of calls for service. In general, the types and number of calls for service would be consistent with those presently occurring in the area, including residential burglary, auto theft and auto burglary. The project site is located within an existing response beat and response times are considered adequate throughout the City. Given that response times are expected to remain adequate throughout the City during and subsequent to buildout of the project, and that the project is required to incorporate police protection measures similar to all new developments within the City, project impacts are not considered significant with regard to response times.</p> <p>It is the policy of the City of Oxnard to monitor the need for additional police officers as part of the City's annual budget process. Through this action, the City ensures that police services are available to serve planned and proposed projects. Based upon a fiscal impact study prepared for the project, revenues accrued to the City's General Fund from sales taxes, property taxes, etc., would meet the capital outlay for police service as well as fully funding all other necessary urban services required by the project.</p> <p>Finally, the project incorporates two boat slips and 1,500 square feet of office space for use by the County Harbor Patrol. This will ensure that response to calls for service in the project area is within accepted standards and also provides direct line of sight to the public boat launch.</p>		<p>Not Significant</p>

Table ES-1
Summary Table of Project Impacts and Mitigation Measures

Project Impacts	Mitigation Measure	Residual Impact
<p>PUBLIC UTILITIES</p> <p>SEWER SERVICE</p> <p>Project occupancy would generate effluent requirement treatment at the Oxnard Waste Water Treatment Plant, which has adequate capacity to treat the waste.</p> <p>At a minimum, the project applicant would be required to contribute fees to the City of Oxnard Wastewater Conveyance Fund. The fees are determined by the City of Oxnard Infrastructure and Utilities Program, and are intended to fund infrastructure improvements called for in the City's Master Sewer Plan. However, immediate measures are necessary to fully mitigate project impacts to Trunks AN and AT. Assuming that the project applicant and the City of Oxnard develop a mutual agreement to fully mitigate impacts of the project to Trunks AN and AT, impacts of the project to the City's sewage collection and conveyance system would be less than significant.</p> <p>WATER SERVICE</p> <p>Adding project generated water demand of 375 acre-feet to the year 2000 water demand for the City documented at 25,966 creates a total Citywide demand of 26,341 acre-feet of water. As discussed above, City supplies totaled 28,875-acre feet for the year 2000, which represents a net surplus of 2,534-acre feet after project buildout. Consequently, existing sources of supply are able to accommodate the project along with existing development present within the City of Oxnard Water Division's service area, and no significant project impacts to water supply are anticipated.</p>	<p>4.9.1-1 The project applicant and the City of Oxnard shall come to a mutual agreement that provides for full mitigation of project impacts to downstream Trunk Sewers AN and AT prior to recordation of the tract map. Mitigation strategies could involve storing project-generated sewage until it can be conveyed during non-peak hours, contribution of additional, in-lieu fees by the project applicant to the City of Oxnard to fund sewer line improvements at problem areas along Trunks AN and AT, construction of such improvement, or some combination thereof.</p> <p>None Required.</p>	<p>Not Significant.</p> <p>Not Significant.</p>



1.0 INTRODUCTION

PURPOSE

Although not required by the California Environmental Quality Act (CEQA), this introduction is included to provide the reader with an overview of: (1) the project's background and legal basis for preparing a Supplemental EIR; (2) the environmental review process for the project, and; (3) how to use this EIR. The intent of this section is to familiarize the reader with the purpose, content, and format of this EIR and its relation to the planning process.

PROJECT BACKGROUND

As depicted in **Figure 1.0-1**, the project site is located within the City of Oxnard in Ventura County. Consequently, the City of Oxnard has authority for land use planning over the project. The project site is located entirely within the City's Coastal Zone, so the City of Oxnard Coastal Land Use Plan and Coastal Zoning regulations govern and implement permitted land uses on the property.

The Coastal Land Use Plan indicates that the project is located within the Mandalay Bay Phase IV Specific Plan Area, which was adopted by the California Coastal Commission in January of 1985. The Mandalay Bay Specific Plan encompasses 220 acres of land and guides development of a water-oriented community, consisting of residential, mixed use, visitor-serving commercial, public recreation, and open water for use in boater recreation and marinas. The proposed Tract 5266 that is the subject of this EIR analysis implements the final phase of the Mandalay Bay Phase IV Specific Plan.

As part of the project approval for the Mandalay Bay Phase IV Specific Plan, the City of Oxnard prepared and certified an EIR that analyzed the potential environmental effects of Specific Plan implementation. The City Council found that with mitigation, buildout of the Specific Plan would not have a significant environmental effect.

ENVIRONMENTAL REVIEW PROCESS

Purpose of an EIR

Under State law, an environmental review must be conducted for activities and approvals that involve discretionary actions. This law is entitled the California Environmental Quality Act (CEQA).

Development of the property requires the discretionary approval of the City of Oxnard City Council, so the proposed development is subject to CEQA.

An environmental impact report (EIR) is an informational document required by CEQA when substantial evidence exists that the project may have a significant physical environmental effect. The EIR is intended to provide the public, decision-makers and agency staff information about: (1) the environmental impact of a proposed project; (2) identification of ways in which the significant effects of a project might be minimized; and (3) define and analyze alternatives to the project which would reduce or avoid significant impacts. Thus, the EIR is an important document that is ultimately used by decision-makers when considering whether or not to approve, deny or modify a proposed project.

Standards for EIR Adequacy

Given the important role of the EIR in the planning and decision-making process, it is imperative that information presented in the EIR be factual, adequate, and complete. Standards for EIR adequacy are defined in Section 15151 of the CEQA *Guidelines* as follows:

"An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information, which enables them to make a decision, which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

The City of Oxnard in preparing this EIR followed these standards for EIR adequacy.

Type of EIR

The City of Oxnard elected to prepare a Supplemental EIR for the proposed project consistent with Section 15163(a) of the CEQA *Guidelines*. A Supplemental EIR is prepared when only minor additions or changes are necessary to make a previous EIR (in this case the FEIR for the Mandalay Bay Phase IV Specific Plan) adequately apply to the project in the changed situation. This supplemental EIR taken together with the Final EIR prepared for the Mandalay Bay Phase IV Specific Plan comprise the environmental review documentation for the proposed project.

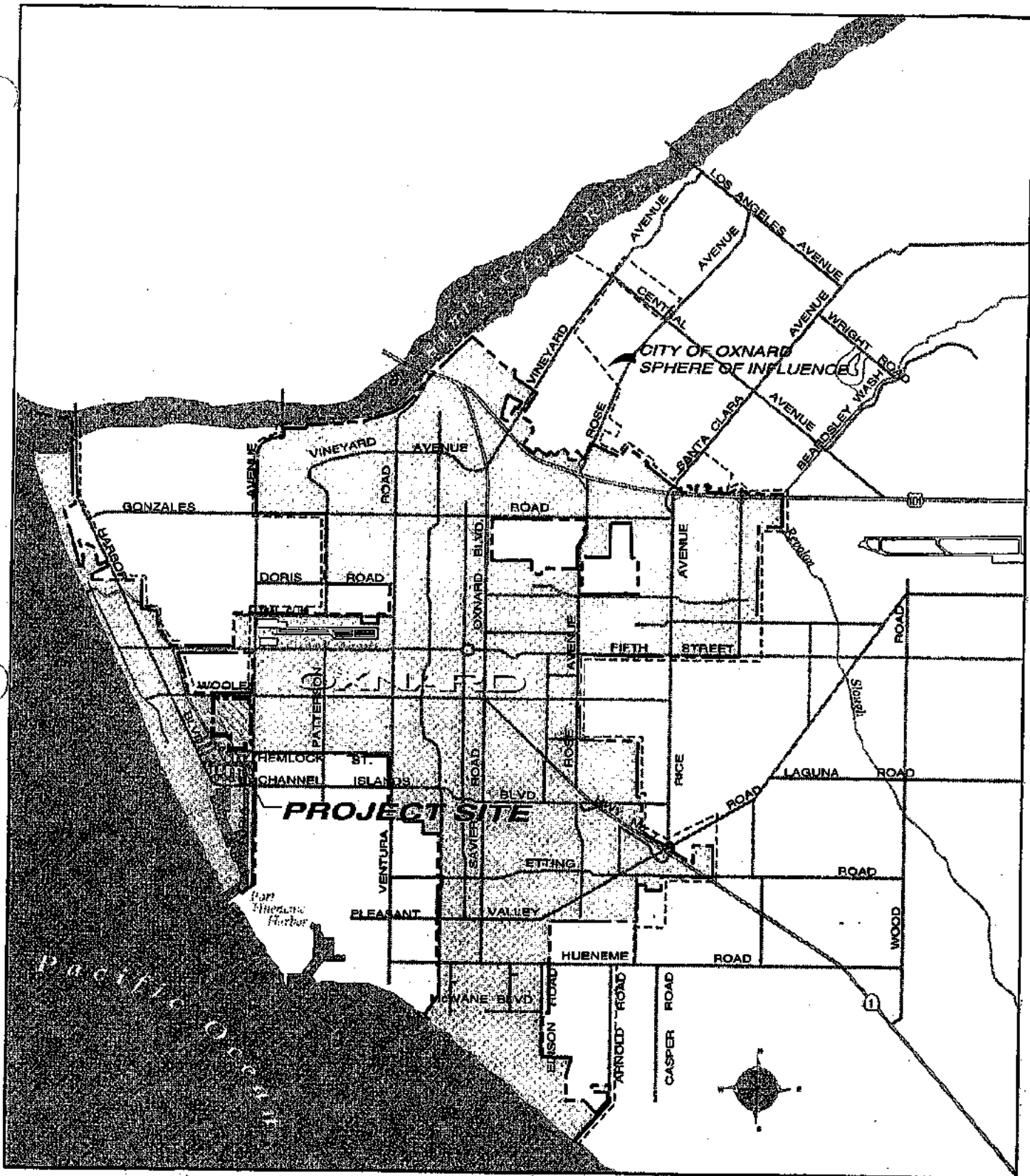
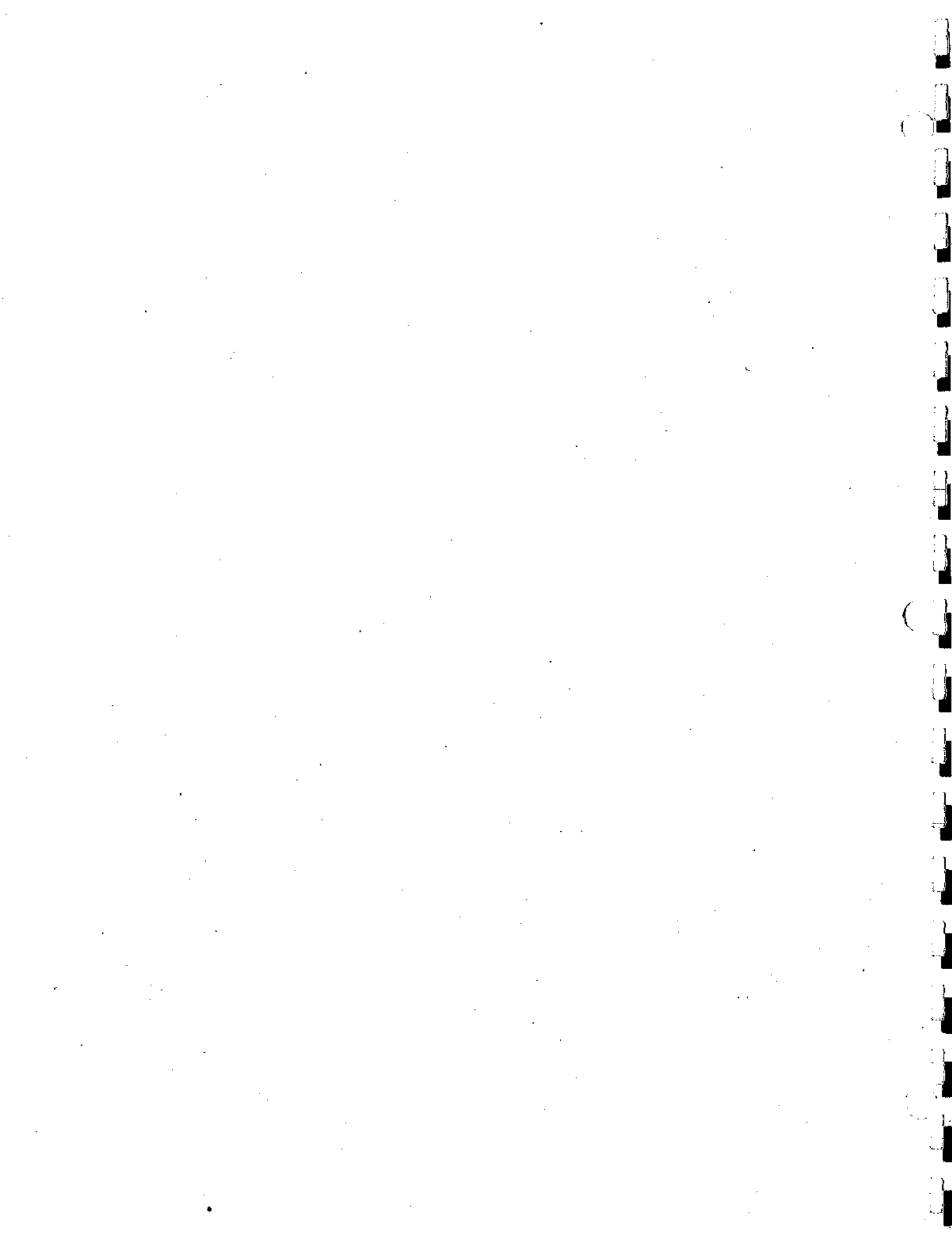


FIGURE 1.0-1

Project Vicinity



This supplemental EIR focused on those issues that required update or modification to address present conditions and incorporates by reference the discussions and analysis contained in the Final EIR that are still relevant. To clarify which of the mitigation measures contained in the Final EIR are applicable to the presently proposed TTM 5266, an applicability analysis has been conducted for each of the mitigation measures contained in the 1982 FEIR¹. See Appendix 1.0(A) for this analysis.

Environmental Processing

The City of Oxnard prepared and submitted a Notice of Preparation (NOP) for circulation in August of 2001 for the required 30-day review period. The purpose of the NOP is to solicit early comments from public agencies with expertise in subjects that will be discussed in the Draft Supplemental EIR. The NOP and the written responses to the NOP are contained in Appendices 1.0(B) and 1.0(C) of the Supplemental Draft EIR, respectively.

Topics evaluated in the Supplemental Draft EIR were identified based upon responses to the Notice of Preparation, and meetings with City staff. The City determined through this initial review process that impacts related to the following topics are potentially significant and require assessment in the Supplemental Draft EIR:

- Land Use & Planning
- Geology and Soils
- Air Quality
- Hydrology and Water Quality
- Transportation/Circulation
- Noise
- Public Services
- Public Utilities

The Draft Supplemental EIR was circulated for a 45-day public review period as required by state law. During this period, the City of Oxnard Planning Commission held several public hearings on the Draft Supplemental EIR and accepted oral testimony from the public. During this process, the Planning Commission elected to extend the public review period an additional 30 days for a total review time of 75 days. The City accepted written and oral comments during this extended review period. After the close of the public review period, written responses were prepared to all written and oral comments on

¹ A complete copy of the 1982 FEIR is available for review at the City of Oxnard Development Services Department, 305 West Third Street, Oxnard, California.

the Draft Supplemental EIR. These comments and responses, in combination with the text of the Draft Supplemental EIR, constitute the Final Supplemental EIR. The City of Oxnard Planning Commission will hold a public hearing to review the Final Supplemental EIR and consider certification of the Final Supplemental EIR. The Final Supplemental EIR must be certified as adequate and complete before any discretionary approvals are granted, or any discretionary actions to implement the project are taken by the City of Oxnard.

LEAD, RESPONSIBLE AND TRUSTEE AGENCIES

CEQA applies to projects where a governmental agency can use its judgment or discretion in deciding whether to carry out or approve a project. The public agency, which has the principal responsibility for carrying out or approving a project, is termed the "lead agency." The City of Oxnard is serving as the Lead Agency for the project.

This Supplemental EIR will also be used by Responsible and Trustee Agencies as well as the public to assist in the decision-making process. Pursuant to Sections 15381 and 15386 of the State CEQA Guidelines, as amended, Responsible Agencies and Trustee Agencies are respectively defined as follows:

"Responsible Agency" means a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency which have discretionary approval power over the project.

"Trustee Agency" means a State agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California.

Responsible Agencies, Trustee Agencies, and other agencies that may use this EIR in their decision-making process or for informational purposes are identified in Section 3.0, Project Description.

REPORT FORMAT

As stated, a principal objective of CEQA is that the environmental review process involves and informs the public. In meeting this objective, this EIR must inform members of the public and public officials responsible for reviewing and approving the projects, as well as other interested parties, of the physical impacts associated with the proposed project. Towards this end, specific features have been

incorporated into this EIR to make it more understandable while providing the technical information necessary for the public as well as public officials.

As required by law, this EIR contains terminology specific to the CEQA process that is used throughout the document. "Baseline or existing conditions" means the environment as it exists today, "environmental impacts" are changes to the existing environment which would result from the project, while "mitigation measures" are ways the design, construction, or operation of the project could be modified to minimize potential impacts. Finally, "alternatives" are variations on the project which are considered as ways to minimize potential significant impacts, while being consistent with the primary objectives identified for the project. This EIR provides the general public and decision-makers the information necessary to visualize the future environment and make an informed decision which weighs the potential effects of the project against other relevant factors.

In order to provide a clear, accurate depiction of the potential effects associated with the project, the environmental evaluation is presented under separate headings based on the environmental issue under consideration. The format of this EIR and the general contents of each section are provided below to assist the reader in using this EIR. Sections of the Draft EIR following this introduction are organized as follows:

Section 2.0, Environmental Setting, includes a general description of the existing environmental characteristics of the region and local area to help orient the reader.

Section 3.0, Project Description, presents a detailed description of the proposed Project as required by the *CEQA Guidelines*. The topics addressed in this section include the project objectives, the characteristics of the project, uses of the EIR, and discretionary approvals required by the lead and responsible agencies for the project assessed in this document.

Section 4.0, Environmental Impact Analysis, contains analysis of each of the environmental topics addressed in this EIR. Each topic is addressed in separate subsections as follows: existing conditions; project impacts; cumulative impacts; mitigation measures; and unavoidable significant impacts after mitigation.

Section 5.0, Fiscal Impacts of the Project, presents information on the recurring costs and revenues to the City of Oxnard's General Fund that would result if the site is annexed to the City and project is built.

Section 6.0, Alternatives, provides analysis of alternatives to the project. As required by the CEQA *Guidelines*, a discussion of the reasons for selection of the alternatives analyzed is provided with a comparative analysis of each alternative with the project.

Section 7.0, Significant Irreversible Environmental Changes, discusses the irreversible or irretrievable commitment of resources.

Section 8.0, Growth Inducement, addresses the physical and economic characteristics of the project which have the potential to induce growth in the surrounding environment.

Section 9.0, References, lists all documents and persons contacted which were used as a basis of information for the Draft EIR.

Section 10.0, Preparers of the EIR, provides a list of all persons and organizations contributing to the preparation of the Draft EIR.

Section 11.0, Comments and Responses to Comments, provides all written and a summary of oral comments received on the Supplemental Draft EIR and responses to each of these comments.

Section 12.0, Errata, includes minor revisions to Air Quality modeling and clarification to Marine Water Quality Study.

Appendices to this EIR include the Notice of Preparation and other technical data used during preparation of the Draft EIR.

2.0 ENVIRONMENTAL SETTING

INTRODUCTION

The CEQA Guidelines require a description of the environment as it exists, from both a local and regional perspective, in an EIR. In addition to describing the physical characteristics of the environment, a discussion of the relevant regional and local plans is also provided to help the reader understand the planning programs and policies related to the proposed project.

REGIONAL SETTING

Figure 2.0-1 depicts the regional location of the project site, while Figure 2.0-2 illustrates the local site and vicinity. The project site is located within the City of Oxnard, which lies roughly midway between the Cities of Santa Barbara and Los Angeles within the southern portion of Ventura County. The Santa Clara River lies to the north of the City and beyond the river is the City of San Buenaventura. To the east of Oxnard is land under active agricultural cultivation, and beyond this farmland lies the City of Camarillo. Much of this land has been included in an agricultural greenbelt established through resolutions adopted by the Cities of Oxnard and Camarillo and the County of Ventura. The City of Port Hueneme is located southwest of the City of Oxnard, while southeast of the City lies additional farmland which extends close to Point Mugu. The Pacific Ocean lies to the west of the City.

A network of freeways and rail lines provides primary regional access to and from the Oxnard area. U.S. Highway 101 is the primary transportation link that connects the City with the remainder of Ventura County and metropolitan Los Angeles. State Route 1 (Pacific Coast Highway) also provides regional access to and from the City. Other regional transportation systems include Amtrak and the Metrolink commuter rail that operates along the Southern Pacific railroad right-of-way. To accommodate alternative modes of transportation, the City has constructed a regional intermodal transit station in downtown Oxnard. The City of Oxnard also contains an extensive rail system designed to serve the Port of Hueneme as well as local industry, including agricultural processing centers and new automobile preparation facilities.

LOCAL SETTING

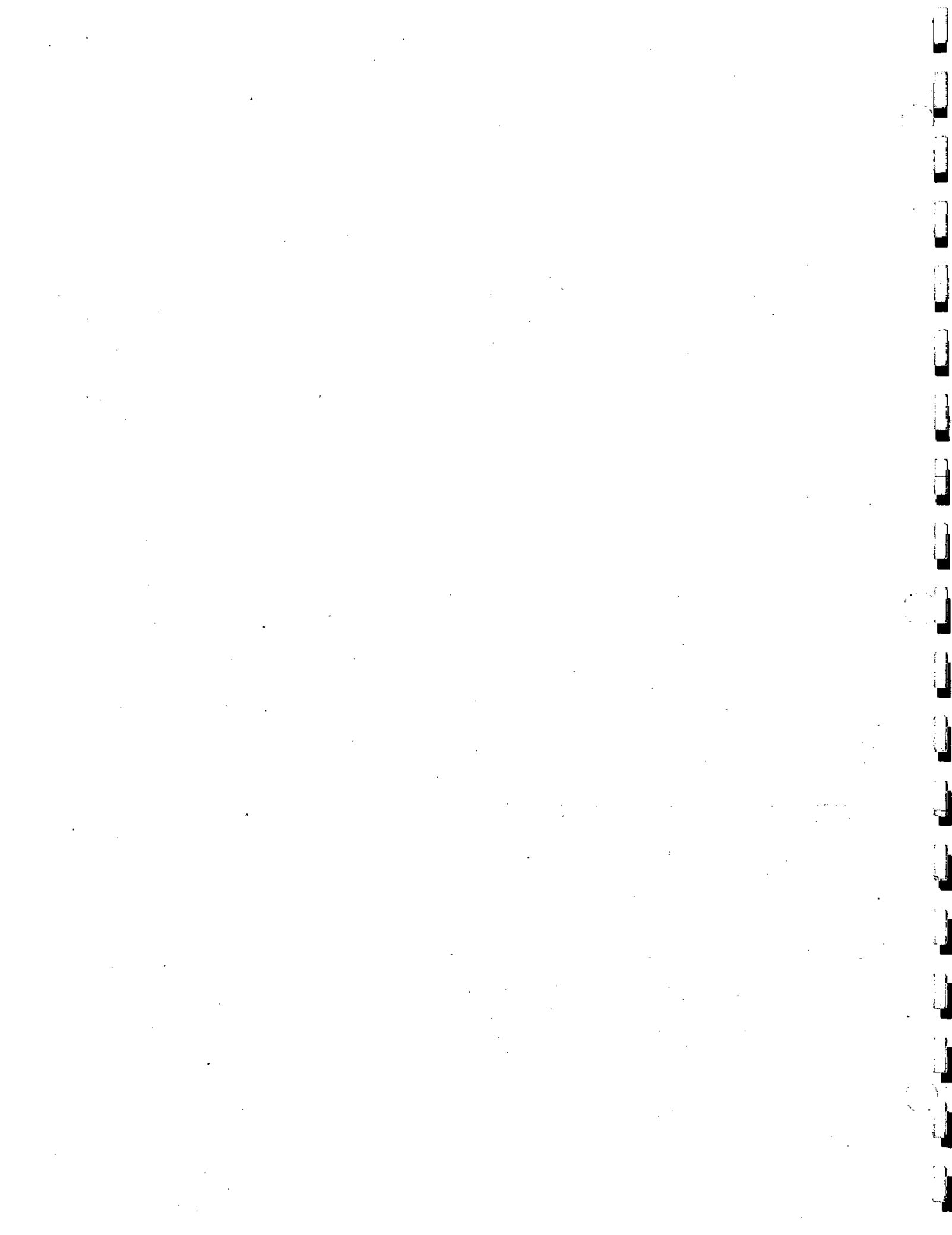
The proposed project is located entirely within incorporated City of Oxnard. The site is also within the Coastal Zone as defined in the California Coastal Act. The general land use pattern that characterizes the coastal portions of the City of Oxnard and immediately surrounding area is shown in Figure 2.0-3. As shown, north of the project site are agricultural land and the Santa Clara River, while residential development and the Oxnard Airport are located to the northeast. Land uses located to the northwest include McGrath State Beach and Oxnard State Beach along the coast and agricultural uses on the inland side of Harbor Boulevard located within the Oxnard-Ventura Greenbelt. The Channel Islands Harbor and the Hollywood-By-The-Sea residential community are located south of the site. To the southwest are the City of Port Hueneme and the U.S. Naval Construction Battalion Center. To the east are residential and commercial land uses, including downtown Oxnard.

Land uses in the immediate vicinity of the project site are depicted in Figure 2.0-4. As shown, cultivated farmland is located directly north of the site opposite Wooley Road. The neighborhood of Via Marina is found to the east of the property. This area includes residential and supporting commercial uses in the form of the Channel Islands Center. Immediately adjacent to the subject property near the intersection of Victoria Avenue with Hemlock Street is a facility belonging to the Southern California Edison Company. Land located to the south and southwest of the project site is developed with the Channel Islands residential community and associated marina channels. Finally, land directly adjacent to the western boundary of the project site has been approved for development of Tentative Subdivision Map No. 5196, which is also part of the Mandalay Bay Phase IV Specific Plan area.

PHYSICAL ENVIRONMENT

Topography

The City of Oxnard is situated on the Oxnard Plain in the southwestern portion of the onshore Ventura Basin within the Transverse Range Province. The landform is generally flat, with a gentle slope trending toward the Pacific Ocean. Elevations on the Plain range from approximately 90 feet above sea level (ASL) in the community of El Rio (to the north), to sea level. Major topographic features which help define the Plain include the Santa Monica Mountains to the east, the Santa Susana Mountains to the north, and the Pacific Ocean to the south and west.



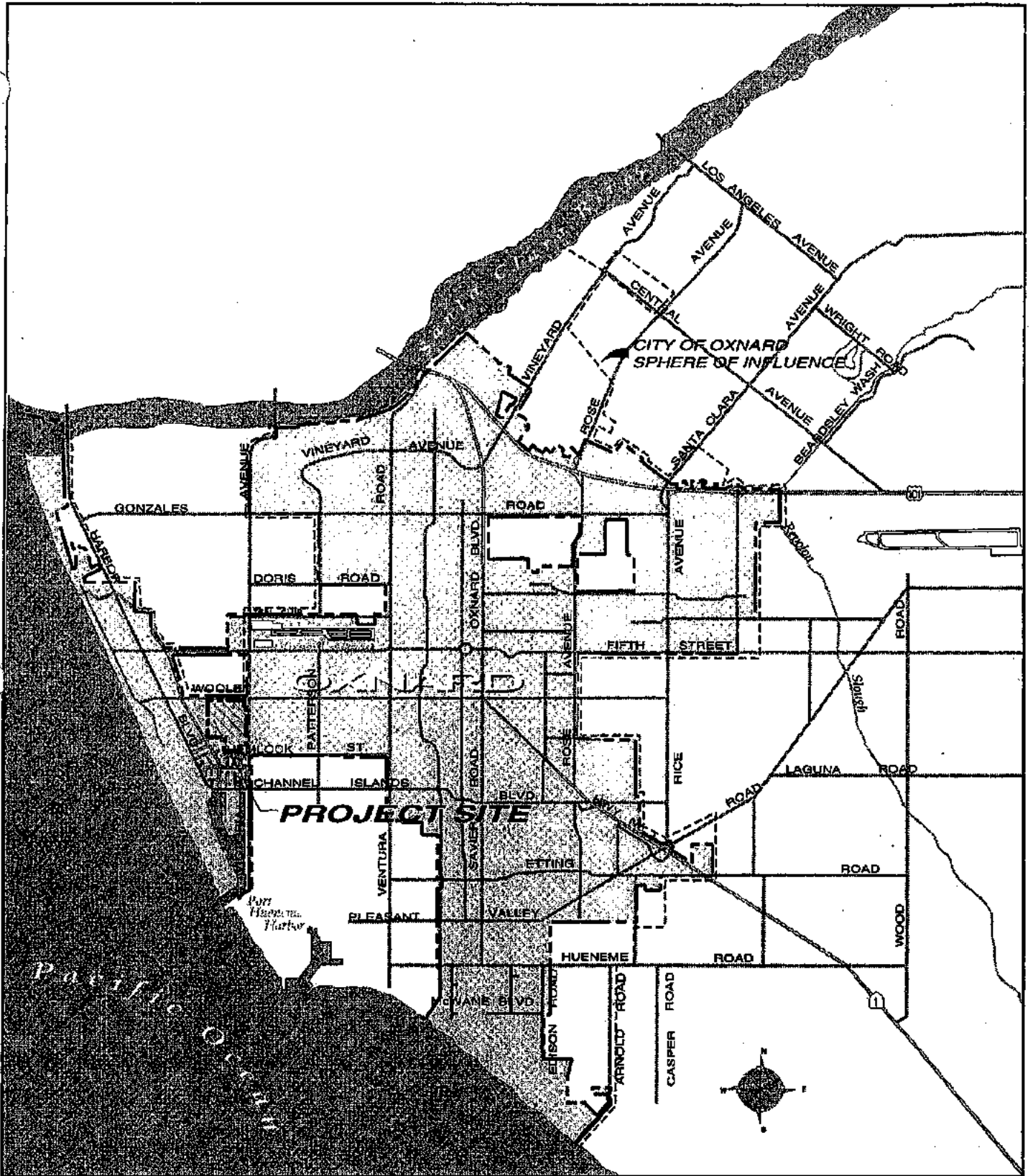


FIGURE 2.0-2

Site Vicinity



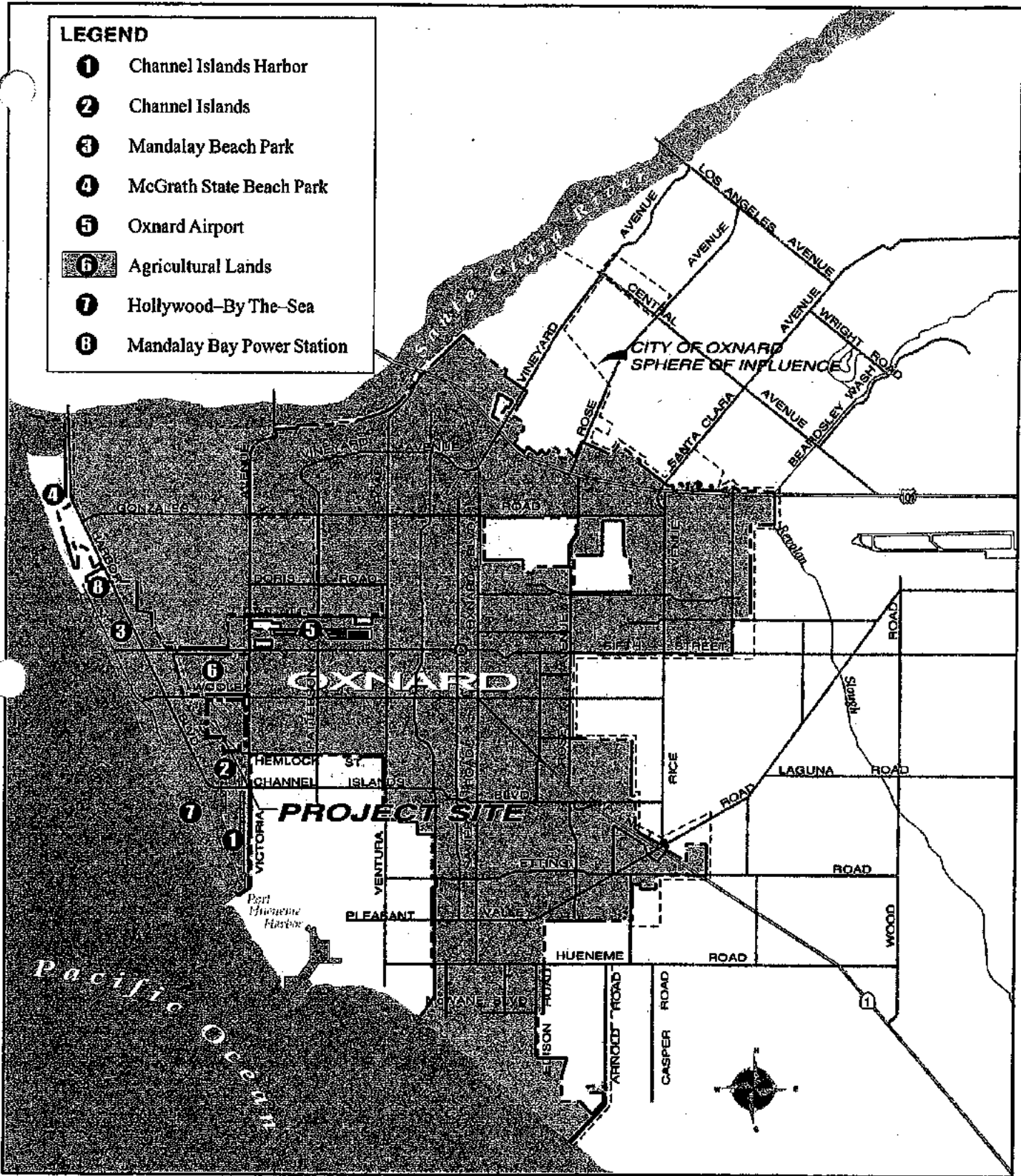


FIGURE 2.0-3

General Land Uses in Coastal Zone



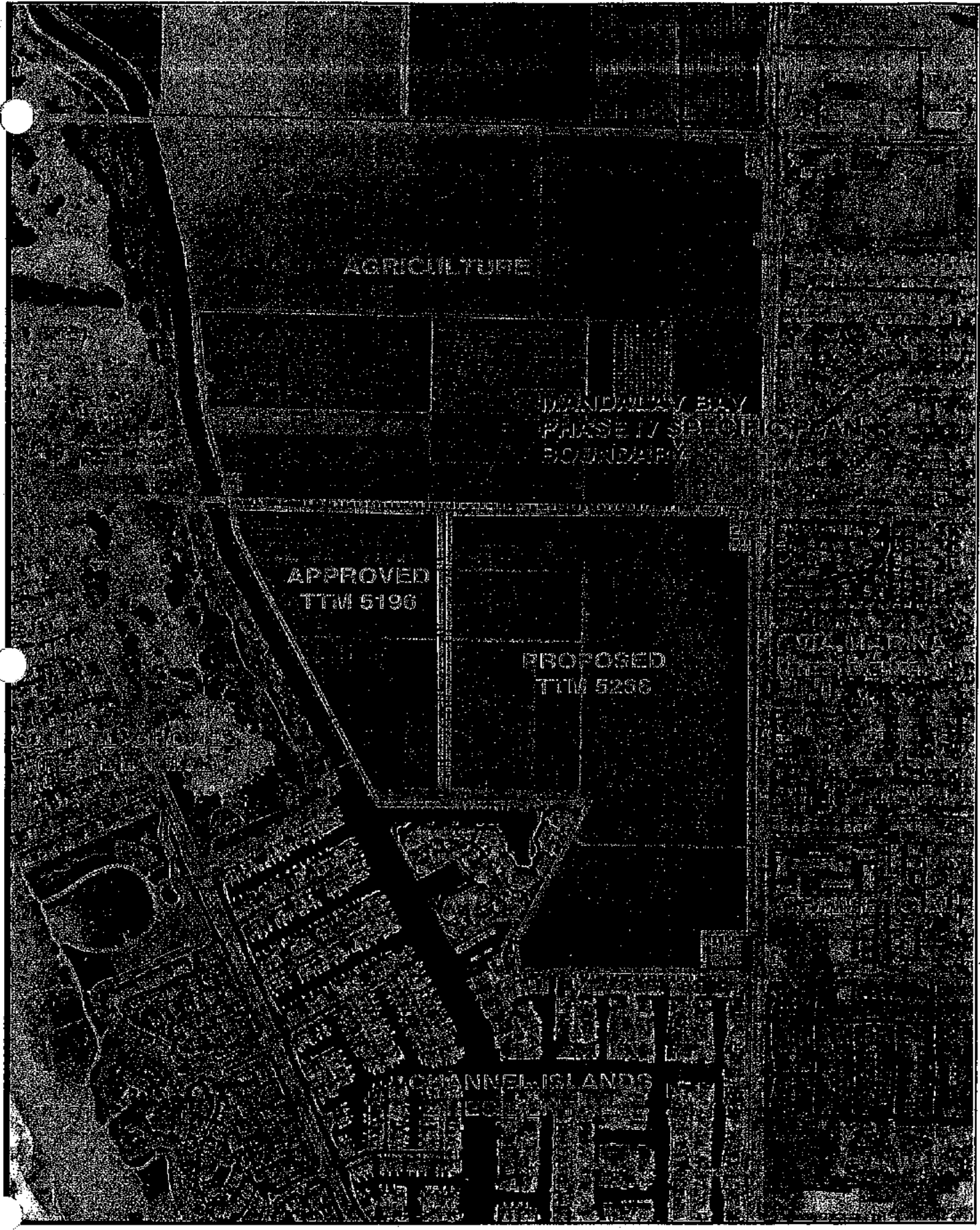
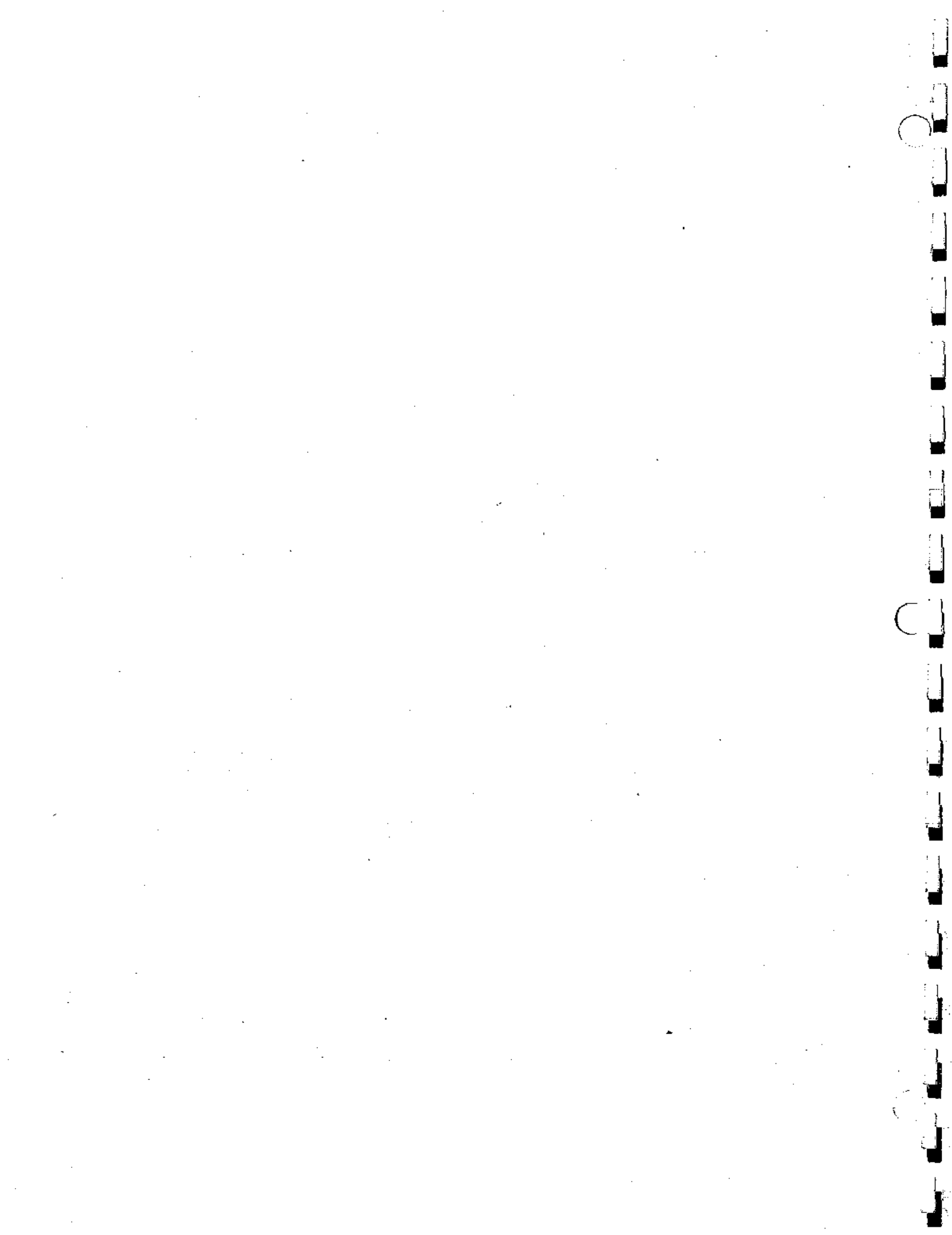


FIGURE 2.0-4

Surrounding Land Uses



Soils

The deep alluvial soils of the Oxnard Plain are especially suitable for farming. Several soil types are found within the Oxnard area, with the Camarillo-Hueneme-Pacheco association representing the dominant soil type across most of the City. This type of soil is level, very deep, and consists of poorly-drained loamy sands to silty clay loams. This soil is conducive to the cultivation of irrigated vegetables and other field crops.¹

Geotechnical Characteristics

No known active earthquake faults exist within the City of Oxnard and, therefore, there are no Alquist-Priolo Special Study Zones in or near the project site area. However, southern California is a seismically active region and, for this reason, the region is subject to a variety of earthquake-related risks.

The primary earthquake-related risks on and near the City are potentially severe ground shaking and liquefaction. Liquefaction generally requires poorly consolidated, saturated, fine-grained, cohesionless soils with less than 50 feet of overbearing soil. During groundshaking, groundwater can be forced up between loose soils, resulting in the excessive settlement of structures. Geologic conditions that are required for liquefaction are known to occur on and near the project area, and the local vicinity has been classified by Ventura County and the California Division of Mines and Geology as having a high liquefaction potential.²

Water Resources

Surface Hydrology

The City of Oxnard is located within the Santa Clara-Calleguas hydrologic unit, one of two major hydrologic units in Ventura County. A hydrologic unit is a geographic area with an independent and integrated system of natural water courses and groundwater basins.

Surface water resources located near the City include the Santa Clara River, Point Mugu Lagoon, the Port of Hueneme, the Channel Islands Harbor and Mandalay Bay Canal System, and McGrath Lake.

¹ City of Oxnard Planning Department: *City of Oxnard 2020 General Plan, "Open Space Conservation Element."* Oxnard, California: November 1990.

² City of Oxnard Planning Department: *City of Oxnard 2020 General Plan, "Open Space Conservation Element."* Oxnard, California: November 1990.

Freshwater and saltwater marshes also are found in and close to the Ormond Beach area. A network of drainage sloughs which carry agricultural run-off are also found within the Oxnard Plain. In the vicinity of the project site is the Edison Canal. This canal conveys cooling water for the SCE Mandalay Bay power station from Channel Islands Harbor. The canal terminates at the intake structures to the generating facility, where it is circulated through the generators and ultimately discharged to the Pacific Ocean via outfall structures lying on Mandalay Beach.

Groundwater Hydrology

Oxnard lies above a large aquifer known as the Oxnard Plain Basin. The Oxnard Plain Basin consists of three major units on the basis of piezometric levels, water quality and geologic structure. These units are: (1) the semi-perched zone; (2) the upper aquifer system; and (3) the lower aquifer system, as illustrated in Figure 2.0-5. The semi-perched aquifer extends from several feet below the ground surface to an average depth of 75 feet. A layer of clay separates the semi-perched aquifer from the upper aquifer system. This layer of clay is considered an aquitard that inhibits ~~allows~~ significant amounts of water to migrate ~~ing~~ vertically. The upper aquifer system consists of the Oxnard and Mugu Aquifers at a depth of 150 to 450 feet. The lower aquifer system includes the Hueneme, Fox Canyon and Grimes Canyon Aquifers at a depth of over 450 feet. In Oxnard, depth to the water table ranges from 0 feet near the coastline to approximately 40 feet at the northeastern corner of the City. These depths are related to the pumping of various water wells and are not indicative of the natural condition. An approximation of the highest natural condition, based on a 1985 U.S. Geological Survey Report, indicates that depth to the water table is approximately 15 feet or less throughout the City.

On a site-specific basis, groundwater was encountered at a depth of five to eight feet during borings conducted for the geotechnical investigation.³ This shallow groundwater on the site may be separated from the semi-perched aquifer in some areas of the site by a confining layer of clayey silt and silty clay.

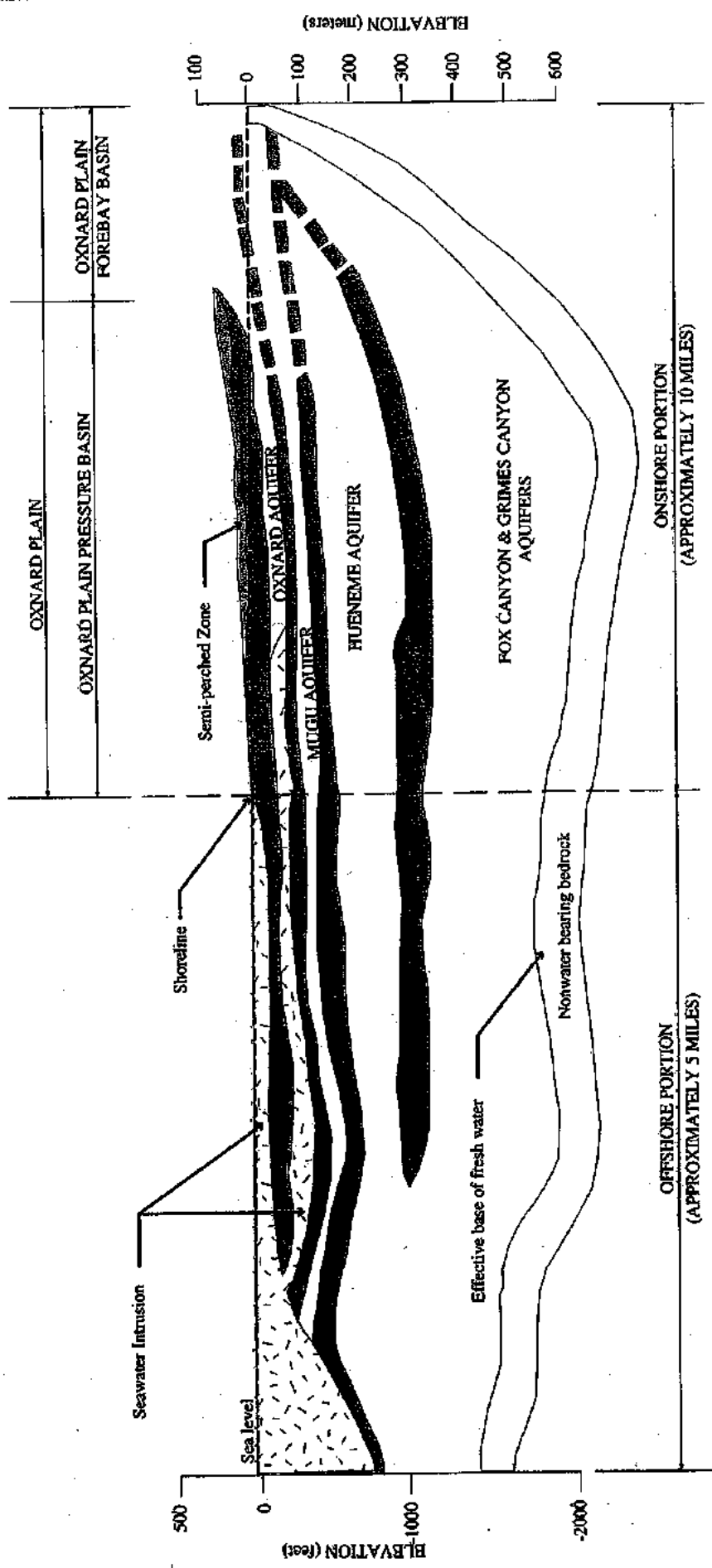
Biological Resources

The Open Space and Conservation Element of the *Oxnard 2020 General Plan* as well as the City's Coastal Land Use Plan do not identify the presence of any sensitive resources on the project site. However, sand dune habitat is present on nearby properties located due west and northwest. Sand dunes are contained in a 54-acre parcel located to the west of project site between Harbor Boulevard and the Edison Canal. A 26-acre Sand dune habitat area is also located at the southeastern quadrant of the Harbor Boulevard and West Fifth Street intersection.

³ Geolabs Westlake Village, *Preliminary Geotechnical Investigation, Tract 5266, August 30, 2000.*

SOUTHWEST

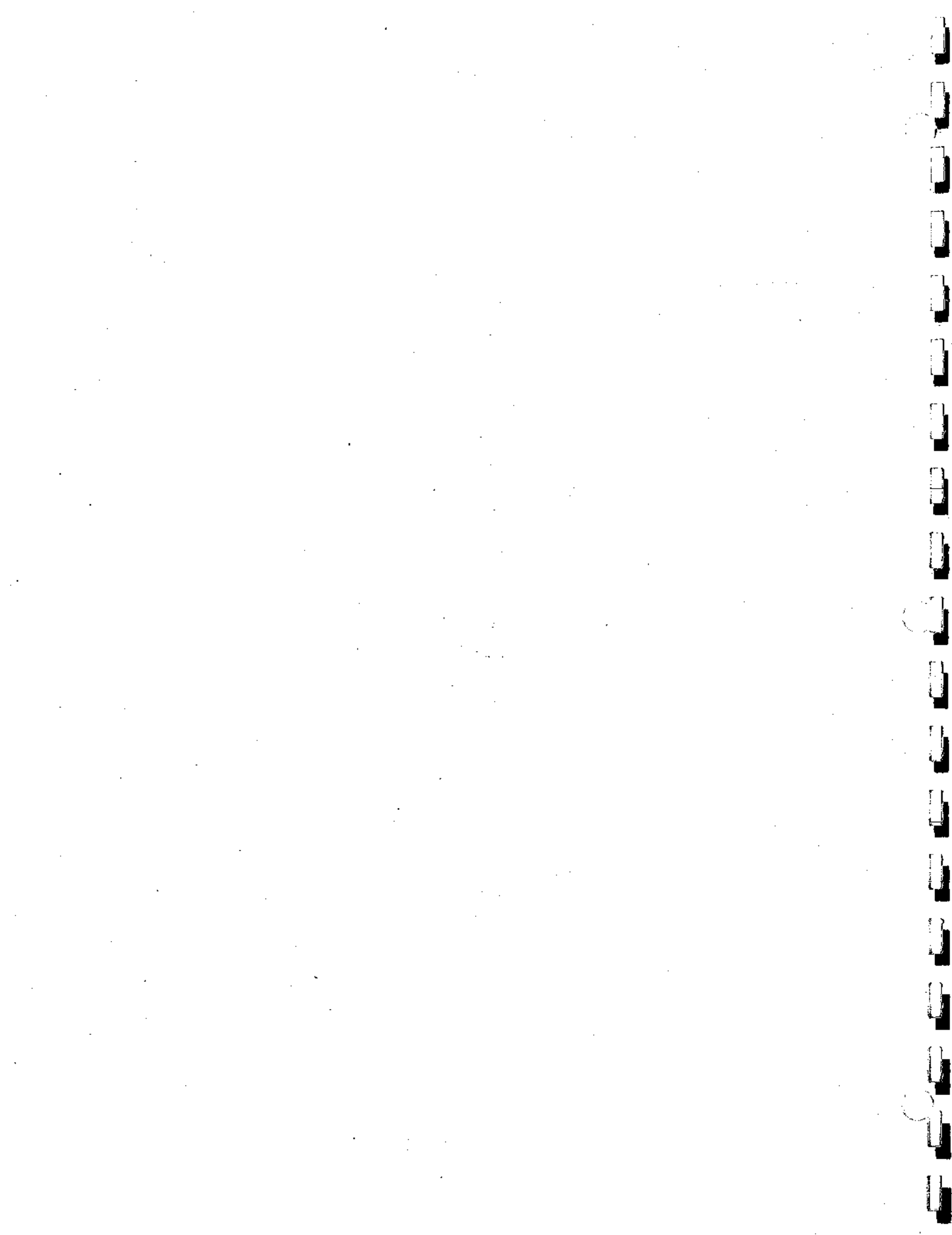
NORTHEAST



SOURCE: Harding Lawsoh & Associates, Baseline Report: Geotechnical Hydrology and Hazardous Materials, Ormond Beach Specific Plan, August 21, 1991.

FIGURE 2.0-5

Oxnard Plain Aquifer Zones



Air Quality

The City is located in the South Central Coast Air Basin, which is comprised of Ventura, Santa Barbara, and San Luis Obispo Counties as illustrated in Figure 2.0-6. Air quality in this region is degraded by high pollutant concentrations resulting from vehicular and stationary source emissions, combined with meteorological influences including frequent summer inversion layers.

The Ventura County portion of the South Central Coast Air Basin is divided into ozone attainment and non-attainment areas, as designated by the U.S. Environmental Protection Agency (EPA). The ozone attainment area consists of the northern half of the County (north of the southern border of the Los Padres National Forest), while the ozone non-attainment area consists of the southern half of the County (south of the southern border of the Los Padres National Forest). The non-attainment area is divided into the Ojai Valley Airshed and the Oxnard Plain Airshed. The City is located in the Oxnard Plain Airshed.

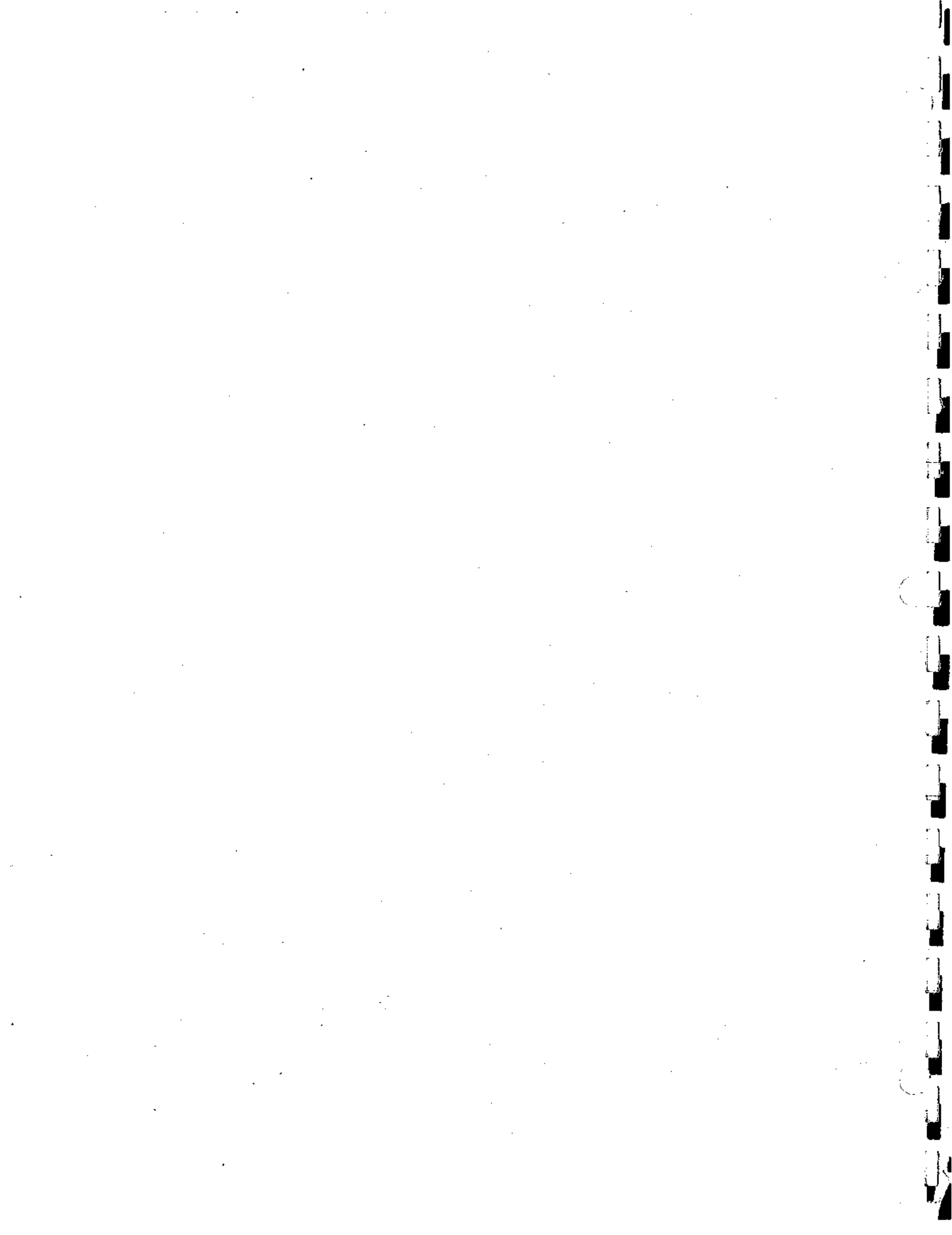
Ambient air quality in the area is monitored by the Ventura County Air Pollution Control District (VCAPCD) at the El Rio monitoring station in north Oxnard. The El Rio monitoring station has consistently registered values above state and Federal standards for ozone, while the standard for PM₁₀ (particulates) has also been consistently in excess of state standards. Please reference Section 4.7, Air Quality, for further information on local and regional air quality.

Agricultural Resources

Farming is a major component of the local economy, as the coastal plain of Ventura County is perfectly suited to agricultural activity. The mild, almost frost-free Mediterranean climate combined with fertile soils allows the year-round production of numerous crops.

The conditions found on the Oxnard Plain have been identified by the California Department of Conservation to meet the criteria which defines important farmlands. This is a classification system used to measure the fertility of the soil and the ability to sustain the long-term production of agricultural crops. Farmland found within the City predominantly comprise prime farmland and farmland of statewide importance as identified by the State Department of Conservation.

Prime farmland is defined as land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Farmland of statewide importance is land



that is similar to prime farmland, but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture.

Farming in Ventura County is a major contributor to the nation's food supply as well as a vital component of the local economy and way of life. Given the importance of agriculture in Ventura County, the cities on the Oxnard Plain in conjunction with the County of Ventura have established greenbelts intended to preserve agricultural land and open space. The City of Oxnard is bounded by the 29,200 acre Oxnard-Camarillo Greenbelt to the east and the 4,600-acre Ventura-Oxnard Greenbelt to the northwest. Agricultural land in the vicinity of the project site is currently found to the west and north of the property.

Socio-economics

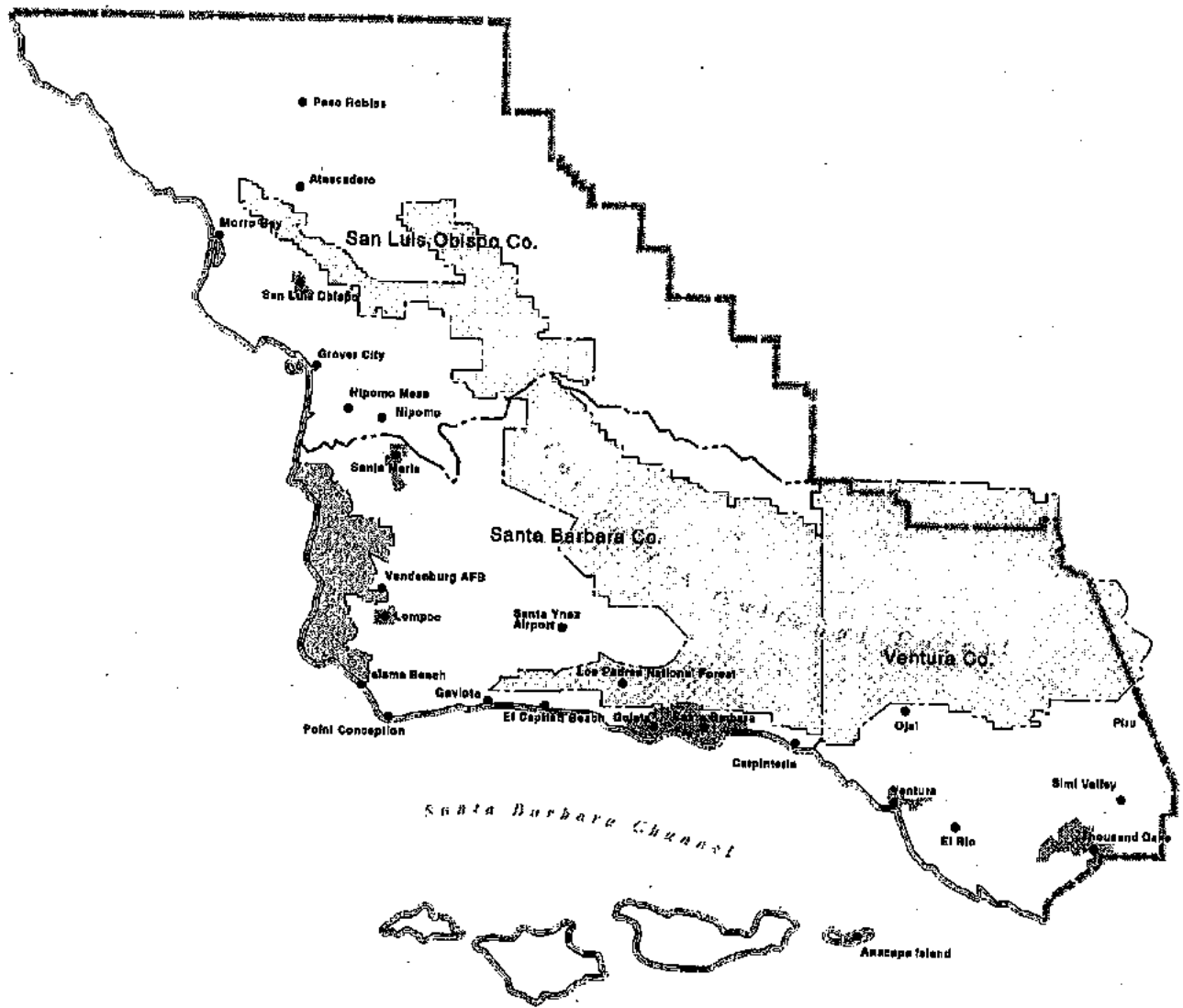
The County of Ventura and local cities have undergone sustained demographic growth and the related need for housing. For instance, population growth within the County registered a 12.5 percent increase for the ten-year period from April of 1990 to the beginning of 2000. This represents an annual growth rate of more than 1 percent. On a local level, the City of Oxnard, which represents the most populated City within the County, experienced a 19.8 percent growth rate for the same ten-year period. The City had a population of 170,358 persons for the year 2000 according to the U.S. Census.

REGIONAL PLANS AND POLICIES

Regional Comprehensive Plan and Guide (RCPG)

The County of Ventura is within the six-county jurisdiction of the Southern California Association of Governments (SCAG), which also includes Los Angeles, Orange, San Bernardino, Riverside, and Imperial Counties. SCAG has divided its jurisdiction into 13 subregions to facilitate regional planning efforts. The City of Oxnard is located in the Ventura County Subregion as defined by SCAG.

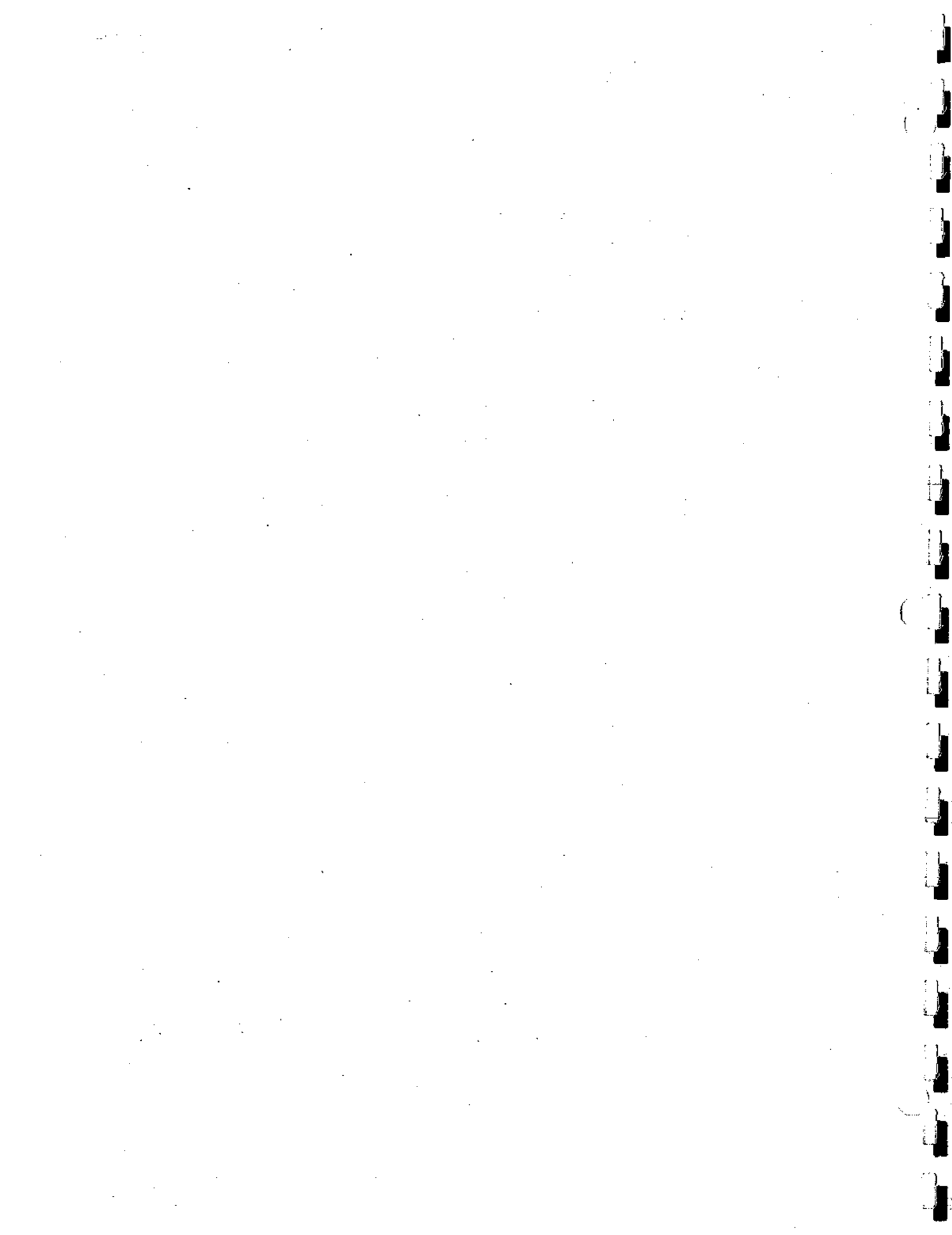
The RCPG is a comprehensive document intended to serve the SCAG region as a framework for decision making for the next 20 years. The plan includes sets of broad goals for the region and identifies strategies designed to guide local decision-making.



SOURCE: California Air Resources Board, California Air Quality Data, 1994.

FIGURE 2.0-6

South Central Coast Air Basin



Ventura County Air Quality Management Plan

The AQMP is designed to comply with the provisions of the 1988 California Clean Air Act and the 1990 amendments to the Federal Clean Air Act. The intent of the AQMP is to accommodate growth, to reduce air pollution levels, and to identify a control strategy representing the full implementation of known technology to reduce ozone-forming emissions from mobile and stationary sources. The current Ventura County Air Quality Management Plan (AQMP) was approved by the Ventura County Board of Supervisors and by the California Air Resources Board in November 1994. The Ventura County Board of Supervisors approved an update to the plan in December 1995. Subsequently, a 1997 AQMP revision was also approved. This latest revision proposed the adoption and implementation dates for nine control measures be revised. These control measures are contained in Alternative 2 of the 1995 AQMP Revision. For a detailed discussion on air quality and the consistency of the proposed projects with the AQMP, please see Section 4.7, Air Quality, of this EIR.

Water Quality Control Plan (Basin Plan), Los Angeles Region (4)

The California Regional Water Quality Control Board, Los Angeles Region (RWQCB), has jurisdiction over coastal drainages between Rincon Point and the eastern Los Angeles County line. In accordance with their authority under the California Water Code, the RWQCB has developed a "Basin Plan." The Basin Plan is designed to preserve and enhance water quality and to protect the beneficial uses of all regional waters. Specifically, this plan designates beneficial uses for surface and ground waters; sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and to conform to the State's anti-degradation policy; and describes implementation programs to protect all waters in the Region. For a more detailed discussion of water resources and the consistency of the proposed projects with this plan, please see Section 4.4, Marine Water and Sediment Quality, of this EIR.

LOCAL PLANS AND POLICIES

Oxnard 2020 General Plan

Land use decisions within the City of Oxnard are subject to the *City of Oxnard 2020 General Plan*. The *City of Oxnard 2020 General Plan*, adopted in 1990, was prepared to guide development of the City. Consistent with State Planning Law, the *General Plan* comprises the following elements: Growth Management, Land Use, Circulation, Public Facilities, Open Space/Conservation, Safety, Noise, Economic Development, Community Design, Parks and Recreation, and Housing. A primary component

of the Land Use Element is the 2020 Land Use Map, which designates the land use classifications and land use patterns intended to achieve the City's overall land use objectives. Please reference Section 4.1, Land Use & Planning, for a discussion of the consistency of the project with this plan.

Oxnard Local Coastal Plan (LCP)

Land uses on this property are also regulated by the Oxnard Coastal Land Use Plan as this site is within the Coastal Zone, as defined by the California Coastal Act. The California Coastal Act was enacted by the Legislature in 1976 to regulate coastal development. The act requires the preparation of a Local Coastal Program (LCP) by each local coastal entity. The LCP is intended to act as a guide for development and preservation of land found within the Coastal Zone, which is defined as that area of land located within 1000 yards of the sea. The California Coastal Commission is the body which manages coastal resources in accordance with the Coastal Act. Please reference Section 4.1, Land Use & Planning, for a discussion of the consistency of the project with this plan.

3.0 PROJECT DESCRIPTION

INTRODUCTION

The purpose of the Project Description is to describe the project in a way that will be meaningful to the public, reviewing agencies, and decision-makers. The CEQA Guidelines require that a Project Description address the following items: (1) a statement of project objectives; (2) a general description of the project's characteristics; and (3) a statement describing the intended uses of the EIR. The CEQA Guidelines state that the Project Description need not be exhaustive, but should provide the level of detail needed for the evaluation and review of potential environmental impacts.

PROJECT LOCATION

The 135.3-acre project site is located in coastal Ventura County within the incorporated boundary of the City of Oxnard. As shown previously on Figure 2.0-2, Site Vicinity Map, the project is located south of Wooley Road, west of Victoria Avenue, and north of Hemlock Street. The western boundary abuts a future navigation channel planned as part of the approved Tentative Subdivision Map No 5196.

PROJECT OBJECTIVES

As described in the Introduction to this EIR, the project site is located within the Mandalay Bay Specific Plan, which was adopted by the California Coastal Commission in January of 1985. The proposed project identified on Tentative Tract Map No. 5266 implements the Mandalay Bay Specific Plan and is consistent with the City of Oxnard Coastal Land Use Plan. As such, the project's objectives reflect many of the policies and objectives of these regulatory documents including:

- Provide a variety of water oriented residential dwellings consistent with the land use pattern of the Mandalay Bay Conceptual Land Use Plan;
- Provide visitor serving commercial uses consistent with the land use pattern of the Mandalay Bay Conceptual Land Use Plan;
- Provide mixed-use residential/commercial areas consistent with the land use pattern of the Mandalay Bay Conceptual Land Use Plan;
- Promote public access and recreation along the waterfront through construction of a water front promenade, public boat launch, and both public and private boat slips.

PROJECT CHARACTERISTICS

Overview of Site Plan

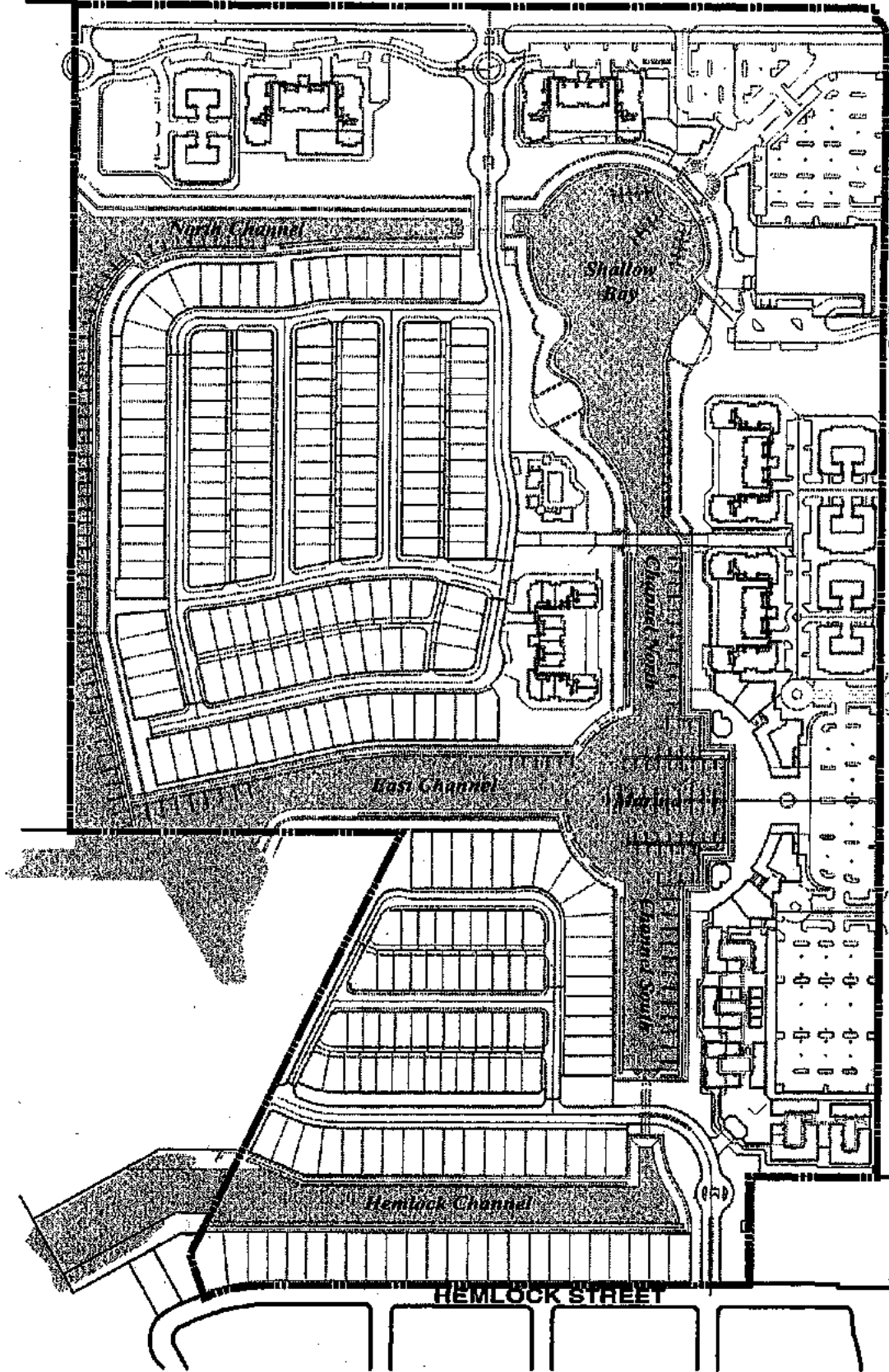
Tentative Tract Map No. 5266 is depicted on Figure 3.0-1. As shown, the project represents a water-oriented, mixed-use development consisting of residential, commercial, and recreational land uses, as well as associated marina channels, roadways, and other improvements. The land plan places sensitive single family residential uses away from the primary roadways that surround the site. Less sensitive mixed use and visitor serving commercial uses are found along Wooley Road and Victoria Avenue. In addition, the tract map incorporates a development setback along Wooley Road that provides a 200-foot buffer separating proposed uses from active agricultural fields located to the north. This arrangement enhances the water-oriented nature of the community by focusing the residences along the waterfront.

Direct access to the project site would be provided via three driveways along Wooley Road, three access points along Victoria Avenue, and a proposed new road connecting to Hemlock Street. The primary access for the northern residential area would be off Wooley Road approximately 1,070 feet west of the Victoria Avenue/Wooley Road intersection. Primary access for the commercial would be off Victoria Avenue at Ketch Street. The internal street network consists of 56 to 60 foot-wide private roadways with collector roads serving the individual neighborhoods.

The project will create four new marina channels, three of which will be connected to the existing network while one is to be shared with the approved TTM 5196. Banks of the marina channels will be of sufficient size to accommodate boats up to 45 feet in length and will consist of either concrete seawall or revetment ("riprap") slopes depending upon location. Boat docks will extend from the banks containing slips for both public and private use. A shallow bay with a depth of 8 feet will be created in the northeast portion of the project site for activities such as wind surfing, paddleboats, wading, or swimming. An overview of the proposed land uses and improvements are provided in Table 3.0-1 and described in depth below.

A total of 70948 dwelling units are planned by the project. Approximately 274 single family dwellings and 42 multi-family units are to be constructed on 33.4 acres of the site, with these units counting towards the maximum allowable density set forth by the Specific Plan. Additional residential units are allowed within the visitor serving and mixed-use areas. Under these designations, the project has an additional 393 432 residential units, along with approximately 167,000 square feet of commercial space. Both the mixed-use and visitor serving commercial areas are located along Victoria Avenue

WOOLEY ROAD



VICTORIA AVENUE

HEMLOCK STREET

FIGURE 3.0-1

Tentative Tract Map NO. 5266

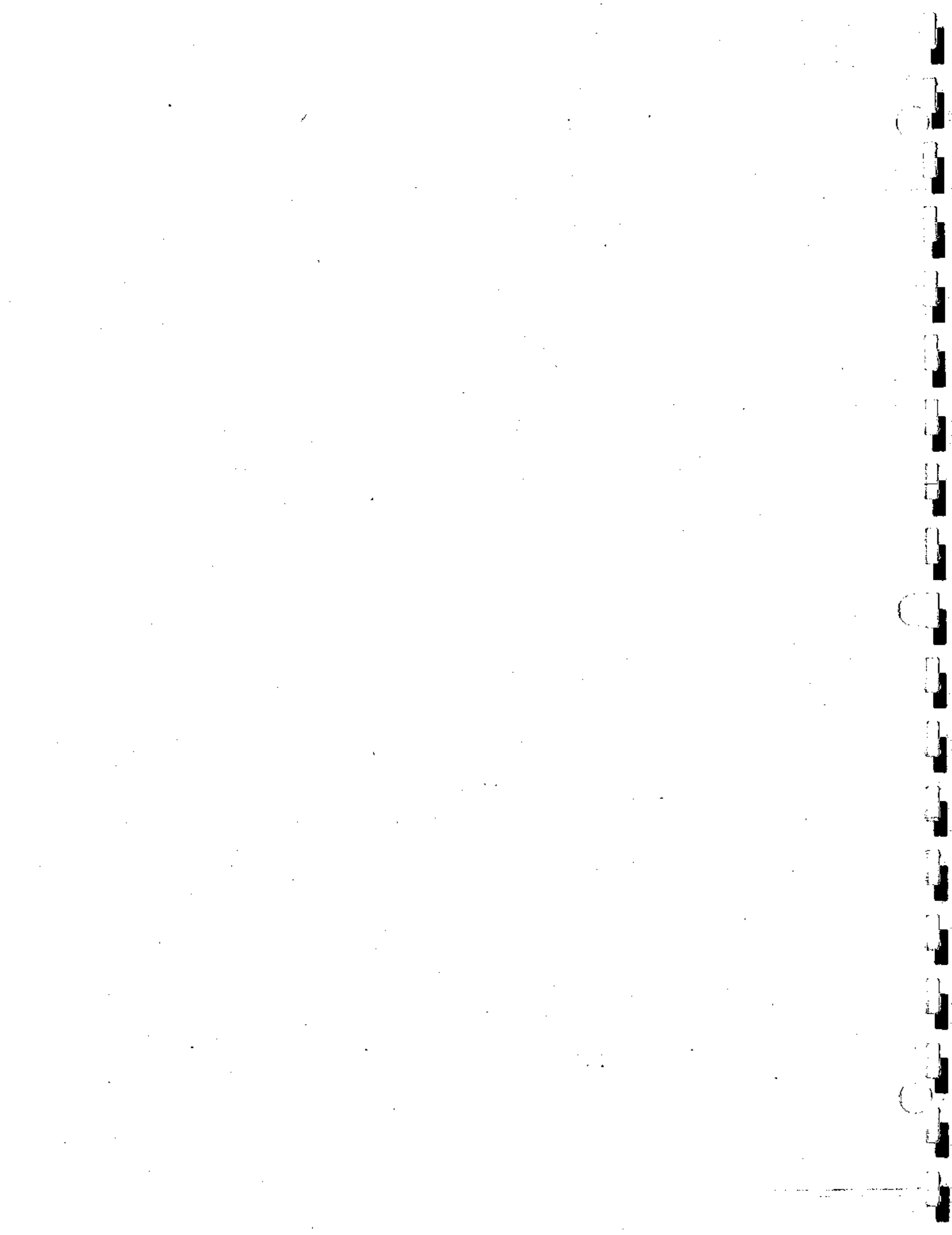


Table 3.0-1
Summary of Uses for Tentative Tract Map 5266

Allowed Land Uses	Components	Total Acres	Percent of Site
Single Family Residential	274 dwelling units (du)	33.4	24.7%
Attached Residential	42 dwelling units	1.8	1.3%
Visitor Serving Commercial/Residential	112,000 ¹ gross square feet (gsf) retail, 163 du residential, parking	20.2	15%
Mixed Use Commercial	55,000 gsf, 230 ⁷⁴ du residential, parking	14.5	10.7%
Open Water	Marina channels, shallow bay	32.3	23.9%
Public Parks & Recreation	Public parks, waterfront promenade	16.5	12%
Private Recreation	Club building	0.8	0.06%
Wooley Road	Sidewalk improvements, etc.	3.0	2.2%
Internal Circulation & utilities	Private streets, bridge, lift station	12.8	9.4%
TOTAL		135.1	100%*

Source: Tentative Tract No. 5266 Map, December 2001.

* May not sum to 100% due to rounding.

¹ Live/Work space provides up to an additional 20,200 sf of commercial space.

and Wooley Road. Approximately 35 acres of the project site is designated for such uses. The balance of the project is planned for open water (32.3 acres), parks and recreation (16.5 acres), and necessary infrastructure improvements.

Proposed Uses

Residential Development

The residential component of the project consists of single family and attached residential product. Figure 3.0-1 depicts the location of single family residential lots within the project area. Single family residential units will occupy 274 lots. The lots will consist of three distinct sizes, each of which will contain homes of six distinct architectural types.

A total of 82 lots in the 6,000-square-foot range are planned. These lots would be 120 foot deep and 50 foot wide. A total of 59 lots in the 5,000 square foot size range are proposed, with the typical lot size being 112.5 feet deep by 45 feet wide. Finally, a total of 133 single family lots in the 4,000 square foot size range are planned, with the typical lot size being 102.5 feet deep by 40 feet wide. Attached

residential uses consist of rental apartment units as well as townhomes or flats that are mapped as condominium lots. This product type occurs on a total of 7 lots.

Figure 3.0-2 depicts a typical building elevation for the homes planned on 6,000 square foot lots. This product type consists of two-story detached residences with front-loaded (direct street access) garages. These lots are located on water frontage both within the island areas and along Hemlock Street. Typical lot configuration will be 50 feet by 120 feet.

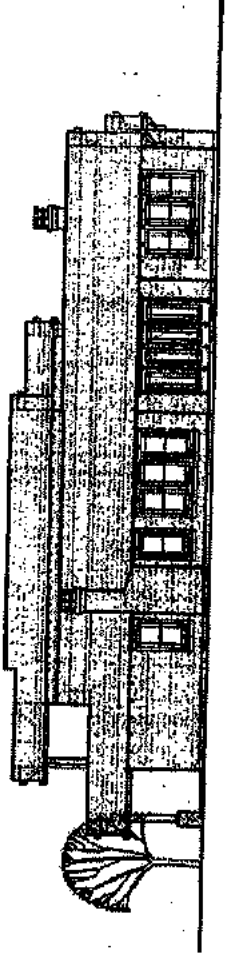
Examples of typical building elevations for the homes planned on 5,000 square foot lots is depicted on Figure 3.0-3. Houses on this lot type are two-story detached residences with rear-loaded (alley lane access) garages that results in the absence of garage doors on street elevations. These lots are located on water frontage. A central tier of these lots will front onto a pedestrian paseo that will provide an additional open space amenity for these units, and interior sections within the main island area. A typical lot configuration is 45 feet by 112.5 feet.

A typical elevation of homes planned on 4,000 square foot lots is shown in Figure 3.0-4. Houses on this lot type are two-story detached residences with rear-loaded (direct street access) garages. These lots are located both on the interior portion of the islands and on water frontage. They are intended to have garage access off of lanes that will result in the absence of garage doors on street frontage elevations. Typical lot configuration will be 40 feet by 102.5 feet.

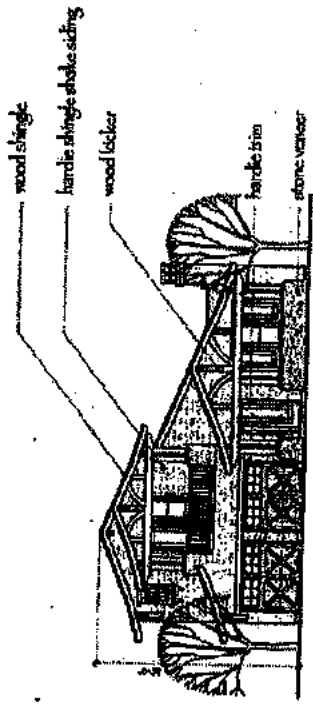
Attached residential projects are planned in a variety of architectural styles and locations, including waterfront. The location of attached projects were depicted in Figure 3.0-1, while typical building elevations for the attached product type, including multi-family, rental units, and mixed-use areas are provided on Figures 3.0-5 through 3.0-7.

Visitor Serving Commercial Development

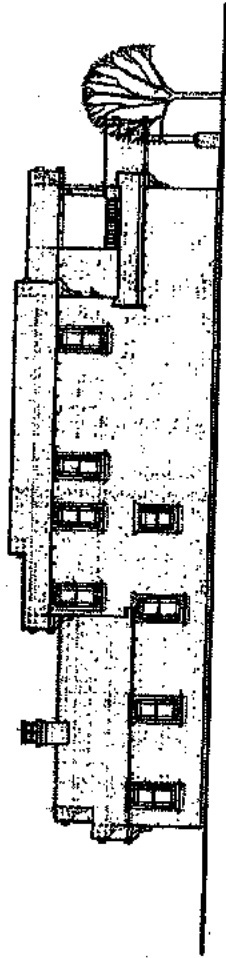
Visitor serving commercial and mixed uses are planned along the frontage of Wooley Road and Victoria Avenue. A Typical elevation of the Marina Commercial area is depicted in Figure 3.0-8. Commercial uses within these areas will be restricted to those allowed by the coastal zoning regulations for the Coastal Visitor Serving Commercial (CVC) and Coastal Neighborhood Commercial (CNC) subzones. Mixed-use areas are intended to accommodate a combination of commercial and residential uses. Buildings in the commercial area would be a maximum of three stories in height and will contain 167,000 square feet of commercial space. The number of residential units that will be constructed in these areas total 398 ~~432~~ dwelling units.



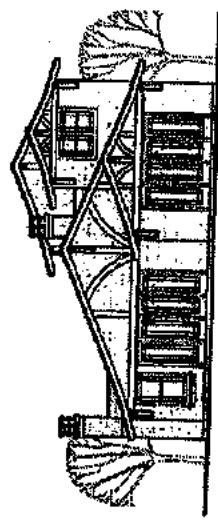
Right Elevation



Front Elevation



Left Elevation

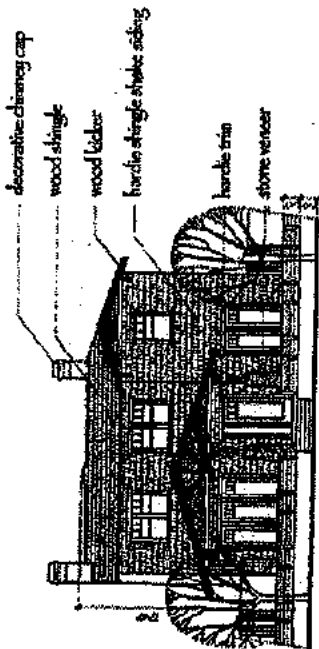


Rear Elevation

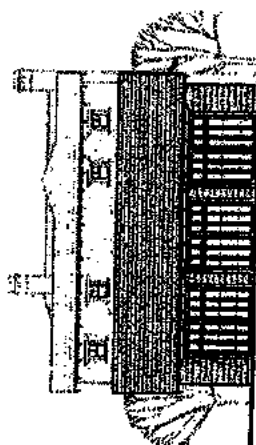
FIGURE 3.0-2

Typical Building Elevations—6,000 Square Foot Lots

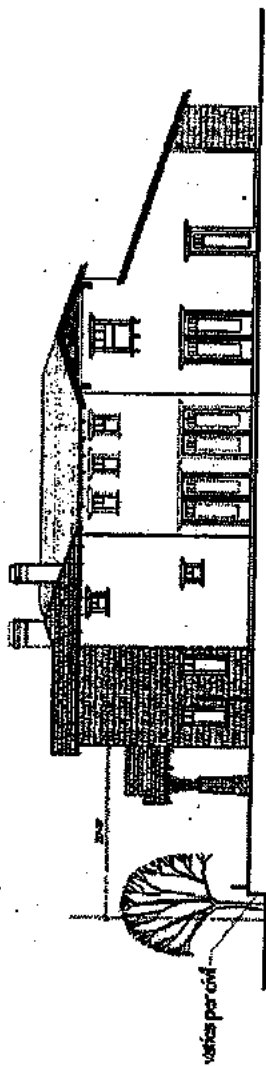
TSM 5266 SUPPLEMENTAL DESIGN



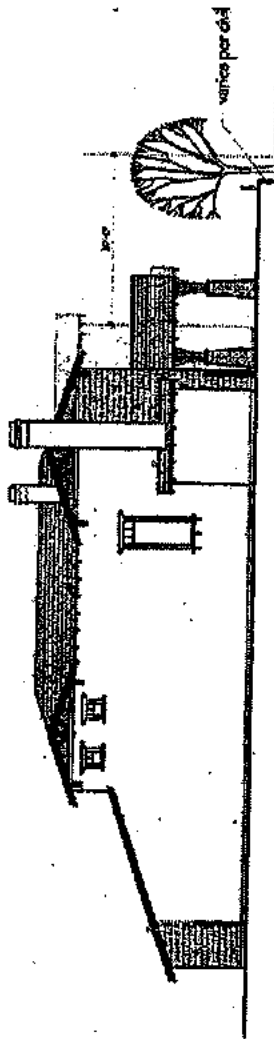
Front Elevation



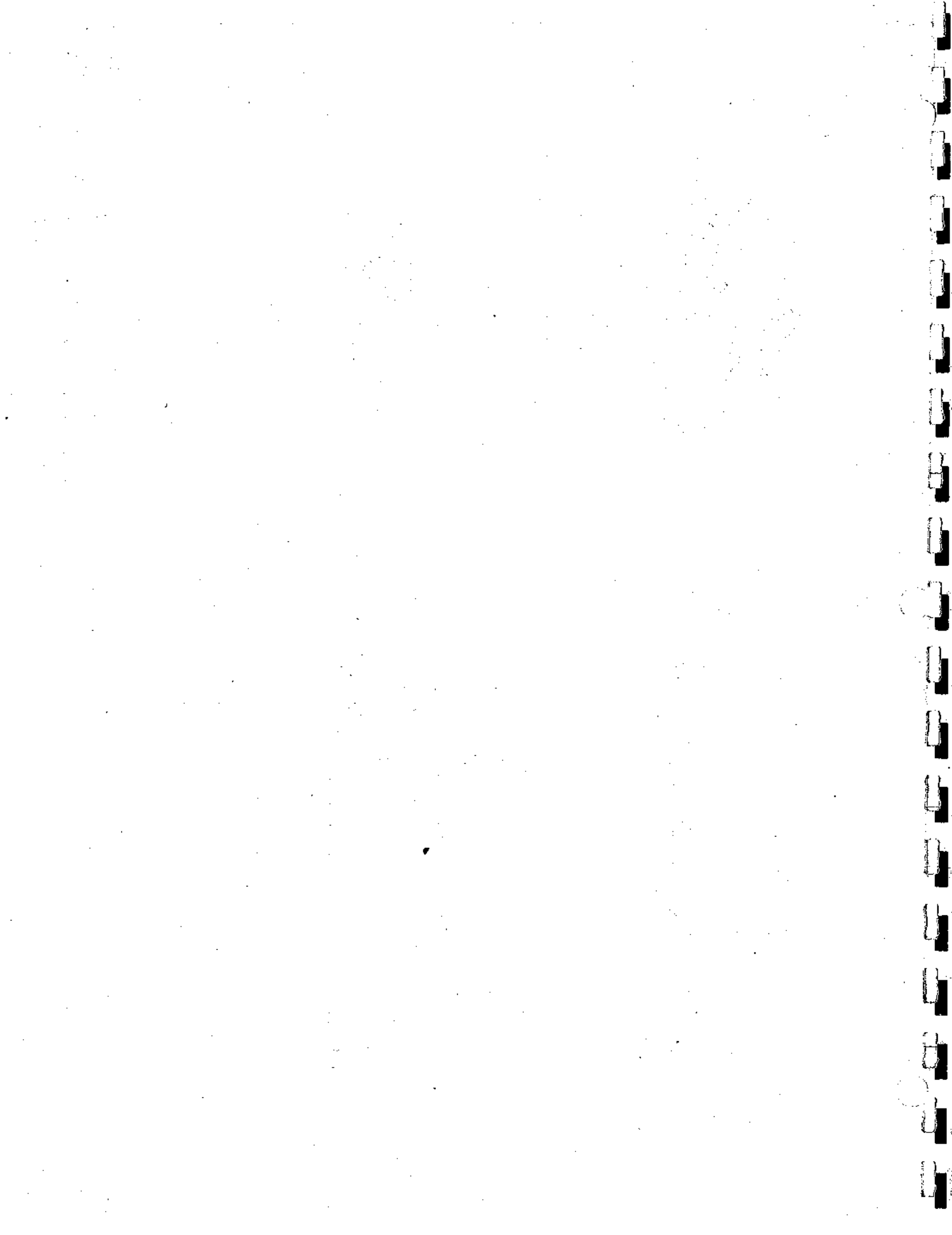
Rear Elevation

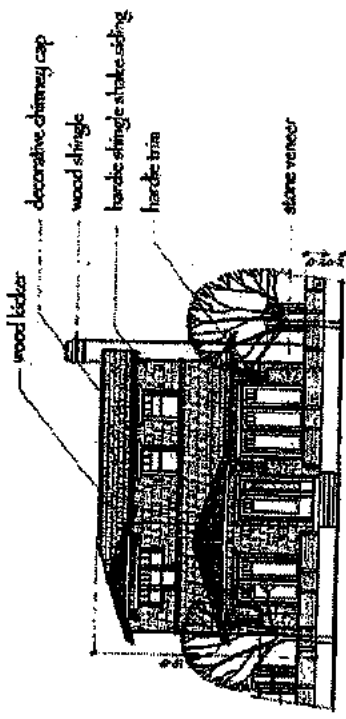


Right Elevation

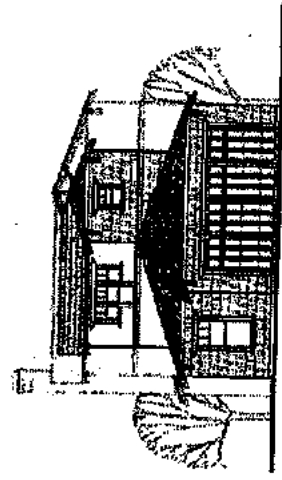


Left Elevation

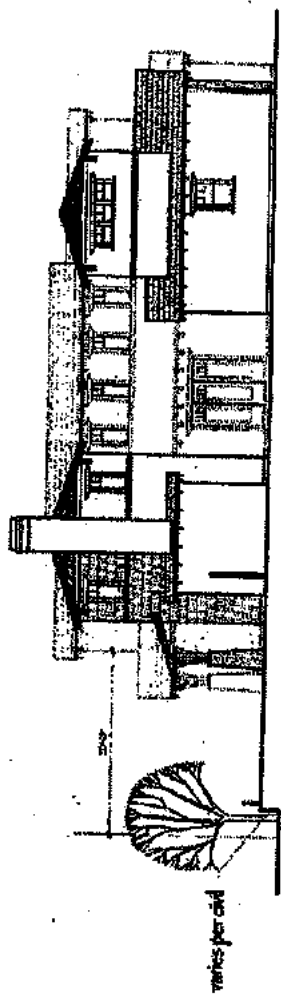




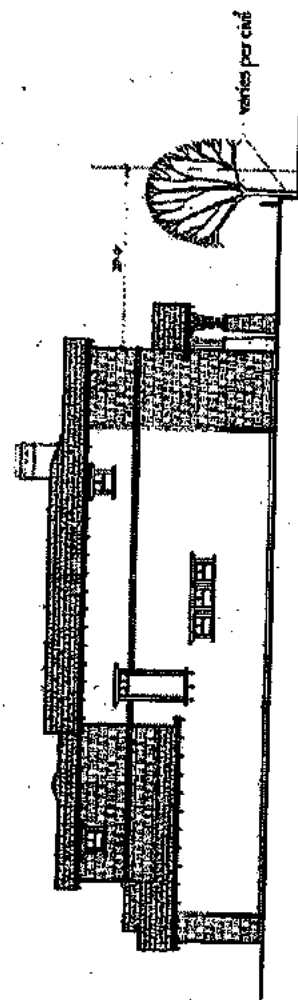
Front Elevation



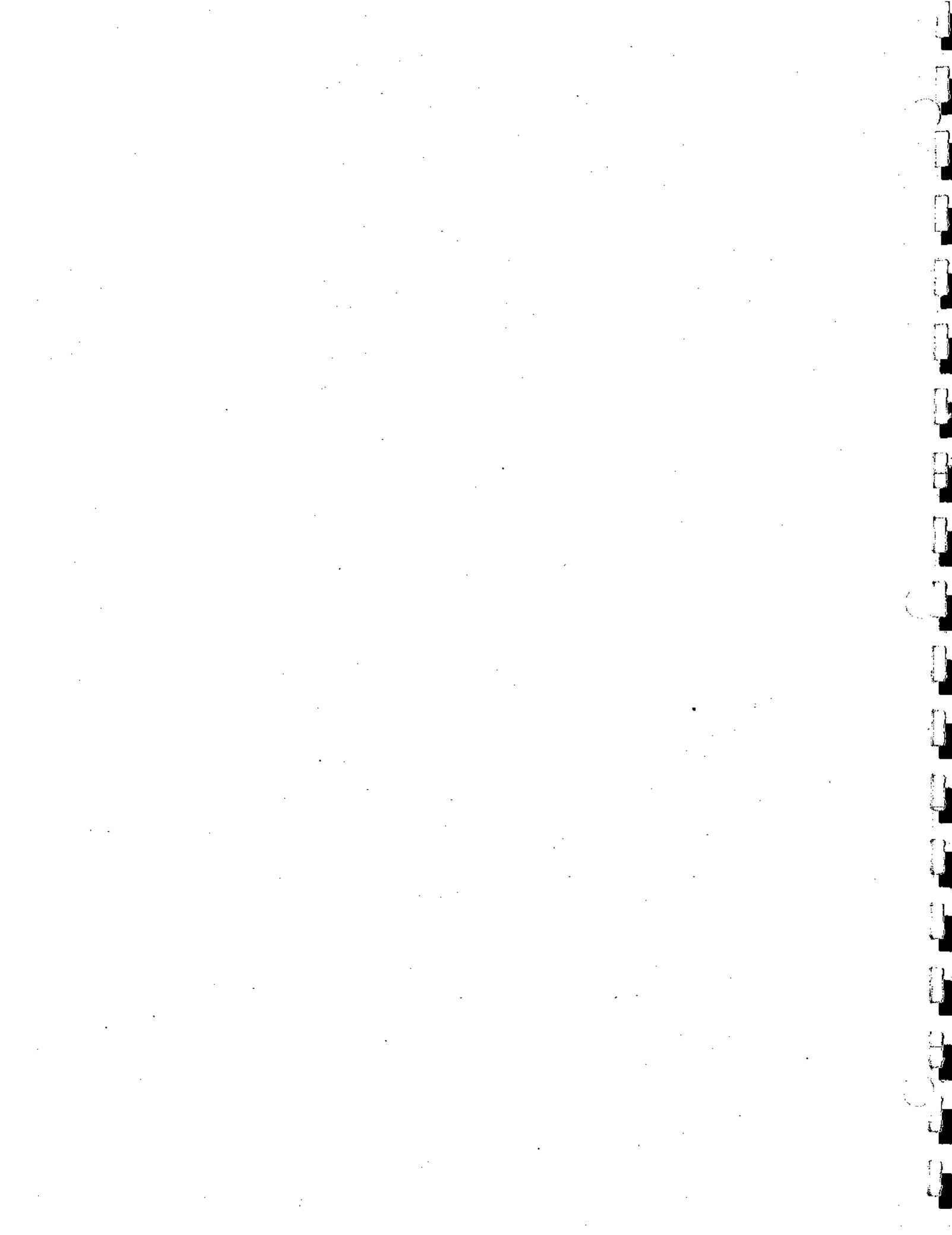
Rear Elevation

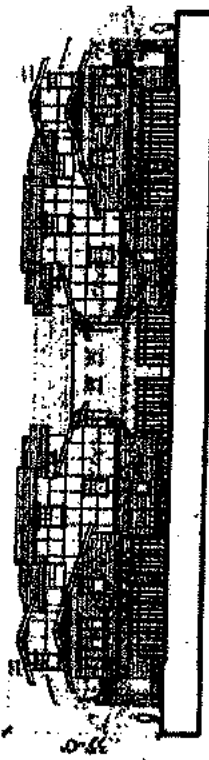


Right Elevation

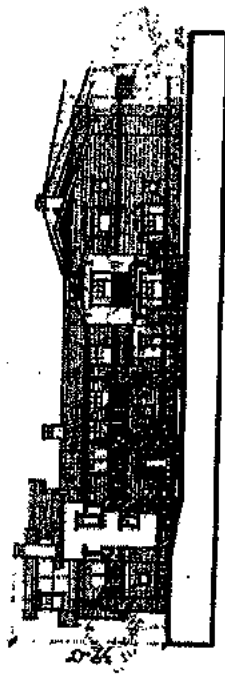


Left Elevation

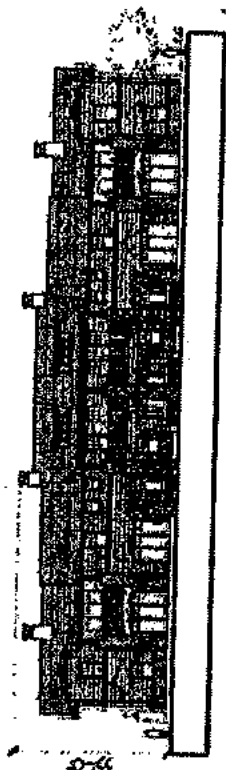




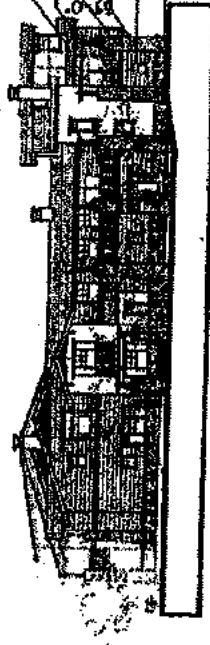
Rear Elevation



Left Elevation



Front Elevation



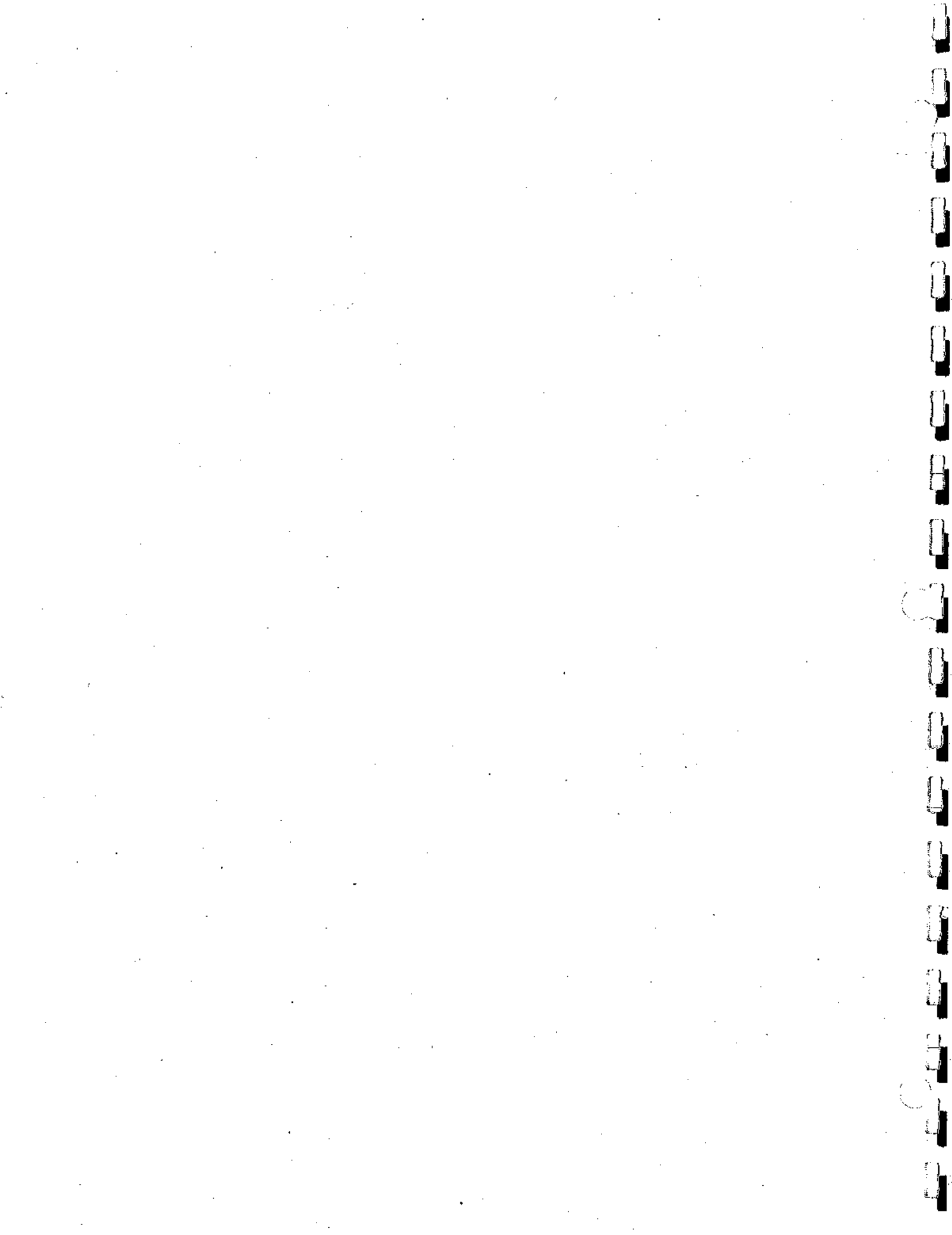
Right Elevation

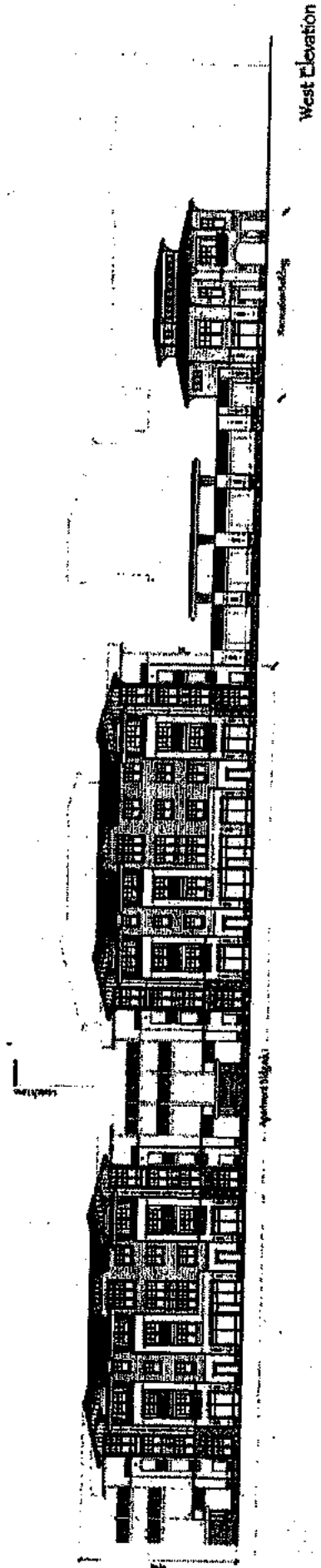


FIGURE 3.0-5

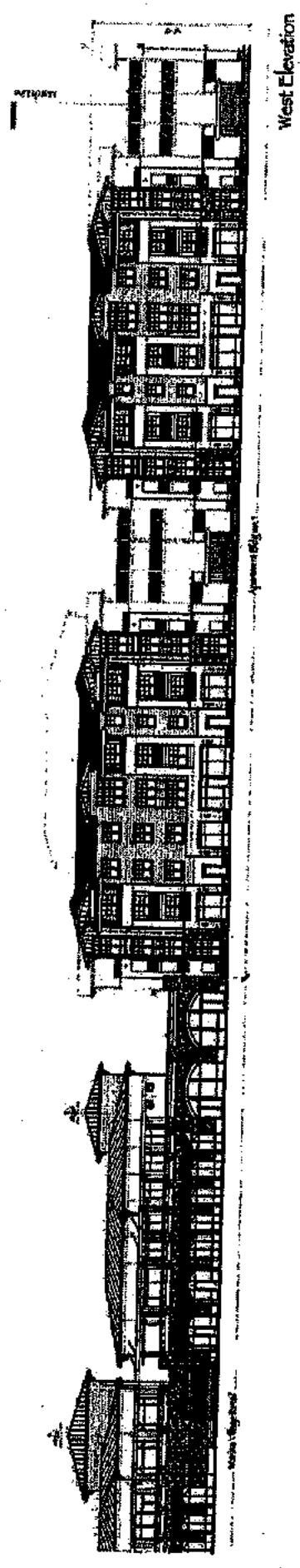
Typical Building Elevations—Multi-Family 14plex

TSM 5266 SUPPLEMENTAL DRAFT EIR





West Elevation

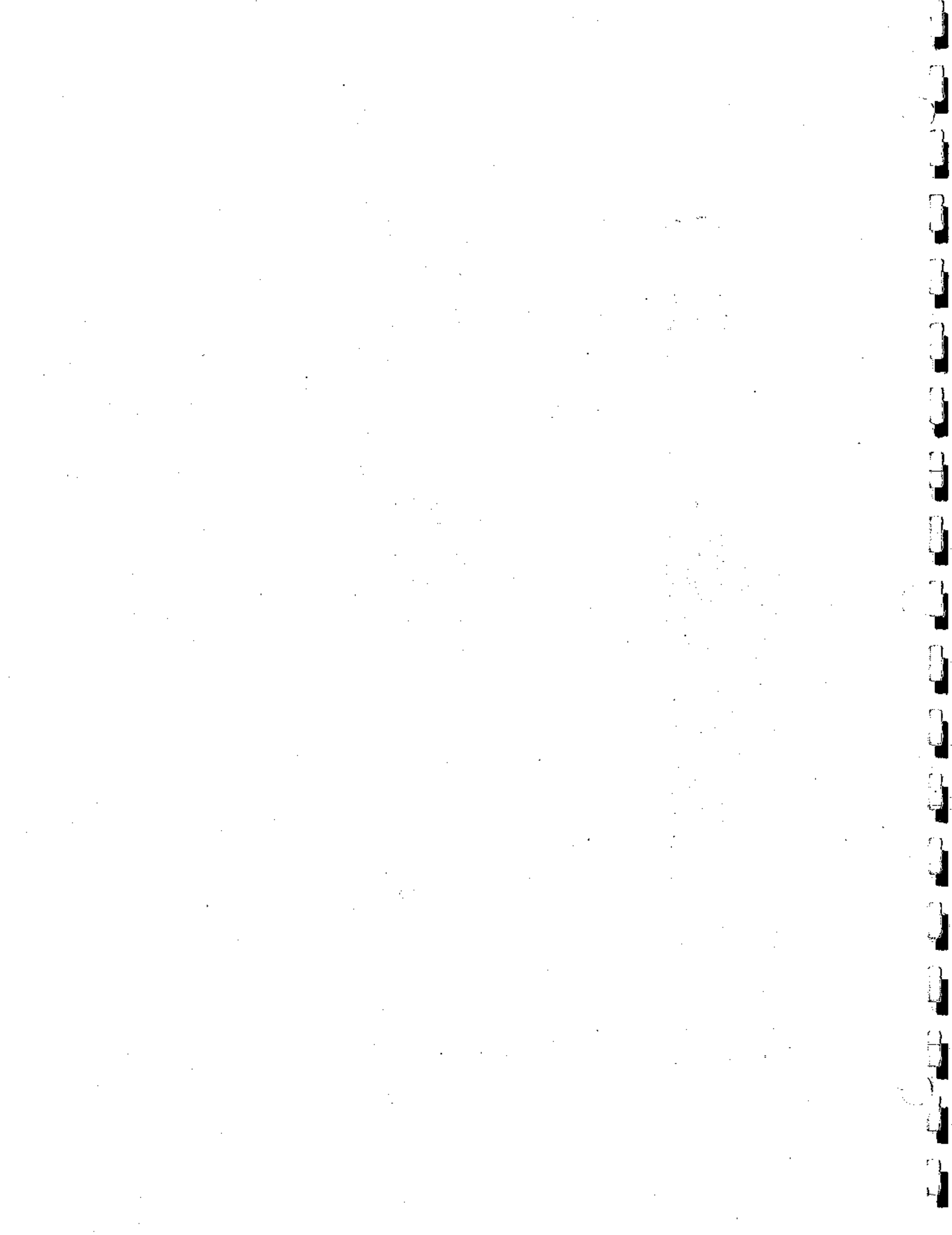


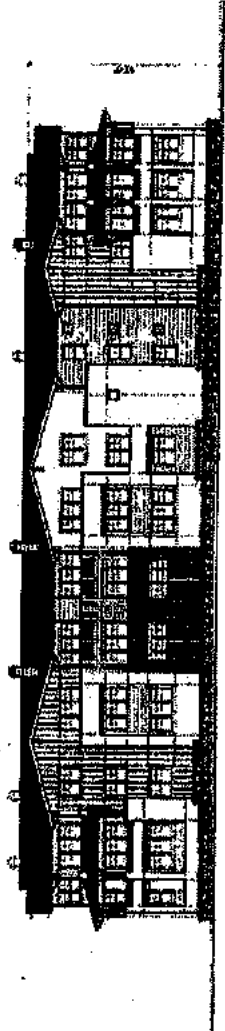
West Elevation

FIGURE 3.0-6

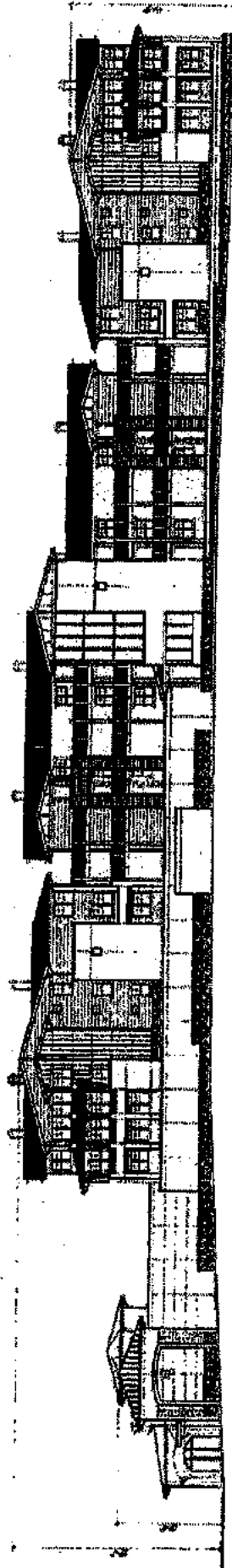
Typical Building Elevations—Live/Work Apartment Unit

TSM 5266 SUPPLEMENTAL DRAFT BIR





West Elevation

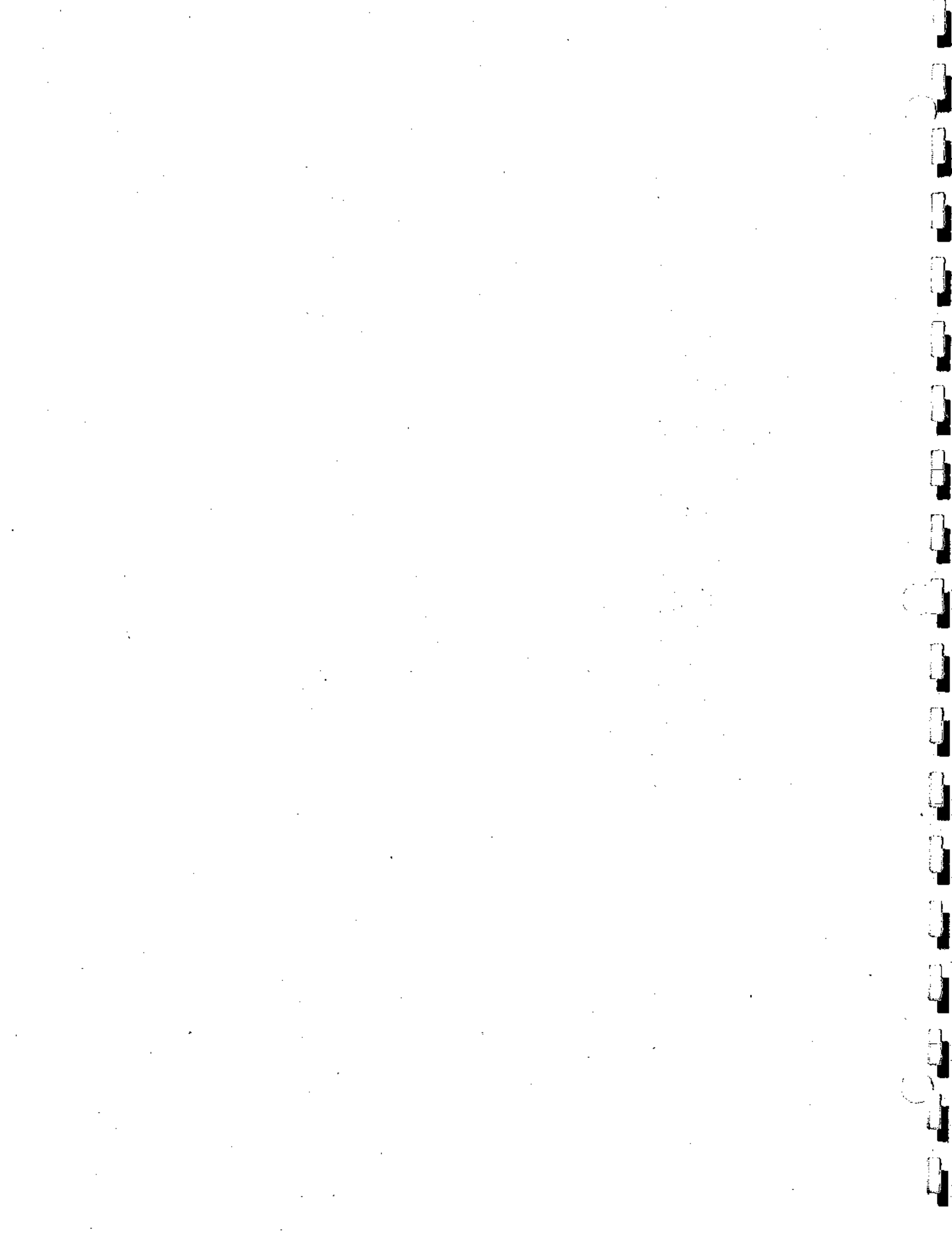


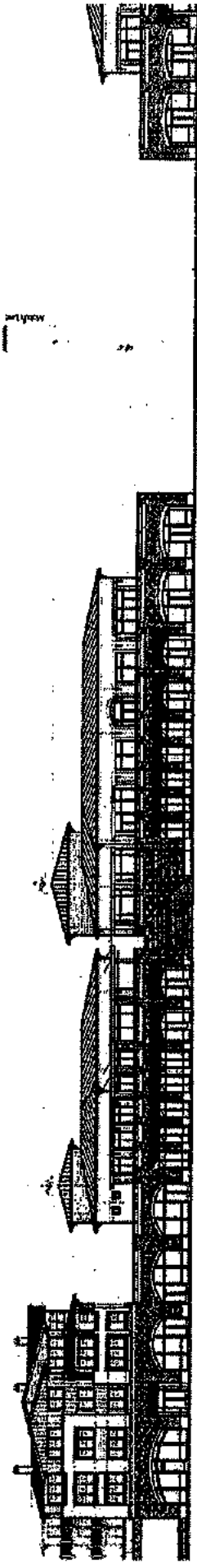
North Elevation



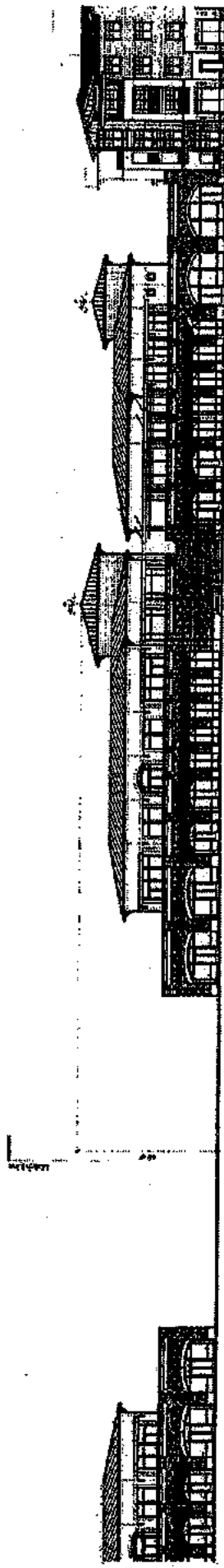
FIGURE 3.0-7

Typical Building Elevations--Mixed Use Residential Unit





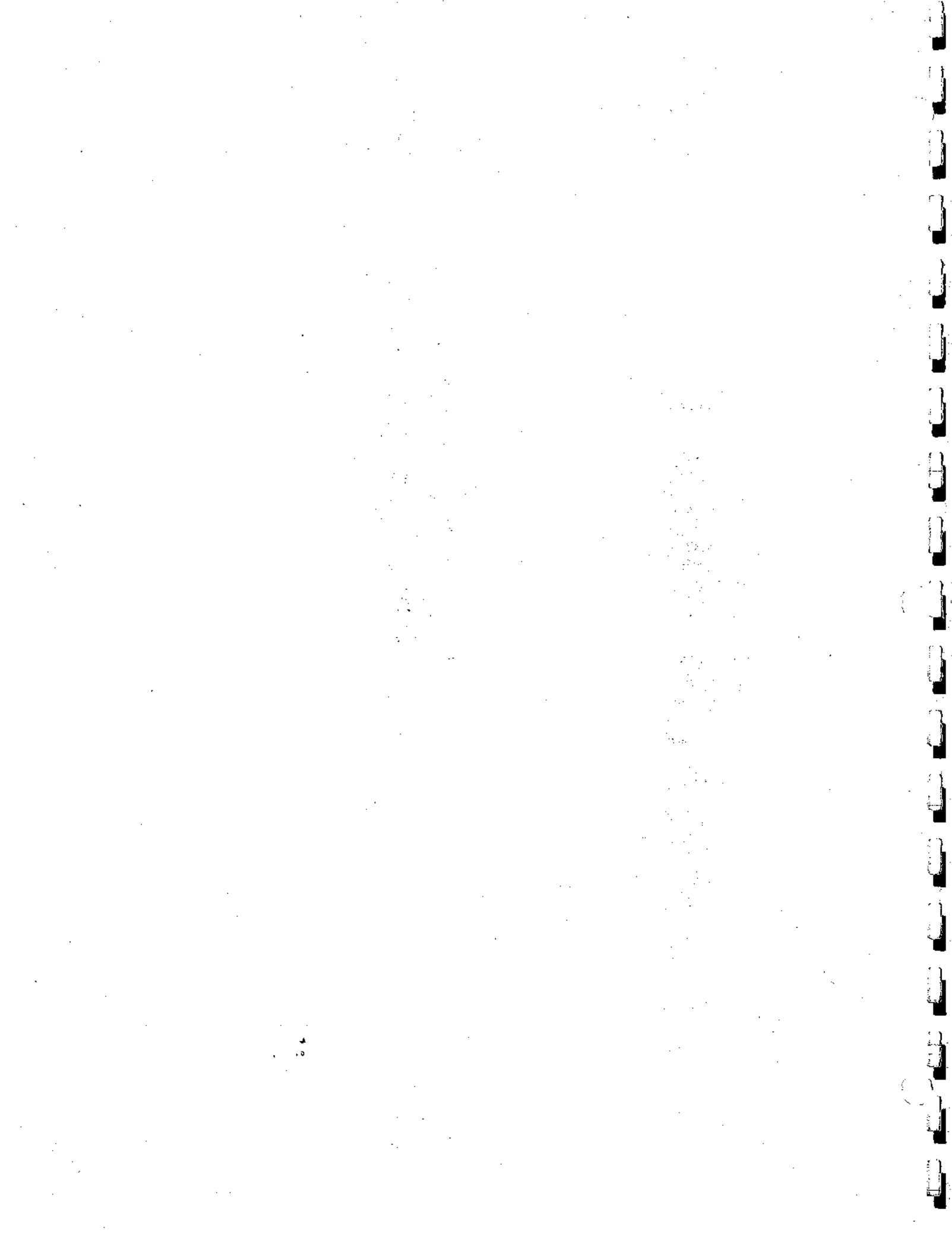
West Elevation



West Elevation

FIGURE 3.0-8

Typical Building Elevations—Marina Retail



Public Parks

The project will provide two main public parks, with one park (3 acres) located in the northwest area of the project, and the second park (3 acres) located adjacent to the southeast area of the shallow bay. A waterfront promenade will be provided along the North Channel, around the shallow bay, and along the east side of the Marina Channel North, the public marina and the Marina Channel South. A public walkway and smaller pocket parks will be provided around the Main Island. A pedestrian walkway link from the existing public access around Harbor Island will be provided through a linear park on the north west side of the proposed single family residences on the expansion of Harbor Island, which will continue along the north side of "I" Street to Hemlock Street. A total of 16.5 acres of public park will be provided, bringing the total public park provided in the buildout of the MBSP to 27.6 acres.

Marina Development

In addition to landside development, the project will involve the excavation and construction of 6 stretches of marine navigation channel, an 8-acre marina, and an 8-acre shallow tidal basin. The project will provide public and private docks containing a total of 480 boat slips located in the main marina basin, shallow bay, and around the residential islands. Approximately 32 acres of new waterways will be created. The channels will connect to an existing system located west of the site and will provide boat access to the Edison Canal and Channel Islands Harbor. One marina channel will be shared with the approved Westport at Mandalay Bay project (Approved TTM 5196). Vessel navigation is restricted to the channels, with the shallow bay limited to small craft such as windsurfers, kayaks, small sailboats or rowboats.

(a) Navigation Channels

Channels vary between 126 feet and ~~300~~240 feet in width dependent upon location. Channel banks will be constructed of concrete sea wall or revetment slope. Depth of the channels will be a uniform 12.8 feet below mean sea level, and the bottoms would consist of exposed soil. The channels have been designed to promote water circulation within the marina.

Figure 3.0-9 shows several cross sections of the proposed marina channels. As shown, the existing Mandalay Bay channel to the south of Harbor Island will be completed to the east as the Hemlock Channel, and will have a minimum width of 143 feet. Typically, at least 2 culverts 10-feet in width will be used to connect channels, with the culvert invert at -5.8 MSL and the soffit at +6.2 MSL to ensure

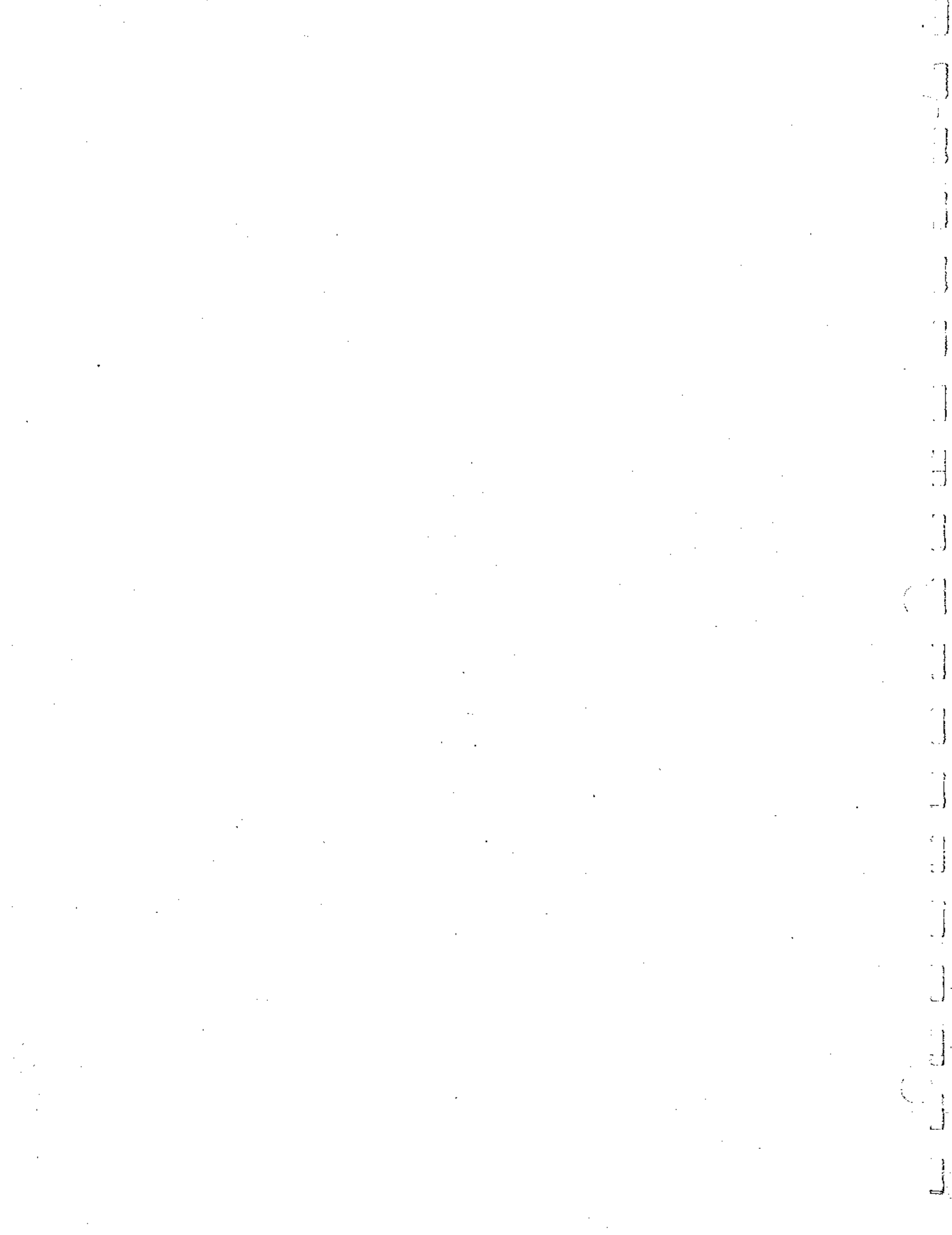
flow at extreme low tide and that the top of the culvert is above extreme high tide. The Hemlock Channel will be constructed using seawall on all sides.

The existing Mandalay Bay channel to the north of Harbor Island will be completed to the east as the Marina Channel East. This channel will vary in width from a minimum of 160 feet at its narrowest point to a ~~minimum~~ width of 300~~210~~ feet at its widest point. The Marina Channel East will be constructed using seawall along the north side and riprap along the south side. The Marina Channel East empties into the circular Marina Basin, which is approximately 8.0 acres. Two short lengths of channel extend from the Marina Basin. The Marina Channel South provides navigation south of the Marina Basin to the project entrance off Hemlock Street. This channel will be seawall construction, 190-foot wide. The Marina Channel North provides navigation north of the Marina Basin up to but not beyond, the shallow bay. This channel will be constructed using riprap slope on the west side and seawall on the east side.

The North Channel, located to the north of the Main Island, will extend navigation from the public dock area of the Westport (Tract 5196) at Mandalay Bay project to the entrance to the Main Island. Culverts will be used to allow water to circulate between the North Channel and the shallow bay. The North Channel will be riprap slope on the north side of the channel and seawall construction on the south side.

The main north/south channel in the Mandalay Bay Specific Plan Project will be widened to a total of 240 feet with the construction Tract 5266. As part of this channel construction, the temporary riprap slope, which will be installed during construction of the neighboring project, will be removed and the channel widened to the east. The easterly slope on the Main Channel will be riprap construction.

All channel seawall cross-sections will utilize an 11-foot high seawall section with the top of the wall at +7.2 MSL, and 6-foot wide channel bench at elevation 3.8 MSL. A seawall maintenance easement commensurate with maintenance requirements, not exceeding 8 feet, will be provided from the face of the seawall over the adjacent property. The top of the slope elevations for channel sections using riprap (revetment) will be variable however, the top of the riprap placement will be at elevation +6.5 MSL, the bench elevation of the riprap sections will be at -5.8 MSL and all riprap will be placed at a 2:1 slope as determined by the marine and geotechnical engineer.



(b) Docks and Boater Facilities

Public docks are planned in the marina basin, along the east side of the north and south marina channel, and within the shallow bay. Docks at both locations will contain boat slips available for public use. The boat docks will be structural wood systems with concrete decks. A total of 247 public boat slips are planned which can accommodate boat sizes ranging from 16 feet to 50 feet in length, consistent with the requirements of the Mandalay Bay Specific Plan that requires at least 50% of all boat slips be made available to the public.¹ There will also be 61 day-use public docks available on a first-come-first-served basis.

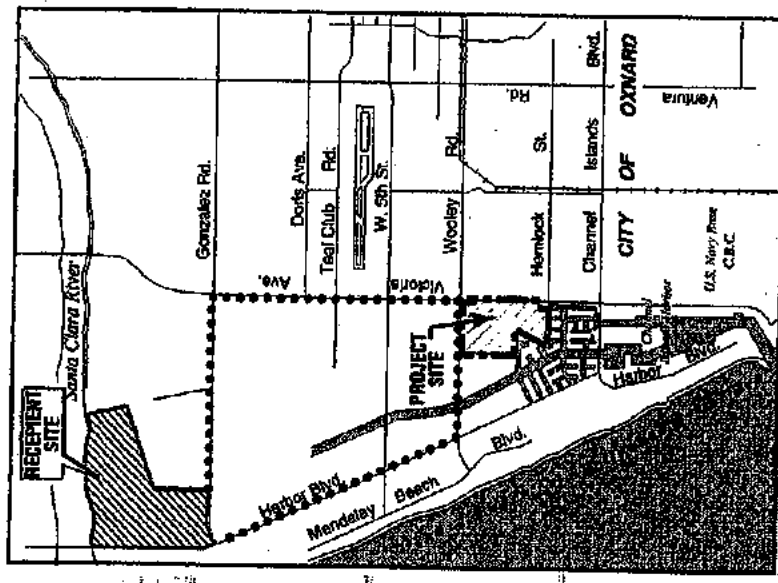
The project also provides a number of boater related facilities. For example, utility lines including water and 110 volt electrical service will be available to boaters at each slip day-use slip and at slips designated for electric boat usage. These facilities would be concealed under the deck. Public restrooms are to be provided in the Marina Village retail center and at the public boat launch for use by boaters and people walking along the public waterfront promenade. Public parking will be available at the boat launch and within the Marina Village retail area. Finally, approximately 1,500 square feet of office space will be provided to the Harbor Patrol in the Marina Village Retail Complex. Two boat slips will also be set aside for use by the Harbor Patrol.

Infrastructure Improvements


Site development will necessitate the construction of a variety of infrastructures. For example, a stormwater collection and conveyance system must be constructed to collect and channel water for discharge off site. A conceptual drainage plan has been prepared in support of the tract map for this project, which has been designed to the City of Oxnard standards. Runoff will flow along the proposed streets to catch basins where it will be collected by a system of pipes ranging in size from 18 inches to 36 inches in size. Approximately 13 storm drain outlets will discharge the runoff into the proposed channels after treatment. The project will provide pretreatment of all discharged water through in-line filtration/treatment chambers, grait removal chambers or through passive treatment such as the use of grass strips, at grade planter areas, or infiltration galleries under shallow depressions.

A sewer collection and conveyance system will also be constructed as part of the project. The on-site improvements will consist of the construction of a network of 8-inch sewer lines and smaller laterals which will collect and transport effluent from the lots on the main island to a lift station planned

¹ Jensen Design & Survey, *Public Boat Dock Plan, Mandalay Bay Tract 5266*, September 2001.



LEGEND

 Area Proposed for Soil Transfer
 135.3 AcresNet
 (Gross Acreage is 142.8 Acres)


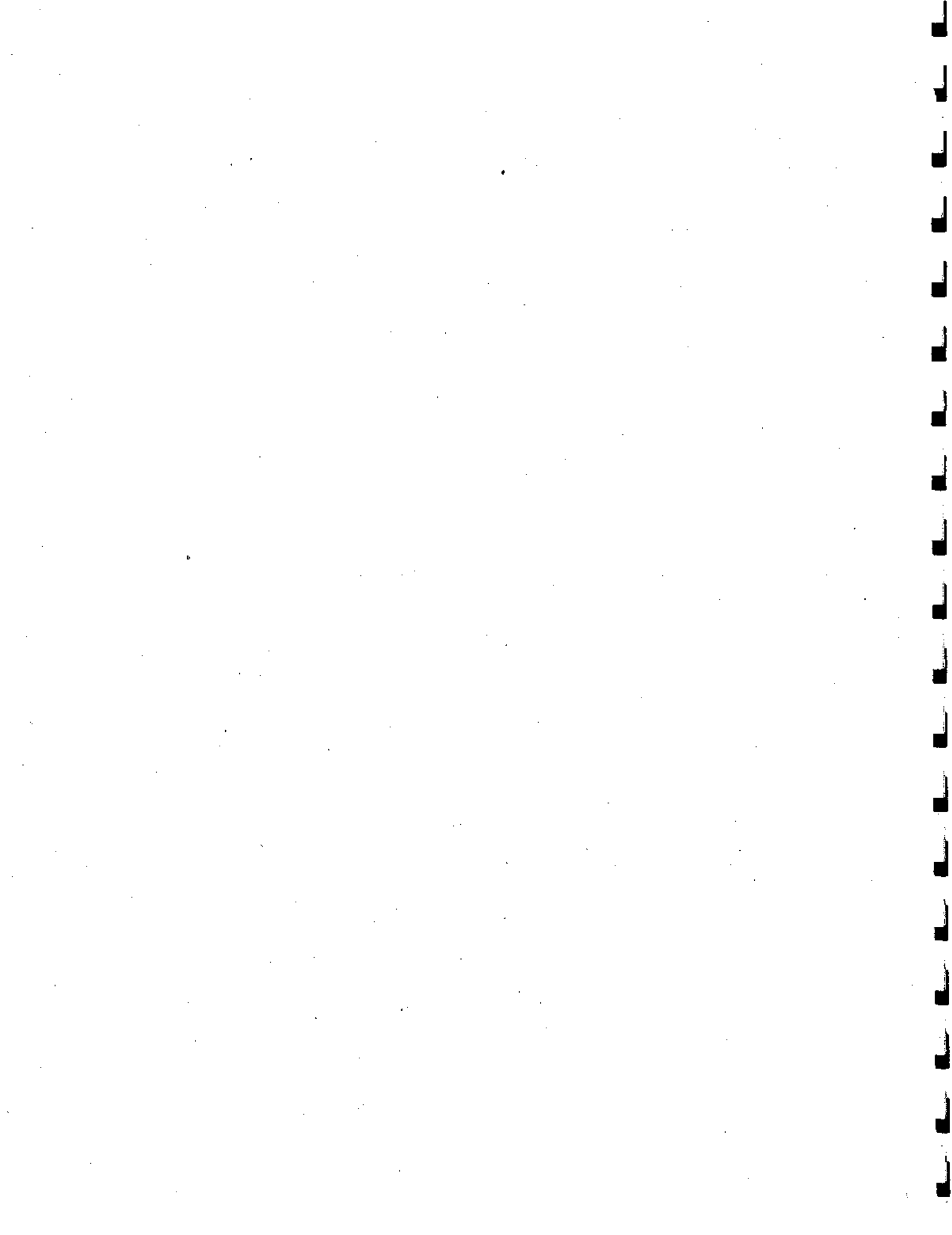
 Haul Route



FIGURE 3.0-11

Agricultural Soil Transfer Recipient Site



Phase 2 will require 395,004 yards of cut with 244,175 cubic yards of soil requiring export. This phase generates approximately 101 truck trips daily. Finally, Phase III will generate 141,003 cubic yards of cut of which 11,450 yards require export off-site. Exported soil will be transported to other construction sites in Ventura County or the surrounding area, or may be stockpiled at a permitted location for future use.

Waterways will be constructed while dry to allow installation of riprap and other shoreline protection devices. The contractor will use cofferdams or similar construction techniques to provide a stable interface between soil separating the existing waterway from future project waterways. Dewatering will be necessary to maintain dry channel during excavation and construction of shoreline protection along project waterways. This water will be discharged directly into the existing waterways.

Discharge of this water requires a permit from RWQCB. Section 13260 of the California Water Code requires that any discharge that could affect water quality in the State is required to describe the quantity and nature of the proposed discharge in a Report of Waste Discharge (ROWD) or an NPDES application. As part of the application process, the project applicant will be required to conduct groundwater quality testing in order to characterize the discharge. The applicant will provide estimates on actual discharge flows and a list of constituents along with the discharge concentration of each constituent. The Regional Water Quality Control Board will determine the type and extent of treatment required prior to discharge after review of the level and nature of constituents identified by the water sampling and testing.

INTENDED USES OF THIS EIR

City of Oxnard

The City of Oxnard, as the public agency that has the principal responsibility for approving the proposed project, is serving as the "Lead Agency" as defined by the CEQA. The City of Oxnard received applications requesting review and approval of a Tentative Tract Map and a Coastal Development Permit to allow development on the site. The City of Oxnard intends to use this EIR as the environmental review document for each of these actions. Each of these requested actions is described below.

Tentative Tract Map

Pursuant to the Subdivision Map Act, a Tentative and Final Subdivision Map are required for all subdivisions creating five or more parcels. As the project would subdivide the property into more than five parcels, a tract map is required for review and approval by the City of Oxnard.

Coastal Development Permit

The City of Oxnard and State Coastal Commission have adopted and certified a Local Coastal Program (the "LCP") for this area. The City has also established Coastal Zoning Regulations and Zone Maps to assist in implementing the LCP. A Coastal Development permit is required for all conditionally permitted uses, lot splits, and subdivisions within the Coastal Zone requiring a discretionary action by the City. The purpose is to ensure that a project conforms to the policies and standards set forth in the certified LCP. While permit authority remains with the City of Oxnard since the City has an adopted LCP, local decisions are appealable to the State Coastal Commission under certain circumstances.

Responsible Agencies

As defined by the CEQA, "Responsible Agencies" are public agencies other than the lead agency which have discretionary approval over the project. The City of Oxnard has prepared this EIR with the intent it will serve as the primary source of environmental information for each Responsible Agency. These agencies, and the nature of their approval authority over the project, are described below:

U.S. Army Corps of Engineers

The U.S. Army Corps of engineers has jurisdiction over the construction of shoreline structures and other activities within the waters of the U.S. Pursuant to the Rivers and Harbors Act of 1899, the Corps handles permits for any structures (docks, piers, bulkheads not requiring fill, buoys, moorings, etc.,) and activities in traditional navigable waters by permits for any connection to these waters.

Regional Water Quality Control Board, Los Angeles Region

The project site is greater than five acres in size, so the project is subject to a National Pollutant Discharge Elimination System Permit for construction activities. The project is also subject to the requirements of the NPDES General Permit for municipal storm water runoff, and conditions placed on a

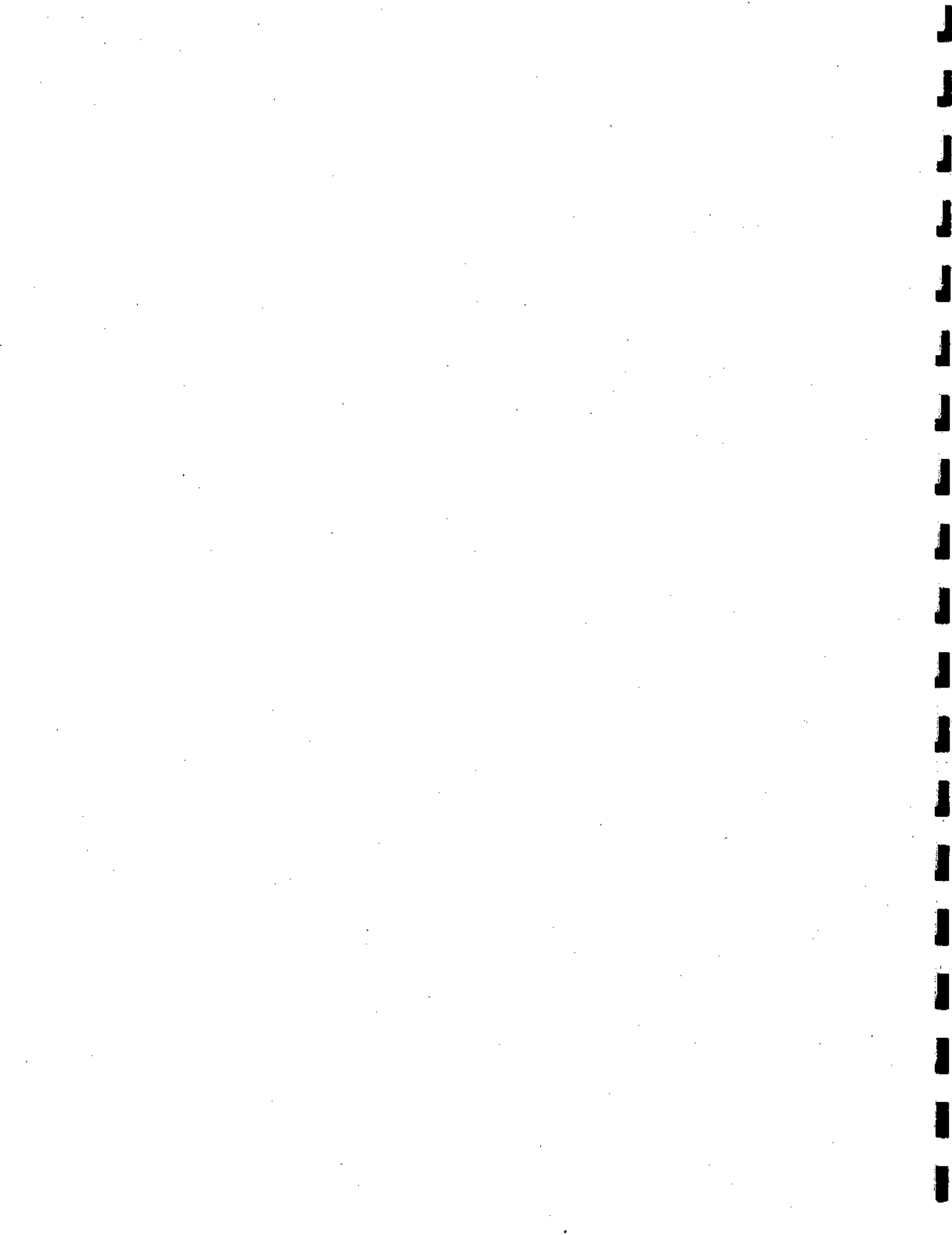
Discharge Permit for the handling of vessel waste discharge and the de-watering of the project site during construction.

California Department of Fish and Game

Project construction could involve the execution of a state 1601/1603 Streambed Alteration Agreement for actions that would alter the natural flow or bed, channel, or bank of any river or stream. During this permitting process, CDFG will evaluate if such activity will substantially adversely affect fish or wildlife resources.

California Coastal Commission

Project construction requires a Coastal Development Permit for new channel construction and changes to established waterways. This permit is issued by the California Coastal Commission.



4.0 EXISTING CONDITIONS, IMPACTS, AND MITIGATION MEASURES

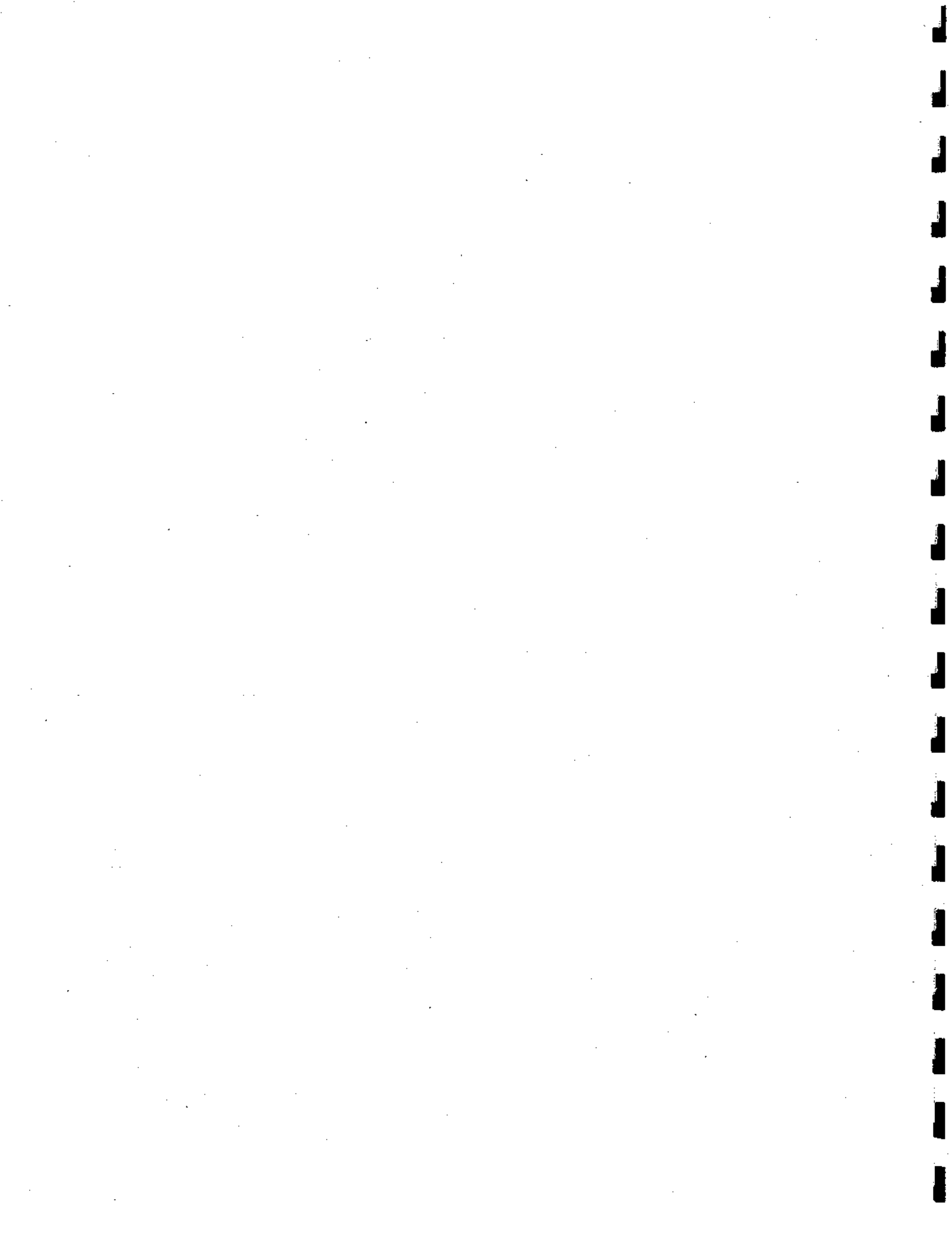
INTRODUCTION

This section provides information on the existing conditions of the area that may be affected by the proposed project, potential impacts, and suggested mitigation measures. The existing setting component defines the environmental conditions that currently exist, while project impacts are defined as the potential effect of the project on the existing environment. Mitigation measures suggested are designed to reduce potential impacts. The purpose of this section is to inform readers of the type and magnitude of the potential environmental impacts and how such impacts could affect the existing environment.

CUMULATIVE PROJECT DATA BASE

The technical analysis contained in Section 4.0 examines both project-specific impacts and the potential environmental effects associated with cumulative development. The *CEQA Statutes and Guidelines*, Section 15355, define "cumulative impacts" in part as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Each technical section contained in this EIR includes an assessment of the interaction between project-specific impacts and those impacts associated with other past, present, or reasonably foreseeable future projects.

For purposes of this EIR, a comprehensive methodology for assessing cumulative impacts is used. The cumulative data set utilized in this analysis accounts for anticipated growth over a wide geographic area. Each section of this EIR considers the specific geographic segment of this growth that is directly related to the individual topic addressed within that section. For example, the analysis of air quality, noise, and traffic and circulation impacts are based on traffic modeling which considers growth on a regional level, because these topics are regional in nature. The traffic modeling evaluated regional growth utilizing Southern California Association of Governments (SCAG) and Ventura County Transportation Commission studies of land use patterns and long-range growth forecasts, both of which obtain these forecasts from local jurisdictions as part of the Regional Comprehensive Plan and Guide (RCPG) and Congestion Management Plan (CMP) processes, respectively. For those services whose boundaries lie within the City of Oxnard, the cumulative impact analysis assumes buildout of the City as guided by the *City of Oxnard 2020 General Plan*.



4.1 LAND USE & PLANNING

INTRODUCTION

This section addresses the consistency of the proposed TTM 5266 project with applicable state, regional and local land use policies. Specifically, this section examines the consistency of the project with the policies of the California Coastal Act as implemented through the City of Oxnard's Coastal Land Use Plan (CLUP), SCAG Regional Comprehensive Plan and Guide, and State law regarding school mitigation. The section also assesses the compatibility of the proposed uses with existing and planned surrounding land uses, and evaluates project impacts to agricultural land.

EXISTING CONDITIONS

Local and Regional Plans

City of Oxnard 2020 General Plan

The project site is located entirely within the existing City of Oxnard City Urban Restriction Boundary (CURB)¹ and the Sphere of Influence line for the City of Oxnard. State planning law requires each city and county to adopt a comprehensive, long-term general plan for the physical development of the area within its jurisdiction and of any land outside its boundaries, which bears relations to its land use planning activities. The *City of Oxnard 2020 General Plan* (November 1990) includes all elements mandated by California law. The Planning Area defined by the City and addressed in the *2020 General Plan* is generally bounded by the Santa Clara River on the north, Los Angeles Avenue and the Beardsley Wash on the east, Mugu Lagoon on the south, and the Pacific Ocean on the west.

(a) City of Oxnard Coastal Land Use Plan

Pursuant to the California Coastal Act, local jurisdictions that contain land within the Coastal Zone are required to prepare a Local Coastal Program ("LCP") for that portion of their municipality. The LCP is a focused planning document that implements refined General Plan policies tailored to the unique resources contained within the Coastal Zone. LCPs are required to contain two primary components: (1) Land Use Plans (LUPs), which guide land use within the Coastal Zone; and (2) Local

¹ An ordinance establishing the CURB was approved by the voters of Oxnard in November 1998. The CURB requires that the City restrict urban services and urbanized uses of lands to within the CURB line through the year 2020. The CURB line is coterminous with the Sphere of Influence line for the City in this area.

Implementing Programs (LIPs), which describe methods by which local LUPs will be carried out. The CCC's primary duty is to assist coastal communities in the preparation of the LCPs and to review and certify the LCPs once they are adopted.

Consistent with the Coastal Act, the City of Oxnard has prepared an LCP for land within the Coastal Zone. This document is titled the Oxnard Coastal Land Use Plan (CLUP). The CLUP was reviewed and certified by the California Coastal Commission (CCC) in 1982, which found that the plan is consistent with the Coastal Resources Planning and Management Policies in Chapter 3 of the California Coastal Act. This chapter of the Coastal Act contains policies on public access; recreation; marine environment; land resources; development; and industrial development. These policies constitute the standards used by the CCC in its coastal development permit decisions and for the review of local coastal programs. Once a local coastal plan is certified by the State Coastal Commission, permit authority for the coastal zone is returned to the local authority, in this case, the City of Oxnard.

Since the project site is within the Coastal Zone, land use patterns and development policies related to the property are guided by the CLUP. Figure 4.1-1, depicts the land use designations for the site established by the CLUP. As shown, these designations include Visitor Serving Commercial, Mixed Use, and Planned Unit Development Residential. The Visitor Serving Commercial designation is restricted to the Coastal Zone and are generally retail and service uses oriented to tourists and visitors to coastal attractions. The Mixed Use Designation allows for neighborhood or visitor serving commercial uses within the same complex or structure with the residential land uses. Finally, the Residential Planned Unit Development (PUD) provides for a wide range of single family residential product type. This designation provides the flexibility for including single-family detached homes on lots of less than standard size (but not less than 3,500 sq. ft.) as a part of an overall housing program designed to achieve a balance of housing types and housing prices.

(1) *Mandalay Bay Phase IV Specific Plan*

The CLUP designates 220 acres of land bounded by Wooley Road on the North, Victoria Avenue to the east, Hemlock Street to the south, and the Edison Canal to the west as Planned Development. The purpose of the designation was to ensure the well-planned development of a water-oriented community. This designation requires that the entire site be planned as a single unit regulated through a Specific Plan. Consistent with this directive, the Mandalay Bay Phase IV Specific Plan was prepared and adopted for the area in January of 1985.

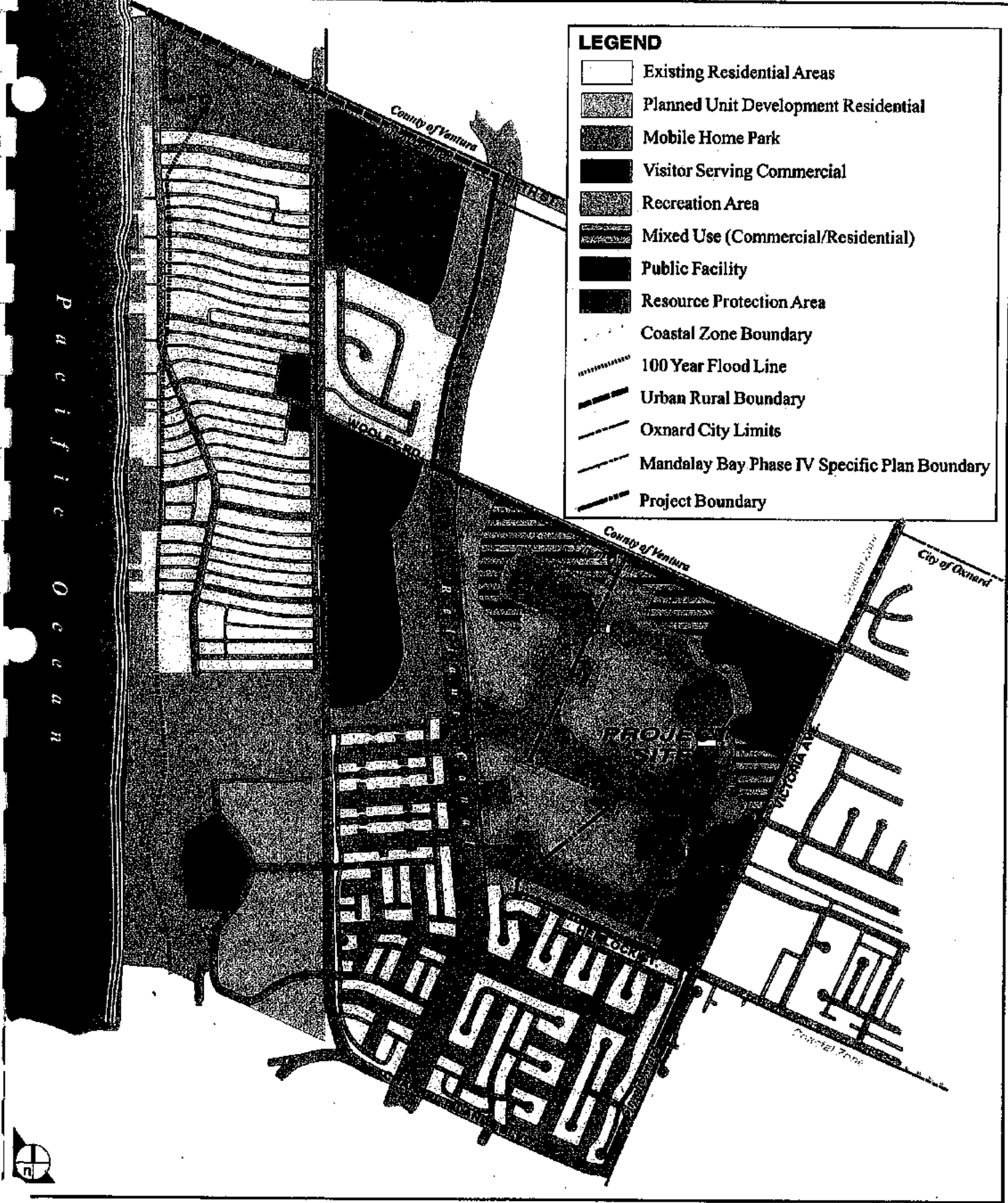
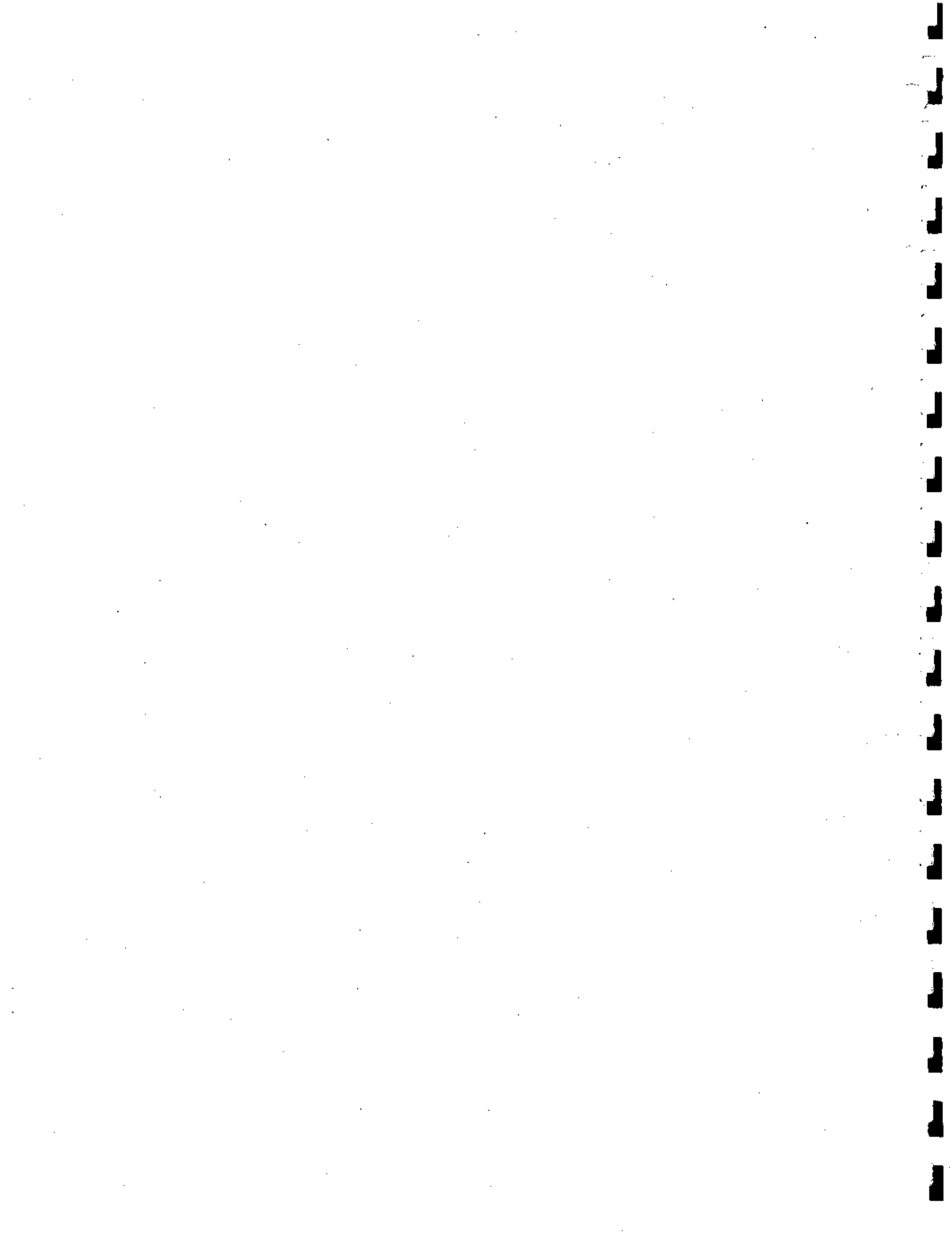


FIGURE 4.1-1

Coastal Plan Land Use Designations



The Specific Plan is a comprehensive planning tool that implements the land use plans and policies of the City's Coastal Land Use Plan. These include policies that address allowable land use types, development densities, open space provisions, public access to waterways, land use compatibility, and agricultural resources. Consistency of the project with the development regulations and standards contained in the Specific Plan are discussed later in this section.

City of Oxnard Coastal Zoning Regulations

As shown in Figure 4.1-2, the entire site is zoned Coastal Planned Unit Community (CPC) according to the City of Oxnard Zone Map. The CPC zone allows large-scale mixed-use planned developments that integrate residential, visitor-serving commercial and public recreational and open space uses consistent with the CLUP. The CPC zone is also intended to provide for appropriate public access to the extensions of the Inland Waterway and to provide a development, which will optimize the utilization of property to conserve energy and promote the efficient use of limited resources. Permitted uses in the zone include agriculture, aquaculture, and passive recreational uses both on land and water. Uses allowable under the Single-family Water-oriented (R-W-1), Townhouse Water-oriented (R-W-2), Coastal low Density Multiple-family (R-2-C), Coastal Neighborhood Commercial (CNC), Coastal Visitor-serving Commercial (CVC), and Community Reserve (RC) zones may be permitted subject to the adoption of a specific plan and the issuance of a Coastal Development Permit. The project site is within the boundaries of the Mandalay Bay Specific Plan, which was approved in 1985 by the CCC.

IMPACT ANALYSIS

Thresholds of Significance

To assess the significance of land use impacts, the following criteria are used in this analysis.

- Inconsistency with the goals or objectives of Oxnard's plans or ordinances related to land use is identified as a significant impact.
- Inconsistency with state and regional plans or policies related to land development is identified as a significant impact.
- Substantial incompatibility between the uses proposed and neighboring land uses is identified as a significant impact.

Policy Consistency Analysis

Coastal Access & Recreation Policies

(a) Coastal Act

The Coastal Act promotes maximum public access to the coast and related recreational opportunities. Specific policies call for development not to interfere with the public's right of access to the sea and for access to be provided from the nearest public roadway to the shoreline. The Coastal Act calls for the protection of coastal areas providing recreational opportunities not available at inland water areas. Protection of oceanfront land suitable for recreational use is prioritized, unless adequate facilities exist in the area. The development of visitor-serving commercial and recreational facilities designed to enhance public opportunities for coastal recreation is encouraged by these policies. Adequate public parking is to be provided throughout all new development with dedicated public access areas.

(b) Coastal Land Use Plan

Several policies in the City's CLUP related to access are applicable to the project. For example, public access to and along the Inland Waterway between the shorelines and the first public roadway inland is required.² Within the Mandalay Bay Specific Plan, exceptions can be made for single-family development; however, the total public lateral access shall not be less than 50 percent of the total shoreline frontage of the project. The Specific Plan goes on to require that vertical access cannot be less than 10 percent of total linear waterfront access. All vertical access shall be located and designed to minimize impact on surrounding residential areas.

Specific policies in the City's CLUP call for developments that are primarily visitor-serving in nature, including hotels, motels, restaurants, and specialty retail in order to encourage public access to the coast.³ Commercial areas are to be well designed aesthetically and should contain a variety of uses that are affordable to a wide economic segment of the community. Parking areas must include bicycle-parking facilities, and visitor-serving facilities in the Inland Waterway must include boat access.
















The CLUP also contains policies that attempt to maintain affordable housing in the coastal zone to ensure that all economic segments can enjoy coastal resources.⁴ CLUP policies are directed towards

² City of Oxnard Coastal Land Use Plan, Local Coastal Policy 3.7.1-76, Coastal Access & Recreation.

³ Id., Local Coastal Policy 3.7.2-83, Visitor-Serving Commercial Facilities.

⁴ Id., Section 3.7.3 Affordable Housing.

LEGEND

-  Single-Family Water-Oriented (R-W-1)
-  Townhouse Water-Oriented (R-W-2)
-  Coastal Medium Density Multi-Family (R-3-C)
-  Single Family Planned Development (R-1-PD)
-  Multi-Family Planned Development (R-2-PD)
-  Medium Density Multi-Family Planned Development (R-3-PD)
-  Coastal Planned Unit Community (CPC)
-  Coastal Visitor Serving Commercial (CVC)
-  Commercial (C-2-PD)
-  Coastal Recreation (RC)
-  Coastal Resource Protection (RP)
-  Agricultural (C-R)
-  Power Station (EC)
-  Mandalay Bay Phase IV Specific Plan Boundary
-  Project Boundary

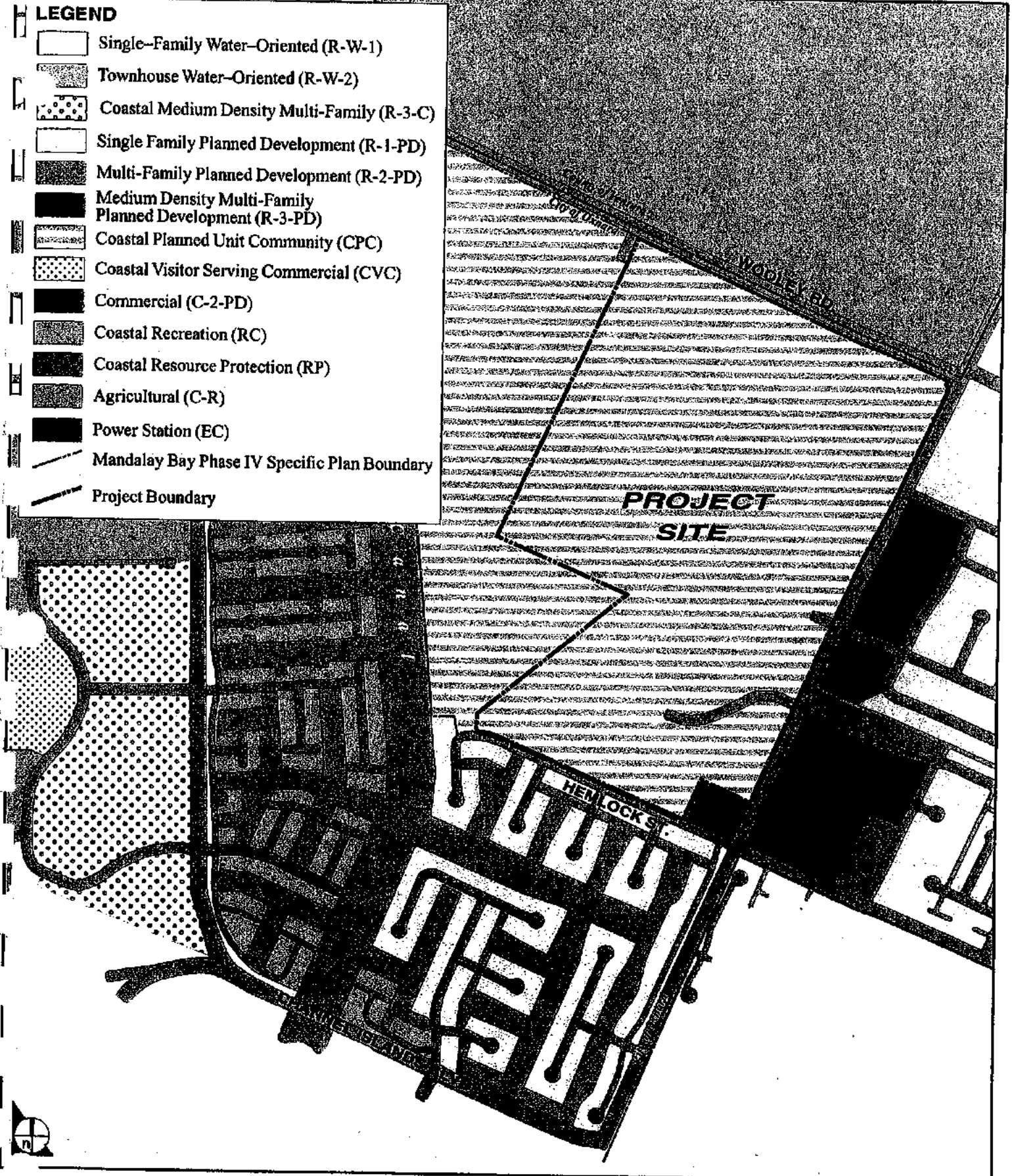
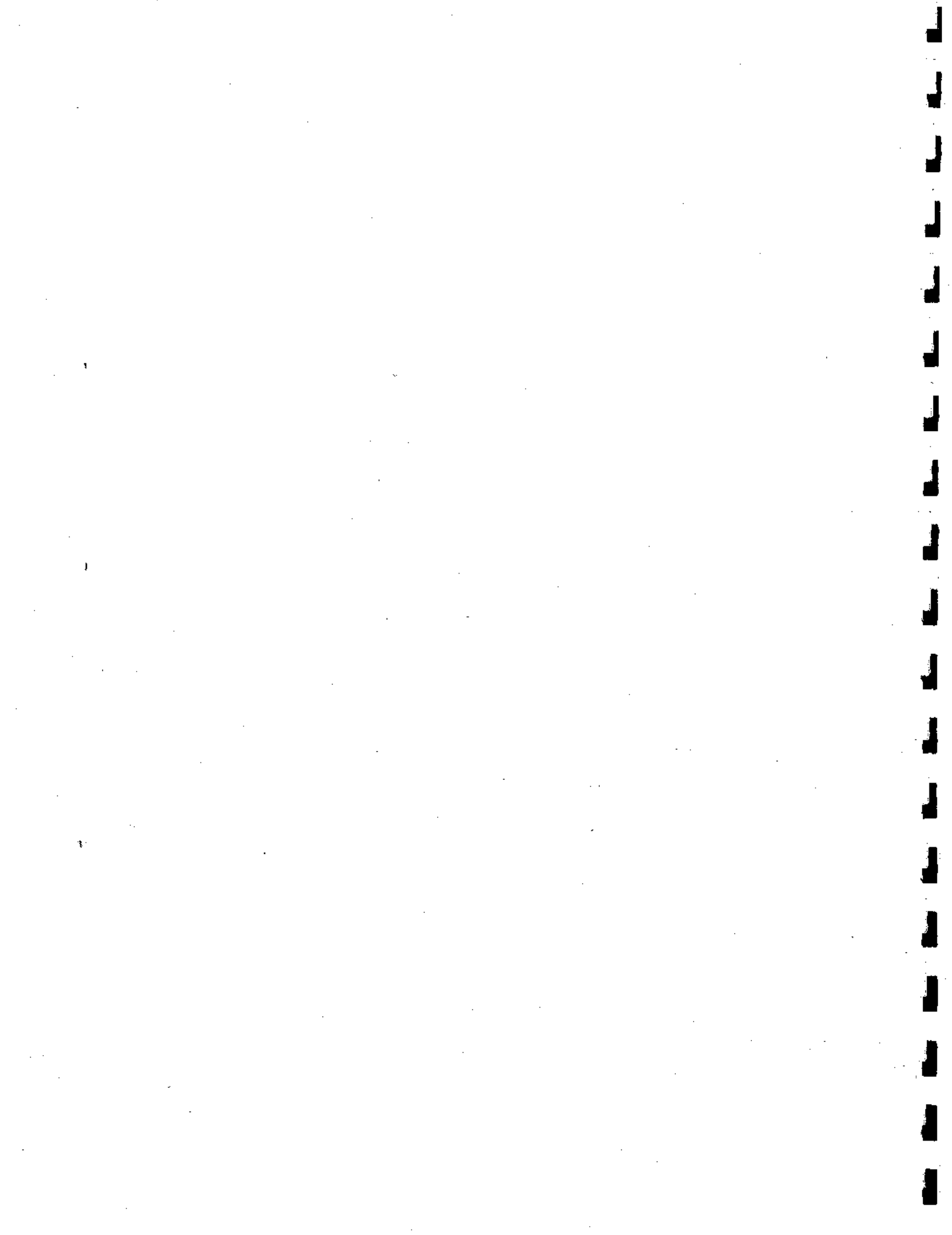


FIGURE 4.1-2

Zoning Designations



preservation of existing units and improving access to the coast from the other parts of the City. The CLUP encourages the construction of new rental units while placing limitations on the conversion of rental units to condominiums or other purchase plans in the coastal zone.

The intent of CLUP policies on boating is to encourage recreational use of coastal waters. The City's CLUP includes several policies that are applicable to the project. For example, the CLUP requires that picnic tables, public restrooms, pedestrian and bicycle access ways, pedestrian furniture, bicycle storage racks, small boat sailing, renting areas, and berthing areas be provided in new marina development to ensure that lower cost recreational and visitor-serving harbor facilities are available to all income groups.⁵ Adequate parking must be provided in any new marina development at a ratio of 0.6 parking spaces per slip.⁶ In no case should new development interfere with the public's right of access to harbor waters.⁷

(1) *Consistency Analysis*

The Specific Plan meets the public access requirements of the CLUP by calling for 21,000 linear feet of lateral public access along the waterfront. This linear park system extends throughout the proposed TTM 5266 as well as the other development areas comprising the Specific Plan. As indicated in Table 4.1-1, TTM 5266 provides a total of approximately 9,635 linear feet of lateral public access and 3,841 feet of vertical public access, for a total of 13,476 linear feet. The total amount of public access within the three development areas contained within the Specific Plan is 23,241 linear feet, which substantially exceeds the 21,000 feet required by the Plan.

**Table 4.1-1
Public Access**

	Harbor Island	Westport (TTM 5196)	TTM 5266	Total Access
Waterfront Promenade Lateral Access (LP)	3,900 l.f.	5,865 l.f.	13,476 l.f.	23,241 l.f.
				12,280 l.f.-CLUP 21,000 l.f.-S.P.
Vertical Water Access	150 l.f.	1,080 l.f.	3,841 l.f.	5,071 l.f. (2,100 Required)

Source: Coastal Development Permit Tract 5266: Supporting Information, August 2001, revised October, 2001

⁵ Id., Local Coastal Policy 3.2.4-26 Commercial Fishing, Sport Fishing, & Recreational Boating.
⁶ Id., Local Coastal Policy 3.2.4-27 Commercial Fishing, Sport Fishing, & Recreational Boating.
⁷ Id., Local Coastal Policy 3.2.4-22 Commercial Fishing, Sport Fishing, & Recreational Boating.

Proposed TTM 5266 also contains water-oriented recreational and visitor serving commercial uses as called for by the Specific Plan that are accessible to boaters. The Plan establishes minimum quantities of land use type, expressed in acres and as a percentage of the total Specific Plan area (220 acres). The Specific Plan requires a total of 27.5 acres of Visitor Serving Commercial, 27.5 acres of public recreation, and 55.0 acres of open water. The previous development projects located within the Specific Plan area and the recently approved Tract 5196 project have resulted in the partial buildout of the total Specific Plan development Area. Table 4.1-2 illustrates how the Specific Plan buildout with construction of the proposed TTM 5266 will compare to these standards.

**Table 4.1-2
Specific Plan
Public Recreation and Visitor Serving Use Allocation**

Project	Open Water Acres	Public Recreation	Visitor Serving Commercial
Voss-Harbor Island (23.5 acres)	8.48 acres or 36%	2.95 acres or 12.5%	0 acres provided
Westport TTM 5196 (58.3 acres)	14.57 acres required 14.57 provided	7.28 acres required 8.16 acres provided	7.28 required 7.41 acres provided
TTM 5266 (135.3 acres)	31.95 acres required 32.3 acres provided	16.39 acres required 16.50 acres provided	20.1 acres required 20.2 acres provided
TOTALS	55.0 acres required 55.35 acres provided	27.50 acres required 27.51 acres provided	27.50 acres required 27.61 acres provided

Source: Coastal Development Permit Tract 5266: Supporting Information, August 2001

As shown, buildout of the Specific Plan area with approval of TTM 5266 will meet the requirements of the CLUP through consistency with the Mandalay Bay Specific Plan land use allocations for open water, public recreation, and visitor serving commercial uses. In fact, of the 32 acres of open water provided by TTM 5266, approximately 12 acres of water is devoted to the public, which substantially exceeds the 10 percent requirement of the Specific Plan. In addition, the visitor serving commercial use contained in the proposed TTM 5266 provides two of the three focal points of commercial activity with strong orientation to the water as required by the Specific Plan.

The project's navigation channels will be connected to existing marine channels that lead into the Channel Islands Harbor. A waterfront promenade will be constructed along the perimeter of the

channels that will promote public access to the water and will link several parks in the project to the visitor serving commercial uses. Pedestrian furniture and themed artwork or signage will be provided to provide direction and describe points of interest. This network of pedestrian and boater navigation channels will link the project with uses in the Channel Islands Harbor. The harbor provides thousands of boat slips, a boat launching complex, boat hoists for recreational use, waterside restaurants, marine and specialty shops, a resort hotel, and shoreline public parks. In short, the project will provide a variety of coastal recreation opportunities that are available to a wide economic segment.

The total number of boat slips that is to be provided at Specific Plan buildout is 798, with 384 slips set aside for public use according to the Specific Plan. Harbor Island has provided 64 public docks, the recently approved TTM 5196 provides 83 public slips, while the proposed TTM 5266 project provides docks that contain 247 boat slips. The total number of public boat slips provided in the three developments total 394, which is more than that required by the Specific Plan.

With regard to affordable housing, the project is planned on vacant land that does not contain structures, so development of proposed uses will not directly effect existing affordable housing in the coastal zone. This product mix is consistent with CLUP policies to encourage construction of new, high quality units in the Coastal Zone as well as City General Plan policy to promote housing construction for all economic segments of the City. Based on all of the above, the proposed TTM 5266 project can be found consistent with the public access and coastal recreation policies of the CLUP as implemented by the Specific Plan.

Marine Environment and Land Resources Policies

(a) Coastal Act

The maintenance and enhancement of the marine and coastal environment is a goal of the Coastal Act. The resource policies require the protection of environmentally sensitive habitat areas including coastal and marine resources. These policies require the maintenance, enhancement, and where feasible, restoration of sensitive resources. Activities within the coastal and marine environment are to be carried out in a manner that will maintain healthy populations of all species for the long-term commercial, recreational, scientific, and educational purposes. Priority is given to protecting sensitive habitats, minimizing adverse effects of wastewater discharges, and controlling runoff.

The policies of the Coastal Act related to agriculture are intended to assure the protection of the area's agricultural land uses, the compatibility of development on converted agricultural land with

surrounding uses, and long-term productivity of soils. Specific policies of the Act call for all urban development to be restricted to land on the urban side of the urban-rural boundary.

Finally, the Coastal Act promotes the increased use of the coastal waters for recreational boating through encouraging the construction of public launch facilities, additional berthing space, and the construction of new boating facilities in areas dredged from dry land, and newly protected water areas.

(b) Coastal Land Use Plan

Through the use of a Resource Protection Zone, the CLUP restricts the uses allowed on or near sensitive coastal resources. The CLUP contains resource protection policies that ban non-authorized motor vehicles from sensitive areas, restrict access to sand dune areas, and require the use of a 100-foot buffer adjacent to resource protection areas. The CLUP also contains policies that address water resources including wastewater discharges, stormwater runoff, and the alteration of natural waterways or wetlands habitat including dredging, filling, or construction of shoreline protection devices.

With regard to agricultural resources, the CLUP requires that a prime agricultural land maintenance program be undertaken to mitigate the conversion of prime farmland within the 220 acre Mandalay Bay Specific Plan Area. The CLUP also provides suggested design features that are intended to buffer agricultural lands from developed uses. For example, the CLUP acknowledges that future improvements along Wooley Road will be required to support development of the Mandalay Bay Specific Plan. The CLUP suggests the use of grade separation, fencing, and landscaping in addition to distance as a way to separate agricultural lands from urban uses. The purpose being to reduce potential hazards associated with pesticide application, noise, dust, odors, as well as pilferage, trespass, etc.

Policies regarding recreational boating involve fostering close cooperation between the City of Oxnard and the Ventura County Harbor Authority.

Consistency Analysis

(a) Coastal and Marine Natural Resources

The CLUP identifies a number of areas within the coastal zone as sensitive habitats, including the wetland and dune habitats in McGrath State Beach as well as dune areas south of Wooley Road, west of the Edison Canal, and along Harbor Boulevard. The CLUP does not identify any wetlands or sand dunes on or near the site of the proposed TTM 5266. The CLUP requires that a buffer of 100 feet be

provided from all resource protection areas. The project is not located near enough to these resources to require a buffer and no impacts to sensitive coastal sand dunes impacts will occur with project buildout and operation.

The proposed project will require dredging during the construction and maintenance of the on-site marine channels and shallow basin. Policies in the City's CLUP require new dredging and all permitted structures, including retaining walls, to be designed to mitigate adverse impacts. Dredge spoils can only be deposited in sites approved by the City Council and appropriate local or state health agencies. The Council also will require test results from the Regional Water Quality Control Board that demonstrate the usability of the materials to be placed on a site. These tests include an analysis of the materials dredged, and a comparison for compatibility with site materials.

Potential water quality impacts that exist during opening of the main channel will also be mitigated to levels considered less than significant. Incorporation of the mitigation measures contained in Section 4.4, *Marine Water and Sediment Quality*, will limit turbidity and the potential for pollutants to enter the larger waterbody. These measures include a water-sampling program within the newly constructed channels for Priority Pollutants listed in the RWQCB's Enclosed Bays and Estuaries and Ocean Plans. To reduce turbidity after the main canal is opened, the construction contractor is required to place a silt screen/curtain between in-water construction sites and existing canals. Finally, dewatering activities associated with channel construction will require a discharge permit from the Regional Board. Conditions of the permit require that water quality testing be conducted to determine groundwater quality. If contaminants are detected, remediation will be required that will ensure no significant impact to marine water quality will occur. Based on the above, the project can be found consistent with the policies of the CLUP protecting habitat areas.

(b) Agricultural Resources

The entire project site is presently under agricultural cultivation with row crops such as celery, cabbage, cauliflower, broccoli, peppers, lima beans, strawberries, lettuce and tomatoes. On-site soils include Corralitos loamy sand (CoC), Metz loamy sand (MeA), and Pico loam, sand substratum (PsA).⁸ These soils meet the criteria that designate prime farmland. Prime farmland is land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields.

⁸ See Appendix 4.1 for details on soil type and condition.

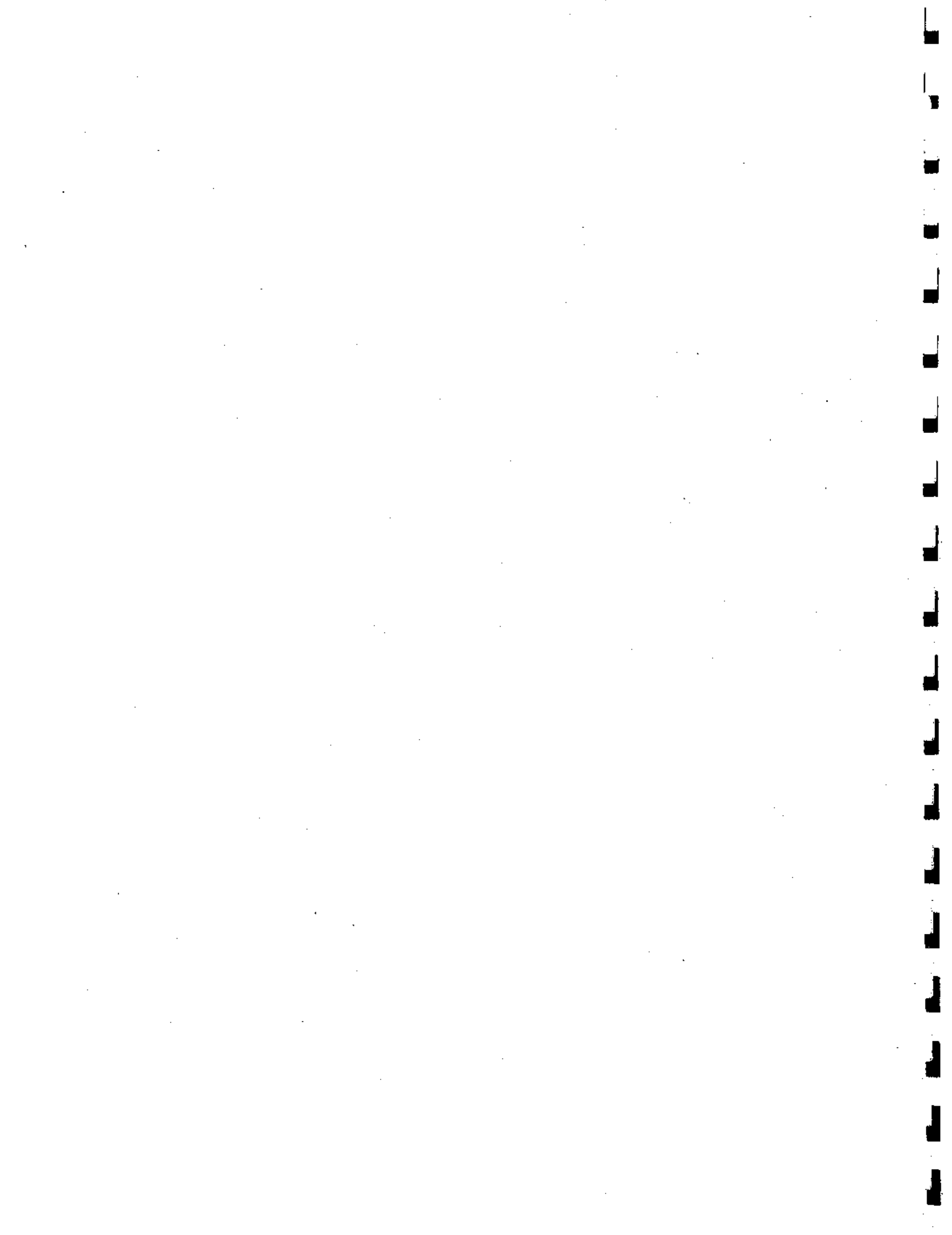
Farming in Ventura County has been, and continues to be, a major contributor to the nation's food supply as well as a vital component of the rural lifestyle, which exists throughout much of the County. Besides providing food for the nation's tables, agriculture generates a substantial number of jobs ranging from crop production to processing, shipping, and other related industries. Based on the climate and quality of soils, Ventura County is recognized as one of the principal agricultural counties in the State, with gross revenues from the sales of agricultural commodities of \$1.05 billion in 2000.⁹ Ventura County ranks number ten among the highest in agricultural revenues of the 58 agricultural counties in the state, and approximately 19,600 jobs were generated in 2000 by agriculture in the County. In comparison, the County contained a total of 392,500 jobs in 2000.¹⁰

The conversion of prime farmland to urban use will be mitigated through implementation of the Agricultural Soil Transfer Program that is described in Section 3.0, Project Description of this EIR. See Appendix 4.1 of this Supplemental EIR for a complete copy of this program. Under this program, the top two feet of soil on the property will be transferred to the Coastal Berry Ranch, which is located in the area identified as acceptable by the policies of the CLUP. Implementation of this program will preserve the prime soils consistent with policy 5 of the CLUP and Section XI of the Mandalay Bay Specific Plan and mitigate the direct loss of agricultural land associated with construction of the project.

The loss of agricultural productivity during buildout of the Specific Plan would slightly reduce total revenues from crop production, and incrementally reduce the volume of produce that is processed and shipped at local facilities. However, the project site is located within the City's Urban Restriction Boundary as illustrated in Figure 4.1-3. The purpose of the CURB is to define a boundary within which development is planned to take place through the term of the *General Plan* (2020). During this time, the City of Oxnard will restrict urban services and urbanized land uses to land located within the CURB. No form of discretionary entitlement will be granted by the City that will result in urban land uses placed outside of this boundary: except for public schools, water facilities, parks, and other governmental facilities that are approved by the majority of voters. Urban uses are identified as "any development which would require the establishment of new sewer service systems; or the significant expansion of existing sewer infrastructure; or would create residential lots less than 10 acres in area per primary residence; or would result in the establishment of commercial or industrial uses which are neither exclusively related to agriculture nor exclusively related to the production of mineral resources."

⁹ Office of Agricultural Commissioner: *Annual Crop Report: 2000*, p. 2. Santa Paula, California: 2001.

¹⁰ California Department of Finance, 2000 County Profiles for Ventura County. (http://www.dof.ca.gov/HTML/FS_DATA/profiles/pf_home.htm), July 2001.



The City Buffer Boundary (CBB) encompasses land between the adopted Sphere of Influence line and the Planning Area Boundary. The purpose of this buffer is to maintain agricultural uses located outside the CURB. Agricultural land within this boundary cannot be converted to urban use unless subject to approval by the registered voters of the City. Adoption of the CURB and CBB planning boundaries presumes that sufficient agricultural land remains protected and available to support a viable agricultural economy. When consideration is given to the presence of the agricultural buffer area established by the CURB, the incremental reduction in agricultural land and secondary reduction in economic production created by development of TTM 5266 is not found to significantly contribute to a project specific or cumulative impact.

The proposed TTM 5266 also meets the Specific Plan requirement for incorporation of an agricultural buffer separating the proposed uses from agricultural land located north of Wooley Road. This buffer includes a grade difference between the road and the agricultural fields, and hedgerow with 8-foot high fence to be located on the north side of Wooley Road. The improved Wooley Road will provide 110 feet of right-of-way separation, and will include 15 feet of landscaped open space on each side of the road. In total, the project provides a 200-foot buffer separating agricultural activity from proposed structures. This is consistent with the Specific Plan and will provide a well-designed urban/rural interface that promotes compatibility and no significant impacts are anticipated.

Hazards Policies

The intent of these policies of the Coastal Act as implemented by the CLUP is to minimize risks to life and property in areas of high geologic, flood, and fire hazard. The City's CLUP identifies ground shaking, liquefaction, tsunami, seiche, and expansive soil as potential hazards for the project site.

(a) Consistency Analysis

The project geotechnical report has identified mitigation that will eliminate the risks associated with groundshaking and secondary seismic effects such as liquefaction or lateral spread. By incorporating recommendations of the geotechnical engineering study and complying with the Uniform Building Code and City of Oxnard standards, project impacts related to ground shaking or geotechnical hazards would be less than significant. Similarly, proper implementation of the project drainage concept and compliance with all standards of the City of Oxnard pertaining to flood hazards will preclude a significant effect related to flooding. Finally, the site is located in an area designated by the *City of Oxnard 2020 General Plan Safety Element* as having the potential for tsunamis or seiches. However, the frequency of occurrence is extremely rare. The last tsunami to cause appreciable damage to the

California coast was related to the Alaskan earthquake on March 27, 1964. Moreover, the seismic Sea-Wave Warning System administered by the U.S. Coast Guard and Geodetic Survey detect incoming events and would provide advanced warning of their location and timing of arrival. Given the above, this project can be considered consistent with these CLUP policies.

Service Inventories Policies

(a) Coastal Act

These policies address public works projects that are required to accommodate development in the Coastal Zone. According to Section 30254 of the Coastal Act, the approval of the project requires finding that service capacity would be adequate to serve the use. New public works facilities must be designed and limited to accommodate the needs of development permitted consistent with the CLUP.

(b) Coastal Land Use Plan

The CLUP discusses the need for upgrades and improvements to the sewer systems, and requires that all new development in the coastal zone employ the most recent water conservation methods. Another policy states that the City shall cooperate and coordinate with 208 and 201 programs in designing and implementing a program to retard seawater intrusion.

(1) Consistency Analysis

As described in Section 4.9.1, Sewer Service, the proposed project would generate average and peak sewer line flows of 0.22 and 0.35 cfs, and an average daily flow of approximately ~~209,872~~200,983 gallons per day (gpd) of effluent. Each future project is required to provide adequate capacity to convey sewage to a safe point of discharge and pay fees to the City of Oxnard to connect to the sewage system. In this manner, the existing sewage collection and conveyance system would be upgraded as necessary to accommodate sewage created by the development of future projects.

It is estimated that the uses proposed on TTM 5266 will generate a demand for potable water of ~~372,453~~360 acre-feet per year. Physical improvements to the water distribution system necessary to accommodate buildout of the project as well as all uses allowed by the *General Plan* are handled in a similar manner. To meet the existing and predicted future demand for water within the City of Oxnard, the City has prepared an Urban Water Management Plan (UWMP). The UWMP identifies the sources of supply needed to meet current and future demand within their service area through the year 2020

under normal, dry, and multiple dry years. As indicated in Section 4.9.2, Water Service, sufficient supplies of water have been identified to meet the demands under all scenarios. Based on the above, the project can be found consistent with the service inventory policies of the CLUP.

Development Policies

(a) Coastal Act

The intent of Coastal Act development policies are to locate new development contiguous, or in close proximity to, existing developed areas with adequate public services to accommodate it and where it will not have significant adverse effects on coastal resources. Development policies include those directed to maintain and enhance public access to the coast through provision of adequate parking, providing commercial facilities within or adjacent to residential development to minimize use of coastal roads, provide for non-motor vehicle travel, and assure that the recreational needs of new residents will not overload nearby coastal recreational areas. Finally, new development must minimize risks to life and property, be consistent with the requirements of the local air district, and protect special communities or neighborhoods that are popular visitor destination points or are known for recreational use.

(b) Coastal Land Use Plan

Specific development policies in the City's CLUP pertain to the 220 acre Mandalay Bay property. The primary policy is that the entire site must be planned as a single unit through a Specific Plan. As described above, the proposed TTM 5266 is designed consistent with the approved Mandalay Bay Phase IV Specific Plan that has been adopted by the City of Oxnard. The Specific Plan contains conceptual land use plan and development standards that represent buildout of the Specific Plan consistent with the policies articulated in the CLUP. A summary of pertinent development policies applicable to the Specific Plan area and not previously addressed elsewhere in this consistency analysis follows:

- Overall density shall not exceed those established in the land use plan. The site design shall include expansions of the existing Inland Waterway/Edison Canal System. Residences, both single-family and multi-family units, shall be oriented to the waterway, and private docking facilities may be provided.
- Public vertical access to the waterway shall be required; and the combined public vertical access frontage on the water shall be no less than 10 percent of the development's total linear frontage, unless adequate access is provided nearby that is dedicated and available for public access. The lateral access shall be a minimum of 50 percent of the total linear frontage and






shall be dedicated and available for public access. Exceptions to continuous lateral public access shall be allowed only for limited single-family waterfront home development where adequate alternative access exists nearby.

- Recreational areas shall be distributed throughout the project with pedestrian and bicycle linkages between pocket parks, play areas, overlooks, and other small-scale public areas offering the public and residents of the project recreational opportunities.
- At least 20 percent of the net area of the site shall be designated for common, non-public open space for multiple-family or attached unit development, unless adequate facilities are provided nearby. Common, non-public open space required for all multiple-family or attached units shall include, but is not limited to, recreational facilities intended for the resident's use, including swimming pools, tennis courts, playgrounds, community gardens, or common landscape areas. Streets, driveways, and parking lots shall not be considered a common open space.
- No less than 20 percent of the net area of the site shall be public open space, unless adequate open space is provided nearby. Public open space shall include, but is not limited to, public parks, parking lots for public use and access corridor, which includes pedestrian paths and bikeways. Streets, property for private use, CLUP-designated neighborhood or community parks, and other non-usable areas shall not be included in the site area, and they may not be counted towards the required percentage of public open space. The area of the waterway may be included in the tabulations.
- The land use mix shall consist of 50 percent residential development, 12.5 percent visitor-serving commercial, 12.5 percent public recreation that must all be on land, and 25 percent open water, of which up to 10 percent may be devoted to public marinas or boat slips available to public.
- The development of an open body of water shall be an integral part of this Specific Plan. A public launching ramp and boat docks for day use will be provided. 50 percent of the docking facilities provided in the project other than those provided with single-family residences shall be available for use by people not residing within the project. Full and unimpaired public access to and use of all open water areas, consistent with security and safety requirements, shall be assured. The location of and design of all development shall provide for public access and use of the project's water and immediate shore area.
- The project design must provide for a buffer area that will effectively protect all adjacent agricultural lands from urban/rural conflicts.
- The Specific Plan shall include a program of signing to inform and direct the public as to the access and recreational opportunities and the public obligations and constraints. Public recreational areas shall be located and designed to provide for ready access and identification by the public. All public areas shall be offered for dedication for public use prior to issuance of a development permit. All required public improvements shall be developed concurrently and be completed prior to completion of the final project phase.

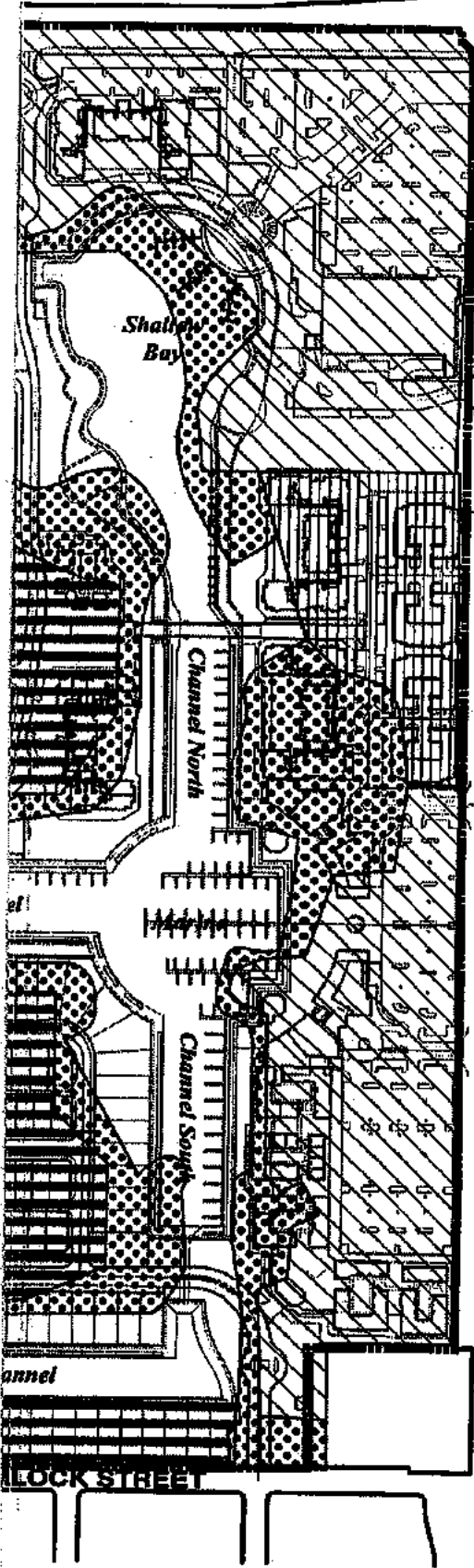
Consistency Analysis

The proposed TTM 5266 can be found consistent with the development policies and land use concept provided in the Mandalay Bay Specific Plan. Figure 4.1-4 provides an overlay of the proposed TTM 5266 on the conceptual land use plan. This figure depicts how the development pattern envisioned by

LEGEND

-  Specific Plan Illustration Parks
-  Residential
-  Visitor Serving Commercial
-  Mixed Use
-  Project Boundary

OLEY ROAD

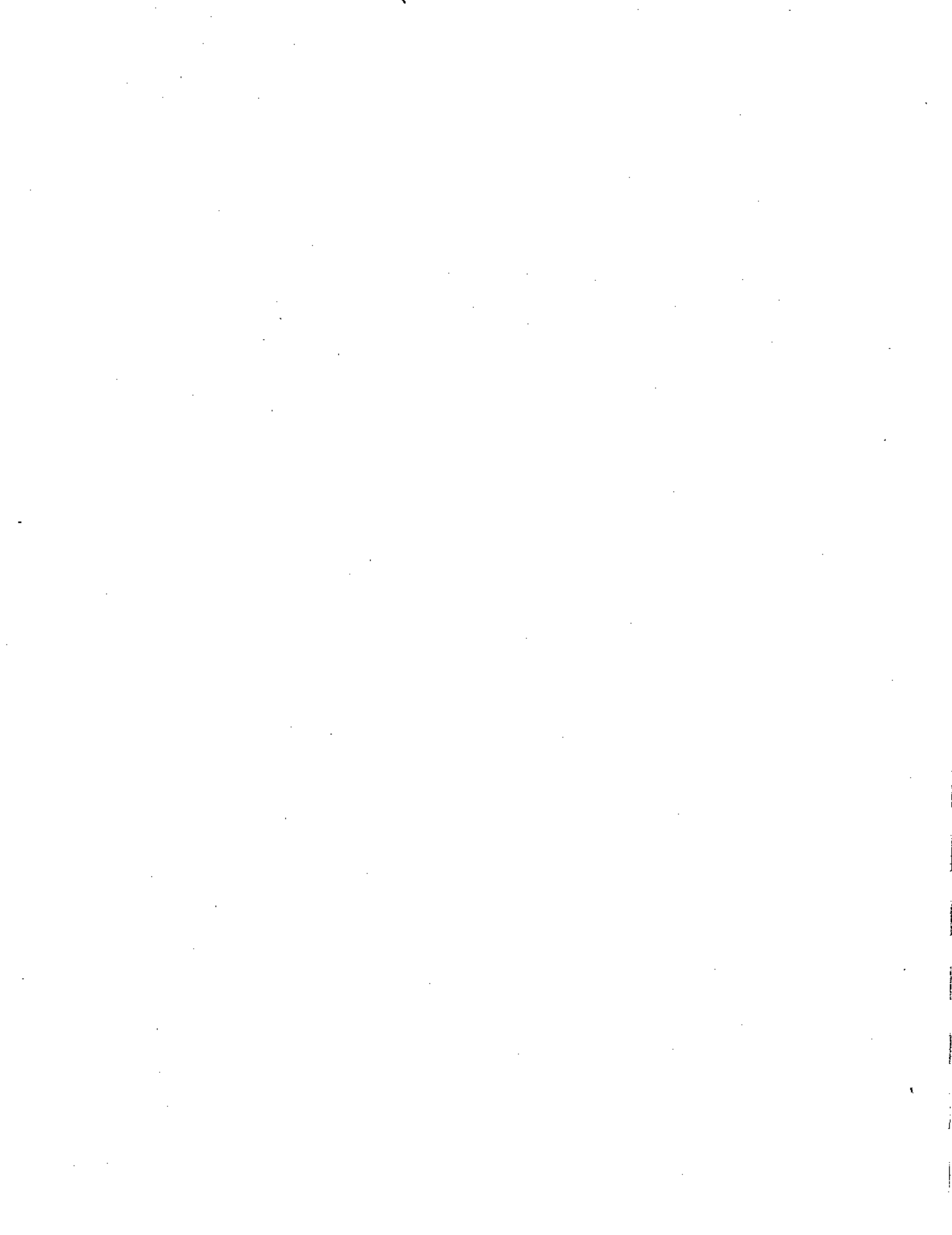


VICTORIA AVENUE

LOCK STREET

FIGURE 4.1-4

Indalay Phase IV Specific Plan Land Use Concept



the Specific Plan has been followed in the design of TTM 5266. Consistent with the Specific Plan, visitor-serving commercial uses are located at the intersection of Wooley Road with Victoria Avenue and in the southeast corner of the Specific Plan area. The location of the mixed-use component of TTM 5266 is also consistent with the conceptual land use pattern established by the Specific Plan.¹¹ Finally, residential development is oriented toward the waterway with provision for private boat slips adjacent or nearby, which is consistent with the Specific Plan.

Furthermore, as depicted earlier in Table 4.1-2, the proposed TTM 5266 project includes the amount of visitor serving commercial, open water, and public recreation land use categories called for by the Specific Plan. With regard to residential uses, the Mandalay Bay Phase IV Specific Plan allows a maximum of 960 dwelling units, exclusive of residential units provided in mixed-use areas. The existing Harbor Island development provides 130 du, and the recently approved TTM 5196 project provides 218 units. With the approval of the proposed TTM 5266 (proposed for 314 du not counting mixed-use areas), a total of 659 units would be developed at full buildout. This is less than the 960 du allowed by the Specific Plan. The project has also been designed consistent with the public access requirements of the Specific Plan and CLUP. Refer above for a consistency analysis with Coastal Access and Recreation policies.

Finally, the project site is located in the City Urban Restriction Boundary and is designated for urban use in the CLUP. Consequently, the subject property is available for development consistent with the City's 2020 General Plan and Coastal Land Use Plan. Public works facilities in the area are generally adequate to support the proposed development with construction of certain improvements described in Section 4.8, Public Services.

However, local schools may have difficulty in accommodating students generated by the project. The Oxnard Elementary School District and Oxnard High School District provide educational service to the area. Buildout of TTM 5266 would result in the construction of ~~749~~709 dwelling units. Occupancy of these structures would generate additional students that would ultimately attend school in the two school districts. It is the district's opinion that existing facilities are above design capacity and the generation of any new students into the district represents a significant impact unless mitigated.

¹¹ Proposed mixed use areas will contain neighborhood or visitor serving commercial uses within the same complex or structures as residential uses.

State law provides mitigation for the impact of development approvals on schools. The State School Facilities Act, as revised with adoption of Senate Bill (SB) 50, declared that financing of school facilities and the mitigation of impacts of land use approvals on the need for school facilities are matters of statewide concern. Enaction of SB 50 and Proposition 1A provided a comprehensive school facilities financing and reform program by, among other methods, authorizing a \$9.2 billion school facilities bond issue, school construction cost containment provisions, and an eight-year suspension of the Mira, Hart, and Murrieta court cases that previously guided mitigation of school impacts. The bond funds are to provide \$2.9 billion for new construction and \$2.1 billion for reconstruction/modernization needs.

School districts are authorized to levy school impact fees that are set by the State Allocation Board and tiered to allow districts to impose increasingly higher fees if certain criteria are met. The level 1 fee for residential uses presently stands at \$2.05 per square foot and \$0.33 per square foot of commercial construction. According to Government Code Section 65996, the development fees imposed are deemed to be full and complete school facilities mitigation. These provisions are in effect until 2006 and will remain in place as long as subsequent state bonds are approved and available.

It is emphasized that Government Code section 65995(i) prohibits local agencies from denying or refusing to approve a legislative or adjudicative act, or both, involving but not limited to, the planning, use, or development of real property on the basis that school facilities are inadequate. Therefore, the payment of school fees pursuant to SB 50 as implemented by the Board of Education for the two school districts is the exclusive and complete method of considering and mitigating project impacts to school facilities. Notwithstanding the legal standard for mitigating the effects of new development on local schools, the school district is investigating a number of potential school sites in the vicinity of this project including one site within the boundaries of TTM 5266. As a result, there is a potential project alternative that would incorporate an elementary school into the site plan in addition to payment of the statutory fees. See Section 6.0, Alternatives, for an evaluation of this alternative.

Industrial Development Policies

These policies address coastal-dependent industrial facilities, including tanker facilities, and oil and gas development on and off shore. These policies are not directly applicable to the proposed residential development project.

Consistency with the City of Oxnard Zoning Ordinance

Presently the project site is zoned by the City of Oxnard in the Coastal Planned Unit Community (CPC) coastal subzone, which permits large-scale mixed-use planned development. The CPC zone is further intended to provide for the integration of residential, visitor-serving commercial, and public recreational and open space uses consistent with the City's CLUP and provide for appropriate public access to the extensions of the Inland Waterway. It is also intended to provide a development that will optimize the utilization of property to conserve energy and promote the efficient use of limited resources.¹²

The CPC subzone requires a specific plan for uses other than agriculture, aquaculture, and passive recreation. As discussed above, the project site is located within the Mandalay Bay Specific Plan Area, which was adopted by the California Coastal Commission in January of 1985. The consistency of the Mandalay Bay Specific Plan with the City's Zoning Ordinance was considered during the adoption of the Mandalay Bay Specific Plan. Since the proposed TTM 5266 is consistent with the land use development concept and policies of the Specific Plan, it too is consistent with the zoning ordinance.

Consistency with SCAG Regional Comprehensive Plan & Guide

The *Regional Comprehensive Plan and Guide* ("RCPG"), dated March 1996, consists of five core chapters, which are growth management, regional mobility, air quality, water quality, and hazardous waste management. These core chapters respond directly to federal and state requirements placed on the Southern California Association of Governments and which local governments are required to use as the basis for their own plans. Under CEQA, local governments are required to discuss the consistency of projects with regional significance against policies contained in the RCPG. Special attention shall be afforded to the core sections and policies of the Plan.

The following is a brief discussion of the mandatory sections of the core chapters that apply to the proposed project, as well as a project consistency analysis with policies identified in each chapter. Goals contained in the Open Space Chapter of the RCPG, an ancillary Chapter, are also evaluated at the request of SCAG in the NOP comment letter dated October 4, 2001.

¹² City of Oxnard, *Zoning Regulations and Zoning Map*, June 1991.

Growth Management Chapter

Policies in this chapter reference SCAG's mandate in the review of regionally significant projects are discussed below:

3.0-1 *The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.*

Buildout of the proposed TTM 5266 would result in construction of up to ~~748~~709 dwelling units that would house a population of approximately 2,884 persons.¹³ As indicated in Table 4.1-3, the Ventura County Organization of Governments (VCOG) subregion is predicted to undergo sustained growth through the year 2020. Population in this subregion is predicted to increase by 175,224 persons, while the housing stock is projected to increase by 56,967 units. Employment opportunities are also predicted to increase substantially.

Table 4.1-3
SCAG Demographic Projections - VCOG Subregion

	2000	2005	2010	2020	Growth 2000-2020
Population	739,780	765,385	836,185	915,004	175,224 (24%)
Housing	240,529	252,265	271,093	297,496	56,967 (24%)
Employment	322,239	351,014	380,765	414,421	76,101 (24%)

Source: SCAG, Regional Comprehensive Plan and Guide, Growth Management Chapter, (April 2001).

The increased population resulting from build-out of the project when added to the 2000 sub-regional population of 739,780 equates to a projected population of 742,664 residents by the year 2005. This is well within the demographic projection for the year 2010 or even 2005.

Table 4.1-4 depicts SCAG demographic projections for the City of Oxnard. On a local level, buildout of TTM 5266 would result in a population of 159,407 using the existing SCAG data. This figure is well below the 168,025 persons projected to reside in the City by the year 2010 and is approximately equal to the year 2005 projections.

¹³ Stanley R. Hoffman Associates, Tract No. 5266, Mandalay Bay Specific Plan, Fiscal Impact Analysis, October 2001.

However, it should be noted that the 2000 census data for the City of Oxnard indicates a population of 170,358 persons. This figure is well above the projected population for 2010 as indicated by SCAG. Another noteworthy consideration is the presence of the City's CURB. This boundary prevents development outside of the Urban Restriction Boundary in order to focus urban use to areas best suited to provide necessary supporting services. To reflect both of these planning conditions, the City of Oxnard plans to submit updated demographic projections to the Ventura Council of Governments during the next round of revisions to the demographic forecasts. The revised projections will reflect current growth and development conditions within the City of Oxnard that will be incorporated by SCAG in the next update to the RCPG. Based on the above, the project can be found consistent with this SCAG policy.

**Table 4.1-4
SCAG Demographic Projections - City of Oxnard**

	2000	2005	2010	2020	Growth 2000-2020
Population	156,523	159,301	168,025	186,900	30,377 (19%)
Housing	42,714	44,640	47,606	55,163	12,449 (29%)
Employment	46,442	52,492	58,747	65,819	19,377 (42%)

Source: SCAG, Regional Comprehensive Plan and Guide, Growth Management Chapter, (April 1998).

- 3.03 *The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.*
- 3.05 *Encourage patterns of urban development and land use, which reduce costs on infrastructure construction and make better use of existing facilities.*
- 3.09 *Support local jurisdiction's efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.*

Analysis: As previously indicated, the site of the proposed TTM 5266 is within the City of Oxnard CURB Boundary and is planned for development by the City of Oxnard Coastal Land Use Plan that was adopted by the Coastal Commission in January 1985. As such, the property is adjacent to developed uses and utility mainlines (e.g., water, sewer, electrical, natural gas, communication links, etc.) exist to serve uses in this area. In addition, the City's water, sewer and storm drain master plans provide service to this area with capacity to serve the land uses proposed. Thus, municipal services and utilities are available to serve buildout of the Specific Plan. Prior to the issuance of building permits, the City of Oxnard Department of Public Works will approve final plans for on-site utilities. In addition, project generated residents and businesses would generate revenue in the form of sales taxes,

property taxes, fees, etc., which would be available to the City to fund the operation of public services on the site, such as fire and police service, flood control, library service, street maintenance, etc. Revenues for capital improvements would also be generated by the project directly through various forms of development fees, including, but not limited to water connection fees, sewer connection fees, and school fees. Therefore, the project is considered consistent with this policy.

- 3.12 *SCAG shall encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.*
- 3.13 *Encourage local jurisdiction's plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.*
- 3.14 *Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers.*
- 3.16 *Encourage developments in and around activity centers, transportation corridors, underutilized infrastructure systems, and areas needing recycling and redevelopment.*

Analysis: The development of the proposed TTM 5266 is guided by the Mandalay Bay Phase IV Specific Plan, which provides for a balanced mixed use community containing residential, commercial, open space and public recreational uses in an area presently served by public transit and containing a regional transportation system. The project has been designed with an orientation towards non-motorized vehicle traffic. For example, the project contains waterfront promenade and navigation channels that link residential and recreational uses to the commercial and mixed-use areas located on the project and to the adjacent Channel Islands Harbor. The harbor provides thousands of boat slips, a boat launching complex, boat hoists for recreational use, waterside restaurants, marine and specialty shops, a resort hotel, and shoreline public parks. Such features serve to limit automobile usage by placing recreation and neighborhood serving uses within a short distance of residential areas.

With regard to transit, the project site is served by the South Coast Area Transit (SCAT), and the closest bus route is located adjacent to the site along Victoria Avenue. This route includes stops at the Oxnard Intermodal Transit Station. This station functions as a hub for the SCAT inter-city and local bus services and as a connection for Amtrak's Metrolink. Based on the above, the project can be found consistent with these policies.

- 3.18 *Encourage planned development in locations least likely to cause environmental impact*

- 3.20 *Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.*
- 3.23 *SCAG shall encourage measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.*

Analysis: The site is located adjacent to urban uses and is subject to typical motor vehicle noise associated with local roadways. No unique or unusually loud noise sources occur on or in the site vicinity. The site and surroundings are largely disturbed due to previous farming and development activity. No sensitive plants or animals are present on the property. Impacts to agricultural resources are mitigated through implementation of the Agricultural Soil Transfer Program. This action is consistent with policy 5 of the CLUP and Section XI of the Mandalay Bay Specific Plan. Finally, through compliance with Building Code requirements, hazards to the project associated with seismic events would be reduced to less than significant levels. With implementation of the proposed improvements, code requirements, and mitigation, this project would be consistent with this RCPG policy.

- 3.22 *SCAG shall discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.*

Analysis: The site is not subject to flood hazards, wildland fire hazards, nor does the property contain any steep slopes. Like other locations in Southern California, the site would be subject to seismic hazards common to the region. Through compliance with Uniform Building Code, as required, hazards to the project associated with seismic events would be reduced to less than significant levels making the project consistent with this SCAG policy.

- 3.21 *SCAG shall encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural sites and archaeological site.*

Analysis: The project site has been extensively disturbed due to its use for the production of row crops. As a result of the site disturbance, surficial evidence of prehistoric or historic cultural resources have either been disturbed or covered over. There is a remote possibility of deeply buried resources being uncovered during excavation. Compliance with mitigation measures identified in Section III.R of the FEIR 81-2 would reduce the potential for any significant impact to cultural resources. See Appendix 1.0(A) to this Supplemental Draft EIR for a copy of the mitigation measures from FEIR 81-2.

- 3.24 *SCAG shall encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.*

Analysis: The City of Oxnard is aggressively pursuing a wide variety of housing opportunities for the full range of economic segments. The City has developed an Affordable Housing Plan to address the need for affordable housing. As part of this effort, the City has identified and set aside funds for the provision of such housing, along with incentives to encourage the private sector to construct affordable housing. The City is also pursuing housing opportunities for those with greater means in locations most appropriate for such uses. This is consistent with the economic diversity found within the City, which contains employment opportunities ranging from high paying professional jobs, such as attorneys, to those of field workers and retail employees.

The proposed TTM 5266 project would provide a range of housing and employment opportunities. The project would construct single-family homes, townhomes or condominiums, and multi-family units (apartments) as well as live/work areas. These products would appeal to a broad range of economic segments. In summary, buildout of the project would broaden the range of housing types available within the coastal zone of the City, consistent with the intent of this policy.

3.27 *SCAG shall support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide equally to all members of society, accessible and effective services, such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.*

Analysis: The site is located adjacent to developed uses and the full range of infrastructure and municipal services are afforded to the property. In addition to developer fees and construction related infrastructure improvements, project generated residents and businesses would create revenue in the form of sales taxes, property taxes, fees, etc., which would be available to fund the recurring costs associated with provision of municipal services. Revenues for capital improvements would also be generated by the project directly through various forms of development fees. The project is consistent with this RCPG policy.

Regional Mobility Chapter

The Regional Mobility Chapter is a summary of another SCAG document entitled, *Regional Mobility Element* ("RME"). The RME, adopted in 1998, is the principal transportation policy, strategy and objective statement of SCAG, proposing a comprehensive strategy for achieving mobility and air quality mandates. The RME is also referred to as the *Regional Transportation Plan* ("RTP"), and it serves as both the Federal- and State-required regional long-range transportation plan for the SCAG region through the year 2015.

The Regional Mobility Element links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations.

4.01 Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.

Mobility – Transportation systems should meet the public need for improved access, and for safe, comfortable, convenient, faster, and economical movements of people and goods.

- Average work trip travel time in minutes – 22 minutes
- PM peak highway speed – 33 mph
- Percent of PM peak travel in delay All Trips – 33 percent

Accessibility – Transportation systems should ensure the ease with which opportunities are reached. Transportation and land use measures should be employed to ensure minimal time and cost.

- Work opportunities within 25 minutes – 88 percent

Environment – Transportation systems should sustain development and preservation of the existing system and the environment (All trips).

- Meeting Federal and State standards – Meet Air Plan Emissions Budget

Reliability – Reasonable and dependable levels of service by mode (All Trips)

- Transit – 63 percent
- Highway – 76 percent

Safety – Transportation systems should provide minimal, risk, accident, death and injury (All Trips)

- Fatalities per million passenger miles – 0.008
- Injury accidents – 0.929

Livable Communities – Transportation systems should facilitate livable communities in which all residents have access to all opportunities with minimal travel time. (All Trips)

- Vehicle Trips Reduction – 1.5 percent
- Vehicle Miles Traveled Reduction – 10.0 percent

Equity – The benefits of transportation investments should be equitably distributed among all ethnic, age and income groups. (All Trips).

- Low-income households (Household income \$12,000) Share of Net Benefits – Equitable Distribution of Benefits.

Cost-Effectiveness – Maximize return on transportation investment. (All Trips).

- Net present value – Maximum return on transportation investment
- Value of a dollar invested – Maximum return on transportation investment

4.02 Transportation investments shall mitigate environmental impacts to an acceptable level.

4.04 Transportation Control Measures shall be a priority

4.16 Maintaining and operating the existing transportation system will be a priority over expanding capacity.

Analysis: These Core transportation policies are directed towards regional transportation planning. It is beyond the scope of an individual project to address the regional transportation issues raised in these policies. To the extent applicable, the project is considered consistent with the intent behind the policies. For example, the project would accommodate growth in an area already afforded municipal services and public transportation. Moreover, the physical design and mixed-use nature of the Specific Plan within which the TTM 5266 project is proposed promotes pedestrian circulation and reduce total vehicle miles traveled. Finally, mitigation has been identified in the Draft Supplemental EIR that will reduce all traffic impacts to a level considered less than significant. Consequently, the project would be consistent with the goal to maintain a reliable transportation network that provides for the safe, comfortable, and economical movement of people and goods.

Air Quality Chapter

The Air Quality Chapter of the RCPG was written by SCAG to support the goals of the RCPG and is intended to facilitate an improved standard of living by encouraging sustained economic growth along with an improvement in air quality through the creation of new industries and products required to achieve cleaner air and by providing adequate transportation for all residents while meeting clean air goals.

The project's consistency with the requirements of the South Coast-Ventura County Air Pollution Control District's Air Quality Management Plan ("AQMP") is discussed in Section 4.7 of this Draft EIR.

As stated in the Air Quality Chapter, SCAG is responsible for preparing and approving the portions of the AQMP which relate to regional demographic projections and integrated regional land use; housing, employment, and transportation programs; control measures; and strategies. The RCPG Air Quality Chapter presents a series of air quality "issues" and "strategies."

The following policies address those issues presented in the Air Quality Chapter that are relevant to the proposed project.

- 5.11 *Through the environmental documentation review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.*

Analysis: The Specific Plan which guided the design of TTM 5266 emphasizes the importance of mixed land uses, communities scaled for pedestrian movement, limiting automobile usage and the importance of physical design in creating communities that people want to live, work and shop in. The proposed project will incorporate several residential neighborhoods, served by parks, neighborhood-oriented

commercial, and a pedestrian movement system designed to reinforce and encourage pedestrian movement. These are linked by a project-wide open space and circulation system to a diverse mix of commercial and recreational uses.

The location and design of the project also allows for the use of alternative means of transportation. The project is in area served by the South Coast Area Transit (SCAT), and the closest bus route on Victoria Avenue. This route includes stops at the Oxnard Intermodal Transit Station. This station functions as a hub for the SCAT inter-city and local bus services and as a connection for Amtrak's Metrolink. As such, future residents of the project have the opportunity to utilize several alternative modes of transportation including bus and rail service. In conclusion, physical design feature of the project along with the location near an area served by existing transit act to reduce total vehicle miles traveled and hence, vehicle air emissions. Although the proposed project has no control over the contents of regional, subregional, and local plans, those plans and policies that affect development in the project area are identified and evaluated throughout this EIR for project consistency.

5.07 Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle miles traveled/emission fees) so that options to command and control regulations can be assessed.

Analysis: This Core policy is directed towards regional air quality planning. It is beyond the scope of an individual project to address the regional issues raised in this policy. To the extent applicable, the project is considered consistent with the intent behind the policy as analyzed in the above consistency analysis.

Water Quality Chapter

The stated purpose of this chapter is to provide a regional perspective on current water quality issues and the plans and programs for addressing these issues. The chapter also identifies the current water quality goals and objectives for the region under existing law and provides a framework for ensuring that growth in wastewater treatment capacity is consistent with regional growth projections. Policies of the Water Quality Chapter, which have some relevance to the proposed project, are discussed below:

11.02 Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.

- 11.05 *Support regional efforts to identify and cooperatively plan for wetlands to facilitate both sustaining the amount and quality of wetlands in the region and expediting the process for obtaining wetlands permits.*

Analysis: It is beyond the scope of the proposed project and EIR to provide watershed management programs and strategies. However, the project does incorporate measures to minimize the impact associated with the construction and operational impacts. For example, the project would comply with requirements for development projects under the County's National Pollution Discharge Elimination System (NPDES) Permit, and would obtain all necessary permits from the Regional Water Quality Control Board for both the construction and ultimate development stages. In addition, the project incorporates a Public Boat Dock Plan that establishes rules and regulations for the operation and management of the dock facilities. These provisions include limits on boat maintenance activities, use of Best Management Practices for boat maintenance as well as the disposal of waste. Mitigation measure 4.4-4 of this Supplemental Draft EIR requires that all the provisions of the Public Boat Dock Plan involving restrictions on boat maintenance and required use of Best Management Practices be incorporated into boat slip lease agreements.

With regard to wetlands, the site is under agricultural cultivation and no wetlands presently exist on the property. However, the project would construct a series of marine navigation channels that would provide approximately 33 acres of open water at buildout. The proposed project would, therefore, generally be consistent with the objective of water quality in the watershed.

Cumulative Impacts

Buildout of the City's *General Plan* will change the intensity of land uses in the City's Planning Area. In particular, this cumulative development scenario will increase development in the western portion of the City, and provide additional housing, employment, shopping, and recreational opportunities.

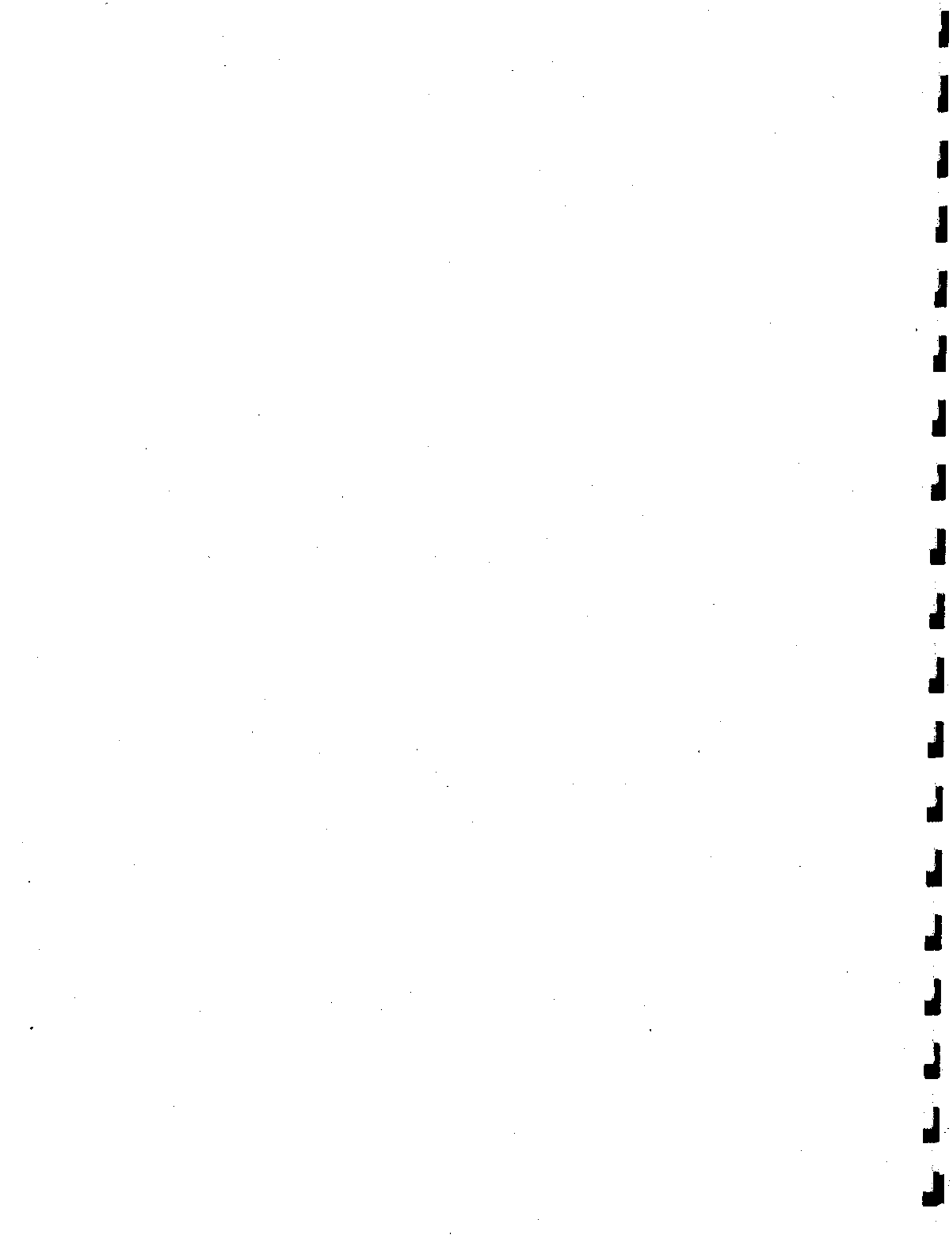
The City of Oxnard has reviewed the proposed tract map against City development and design guidelines which regulates permitted uses, development density, building heights, site and building design, transportation demand and neighborhood protection. In addition, all development is closely monitored citywide. All developments proposed and constructed within the City are recorded by city staff and reviewed for consistency with citywide land use controls and development standards during the course of the project review and approval process. Given the land use controls and development standards presently in use within the City of Oxnard, including the presence of the CURB, cumulative land use impacts would be minimized to a level that is considered to be less than significant.

MITIGATION MEASURES

No mitigation measures are required as no significant impacts have been identified.

UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

No unavoidable significant land use impacts are anticipated as a result of project development.



4.2 GEOLOGY AND SOILS

INTRODUCTION

Information and analysis presented in this section is based on a summary of the geotechnical engineering report prepared for the project by Geolabs-Westlake Village in August of 2000. Refer to Appendix 4.2 to this EIR for a copy of this report. The engineering study involved drilling, mapping, sampling, and logging of test borings to evaluate on-site soils and groundwater conditions. Laboratory testing of soils samples obtained from the subsurface exploration was conducted to determine their physical and engineering properties, and a review of previously conducted cone penetrometer soundings was also conducted. Based on a geotechnical analysis of the data obtained, the project geotechnical engineer developed engineering recommendations for the project.

EXISTING CONDITIONS

Regional Geologic Setting

The project site is located on the Oxnard Plain, which is situated in the Transverse Range Province. This province is characterized by east-west trending folds and thrust faults (faults that compress horizontally). The Oxnard Plain is fairly flat and comprised of alluvial deposits of silt, sands, and gravel which extend to a depth of approximately 500 feet beneath the ground surface. The deposition of this alluvium is related to the Santa Clara River and its historic flood patterns. Beneath the alluvium is the San Pedro Formation, which consists of moderately indurated sandstones and conglomerates. This formation is approximately 4,000 feet thick and is well exposed in the foothills to the north of the plain.¹

Site Specific Characteristics

Soils and Topography

The project site is relatively flat with elevations ranging from 16 feet MSL to 8 feet MSL. The property is regularly disked for agricultural cultivation and no unique topographic features are present on the site.

¹ Castañeda/Takata Associates, *City of Oxnard 2020 General Plan Final EIR*, June 1990.

The upper eight to 12 feet of the soil profile consists primarily of silty sand. These materials are generally loose to medium dense. Below the silty sands are fine-grained materials consisting primarily of lean clay and lean silt. These materials are generally soft to medium stiff/stiff and on the order of 10 to 15 feet thick and tend to be cohesive. The fine material is underlain by clean sand interbedded with some fine-grained lean silt and lean clay. The clean sands are classified as well-graded sand and poorly-graded sand based on their grain size distribution. However, these sands vary in particle size distribution only slightly and are typically medium dense to dense, although some loose zones were identified. Finally, the interbedded fine-grained silts and clays are similar to those silts and clays overlying the sand.

Seismic Hazards

Ground Shaking

Ground shaking and liquefaction are typically the main causes of structural damage and personal injury from earthquake events in southern California. The severity of an earthquake can be expressed in terms of both *intensity* and *magnitude*. However, the two terms are quite different, and they are often confused. Intensity is based on the observed effects of ground shaking on people, buildings, and natural features. It varies from place to place within the disturbed region depending on the location of the observer with respect to the earthquake epicenter. The intensity of ground shaking at a specific site is a function of distance from the fault, magnitude of the earthquake, and local geology. Table 4.2-1 provides a comparison of the two scales.

The intensity scale consists of a series of certain key responses such as people awakening, movement of furniture, damage to chimneys, and finally--total destruction. Although numerous intensity scales have been developed over the last several hundred years to evaluate the effects of earthquakes, the one currently used in the United States is the Modified Mercalli (MM) Intensity Scale. This scale, composed of 12 increasing levels of intensity that range from imperceptible shaking to catastrophic destruction, is designated by Roman numerals. It does not have a mathematical basis; instead it is an arbitrary ranking based on observed effects. The lower numbers of the intensity scale generally deal with the manner in which the earthquake is felt by people. The higher numbers of the scale are based on observed structural damage. For example, an earthquake with an intensity of III would be felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people would not recognize it as an earthquake. On the other hand, an earthquake of X intensity would destroy some well-built wooden structures, while most masonry and frame structures would also be destroyed.

**Table 4.2-1
Magnitude and Intensity**

Magnitude	Intensity	Description
1.0 - 3.0	I	Not felt except by a very few under especially favorable conditions.
3.0 - 3.9	II - III	II. Felt only by a few persons at rest, especially on upper floors of buildings. III. Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
4.0 - 4.9	IV - V	IV. Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably. V. Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
5.0 - 5.9	VI - VII	VI. Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight. VII. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
6.0 - 6.9	VII - IX	VIII. Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, and walls. Heavy furniture overturned. IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
7.0 and higher	VIII or higher	X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent. XI. Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly. XII. Damage total. Lines of sight and level are distorted. Objects thrown into the air.

Magnitude is related to the amount of seismic energy released at the hypocenter of the earthquake. It is based on the amplitude of the earthquake waves recorded on instruments which have a common calibration. The magnitude or strength of earth movement associated with seismic activity is typically quantified using the Richter scale. This scale is a measure of the strength of an earthquake or strain energy released by it, as determined by seismographic observations. This is a logarithmic value originally defined by Charles Richter (1935). An increase of one unit of magnitude (for example, from 4.6 to 5.6) represents a 10-fold increase in wave amplitude on a seismogram or approximately a 30-fold

increase in the energy released. In other words, a magnitude 6.7 earthquake releases over 900 times (30 times 30) the energy of a 4.7 earthquake.

No known active faults nor Alquist-Priolo Act Special Studies Zones are found within the City of Oxnard. However, the City lies in a seismically active region and is subject to ground shaking from earthquake events along major active regional faults. Earthquake building design standards set by the Uniform Building Code (UBC) are based on the maximum potential ground acceleration that would occur at a specific site during the maximum credible earthquake (MCE) of the fault having the greatest influence on the site.

The nearby Oak Ridge (blind thrust offshore) Fault, located approximately 4 kilometers north of the site is the fault with the greatest influence. As indicated in the geotechnical engineering report, an average peak ground acceleration of 0.64g and 0.61g would be experienced at the site during an event with a magnitude 6.9 for the UBC Design-Basis Earthquake. For an Upper Bound Earthquake, the average peak ground acceleration is considered 0.79g and 0.77g. As shown in Table 4.2-1, above, damage would be slight in specially designed structures, while considerable damage would occur in a poorly built structure under such conditions.

Liquefaction

Liquefaction refers to an unstable ground condition in which ground shaking works cohesionless, water saturated soil particles (generally fine grained sands) into a tighter packing, thus creating excess pore space. Liquefaction typically occurs in earthquake prone areas where the groundwater level is less than 50 feet below the ground surface, and where the soils are composed of young alluvium. The potential for liquefaction exists through most of the City of Oxnard since there is a thick section of alluvial deposits and high groundwater level underlying the Oxnard Plain.

Results of analysis conducted by Geolabs-Westlake Village indicate that the soils underlying the site include loose to medium dense coarse-grained sand with a potential to liquefy during a design level earthquake. The fine-grained silts and clays have sufficient clay particles to be considered unlikely to liquefy. The zones of liquefaction potential are primarily in the depth range of 7 to 12 feet below the surface (the silty sand, SM), and in thin loose to medium dense layers in the sand below the clay layer (depths of 20 and deeper below the existing surface).

Lateral Spreading

Lateral spreading is characterized by blocks of soil moving or displacing either downslope or towards free faces along a shear zone that forms within a liquefied soil mass. Within the project site, the near surface liquefiable materials are recommended for removal, therefore, the uppermost liquefiable material will be thin zones in the medium dense to dense sands below the clay and engineered fill. These zones do not appear to be laterally continuous. The potential for liquefaction-induced lateral spreading at the site is considered to be low.

IMPACT ANALYSIS

Thresholds of Significance

Appendix G of the State CEQA *Guidelines* defines a significant geologic problem as one that will cause:

- Exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground rupture, shaking, ground failure or landslides
- Located on a geologic unit or soil that is unstable or that would become unstable as a result of the project.

Project Impacts

Seismic Hazards

(a) Ground Shaking

The proposed project would be subject to ground shaking in the event of an earthquake along any of major faults in the vicinity. Strong ground shaking can result in serious damage to structures, personal injuries including loss of life, damage to property, and economic and social dislocations. The proposed project would result in the construction and occupancy of residential and commercial uses, and therefore has the inherent potential to subject persons to ground shaking-related hazards. However, recommendations and specifications of the geotechnical engineering study prepared for the project would guide the design and construction of the proposed project, and are intended to mitigate seismic impacts. In addition, the project would be required to conform to the latest edition of the Uniform Building Code (UBC), which includes design measures to mitigate against seismic hazards. UBC and City of Oxnard building standards would be enforced through review of plans and inspection of structures during construction. By

incorporating recommendations of the geotechnical engineering study and complying with the UBC and City of Oxnard standards, project impacts related to ground shaking would be less than significant. Recommendations of the geotechnical engineering study related to grading and construction are also intended to mitigate seismic hazards, and are identified as mitigation measures later in this section.

(b) Liquefaction & Lateral Spreading

The upper silty sands have poor settlement characteristics and combined with the high groundwater table beneath the site have the potential to liquefy during a design level earthquake. Damage to proposed homes, roadways, and other proposed structures on the project site caused by liquefaction could subject persons to unsafe conditions. The project geotechnical report recommends that the upper nine feet of soil be removed below the existing ground surface and replaced with engineered fill to avoid this potential impact. The bottoms of these removals will need stabilization that may consist of rock, fabric, or additional scarification/disking and time to air-dry sufficiently to support grading equipment. It is estimated that differential settlement of on-site soils would be a maximum of one inch with incorporation or recommendations of the geotechnical engineering study. These levels of settlement from liquefaction would be considered to represent a less than significant impact, as building pads and structures would be designed to sustain such movement. By incorporating recommendations of the geotechnical engineering study, project impacts associated with liquefaction would be less than significant.

Potential impacts from lateral spreading would be considered significant unless mitigated. As discussed above, recommendations contained in the geotechnical engineering report propose the removal of near surface liquefiable materials to mitigate the hazard to levels considered less than significant.

(c) Settlement or Subsidence

The majority of the proposed building and pavement/hardscape areas would be located over areas of fill. The fill thickness in proposed building pad areas would be an average of approximately 9 feet, although building pads would have variable fill depth or a material transition underlying the building areas. The geotechnical report requires that the fill be grubbed to remove organic matter, excavated, and recompacted to form the rough development pads. This process greatly reduces the potential for seismically induced settlement to occur.

As indicated earlier in this section, the high groundwater levels on the project site indicate that groundwater overdraft and land subsidence in the project area are not a concern for this project. The

proposed project would not result in the permanent removal of groundwater from the project area, nor would it involve the placement of large amounts of additional soil materials that could cause the underlying surface to compress and subside. Considering the above, impacts of the project pertaining to land subsidence would be less than significant. In both cases, compliance with the recommendations contained in the geotechnical report and the mitigation listed below will ensure that no significant impact will occur.

(d) Channel Slope Stability

The banks of excavated channels will be subject to hydraulic forces and scour if not properly protected. Such a situation would create erosive or unstable conditions that could undermine adjacent development areas and create a potentially hazardous condition. The project design protects the channels using a combination of 2:1 riprap slopes over 3:1 unarmored slopes and seawalls over 3:1 unarmored slopes. The geotechnical report recommends that the seawalls should be designed to resist the hydrostatic pressure of the groundwater. All retaining walls should also be provided with adequate backdrainage systems, and should be supported by driven piles. Compliance with such recommendations identified in the geotechnical report and the mitigation listed below would reduce potential impacts to levels considered less than significant.

Cumulative Impacts

Many geologic hazards such as unstable soils, ground shaking, liquefaction, and lateral spreading are site specific in nature and do not contribute to cumulative impacts. A potential geologic impact of the project that can be cumulative in nature is land subsidence. However, the proposed project would not involve activities (i.e., permanent extraction of groundwater or oil resources) that would be capable of causing regional land subsidence, and therefore would not contribute to any cumulative impacts of that nature. Considering the above, the proposed project would not result in any cumulatively significant geologic impacts.

MITIGATION MEASURES

The FEIR 81-2 prepared for the Mandalay Bay Phase IV Specific Plan also identifies geologic hazard mitigation measures that are relevant to the project. Such measures are to be made conditions of approval for each tentative tract map filed within the Specific Plan area. See Appendix 1.0(A) of this Draft Supplemental EIR for a copy of the measures and a discussion of their applicability to this

project. Below are measures that have been identified in this Supplemental EIR that are in addition to those required by FEIR 81-2.

- 4.2-1 All structures shall be designed in accordance with the Uniform Building Code (UBC) and applicable City codes to ensure safety in the event of an earthquake.
- 4.2-2 Grading at a minimum shall conform to Chapter 33 of the Uniform Building Code.
- 4.2-3 All conclusions and recommendations contained in the project geotechnical engineering report shall be incorporated into the project design. The measures will be enforced through review of plans and inspection of structures during construction.

UNAVOIDABLE SIGNIFICANT IMPACTS

With inclusion of all required mitigation measures, no unavoidable significant geologic-related impacts would result from the proposed project.

4.3 HYDROLOGY AND WATER QUALITY

INTRODUCTION

The following section characterizes the existing drainage patterns on the project site, describes the planned drainage system for the project, and evaluates the potential impacts of the proposed project on the City's storm water drainage system, surface water resources, and groundwater resources of the surrounding area. Information contained in this section was summarized from a Preliminary Hydrology Study and Post-Construction Storm Water Mitigation Plan prepared by Jensen Design & Survey for the proposed TTM 5266 project and Hydrogeologic Investigation for the proposed TTM 5266 conducted by FLUGRO in October 2001. Both of these reports are contained in Appendix 4.3 of this Supplemental Draft EIR. Additional information was obtained from the California Regional Water Quality Control Board, Los Angeles Region, Water Quality Control Plan, Los Angeles Region (4).

EXISTING CONDITIONS

City of Oxnard Surface Hydrology

The project site is located on the Oxnard Plain, a broad alluviated river delta lying north and west of the Santa Monica Mountains in the Transverse Ranges geomorphic province of California. The Oxnard Plain has little topographic relief and is located at a minimal elevation above sea level. Major drainages in the City of Oxnard include the Santa Clara River, agricultural sloughs, and a combination of City owned and Ventura County Flood Control District (VCFCD) storm drains and flood control channels. The City is located within the Santa Clara River Basin, which drains a watershed area of approximately 1,624 square miles in Ventura and northern Los Angeles Counties. The segment of the river that abuts the City of Oxnard is the last stretch of the river before it discharges into the Pacific Ocean. Flood control responsibility for the Santa Clara River in Ventura County lies with the Ventura County Flood Control District (VCFCD). Improved drainage channels within the City of Oxnard include the Patterson Drain, Doris Avenue Drain, Wooley Road Drain, Oxnard West Drain, Oxnard Industrial Drain, Rice Road Drain, J Street Drain, El Rio Drain, Santa Clara Avenue Drain and the Fifth Street Drain. These drainage facilities convey runoff to outlet points located in the southern and western portion of the City.

Local Drainage Conditions

Currently the 135-acre site is under agricultural cultivation and on-site drainage consists of a network of earthen channels that collect excess irrigation water and runoff generated during a storm event. The existing drainage network also contains a subsurface tile drain systems of header pipes, lateral drain lines, and lift stations. Total surface water run-off generated at the project site during the 10 year (Q_{10}) design storm event is estimated at 59.4 cubic feet per acre.¹ The existing drainage system in the project vicinity is adequate and no system deficiencies are noted by the City of Oxnard Master Plan of Drainage.

City of Oxnard Flood Protection Standards

The City of Oxnard *Master Plan of Drainage* (January 2001) was prepared to facilitate coordinated decision making on flood protection within the City. The plan inventories existing facilities, identifies drainage and water quality standards, defines areas with deficiencies, plans needed improvements, and establishes a strategy for financing recommended public works improvements. The Master Plan of Drainage has identified the 10-year frequency storm event as the "design-year storm" for underground storm water facilities. The Master Plan also requires that building pads must be elevated above the level of a 100-year flood. To help fund storm drain improvements, the City collects a fee based on the gross square footage of the site being developed, with cost factors identified in the *Master Plan of Drainage*. These fees vary in accordance with the type(s) of land use proposed and presently stand at \$10,645 per gross acre of improved land developed with low density residential use. For all other development, the fee is presently \$14,637 per gross acre of improved land.

The City is also a member of the National Flood Insurance Program (NFIP). Through this program, new development is required, through conditions of approval, to eliminate existing flooding problems identified on the Flood Insurance Rate Maps produced under the NFIP. The NFIP has regulations requiring communities to adopt land use restrictions for their 100-year floodplain to qualify for Federally subsidized flood insurance. These restrictions include a requirement that residential structures be elevated above the level of the 100-year flood and that other types of structures are flood-proofed.

Finally, the floodplain management ordinance, Chapter 35 of the Oxnard City Code, identifies requirements for development in areas subject to flooding. Most of the urbanized area of the City is

¹ This figure assumes a runoff rate of 0.44 cfs per acre of open area per the January 2001, City Drainage Master Plan.

outside of the 100-year flood zone. The major areas located within the 100-year flood zone in the vicinity are found along the Santa Clara River. The project site is not located within a designated 100-year flood zone. It is however, within an area that could be subject to Tsunami or Seiche according to the *General Plan*.

Groundwater Characteristics

General Overview

The site is located within a portion of the Oxnard Plain referred to as the Oxnard Plain Pressure Basin. The near-surface geology of this basin ranges from continental alluvial deposits on the eastern side to marine deposits on the west. These two environments meet in a transition zone, which includes beach, dune sand, flood plain, and stream channel deposits. The project site is located within this transition zone. Sediments underlying the Oxnard Plain comprise four different geologic formations described in order of age from youngest to oldest as follows: undifferentiated alluvium (Holocene), flood plain deposits (Upper Pleistocene), the San Pedro Formation (Lower Pleistocene), and the Santa Barbara Formation (Lower Pleistocene/Upper Pliocene). The collective thickness of the unconsolidated materials in the vicinity of the project site is between 1,500 and 2,000 feet. Beneath these sediments lies a very thick sequence of consolidated sedimentary rocks, which generally do not yield water.

Groundwater in the unconsolidated sediments occurs in layers of unconsolidated sand and gravel called aquifers. These water-bearing layers are separated by layers of fine-grained, relatively impermeable, silty or clayey materials of variable thickness commonly referred to as aquitards. While aquitards limit the flow of groundwater from one aquifer to another, these layers are not continuous or completely impermeable. Therefore, groundwater migration between aquifers does occur to varying degrees.

Figure 2.0-5 in Section 2.0, *Environmental Setting*, illustrates the major aquifers underlying the Oxnard Plain Basin. As shown, principal aquifer units from nearest the ground surface to depth are the Semi-Perched Zone, the upper aquifer system, which consists of the Oxnard Aquifer and Mugu Aquifer, and the lower aquifer system, which consists of the Hueneme Aquifer, Fox Canyon Aquifer, and Grimes Canyon Aquifer.

The Semi-perched aquifer generally extends from several feet below the ground surface to an average depth of 75 feet. A layer of clay separates the semi-perched aquifer from the upper aquifer system. The Oxnard and Mugu Aquifers generally extend from a depth of 150 to 450 feet below ground surface.

The lower aquifer system includes the Hueneme, Fox Canyon and Grimes Canyon Aquifers, which generally extend from a depth of 450 feet to 2,000 feet below the ground surface.

Exploratory testing has been conducted on-site by California Environmental in August of 2000 and Fugro in October 2001. These tests indicate the presence of groundwater in a shallow, unconfined semi-perched aquifer directly on-site. This semi-perched zone is separated from the confined Oxnard Aquifer by a clay layer, which is present at varying depths below the ground surface of the project site. The shallow perched aquifer is recharged by rainwater, and, to a lesser extent, applied irrigation water in cultivated areas east of the Edison Canal. Seawater may also recharge this aquifer in areas adjacent to the coastline and areas exposed to surface waters in the Edison Canal. Groundwater flow within the perched aquifer is generally westerly towards the ocean.

Groundwater Quality

(a) Regional

The primary water quality problem affecting groundwater within the Oxnard Plain is seawater intrusion. Seawater intrusion into the local groundwater supply is directly related to overdrafting of the aquifers, ~~and lack of fresh water recharge~~. Originally, the degree of seawater intrusion was estimated to cover an area approximately 22 square miles in size. Subsequent, more detailed monitoring efforts conducted by USGS indicated that the intrusion actually covers an area of approximately 10 square miles.²

In recognition of the seawater intrusion problem, the County of Ventura created the Seawater Intrusion Abatement Program. The program includes a series of actions designed to minimize the overdrafting of groundwater that is recognized as the primary cause of sea water intrusion. Phases one and two of this program have been implemented. Additionally, the Fox Canyon Groundwater Management Agency (GMA) was created through State legislation in 1982 to manage groundwater resources in the area overlying the Fox Canyon Aquifer zone. The objective of the GMA is to control and reduce groundwater overdraft. A groundwater management plan was prepared to address this goal. One of the major elements of the plan is the extraction reduction ordinance that was adopted by the GMA board in September 1990. The ordinance requires pumpers within the Fox Canyon GMA boundaries to reduce the amount pumped by 25 percent over the next 25 years beginning with a 5 percent for the year 1992. The plan has a number of programs including a prohibition on the drilling of new wells in areas subject to sea

² LaVerne Hoffman, Groundwater Hydrologist, Ventura County Department of Public Works, Water Resources Division, personal communication, 1999.

water intrusion, encouragement of wastewater reclamation and water conservation, sea water intrusion abatement, and monitoring and metering programs. In addition, the GMA is encouraging farmers to take upper aquifer wells out of production.

(b) **Local**

Several soil and groundwater studies that characterized groundwater quality in the local vicinity have been completed as part of technical reports for development proposals (Dial Services, 1989; ERC, 1990; Fugro-McClelland, 1993; Sezgin Consulting, 1998 and SGD, 1986 and 1992). More recently, Fugro West Inc. conducted a hydrogeology study to address the potential for adverse impacts to groundwater resources associated with an expansion of the Mandalay Bay channel system with the TTM 5266 project. Key elements of that study included determination of the continuity, thickness, and hydraulic properties of the semiperched aquifer and aquitard deposits, determination of the hydraulic gradients between the semiperched and Oxnard aquifers, and groundwater quality. Site characterization included collection of undisturbed samples of the aquitard deposits for laboratory determination of hydraulic conductivity, construction of monitoring wells, cone penetrometer testing (CPT), and water quality characterization of the semiperched aquifer. Table 4.3-1, below, provides a summary of their findings for the aquifers below the subject property as identified during that assessment.

**Table 4.3-1
Summary of On-Site Aquifers**

Area	Approximate Depth (feet below ground surface)	Approximate Elevation (feet above/below SL)
Undifferentiated Alluvium	0 to 25	+12 to -5
Semiperched Aquifer	25 to 45	-5 to -33
Clay Cap, Upper Aquitard	45 to 85	-33 to -70
Clay Cap, Lower Aquiclude	85 to 115	-70 to -100
Oxnard Aquifer	115 to 155	-100 to total depth drilled

Source: Fugro 2001

A review of data provided by the Fugro report indicates little fluctuation in the depth to groundwater for the semiperched aquifer (about 2.36 to 5.72 feet below grade). In the underlying Oxnard Aquifer, however, it appears that there is considerably more fluctuation in water levels. This is evidenced by previous well sampling conducted in September 1998 for the Oxnard Aquifer well, which was found to be in an artesian condition (water present at depth of 3 to 4 feet above the top of the well) following

removal of the well cap.³ This is substantially higher than existing levels detected by Fugro, which determined that the Oxnard Aquifer is 22 to 25 feet below the existing grade. above mean sea level.

The importance of the varying water levels is that when the Oxnard Aquifer is below the semiperched levels, there is a differential pressure gradient created with a greater potential for downward migration of groundwater. The clay cap acts to restrict migration during such periods. When water levels in the Oxnard Aquifer are equal to or higher than those of the semiperched level, then there is little potential for downward migration.

Plans and Policies for Water Quality

Federal Pollution Control Act

The federal Clean Water Act established the national strategy for controlling water quality. The primary purpose of the Act is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" and to attain a level of water quality "which provides for the protection of and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water[.]" 33 USC §1251(a).

The federal Clean Water Act contains two strategies for managing water quality. One is a technology-based approach that sets requirements to maintain a minimum level of pollutant management using the best available control technology ("BACT"). The second relies on evaluating the condition of surface waters and setting limits on the amount of pollution that the water can be exposed to without adversely affecting the beneficial uses of those waters. Section 303(d) of the federal Clean Water Act specifies that, once a water body is listed as "impaired," the states must establish total maximum daily loads ("TMDLs") for the pollutants causing the impairment (33 USC §1313(d)(c)). The states must then develop a "pollution budget" or pollutant load allocation for point and non-point sources that are contributing to the water quality impairment.⁴ Once these allocations have been set, waste load allocations for point sources are implemented through NPDES permits for individual dischargers, while non-point source discharges are subject to load allocations that can be specified in an individual NPDES permit or may be regulated or addressed in other ways.

³ Sezgin Consulting, Inc., 1998. *Limited Phase II Site Assessment*. Mandalay Bay, 58-Acres Vacant Agricultural Land, SE Corner of Wooley Road and SCE Canal, Oxnard, Ventura County, California. Prepared for SunCal Companies, October 8, 1998.

⁴ Point sources are those that generate discharge from a discrete conveyance facility. Non-point sources represent all other sources.

California Porter-Cologne Act

At the state level, the Porter-Cologne Water Quality Control Act of 1970 established the State Water Resources Control Board ("WRCB"), which regulates water quality. In this Act, the Legislature directed that state policy should provide principles and guidelines for water quality control and objectives for key geographic locations. To accomplish this objective, the state is subdivided into nine regions each containing a separate Regional Water Quality Control Board ("RWQCB"). This statute gives the state and regional water quality control boards broad powers to protect water quality by regulating waste disposal and requiring cleanup of hazardous conditions.

The WRCB sets state policy for water quality control that must be followed by the regional water boards and by other state agencies and offices. Each RWQCB must formulate and adopt a plan for all areas within their region. The regional plans are to conform to the policies set forth in the Act and established by the WRCB in its state water policy. The regional plans must: (a) identify beneficial uses of the waters that are to be protected, such as domestic, navigational, agricultural, industrial and recreational uses, as well as aesthetic enjoyment; (b) establish water quality objectives, limits or levels of constituents or characteristics established to protect beneficial uses and to prevent nuisances; and (c) present an implementation program necessary to achieve those water quality objectives. The Oxnard Plain is within the Santa Clara River Basin (4A) and the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB), which oversees the area between Rincon Point, in Ventura County, to the eastern Los Angeles County Line. The water quality control plan for the Santa Clara River Basin is discussed below.

LARWQCB Water Quality Control Plan, Santa Clara River Basin

The RWQCB developed the "Water Quality Control Plan [Basin Plan] for the Coastal Watersheds of Los Angeles and Ventura Counties," as amended.⁵ The Basin Plan includes the Santa Clara River and its watershed in the Los Angeles Region (Region 4). The Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters within Region 4. The Basin Plan includes narrative and numerical water quality objectives for several constituents and parameters that must be attained or maintained to protect the designated beneficial uses. The Basin Plan implements a number of federal and state laws, the most important of which are the Clean Water Act and the Porter-Cologne Water Quality Control Act.

⁵ The Basin Plan is incorporated by this reference and is available for public review by contacting either Los Angeles County Department of Regional Planning (Lee Stark) or Impact Sciences, Inc. (Tom Worthington).

Discharges to both surface and groundwaters are regulated by the National Pollutant Discharge Elimination System (NPDES), which is administered by the LARWQCB as part of its discharge permit program. Any proposed action that would result in a discharge into the waters of the Los Angeles region must describe the quantity and nature of the proposed discharge in a Report of Waste Discharge (ROWD) or an NPDES application. As part of the NPDES ROWD permit, the RWQCB will incorporate appropriate measures and limitations to protect public health and water quality.

All construction projects need to submit a Notice of Intent (NOI) to obtain coverage under the State-wide General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity. Obtaining coverage requires the applicant to prepare and update a Storm Water Pollution Prevention Plan. A separate NPDES permit is not required for construction projects. The discharges from the point sources i.e., storm water, will be covered under the Section 401 permit (ROWD) from the RWQB and do not require a separate NPDES permit. The NPDES permit requirement applies to all discharges of pollutants to "navigable waters" from a "point source."⁶ A point source is defined broadly in the Clean Water Act as "any discernible, confined and discreet conveyance" such as a well, pipe, ditch, discreet fissure, container, or vessel.⁷ Navigable waters are defined broadly as "waters of the United States," and the U.S. EPA has effectively asserted that these comprise most surface waters, including waters that are tributary to navigable waters, interstate waters, and interstate waters having some impact or involvement in interstate commerce.⁸

The proposed TTM 5266 is part of the miscellaneous Ventura Coastal watershed and, therefore, is subject to the Basin Plan. Beneficial uses in this area include navigation, sportfishing, marine habitat, and other water oriented recreational activities. Industry is also considered a beneficial use in this area. The Plan identifies Channel Islands Harbor as being on the 1998 303(d) list for lead and zinc, although it was assigned a low priority (4) for development of TMDLs and pollutant load allocations for point and non-point sources.

Ventura County 208 Areawide Water Quality Management Plan

Ventura County was designated as a 208 planning area under the Federal Clean Water Act in 1974. In response to this, Ventura County began a comprehensive assessment of its water quality problems in 1975. The Ventura County Board of Supervisors originally adopted the Areawide 208 Plan for Ventura County in 1980 with cooperation of the LARWQCB. The plan addresses water supply sources, water

⁶ McCutchen, Black, Verleger, and Shea, the Attorneys of, *California Environmental Law Handbook, Second Edition*, Government Institutes, Inc. January 1988, p. 61.

⁷ *Ibid.*

⁸ *Ibid.*, pp. 61-62.

demand management, and water quality issues. A series of goals, policies and program recommendations are included in the plan relating to water quality. Urban storm water runoff policies of the 208 Areawide Plan address the reduction of pollutants found in urban runoff within the County, implementing the county-wide NPDES program for urban runoff, and restoring and enhancing beneficial uses of receiving waters affected by urban runoff.

Ventura County is subject to Municipal Stormwater Permit No. CAS004002 for storm water discharges and urban runoff from the RWCB. The permit was adopted by the RWQCB on July 27, 2000 and will expire on July 27, 2005. The County, along with the Oxnard and nine other incorporated cities within its boundaries, are co-permittees. As part of the permit application, the Countywide Stormwater Quality Management Plan (SWP) and Countywide Stormwater Quality Urban Impact Mitigation Plan (SQUIMP) were prepared to describe in detail all activities subject to regulation, management measures, schedule for implementation of measures, and specific standards against which success is measured within Ventura County.

The SQUIMP was designed to specifically address storm water pollution from new development and redevelopment by the private sector in Ventura County. It contains a list of Best Management Practices (BMPs) that are to be used for various types of projects. Suggested BMPs cover all aspects of site planning, project design and basic construction practices. Developers are required to incorporate appropriate BMPs into development plans for projects subject to SQUIMP requirements. The City of Oxnard reviews the proposed plans for compliance with the SQUIMP as part of the project approval process.

IMPACT ANALYSIS

Thresholds of Significance

For purposes of this analysis, a project would normally have a significant impact on the environment if it:

- Substantially alters the existing drainage pattern or increases the rate of surface runoff such that it causes flooding or results in substantial sedimentation or erosion;
- Places housing in a 100-year flood hazard area;
- Violates a water quality standard or waste discharge requirement;
- Substantially degrade surface or groundwater quality.

Project Impacts

The impacts of project implementation are discussed below for each of the threshold criteria identified above. Wherever a significance threshold criterion is exceeded or wherever there is the potential for a criterion to be exceeded, mitigation is identified.

Impacts Associated with Flooding

A preliminary drainage concept [See Appendix 4.3] has been prepared for this project and is illustrated in Figure 4.3-1. As shown, the drainage concept divides the property into thirteen separate drainage areas (Areas A-M). Post-development runoff from each drainage area will flow through curbs and gutters where it will be collected at catch basins and discharged into the proposed navigation channels by a series of drainage pipes ranging in size from 18 to 36 inches in diameter. Storm drain outfalls have been designed to minimize erosion and all runoff will be treated prior to discharge through a combination of source control, structural BMPs, treatment control BMPs, and maintenance procedures.

Post development runoff rates for varying storm events has been calculated for each area and are presented below in Table 4.3-2. As shown, runoff rates during the City's design year storm event (10-year storm) range from a low of approximately 1 cfs in drainage area D to 18 cfs for area B. Total post-development flows during the 10-year event are predicted to be 124 cfs, which represents a 108 percent increase over the flow generated under existing conditions.

The project engineer has prepared a conceptual drainage plan that has been designed to the standards of the City of Oxnard. The system was sized to attenuate the peak runoff flows during a 10-year/24-hour storm event in the developed condition to levels at or below peak flows generated in the existing condition. The system is able to contain a design year storm event without causing flooding either on or off-site. Since the site is neither within a 100-year flood hazard zone nor within an area containing deficient flood control facilities, no significant impact is anticipated with construction of the proposed system to the satisfaction of the City of Oxnard.

No flood hazard to the project from the newly created water channels would occur because the elevation of the bulkhead is above the tidal elevation.

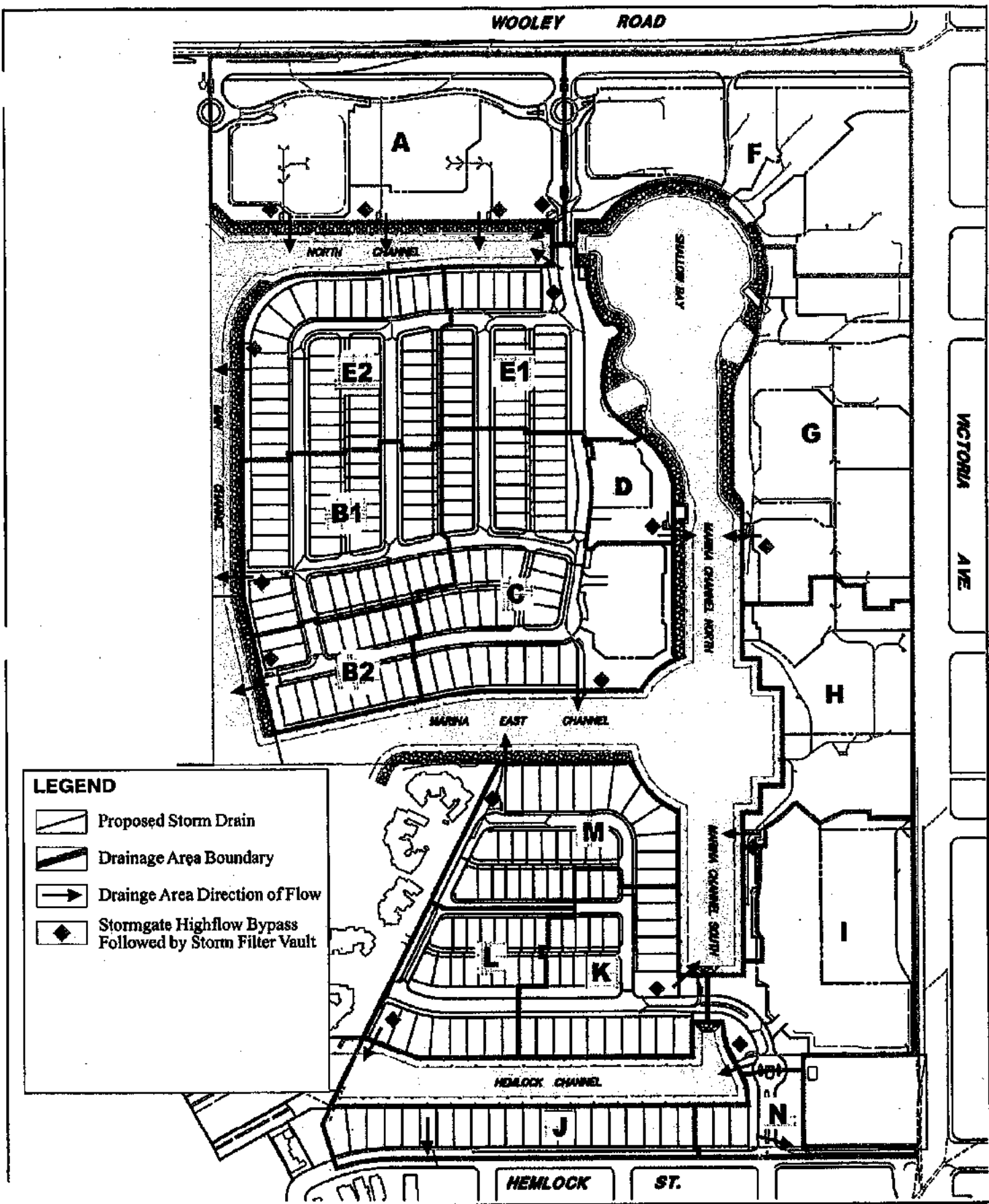


FIGURE 4.3-1

Drainage Concept Plan

1

2

3



**Table 4.3-2
Predicted Post-Development Surface Flows**

Drainage Subarea	Size (Acres)	Q_p	Q_c	Q_{10}
A	11.28	13.5	19.7	23.7
B	15	18.0	26.3	31.5
C	9.76	11.7	17.1	20.5
D	0.91	1.1	1.6	1.9
E	8.93	10.7	15.6	18.8
F	11.57	13.9	20.2	24.3
G	10.86	13.0	19.0	22.8
H	6.63	8.0	11.6	13.9
I	9.66	11.6	16.9	20.3
J	3.88	4.7	6.8	8.1
K	9.47	11.4	16.6	19.9
L	1.97	2.4	3.4	4.1
M	3.38	4.1	5.9	7.1

Source: Jensen Design & Survey October 2001

Short-Term Construction Impacts on Surface Water Quality

(a) Sedimentation, Erosion, and Suspended Contaminants

Grading and excavation necessary for site preparation could result in wind and water driven erosion of soils that would increase sedimentation in the harbor during storm events. Construction activities that disturb more than 5 acres require a NPDES permit to mitigate construction-related water quality impacts. The project applicant is required to prepare a SWPPP pursuant to the NPDES that would identify the various BMPs that would be implemented on the site during construction. The project applicant is responsible for obtaining the necessary NPDES construction permit for the project from the RWQCBLAR, Wastewater Division. Compliance with NPDES permit requirements would reduce construction-related sedimentation and erosion to less than significant levels.

Examples of BMPs that may be implemented during site grading and construction as part of the SWPPP could include the following:

- Covering excavated and graded areas where loose, bare soil might otherwise be subject to wind and water erosion.
- Disallowing the placement of any soils materials in the path of known drainage areas.
- Providing temporary de-silting basins to ensure that surface water flow do not carry significant amounts of on-site soils and contaminants downstream.
- Requiring that any construction vehicle maintenance be conducted in staging areas where appropriate controls have been established to ensure that fuels, motor oil, coolant, and other hazardous materials are not deposited into areas where they may enter surface water and groundwater.
- Restricting the use of chemicals that may be transferred to surface waters by storm water flows or leach to groundwater basins through water percolation into the soil.
- Requiring that permanent slopes and embankments be vegetated as soon as possible following final grading.

Additionally, the project may result in a short-term increase in local turbidity following the initial opening of the entrance to the new channels. During these periods, the soil or cofferdam that separates the existing channel from newly constructed channels will be removed. This will allow water to rush into the newly created channels, picking up sediment until the assimilative capacity of the water has been reached. A related impact involves the suspension of contaminated soil in the water column. The proposed marina and navigation channels are to be excavated from land that has been used for commercial agricultural production. Once the cofferdam is breached the water that rushes in will pick up exposed soil and could suspend contaminated sediment in the water column of the newly created channels. The suspended sediment could result in localized toxicity to marine organisms.

However, the top two feet of soil on the project site will be excavated and removed as part of an Agricultural Soil Transfer Program described in Section 3.0, Project Description. In addition, soil testing conducted on six samples collected from the project site were non-detect for volatile and semi-volatile organic compounds, organochlorine pesticides and organophosphorus pesticides such as those most commonly used in commercial agricultural applications.⁹ Finally, mitigation measure 4.4-2, located in Section 4.4 of this Supplemental Draft EIR, requires that the construction contractor place a silt screen/curtain between in-water construction sites and existing canals prior to opening to minimize turbidity. Based on the above, this impact is not anticipated to be significant with implementation of

⁹ California Environmental, *Report of Analytical Testing on Soil and Water Samples, Tentative Tract No. 5266, August 2000.*

mitigation measure 4.4-2 and compliance with the requirements placed on the NPDES construction permit.

Finally, temporary de-watering systems have the potential to discharge sediments from the excavated areas directly into the navigation channels. Dewatering conducted during the excavation of marine channels will be subject to general Order No. 97-045, General National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Groundwater Discharges from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties. This permit would be conditioned to ensure that water discharged to the small craft harbor would meet all NPDES requirements for suspended solids, organic material, and other water quality parameters thereby reducing water quality impacts associated with this activity to less than significant.

(b) **Migration of Groundwater through Wells**

A review of water wells found 19 abandoned wells in the project vicinity. Nine of these wells are perforated into the Oxnard aquifer, two in the semi-perched aquifer, and eight wells have unknown perforation intervals and depths. These or any other deeper wells can provide conduits for migration of poor quality and possibly contaminated waters into other aquifer zones, or can provide for artesian flows if not properly abandoned. None of the 19 identified wells are closer than 150 feet from the project site, and 17 of these wells are located over 3,000 feet from the site. Consequently, project construction and operation would not affect these wells so no impact from these sources is anticipated.

Post-Construction Water Quality Impacts

(a) **Urban Runoff**

Common concerns related to surface water quality include the potential deposition of pollutants generated by motor vehicles and the maintenance and operation of landscape areas. Urban runoff contains almost every type of water pollutant, including suspended solids, bacteria, heavy metals, oxygen-demanding substances, nutrients, and oil and grease. Primary sources of urban runoff pollutants include animal droppings, atmospheric fallout, land erosion, lawn runoff (pesticides, herbicides, fertilizers), and pavement runoff.¹⁰ The pollutants of concern and their anticipated form in runoff, both stormwater and dry weather are presented below in Table 4.3-3. Pollutant loading in surface runoff from urban areas has been characterized in Table 4-3 of the Post Construction Stormwater Mitigation Plan found in Appendix 4.3.

¹⁰ Robert A. Corbitt, *Standard Handbook of Environmental Engineering*, (New York City: McGraw-Hill Publishing Company, 1989), p. 753.

Table 4.3-3
Typical Constituents of Urban Runoff

Pollutants of Concern	Stormwater Runoff	Dry Weather Runoff
<i>Oil and Grease</i>	Manifested as an oil slick during the first storm event.	Less noticeable unless there has been a spill or release which comes in contact with dry weather runoff.
<i>Brake Lining Dust</i>	Manifested as TSS particularly during the first storm event. The copper is in its metallic form and most likely imbedded in the fibrous backing material.	Less evident because dry weather runoff is usually confined to the street curbs and gutters and does not wash the traveled way.
<i>Fuel Components (BTEX)</i>	Dissolved and in highest concentrations during the first storm event of each year.	Less evident because dry weather runoff is usually confined to the street curbs and gutters and does not wash the traveled way.
<i>PAH's</i>	Carried with carbon particulates (diesel soot) or suspended solids concentration during the first storm event of each year.	Carried with carbon particulates (diesel soot) or suspended solids. Concentration dependent upon areas subject to dry weather runoff.
<i>Coliform</i>	Bacteria carried with the runoff. First storm event could potentially carry with it solid fecal matter	Bacteria carried with runoff. Dry weather runoff could potentially have the highest bacteria concentrations owing to overwatering of grassed areas.
<i>Lawn and Garden Pesticides and Herbicides</i>	Dissolved with concentrations dependent upon the timing of the last application and the first storm event of each year.	Dissolved constituents, and expected at highest concentrations in dry weather discharge due to excess application and potential over watering.
<i>Lawn and Garden Fertilizers (Nitrogen and Phosphorus, Nutrients)</i>	Dissolved and/or suspended solids with concentrations dependent upon the timing of the last application and the first storm even of each year.	Dissolved constituents at highest concentrations due to excess application and overwatering.
<i>Suspended Solids/TSS</i>	Carried with the runoff and in high concentration during the first storm event of each year.	Carried with the runoff in varying concentrations depending on the path of the runoff and its volume.
<i>Debris and Trash</i>	Litter, yard waste, etc., carried with the runoff. Greatest amount expected around the commercial areas and the public park and boat docks.	Amount varies depending upon the path of the runoff and its volume.

The project applicant has prepared a Post Construction Storm Water Mitigation Plan that identifies the structural and source control measures to reduce pollutant loads in the post-development condition. Please refer to Appendix 4.3 of this Supplemental Draft EIR for a copy of this plan. The plan also contains Marinas & Recreational Boating Management Measures that are intended to reduce pollutant loads generated by boater activity. Source control is the preferred mitigation option used by the plan because it significantly reduces or prevents, in total, the entry of certain pollutants of concern into storm water runoff and/or dry weather runoff. Once pollutants have entered the runoff their removal becomes more difficult. Those pollutants identified as candidates for source control in this program include coliform, lawn and garden chemicals, suspended soils, heavy metals such as lead, zinc and copper, and trash.

Key design features of the proposed drainage system include:

- Catch basin inserts and screens will be used in parking lots for the commercial area, and the marina to collect debris and trash and provide initial treatment of storm water runoff;
- Parking lots will be designed to provide planter swales where possible, to provide storm water treatment and infiltration in the large, impervious areas;
- The site incorporates open space providing public lateral and vertical access to the waterways, which will be used to provide treatment for the storm water runoff
- Individual residential lot fine grading plans will be designed to contain storm water runoff from the individual lot and treat it on-site to the maximum extent practicable. Rooftop runoff may be directed to the yards, landscaped areas and lot swales

Water quality concerns were also addressed in the design of the marina component of the project. Specific features included in the project design follow:

- Marina and channels have been designed to provide for maximum flushing and circulation of surface waters, which will reduce the potential for water stagnation, maintain biological productivity and reduce the potential for toxic contaminants to accumulate in bottom sediment.
- Shoreline stabilization to prevent erosion will be accomplished through the use of concrete seawall construction and placement of riprap along the channel.
- Storm water runoff from the marina area will be collected for treatment prior to discharge.
- No boat maintenance facilities will be provided in the public marina, substantially reducing the potential level of pollutants from this source.
- The project will not include a fueling station. Fueling docks are provided at the Channel Islands Harbor. This will reduce the potential for spills.

- A small harbor patrol building and restroom facility will be provided in the public marina area. Public restrooms will also be provided at various locations throughout the visitor-serving commercial areas to minimize discharge of wastewater into the marina.
- A public educational campaign through appropriately placed signage at the marina and launch facility will promote the use of the pumpout and pump station facilities as a means of preventing pollution through direct dumping of bilge waste to the channel waters.
- A small waste management facility will be available at the public marina for the proper recycling or disposal of solid wastes (example: oil filters, lead acid batteries, used absorbent pads, recreational fish waste.) and liquid wastes (example: fuel, oil, solvents, antifreeze, and paints).

Operational and maintenance mitigation measures for the public recreational boating marina and public launch area will include the following:

- Solid waste control
- Fish waste (from recreational activities) control
- Liquid material control
- Petroleum control
- Boat cleaning and maintenance
- Maintenance of sewage facilities
- Boat operation

In summary, the project applicant has prepared a stormwater mitigation plan that identifies the specific BMPs incorporated into the proposed development. Implementation of this program will ensure that the quality of stormwater runoff will meet all regulatory standards and will maintain the beneficial uses of the surface water for public and commerce. Based on the above, no significant impact is anticipated. The City of Oxnard as part of normal project approval and construction practice monitors compliance with these requirements.

(b) Saltwater Intrusion

As discussed in Section 3.0, Project Description, navigation channels will be excavated to a depth of 12.8 feet below mean sea level. Table 4.3-1 indicated that the top of the Semiperched aquifer is present beneath the site at an elevation ranging from approximately 5 to 12 feet below msl. Consequently, there is a potential for local degradation of water quality in the Semiperched aquifer. However, this effect would be limited to no more than a lateral distance of 100 feet given current hydrogeologic conditions. In addition, the quality of the water in the Semiperched aquifer is already brackish and is not used as a source of potable water.

Downward movement of brackish quality groundwater from the Semiperched aquifer to the Oxnard aquifer only occurs under conditions of a sustained, downward hydraulic gradient. The permeability and thickness of the clay cap separating the two govern the rate of flow. Under present conditions, there is no potential for groundwater migration through the clay cap into the Oxnard Aquifer because an upward vertical gradient exists. However, a review of hydrographs taken from local wells indicates that during drought periods the water levels in the Oxnard aquifer drop over time. During those conditions a downward vertical gradient may occur which offers the potential for poor quality water to enter into the Oxnard aquifer.

To address this issue, the Fugro report calculated vertical travel times assuming a severe drought occurs over a 12-year period and the groundwater elevation within the Oxnard aquifer is depressed. The thickness of the clay cap and its porosity was estimated based on boring log results. The report found that the travel time totaled approximately 152.5 years or 0.42 ft/yr. Given the large time interval involved, the transient nature of water levels, and the relatively small area of brackish water that could contribute to groundwater degradation, no significant water quality impacts are expected to occur within the Oxnard aquifer.¹¹

Cumulative Impacts

Drainage

Buildout of the 2020 *General Plan* would result in the construction of additional impervious surfaces that would reduce water absorption and increase surface runoff and velocities. Each future project is required to provide adequate capacity to convey drainage to a safe point of discharge and pay fees to connect to the drainage system. In this manner, the existing drainage system would be upgraded as necessary to accommodate runoff created by the development of future uses. Given the above, no significant cumulative impacts are expected.

Water Quality

All uses within the City of Oxnard and the County of Ventura are subject to the requirements of the NPDES program for municipal storm water discharge. Assuming each new development project implements the SQUIMP requirements then each project would minimize the potential for cumulative degradation of surface water quality. Similarly, continued implementation of the Fox Canyon

¹¹ Fugro West Inc., *Hydrogeologic Investigation Mandalay Bay Development Tract 5266*, October 2001.

Groundwater Management Agency plan to control and reduce groundwater overdraft will ensure that saltwater intrusion into local aquifers is minimized and ultimately reversed. Given the above, no significant cumulative impacts to water quality are expected.

MITIGATION MEASURES

The FEIR 81-2 prepared for the Mandalay Bay Phase IV Specific Plan identifies mitigation measures that are relevant to the project. Such measures are to be made conditions of approval for each tentative tract map filed within the Specific Plan area. See Appendix 1.0(A) of this Draft Supplemental EIR for a copy of the measures and a discussion of their applicability to this project. No additional measures beyond required by FEIR 81-2 are necessary.

UNAVOIDABLE SIGNIFICANT IMPACTS

With construction of the proposed storm water drainage system, and compliance with the NPDES and SQUIMP requirements, the project would not result in any unavoidable significant impacts related to storm water drainage, flooding, or surface water quality.

4.4 MARINE WATER AND SEDIMENT QUALITY

INTRODUCTION

The following section evaluates project effects to marine water and sediment quality within the inland waterways of the Channel Islands Harbor development as well as the proposed project. Existing sampling data indicates that water quality is generally good when compared to other semi-enclosed harbors and marinas located along the southern California coast. Dissolved oxygen levels are within the range that can sustain marine biota. Circulation is influenced by operation of the Mandalay Bay Power Generating Station that draws cooling water from a channel located at the north end of the harbor. Computer modeling indicates that water circulation is anticipated to be similar to that presently experienced at the closed-end channels of the harbor. Modeling also indicates that phased buildout of the navigation channels would not result in a significantly different water circulation pattern from that associated with buildout. Construction of the channels on what are presently agricultural fields could result in the release of contaminants within the soil into the marina. Mitigation is provided to reduce this impact to less than significant levels. Finally, operation of the marina could have a detrimental effect on water quality if boat maintenance activities and waste disposal procedures are not properly regulated.

EXISTING CONDITIONS

Water Quality

The proposed TTM 5266 development is located to the east of a water channel that will be constructed as part of the Westport development at the extreme northern portion of the Channel Islands Harbor (CIH). CIH water areas comprise a single ocean inlet that divides into two northerly-oriented smaller channels, the westernmost of which also supplies seawater to the Mandalay Power Generating Station (MGS) owned and operated by Reliant Energy Company. That seawater, which is used as facility cooling water, is drawn into the generating station through a shore-parallel open, rock- and sediment-lined canal.

The southern portion of TTM 5266 will be connected to the easterly expansion of an existing closed-end channel north of Hemlock Street. TTM 5266 will add approximately 34 acres of open-water channels to the existing 229 acres of CIH water areas. For this analysis, it is assumed that by the time construction on TTM 5266 is initiated, the CIH water area will probably be approximately 243 acres with the addition of the Westport project.

Historical water quality data within the existing harbor is limited to quarterly surface water samples collected by the Channel Islands Harbor Department and analyzed by Capco Analytical Services, Inc.

The Regional Water Quality Control Board (RWQCB) identified no additional water quality data within the project area, although marine sediment samples were collected within the harbor as part of that agency's study of various water bodies within the Los Angeles Region (RWQCB, 1998). The following discussions are based on: (1) available literature, (2) the results of a project-specific field surveys completed in April 1999 and in July 2000, and (3) numerical modeling of CIH water circulation.

The three Harbor Department water quality sampling stations are shown in Figure 4.4-1. That water quality program historically comprised monthly (changed to quarterly in 2000) observations of water clarity and floating material, and laboratory analysis of hydrogen ion concentration (pH), chloride content, dissolved oxygen (DO), and laboratory analyses for phosphate, nitrate, ammonia, Kjeldahl nitrogen, coliform bacteria concentrations, and for 10 heavy metals from a single surface water sample at each station. The results of these analyses are compiled into an annual report that is archived at the Department's offices.

The literature-based data was supplemented with data from two field surveys that comprised vertical profiles of conductivity, temperature, depth and dissolved oxygen over a full tidal cycle at 21 locations and water column currents at 20 of those 21 stations within CIH. Ten of the stations occupied in July 2000 were also sampled during the April 1999 survey (Figure 4.4-2).

Summaries of the results of laboratory analyses for the Harbor Department-collected water samples taken from February 1997 through April 2001, the most recent available, are shown in Table 4.4-1.

Discounting the 1.1 to 1.2 parts per million (ppm) DO measured in the February 1997 samples as anomalous, the data in Table 4.4-1 indicate that DO concentrations were above the 5.0 ppm level, the concentration generally considered conducive to supporting healthy marine biological communities. Dissolved oxygen concentrations were usually the highest at the Main Station (near the harbor entrance). Although some variation is evident, DO levels at the East Station, located within a closed channel, were generally slightly lower than those at West Station. Dissolved oxygen levels measured at 10 stations in April 1999, (MRCI, 1999) and at 22 stations in the July 2000 field survey were similar to historical levels, and ranged from 7 to 9 ppm (70 to 90% of full saturation values), representative of well-oxygenated marine waters. Chloride concentrations measured from the Harbor Department samples appear to be unusually high for all sampling periods, and correspond to salinities of 32.5 to 45.2 psu¹. Most measurement values indicate salinities substantially higher than oceanic seawater in the region which varies between 33.5 and 33.9 psu (SCCWRP, 1973). The upper limits of salinity within CIH were, however, similar to ocean waters.

¹ Sea water salinity is defined by electrical conductivity and is reported in practical salinity units (psu), which are essentially equal to the formerly used units of parts per thousand (ppt).

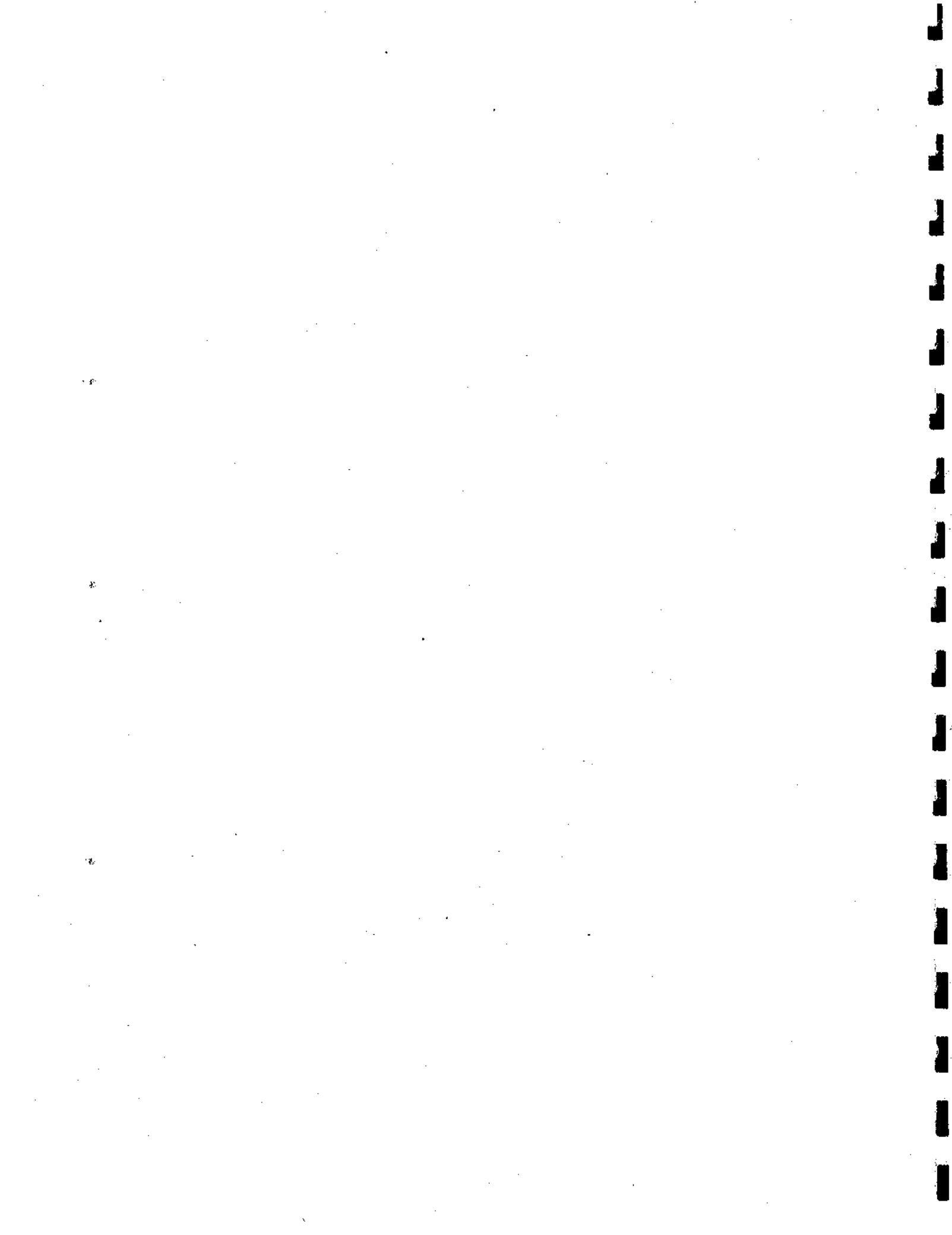
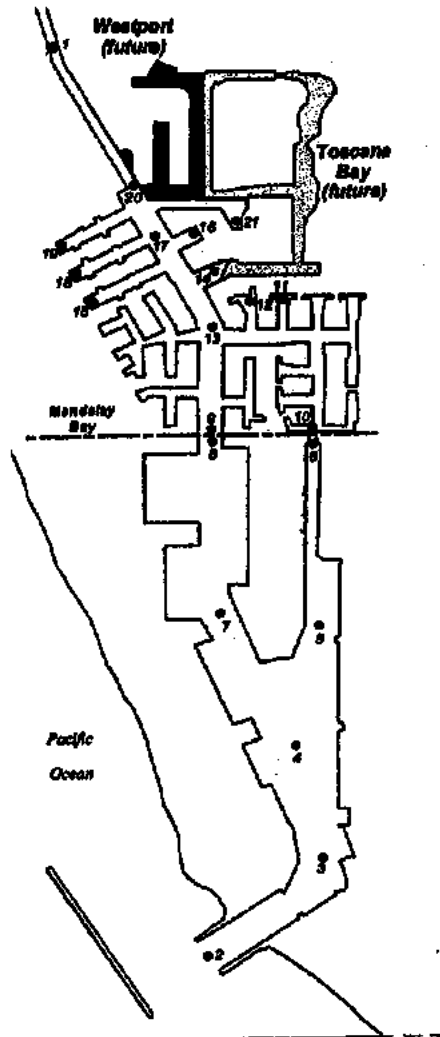


Figure 4.4-2
Water Quality Profile Stations
July 2000 Field Survey
Channel Islands Harbor



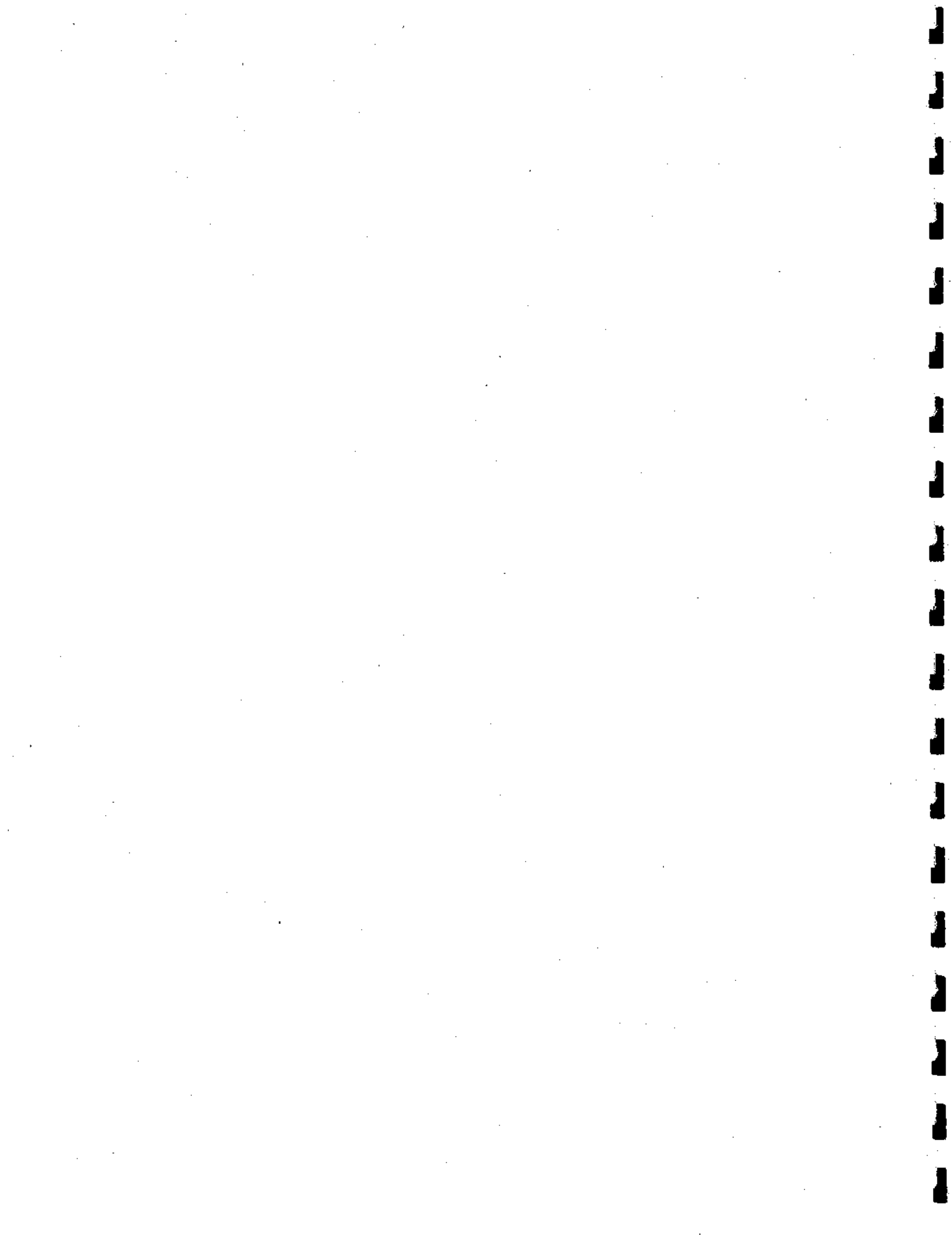


Table 4.4-1
Summary of Laboratory Analyses of Sea Water Samples (Range of Values)
Channel Islands Harbor, California

Month/ Station	pH	Chloride (mg/l)	DO (mg/l)	Quarterly Notes	Annual Notes
2-97	7.7-7.8	21,000-25,000	1.1-1.2	N/A ¹	N/A
3-97	7.6	21,000-22,000	8.0-9.0	N/A	N/A
4-97	7.5-7.6	18,000-19,000	8.1-9.0	N/A	N/A
5-97 ²	7.5-7.6	20,000-23,000	6.5-8.1	All total and fecal coliform below detection limit.	All metals below detection limit except iron.
1-98	7.8	20,000	8.0-8.3	N/A	N/A
7-98	7.9-8.0	20,000-22,000	7.9-8.7	All total and fecal coliform below detection limit or absent.	All below detection limit except iron at one station.
8-98	8.1	21,000	7.5-8.0	N/A	N/A
9-98	8.0-8.1	19,000-20,000	7.4-8.4	N/A	N/A
10-98 ³	N/A	N/A	7.2-8.2	Nitrate ranged from below detection limit to 0.14 mg/l and ammonia below detection limit. Total coliform ranged from absent to 79 MPN and fecal coliform from below detection limit to <2 MPN.	N/A
11-2000	7.6-7.8	22,200-23,300	6.7-8.0	Total coliform range from 2 to 4 MPN (per 100 ml) and fecal coliform from <2 to 2 MPN.	Copper and iron present in some water samples.
2-2001	7.9-8.0	18,000-27,100	8.9-9.6	Total coliform range from 2 to 50 MPN and fecal coliform from <2 to 8 MPN.	Silver, zinc, copper, and iron present in some water samples.
4-2001	8.0	19,100-23,000	9.4-10.0	Total and fecal coliform "present" at two stations.	Copper and zinc present in some water samples.

Source: Channel Islands Harbor Department, unpublished.

¹ Analysis not completed this month.

² Main station replaced by Bench station this month.

³ Program modified: pH, chloride not analyzed; only nitrate and phosphate for quarterly analyses.

Hydrogen ion concentration (pH) data shown in Table 4.4-1 indicate little long-term variation between stations, but some seasonal changes are evident with higher values in the summer and fall months. The presence of iron in two of the samples is unexplained.

The data presented in Table 4.4-1 and the water column profile data collected during the April 1999 and July 2000 field surveys show the influence of solar heating on harbor waters and of freshwater runoff into the harbor from the adjacent agricultural lands. Both the lower limits of temperature and the upper limits of salinity in the July 2000 samples are similar to ocean waters outside of the harbor. The lack of strong vertical gradients in water column properties is indicative of a well-mixed, non-stratified water body. A few of the profiles taken during both field surveys show increasing oxygen concentration with depth that could result from oxygen production by algal mats that were observed on the harbor floor.

Water Circulation

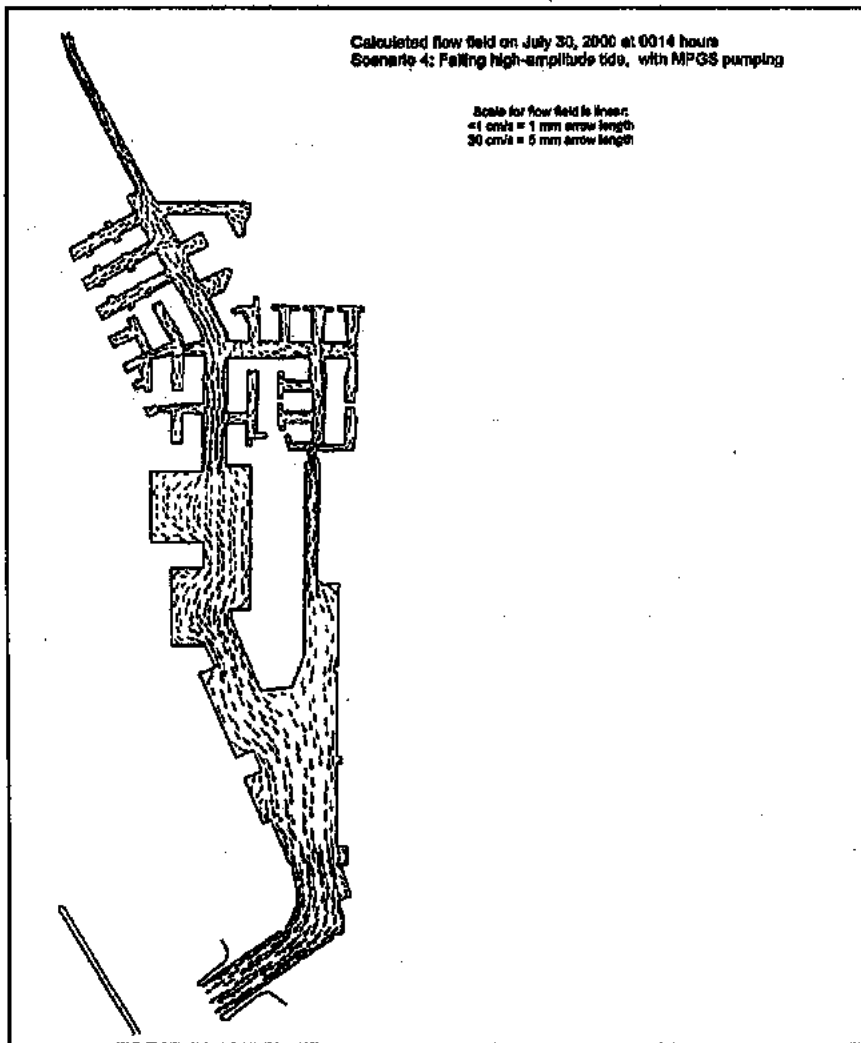
Except for the April 1999 and July 2000 sampling, no historical measurements of currents and circulation in CIH are known. Project-specific field current speed and direction data were collected at 21 locations were collected in July 2000 (see Figure 4.4-2). The objective of that survey was to collect data on existing circulation and water quality conditions that would be used in a numerical simulation model of water circulation for the existing and expanded harbor configurations.

The MGS intake channel influences the circulation patterns and facilitates water movement into and around the dead-end waterways in the northernmost portion of CIH. In 1998, monthly seawater volumes into the cooling water system of the generating station ranged from 172.9 to 253.4 million gallons per day (mgd); the monthly average was 245.6 mgd (So. Cal. Edison, unpublished). Data provided by Southern California Edison indicate that flows into the generating station average $9 \pm 2 \text{ m}^3$ per second; that rate was corroborated by data provided by the Regional Water Quality Control Board.

Current measurements taken during the July 2000 field program show that the main harbor channel flow is tidal, (i.e., flow varies in speed and direction with tidal stage). Currents flow northerly on a rising (incoming) tide and flow southerly on a falling (outgoing) tide. Circulation patterns and water quality in CIH are largely driven by the constant withdrawal of ocean waters up the MGS channel. That flow is the mechanism for renewal of harbor waters with cooler and well-oxygenated ocean waters.

Figure 4.4-3 shows the water flow within the existing CIH area as modeled for an outgoing tide and with MGS pumping water from CIH.

Figure 4.4-3
Water Flow (Outgoing, High-Amplitude Tide)
Existing MGS Pumping Rate
Channel Islands Harbor



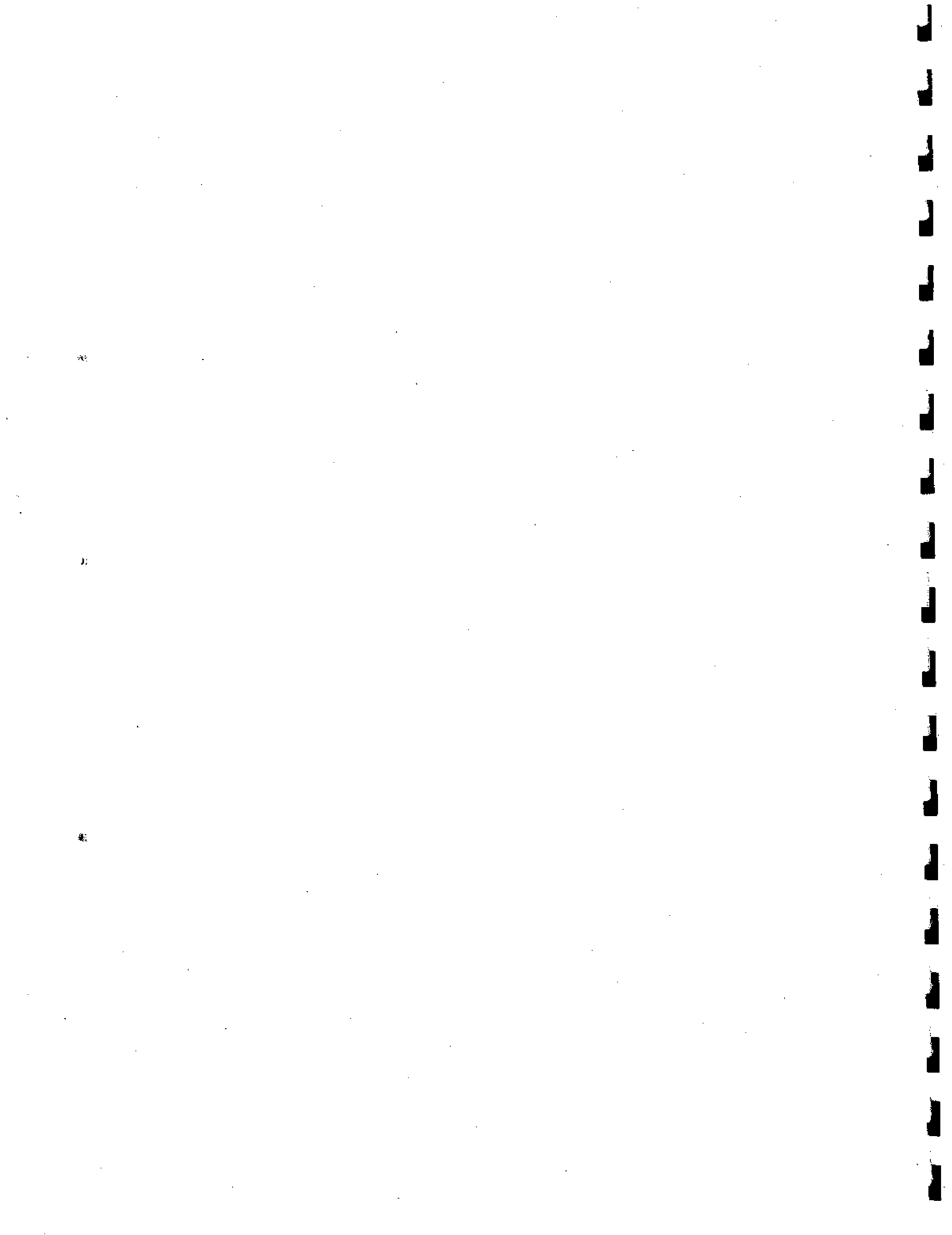


Figure 4.4-3 indicates that with pumping, the existing configuration of the Harbor results in water from the northern portion of Mandalay Bay being drawn into the MGS canal even during a falling, high-amplitude tide (the worse case condition).

Sediment Quality

From 1992 through 1997, the Los Angeles Regional Water Quality Control Board sampled 138 stations in southern California harbors, lagoons, and marinas, including Channel Islands Harbor. Sediment samples taken from two CIH stations were subjected to chemical and biological analyses, including bioassay testing. The locations of the two stations within CIH are shown in Figure 4.4-1. Data from this five-year study indicates that CIH sediments are relatively uncontaminated (Effects Range Median Quotients of 0.41 and 0.14 at Station 44023 and 44012, respectively) and support an infauna characterized as "undegraded" (benthic index of 0.75 out of a possible 1.0).

Sediments at both stations did exceed the Effects Range Median (ERM) values for p'p DDE and showed a significant toxicity to amphipods during bioassay testing. Still, the harbor sediments were categorized as "with measured biological impact but chemistry values below thresholds..." (LARWQCB, 1998). As part of the Westport environmental analysis, a limited Phase II Site Assessment of the soil and groundwater was conducted within the 58-acre site of the adjacent proposed Westport Development (Sezgin Consulting, Inc. 1998). The results of that assessment indicate that no pesticides and only two metals were detected in the samples; the two metals, barium and molybdenum, were found in three groundwater samples, but were at concentrations below the established California Soluble Threshold Limit Concentrations (STLC) and regulatory action limits. No other groundwater or onshore sediment studies at the site are known.

PROJECT IMPACTS

Significance Criteria

Significant impacts to water quality are those that would result in exceeding established limits of heavy metals, organics, or physical properties (i.e., pH, dissolved oxygen, turbidity) of the marine water areas of the site and surround developments.

Construction Impacts

Water Quality and Circulation

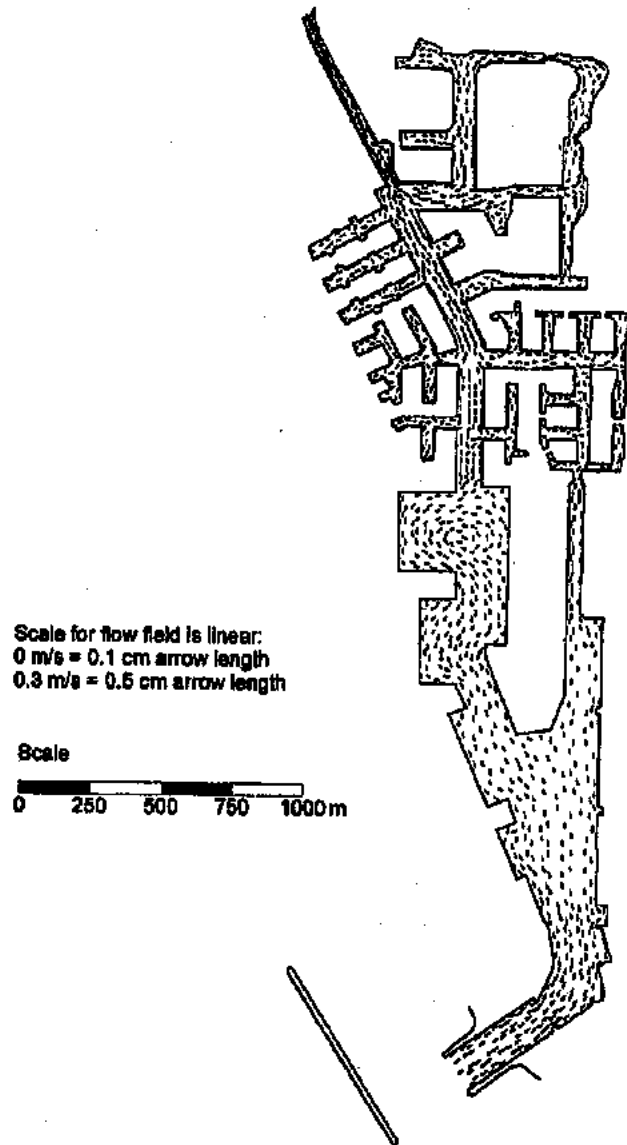
Construction of the proposed development could result in short-term increases in turbidity within the water areas of adjacent developments (i.e., Westport), particularly when the main channel is opened. Water quality could also be degraded if the excavated soils contain contaminants; particular concern is for the potential presence of pesticides from the historical agricultural use of the excavated area. Construction-related runoff (i.e., sediment, petroleum products) could be introduced into the water areas. These impacts are considered potentially significant, but mitigable.

On an operational basis, the circulation pattern shown in Figure 4.4-3 (existing Harbor configuration without proposed project) is similar to that with the addition of Westport and TTM 5266 projects. The changes that would result with the developments include minor reductions in the amount of water drawn from Mandalay Bay into the MGS canal and a slight northerly shift of the current direction arrows from Fallkirk Bay to Eastbourne Bay (Figure 4.4-4). The results of the modeling shown in that figure indicates that with MGS pumping and on a falling, high-amplitude tide, water from Mandalay Bay, Westport and TTM 5266 moves toward the MGS channel. Under this scenario, current speed and direction of the TTM 5266 water areas are similar to that in the existing closed-end channels of northern Mandalay Bay. By extension, and using dissolved oxygen concentration as an indicator, water quality in the TTM 5266 area could be expected to be similar to that in the northern portions of Mandalay Bay. Dissolved oxygen concentrations throughout Mandalay Bay were found to exceed the minimal 5.0 ppm during both the April 1999 and July 2000 surveys. Based on the above, no significant water quality/circulation impacts are expected.

The circulation pattern for the Harbor *without* MGS pumping and with the Westport and TTM 5266 projects was also modeled and is shown in Figure 4.4-5. Under that scenario, and with the exception of minor current speed changes in the northernmost portions of Mandalay Bay, flow conditions within the Harbor should remain relatively unchanged.

Modeling indicates that the addition of the TTM 5266 waterways will have virtually no effect on the flow patterns within CIH, with or without MGS pumping. The current speeds in the closed-end channels of Mandalay Bay are, and would continue to be, low (at or slightly above 1 cm per second). Pumping allows continuing movement of the northern Mandalay Bay and Westport/TTM 5266 water into the MGS canal.

Figure 4.4-4
Water Flow (Outgoing, High-Amplitude Tide)
With Westport and TTM 5266 Developments and with MGS Pumping Rate
Channel Islands Harbor



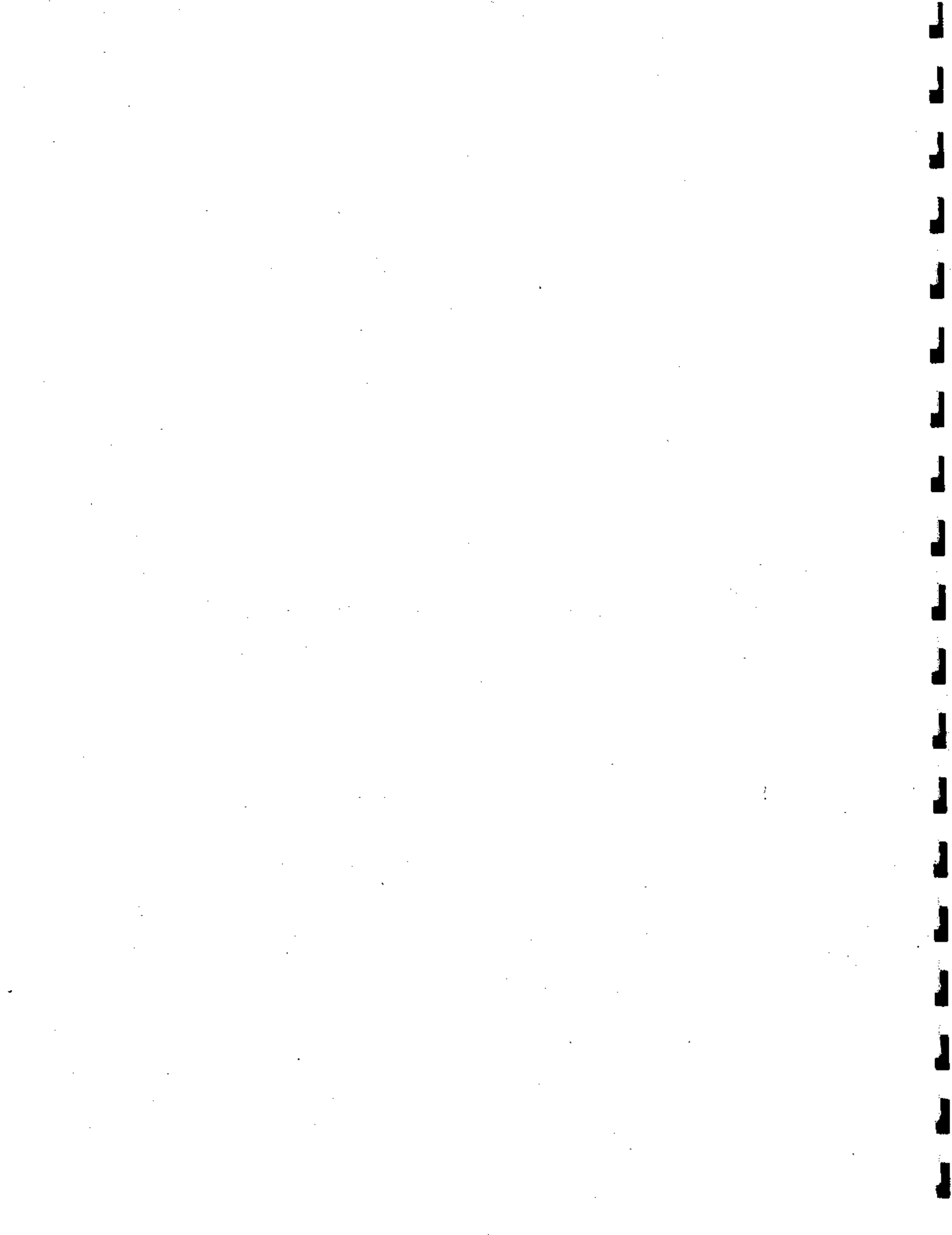
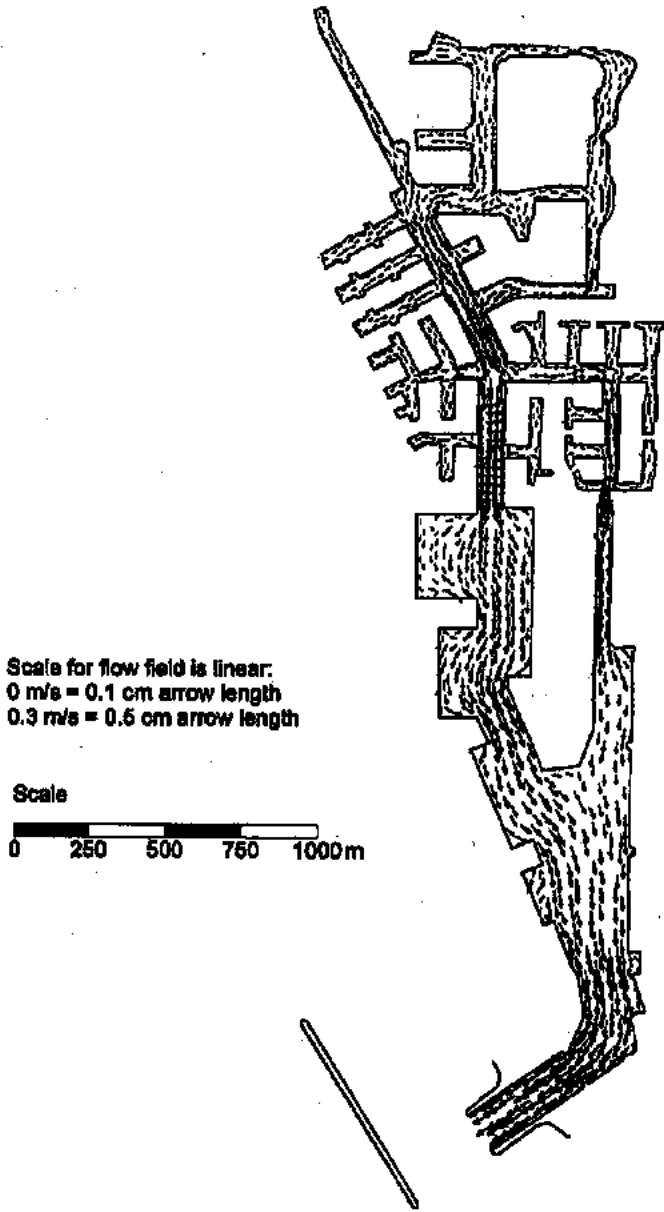
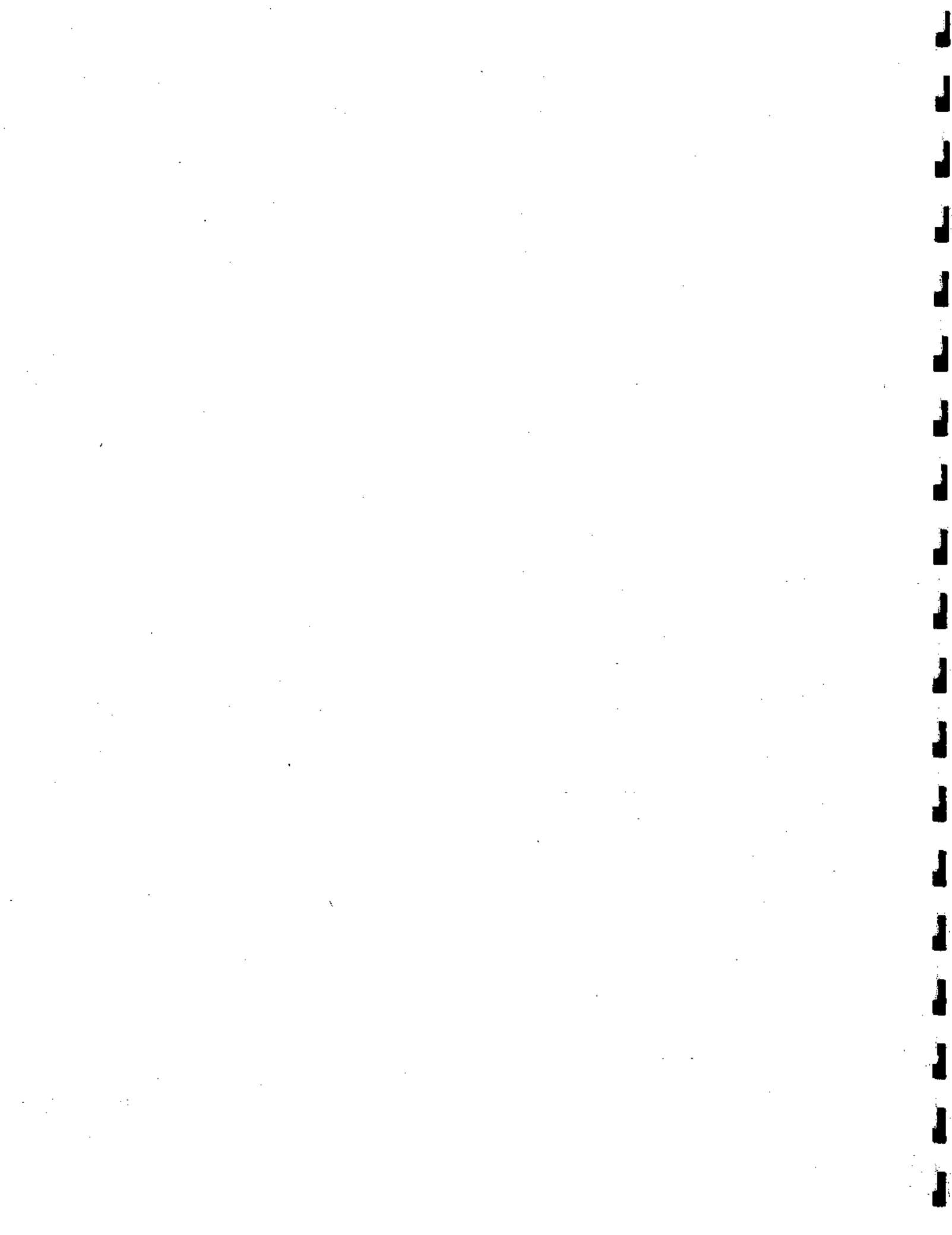


Figure 4.4-5
Water Flow (Outgoing, High-Amplitude Tide)
With Westport and TTM 5266 Developments and without MGS Pumping Rate
Channel Islands Harbor





Dissolved oxygen concentrations measured within CIH in April 1999 and July 2000 were above 5 mg/l. Historical data from Ventura Harbor and Marina del Rey, two harbors of similar, but not identical configuration and water depths as the CIH, indicate few periods of low dissolved oxygen; lower concentrations appear to be most evident immediately following stormwater input. Water circulation within CIH is influenced by the MGS intake, the general circulation for CIH, Ventura Harbor, and Marina del Rey is tidally driven. That circulation appears to be sufficient to maintain relatively high dissolved oxygen levels throughout the year within those harbors. Therefore, with or without MGS pumping, no significant negative impacts to the circulation or water quality of CIH is expected from the addition of the TTM 5266 water areas.

Vessel maintenance including painting, varnishing, barnacle removal and engine maintenance may result in the discharge of contaminants such as tar, oil, gasoline, or refined oil products (varnish, lacquer, or paints) into the marina waters. The potential also exists for boaters to discharge bilge tanks or refuse into the waterway. Any contribution to the degradation of water quality in the harbor would represent a significant impact if unmitigated. However, the applicant has prepared a Public Boat Dock Plan contained in Appendix 4.4 to this Supplemental EIR that establishes rules and regulations for the operation and management of the dock facilities. These provisions include limits on boat maintenance activities, use of Best Management Practices for boat maintenance as well as the disposal of waste. Implementation of the Public Dock Program would reduce this potential impact to less than significant levels. Finally, stormwater and landscaping runoff from the development could increase pollutants (i.e., petroleum hydrocarbons, pesticides, and fertilizers) within the marine water canals. Please refer to Section 4.3, Hydrology and Water Quality, of this Draft Supplemental EIR for an evaluation of this potential impact.

Phased Analysis

To supplement the above, a phased analysis was conducted by Moffatt & Nichols in December 2001. This supplemental report used a two dimensional hydrodynamic and water quality model to assess the water quality effects if the proposed marina expansion is constructed in phases. This report is summarized below while a complete copy of this report is contained in Appendix 4.4.

The analysis found that residence times within the harbor are not significantly effected by the phased construction of the navigation channels. Water quality conditions are expected to be good with maximum residence times of approximately 6 to 7 days if the cooling water intake pumps are on. If the water intake pumps are off, the residence times increase to 17 days, which is within the range seen in similar harbors. The phased construction of navigation channels, therefore, does not critically alter water quality, and no significant impacts are anticipated.

Cumulative Impacts

The proposed project would not significantly degrade the overall marine water quality. In fact, it is likely that the project would improve water quality of the existing inland channels because it will convert agricultural land to urban uses, which will reduce agricultural runoff that could contain pesticides, herbicides, and fertilizers. However, development of additional waterways in the future associated with other projects along the coast could result in effects to marine water quality if not properly designed and constructed. The environmental effects created by the construction of any future inland waterways would be analyzed as they are proposed and would be mitigated on a project by project basis.

Mitigation Measures

The FEIR 81-2 prepared for the Mandalay Bay Phase IV Specific Plan also identifies five protection measures that are relevant to the project. Such measures are to be made conditions of approval for each tentative tract map filed within the Specific Plan area. See Appendix 1.0(A) of this Draft Supplemental EIR for a copy of the measures and a discussion of their applicability to this project. Below are measures that have been identified in this Supplemental EIR that are in addition to those required by FEIR 81-2.

- 4.4-1 Prior to removing any barriers that would allow water to flow from the development to existing canals, the applicant shall complete a water sampling program within the newly constructed channels. That program shall include the analysis of water samples for Priority Pollutants listed in the RWQCB's Enclosed Bays and Estuaries and Ocean Plans. The barrier(s) shall not be breached until the results of the analyses are approved by the appropriate agency.
- 4.4-2 To reduce turbidity after the main canal is opened, the construction contractor shall place a silt screen/curtain between in-water construction sites and existing canals.
- 4.4-3 Provide adequate curbing and channeling of stormwater runoff away from excavated and existing water areas during construction. Construction vehicle fueling shall not occur within areas where runoff into the water areas is possible.
- 4.4-4 All the provisions of the Public Boat Dock Plan involving restrictions on boat maintenance and required use of Best Management Practices shall be incorporated into boat slip lease agreements.

UNAVOIDABLE SIGNIFICANT IMPACTS

With inclusion of the mitigation measures identified above, no significant project specific or cumulative impact will occur.

INTRODUCTION

The purpose of this section is to assess the operation of the existing circulation system and to determine the future operating condition of the roadway network with the addition of traffic generated by the proposed project. Information in this section is obtained from a traffic study prepared for the project by Associated Transportation Engineers in September of 2000 and supplemented in January 2002. Information on boat traffic is summarized from technical report prepared by Moffat & Nichols in January 2002. Both of these reports are provided in their entirety as Appendix 4.5 of this EIR.

EXISTING CONDITIONS

Plans and Policies for Transportation and Circulation

2020 General Plan - Circulation Element

The City of Oxnard Circulation Element provides a comprehensive transportation plan concerned with the movement of people, goods, and resources. As such, it is closely linked to the Land Use Element. The provisions of the Circulation Element support the goals, objectives, policies and plan proposals of the Land Use Element, while in turn the Land Use Element is a reflection of a community's existing and planned circulation system.

The circulation system in and around the City of Oxnard includes several different travel modes. The City is adjacent to two airports and contains a third. The main line of the Southern Pacific Railroad passes through the downtown and central industrial areas, and Oxnard is also a terminal for commuter rail service to Los Angeles. Further, the Port of Hueneme is adjacent to the City. All of these modes provide transportation services, which utilize the existing roadway network. The City's Circulation Element addresses all of these travel modes and seeks to create a system, which coordinates their operation.

(a) **City Traffic Standards and Agreements**

The City standard for the operation of the roadway system is found in the Circulation Element of the *2020 General Plan* and is defined as follows:

- Where environmentally feasible, all intersections in the City of Oxnard should operate at Level of Service "C" (Level of Service classifications are explained later in this section) with the exception of Oxnard Boulevard (State Route 1), which will experience higher levels of congestion until a bypass expressway (Rice Avenue) is constructed.

The City of Oxnard and County of Ventura have entered into a Reciprocal Traffic Mitigation Agreement. Under this agreement, the City shall review all discretionary projects in accordance with this agreement to determine traffic impacts on County roads within the City's Area of Interest. The thresholds identified in the City's traffic analysis guidelines (Oxnard Resolution 10,418) are to be utilized to determine whether a traffic analysis is required. The minimum threshold limit represents an increase of 25 or more vehicle trips in the morning or afternoon peak hours.

The City must compensate the County an amount determined by the County based on a project's pro-rata share of the cost of mitigation to the County roads within the City's Area of Interest. The County determines the project's pro-rata share by comparing a project's projected traffic on County roads to the estimated 2010 traffic volume total as determined by the Ventura County Transportation Commission traffic model. Similarly, projects located within unincorporated County territory but within the City's area of interest are required to pay a pro-rata share of improvements to City roadways subject to the requirements of this agreement.

(b) **Capital Improvement Program**

The intensities and locations of land uses allowed by the Land Use Element of the *2020 General Plan* have been correlated by the City with circulation improvements necessary to serve these uses. Specific sets of transportation improvements have been identified to maintain the City circulation standard in light of the *General Plan* build out. These improvements are identified in the City of Oxnard Capital Improvement Program (CIP).

The CIP lists needed improvements and identifies funding sources. The CIP forecasts City circulation needs six years in advance, and the projects and funding sources are updated annually. During the review, the City evaluates the latest traffic counts to determine when and what type of improvements are needed and revises the list of projects on the CIP accordingly.

In order to fund needed transportation improvements within the City, a number of funding sources are utilized. These sources are attributed to Federal, State, and local programs and the responsibility for distribution of these funds lies with a number of agencies. Revenue sources include a portion of the State gas tax, Transportation Development Act funds, and a citywide traffic impact fee. This is assessed on all new development located within the City of Oxnard. The fee is based on the total number of daily trips predicted to be created by a project. The fee presently stands at \$134.00 per trip.

The funds are placed into an account earmarked for improvements to the arterial roadway system. The funds are then distributed for specific circulation improvements identified in the CIP. If all projects contribute the necessary fees, then all needed improvements would be met.

County of Ventura Congestion Management Plan

Pursuant to recent state legislation, the County of Ventura has adopted a Congestion Management Plan (CMP). Those roadways on the CMP network in the vicinity of the project area include Victoria Avenue, Olivas Park Drive, Gonzales Road, and Ventura Road. The purpose of the CMP is to develop a coordinated approach to managing and decreasing traffic congestion by linking the various transportation, land use, and air quality planning programs throughout the County. In this context, one of its primary objectives is to make certain that each city and the County take into consideration the county-wide transportation impact of local land use decisions by tying planning decisions to funding of needed transportation projects.

Roadway and Street Network Classification System

The functional classification system used by the City of Oxnard's Circulation Element categorizes each street according to primary function. This system divides all streets and highways into the following categories.

Freeways

Freeways represent the major link between Ventura County and the Los Angeles Metropolitan area as well as Santa Barbara County. They provide access to the region and also accommodate some of the longer trips within the County, which relieves portions of the local street network. Such facilities are outside the purview of the City and no City standards apply to these roadways.

Arterial

Arterials supplement the freeway network by providing the principal facilities for traffic movement within the City and County. The function of an arterial is to distribute and collect freeway-bound traffic and to accommodate intra-city trips and other medium-distance movements. Primary arterials provide for a direct thoroughfare within a specified region, as well as trips between cities, many bound for the freeway. The approximate capacity of a primary arterial is 54,000 average daily trips (ADT). A primary arterial requires 120 feet of right-of-way and includes two 44-foot travel ways, a 16-foot median and eight-foot sidewalks. A typical cross-section would include three travel lanes and a bike lane in each direction.

Secondary arterials provide for intra-city trips but are used primarily for access to residential, commercial, and industrial districts. The approximate capacity of a secondary arterial is 34,000 ADT. Secondary arterials require 96-feet of right-of-way. The roadway provides for a 16-foot median, two 32-foot roadways and eight-foot sidewalks. Two travel lanes and a bike lane are provided in each direction. Local arterials primarily provide access within a district or neighborhood. The approximate capacity of a local arterial is 25,000 ADT. A 66-foot right-of-way is provided.

To minimize noise and vibration impacts on sensitive land uses, the City has designated several arterial roadways as truck routes; heavy truck movements are restricted to these roadways. Two key components of the City's truck route system provide arterial access to the Port of Hueneme. The designated "western access" route is Victoria Avenue, while the "eastern access" is Hueneme Road and Rice Avenue. In the immediate project area, Victoria Avenue is the officially designated truck route.

Surrounding Roadway Network

Figure 4.5-1 illustrates the existing regional and local circulation network. Victoria Avenue provides regional freeway access, while Wooley Road provides the major east-west connector through the City of Oxnard. Port Hueneme is accessible via Fifth Street (State Route 34) and other surface routes. The major arterial and collector streets within the project study area are described below.

(a) Victoria Avenue

Victoria Avenue, a north-south arterial street located east of the project site, extends northerly from the project site to the eastern portions of the City of Ventura, and southerly towards the Channel Islands Harbor in the City of Oxnard. Victoria Avenue is a 6- to 8-lane arterial street north of U.S.

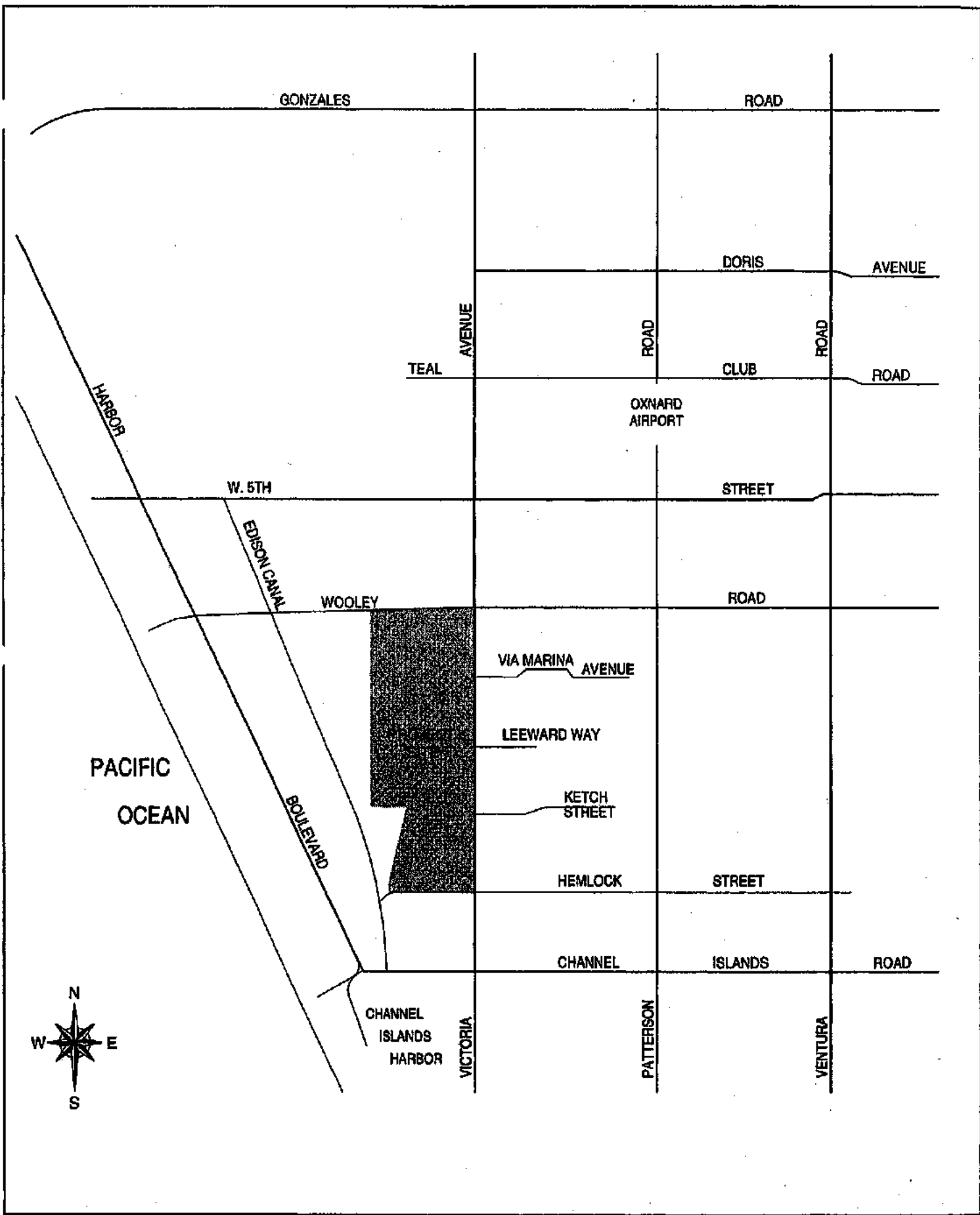
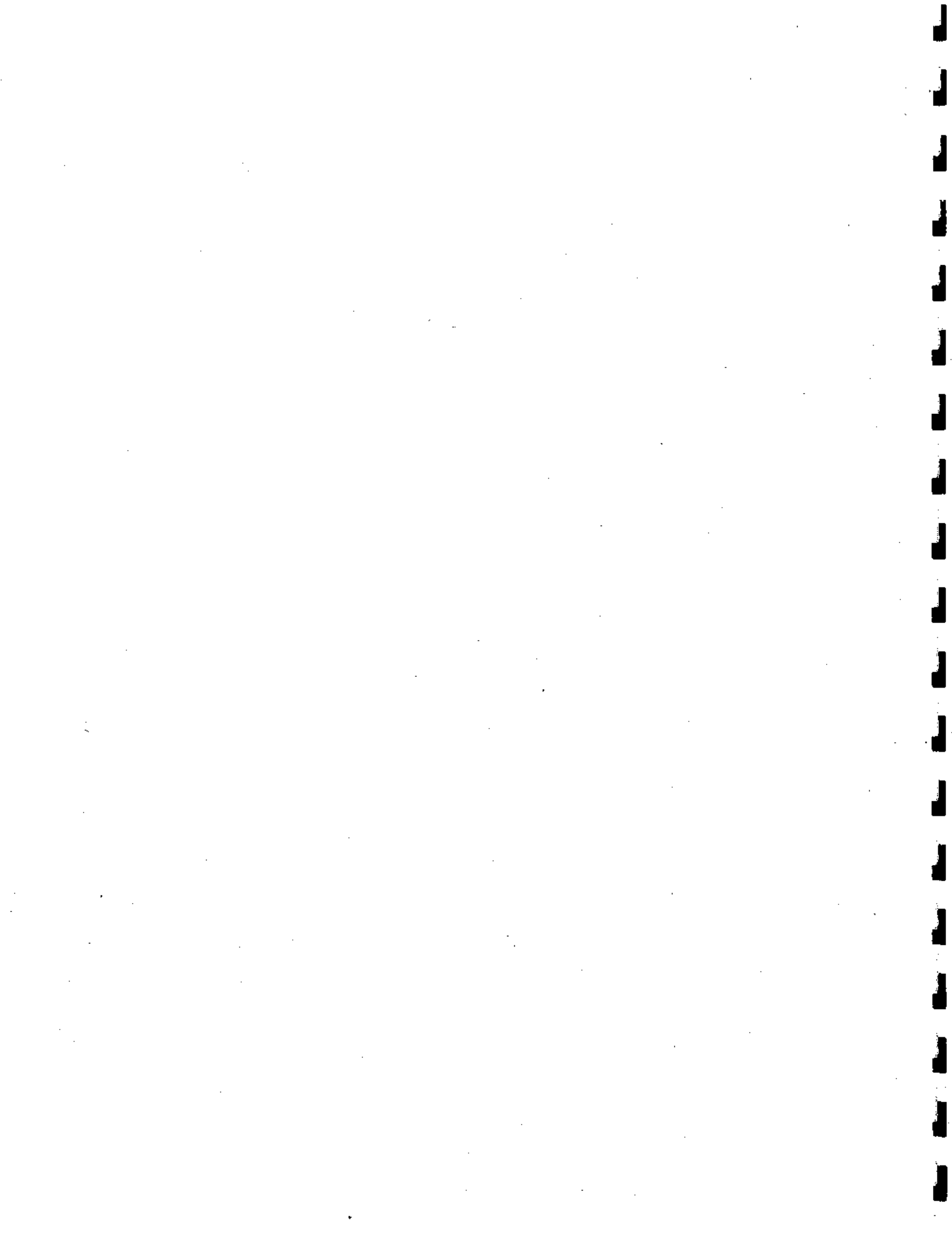


FIGURE 4.5-1

Existing Street Network



Highway 101 and a 4-lane street south of U.S. Highway 101. Victoria Avenue has freeway interchanges at Highway 101 and State Route 126. This roadway has left-turn channelization at major intersections in the study area and is signalized at all major intersections.

(b) Wooley Road

Wooley Road, is an east-west 2-lane roadway extending east of Harbor Boulevard past Victoria Avenue. Signalized intersections at arterial cross streets along this route include Harbor Boulevard and Victoria Avenue. Wooley Road currently serves recreational and agricultural areas.

(c) Hemlock Street

Hemlock Street is a two-lane, east-west street located south of the project site. Hemlock Street extends east from the Channel Islands Harbor into the City of Oxnard. Two access points into the site are located along this roadway.

(d) Harbor Boulevard

Harbor Boulevard, a north-south arterial that borders the eastern edge of the project site, extends northerly from the Channel Islands Harbor area to the western portions of the City of Ventura. Harbor Boulevard is a 2- to 4-lane arterial north of Fifth Street and a 4-lane arterial south of Fifth Street.

(e) Patterson Road

Patterson Road is a north-south 2- to 4-lane arterial that crosses through the residential areas in the western portion of the City. The southern segment of Patterson Road terminates at the Oxnard Airport. Patterson Road resumes in a northerly direction at Teal Club Road, bisects more residential areas and becomes Vineyard Road in the northwestern portion of Oxnard. Signalized intersections at arterial cross streets along this route include Fifth Street and Gonzales Road.

(f) Fifth Street

Fifth Street, also designated as State Route 34 east of Oxnard Boulevard-Highway 1, is a 2- to 4-lane roadway that extends easterly from Harbor Boulevard to the City of Camarillo. West of Oxnard Boulevard the roadway is referred to as West Fifth Street. Signalized intersections at arterial cross

streets along this route include Harbor Boulevard, Victoria Avenue, Ventura Road, and Patterson Avenue.

(g) Channel Islands Boulevard

Channel Islands Boulevard is an east-west roadway that extends from just west of Harbor Boulevard to Rice Avenue in the Oxnard-Port Hueneme area. All of the study area intersections along the roadway are controlled by signals and have left turn lanes. Channel Islands Boulevard transverses various residential and commercial land uses within Port Hueneme and southern Oxnard.

(h) Ventura Road

Ventura Road is a north-south 4- and 6-lane arterial that crosses through the western portion of the City. Signalized intersections at arterial cross streets along this route include Gonzales Road and Fifth Street.

(i) Gonzales Road

Gonzales Road, located north of the project site, is a 4-lane roadway from Rice Avenue to west of Ventura Road and a 2-lane roadway west towards Harbor Boulevard. Gonzales Road provides the major link between the communities in North Oxnard to the commercial centers along Rose Avenue-Highway 101.

Levels of Service

The operational quality of an intersection is typically expressed in terms of the "Level of Service" (LOS), which is based on the ICU of an intersection. Table 4.5-1 identifies the range of Level of Service values, which are used to describe the operating condition of a roadway intersection. As shown, LOS A to C is characterized by stable traffic flow with little restrictions on operating speed or maneuverability. LOS D typically is the level for which a metropolitan area street system is designed. Under this condition, traffic movement is restricted, and some waiting occurs at intersections. LOS E represents volumes at or near the capacity of the street, which might result in stoppages of momentary duration and fairly unstable flow. LOS F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration.

**Table 4.5-1
Level of Service Values**

LOS	ICU Range	Definition
A	0.00 - 0.60	Conditions of free unobstructed flow, no delays and all signal phases sufficient in duration to clear all approaching vehicles.
B	0.61 - 0.70	Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles.
C	0.71 - 0.80	Conditions of stable flow, delays are low to moderate, full use of peak direction signal phase(s) is experienced.
D	0.81 - 0.90	Conditions approaching unstable flow, delays are moderate to heavy, significant signal time deficiencies are experienced for short durations during the peak traffic period.
E	0.91 - 1.00	Conditions of unstable flow, delays are significant, signal phase timing is generally insufficient, and congestion exists for extended duration throughout the peak period.
F	ICU > 1.01	Conditions of forced flow, travel speeds are low and volumes are well above capacity. This condition is often caused when vehicles released by an upstream signal are unable to proceed because of back-ups from a downstream signal.

The existing A.M. and P.M. peak hour traffic volumes and LOS at the study-area intersections are shown on Table 4.5-2 and illustrated on Figures 4.5-2 and 4.5-3, respectively. As shown, all intersections currently operate at LOS C or better with the exception of the intersection of Wooley Road and Ventura Road, which operates at LOS D in the P.M. peak period.

**Table 4.5-2
Existing Intersection Levels of Service**

Intersection	Jurisdiction	Control	A.M. Peak Hour		P.M. Peak Hour	
			ICU/ Delay	LOS	ICU/ Delay	LOS
Victoria Ave./Gonzales Rd.	Ventura County	Signal	0.74	LOS C	0.77	LOS C
Harbor Blvd./West 5th St.	Oxnard	Signal	0.68	B	0.50	A
Victoria Ave./West 5th St.	Oxnard	Signal	0.54	A	0.63	B
Harbor Blvd./Wooley Rd.	Oxnard	Signal	0.40	A	0.40	A
Victoria Ave./Wooley Rd.	Oxnard	Signal	0.69	B	0.66	B
Patterson Rd./Wooley Rd.	Oxnard	Signal	0.40	A	0.44	A
Ventura Rd./Wooley Rd.	Oxnard	Signal	0.59	A	0.86	D
Victoria Ave./Via Marina Ave.	Oxnard	STOP	1.3 sec	A	8.5 sec	B
Victoria Ave./Leeward Way	Oxnard	STOP	1.3 sec	A	1.6 sec	A
Victoria Ave./Ketch St.	Oxnard	STOP	0.3 sec	A	1.8 sec	A
Victoria Ave./Hemlock St.	Oxnard	Signal	0.46	A	0.54	A
Patterson Rd./Hemlock St.	Oxnard	STOP	7.3 sec	A	12.6 sec	B
Victoria Ave./Channel Islands Blvd.	Oxnard	Signal	0.51	A	0.74	C
Patterson Rd./Channel Islands Blvd.	Oxnard	Signal	0.47	A	0.68	B

Public Transportation

While travel by private automobiles is the predominant mode of transportation in the City, alternative modes, including pedestrian, bicycle, rail and transit are becoming more important as increasing traffic volumes result in congestion at major intersections, travel delays along major routes and adverse effects on local and regional air quality. No formal pedestrian pathways occur within or along the periphery of the project area.

Transit (bus) service is provided in the Oxnard area by South Coast Area Transit (SCAT), which was created in 1973 by a joint power merger of the Oxnard and Ventura municipal bus systems. Annual ridership by Oxnard residents alone is estimated at 1.35 million passengers.

A multi-modal transit station, the Oxnard Transportation Center, is located at Fourth Street and Meta Street in the City's central business district. It functions as a hub for the SCAT inter-city and local bus services, private long distance bus service, the Harbor to Beaches Dial-A-Ride bus service provided by the City of Oxnard, and as a connection for Amtrak and Metrolink trains. A number of rail lines found within the City are used for transport of freight to and from the Port of Hueneme.

Boat Circulation

Impacts associated with buildout of the Mandalay Bay Phase IV Specific Plan have been investigated since 1970. Initial concern was raised regarding the ability of the existing Channel Islands Harbor navigation channels to safely convey the additional boat traffic associated with the new residential boat slips. Of primary concern was the impact on vessel traffic conditions in the marina entrance channel. Moffatt & Nichol Engineers (1970) conducted an initial investigation of this issue. More recently, Moffatt & Nichols prepared a boat traffic study for the Westport at Mandalay Bay development (Tentative Subdivision 5196). This information was used as the basis to prepare the boat traffic study for the proposed project, which is summarized below and provided in its entirety in Appendix 4.5(B).

The 1970 study indicated that entrance channel congestion indices of 10 to 15 interferences per acre per hour raised concern. Subsequent studies in the 1980's indicated a higher tolerance to boat traffic congestion than projected in the 1970's. As an example, present day Alamitos Bay entrance channel congestion indices occasionally exceed 30 to 35 interference per acre per hour. While conditions may

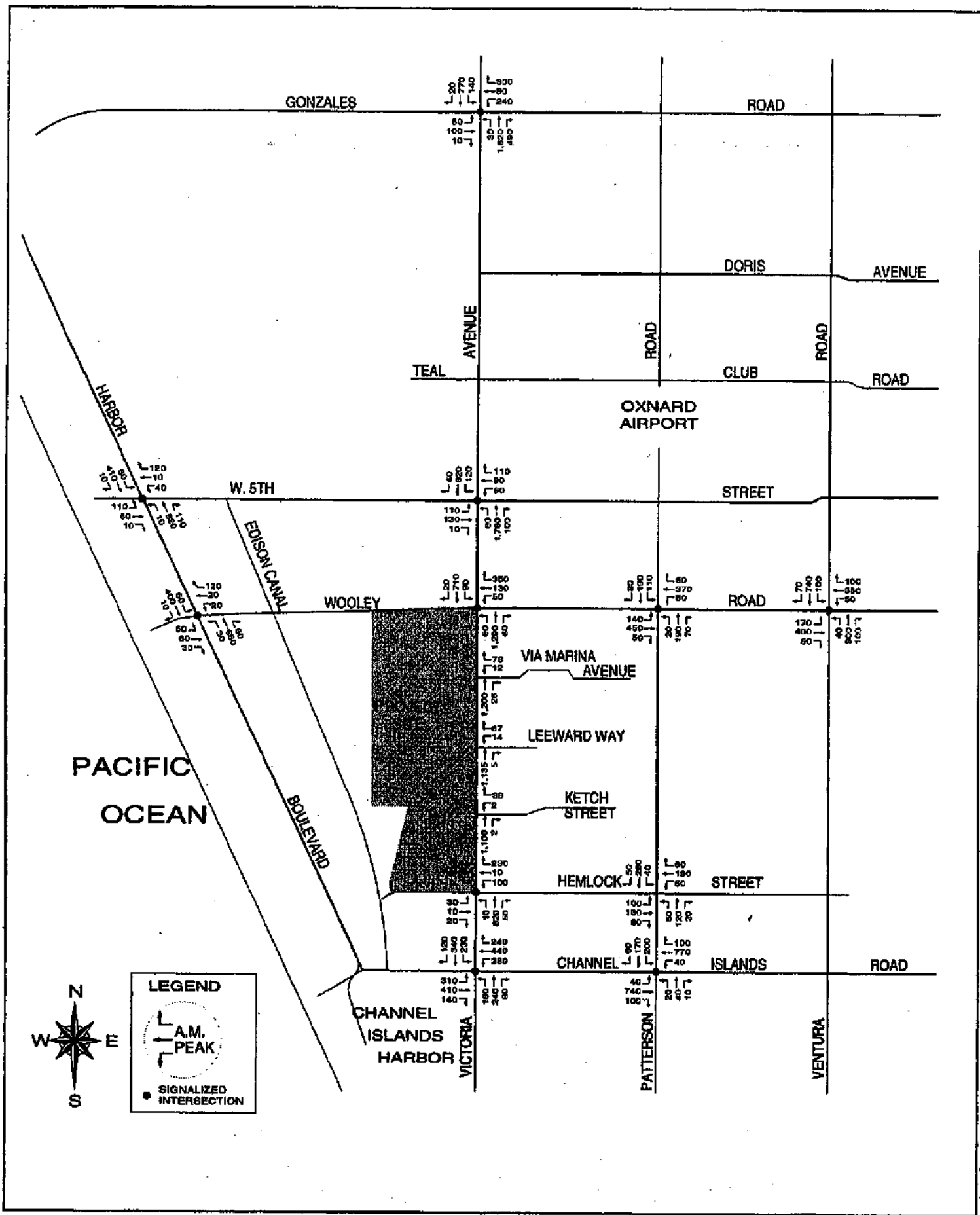
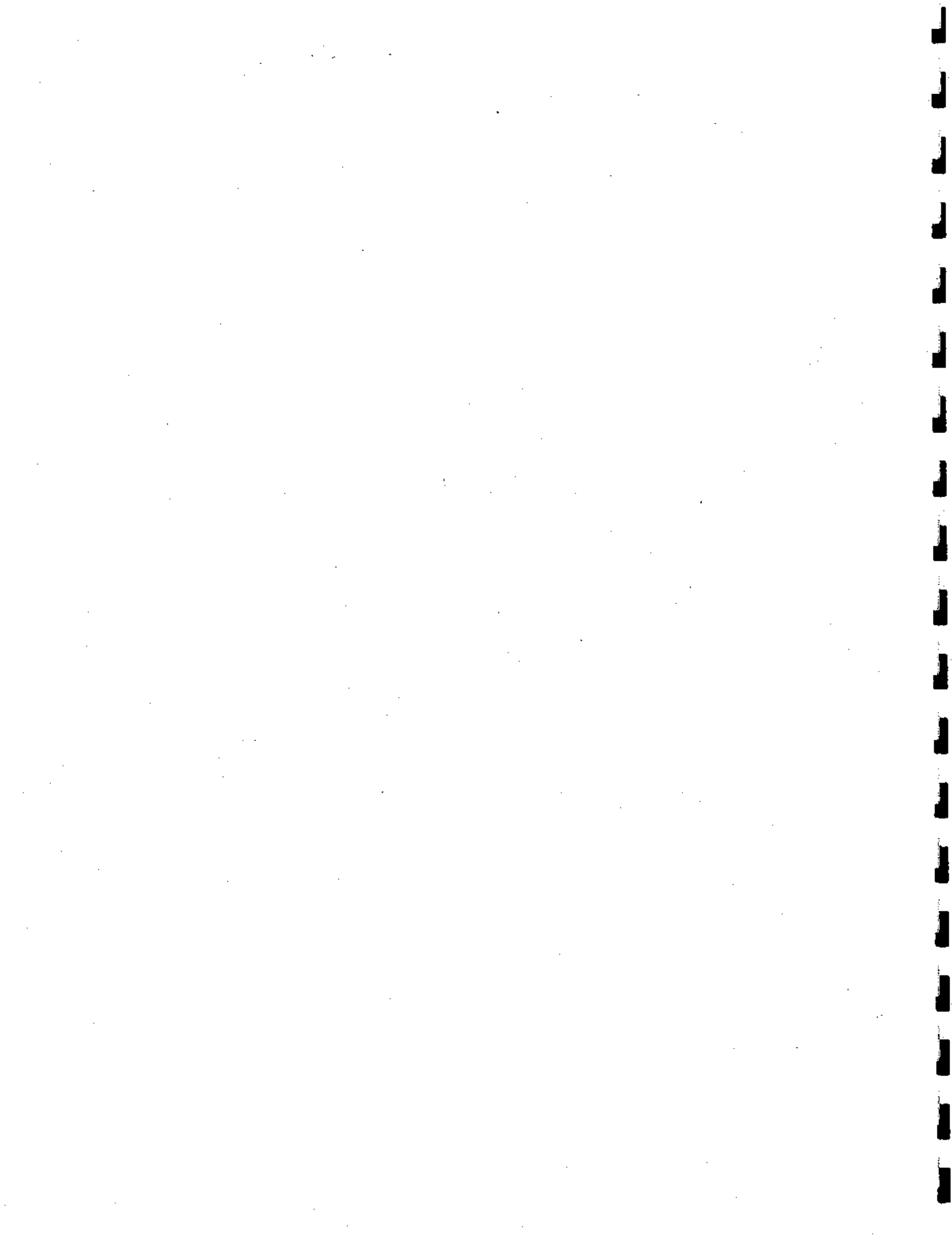


FIGURE 4.5-2

Existing AM Peak Hour Volumes



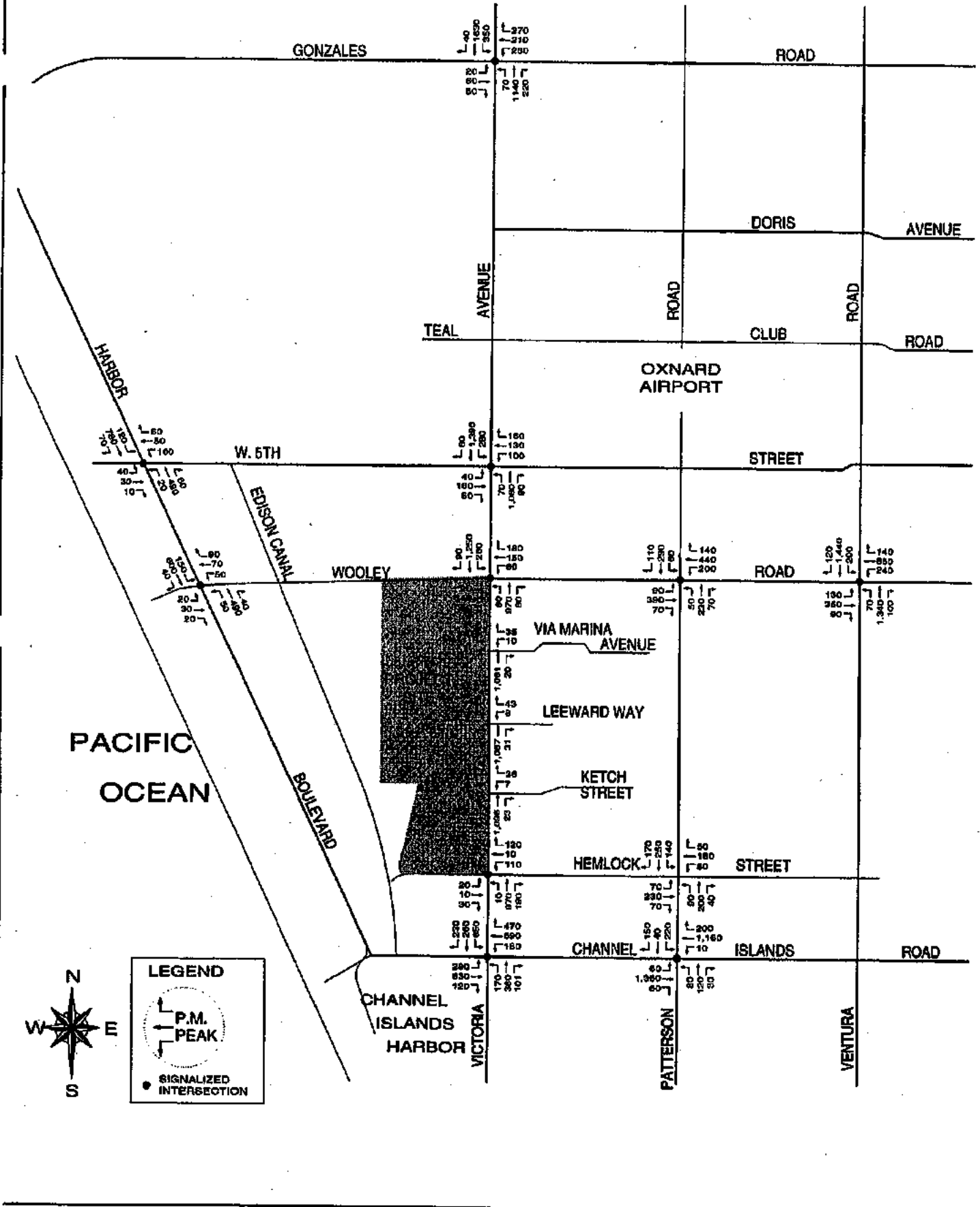
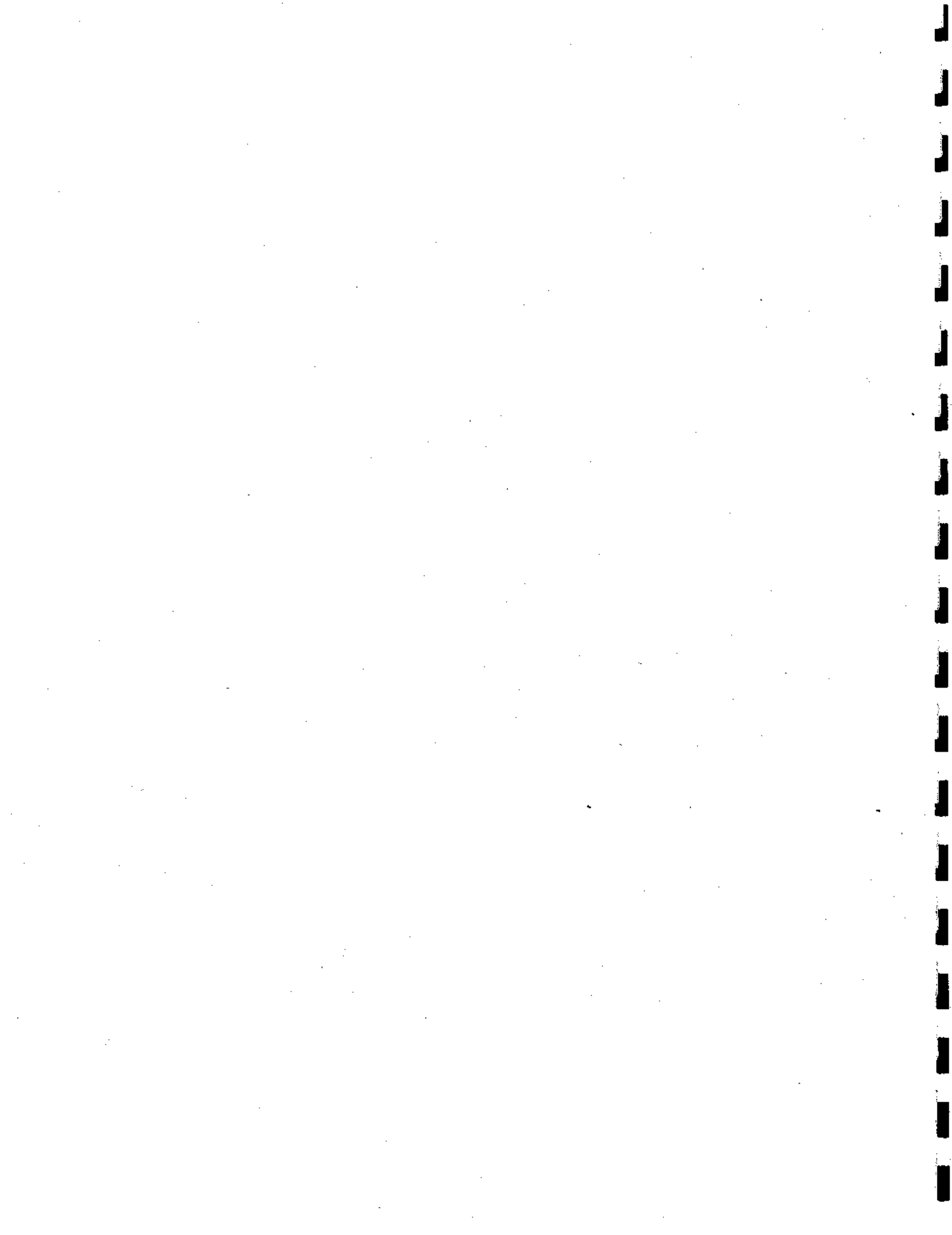


FIGURE 4.5-3

Existing PM Peak Hour Volumes



appear undesirable, they seem to have little effect on slip demand, accident rates, or complaints. At present, moderate congestion in entrance channels is projected to begin at an index of 15, with severe congestion above an index of 30 to 35. Table 4.5.3 provides a summary of the congestion thresholds.

**Table 4.5-3
Boat Traffic Congestion Thresholds**

Congestion Level	Congestion Index (Interferences per Acre per Hour)
None	0-8
Light	8-15
Moderate	15-22
Dense	22-30
Severe	Over 30

The average duration of congestion experienced on a typical summer day within the harbor is provided below in Table 4.5-4. As shown, the maximum value of the congestion index for the existing boat population was 18 interferences per acre per hour, which is in the moderate range. Moderate congestion was predicted for a peak four-hour period. The additional slips to be constructed as part of the approved Westport project will bring the congestion indices to 19, with no change in the duration statistics.

**Table 4.5-4
Average Duration (Hours) of Congestion
For Typical Summer Sunday**

Level of Development	None (0-8)	Light (8-15)	Moderate (15-22)	Dense (22-30)	Severe (Over 30)
Existing (3,509 Boats)	18	2	4	-	-
Westport Development (3,660 Boats)	18	2	4	-	-
Final Mandalay Bay Build-Out (4,168 Boats)	18	2	2	2	-

Source: Moffat & Nicols, 2002. See Appendix 4.5.
Including Launch Ramp

IMPACT ANALYSIS

Thresholds of Significance

City of Oxnard

The City of Oxnard has developed criteria for evaluating traffic and circulation impacts of proposed projects at roadway intersections. The City's criteria are based upon the change in ICU/LOS attributable to the project. If an intersection operates in the LOS C, D, E, or F ranges and a change in ICU of 0.02 or greater is generated by the project under study, the impact is considered to be significant. The LOS must then be mitigated to the ICU level identified without the project traffic. For the purposes of this analysis, the City of Oxnard's threshold criteria is also used to assess potential impacts to study intersections in the City of Port Hueneme.

If the above thresholds are exceeded, the project developer may be required to construct improvements or implement other methods to reduce the level of impact to insignificance. The thresholds of significance identified above assume full contribution to the Traffic Mitigation Fee Fund.

County of Ventura

County of Ventura thresholds were obtained from the Guidelines for Preparation of Environmental Assessments for Public Roads and Highways Level of Service. These criteria, which are listed below, were used to assess the significance of traffic impacts generated by the project for those roadways and intersections located in the County.

- A project that would have an impact on road segment or intersection that is currently operating at less than acceptable Level of Service (Policy 4.2.2-3 of the County *General Plan*) will be considered to have a significant impact.
- A project that would have an impact on road segment or intersection that is currently operating at an acceptable Level of Service falling to an unacceptable level (Policy 4.2.2-4 of the County *General Plan*) will be considered to have a significant impact.

In December 1994, the County of Ventura adopted a Traffic Fee Mitigation Ordinance. Concurrent with adoption of the ordinance, Ventura County amended the *General Plan* and Circulation Element to allow for the participation in the Traffic Fee Program as a way of complying with *General Plan* Policies. There is currently a reciprocal agreement, between the City of Oxnard and the County of Ventura, that provides for payment of both jurisdiction's traffic fees.

These criteria were used to determine the significance of the impacts generated by the project at the intersection of Victoria Avenue/Gonzales Road located within the County.

Construction Impacts

The excavation and removal of large volumes of soil and subsequent construction of the project cannot be accomplished without some degree of impact to drivers and existing roadway facilities. As discussed in Section 3.0, Project Description, truck trips will be generated on a regular basis throughout the agricultural soil transfer program and rough-grading phase of the project. Impacts to drivers may result from delays due to the presence of additional vehicles on the roadway system, trucks entering or exiting the project site, or from temporarily reduced lane widths or temporary transitions between existing and new roadway sections.

This is a temporary impact and is not expected to be significant because the project will be phased over time and the truck trips generated will be distributed throughout the entire day rather than concentrated at the peak traffic periods. Furthermore, trucks will utilize Victoria Avenue, which is designated as a truck route by the City's *General Plan* and Harbor Boulevard. Based on the above, no significant construction traffic impacts are anticipated with development and implementation of a construction traffic control plan.

Operational Impacts

Trip Generation

Table 4.5-5 identifies the predicted vehicle trip generation rate for the proposed project at buildout. As shown, the project would generate a total of 15,046 average daily trips, 533 during the A.M. peak period and 1,298 during the P.M. peak hour trips. The visitor serving commercial uses creates the majority of the trips.

Project Trip Distribution

The project-generated PM peak hour traffic volumes were distributed to the study intersections using the OTM. This model considers the land-use patterns throughout the Southern California area to estimate current trip-making patterns. It also considers future land use growth patterns to determine how trip linkages and travel patterns may change over time, due to shifts in the housing and/or employment base locations. The distribution of trips used in this analysis is provided in the traffic report found in Appendix 4.5(A) to this Supplemental Draft EIR.

Table 4.5-5
Project Trip Generation

Proposed Project	Sq. Ft.	ACRES	AMPER HOUR		TRIP PER HOUR		TOTAL	TRIP PER HOUR	TOTAL
			AMPER HOUR	TRIP PER HOUR	TRIP PER HOUR	TRIP PER HOUR			
Single Family Residential	274 Dwellings		52	146	198	172	93	265	
Multi-Family Residential	474 Dwellings		90	207	297	240	148	388	
Commercial	170,000 S.F.		27	12	38	317	328	645	
Park	16.50 Acres		0	0	0	0	0	0	
Open Space	32.3 Acres		0	0	0	0	0	0	
Sub-total:		15,041	169	365	534	729	569	1,298	

Project Impacts to Study Area Intersections

Table 4.5-6 presents the operating condition of studied intersections with buildout of the project, while Figures 4.5-4 and 4.5-5 depict A.M. and P.M. peak hour roadway volumes, respectively, under the Background with project condition. Table 4.5-7 compares the ICU and LOS at study area intersections for the Background and With Project scenarios by adding traffic generated from the project to the Background traffic volumes. The result is the project specific contribution to traffic and circulation impacts. Tables 4.5-8 and 4.5-9 provide a summary of the impact analysis.

Table 4.5-6
Existing + Pending Projects + Project Intersection Levels of Service

Intersection	Background (Existing + Pending Projects)				With Project (Existing + Pending Projects + Project)			
	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS
Victoria Ave./ Gonzales Rd.	0.77	LOS C	0.81	LOS D	0.80	LOS C	0.87	LOS D
Harbor Blvd./ West 5th St.	0.68	LOS B	0.53	LOS A	0.70	LOS B	0.59	LOS A
Victoria Ave./ West 5th St.	0.61	LOS B	0.68	LOS B	0.63	LOS A	0.75	LOS C
Harbor Blvd./ Wooley Rd.	0.40	LOS A	0.45	LOS A	0.42	LOS A	0.53	LOS A
Victoria Ave./ Wooley Rd.	0.74	LOS C	0.75	LOS C	0.81	LOS D	1.00	LOS E
Patterson Rd./ Wooley Rd.	0.46	LOS A	0.49	LOS A	0.50	LOS A	0.54	LOS A
Ventura Rd./ Wooley Rd.	0.67	LOS A	0.90	LOS D	0.54	LOS A	0.96	LOS E
Victoria Ave./ Via Marina Ave.	1.9 sec	LOS A	13.7 sec	LOS C	2.6 sec	LOS A	36.7 sec.	LOS E
Victoria Ave./ Leeward Way	2.0 sec	LOS A	2.3 sec	LOS A	2.2 sec	LOS A	12.7 sec	LOS C
Victoria Ave./ Ketch St.	0.4 sec	LOS A	2.7 sec	LOS A	91.9 sec.	LOS F	131.8 sec.	LOS F
Victoria Ave./ Hemlock St.	0.51	LOS A	0.58	LOS A	0.50	LOS A	0.67	LOS B
Patterson Rd./ Hemlock St.	8.0 sec	LOS B	15.2 sec	LOS C	8.2 sec	LOS B	16.4 sec	LOS C
Victoria Ave./ Channel Islands Blvd.	0.60	LOS A	0.84	LOS D	0.60	LOS A	0.86	LOS D
Patterson Rd./ Channel Islands Blvd.	0.48	LOS A	0.68	LOS B	0.49	LOS A	0.72	LOS C

**Table 4.5-7
AM Peak Hour ICU and LOS for Background and With Project Scenarios**

Intersection	Jurisdiction	Background Scenario		With Project Scenario		Change In ICU	Sign. Impact?
		ICU	LOS	ICU	LOS		
Victoria Ave./Gonzales Rd.	Ventura County	0.77	C	0.80	C	0.03	NO
Harbor Blvd./West 5 th St.	Oxnard	0.68	B	0.70	B	0.02	NO
Victoria Ave./West 5th St.	Oxnard	0.61	B	0.63	A	0.02	NO
Harbor Blvd./Wooley Rd.	Oxnard	0.40	A	0.42	A	0.02	NO
Victoria Ave./Wooley Rd.	Oxnard	0.74	C	0.81	D	0.07	YES
Patterson Rd./Wooley Rd.	Oxnard	0.46	A	0.50	A	0.04	NO
Ventura Rd./Wooley Rd.	Oxnard	0.67	A	0.54	A	-0.13	NO
Victoria Ave./Via Marina Ave.	Oxnard	1.9 sec	A	2.6 sec	A	0.7 sec	NO
Victoria Ave./Leeward Way	Oxnard	2.0 sec	A	2.2 sec	A	0.2 sec	NO
Victoria Ave./Ketch St.	Oxnard	0.4 sec	A	91.9 sec	F	91.5 sec.	YES
Victoria Ave./Hemlock St.	Oxnard	0.51	A	0.50	A	-0.01	NO
Patterson Rd./Hemlock St.	Oxnard	8.0 sec	B	8.2 sec	B	0.2 sec	NO
Victoria Ave./Channel Islands Blvd.	Oxnard	0.60	A	0.60	A	0 sec	NO
Patterson Rd./Channel Islands Blvd.	Oxnard	0.48	A	0.49	A	0.01	NO

**Table 4.5-8
PM Peak Hour ICU and LOS for Background and With Project Scenarios**

Intersection	Jurisdiction	Background Scenario		With Project Scenario		Change In ICU	Sign. Impact?
		ICU	LOS	ICU	LOS		
Victoria Ave./Gonzales Rd.	Ventura County	0.81	D	0.87	D	0.06	NO
Harbor Blvd./West 5 th St.	Oxnard	0.53	A	0.59	A	0.06	NO
Victoria Ave./West 5th St.	Oxnard	0.68	B	0.75	C	0.07	NO
Harbor Blvd./Wooley Rd.	Oxnard	0.45	A	0.53	A	0.08	NO
Victoria Ave./Wooley Rd.	Oxnard	0.75	C	1.00	F	0.25	YES
Patterson Rd./Wooley Rd.	Oxnard	0.49	A	0.54	A	0.05	NO
Ventura Rd./Wooley Rd.	Oxnard	0.90	D	0.96	E	0.06	YES
Victoria Ave./Via Marina Ave.	Oxnard	13.7 sec	C	36.7 sec	E	23.0 sec	YES
Victoria Ave./Leeward Way	Oxnard	2.3 sec	A	12.7 sec	C	10.4 sec	NO
Victoria Ave./Ketch St.	Oxnard	2.7 sec	A	131.8 sec	F	129.1 sec	YES
Victoria Ave./Hemlock St.	Oxnard	0.58	A	0.67	B	0.09	NO
Patterson Rd./Hemlock St.	Oxnard	15.2 sec	C	16.4 sec	C	1.2 sec	NO
Victoria Ave./Channel Islands Blvd.	Oxnard	0.84	D	0.86	D	.02 sec	YES
Patterson Rd./Channel Islands Blvd.	Oxnard	0.68	B	0.72	C	0.04	NO

¹ ICU and LOS based on signalized intersection.

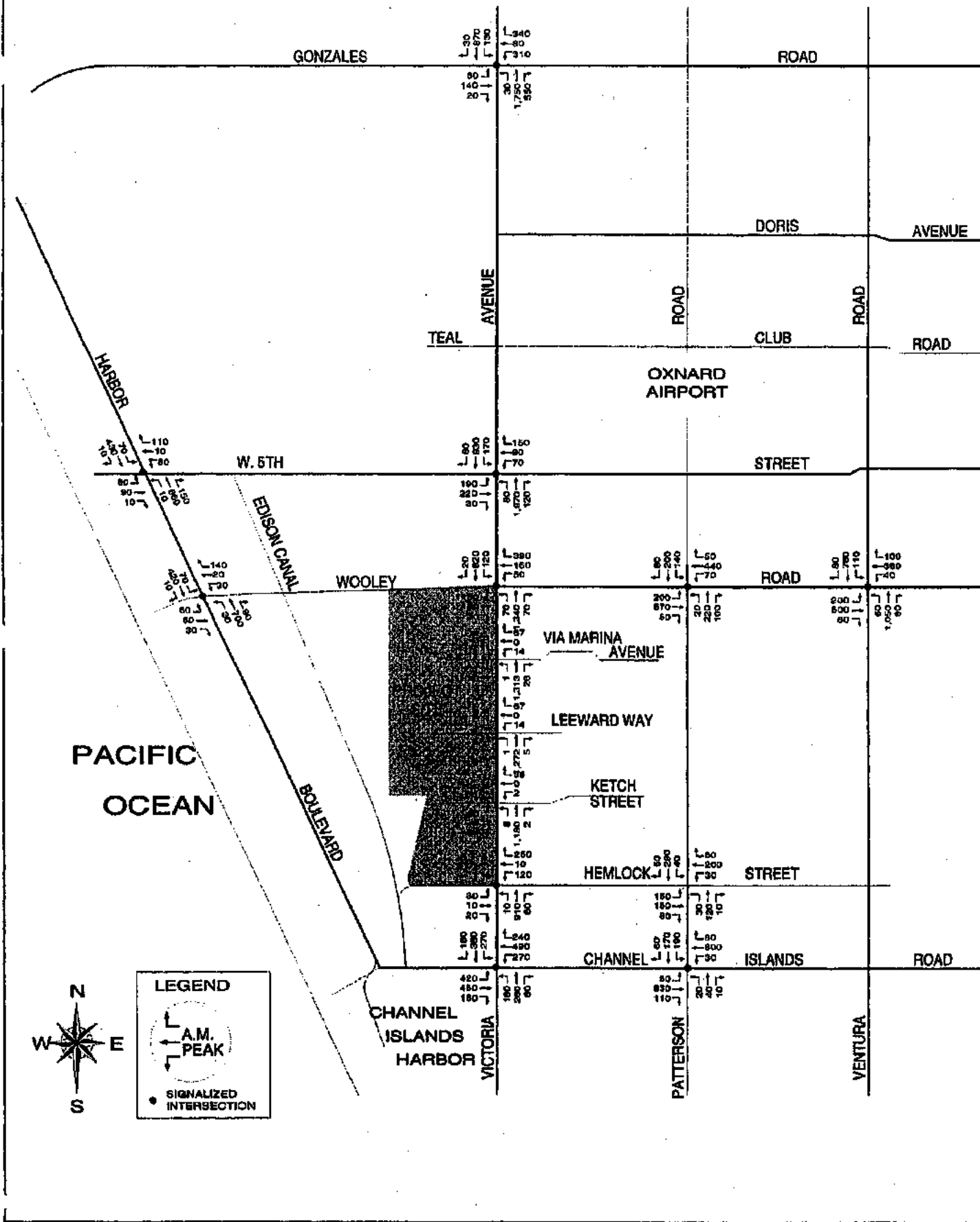
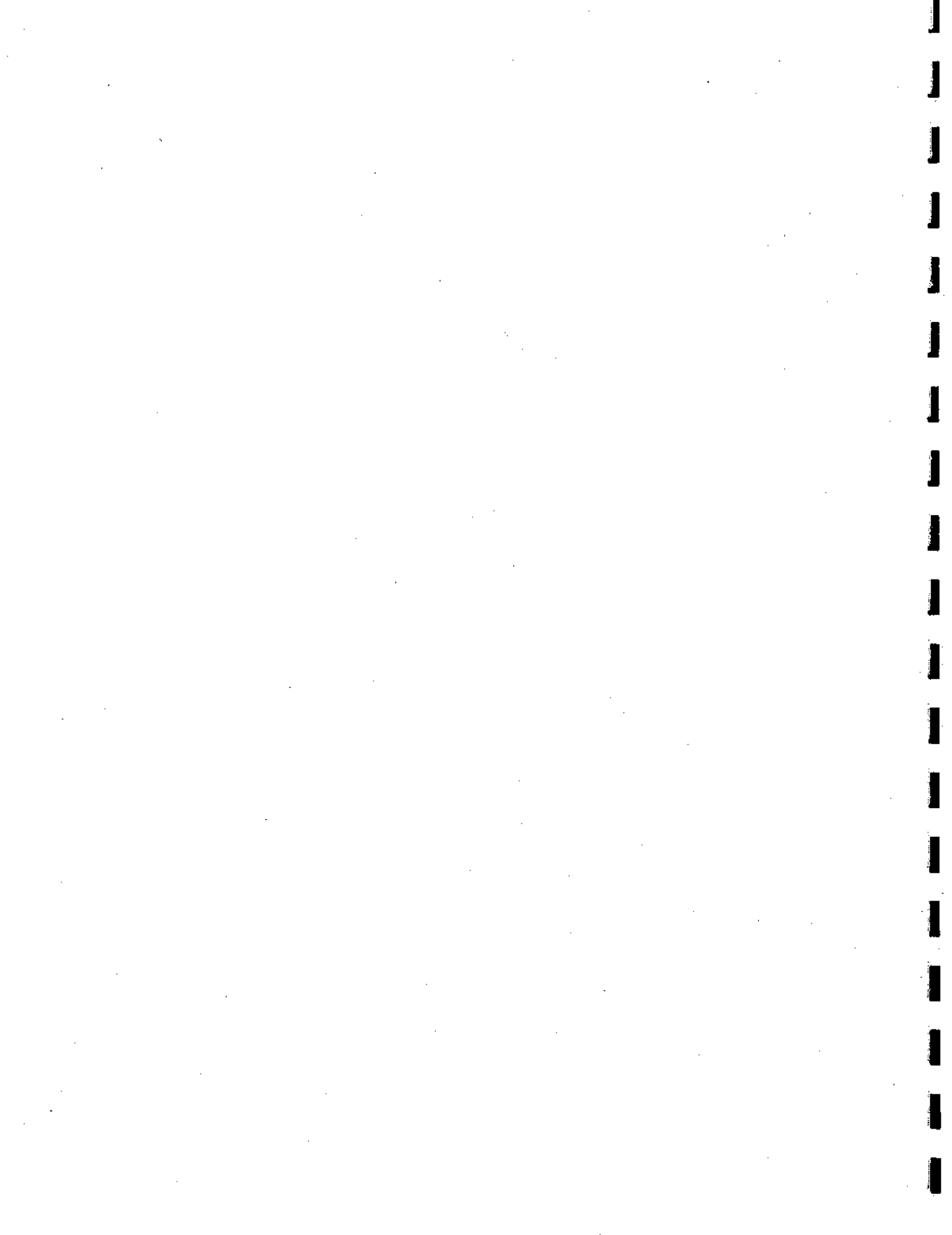


FIGURE 4.5-4

Existing plus Pending Projects plus Project AM Peak Hour Volumes



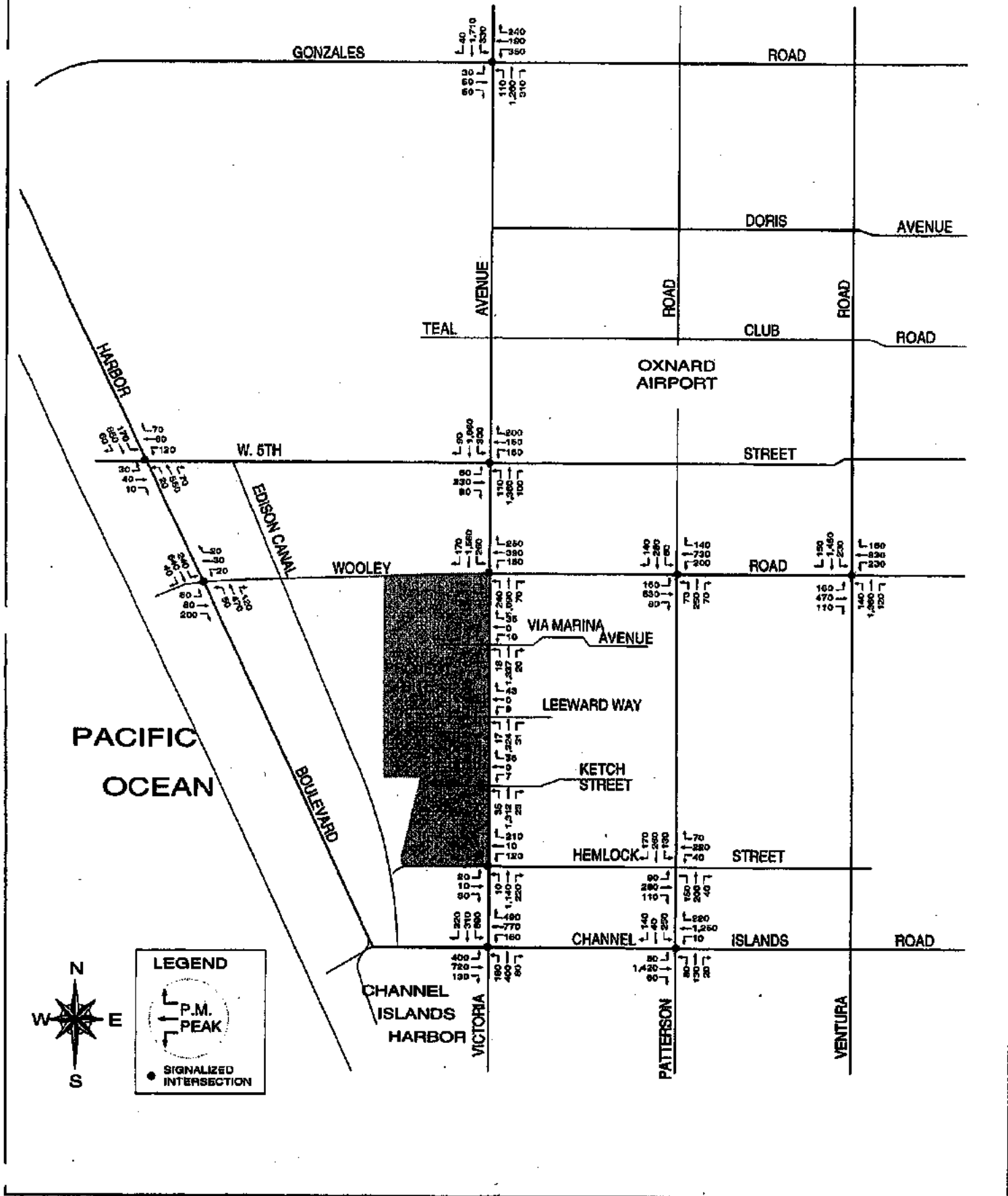
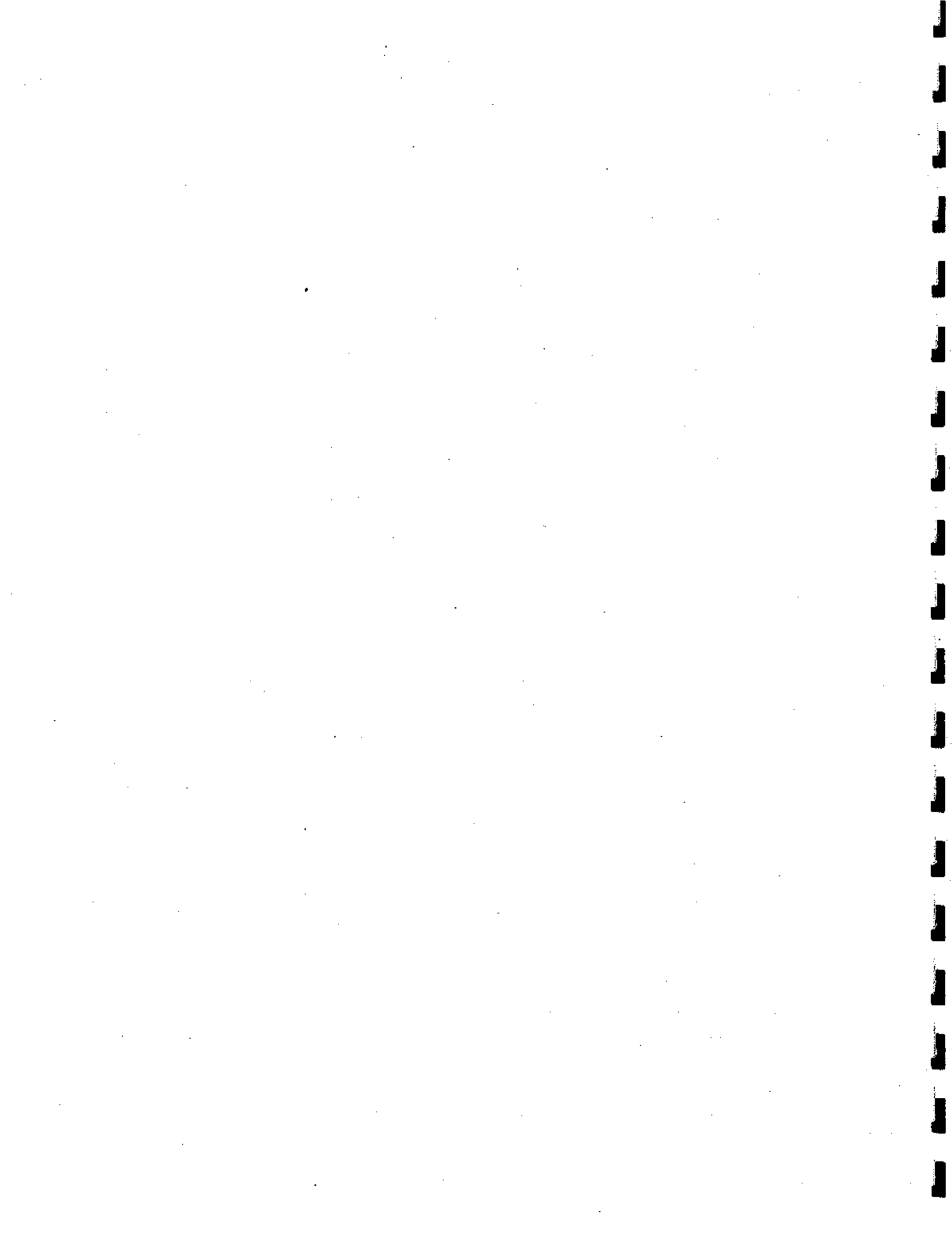


FIGURE 4.5-5

Existing plus Pending Projects plus Project PM Peak Hour Volumes



The data presented above shows that the project would have a significant impact to the following intersections prior to mitigation:

- Victoria Avenue/Wooley Road,
- Ventura Road/Wooley Road,
- Victoria Avenue/Via Marina Avenue,
- Victoria Avenue/Ketch Street and
- Victoria Avenue/Channel Islands Boulevard.

Site Access and Circulation

Direct access to the project would be provided via three driveways along Wooley Road and four access points along Victoria Avenue. The primary access for the northern residential area would be off Wooley Road approximately 1,070 feet west of the Victoria Avenue/Wooley Road intersection. The primary entrance will allow for full access. Secondary access via Wooley Road is provided at two driveways. One driveway would be shared with Westport at Mandalay Bay and would allow full access. The other secondary access driveway, located approximately 600 feet west of the Victoria Avenue/Wooley Road intersection would allow only right-turns in and out of the project. Wooley Road, adjacent to the project, would be widened to allow two lanes in each direction. Primary access for the community commercial uses would be off Victoria Avenue at Ketch Street. The primary entrance will allow for full access. Secondary access via Victoria Avenue at Via Marina, Leeward Way and Hemlock Street would allow for full access. The internal street network consists of curvilinear collector roadways with secondary roads serving the individual neighborhoods. A pedestrian promenade along the waterway is also proposed. All roadways are to be designed to City of Oxnard standards.

The intersection operation of the Wooley Road/Project Driveway and Victoria Avenue/Project Driveways were analyzed to determine if the intersections could operate acceptably as an unsignalized intersections. Based on the existing + pending projects + project analysis, only the Victoria Avenue/Ketch Avenue intersection is forecast to operate at less than LOS D with project traffic. Peak hour signal warrant analyses were performed for the project's entrances on Wooley Road and Victoria Avenue. The results show that the peak hour warrant is satisfied only at the Victoria Avenue/Ketch Avenue intersection and a signal is required at this intersection, or alternatively, at the intersection of Victoria and Leeward. With construction of the traffic signal at either one of these two locations, no significant impacts related to site access and internal circulation are anticipated.

The project applicant would be required to construct street improvements along its frontage on Wooley Road and Victoria Avenue - curb, gutter, sidewalk, etc. In addition, the project applicant would be required to improve Wooley Road and Victoria Avenue to accommodate projected traffic volumes. With implementation of these actions, related impacts would be eliminated.

Consistency with Relevant Transportation Plans and Policies

Ventura County General Plan Consistency

As mentioned earlier in this section, the City of Oxnard and Ventura County have executed a Reciprocal Traffic Mitigation Agreement, by which each agency agrees that a pro-rata share of mitigation costs will be collected by each agency for identified traffic impacts in the other jurisdiction. The project would be consistent with the *Ventura County General Plan* by complying with the terms of the above-mentioned agreement between the two agencies.

Ventura County Congestion Management Program

According to the County's Congestion Management Program (CMP), the minimum acceptable standard for traffic operations is LOS E². However, so that local jurisdictions are not unfairly penalized for existing congestion, CMP locations currently operating in the LOS F range are considered acceptable. Three of the study area intersections are contained in the County's CMP. The intersections of Victoria Road/Gonzales Road, Victoria Avenue/Channel Islands Boulevard and Ventura Road/Channel Islands Boulevard are expected to operate at better than the LOS E range with the addition of pending projects + project peak hour traffic volumes. With the addition of lanes to the *General Plan Circulation System*, the study-area intersections are projected to operate within the LOS A-D range. The proposed project would not cause these intersections to exceed an acceptable LOS and would be consistent with the CMP.

Boater Circulation

Subsequent to certification of the Westport SEIR, the slip count for that development was increased from 151 slips to 165 slips. The existing slip count in Mandalay Bay, including Westport, is therefore increased to 721 slips (556 slips plus 165 slips). The proposed project will add 480 slips, bringing the total slips in Mandalay Bay to 1201 slips. The maximum approved build-out for Mandalay Bay is 1215 slips. Thus the final Mandalay Bay slip count of 1201 slips is within 14 slips, or approximately one percent, of the final approved slip count.

The final phase of the Mandalay Bay Phase IV Specific Plan will increase the congestion index from 19 to 22, which just barely reaches the dense traffic range. This would occur for a very short period of time, and is much lower than other harbors such as Alamitos Bay that exhibit peak congestion indices exceeding 30 without evidence of impaired safety. Based on the above, no significant impact to boater circulation is anticipated with construction of the proposed project.

Cumulative Impacts

Project impacts were evaluated using the Oxnard Traffic model to derive the project trip distribution and volume on local roadways. As is typical of a long range planning study, the evaluation is made in the context of long range forecasting using future cumulative¹ average daily trip volumes on study roadway segments. The traffic analysis uses the ADT volumes to compare "with project" and "without project" traffic forecasts. By doing so, the traffic analysis identifies both the project and cumulative traffic impacts in all studied areas. As described above, the project would contribute to a significant impact at five studied intersections prior to mitigation.

With regard to boat traffic, buildout of the Channel Islands Harbor, Mandalay Bay Phase IV Specific Plan, and public launch ramps represents the cumulative condition. Boat traffic conditions were analyzed previously in a 1992 study discussed earlier in this section. Peak congestion levels at buildout are predicted to elevate into the dense range for one hour on a typical summer Sunday, with an associated index of 22. Other hours would experience congestion levels ranging from none (0-8) to moderate (15-22). Table 4.5-9 summarizes the cumulative analysis of that study, which found no significant cumulative effect since the cumulative congestion rating is mostly within the moderate range.

**Table 4.5-9
Average Duration of Congestion on Typical Summer Sunday
Buildout Conditions**

Level of Development	None (0-8)	Light (8-15)	Moderate (15-22)	Dense (22-30)	Severe (over 30)
Existing (3,373 boats)	19	2	3	-	-
Intermediate (3,529 boats)	19	2	3	-	-
Final Development (4,168 boats)	19	1	3	1	-

Source: Final Supplemental EIR for TTM 5196 dated February 2000.

¹ Defined as existing volumes plus predicted future volumes to create a future background condition.

MITIGATION MEASURES

The FEIR 81-2 prepared for the Mandalay Bay Phase IV Specific Plan identifies traffic and circulation mitigation measures that are relevant to the project. Such measures are to be made conditions of approval for each tentative tract map filed within the Specific Plan area. See Appendix 1.0(A) of this Draft Supplemental EIR for a copy of the measures and a discussion of their applicability to this project. Below are measures that have been identified in this Supplemental EIR that are in addition to those required by FEIR 81-2 or represent modifications to those previously identified.

4.5-1 To minimize potential conflicts between construction activity and through traffic, the applicant shall prepare a construction traffic control plan. The plan must identify all traffic control measures, signs, and delineators to be implemented by the construction contractor during the duration of site preparation and construction activity. Measures likely to be used include but are not limited to the following:

- In areas where traffic control necessitates, the contractor would provide, post, and maintain "No Parking" and "No Stopping" signs, as directed by the City Engineer;
- Flagmen would be posted as needed to direct traffic during construction activity;
- No travel lane would be less than 10 feet wide;
- "Construction Ahead" and appurtenant signs are to be placed 1,000 feet in advance of all approaches to the project area, for the duration of construction;
- Cross street closures would be limited to the times of the day that construction is in process.

Victoria Avenue/Wooley Road

4.5-2 The project applicant shall construct or fund the construction of the following geometric improvements through payment of the traffic impact mitigation fee:

- Northbound approach. Provide a left-turn lane, two through lanes and a through/right-turn lane.
- Southbound approach. Provide a left-turn lane, two through lanes and a through /right-turn lane.
- Eastbound approach. Provide one left-turn lane, two through lanes and an exclusive right-turn lane.
- Westbound approach. Provide one left-turn lane, two through lanes and one exclusive right-turn lane.

With these improvements the intersection would operate at LOS B (ICU 0.69) in the P.M. peak hour as shown below in Table 4.5-8.

Ventura Road/Wooley Road

4.5-3 The project applicant shall construct or fund the construction of the following geometric improvements through payment of the traffic impact mitigation fee:

- Northbound approach. Provide a left-turn lane, two through lanes and a through/right-turn lane.
- Southbound approach. Provide a left-turn lane, three through lanes and an exclusive right-turn lane.

With these improvements the intersection would operate at LOS C (ICU 0.80) in the P.M. peak hour as shown in Table 4.5-8.

Victoria Avenue/Via Marina Avenue

4.5-4 The project applicant shall construct or fund the construction of the following geometric improvements through payment of the traffic impact mitigation fee:

- restripe the westbound approach to provide an exclusive left-turn lane and a through/right-turn lane.

With these improvements the intersection would operate at LOS C (14.3 seconds of average vehicle delay) in the P.M. peak hour as shown in Table 4.5-8.

Victoria Avenue/Ketch Street

4.5-5 The project applicant shall construct or fund the construction of a traffic signal at Victoria and Leeward which will provide a controlled access for traffic on the new leg of Ketch that desires to go northbound on Victoria.

With these improvements the intersection would operate at LOS A (ICU 0.62) in the P.M. peak hour as shown in Table 4.5-10.

Victoria Avenue/Channel Islands Boulevard

4.5-6 The project applicant shall construct or fund the construction of the following geometric improvements through payment of the traffic impact mitigation fee:

- add an additional left-turn lane on the eastbound approach, providing dual left-turn lanes.

With these improvements the intersection would operate at LOS C (ICU 0.73) in the P.M. peak hour as shown in Table 4.5-10.

Table 4.5-10
Existing + Pending Projects + Project Mitigated Intersection Levels of Service

Intersection	Existing + Pending Projects + Project				Existing + Pending Projects + Project Mitigated			
	A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour	
	ICU or Delay	LOS	ICU or Delay	LOS	ICU or Delay	LOS	ICU or Delay	LOS
Victoria Ave./Wooley Rd.	0.81	D	1.00	E	0.66	B	0.69	B
Ventura Rd./Wooley Rd.	0.54	A	0.96	E	0.54	A	0.80	C
Victoria Ave./Via Marina Ave.	2.6 sec.	A	36.7 sec.	E	1.7 sec.	A	14.3 sec.	C
Victoria Ave./Ketch St.	91.9 sec.	F	131.8 sec.	F	0.50	A	0.59	A
Victoria Ave./Channel Islands Blvd.	0.60	A	0.86	D	0.47	A	0.73	C

UNAVOIDABLE SIGNIFICANT IMPACTS

The project is required to pay a traffic impact mitigation fee, which will be used to fund the needed transportation improvements for the five intersections mentioned above and other improvement projects in both the County and the City. No mitigation beyond the payment of this standard fee is required. With the payment of the required traffic impact fees, the proposed project would not result in any unavoidably significant traffic impacts.

With regard to boating circulation, buildout of the project along with cumulative development will result in a congestion index rated as moderate, and no unavoidable significant impacts are anticipated.