ENVIRONMENTAL IMPACT REPORT

FOR

MORGAN & GARDNER
376 UNIT APARTMENT COMPLEX

(City of Chula Vista EIR 84-2
SCH 83082412)

Prepared By:

RBR & Associates, Inc.
233 "A" Street
Suite 1101
San Diego, CA 92101

Prepared For:

John W. Gardner Jr.
1497 Jayken Way, Suite B
Chula Vista, CA 92011

RBR Job No. 1039
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1.0 INTRODUCTION

1.1 PURPOSE

All governmental discretionary actions defined as projects by the California Environmental Quality Act (CEQA) require environmental assessment. Those actions which could result in significant physical impacts to the environment require the preparation of an environmental impact report.

Application for approval of the Morgan & Gardner 376 unit apartment complex was filed with the City of Chula Vista on June 6, 1983 (Case number IS-83-35. Discretionary actions associated with the project include a General Plan Amendment, rezoning, a precise plan and tentative subdivision map. Based on an initial study completed for the proposed applications and substantial public controversy regarding specific environmental effects of the project, the City determined that an environmental impact report must be prepared.

This Environmental Impact Report (EIR 84-2) has been prepared in accordance with the Guidelines for Implementation of the California Environmental Quality Act (Cal. Admin. Code § 15000 et seq) and the Environmental Review Procedures of the City of Chula Vista. Initial Study IS-83-35 dated August 11, 1983 (Appendix E) identified specific issues upon which the EIR is focused (CEQA Guidelines § 15140[e]). The scope of the EIR was further defined by public input solicited by the City (e.g. a notice of preparation and notice of a September 13, 1983 public meeting was distributed to residents in the project vicinity). Additionally, the notice of preparation of an EIR was distributed by the City and State Office of Planning and Research on August 23, 1983, to various state agencies for opportunity to comment. Comments received from the public established that substantial controversy exists which must be addressed in the environmental impact report (CEQA Guidelines § 15084[c]).

Controversial issues identified include traffic safety, tree removal, increased density and landform modification. Other issues identified as having potentially significant negative environmental effects include: groundwater, drainage, air quality, mobile noise sources, community social factors, schools and circulation. Effects dismissed in the initial study as clearly insignificant and unlikely to occur have not been discussed in the EIR per CEQA Guidelines § 15140(e).

The CEQA Guidelines indicate that the Environmental Impact Report should be prepared as early as possible in the planning process. A single EIR was prepared for the proposed phased development of the Morgan & Gardner apartment complex based on the potential for significant environmental effects

associated with the total undertaking per CEQA Guidelines § 15069.

This EIR analyzes all issues identified as having potentially significant environmental impacts resulting from approval of the proposed project. The EIR clearly identifies significant environmental impacts (CEQA Guidelines § 15143[a]) and provides analysis which emphasizes the study of impacts determined to be significant (CEQA Guidelines § 15080). Considerable prior effort has been extended by the project proponent and their consultants in analysis of the proposed project site. This technical information has been compiled in the Appendices to the EIR as background information and is available for review at the Chula Vista Planning Department located in the Public Services Building, 276 Fourth Avenue, Chula Vista, California (CEQA Guidelines § 15140[c]).

The purpose of this Environmental Impact Report is to provide an accurate and concise information document which delineates and explains the environmental impacts resulting from approval of the proposed project. Cumulative and growth inducing impacts have been identified. Mitigation measures and alternatives designed to reduce or eliminate environmental impacts to below a level of significance are delineated (CEQA Guidelines § 15143[c],[d]). Comments were solicited from agencies affected by the proposed project (e.g., Chula Vista City School District and Sweetwater Union High School District); however, no responsible agencies are involved in approval of the project. Agency and public comments regarding the Draft EIR will be included in the Final EIR with appropriate responses.

A previous environmental impact report for the Morgan-Gardner Subdivision (EIR-76-11) was prepared and adopted in 1977 for the project site and approximately 16 acres adjacent to the north and west which has since been developed for single family residential uses. Also, two environmental impact reports have been prepared recently in the vicinity of the project. These public documents are hereby incorporated by reference in accordance with § 15149 of the CEQA Guidelines in order to provide general background information, indicators for cumulative impact analysis, technical information, and the basis for dismissal of certain environmental issues (e.g., archaeological and biological resources). The documents cited are available for review at the City of Chula Vista Planning Department.

1) Morgan-Gardner Subdivision Final Environmental Impact Report, EIR 76-11, prepared by Inter-City Engineers for the City of Chula Vista, 1977.

2) Bonita Property General Plan Amendment Environmental Impact Report, GPA #83-03, Log #82-GP-3, prepared by Mooney-Lettieri and Associates for San Diego County, 1983.

3) Eastlake Final Environmental Impact Report, EIR 81-03 SCH 80121007, prepared by WESTEC Services, Inc. for the City of Chula Vista, 1982.

1.2 EXECUTIVE SUMMARY

GROUND WATER

Impact

The proposed project site is located in the lower portion of the Sweetwater Basin. Ground water quality in this area is fair to poor and recharge has been significantly and adversely affected by the construction of major dams on the Sweetwater River. Recharge of the ground water aquifer at the project site is limited by the available rainfall. The project site makes no significant contribution to existing ground water resources. Thus, project implementation would not be expected to have significant impacts.

Mitigation

No mitigation is required.

DRAINAGE

Impact

Existing on-site facilities and proposed finished floor elevations for the proposed apartment buildings are adequate to mitigate to a level of insignificance any potential impacts associated with drainage. Existing drainage facilities on-site are adequate to handle the anticipated increase in runoff rates and the concomitant peak flow. Grading proposed as a part of the project is such that all the actual buildings will be raised above the 100-year flood elevation.

Mitigation

No further mitigation is required.

LANDFORM/AESTHETICS

Impact

The proposed project will retain the predominant visual features of the site. A majority of the mature eucalyptus

grove on the western slope will be retained. Proposed landscaping will screen views of the project while retaining long-distance views from existing residences. No significant landform modification is proposed

Mitigation

None required beyond Precise Plan approval.

AIR QUALITY

Impact

Because the proposed project site is located immediately adjacent to I-805, there is a potential for carbon monoxide levels to be higher on-site than in other areas of Chula Vista. However, the highest levels of carbon monoxide anticipated under worst case conditions are not considered significant.

Implementation of the proposed project will incrementally contribute to air pollution in the regional air basin; however, the proposed project's impact on the regional level of air pollutants will not be significant. The proposed project will not violate San Diego's Regional Air Quality Strategy.

Mitigation

No mitigation is required to reduce on-site carbon monoxide levels.

The project as proposed includes tactics designated in San Diego's Regional Air Quality Strategy to reduce mobile source emissions, including traffic flow improvements and access to public transit.

MOBILE NOISE SOURCES

Impact

Noise impacts associated with development of the proposed site including on-site recreation activities, mechanical equipment and project related traffic are not significant. Areas adjacent to the proposed project will not experience significant noise increases due to adequate project design, the topographic relief of the site and distances to the nearest receptors.

Adjacent uses and first phase residents of the development will experience temporary increases in noise levels due to construction activities.

Significant cumulative noise impacts from off-site mobile noise sources to areas of the proposed project adjacent to I-805 and "E" Street would be reduced to below a level of significance by mitigation measures proposed as part of the project.

Mitigation

Project design and construction techniques and materials delineated in the Acoustic Analysis Report (Appendix B), designed to reduce interior noise levels in all units to below 45 dB CNEL and reduce exterior noise levels in designated outdoor recreation areas to below 65 dB CNEL, shall be required by the City and implemented. The project applicant initiated the acoustic analysis and supports this mitigation measure.

No mitigation of site-specific noise sources (i.e., mechanical equipment and outdoor recreational activities) beyond those measures identified as part of the project is required.

Construction activities shall be limited to daylight hours, approximately 0700 - 1900 hours. All construction related traffic shall be instructed to use "E" Street at Flower Street as access to the site.

LAND USES/GENERAL PLAN ELEMENTS/ZONING

Impact

The proposed project is inconsistent with both the City's General Plan land use designations and zoning regulations and will require a General Plan Amendment and a rezone. The precise plan proposes approximately 21 dwelling units per acre while the current land use designation allows a maximum of 12 units per acre and current zoning allows a maximum of 13 units per acre on-site.

The proposed project does not appear to be incompatible with surrounding land uses. The proposed apartment complex is a higher density project than current land use designations and zoning allows; however, under the maximum densities currently allowed, attached multiple family dwelling units could be developed on-site. The proposed project will create no significant effects that would be incompatible with adjacent single family residential areas.

Mitigation

The project requires no mitigation measures to assure compatibility.

COMMUNITY SOCIAL FACTORS

Impact

As proposed, the project will include special financial mechanisms to allow a percentage of the 376 apartment units to be used for moderate income housing. This action is in conformance with the City of Chula Vista Housing Element. The proposed project location is suitable for moderate income housing due to access to major transportation corridors, public transit, shopping and schools.

Impacts associated with the provision of moderate income units are the same as those discussed in relation to the development of medium-high density apartments. In summary, no significant effects are anticipated.

Mitigation

No mitigation is required.

SCHOOLS

Impact

Implementation of the proposed project will affect the Chula Vista City School District and the Sweetwater Union High School District. The nearest elementary school to the proposed project site, Rosebank Elementary School, is currently operating at near capacity. The Sweetwater Union High School District is considered overcrowded, although not all schools within the District are operating over capacity levels.

Mitigation

The project applicant has agreed to mitigation measures to reduce the impact of the project on school facilities. The developer will submit fees as required by the Chula Vista City School District and has posted a bond as security with the Sweetwater Union High School District. Both school

districts have indicated that no further mitigation measures are required.

TRANSPORTATION/ACCESS

Impact

Adverse traffic impacts at the intersection of "E" Street/Bonita Road and Flower Street are identified. Modification and signalization of this intersection may be required to reduce this impact to below a level of significance.

Project traffic will incrementally contribute to existing safety conditions on vicinity streets.

Project traffic will incrementally contribute to significant cumulative impacts previously identified for the I-805 at Bonita Road interchange.

Mitigation

Mitigation measures delineated by the traffic study completed for the project should be implemented per City of Chula Vista Engineering Department specifications. These include:

- o Modification and signalization of the "E" Street/ Bonita Road/Flower Street intersection when warranted.
- o Use of ground cover landscaping north of the driveway access to buildings 1 and 2 of Phase I (Figure 3).

Other mitigation measures include:

- o Provide adequate setbacks and low-profile landscaping between Bonita Road and building 21 to assure adequate sight distance.
- o Provide dual left turn lanes at the Bonita Road/I-805 northbound freeway ramp.

PALEONTOLOGY

Impact

The field survey found no evidence of paleontological resources. The lack of paleontological resources dictates

that no resource impact will result during development of the site.

Mitigation

No mitigation is required.

2.0 PROJECT DESCRIPTION

2.1 Location

The proposed project site is located in the south, coastal area of San Diego County in the City of Chula Vista (Figure 1). The site is bounded on the north by Interstate 805, on the south by "E" Street/Bonita Road and is bisected by Flower Street (Figure 2). It may be located by Assessor's parcel number 570-020-40 and 41, lots 57 and 58 of Morgan-Gardner subdivision map number 8989.

2.2 Project Characteristics

The proposed Morgan and Gardner apartment complex would provide 376 apartment units with concomitant parking and recreational facilities within a 5 year build-out time-frame (Figure 3). The project is to be developed in two phases. Phase I, 9.04 acres located west of Flower Street, will consist of 176 dwelling units: 64 two bedroom units, 88 one bedroom units and 24 studio units. Parking will be provided on-site for 248 vehicles and 25 spaces are available adjacent to Flower Street.

Phase II development will occur on the 8.56 acre parcel located between Flower Street and Interstate 805. Phase II consists of 200 dwelling units: 72 two bedroom units, 104 one bedroom units and 24 studio units. On-site parking for the 200 unit Phase II consists of 270 spaces. An additional 28 spaces are available adjacent to Flower Street off-site (i.e., parallel parking on Flower Street).

The project will consist of 19 garden-type apartment buildings housing 8-24 dwelling units each. All residential units are two-story and 15 of the buildings will utilize basement level parking "tucked" under one side of the building (Figure 4). Each phase incorporates a 2,848 square foot recreation building in conjunction with other recreation amenities (e.g., play areas and pool).

Visual features of the project include a contemporary Mediterranean building style with white stucco walls and dark resawn wood trim (Figure 4). Spanish tile, San Valle Teja Grande/sloping roofs which will screen roof equipment will be utilized. Extensive landscaping throughout the site is proposed. Existing vegetation on the north and western slope areas of the site is to be supplemented with additional plantings of trees and shrubs compatible with the existing eucalyptus trees.

Discretionary actions necessary to implement the proposed project include: 1) General Plan Amendment from existing

medium density (maximum 12 dwelling units per gross acre) to high density (13-26 dwelling units per gross acre); 2) rezoning of the property from R-3-P-13 to R-3-P-23 (to allow a maximum of 23 dwelling units per net acre); 3) precise plan approval; 4) tentative subdivision map which will be filed to subdivide air space for future sale of individual units as condominiums.

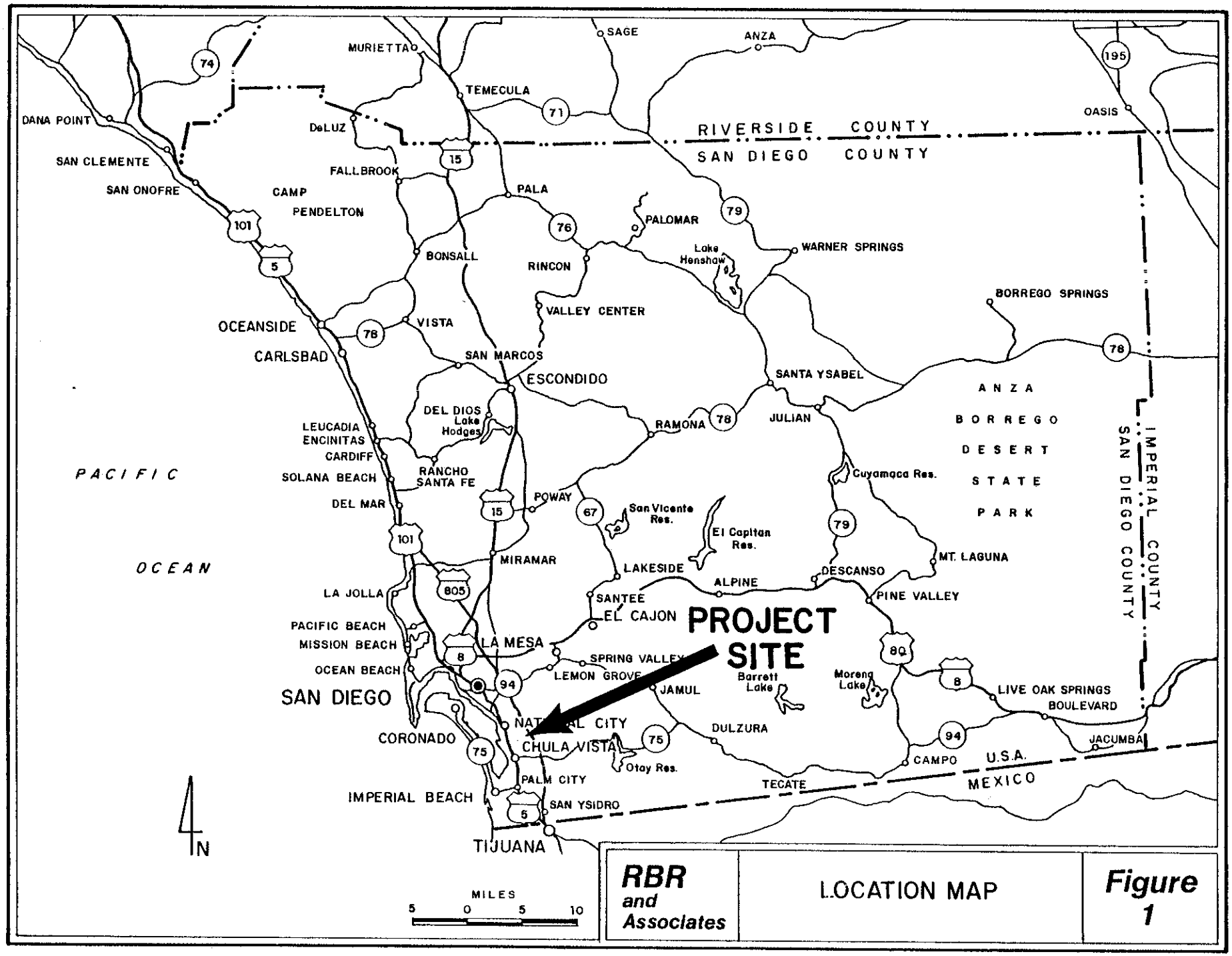
2.3 Setting

The 17.59 acre project site ranges in elevation from 110 feet above mean sea level (MSL) on western and northwestern portions of the site to about 35 feet above MSL on eastern portions of the site (Figure 5). Most of the site has previously been graded and is relatively flat. Maximum natural slope of the site is about 30% on western portions of the site; manufactured slopes of 2:1 and 1.5:1 exist in the northwest corner of the site and directly adjacent to "E" Street.

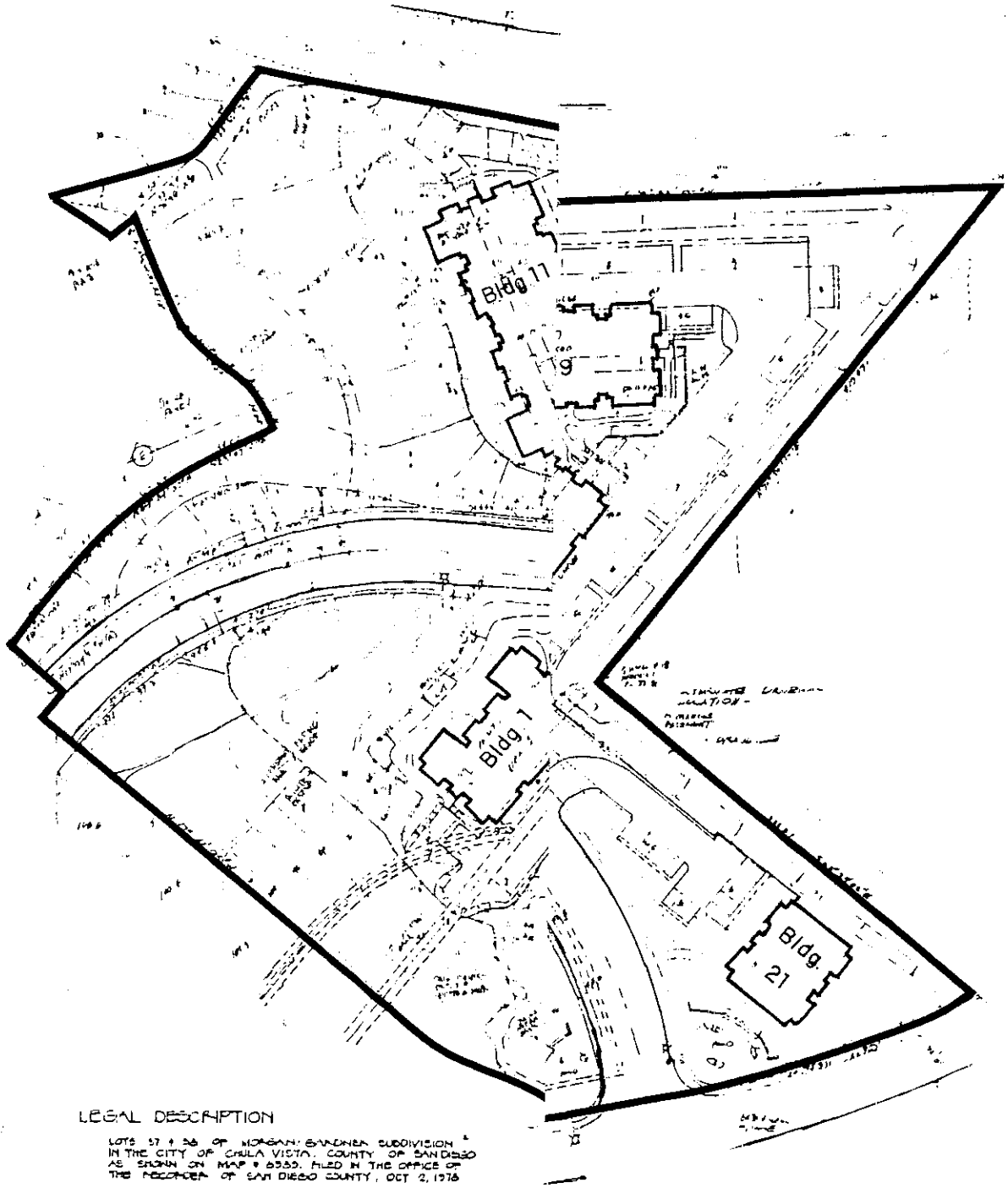
Soils on most of the site (below 50 feet above MSL) are characterized by alluvium consisting for the most part of silts, clayey sands and clays. Total depth of the alluvium is estimated at 12 to 30 feet. Areas above 50 feet MSL are comprised of marine terrace deposits. The San Diego Formation of Pliocene age is the dominant underlying geologic unit on the site.

Natural vegetation on-site is limited to western ungraded portions of the site. A dense grove of eucalyptus trees exists on the steeper areas of the site. Planted eucalyptus trees are interspersed on manufactured slopes located adjacent to Flower Street and on northwestern portions of the site.

The site is currently vacant with uses limited to passive open space functions (e.g., psychological relief), natural functions (i.e., air shed, watershed, limited wildlife habitat) and limited unauthorized recreational uses.


SAGE
ANZA
MURIETTA
TEMECULA
OASIS
DANA POINT
DeLUZ
RIVERSIDE COUNTY
SAN DIEGO COUNTY
SAN CLEMENTE
FALLBROOK
SAN ONOFRE
CAMP PENDELTON
PALA
PALOMAR
WARNER SPRINGS
Lake Henshaw
BONSALL
RINCON
BORREGO SPRINGS
VALLEY CENTER
OCEANSIDE
VISTA
CARLSBAD
SAN MARCOS
ESCONDIDO
SANTA YSABEL
ANZA BORREGO DESERT STATE PARK
DEL DIOS
Lake Hodges
LEUCADIA
ENCINITAS
CARDIFF
RAMONA
JULIAN
IMPERIAL COUNTY
SAN DIEGO COUNTY
PACIFIC
SOLANA BEACH
RANCHO SANTA FE
Cuyamaca Res.
DEL MAR
POWAY
San Vicente Res.
El Capitan Res.
MIRAMAR
MT. LAGUNA
OCEAN
LAKESIDE
DESCANSO
LA JOLLA
ALPINE
PINE VALLEY
SANTEE
EL CAJON
PROJECT SITE
PACIFIC BEACH
MISSION BEACH
LA MESA
SPRING VALLEY
OCEAN BEACH
LEMON GROVE
Barrett Lake
Morena Lake
LIVE OAK SPRINGS
BOULEVARD
SAN DIEGO
JAMUL
NATIONAL CITY
DULZURA
CORONADO
CHULA VISTA
Otay Res.
JACUMBA
CAMPO
U.S.A.
PALM CITY
TECATE
MEXICO
IMPERIAL BEACH
SAN YSIDRO
TIJUANA
N
MILES
5 0 5 10
RBR and Associates
LOCATION MAP
Figure 1

RBR and Associates	VICINITY MAP	Figure 2



LEGAL DESCRIPTION

LOTS 57 & 58 OF MORGAN-GARDNER SUBDIVISION IN THE CITY OF CHULA VISTA, COUNTY OF SAN DIEGO AS SHOWN ON MAP # 8555, FILED IN THE OFFICE OF THE RECORDER OF SAN DIEGO COUNTY, OCT 2, 1978

ASSESSOR'S PARCEL NUMBER 570 020 40 & 41

OWNER

JOHN N GARDNER JR.
1991 JAMACHA RAT SUITE D
CHULA VISTA, CA 92011

JOHN D. MORGAN
642 3RD AVE SUITE 16
CHULA VISTA CA 92011

GROSS AREA 12.933

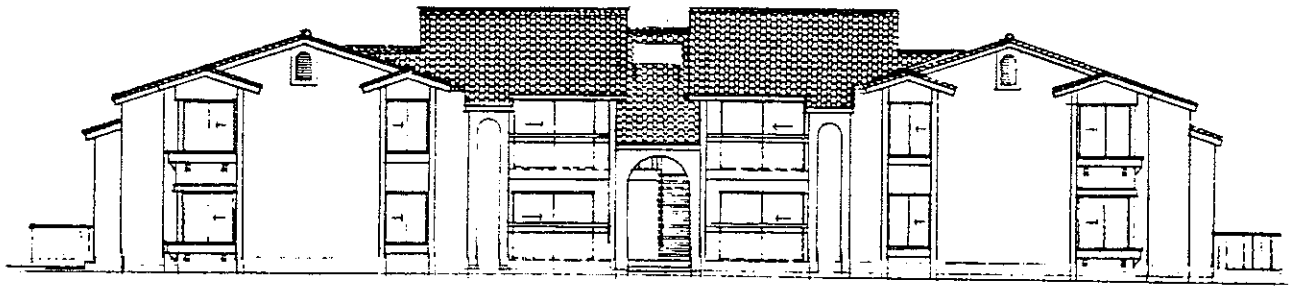
EXISTING ZONE R-3 P-19

PROPOSED ZONE R-3 P-19

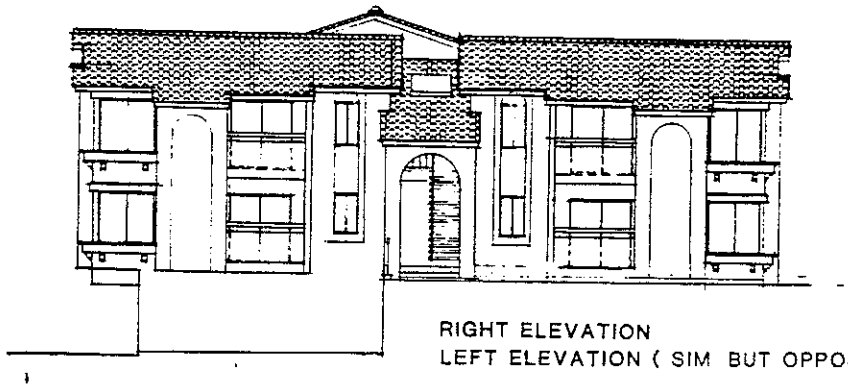
LOT AREA LOT 57 3.938 ACRES
LOT 58 8.955 ACRES

LAN

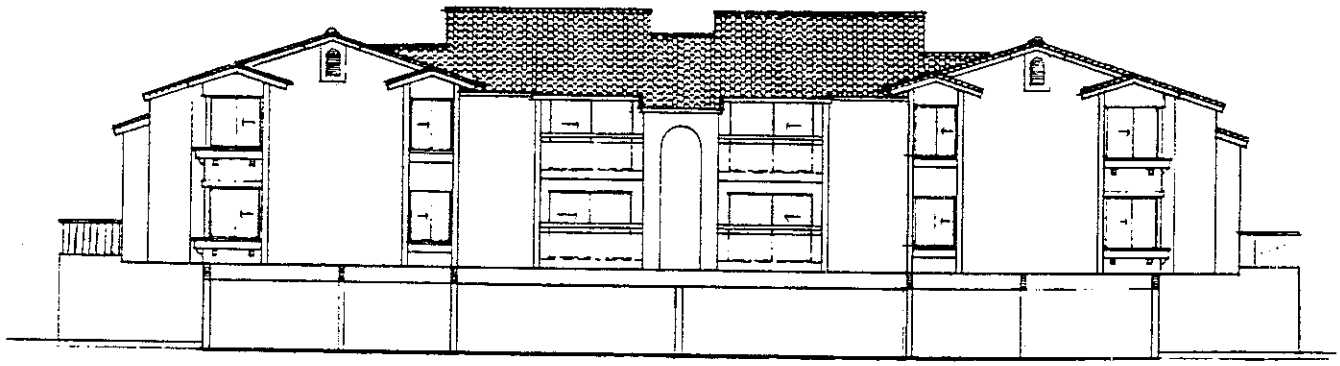
Figure 3



FRONT LONGITUDINAL ELEVATION

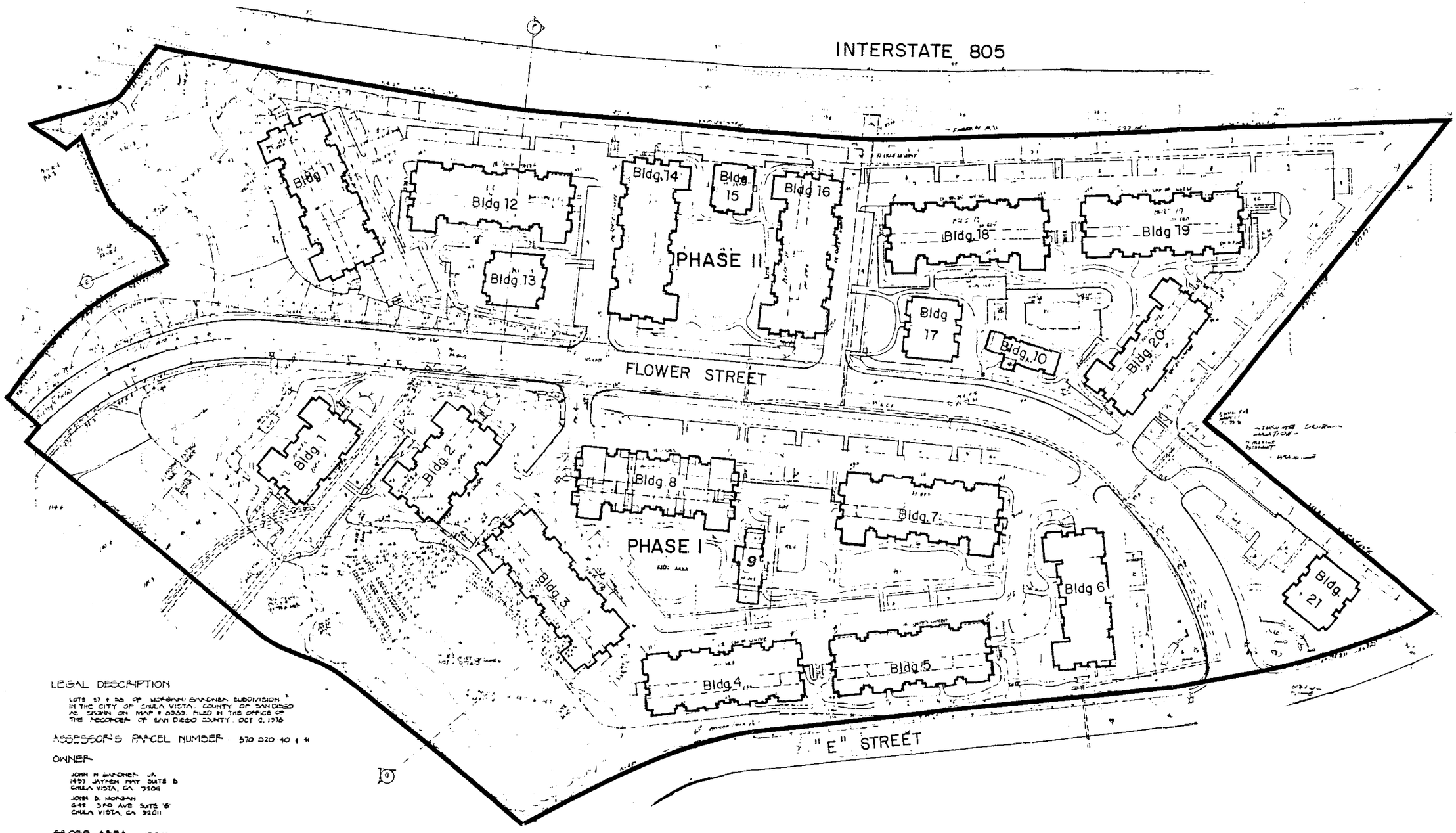


RIGHT ELEVATION
LEFT ELEVATION (SIM BUT OPPOSITE)



REAR LONGITUDINAL ELEVATION

RBR and Associates	TYPICAL ELEVATIONS	Figure 4



LEGAL DESCRIPTION

LOTS 57 & 58 OF MORGAN-GARDNER SUBDIVISION IN THE CITY OF CHULA VISTA, COUNTY OF SAN DIEGO AS SHOWN ON MAP # 8353 FILED IN THE OFFICE OF THE RECORDER OF SAN DIEGO COUNTY, OCT 2, 1978

ASSESSOR'S PARCEL NUMBER: 570 020 40 & 41

OWNER

JOHN M GARDNER JR
1493 JAYNEN WAY SUITE B
CHULA VISTA, CA 92011

JOHN B. MORGAN
648 3RD AVE SUITE 16
CHULA VISTA CA 92011

GROSS AREA 17.933

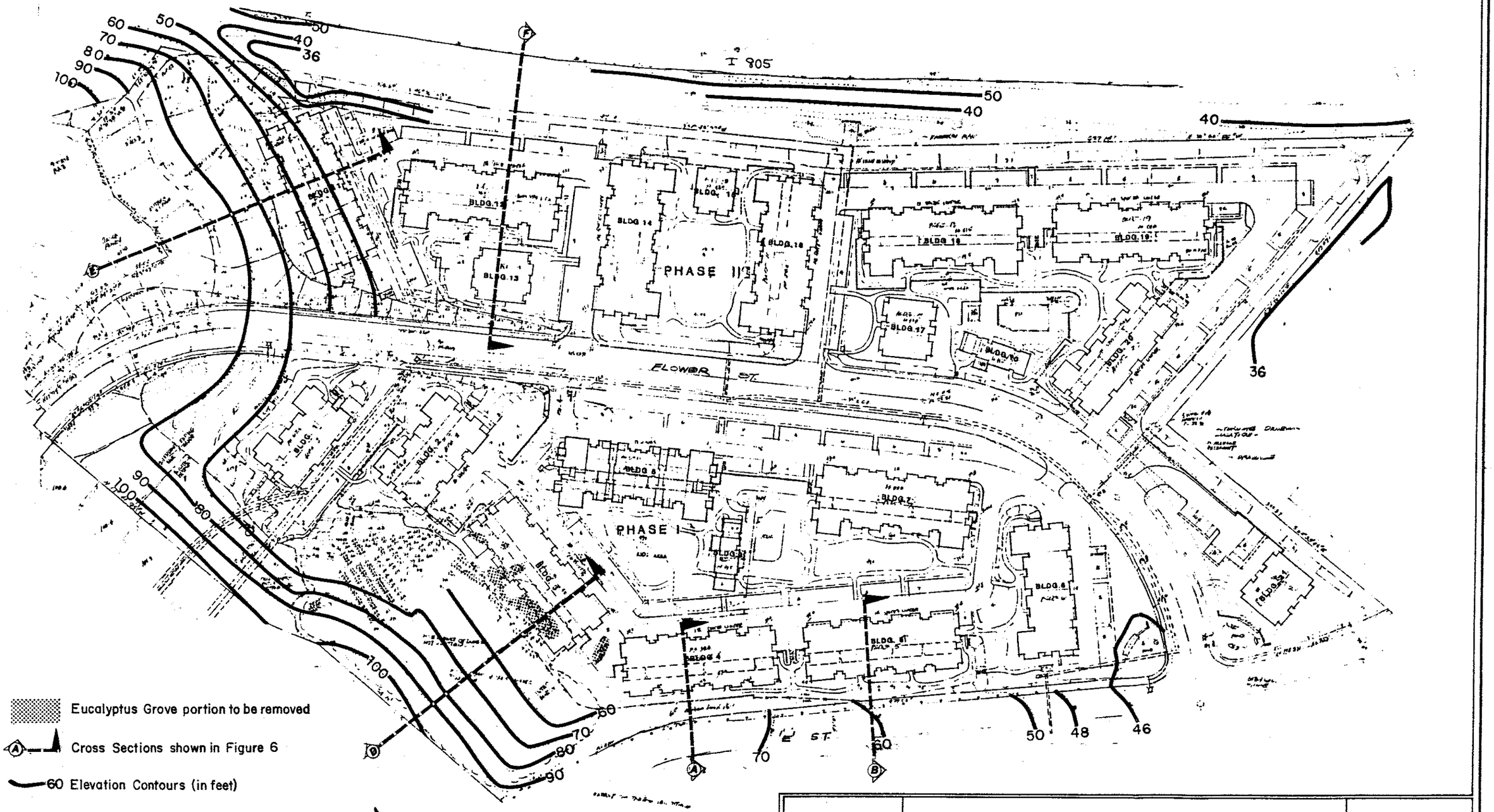
EXISTING ZONE R-3 P-13

PROPOSED ZONE R-3 P-13

LOT AREA LOT 57 9.098 ACRES
LOT 58 8.835 ACRES

1"=110'

RBR and Associates	SITE PLAN	Figure 3



RBR and Associates

PHYSICAL FEATURES

Figure 5

3.0 IMPACT ANALYSIS

3.1 GROUND WATER

3.1.1 Project Setting

The Morgan & Gardner Apartment Complex site is situated on recent terrace materials of the Sweetwater River. Ground water in the immediate region is limited to alluvial basins such as that formed by the Sweetwater River Valley (Mayo, 1977). The Sweetwater River itself flows immediately adjacent to the site (northeast of the freeway). The river extends for approximately 50 miles (river miles) above the apartment complex site, to the northern end of the Laguna Mountains. The reach of the river, however, is broken by both Loveland Reservoir (23 miles above the site) and the Sweetwater Reservoir (5 miles above the site). Both of these impoundments serve to lower the ground water levels in the lower parts of the basin (near the subject property) and lower the water quality of the remaining aquifer by raising the TDS (Total Dissolved Solids).

Ground water in the Sweetwater Basin, like ground water throughout the San Diego coastal region, is characterized by a high level of TDS. This is due to modification of the river by dams and other factors including the release of salts (connate brines) from the marine sediments into which the alluvium filled valley is incised (Willets, 1967). Ground water quality is generally considered to be fair to poor. Saltwater intrusion into the lower parts of the basin from San Diego Bay may be a significant consideration (Mayo, 1977). Chlorides in the lower part of the basin have been measured at levels of 1200 ppm.

Geological investigations on the subject property (Inter-City Soils, 1977) and on adjacent properties (Giles Engineering Associates, Inc. 1982) have found no free ground water within approximately 12 feet of the surface of the site. One boring reached the water table at 12 feet. Recharge of this aquifer is equivalent to approximately 10 percent of the precipitation at any given location (Mayo, 1977). The average rainfall for the apartment complex site is approximately 10 inches per year (San Diego, County of, n.d.), therefore approximately one inch of recharge is theoretically possible. Potential evapotransportation (use of water by plants) at coastal sites, however, is in excess of the annual rainfall. Under natural conditions, therefore, the apartment complex site would make little or no contribution to the ground water in the Sweetwater Basin aquifer.

3.1.2 Impact

In that no significant contribution to the existing ground water is made by the site at this time, implementation of the proposed project will have no significant effect.

3.1.3 Mitigation

Absent a significant effect no mitigation is required.

3.1.4 Analysis of Significance

The Morgan & Gardner Apartment Complex site is located in the lower portion of the Sweetwater Basin. Ground water conditions in this area are fair to poor at this time and recharge has been significantly and adversely affected by the construction of major dams on the river. Recharge of the ground water aquifer at the project site is limited by the available rainfall and the potential use of the available precipitation by natural vegetation. It is anticipated that the project site makes no significant contribution to the existing ground water resources. No significant effect is, therefore, anticipated with project implementation.

3.2 DRAINAGE

3.2.1 Project Setting

The proposed apartment complex is located on an ancient river terrace of the Sweetwater River. The eastern portion of the site is within the 100-year project flood elevation but drainage in the immediate vicinity has been altered significantly by the construction of Interstate 805 and other developments. The 100-year flood elevation is taken as 42.5 feet (MSL) at the project location (City of Chula Vista, 1983).

Three existing drainage structures presently handle runoff from the site. Flow is generally to the east into the Sweetwater River. An existing 42-inch pipe drains the northeastern portion of the site, a 21-inch pipe drains the eastern area and a 24-inch pipe is located in Flower Street.

3.2.2 Impact

The most notable effect of urbanization is the alteration of the runoff rates during rainstorms. The runoff coefficient (proportion of rainfall not absorbed into the ground) for agricultural areas is on the order of 0.05 to 0.20; the runoff coefficient for multi-family residential areas is 0.50 to 0.75 (Chow, 1964). This marked increase is due to the increase in impervious surfaces such as roofs, driveways, and sidewalks.

In addition to the increase in runoff rate that is associated with all urban level development, the proposed apartment complex is located within the 100-year floodplain of the Sweetwater River. Portions of Flower Street will flood during a 100-year flood. The crown of Flower Street, at the location of the 42-inch pipe draining the northeast portion of the site is at elevation 40.45 feet, approximately two feet lower than the predicted 100-year flood elevation. A 100-year flood crest will back up the 42-inch pipe and inundate Flower Street approximately 100 feet to the northwest and 250 feet to the southeast, respectively, of the inlet. This flooding would restrict access to Buildings 10 and 17 through 21 located east of Flower Street.

3.2.3 Mitigation

Existing drainage facilities on-site are adequate to handle the anticipated increase in runoff rates and the concomitant peak flow (Engineering Department, City of Chula Vista, 1983).

Grading proposed as a part of the apartment complex project is such that all the actual buildings will be raised above the 100-year flood elevation (42.5 feet). The lowest proposed finished living area floor elevation is 43.5 feet with the majority of the buildings having a finished living area floor elevation of 52 feet or higher. The lowest storage level finished floor elevation at parking level is 42.73 feet.

3.2.4 Analysis of Significance

Existing on-site facilities and proposed finished floor elevations for the proposed apartment buildings are adequate to mitigate to a level of insignificance any potential impacts associated with drainage.

3.3 LANDFORM/AESTHETICS

3.3.1 Project Setting

The proposed project site ranges in elevation from approximately 117 feet above mean sea level (MSL) at the top of the manufactured slope located at the extreme northwest corner of the site to about 35 feet above MSL on northeast portions of the site adjacent to I-805 (Figure 5). Most of the site (approximately 13 acres) is relatively flat with natural slopes of about 2%. Natural slopes of about 10% - 30% occur on western portions of the site and manufactured slopes of 50% (2:1 ratio of horizontal/vertical) exist on northern areas on-site. Natural slopes on western portions of the site are the only areas which have not been previously graded (City of Chula Vista, 1977).

Other graded slopes occur on-site along "E" Street at a 1.5:1.0 cut ratio which results in a 20-30 foot vertical separation of "E" Street from south and southwestern portions of the site. Interstate 805 is elevated on 2:1 fill slopes approximately 10-15 feet above adjacent areas of the site along the eastern border.

The predominant visual features of the site are the natural and manufactured slopes and a dense grove of mature eucalyptus trees about 1.2 acres in size located along the western boundary of the site. This natural vegetation is supplemented by planted sugar gum eucalyptus trees approximately 10-20 feet in height on large manufactured slopes on northern portions of the site and adjacent to sections of Flower Street and "E" Street. Most of the site (i.e., previously graded areas of less than 5% slope) is devoid of vegetation.

The Scenic Highway Element of the City of Chula Vista General Plan designates "E" Street adjacent to the site as a scenic highway. Due to the close proximity of the site to the current eastern city limits of Chula Vista, the area along "E" Street is considered the "eastern gateway" to the City. As such, special attention to design, bulk, setbacks, landscaping and signage is required adjacent to this roadway.

3.3.2 Impact

The development of 376 apartment type dwelling units and appurtenant parking areas, driveways, open space areas and landscaping will change the character of the site from vacant to medium/high density residential uses.

Implementation of the proposed project will require the removal of 30-50 eucalyptus trees from the western grove, approximately 70% of which are mature trees over six inches in diameter (Figure 5). The conceptual landscape plan for the

site indicates substantial landscaping with ground cover, shrubs and trees on all portions of the site. Planting of additional trees on northern and western slopes is proposed to screen views of the site from adjacent single family residences while retaining the long distance views from existing single family residences. Intensive plantings adjacent to I-805 are proposed to screen the view of the freeway from on-site. A minimum 30 foot landscaped setback adjacent to "E" Street is proposed. It appears that the amount and diversity of vegetation on-site will increase if conceptual landscaping plans are implemented.

No significant landform modification is proposed. Natural slopes on the western portion of the site will be substantially retained. Approximately 13.8 acres of previously graded area will be regraded and filled with about 54,000 cubic yards of fill. Approximately 16,500 cubic yards of cut material will be excavated on-site primarily from manufactured slopes on northern portions of the site and approximately 37,500 cubic yards of fill will be imported. Maximum depth of cut will be 14± feet with an average cut depth of 3± feet. Fill will be at a maximum 9± feet and average about 4 feet (refer to Figure 6 for typical cross sections).

The project is described as garden type apartments with basement level "tucked under" parking in addition to on and off-site surface parking. All structures will be contemporary Mediterranean style with white stucco, trowel texture finish walls, Spanish tile roofs and dark resawn wood trim (Figure 4). On-site recreational facilities (i.e., pools and club houses) are proposed and approximately 3.5 acres will be retained as natural open space. Roof equipment will be screened from view by the San Valle Teja Grande sloping roofs. Trash enclosures are to be screened by walls.

The project appears to contain design features which are compatible with the Scenic Highway Element of the General Plan. These design features include:

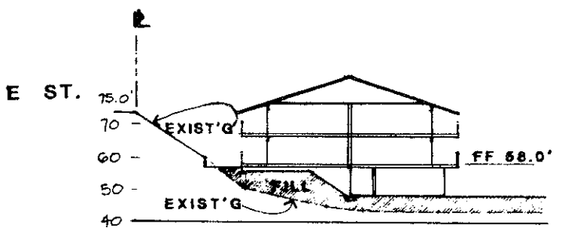
1) Appropriate architectural design
2) Minimum 30 foot setback adjacent to "E" Street
3) Intensive landscaping throughout the project and adjacent to "E" Street
4) Height of structures restricted to 2 stories
5) Limited sign area restricted to monument style with compatible materials

3.3.3 Mitigation

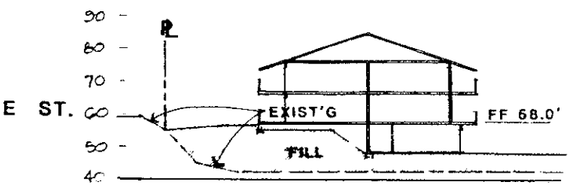
Implementation of design features proposed per Precise Plan conditions of approval will adequately mitigate potential visual impacts associated with landform alteration, removal of vegetation and conformance with Scenic Highway Element standards to below a level of significance.

3.3.4 Analysis of Significance

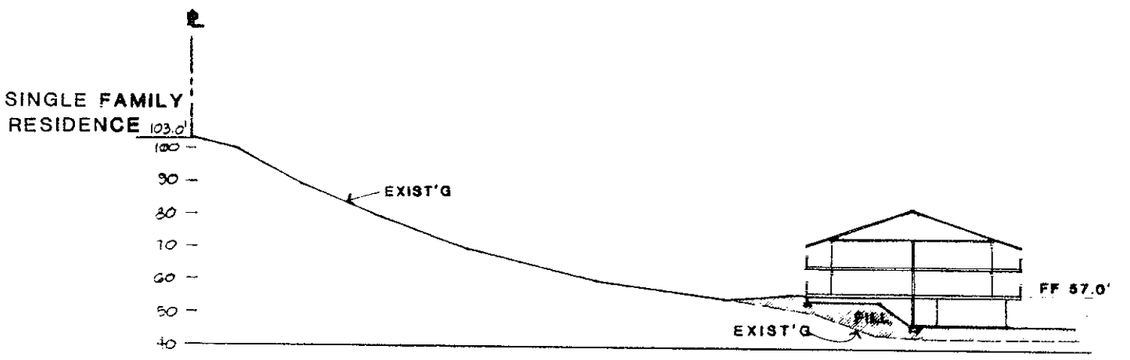
Assuming the project is implemented as proposed, no significant landform or aesthetic impacts will occur.



SECTION A-A



SECTION B-B



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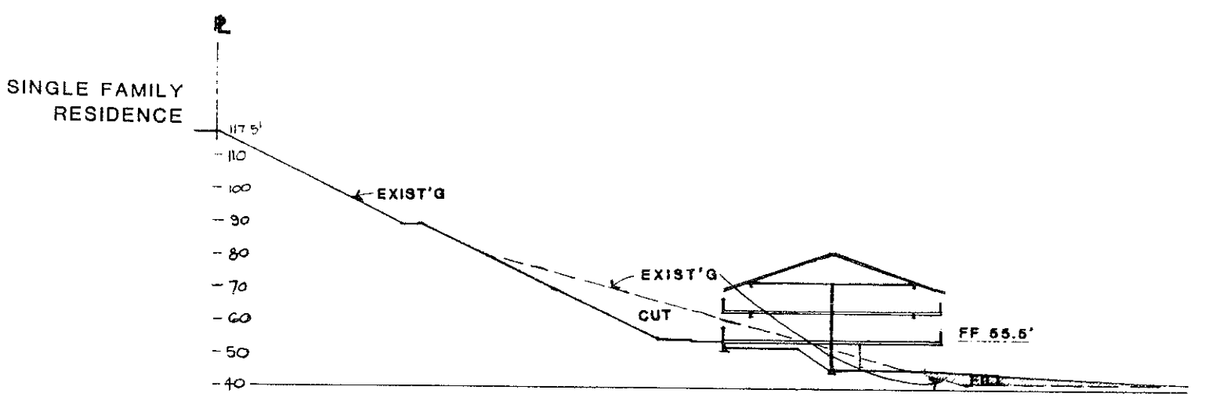
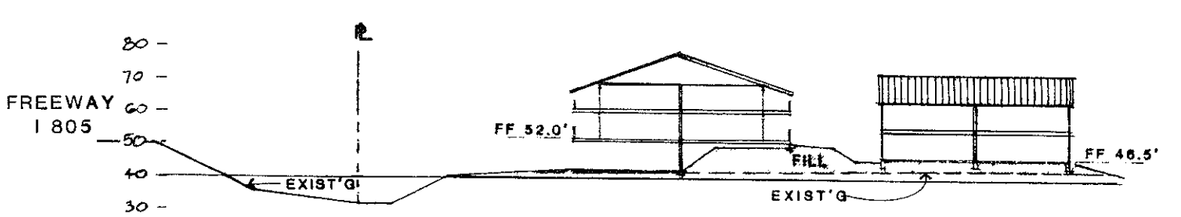


SECTION E-E



SECTION F-F

1"= Approximately 45'

RBR *and Associates*	TYPICAL CROSS SECTION	*Figure 6*

3.4 AIR QUALITY

3.4.1 Project Setting

Local meteorological conditions are summarized in the following discussion; for more detailed information regarding meteorological conditions typically found in the Chula Vista area refer to the EastLake Final EIR, herein incorporated by reference (Chula Vista, 1982: Volume 1, pp. 110-129 and Volume 3, Appendix B). The proposed project site is located approximately five miles east of the Pacific Ocean and less than four miles from San Diego Bay. The proposed project site and the Chula Vista area in general experience the same mild, Mediterranean-type climate found throughout the coastal-influenced portions of Southern California, which is characterized by mild, moist winters and warm, dry summers.

Local wind patterns play a major role in determining air quality conditions. Daytime winds generally are from a westerly direction, averaging 6-8 mph; during the early morning and evening hours, light (2-4 mph) westerly-flowing land breezes are typical. Calms are common at night and transitional periods after dusk and before dawn, particularly in the summer. Thus, quality of the air during the day is usually a function of the incoming air (and associated pollutants) carried eastward from the ocean and Chula Vista area, while nighttime air quality is more a function of local emission patterns within the proposed project area and the degree of air stagnation.

Atmospheric inversions also play a major role in air quality conditions. Recent meteorological data recorded at Kearny Mesa, approximately 15 miles to the north, provide typical inversion characteristics for the region. Approximately 70 percent of winter nights in the area have radiation-type inversions capable of creating localized pollution stagnation and about 75 percent of warm-weather days in the San Diego area experience marine-subsidence inversions capable of creating unhealthful air quality conditions.

The proposed project is located within the San Diego Air Basin. The San Diego region is an "Attainment Area" for sulfur dioxide (SO_2) and nitrogen dioxide (NO_2); that is to say, the air is always as clean or cleaner than the federal standards for these pollutants demand. The San Diego Air Pollution Control District (APCD) has recently requested that the Environmental Protection Agency (EPA) redesignate the San Diego region as an "Attainment Area" for carbon monoxide. The San Diego Air Basin still exceeds standards for total suspended particulates and ozone. State and federal standards are summarized in Table 1.

Table 1

AMBIENT AIR QUALITY STANDARDS
APPLICABLE IN CALIFORNIA

Pollutant	Averaging Time	California Standards	Federal Standards	
		Concentration	Primary	Secondary
Photochemical Oxidants (Measured as Ozone)	1 Hour	0.10 ppm (200 µg/m³)	---	---
Ozone	1 Hour	---	240 µg/m³ (0.12 ppm)	Same as Primary Standard
Carbon Monoxide	12 Hours	10 ppm (11 mg/m³)	---	Same as Primary Standard
	8 Hours	---	10 mg/m³ (9 ppm)	
	1 Hour	40 ppm (46 mg/m³)	40 mg/m³ (35 ppm)	
Nitrogen Dioxide	Annual Average	---	100 µg/m³ (0.05 ppm)	Same as Primary Standard
	1 Hour	0.25 ppm (470 µg/m³)	---	---
Sulfur Dioxide	Annual Average	---	80 µg/m³ (0.03 ppm)	---
	24 Hours	.05 ppm (131 µg/m³) in comb. w/ .10 ppm Ox or 100 µg/m³ TSP	365 µg/m³ (0.14 ppm)	---
	3 Hours	---	---	1300 µg/m³ (0.5 ppm)
	1 Hour	0.5 ppm (1310 µg/m³)	---	---
Suspended Particulate Matter	Annual Geometric Mean	60 µg/m³	75 µg/m³	60 µg/m³
	24 Hours	100 µg/m³	260 µg/m³	150 µg/m³
Sulfates	24 Hours	25 µg/m³	---	---
Lead (Particulate)	Calendar Quarter	---	1.5 µg/m³	Same as Primary Standard
	30-Day Average	1.5 µg/m³	---	---
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	---	---
Hydrocarbons (Corrected for Methane)	3 Hours (6-9 a.m.)	---	160 µg/m³ (0.24 ppm)	Same as Primary Standard
Vinyl Chloride (Chloroethene)	24 Hours	0.010 ppm (26 µg/m³)	---	---
Ethylene	8 Hours	0.1 ppm	---	---
	1 Hour	0.5 ppm	---	---
Visibility-Reducing Particles	1 Observation	In sufficient amount to reduce the prevailing visibility to 10 miles when the relative humidity is less than 70%.	---	---

ppm - Parts per million
pptm - Parts per ten million
pphm - Parts per hundred million; e.g., 10 pptm = 1 ppm = 100 pphm.

Source: San Diego Air Pollution Control District, 1980.

The San Diego APCD has air quality monitoring stations located around the county. The closest station to the proposed project site is in Chula Vista, approximately 1½ miles to the south. Table 2 and Table 3 show a three year summary of the ambient air quality conditions at this station and the number of days on which levels of air pollutants exceeded the standards at this station from 1977-1980. It should be noted that conditions at the proposed project site may differ slightly from those at the APCD monitoring station.

The 1982 revised Regional Air Quality Strategy (RAQS) consists of a number of tactics designed to show attainment of the federal air quality standards by 1987, or as soon thereafter as possible, and maintain these standards through the year 2000 (SANDAG, 1982). The 1982 RAQS Update is based upon the housing, population and employment projections contained in SANDAG's Series V Regional Growth Forecasts which, in turn, are based on local land use policies, population forecasts, employment trends and a number of other factors (SANDAG, 1981). If the RAQS is to succeed, the rate and magnitude of growth anticipated as a result of future development must be consistent with the demographic projections upon which the RAQS was based. In addition, proposed development projects should include appropriate tactics from the RAQS to reduce the levels of air pollutants generated.

3.4.2 Impact

This section will focus primarily on two issues: 1) the potential for the adverse concentration of carbon monoxide, or "hot-spots" within the project site area due to its location near a major transportation corridor, and 2) the local and basin-wide effects of the generation of air pollutants by the proposed 376-unit project.

An issue of concern related to air quality is the potential for periodic build-up of significant concentrations of carbon monoxide within the proposed project site due to its location. As shown in Figure 2, the site is located adjacent to I-805 to the northeast and "E" Street to the south. At this location, I-805 is an eight-lane highway and "E" Street is a four-lane major arterial. Both I-805 and "E" Street are elevated above the site adjacent to northern and southern portions. The greatest potential for carbon monoxide build-up to occur on-site exists during the morning peak-hour, particularly during the winter months, when light westerly-flowing land breezes are typical (Engler, 1983).

The potential for carbon monoxide build-up on-site was analyzed using CALINE 3, an air quality model for predicting carbon monoxide concentrations near a roadway. CALINE 3 was developed by the California Department of Transportation

Table 2

Summary of Air Quality Data:
Days Exceeding Standards for
Selected Pollutants at Chula Vista Station

	1978	1979	1980
OZONE (Days exceeding federal 1 hr. standard 12 pphm)	7	6	6
HYDROCARBONS (Days exceeding federal 3 hr. (6-9a.m.) standard 2.4 pptm)	232	177	168
CARBON MONOXIDE (Days exceeding federal 1 hr. avg. 35 ppm)	0	0	0
TOTAL SUSPENDED PARTICULATES (Days exceeding federal secondary standard % samples J150 ug/m³)	0	0	0

Source: San Diego APCD, 1980 and 1979.

Table 3

Summary of Air Quality Data:
Highest Recorded Concentrations of Air Pollutants
At Chula Vista Station

POLLUTANT	AVERAGING PERIOD	UNITS	1978	1979	1980
Photochemical Smog (Ozone)	1 hour	pphm	20	22	16
Hydrocarbons	1 hour	pptm	20	26	22
Carbon Monoxide	1 hour	ppm	8	11	8
Total Suspended Particulates	24 hour	ug/m³	97	102	194
Nitrogen Dioxide[a]	1 hour	pphm	23	17	17
Sulfur Dioxide[b]	1 hour	pphm	7	9	13

[a] 1979 and 1980 data corrected to be consistent with EPA calibration method; correction factor = 0.88

[b] No monitoring: May 2 - June 4, 1980.

Source: San Diego APCD, 1980 and 1979.

(CALTRANS) and was modified by the California Air Resources Board (ARB) in order to include it in the ARB's Air Quality Analysis Tools (ARB, 1983). The model results indicate carbon monoxide concentrations on-site could be greater than ambient levels elsewhere in the vicinity; however, even under worst case conditions, projected levels of carbon monoxide would be much lower than the maximum levels set by state and federal standards. The highest indicated level of carbon monoxide on-site during the morning peak hour was approximately 24 parts per million (ppm); the maximum established by the federal standards for a one-hour average is 35 ppm and the maximum established by state standards for a one-hour average is 40 ppm (refer to Table 1 and Appendix A). It should be noted that this analysis assumed all worst case conditions: an ambient concentration of 11 ppm, the highest level recorded in Chula Vista (1978-1980), and the minimum wind speed allowed by the model (i.e., 1 meter/second) from the east. Future peak hour volume on I-805 adjacent to the site was estimated to be 12,800 (Chase and Young, 1983).

Impacts on regional air quality normally occur primarily from four sources: 1) off-site generation of power utilized by the project; 2) on-site combustion for space and water heating; 3) increased localized vehicular activity; 4) construction activity. The City of Chula Vista found in the Initial Study prepared for the proposed project that no significant effects will occur from off-site or on-site stationary sources. Construction activities are considered short-term and not a significant source of emissions (Appendix E).

Regional and basin-wide impacts due to mobile source emissions can be analyzed in relation to the Regional Air Quality Strategy (RAQS). Although the proposed project is not consistent with the General Plan and, therefore, is inconsistent with the demographic assumptions upon which the RAQS is based, the City of Chula Vista indicated in the Initial Study for this project that the project will not violate the RAQS. Analysis during preparation of this report concurs with the City's analysis.

Estimated mobile source emissions related to the proposed 376-unit project are summarized in Table 4. For the purpose of comparison, a summary of estimated mobile source emissions related to a hypothetical development at General Plan densities is also shown in Table 4. These estimates were derived using URBEMIS #1, a computer program designed by the California Air Resources Board (ARB) to estimate the emissions which result from various land use projects.

Mobile source emissions generated by the proposed development are not considered significant but will incrementally contribute to regional air pollutant levels.

Table 4

Summary of Emissions Related to the Proposed 376-Unit Apartment Complex and to Development at General Plan Densities

POLLUTANT	376 UNITS	211 UNITS
Carbon Monoxide	148 tons/year	83 tons/year
Hydrocarbons	16 tons/year	9 tons/year
Nitrogen Oxides	7 tons/year	4 tons/year

[1]Base year = 1990
Trips per dwelling unit = 8
Miles per trip = 5.83
(Federhart, 1983).

3.4.3 Mitigation

No mitigation is required to reduce the potential for CO build-up on-site.

Mitigation of the proposed project's incremental contribution of air pollutants to the regional air basin can be accomplished by incorporating feasible RAQS tactics to reduce mobile source emissions; these are contained in the Analysis of Transportation Tactics/1982 RAQS Update (SANDAG, 1982).

The RAQS identifies the following four tactics as the most effective, efficient and acceptable of the transportation tactics: Traffic Flow Improvements (Tactic-5), Ridesharing (T-1), Bicycling (T-3) and Transit (T-2). The project applicant proposes to improve the "E" Street/Bonita Road and Flower Street intersection as part of this project (T-5). This is designed to improve traffic flow in the area; reducing traffic congestion allows more efficient engine operation and decreases idling times and, therefore, reduces emissions of hydrocarbons and carbon monoxide.

The project site is well served by public transit at the present time (T-2). Chula Vista Transit Route 705 travels along Bonita Road, Bonita Mesa Road, Sweetwater Road, Otay Lakes Road, etc., east of I-805, then comes under I-805 at Bonita Road and travels "E" Street westerly to Fifth Avenue, then south to "H" Street, then west with most of the other transit routes to the "H" Street MTDB San Diego Trolley station. The intersection of Flower Street and Bonita Road "E" Street is a logical and important future bus stop for Route 705 when the project's units and others in the area are

occupied. At the present time, Route 705 operates Monday through Saturday, with one hour inbound and outbound headways between the hours of 6 A.M. and 7 P.M. (Federhart 1983:5).

Other RAQS tactics (ridesharing, bicycle lanes, alternate transportation measures) are beyond the scope of this project. They are the responsibility of local governments, transit companies and employees.

3.4.4 Analysis of Significance

No significant air quality impacts have been identified associated with development of the site.

No significant carbon monoxide concentrations are expected to occur on-site. Although higher than ambient levels of CO may occur on-site under the worst case conditions, the projected levels are still well below the maximum concentrations established by state and federal standards.

3.5 MOBILE NOISE SOURCES

3.5.1 Project Setting

Noise, defined as unwanted or excessive sound, is generally recognized as a form of environmental degradation. Urban and rural noise is a composite of undesirable sound created by transportation, industrial and miscellaneous sources. The most far reaching noise source in society today stems from transportation operations, with highway vehicular noise clearly the most pervasive transportation noise source.

The effects of noise on humans and their activities are varied. Several characteristics of human response to noise can be summarized in three general categories:

1. Subjective effects of annoyance, nuisance and dissatisfaction.

2. Interference with activities such as speech, sleep and learning.

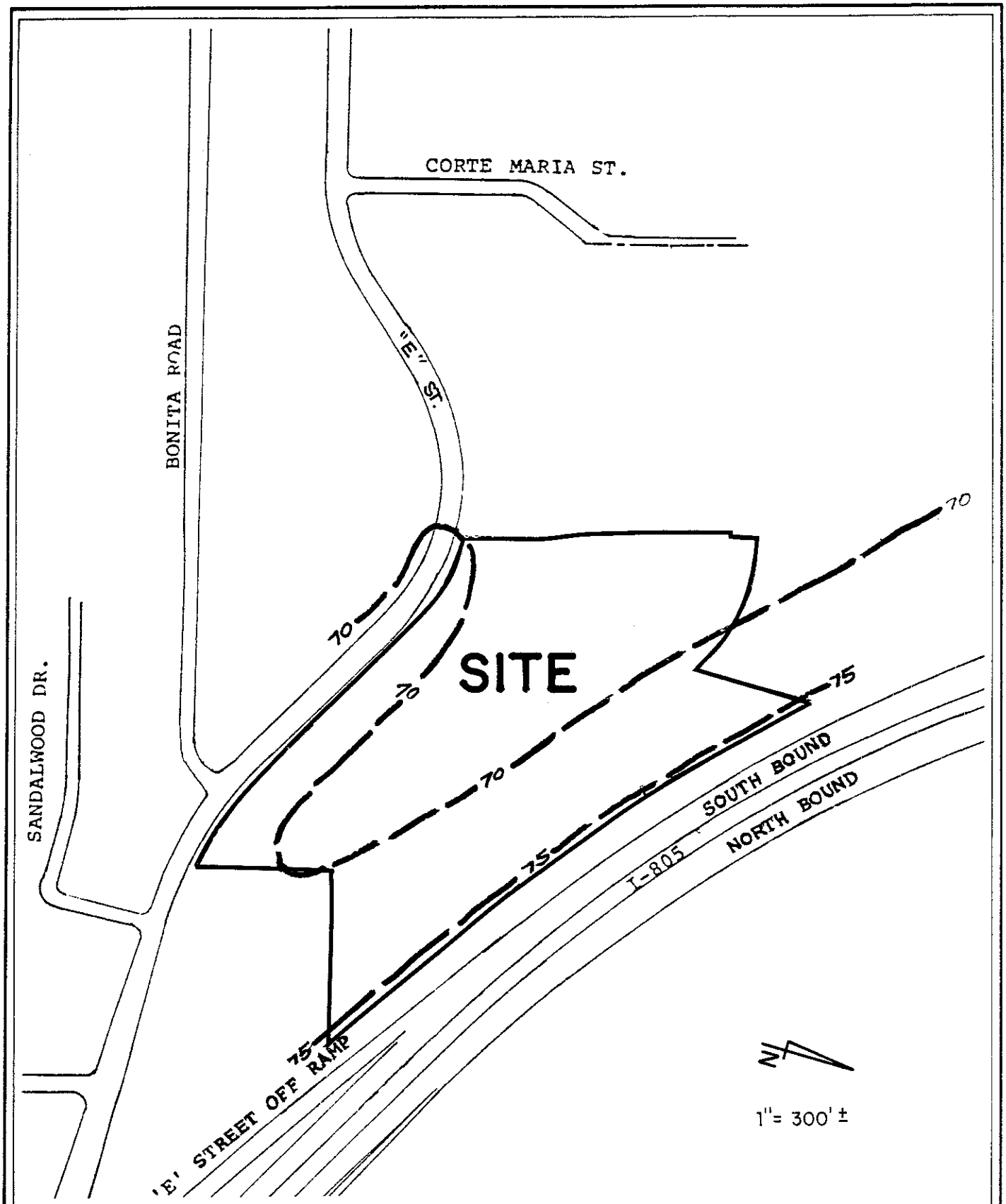
3. Physiological effects such as startle and hearing loss.

The sound levels associated with traffic noise, in most cases, produce effects only in the first two categories. There is, however, no completely satisfactory measure of subjective effects of noise or the corresponding reactions of annoyance or dissatisfaction. Since individuals respond differently to the same sound, a noise that is annoying to one person may not be annoying to another.

Existing noise levels on-site have been adequately documented in the previous environmental impact report prepared for the site (City of Chula Vista, 1977). That report is hereby incorporated by reference and is available for review at the City of Chula Vista Planning Department. A summary of existing noise levels (as calculated in the previous EIR) is shown in Figure 7. Table 5 is included to indicate relative loudness compared to common noise levels.

Existing noise levels on the majority of the site may be described as noisy (Table 5). An acoustic analysis report prepared by Sound Transmission Control, Inc. (Appendix B) identifies Interstate 805 and "E" Street as primary sources of on-site noise.

The City of Chula Vista has identified transportation noise as a form of environmental degradation in the Noise Element of the General Plan. A general criteria of 65 dBA (CNEL) has been established as the maximum noise level compatible with



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ESTIMATED PRESENT NOISE CONTOURS
(SOUND LEVEL CONTOURS IN DECIBELS-CNEL)
Source: Inter City Engineers

Figure 7

Table 5

SOUND PRESSURE LEVELS OF COMMON SOUNDS AND NOISES

Sound Quality	Decibels	Sound Source
Threshold of Feeling Pain	120	Rocket engine Ram jet Turbojet: 7,000 pounds thrust
Deafening	110	Propeller aircraft Boiler factor Nearby riveter, Drop hammer, Thunder
	100	Subway
Very Loud	90	Loud street noises Noise factory, Pneumatic drill
Loud	80	Police whistle Portable sander
Noisy	70	Normal radio Noisy office Average traffic
	60	Noisy home
Moderate	50	Average office Ordinary conversation Quiet radio
Quiet	40	Quiet home Private office
Faint	30	Average auditorium
	20	Quiet conversation
Very Faint	10	Rustle of leaves Whisper
Threshold of Audibility	0	Soundproof room

Source: Medical and Legal Consequences of Noise Pollution, AMF Beaird, Inc., May 1970.

exterior residential land uses. Table 6 represents typical land use compatibility criteria for various noise levels.

In addition, Section 1092, Title 25 of the California Administrative Code requires new multiple family dwellings constructed within a noise exposure of 60 dB(A) CNEL or greater to be designed such that interior noise levels do not exceed 45 dB(A) CNEL with windows closed. If exterior noise levels cannot be reduced to acceptable levels, specific design and construction techniques must be utilized to assure the 45 dB(A) CNEL interior standard is met.

3.5.2 Impact

Noise impacts associated with the proposed project fall into three general categories:

a) Significant cumulative noise impacts adjacent to Interstate 805 and "E" Street.

b) On-site impacts from proposed land uses.

c) Short term impacts from construction activities.

Residential uses adjacent to Interstate 805 and "E" Street will experience significant noise impacts (Figure 8). The acoustic analysis report prepared for the proposed project concludes that those dwelling units in buildings 3, 4, 5, 6, 11, 12, 14, 15, 16, 18, 19 and 21 (Figure 3) will be located in Community Noise Equivalent Level (CNEL) areas greater than 65 decibels (dB) (Figure 8). The cumulative effect or impact of transportation noise on-site is significant.

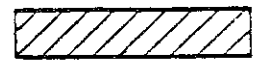
Cumulative noise impacts will be reduced by design features proposed as part of the project and delineated in the acoustic analysis report (Appendix B). Proposed design features include:

> "exterior walls which are 7/8-inch stucco over 15-pound felt and plywood shear panels on 2 x 4 studs, 16 inches on centers, 1/2-inch dry-wall interior. Partywall construction conforms to the City of Chula Vista Building Inspection Department Details for Sound Transmission Class Performance of equal to or greater than 50 decibels.
>
> Mechanical Ventilation will be required for all of those units within buildings referenced above, which overlook either the Freeway or "E" Street. This is required since those windows must be closeable in order to achieve the 45 decibel Interior Community Noise Equivalent Level required under the California Administrative Code Noise Insulation

Table 6

LAND USE COMPATIBILITY WITH ANNUAL COMMUNITY NOISE EQUIVALENT LEVELS

	Land Use	Annual Community Noise Equivalent Level in Decibels 50	55	60	65	70	75
1	Outdoor Amphitheaters (may not be suitable for certain types of music.						
2	Schools, Libraries						
3	Nature Preserves, Wildlife Preserves						
4	Residential-Single Family, Multiple Family, Mobile Homes, Transient Housing						
5	Retirement Home, Intermediate Care Facilities, Convalescent Homes						
6	Hospitals						
7	Parks, Playgrounds						
8	Office Buildings, Business and Professional						
9	Auditoriums, Concert Halls, Indoor Arenas, Churches						
10	Riding Stables, Water Recreation Facilities						
11	Outdoor Spectator Sports, Golf Courses						
12	Livestock Farming, Animal Breeding						
13	Commercial-Retail, Shopping Centers, Restaurants, Movie Theaters						
14	Commercial-Wholesale, Industrial Manufacturing, Utilities						
15	Agriculture (except Livestock), Extractive Industry, Farming						
16	Cemeteries						



COMPATIBLE
The average noise level is such that indoor and outdoor activities associated with the land use may be carried out with essentially no interference from noise.

INCOMPATIBLE
The average noise level is so severe that construction costs to make the indoor environment acceptable for performance of activities would probably be prohibitive. The outdoor environment would be intolerable for outdoor activities associated with the land use.

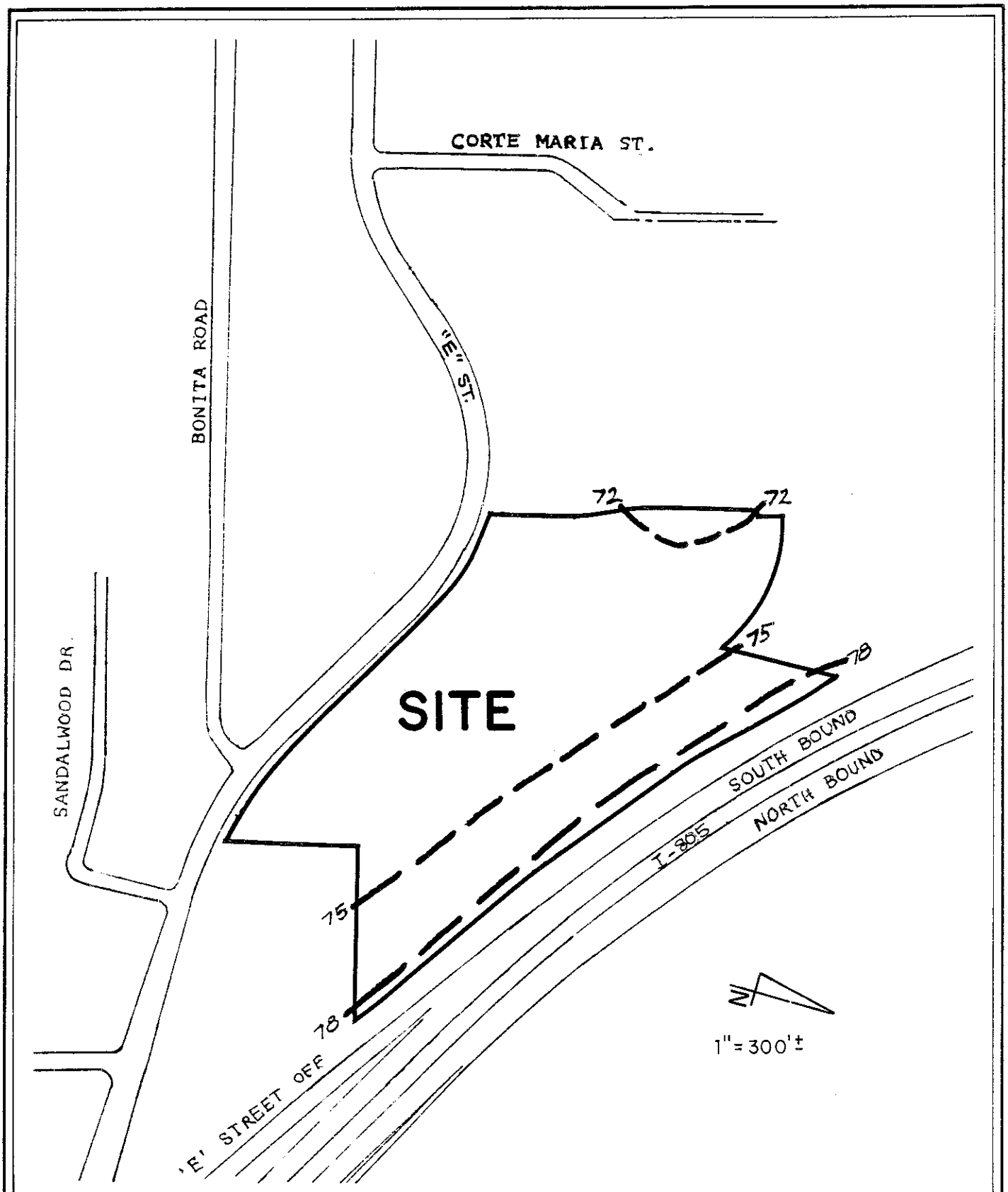
Standards. Special construction details, in addition to the Balcony Constructions which are enclosed with the acoustic report, will be noted on the Final Building Inspection Plans. They will include but not be limited to, 1/4-inch Laminated Glazing and 3/16-inch Plate Glass for Sliding Glass Doors overlooking the freeway. Residences adjacent to "E" Street will not require special glazings. Balconies located on the buildings facing Interstate 805 will conform to the building construction detail enclosed in the acoustic analysis report.

Due to the varying topography and the existence of a deep depression between some buildings and Interstate 805, exterior noise walls do not appear to be a practical alternative for reducing exterior noise levels on portions of the property in direct line of site of the Freeway. However, the 'kid's area' and other exterior recreational areas are shielded sufficiently by buildings 3, 4, 5, 6, 19, 18, 16, 15, 14, and 12 and by a 9 foot solid wall between units 14, 15 and 16 to reduce exterior noise levels within designated recreation areas of the project to less than 65 decibels, CNEL."

Because buildings proposed as a portion of phase 2 (Figure 3) of development are necessary to reduce exterior noise exposures on other portions of the site to acceptable levels, there is the potential for short-term noise impacts if phase 2 of the project is not constructed within an expeditious time-frame. Until phase 2 is constructed, phase 1 areas adjacent to buildings numbered 1, 2, 7, 8 and 9 will experience exterior noise exposures between 65dB-70dB. Interior noise levels within these phase 1 buildings may not meet the Title 25, 45 dB CNEL criteria if standard construction techniques are utilized.

Noise impacts associated with development of the project site include increased on-site noise to levels associated with medium-high density residential uses. On-site noise sources such as outdoor recreational activities, project related traffic and mechanical building equipment (e.g., air conditioning/heating units) will generally be masked by off-site transportation noise sources. The project design (i.e., shielded outdoor recreation areas and screened roof equipment) will reduce noise from these sources. Areas off-site will not experience significant noise increases due to project design, the topographic relief of the site and distance from the source (e.g., the closest existing residence is approximately 150 feet from a project building).

Short-term noise impacts will occur during the construction phases of the project. Adjacent uses and first phase residents of the development will experience temporary increases



RBR and Associates

ESTIMATED 1990 NOISE CONTOURS
(SOUND LEVEL CONTOURS IN DECIBELS-CNEL)
Source: Inter City Engineers

Figure 8

in noise levels due to construction activities. A representative sample of noise levels generated by various types of mechanical equipment normally associated with construction activities is presented in Table 7. A noise receptor located 200 feet from the 50 foot monitoring point referenced in Table 7 could anticipate a noise level attenuation of about 12 decibels due to distance.

Table 7

CONSTRUCTION EQUIPMENT NOISE LEVELS[1]

(Measured At a Distance of 50 Feet)

Equipment	Typical Noise Level (dBA)
Dump truck	88
Portable air compressors	81
Concrete Mixer (truck)	85
Jackhammer	88
Scraper	88
Bulldozer	87
Paver	89
Generator	76
Pile driver	101
Rock drill	98
Pump	76
Pneumatic tools	85
Backhoe	85
Heavy truck	86
Automobile	70

[1] Handbook of Noise Assessment, Daryl N. May, Ed., 1978.

3.5.3. Mitigation

Project design and construction techniques and materials delineated in the Acoustic Analysis Report (Appendix B), designed to reduce interior noise levels in all units to below 45 dB CNEL and reduce exterior noise levels in designated outdoor recreation areas to below 65 dB CNEL, shall be required by the City and implemented. The project applicant initiated the acoustic analysis and supports this mitigation measure. If a substantial delay in the construction of phase 2 is anticipated, further acoustical analysis of phase 1 buildings and exterior recreation areas will be necessary.

No mitigation of site-specific noise sources (i.e., mechanical equipment and outdoor recreational activities) beyond those measures identified as part of the project is required.

Construction activities shall be limited to daylight hours, approximately 0700 - 1900 hours. All construction related traffic shall be instructed to use "E" Street at Flower Street as access to the site.

3.5.4 Analysis of Significance

Significant cumulative noise impacts to areas of the proposed project adjacent to Interstate 805 and "E" Street would be reduced to below a level of significance by mitigation measures proposed by the project and described in the acoustic analysis prepared for the project.

Increased noise levels resulting from development of the site and increased human activity are not considered significant due to the topographic relief of the site, distance to the closest receptors and proposed design features.

Construction noise impacts are considered short term and largely unmitigable. Existing land uses within 300 feet of the proposed project will experience noisy to loud periodic noise exposures for the duration of construction activities. Future residents of phase I will later experience similar impacts when phase II is developed. Construction impacts are short term and not significant, assuming construction activities during daylight hours and no construction traffic through existing residential areas.

Noise impacts to phase 1 areas constructed prior to the development of phase 2 buildings designed to shield these areas from exterior noise exposures in excess of 65 dB CNEL are considered short-term and not significant if the proposed 3-5 year build-out time-frame is adhered to. Delay of construction of phase 2 could result in significant noise impacts to buildings 1, 2, 7 and 8 and exterior recreation areas.

3.6 LAND USES/GENERAL PLAN ELEMENTS/ZONING

3.6.1 Project Setting

The two major land use issues of concern related to the proposed project are: 1) consistency with the City's General Plan land use designations; and, 2) land use compatibility of the proposed project with adjacent single family residential areas.

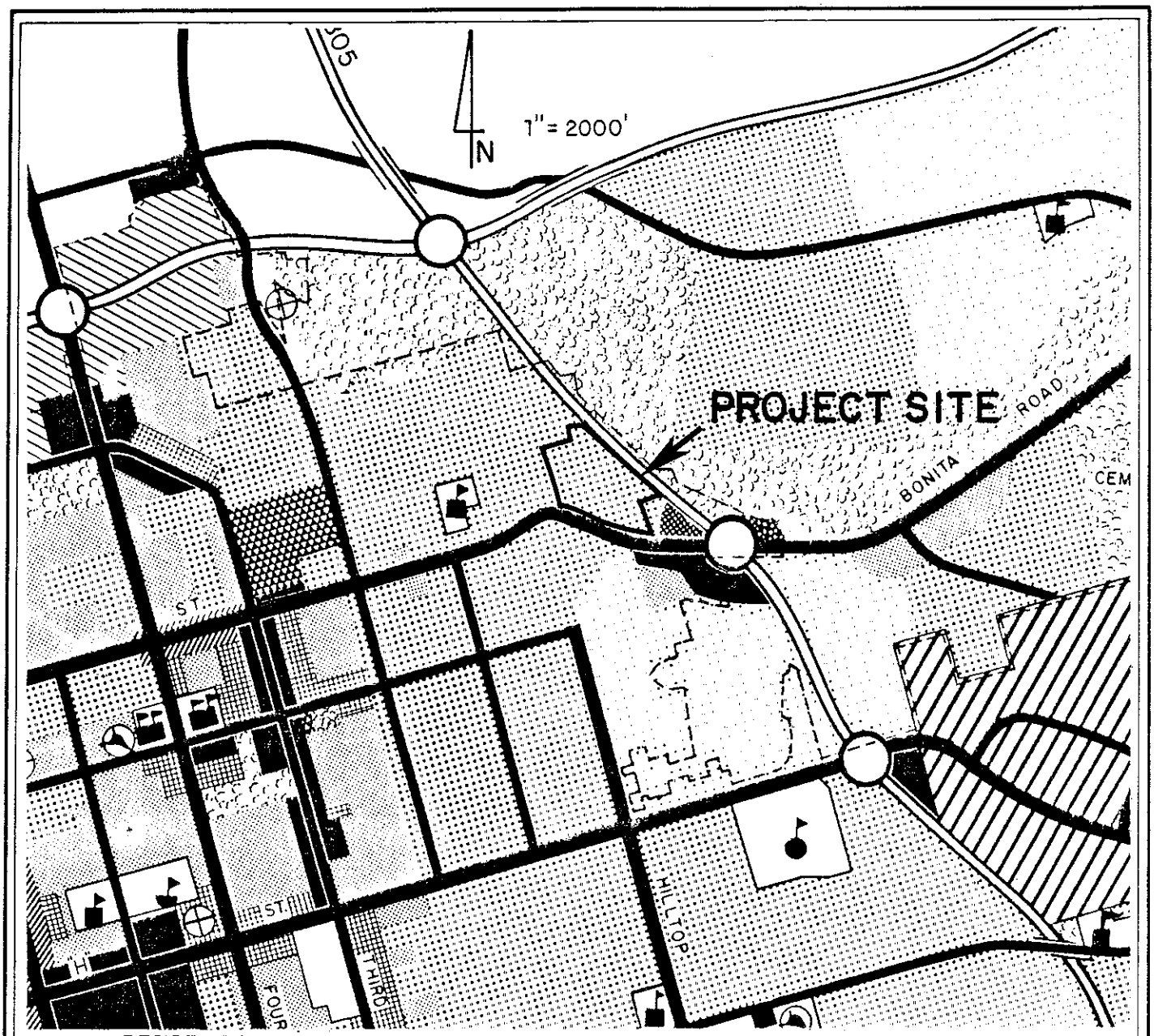
The site of the proposed project is an irregularly-shaped parcel of approximately 17.6 net acres (19.5 gross acres) located in the north-central portion of the City of Chula Vista (Figure 2). The site was formerly occupied by a single family residence and a pistol range. These structures have been removed from the site. The property is generally bisected by Flower Street which runs in a northwesterly-southeasterly direction.

The General Plan of the City of Chula Vista designates the proposed project site for residential development or use at medium densities of 4-12 dwelling units per gross acre (Figure 9). Current General Plan designations would allow a maximum of approximately 233 dwelling units on-site. The property lying southeast of the proposed project site in a "pocket" formed by I-805 and Bonita Road (north of Bonita Road) is designated for commercial/visitor uses. The property south of Bonita Road and east of I-805 is designated for commercial/retail uses; an area just west of that is designated for residential use at low densities (i.e., 1-3 dwelling units per acre). The areas bordering the proposed project site on the southwest, west and northwest are designated for medium density residential use (Figure 9).

The zoning on-site and in the vicinity generally conforms to the General Plan land use designations. The majority of the proposed project site is zoned R-3-P-13 although a small portion in the northeast corner is zoned R-1 (Figure 10). The R-3 zone is an Apartment Residential Zone. (Chapter 19.28, City of Chula Vista, 1978). Its purpose is:

> to provide appropriate locations where apartment house neighborhoods of varying degrees of density may be established, maintained and protected. The regulations of this district are designed to promote and encourage an intensively developed residential environment, with appropriate environmental amenities such as open areas, landscaping and off-street parking.

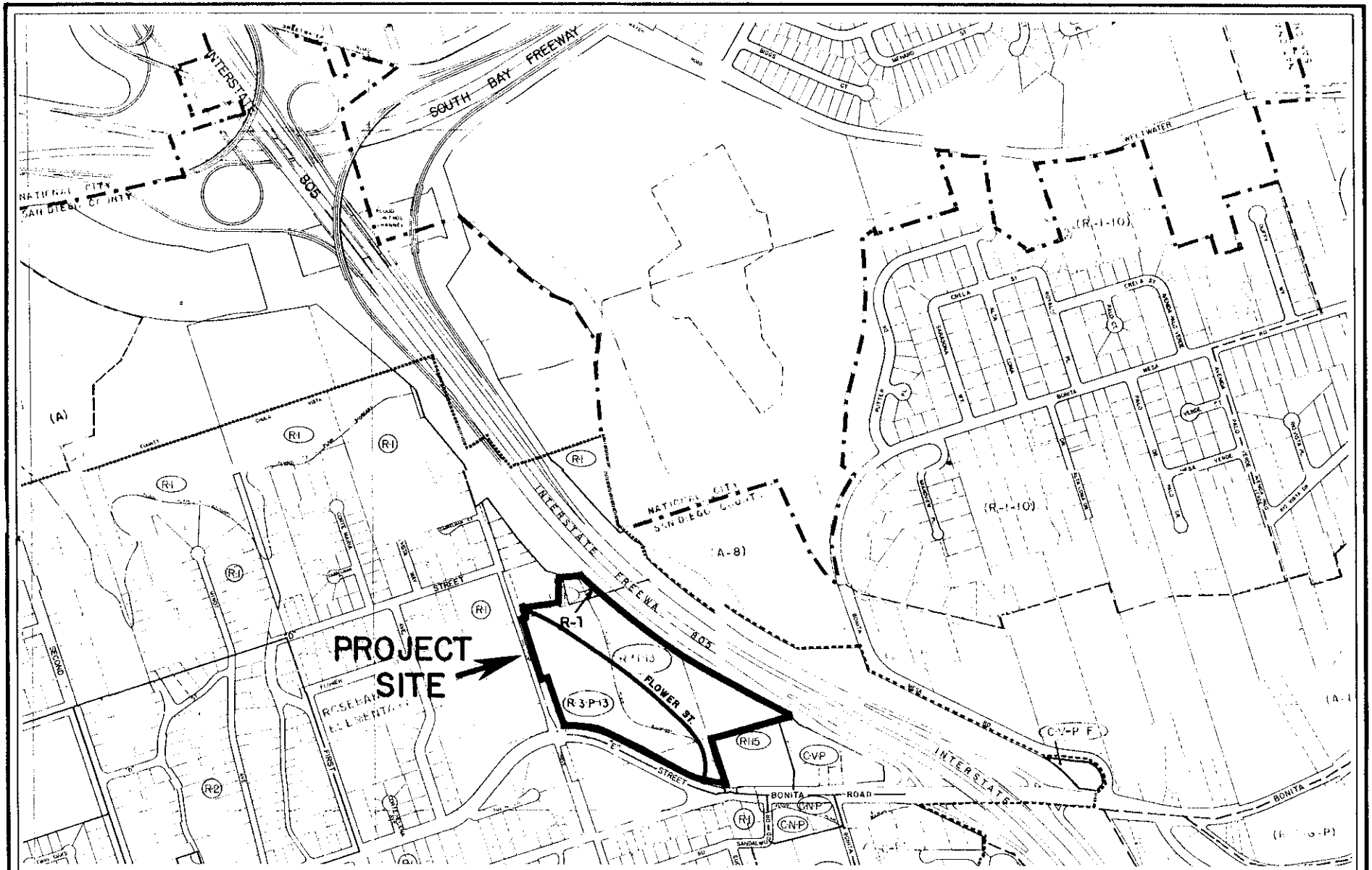
This zoning regulation allows up to 13 dwelling units per net acre or a maximum of approximately 228 units on-site. A variety of zoning regulations are applied to surrounding



RBR and Associates

GENERAL PLAN

Figure 9



RBR and Associates	ZONING MAP	Figure 10

properties. The property upon which the adjacent church is located is zoned R-1-15; east of that, the "pocket" between Bonita Road and I-805 is zoned C-V-P (i.e., Visitor Commercial, with a requirement for precise plan approval as part of the design review process). The areas to the south, west and northwest of the proposed project site are zoned R-1 (Single family residential, 1 unit per lot, minimum lot size of 7,000 square feet).

The site is surrounded by a variety of land uses. Interstate 805 is directly adjacent to the property on the north and northeast. A church and parking areas are situated to the southeast. Bonita Road ("E" Street), a four lane major arterial, forms the southern boundary of the property. Single family residences are the most prominent land use in the immediate vicinity. Single family residential areas are located south, west and northwest of the proposed project site. Directly south and west of the Flower Street/"E" Street intersection is a vacant parcel.

3.6.2 Impact

The proposed project is a 376-unit apartment complex consisting of nineteen apartment buildings (four 2-story buildings on grade and fifteen 2-story buildings above basement parking "tucker under" one side) and two recreation/laundry buildings (refer to Project Description, Section 2.0).

The proposed project is inconsistent with both the City's General Plan land use designations and zoning regulations and will require a General Plan Amendment and a rezone. The precise plan (Figure 5) proposes approximately 21 dwelling units per acre; the General Plan currently allows a maximum of 12 dwelling units per gross acre and the current zoning allows a maximum of 13 dwelling units per net acre.

It should be noted that although the proposed project is higher density than allowed under current General Plan land use designations and zoning regulations, current allowable densities would allow multiple family, attached dwelling units. Therefore, the change in land use is primarily one of density.

A plan or zoning change, per se, does not create environmental effects; the increase in allowable density of development manifests itself in other areas of physical effects. The major concerns related to the compatibility of the proposed project with surrounding land uses, particularly with adjacent low density, single family residential areas, appear to be the following: removal of natural vegetation, number and bulk of apartment buildings, close proximity of apartments with single family residences, increased noise and

glare from the site, and increased car activity in the vicinity.

The proposed precise plan incorporates a number of measures designed to reduce the potential for problems in these areas. As discussed in detail in Section 3.3 Landform/Aesthetics, the precise plan as proposed preserves the majority of the grove of mature eucalyptus trees at the western edge of the property. Additionally, a significant elevation difference separates existing residential areas to the west from the proposed project site (Figure 5). These two factors will screen the proposed apartment complex from the view of nearby residences, thereby contributing to the compatibility of the project.

The precise plan reserves approximately 150 feet between existing residential areas and the nearest proposed apartment building (Figure 5). This will further contribute to the compatibility of the project with nearby residential areas.

Increased on-site noise will not significantly affect adjacent uses (refer to Section 3.5, Mobile Noise Sources). Therefore, the project appears compatible with adjacent uses.

Traffic increases associated with the project will not significantly affect adjacent uses and is considered compatible.

3.6.3 Mitigation

No mitigation measures beyond implementation of the project design features is required.

It is recommended that guidelines for outdoor lighting be established and incorporated into the proposed project. Site lighting for streets, walkways, parking, and landscaped areas should be unobtrusive, shielded to reduce glare, and placed on low standards wherever possible. This will further reduce glare perceivable from the existing residential areas.

3.6.4 Analysis of Significance

Implementation of the proposed project will not create significant effects related to land use. As noted above, the proposed project is of higher density than currently allowed by General Plan land use designations and the City's zoning regulations; however, it is not a change in the type of development allowed (multiple family, attached units). Measures incorporated in the proposed project (height difference, distance from existing residential areas, peripheral vegetation and building design) will reduce negative visual impacts and impacts associated with increased levels of activity, such as noise and traffic, to below a level of significance.

3.7 COMMUNITY SOCIAL FACTORS

3.7.1 Project Setting

The Housing Element of the City of Chula Vista's General Plan (1981) identifies current and future housing needs within the Chula Vista Planning Area and provides a long-range plan and action program which are calculated to meet the area's housing needs. The Housing Element states "The current unmet housing need is characterized by households which pay more than they can reasonably afford for housing, and/or households which live in overcrowded or substandard dwelling units." (Chula Vista, 1981:5). Information on households in the City of Chula Vista which are paying more for housing than is considered affordable is summarized on Table 8.

The reader is referred to Part I of the Housing Element of the City of Chula Vista for a detailed breakdown of households in the City and Planning Area by size of family, age, ethnic composition and income.

The goals of the Housing Element include, but are not limited to, the following:

- o The provision of decent housing in well-planned neighborhoods for low, moderate, middle and upper income households.
- o The solution of the major housing and residential problems as identified in the Housing Element.
- o The encouragement of private-sector leadership in the solution of local, Planning Area, and regional housing problems.

The Housing Element further specifies a number of objectives and policy statements, along with an action program for meeting the City's goals.

3.7.2 Impact

As proposed, the project will include special financial mechanisms to allow a percentage of the 376 apartment units to be used for moderate income housing. The project applicant and the City's Community Development department have discussed the proposal; however, the number of moderate income units and financial mechanisms have not yet been finalized. It is important to note that approval by the Chula Vista City Council of the financial proposal will be required.

Analysis of the financial mechanisms and potential fiscal effects is beyond the scope of this report. The following

Table 8

1979 Estimated Household Income Composition and Overpayers by Tenure

City of Chula Vista

Income Category*	All Households	%	Overpayers** Total	Owners	Renters
Very low	3,909	13.13%	2,665	262	2,403
Low	4,195	14.09	2,038	363	1,675
Moderate	6,383	21.44	1,464	543	921
Middle/Upper	15,279	51.33	-	-	-
Total	29,766	100%	6,167	1,168	4,999

Chula Vista Planning Area

Income Category*	All Households	%	Overpayers** Total	Owners	Renters
Very low	5,412	13.57%	3,447	351	3,096
Low	5,831	14.62	2,645	487	2,158
Moderate	8,735	21.90	1,962	727	1,235
Middle/Upper	19,907	49.91	-	-	-
Total	39,885	100%	8,054	1,565	6,489

*Household income categories are based upon State definitions. The State defines very low income households as those earning less than 50 percent of the areawide median income; low income between 50 and 80 percent; moderate income between 80 and 120 percent, and; middle to upper income 120 percent or more of the areawide median. In all cases, household income is adjusted for family size. The 1979 areawide median income was estimated by SANDAG to be $17,700 for a family of four.

**Overpayers are very low, low and moderate income households which pay greater than 25 percent of household income for monthly rental or mortgage payment.

Source: 1975 Census (1975 percentages adjusted upward to account for non-responses, and applied to 1979 households).

SOURCE: City of Chula Vista, Housing Element (1981)

discussion of the possible financial arrangements is intended only to provide current information on the project's status in order to assess potential environmental effects.

The City of Chula Vista may grant tax exempt mortgage revenue bonds in order to provide moderate income housing. The federal definition of moderate income is 80% or less of median income. Federal regulations require that at least 20% of the project's total units be provided as moderate income housing in order to qualify for tax exempt bonds. Additionally, federal regulations require that all of the units in the development remain rental units for at least 10 years (Gustevson, 1983).

The City of Chula Vista may apply federal standards; however, the City has the option to apply more stringent standards. The City Council could, therefore, require a higher percentage of the project's total units to be provided as moderate income housing, or could require that the entire complex remain rental units for a longer period of time.

If the federal definition of moderate income is applied, the maximum monthly rental for a one-bedroom, moderate income unit in the proposed project would be approximately $315. Median income in the City of Chula Vista is estimated at $16,900 annually or $1408 monthly; the maximum affordable total housing expense is considered to be 30% of monthly income and $25 of that amount is estimated for utility expenses. (Gustevson, 1983).

The proposed moderate income housing conforms with the goals of the City's Housing Element. In particular, the proposal conforms with the following objectives (Chula Vista, 1981:17):

- o The integration of low and moderate income housing into the existing middle-class residential neighborhoods of the Planning Area.

- o The active encouragement of the private sector's participation of the City of Chula Vista's effort to promote the development of affordable housing.

The City's Housing Element establishes these standards for reviewing sites proposed for non-market rate housing (Chula Vista, 1981:23):

a. The site and neighborhood must be suitable for the type and density of housing proposed, and adequate public services and facilities must be available to service the development.

b. The site must be free from severe adverse environmental or social conditions, unless there is an

adopted program to remedy the undesirable conditions.

c. The housing must be reasonably accessible to employment and to appropriate social, recreational, educational, commercial and health services that are typically found in market-rate residential neighborhoods.

d. The site must promote greater housing opportunity, and must not act to unduly concentrate racial, ethnic, or economic minorities into any one area of the City.

The proposed project conforms to these standards. Although the project as proposed will increase the housing density on-site over that which is currently allowed by General Plan land use designations and zoning regulations, no significant environmental effects are anticipated (refer to Section 3.6, Land Uses). Adequate public services and facilities are available to the proposed project (refer to Appendix E, Initial Study).

No severe adverse environmental conditions exist on-site; although some units will be exposed to potentially significant cumulative noise effects due to adjacent transportation corridors, these will be mitigated to below a level of significance through the acoustical design features incorporated into the project.

The proposed project location is accessible to employment and all services typically found in market-rate residential neighborhoods. As discussed in Section 3.4, Air Quality, Chula Vista Transit Route travels along "E" Street/Bonita Road adjacent to the site; the bus connects eastern and western portions of the City and terminates at the "H" Street Trolley Station. The bus also connects the site to a major regional shopping center, Plaza Bonita. Additionally, the site is adjacent to I-805 which provides access to other areas by car. The proposed project site is within walking distance to Plaza Bonita Shopping Center (although walking to the center would require passing under the I-805 overpass), a nearby neighborhood commercial area, Rosebank Elementary School, and open space (Figure 2). Open space and recreational areas and facilities will be provided on-site.

The proposed project will be located in an area which is predominantly residential and will not act to concentrate any minority in any one area of the City.

The proposed project also conforms with other objectives and policies contained in the Housing Element that apply to the general issue of residential design, including, but not limited to the following (Chula Vista, 1981:18):

- o Modern housing concepts, such as garden apartments shall be encouraged in new residential developments.

- o Residential environments should be enhanced by the provision of internal open space and parks.

Potential environmental effects associated with the provision of moderate income housing would be those associated with the development of the apartment complex at medium-high densities, including traffic, noise, or visual effects; these issues are discussed in detail in other sections of this report (Section 3.9, Transportation; Section 3.5, Noise; Section 3.6, Land Uses; and Section 3.3, Landform/ Aesthetics). In summary, provision of moderate income housing on-site will cause no significant environmental effects.

3.7.3 Mitigation

No measures will be required in order to mitigate the effects of provision of a percentage of the apartment units for moderate income housing.

3.7.4 Significance of Impact

The proposed project location and design is suitable for moderate income housing per the policies and objectives stated in the City of Chula Vista's Housing Element. No adverse effects on moderate income households within the proposed development are anticipated.

The provision of moderate income housing in the proposed project will create no significant environmental effects.

3.8 SCHOOLS

3.8.1 Project Setting

The proposed project site is within the Chula Vista City School District (which serves grades K-6) and the Sweetwater Union High School District (grades 7-12).

The nearest elementary school to the proposed site is Rosebank Elementary School, located at 80 Flower Street. Rosebank is currently turning away students in grades 5 and 6; it has only a few spaces available in each of the lower grades. The school has seen a dramatic increase in kindergarten and first grade enrollment in the past few years; therefore, it is anticipated that levels of enrollment will continue to increase (Snyder, 1983). Currently, it is the District's policy to provide school bus transportation to students that must be transferred to schools other than the nearest one.

The Sweetwater Union High School District, as a whole, is considered overcrowded. It is the position of the District that when any area within the District is overcrowded, as is currently the situation in numerous areas, then the District as a whole is considered to be operating over its capacity. The total number of students currently enrolled within the District, however, is not over the District's total functional capacity. Autumn 1983 enrollment is estimated to be approximately 23,500 students while the District's total functional capacity is approximately 24,000 students. It should be noted that the District has outstanding commitments to previously approved projects to provide facilities for an additional 1,300 students (Hendee, 1983).

3.8.2 Impact

The Chula Vista School District uses a generation figure of 0.2 students per multi-family dwelling to estimate the probable number of new students to come from new developments (WESTEC, 1982:68). This translates into approximately 75 students in grades K-6 from the proposed project. The proposed project site is within the enrollment area for Rosebank Elementary School, located approximately 1½ blocks away. Students from the 376-unit complex attending this school would not require bus transportation. The District, however, reserves the right to transfer students to another school for the purposes of balancing enrollment levels or integration. If students from the proposed project are transferred to another school, the District will provide bus transportation (Linn, 1983).

The Superintendent of the Chula Vista City School District was contacted during preparation of this report. He

indicated that the project applicant has agreed to submit developer's fees to the District in order to mitigate any impacts on the District's facilities (Linn, 1983). Because Rosebank Elementary School is already facing enrollment problems, the District may be required to provide temporary facilities at the school. The school property can accommodate only one or two extra classrooms (Snyder, 1983).

The Sweetwater Union High School District uses a generation factor of 0.5 junior and senior high school students per dwelling unit to estimate the probable number of students in grades 7-12 from new developments (WESTEC, 1982:69). This translates as 188 junior and senior high school students from the proposed project. The proposed project site is within the Hilltop attendance areas. Since the District considers the attendance area of the District as a whole, it reserves the right to transfer students to other schools within the District if necessary.

Additionally, the project applicant has posted a school bond as security with the Sweetwater Union High School District (Hendee, 1983).

3.8.3 Mitigation

Both school districts have indicated that no further mitigation is required.

3.8.4 Analysis of Significance

Implementation of the proposed project will not significantly impact the Chula Vista City School District or the Sweetwater Union High School District.

3.9 TRANSPORTATION/ACCESS

3.9.1 Project Setting

Flower Street is an existing 40-foot-wide residential street. The project site is currently undeveloped but roadway improvements have been constructed. Figure 11 shows the average daily traffic (ADT) volumes on the important streets in the vicinity of the project. "E" Street/Bonita Road and I-805 provide the primary traffic circulation. Neither road is operating at design capacity at the present time (Federhart & Associates, 1983).

Bonita Road east of the site is currently a 4-lane divided arterial. The roadway under the I-805 bridge is limited to 4-lane divided with a single left-turn median lane for the northbound and the southbound on-ramps, within a curb-to-curb distance of 98 feet. The northbound and southbound freeway ramps at Bonita are currently operating at an "E" level of service (City of Chula Vista, 1982 and Glass, 1983). This level of operations indicates capacity and represents the most vehicles that any intersection approach can accommodate. During peak hours, substantial queing of vehicles occurs at these locations.

Morning and evening peak hour traffic counts were made by Federhart & Associates at the intersections of "E" Street/Flower Street/Bonita Road and Bonita Road/Bonita Glen on June 22, 1983. The peak hour was determined from an analysis of traffic counts in the area. The peak hour counts are shown in Figure 12. These counts provide a base on which the estimated project traffic can be added and calculations made to determine both the existing and future Intersection Capacity Utilization (ICU) and Level of Service (LOS).

The project site is well served by public transit at the present time. Chula Vista Transit Route 705 travels along Bonita Road, Bonita Mesa Road, Sweetwater Road, Otay Lakes Road, etc., east of I-805, then comes under I-805 at Bonita Road and travels "E" Street westerly to Fifth Avenue, then south to "H" Street, then west with most of the other transit routes to the "H" Street MTDB, "San Diego Trolley" station.

The intersection of Flower/Bonita/"E" is a logical and important future bus stop for Route 705 when the project's 376 units and others in the area are occupied. At the present time, Route 705 operates Monday through Saturday, with one hour inbound and outbound headways, between the hours of 6 A.M. and 7 P.M.

Because the issue of traffic safety has been raised as an area of controversy, a review of vicinity accident reports was conducted and is included as part of Appendix C of this

report. Based on data from January 1980 to August 1983, there have been six accidents reported at or near the intersection of "E" Street and Corte Maria; six accidents at the intersection of "E" Street and First Avenue; two accidents on Bonita Road in the project vicinity; and two accidents on Flower Street adjacent to the site. According to collision report records, speed, intoxication and limited visibility were cited as the most common causes of these accidents.

Accident records are tabulated by the City of Chula Vista by section of roadway and when combined with the traffic volumes along the street, thus producing an annual accident rate by street section. The system permits the comparison of street safety records with a common base and assists the Traffic Engineer in directing his efforts and safety funds to obtain a maximum result. The accident rates along "E" Street are as follows:

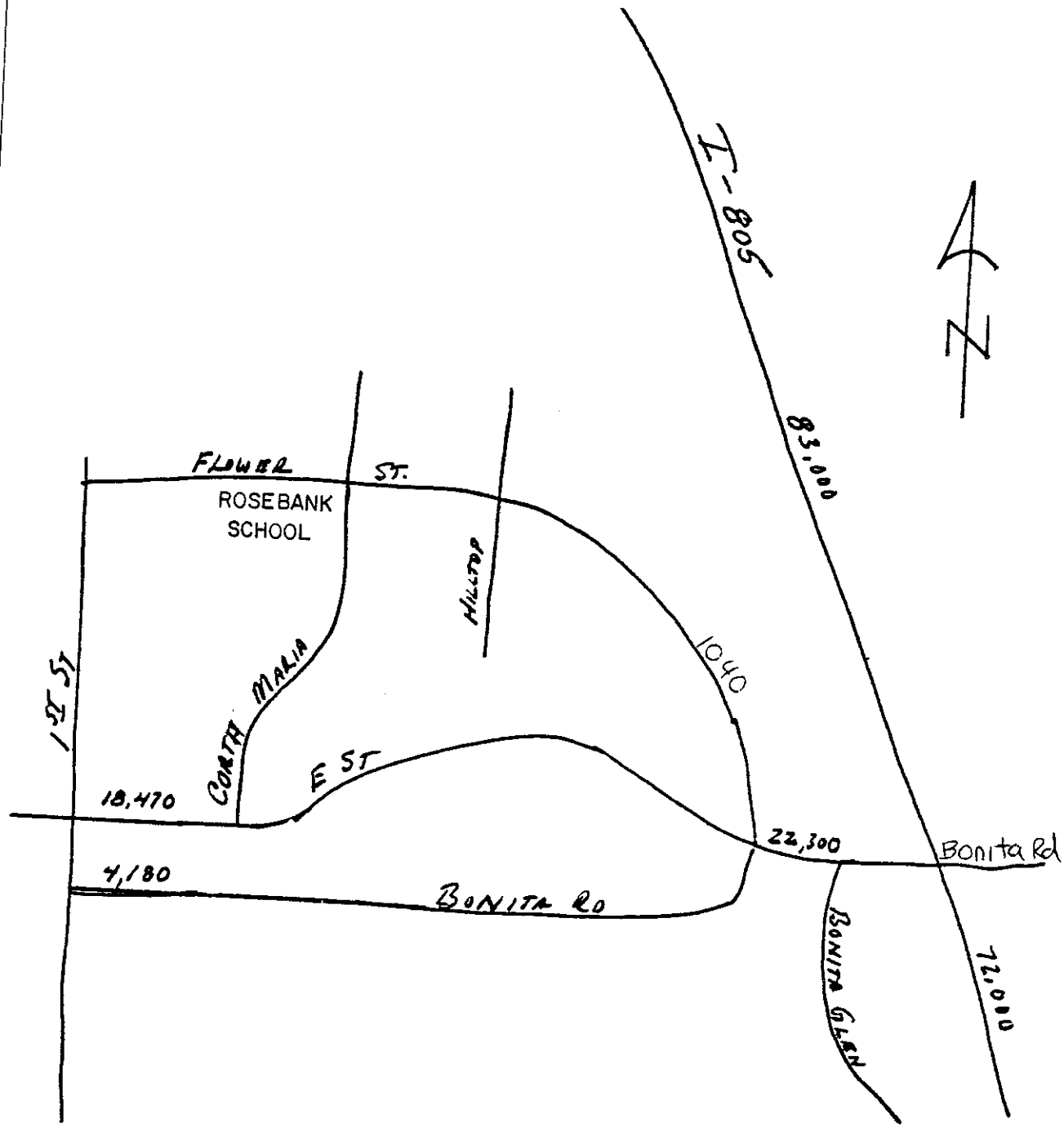
1982 "E" Street Accident Rates

Street Section	Accident Rates (Accidents/Million Vehicle Miles
I-5 - Broadway	13.3
Broadway - Fifth Avenue	6.8
Fifth Avenue - Fourth Avenue	5.2
Fourth Avenue - Third Avenue	4.8
Third Avenue - Second Avenue	7.3
Second Avenue - First Avenue	4.6
First Avenue - Flower/Bonita	0.16
Flower - I-805	6.7

The highest accident rate for a major street section in Chula Vista is 17.6 for Third Avenue from "E" to "F". In an effort to keep from distorting the rates, accidents at major intersections such as Third and "E" are not included in the rate for the streets. The intersection of "E" Street and Flower is not considered a major intersection and, therefore, its accidents <u>are</u> included in the rates.

As can be noted, the accident rate for the street section from First Avenue to Flower Street is relatively low. The accident rate from Flower Street to I-805 of 6.7 accidents per million vehicle miles reflects the turning conflicts created by development along the roadway.

Public testimony solicited by the City via the Notice of Preparation for this report indicates perceived safety problems on vicinity streets and intersections. Testimony given during previous public hearings for the Morgan/Gardner Subdivision, 1977 (incorporated by reference to this report), by the Chula Vista City School District indicated potential



RBR and Associates

EXISTING AVERAGE DAILY TRAFFIC VOLUMES

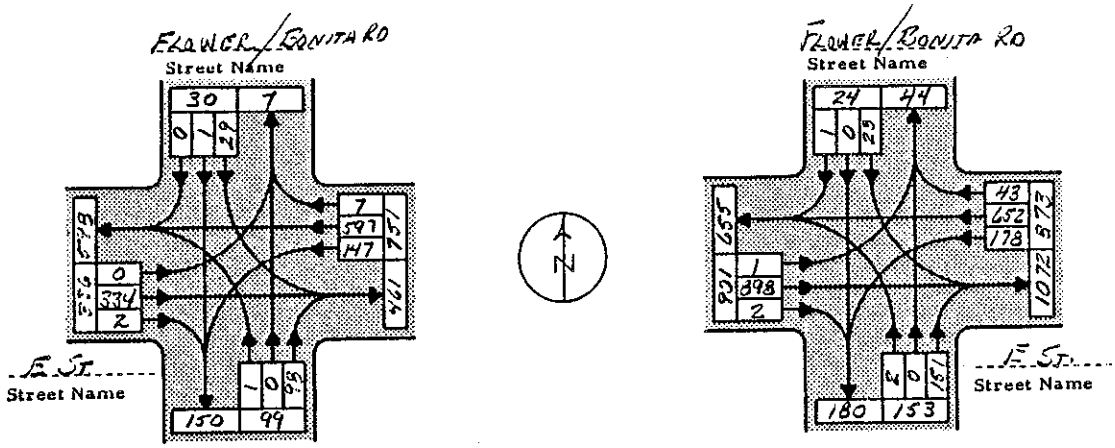
Figure 11

Federhart & Associates

TRAFFIC AND PARKING STUDIES

TRAFFIC TURNING MOVEMENTS COUNTS

INTERSECTION E St - Flower / Bonita Rd PROJECT 8377



A.M. PEAK HOUR VOLUME

Peak Hour: 7 - 8:00 AM

Date: 6/22/93

P.M. PEAK HOUR VOLUME

Peak Hour: 3:45 - 4:45 PM

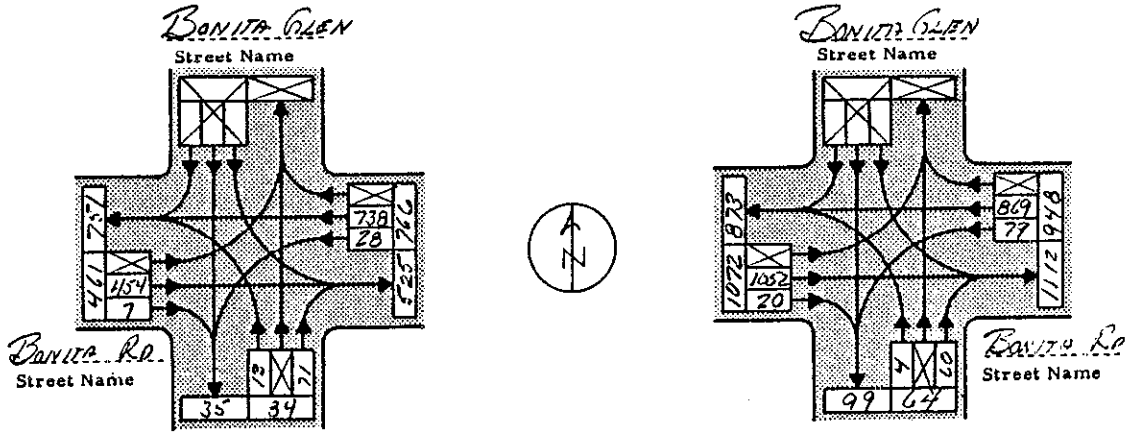
Date: 6/22/93

Federhart & Associates

TRAFFIC AND PARKING STUDIES

TRAFFIC TURNING MOVEMENTS COUNTS

INTERSECTION Bonita Rd - Bonita Glen PROJECT 8377



A.M. PEAK HOUR VOLUME

Peak Hour: 7 - 8:00 AM

Date: 6/22/93

P.M. PEAK HOUR VOLUME

Peak Hour: 3:45 - 4:45 PM

Date: 6/22/93

Figure 12

safety issues associated with Rosebank School (located on Flower Street between Corte Maria and First Street). Communication with the Principal of Rosebank School (Snyder, 1983) indicates times of congestion during AM and PM arrivals and departures and incidents of high speed traffic adjacent to the school.

3.9.2 Impact

Potential impacts of the proposed project include:

- o Effects on circulation patterns, levels of service and capacity of vicinity roadways.
- o Increased safety impacts.
- o Incremental contribution to cumulative impacts identified for the existing I-805 at Bonita Road interchange.

Potential impacts of project traffic is assessed in Traffic Impact Study, Morgan/Gardner Project, Chula Vista, 1983 (Appendix C). Although the traffic report was prepared for a preliminary conceptual plan with 392 dwelling units, it is considered an accurate indicator of project related traffic impacts (Glass, 1983).

The traffic report indicates that when fully developed, the project will generate approximately 3,010 trips per day (ADT). Approximately 2,650 vehicles per day are projected to utilize the Flower Street and "E" Street/Bonita Road intersection daily, and about 450 ADT are projected to utilize Flower Street west of the site. Distribution of project traffic assumes 56% will travel on Bonita Road eastbound, 23% will use "E" Street westbound, and about 21% of project traffic will travel north/south including 15% northwest bound on Flower Street.

Peak hour traffic analysis of the two intersections most affected by project traffic, "E" Street/Bonita Road at Flower Street and Bonita Road at Bonita Glen was conducted by Federhart & Associates. Significant impacts from cumulative traffic volumes indicates that minimum traffic signal warrants may be met and that a traffic signal may be needed at the intersection of Flower Street/Bonita Road/"E" Street.

While A.M. and P.M. traffic volume counts were made at Bonita Glen and Bonita Road, the project's traffic impact was so minimal that the levels of service were not affected. Therefore, additional calculations at this intersection were not made. Peak hour intersection analysis is included in Appendix C.

The Federhart & Associates study concludes:

> "...from a traffic impact point of view, this project will have minimal adverse impact on the circulation system of the area. It is recommended, however, that a traffic signal be installed at the intersection of "E" Street/Flower Street/Bonita Road as traffic signal warrants will be met with the full development of the proposed project. It is our understanding that sufficient right-of-way is available on the south side of "E" Street for the widening of Bonita Road to a width of 40 feet, which would be required for the signal design and construction."

Potential safety impacts associated with project design involve potential sight distance problems at two locations which can be reduced on-site by appropriate setbacks and landscaping. The driveway to Buildings 1 and 2 of Phase I located on Flower Street (on the west side) is located on the inside of a curve. This could create a sight distance problem for exiting vehicles if landscape materials grow high or too dense. Care should be taken in landscape design to eliminate this potential problem.

Also, traffic travelling southbound on Flower Street when stopped at the intersection of "E" Street/Bonita Road and Flower Street could have sight restrictions when looking east on Bonita Road. This could adversely affect those vehicles making a right turn from southbound Flower Street to westbound "E" Street. Possible restrictions to visibility are substantially reduced by the 30 foot setback from the road to building 21 and indication from the applicant's designer that lower ground cover type landscaping will be utilized in this area.

Potential safety impacts to areas off-site resulting from traffic generated by the proposed project cannot be quantitatively assessed without further analysis of vicinity roadway design, accident data and citizen complaints. However, it can be noted that project traffic will incrementally contribute to safety conditions currently existing on vicinity streets (i.e. sight distance on Corte Maria and "E" Street", the dip at First and "E" Street, excessive speed and congestion near Rosebank School). Traffic generated by the proposed project represents approximately:

- 3.5% of total current traffic on "E" Street west of Flower Street
- 7.5% of total current traffic on Bonita Road west of Flower Street

- 43% of total current traffic on Flower Street adjacent to the site

To the degree that traffic is added to the current street systems, incremental increases in perceived and actual traffic safety impacts will occur.

Cumulative traffic impacts at the I-805 and Bonita Road interchange are addressed in the Eastlake Final Environmental Impact Report (Chula Vista, 1982) which is incorporated into this report. That report indicates cumulative impacts at the interchange (Appendix C). According to the Federhart & Associates analysis, 56% of project traffic (i.e. 1685 ADT) would use Bonita Road to the east. According to the City of Chula Vista, 40% of that traffic (i.e. 674 ADT) would use I-805 north. Approximately 10% of the project daily traffic would utilize the freeway interchange during peak hours. This level of traffic during a peak period could, along with other traffic on a cumulative basis, cause a problem for left turn storage at the freeway.

The cumulative traffic study completed in conjunction with the Eastlake EIR recommends dual left turn lanes for this location. To provide needed approach leg capacity the roadways will need to be widened to three-lane approach width from the east and west. The single left-turning lanes under the freeway bridge will need to be expanded to dual-left turning lanes by traffic paint markings, leaving a shoulder area adequate for bike lanes. With these future improvements, the capacity analysis disclosed that the freeway ramp intersection west of I-805 will operate at level of service "E", while the freeway ramp intersection east of I-805 will operate at a level of service "F" (forced flow) (refer to Appendix C for definitions of level of service).

Recent traffic analysis completed for the Draft EIR Bonita property General Plan Amendment (San Diego County, 1983) located 1200 feet east of the freeway, also indicates the potential for cumulative impacts at the I-805 interchange. And, draft intersection analysis data provided by the City (Glass, 1983), also indicates the potential for significant cumulative impacts at the interchange.

3.9.3 Mitigation

Mitigation measures delineated by the Federhart & Associates traffic study should be implemented per City of Chula Vista Engineering Department specifications. These include:

- Modification and signalization of the Flower Street, Bonita Road and "E" Street intersection when warranted.

- Limitation of landscaping north of the driveway access to buildings 1 and 2 to ground cover to avoid sight distance problems.

Other possible mitigation measures to be considered by the City include:

- Restricted parking on the west side of Flower Street northwest of the driveway access to buildings 1 and 2 of Phase I.

- Ground cover landscaping within 25 feet of Bonita Road adjacent to building 21 of Phase II to avoid sight distance problems. Also, the entrance sign indicated on conceptual plans for the project should be set back at least 25 feet to avoid sight restrictions.

- Dual left turn lanes at the I-805 northbound ramp.

3.9.4 Analysis of Significance

Adverse traffic impacts at the intersection of Flower Street/"E" Street and Bonita Road are identified. Modification and signalization of this intersection may be required to reduce this impact to below a level of significance.

Although the project will incrementally contribute to existing safety conditions on vicinity streets, this does not appear to be a significant impact created by project traffic.

The proposed project traffic will incrementally contribute to significant cumulative impacts previously identified for the I-805 and Bonita Road interchange. Recent analysis of this location by the City of Chula Vista Engineering Department indicated incremental effects by the proposed project which contribute to the existing "E" level of service on the northbound and southbound on-ramps.

3.10 PALEONTOLOGY

3.10.1 Project Setting

A field survey for paleontological resources was conducted over the 17.6 acre project site by Thomas Demere for RBR & Associates, Inc. in September 1983. The majority of the site has already been graded and prepared for development although some manufactured slopes have yet to be completed, as discussed in Section 3.3, Aesthetics/Landform. Vegetation, soil cover and artificial fill obscure exposures of bedrock; however, based on field observations and upon the published geologic map of Kennedy and Tan (1977), the site appears to be underlain by unfossiliferous Holocene (?) and Pleistocene-aged alluvial and marginal marine sediments.

Since the occurrence of paleontological resources is tied directly to the geological rock units (formations) within which they occur, it is possible to assess the resource potential of a site by knowing its geology and the paleontological productivity of the formations present. In the case of the proposed project site, the geologic rock units present are not known to contain paleontological resources (based on previous work elsewhere) and none were observed during the field survey.

3.10.2 Impact

The field survey found no evidence of paleontological resources on-site. Therefore, development of the site will not cause any paleontological resource impacts.

3.10.3 Mitigation

No mitigation measures are required.

3.10.4 Analyses of Significance

No significant impacts on paleontological resources will occur as a result of implementation of the proposed project.

4.0 ALTERNATIVES

The California Environmental Quality Act Guidelines (§ 15143d) require the discussion of "reasonable alternatives to the project...which could feasibly obtain the basic objectives of the project..." This section of the EIR will focus on feasible alternatives which could reduce significant impacts and identify an environmentally superior alternative if there is one.

Feasible alternatives which would reduce impacts associated with the project are limited by the fact that no significant unmitigable impacts have been identified. Therefore, the no project alternative only will be assessed.

4.1 NO PROJECT

The no project alternative (i.e. no General Plan Amendment, zone change, precise plan or tentative map) would allow development of the site per current General Plan and zoning use designations. As noted in the Land Use section of this report, medium density residential uses could be developed on-site without a zone change or General Plan Amendment. Approximately 233 units at a density of about 12 units per gross acre are allowed.

A significant reduction in dwelling units would result (143 units less than the proposed project). Housing types commonly developed at this density would be townhouses, duplexes or zero-lot-line, attached single family units. These housing types would limit the provision of affordable housing, an objective of the proposed project. This alternative would result in less population, less demand for services and less traffic than the proposed project. The positive economic and social impacts of providing adequate housing opportunities within the City would be reduced. In summary, this alternative provides the potential for a reduction in some site specific impacts. However, all impacts identified as resulting from the project have been mitigated to below a level of significance. Therefore, this alternative is not considered environmentally superior to the proposed project.

4.2 ALTERNATIVE PHASING

Alternate phasing of the project could result in the development of the area closest I-805 as phase 1 of the project instead of the second phase (Figure 3). This alternative could be the environmentally superior alternative because a reduction in exterior noise levels on all buildable areas of the site to acceptable levels (65 dB CNEL) is dependent upon the construction of buildings 11, 12, 14, 15, 16, 18 and 19 (Figure 3) and concomitant walls as a noise barrier to shield the rest of the site from I-805 traffic noise.

The project, as currently designed, proposes standard construction techniques for residential buildings 1, 2, 7 and 8. If the buildings currently proposed as part of phase 2 (i.e., buildings 11, 12, 14, 15, 16, 18 and 19) are not constructed in a timely manner, exterior areas adjacent to buildings 1, 2, 7, 8 and the recreation building number 9 would exceed the 65 dB CNEL noise compatibility criteria. Also, interior areas of those buildings might not comply with the Title 25 noise standard of 45 dB CNEL without acoustical treatment.

This alternative would change the phasing of the project to allow construction of acoustically treated buildings adjacent to I-805 as the first phase of development of the site. These buildings would effectively shield the rest of the site from exterior noise exposures of above 65 dB CNEL.

5.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

No unavoidable significant environmental impacts have been identified associated with development of the proposed project.

6.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

In the short-term, development of the proposed project site would result in additional high density residential land use in the City of Chula Vista. The project would provide housing, increase local population, contribute to stimulating the economy and provide jobs (directly during construction and indirectly by increased demand for goods and services from future residents). The project will also result in an incremental increase in the demand for public services. It should be noted that the City has determined that the proposed project will not adversely affect existing public services (refer to Appendix E, Initial Study); additionally, the project applicant has agreed to submit fees and post bonds to reduce impacts on school facilities (refer to Section 3.8, Schools).

If the subject property was to remain undeveloped, it would be capable of long-term productivity as open space. However, it should be noted that the majority of the property has been previously graded. The only existing visual amenities on-site are the grove of mature eucalyptus trees on the western slopes and landscaped areas on the northern slopes; both of these will be preserved and supplemented with implementation of the proposed project. Agricultural uses are not viable on the site.

7.0 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WILL RESULT FROM THE PROPOSED PROJECT

Irreversible environmental changes which will occur as a result of development of the site as proposed include:

1) Change of vacant land designated for medium density residential use to a medium-high density apartment complex.

2) Introduction of increased traffic and population.

3) Minor topographic alterations, however the majority of the site was previously graded.

4) Loss of 30-50 eucalyptus trees (although the project as proposed preserves the vast majority of the trees) and addition of on-site landscaping.

5) Energy expended for construction activity.

6) Incremental contribution of air pollutants to the regional air basin.

7) High on-site noise levels which will be mitigated to below a level of significance by attenuation of interior noise levels and exterior recreation areas.

8.0 GROWTH INDUCEMENT

Implementation of the proposed project will provide housing for approximately 940 persons in the City of Chula Vista (estimated at 2.5 persons per unit; SANDAG, 1981). The demands of these future residents will contribute to some increase in commercial growth and demand on services and utilities provided in this area. Existing public facilities and services are considered adequate to serve the proposed project (Appendix E, Initial Study); however, the project applicant will be required to submit school fees to mitigate impacts upon school facilities (refer to Section 3.8, Schools).

No new roads will be required to serve the proposed project. The project is adjacent to I-805 and Bonita Road/"E" Street, a major arterial road. Flower Street bisects the property.

The project applicant has previously dedicated land to realign the Flower Street/"E" Street intersection and will submit fees to the City to partially off-set costs for signalizing the intersection. The realignment of this intersection is a priority item in the City's capital improvement program. The new intersection will not serve to increase the traffic load but rather it will safely accommodate existing traffic along with the traffic generated by the project.

Most of the area around the proposed project site has been previously developed. Surrounding land uses are discussed in Section 3.6, Land Uses. In summary, residential areas border the site on the northwest, west and south. Interstate 805 borders the property on the northeast. There is a vacant lot across "E" Street from the proposed project which is designated for development at medium densities (4-12 dwelling units per acre) on the City's General Plan land use map.

Because the project will not require an extension of services and occurs in an area essentially developed, the project is not considered growth inducing.

9.0 REFERENCES CITED

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10.0 CERTIFICATION

This Report was prepared by RBR & Associates, Inc. of San Diego, California. Members of RBR & Associates, Inc. professional staff and subconsultants contributing to this report include:

Tim Cox	Project Manager Senior Associate
Royce B. Riggan, Jr.	Project Analyst President
Ann B. Hix	Senior Project Analyst Vice President
Thomas Demere	Consulting Paleontologist
Marian A. Harvey	Research Associate
Troy M. Davis	Cartography/Graphics
Andrew Schlaefli	Principal Traffic Engineer Urban Systems Associates, Inc.
Valerie J. Beam	Production Typing and Editing
Mark Zerbe	Mr. Z's Word Processing

We affirm, to the best of our knowledge, the statements contained herein are correct and that all known information concerning the potentially significant environmental effects of the project has been included and fully evaluated in this Draft EIR.

Royce B. Riggan, Jr.
President

Tim Cox
Project Manager

11.0 COMMENTS AND RESPONSES

November 8, 1983
File: YE 002

TO: Doug Reid, Environmental Review Coordinator

FROM: John Lippitt, City Engineer

SUBJECT: Review of Revised Draft Environmental Impact Report for Morgan Gardner 376-Unit Apartment Complex

An engineering review of subject draft EIR has been conducted covering the areas of drainage, geology, soils, land form, noise, air quality, traffic, and solid and liquid waste generation. Except for the following, the draft EIR accurately assesses the foregoing issues and recommends appropriate mitigating measures:

DRAINAGE

1

The report uses a run off coefficient for multi-family residential of 0.50 to 0.75 citing Chow. We suggest the upper limit of 0.75 for Chula Vista in our Subdivision Manual. However, the most significant drainage aspect is that portions of Flower Street will flood during a 100-year flood. The crown of Flower Street, at the location of the 42-inch pipe draining the northeast portion of the site (Drawing 78-103D), is at elevation 40.45 feet, approximately two feet lower than the predicted 100-year flood elevation. A 100-year flood crest will back up the 42-inch pipe and inundate Flower Street approximately 100 feet to the northwest and 250 feet to the southeast, respectively, of the inlet. This flooding would restrict access to Buildings 10 and 17 through 21 located east of Flower Street. Although this flooding can be inferred from the report, unless spelled out, the risk could be overlooked. The foregoing is shown on the attached copy of Fig. 5.

Additionally, Section 18.54.060A., of the Chula Vista Municipal Code, requires the first floor elevation of new structures to be located at least one foot above the regulatory flood elevation. Therefore, the lowest proposed floor elevation referred to in the second paragraph of Section 3.2.3. should be increased to 43.5 feet.

TRAFFIC

2

In our judgement, the report should be revised to reflect the following:

Page 64, last paragraph...The statement, "...excessive speed and congestion near Rosebank

RESPONSES

1 Information presented by the City of Chula Vista Engineering Department regarding the inundation of portions of Flower Street during a 100-year flood has been incorporated into the text of the Final Environmental Impact Report pages 23 and 24.

Section 3.2.3 (page 23) has been modified to indicate the lowest proposed finished living area floor elevation as 43.5 feet.

2 Noted. The source of comments regarding traffic issues adjacent to Rosebank School is from public testimony given by the Chula Vista School District and communication with Rosebank School Principal Mr. Sam Snyder as noted on pages 60 and 63.

School" should be noted as the opinion of school officials, or whoever. We do not agree.

3 Page 65, third paragraph - change, "...Intersection i..." to "the freeway ramp intersection west of I-805."

4 Page 66, other possible mitigation measure, "Restricted parking...of Phase I" should be moved up to the measures that should be implemented.

5 Page 11. Relative to on-street parking, it should be pointed out that the majority of available on-street parking spaces will be located along the westerly end of Flower Street and away from where the demand will be.

SUMMARY This draft EIR addresses the marginal areas noted in the initial study and recommends proper mitigation measures, but the impact of a 100-year flood should be fully stated, and our comments on Traffic carefully considered.

DND:av

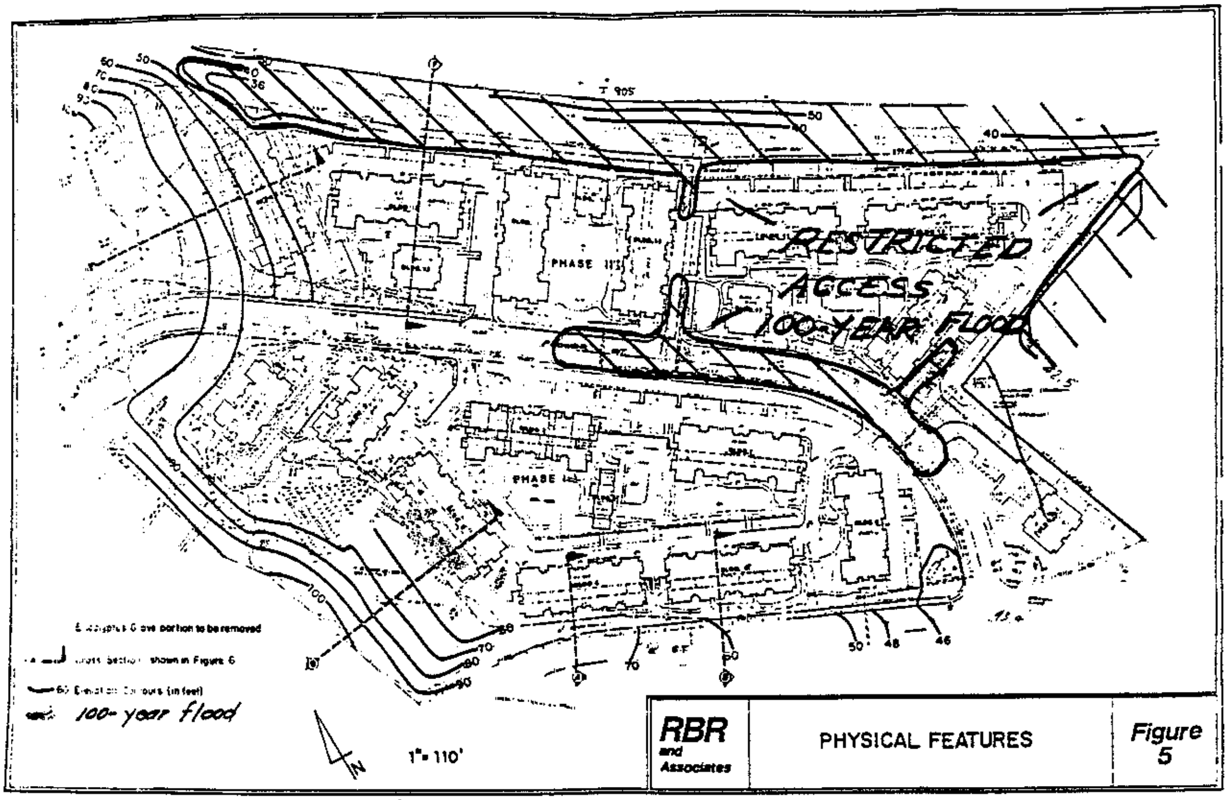
Attachment

RESPONSES

3 Modification to the text of the Final Environmental Impact Report per the comment have been made.

4 Noted that the Chula Vista Engineering Department will require the mitigation measure delineated as a condition of approval.

5 Noted.



RBR and Associates — PHYSICAL FEATURES — Figure 5

RESPONSES

alvarado design & associates

George T. Felix
7830 la mesa boulevard
la mesa, california 92041
phone 462-3000

November 14, 1983

RECEIVED
NOV 17 1983
RBR

RECEIVED
BY
NOV 15 1983
PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

Duanne Bazzel - Planner
City of Chula Vista
276 Fourth Avenue
Chula Vista, Ca 92010

Project: Morgan & Gardner 376 unit apartment complex
Our project number: 8304

Dear Duanne,

I have received a copy of the Environmental Impact Report Draft for Morgan & Gardner, 376 unit apartment complex (City of Chula Vista EIR 84-2 SCH83082412) and am eclosing comments per your request.

6 Refer to page 43 paragraph 2, makes reference to providing a wall between buildings 18 and 19. This is not something that STC recommended at our last meeting with them and the owner/developer. STC will be commenting on this item.

7 Refer to page 50 paragraph 1 and 2 seem to be repeating some of the same information.

8 Refer to page 50 - Section 3.6.2 Impact - paragraph 1 - delete garages and replace with basement parking "tucked under" one side.

9 Refer to Table 8 page 53 - Median income is listed as $17,700 and on page 54, paragraph 4 indicated a median of $16,900.

10 Refer to Section 3.9 Transportation/Access, page 59 - a copy has been sent to Federhart and Associates for review and any comments they may have will be following.

If you require any more assistance please note our office will be closed from November 15 through November 22, 1983, but we will be available on the day of November 23, 1983.

Sincerely,

Geo. T. Felix

George T. Felix
Alvarado Design & Associates

RESPONSES

6 Noted. Further consultation with the acoustic analyst indicates that a wall between buildings 18 and 19 is not necessary. The text has been changed to indicate this.

7 Paragraph 1 addresses zoning and paragraph 2 describes existing land uses.

8 The text has been changed to indicate "tucked under" car ports rather than garages.

9 It should be noted that the source cited in Table 8 is a 1979 SANDAG study and the source of updated information delineated on page 54 (i.e., $16,900 median income) is from the City of Chula Vista, 1983.

10 Noted.

CHULA VISTA CITY SCHOOL DISTRICT

Each child is an individual of great worth

84 EAST "J" STREET • CHULA VISTA, CALIFORNIA 92010 • 619 425-9600

Rosebank School
80 Flower Street
Chula Vista, Ca. 92010

November 17, 1983

Environmental Review Coordinator
P.O. Box 1087
Chula Vista, Ca. 92012

RECEIVED
NOV 21 1983
RBR

RE: Case No. EIR-84-2

Dear Mr. Reid:

As principal of Rosebank School, I feel that I need to indicate to the EIR Board my concerns with the apartments projected for Flower Street.

11 At the present time our school is nearly filled, approximately 15 openings; and with enrollment increasing I foresee no openings by 1986 when the project is due to be completed. Therefore, there can be no guarantee that parents of children renting these apartments will have their children attending Rosebank School.

12 I am also concerned with the number of additional cars that are expected to flow past Rosebank School. We already have a speeding problem on Flower Street. The street in front of the school is very narrow (36 feet wide); and when buses are loading and unloading, parents loading and unloading children, and with people parking on the curb side, many times there is only one narrow lane for traffic to flow. The community, Rosebank Parent Club, and Rosebank staff have requested a four way stop sign to be placed at the corner of Corte Maria and Flower Street, and a stop sign on Hilltop Drive at the corner of Flower Street, from the City of Chula Vista. This request has been denied, and we are at a loss as how to control the speeders. With this added traffic, there is just bound to be a serious mishap. These are the two most pressing concerns that I have with the project.

If you need any additional information please contact me at 422-8329.

RECEIVED
BY.....
NOV - . 1983

Sincerely,

Sam G. Snyder, Jr.
Principal

RESPONSES

11 Noted. The potential need to transfer elementary school students from the proposed apartment complex to another school rather than Rosebank School is discussed in section 3.8.2. Communication with the Business Manager of the Chula Vista City School District was the basis of this discussion.

12 Noted. The concern regarding traffic near Rosebank School is discussed in section 3.9.1 (pages 60 and 63). The request mentioned in the letter for stop signs was denied by the Chula Vista Safety Commission on November 10, 1983. Denial of the request was based on capacity and speed analysis conducted by the City of Chula Vista Engineering Department.

Comments from Planning Commissioners received at the City of Chula Vista Planning Commission Meeting of November 30, 1983, Public Hearing: Consideration of Draft Draft EIR-84-2, Eucalyptus Grove - Morgan/Gardner.

13 Commissioner Shipe: What percentage of moderate income rentals is allowed by the City?

13 The City of Chula Vista may utilize Federal standards which require at least 20% of the total project units be provided as moderate income housing in order to qualify for tax exempt bonds. The City has the option of applying more stringent standards as noted on page 49 of the EIR.

14 Please clarify overcrowding situation in schools discussed in the November 17, 1983 letter from Mr. Sam Snyder, Principal of Rosebank School.

14 Please note the response to comment number 11. Rosebank School is currently near capacity. Developer's fees will be paid to the Chula Vista School District by the project applicant to provide temporary facilities to mitigation overcrowding. Rosebank School property could accommodate 1 or 2 additional classrooms. The School District may transfer students, requiring busing to other facilities, for purposes of balancing enrollment levels.

15 What mechanism does the City have for assuring that moderate income residential rental units proposed as part of the project will be maintained?

15 The most probable financing mechanism for the proposed project is tax exempt bonds which requires the maintenance of rental units for a minimum of 10 years. The City may impose a longer time period which is enforceable as part of the rental financing agreement between the City and the project applicant.

16 Commissioner Guiles: Are there provisions that would prohibit the project from sales as condominiums if a rental financing agreement is reached with the City.

16 As noted in Section 3.7.2 of the report, the City may utilize tax exempt mortgage revenue bonds as a financing mechanism for moderate income housing. Federal regulations require that all units in the development remain rental units for at least 10 years. The City has discretionary power in the rental financing agreement with the project applicant to increase that time period (e.g. 15 years) to gain the tax exempt mortgage bonds.

17 Commissioner Cannon: Was the traffic signal proposed for the intersection of Bonita Road and Bonita Glen Drive taken into consideration in the traffic analysis?

17 The Federhart and Associates Traffic Impact Study (Appendix C) indicates analysis of the Bonita Glen Drive and Bonita Road intersection. The report indicates that "the project's traffic impact was so minimal the additional calculations at this intersection were not made".

18 How can a finding of insignificance on Flower Street at Bonita Road be assessed if an additional 3,010 trips are generated by the proposed project in view of a traffic count of 22,300 ADT and an "E" level of service on Bonita Road, signal or no signal?

18 The EIR (Section 3.9.2) indicates significant impacts from cumulative traffic volumes (including the proposed project) at the intersection of Flower Street at Bonita Road/"E" Street. Mitigation measures delineated by the Federhart study and the EIR (Section 3.9.3) indicate modification and signalization of that intersection as warranted.

19 Commissioner O'Neill: Why is there a discrepancy between Bonita Road traffic counts used in the County Glen Abby project and those the City uses in the EIR.

19 The EIR uses the most recent traffic counts available from the City of Chula Vista Engineering Department. A natural variation in traffic counts is typical of counts taken on the same street but at different times or at slightly different locations.

20 Has the opening of East "H" Street been evaluated in terms of its impact on Bonita Road?

20 There has been an incremental decrease in traffic on Bonita Road since the opening of East "H" Street. However, the diversion of established traffic from one route to another requires time. The City of Chula Vista Engineering Department is monitoring both streets.