DRAFT

MASTER
ENVIRONMENTAL IMPACT REPORT

EIR-78-13

TOWN CENTRE II
CHULA VISTA REDEVELOPMENT PLAN
(As Proposed)

TOWN CENTRE II REDEVELOPMENT MEIR

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1.0 INTRODUCTION

1.0 INTRODUCTION

1.1 PURPOSE

It is the purpose of this Environmental Impact Report (EIR) to provide a Master EIR which will be supplemented by additional detailed EIR's as precise development plans are presented for implementation of the Town Centre II Redevelopment Plan. This report provides an initial review and analysis of the environmental impacts that could result from the implementation of the Plan, proposed mitigation of these impacts and possible alternatives to the proposed project.

The MEIR will be used as a primary reference document for more detailed EIR's prepared for individual developments within the project area. This report will focus on a general, comprehensive perspective of the project area and provide a baseline for more precise identification of environmental factors to be described in specific EIR's.

This report has been prepared by the Environmental Review Staff of the Chula Vista City Planning Department in cooperation with the Community Development and Public Works Departments in accordance with the requirements of the California Environmental Quality Act of 1970 and the requirements of the City of Chula Vista.

1.2 MEIR UPDATE SYSTEM

Any desired update of the MEIR will be determined by the Environmental Review Committee through a continual monitoring of the project relative to the location and possible changes of circumstances under which the project is being carried out. This process will insure that there will be a continual availability of adequate information for the evaluation of possible significant environmental consequences.

1.3 EXECUTIVE SUMMARY

The Town Centre II Redevelopment Project has been designed to revitalize Chula Vista's regional shopping center and to prevent further deterioration within and adjacent to the area. To achieve this goal a land use plan has been developed and proposed design and redevelopment concepts established. Various alternative methods of redevelopment also have been discussed. These alternatives involve rehabilitation of existing development, major expansion of the center, redesign of circulation patterns within parking facilities and possible closure of Fifth Avenue between "H" and "I" Streets.

Major environmental considerations addressed in this report entail traffic circulation and air quality. Other environmental aspects have been discussed, however, and additional environmental review will be necessary when specific plans are proposed.

A substantial increase in vehicle traffic would result from major expansion of commercial uses within the Town Centre II. Higher traffic volumes from commercial development and the rerouting of through traffic currently utilizing Fifth Avenue is anticipated to result in the further deterioration of service levels at already conjected intersections, specifically "H" Street at Fourth Avenue and "H" Street at Broadway. Cumulatively, with the construction of the South Bay County Court Facility, traffic volumes during peak hours at these intersections will be at or near the capacity which can be accommodated (given existing geometrics). Congestion of this sort could delay emergency access to

the Bay General Hospital and increase response time to emergency situations. Regional air quality will not be significantly affected; however, degradation of air quality within the micro-environment could result. Incorporation of a convenient, well coordinated inter-project public transportation system has the potential to reduce traffic and air quality impacts to some extent.

Increased demand on utilities, community services and energy consumption will occur if intensification of land use is proposed. Cumulative effect on these services and resources can only be evaluated when specific plans become available.

Expansion and/or new development could result in the need for additional sewage capacity within existing local lines. Additional effluent will also further reduce current, limited capacity at the Metropolitan Sewage Treatment Facility.

In conclusion, the Proposed Redevleopment Plan as described could have cumulatively substantial impacts; however, the alternative methods of development and mitigation measure discussed have the potential to reduce the substantial traffic and related impacts.

2.0 PROJECT DESCRIPTION

2.0 PROJECT DESCRIPTION

2.1 LOCATION

The project is located within the City of Chula Vista, a community in the southern coastal area of San Diego County. The City of San Diego is 11 miles to the north and the international border is approximately five miles to the south. (Exhibit #2.0-1)

The Town Centre II redevelopment area involves 108 ± acres within Chula Vista's urban core. The site extends south from the north side of H Street to I Street, generally between Jefferson and Garrett Avenues. (Exhibit #2.0-2 and #2.0-3)

2.2 EXISTING CONDITIONS

Land Use and Design - The redevelopment area is irregular in shape and traversed by several high capacity streets. The Chula Vista Regional Shopping Center, constructed in 1960, is the focal point of the project, accommodating three major department stores and more than 30 other commercial establishments of varied scale and character. The center was built upon a gridiron street pattern which now inhibits the center's expansion required by the growth of the City and the South Bay.

The project also involves a portion of the Broadway and "H" Street commercial strips. These strips, characterized by poor spatial relationships, the lack of landscape planning, poor signage and inadequate circulation constitute chronic land use and townscape planning problems.

Traffic Circulation and Parking - The project area experiences some periodic traffic congestion and suffers from either a lack of off-street parking or poorly planned parking. The completion of the South Bay County Regional Center in adjacent Subarea 3 of Town Centre Project #I and the redevelopment of the Third Avenue area will further complicate the traffic problem. "H" Street will in the future link the Central Chula Vista Community with the eastern area of the city and will then provide arterial service to the residents of the 2,400 acre El Rancho del Rey development. This street is the main linkage between residential Chula Vista and this city's principal employer, Rohr Industries. Bay General Hospital and Medical Center has expanded to the extent that they are now confronted by a severe parking problem. The solution to this problem will probably entail the construction of a multi-story parking structure.

Economic Conditions - The project area contains the Regional Shopping Center which is the largest single source of sales tax revenue to the City. The Center is 17 years old and suffered from poor design at the onset. Two of the three "major stores" are bisected by Fifth Avenue thus contributing to pedestrian and vehicular congestion. The Center should be redeveloped if it is to compete with the newer centers of the San Diego Region. Thus, the economic stimulus originally provided by the Center is in danger and a means to upgrade and/or expand the facility is required if the City is to maintain this valuable economic resource.

Social - The Central, older neighborhoods of the City surround the proposed project. Census tract information reveals that the majority of households are in the lower to middle income category. About 25% of the residents of these areas are over the age of 62. Two elementary schools and a junior high school are adjacent to the project. Rohr Corporation is ¼ mile from the western boundary and is the largest employer in the City with 6,000 workers. Approximately 600 persons are employed by the Hospital, 1,200 by the Shopping Center and 1,000 are expected to be employed by the South Bay County Regional Center.

2.3 PURPOSE AND INTENT OF THE REDEVELOPMENT PLAN

The redevelopment of the area is designed to qualitatively upgrade the area, provide transportation linkages to the entire CBD, improve traffic flow and provide jobs for a wide cross-section of the populace. In this context, the following are elements of the proposed plan:

A. Providing a New Economic Base - Redevelopment of the area will channel existing market potentials into a phased and efficiently managed total project, and obviate reliance upon isolated and unrelated private development decisions which usually have narrower aims.

B. Existing Environment - Redevelopment and rehabilitaiton should introduce new qualitative development into the redevelopment area, and thereby upgrade and strengthen existing development.

C. New Development - Redevelopment of the project area should not be a single purpose arrangement of land uses, but a combination of uses which foster day and nighttime use of the Central Business District.

D. Relationship to Surrounding Area - Redevelopment should strengthen and provide transition to the surrounding areas as well as catalyze private redevelopment and rehabilitation which would match the qualitative standards proposed in this plan. The physical redevelopment plan should provide opportunities for proper linkages in terms of architecture, land use and traffic circulation from the site to the surrounding area.

E. Types of Proposed Redevelopment Actions - To attain the goal and objectives of this plan, the renewal activities to be undertaken might involve acquisition of land, clearance of some structures, rehabilitation by owner participants or developers, the removal and/or installation of public improvements, the undergrounding and/or modification of public/private utilities, the improvement of the traffic circulation system, the addition of more off-street parking spaces, the improvement of existing parking lots, the closure of some streets, and disposition and/or lease of land for redevelopment for the type of reuse permitted under this plan. It is the aim of the plan to stimulate participation of owners and merchants in order to achieve and facilitate implementation.

2.4 GOALS AND OBJECTIVES

The Central Business District is the commercial-civic focus of the Chula Vista Planning area. The improvement and strengthening of this position and its relationship to the Town Centre Project No. I is the goal of the proposed Redevelopment actions. The objectives of the plan are:

a. Eliminate blighting influences and incompatible land uses, improve traffic circulation, and provide adequate parking facilities.

b. Eliminate planning and design deficiencies including, among others, small and irregular lot and block subdivision, excessive streets, and economic and social deficiencies.

c. The strengthening of the mercantile posture of the Regional Center and the improvement of retail trade therein without infringing on the adjacent residential areas.

d. The protection of the Town Centre Project No. I, Subarea 1, as the South Bay's principal center for specialty goods and service.

e. The retention and expansion of viable land uses, commercial enterprises, and public facilities within the area.

f. The attraction of capital and new business enterprises to the area.

g. The comprehensive beautification of the area and its buildings, open space, streetscape, and street furniture.

h. The possible accommodation of future local and regional mass transit and related facilities; improvement of off-street parking areas and provision for a mini-transit intra-project system.

i. Establish and implement performance and design standards which ensure the desired site design and environmental quality. This could be accomplished by providing incentives in areas related to the spatial relationship of open areas to building structures (private and public), variety of building size, bulk and siting, activity areas, pedestrian spaces, and other design elements which provide unity, integrity and quality to the entire project.

2.5 DEVELOPMENT PLAN CRITERIA

A manual for the purpose of establishing design standards is proposed and guidelines will be developed. The present design review board for Town Centre Project No. I, consisting of practicing professionals (in fields relating to urban design), representatives from City staff, and representatives from the business community is proposed to advise the associated committees and the Agency as to adherence to the design standards.

A. Land Use

1. Plan Formulation Standards - Primary and alternate land uses will be developed. Land uses should be deliberately located to encourage a variety of activities within the project area and to focus the most active uses (retail, commercial, recreational, and cultural) at the pedestrian level. The location of the South Bay County Regional facility will be taken into consideration in the land use of planning.

2. Development Intensity - The intensity of the land uses proposed will be compatible with the City's Zoning Ordinance unless otherwise specified in the final redevelopment plan.

3. Open Space - Open space areas should be designed throughout the project to enhance the pedestrian flow. There is also a need for additional open spaces to create areas of public activity within the project. This could be accomplished through utilization of small plazas, courtyard areas, and other innovative methods to encourage public activity within the project. Designs should be carried out three-dimensionally with proper consideration of light, shadow, wind, vegetation, and paving material, as well as relationship to surrounding buildings. Proper utilization of these design criteria can make a difference between usable open space and space of little public activity.

4. Spatial Relationship and Land Use - Land uses, building intensities and open spaces should be carefully site-planned to provide visual continuity within the project area as well as to create attractive linkages from the project to adjoining parts of the central area of the City. Wherever activity linkages are developed, commercial uses should be oriented to stimulate pedestrian movement. The focal point(s) should be kept free of extraneous interference and appropriately landscaped. Focal point(s) may contain a water feature.

B. Design Considerations - The project plan shall be conceived as a harmonious composition of buildings and open space with the purpose of incorporating both high-rise and low-rise, as well as old and new structures.

1. Natural Environment - The plan should be carefully conceived and designed in terms of the natural environment. The elements of sun, wind, view orientation and temperature are the main elements of concern. Siting, volume and material should be carefully chosen in relationship to sun and shadow. Chula Vista's temperate climate allows opportunities to create an indoor/outdoor character.

2. Historic Preservation - Historical landmarks within the project area which exhibit architectural character of a unique nature should be given important consideration in the preparation of the redevelopment plan.

3. Architectural Design - All architectural elements through their various facets, including detailing and use of materials, should express their use and function.

4. Cultural Elements - Limited activities of a definite cultural nature should take place in and around the project area. It is desirable that physical development of the project reflect the desire to expand these activities. Development proposals should indicate the use of graphic design and other forms of art, along with an interpretation of their relationship to the total project design.

5. Urban Design - The "floor" of a project area is an important as the design feature of the buildings. All elements known as street furniture, such as street lighting, newspaper stands, trash containers, fire hydrants, telephone booths, etc., must be treated as special objects of design.

C. Circulation - Movement of people and goods throughout the project should take place easily. Circulation patterns of differing transportation modes should be integrated and conflict areas should be avoided. Ingress and egress should be improved where possible.

1. Parking and Land Use - Major emphasis should be given to pedestrian movement. All parking should have easy access to open space, plaza areas, and buildings within the project. Any interim parking provided within the project should be developed realizing that in the event a satellite parking program or a parking structure program is implemented, those areas abandoned would be designated as expansion areas. Further, efforts should be made to determine the proper mix and location of various types of parking (e.g. parellel, off-street, on-street).

2. Transportation - Although the automobile can and will be accommodated, it would be desirable to study other modes of transportation to minimize pedestrian-vehicle conflicts. A mini-transit vehicle transportation system shall be explored to provide for additional intra-project movement. In addition, the proposed Metropolitan Transit Development Board's plans to provide mass transit via rail should be monitored so that the Central Business District can be serviced by this line (either directly or via surface transit) when and if it is operating.

3. Linkages - The final redevelopment plan should emphasize the minimization of pedestrian and vehicular conflict throughout the CBD. This can be further accomplished in a variety of ways, including but not limited to street closure and construction of overhead walking and aerial structures where warranted by building heights. In addition, consideration should be given to the conveyance of air rights on retained streets to the center-line of said streets. This would function in a manner to expedite the requirement of adjacent developers to make structural linkages from one development to another to provide for project integrity.

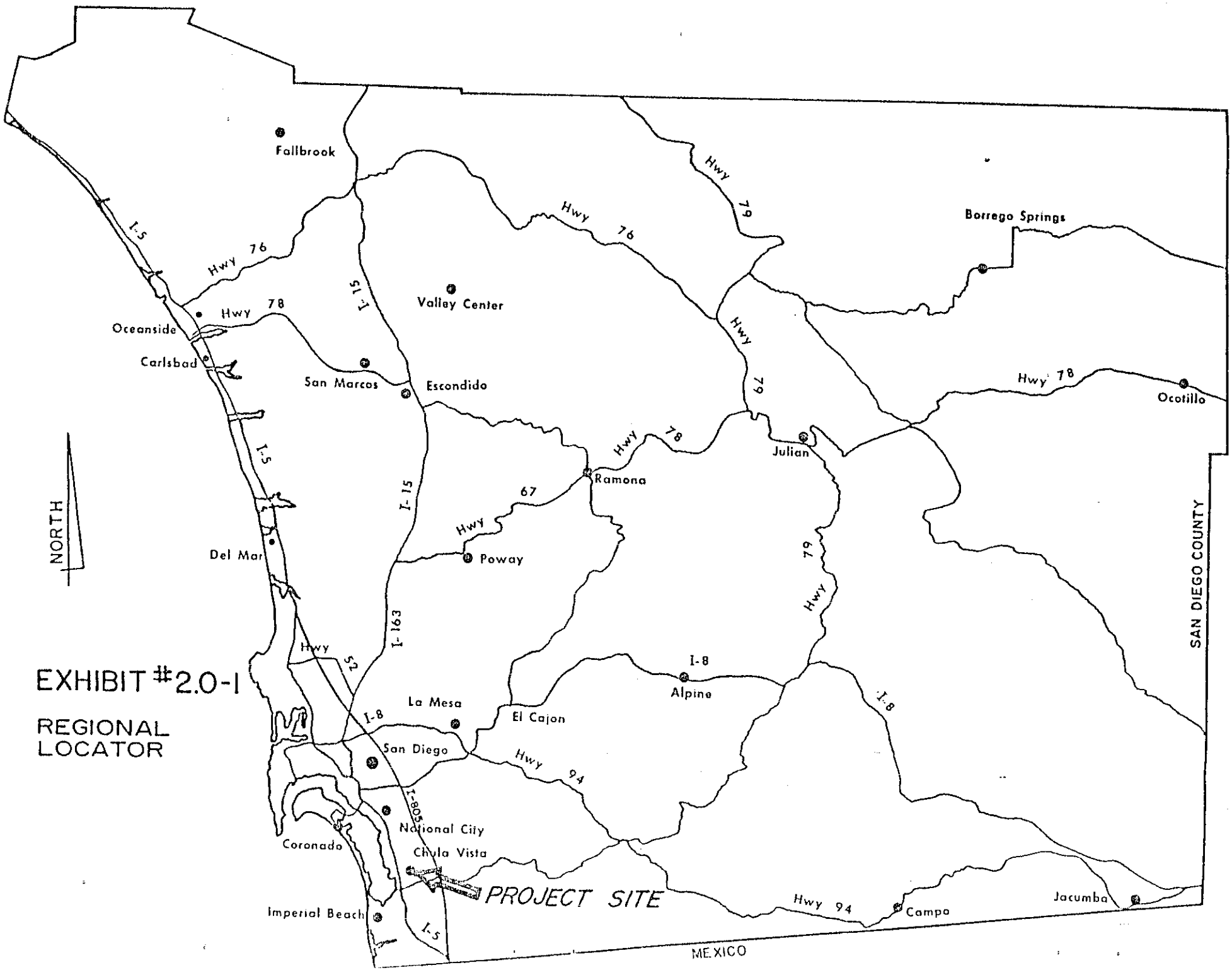
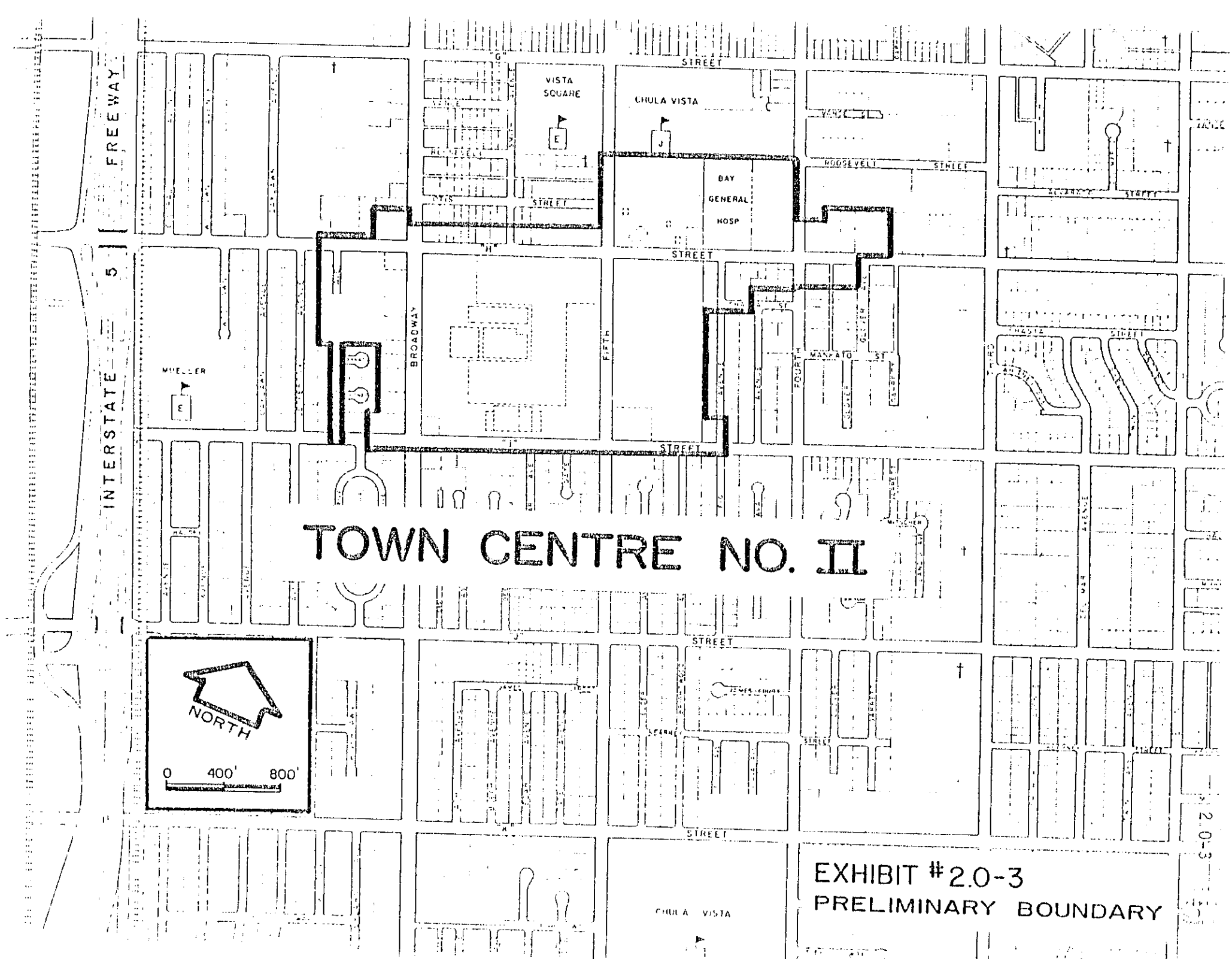


EXHIBIT #2.0-1

REGIONAL LOCATOR

EXHIBIT #2.0-2
VICINITY MAP


INTERSTATE 5 FREEWAY
VISTA SQUARE
CHULA VISTA
BAY GENERAL HOSP
MUELLER
BROADWAY
FIFTH
FOURTH
THIRD
MANATO ST
STREET
NORTH
0 400' 800'
TOWN CENTRE NO. II
EXHIBIT # 2.0-3
PRELIMINARY BOUNDARY
2.0-3

3.0 IMPACT ANALYSIS

3.0 IMPACT ANALYSIS

3.1 GEOLOGY AND SOILS

3.1.1 Project Setting

Seismicity

Local Faults

Special Report 123, published by the California Division of Mines and Geology, was utilized as the basis for investigation of earthquake faulting within the Chula Vista Planning area.

There are no apparent fault traces located within the vicinity of the project. The closest known fault is located 1.5 to 2.0 miles west, underlying the San Diego Bay. A larger system, the Sweetwater-La Nacion zone, has been found to underly Chula Vista's eastern planning area approximately 1.5 to 3.0 miles east. Both systems are north-south trending and are considered potentially active-low-potential faults. Neither has caused known earthquake damage in historic times.

Two other faults, both inferred by geophysical evidence, are suspected within the Chula Vista area. The Telegraph Canyon fault is believed to lie offshore west of the J Street Marina, perpendicular to the San Diego Bay fault. It was first reported by Lockheed in Report #20867. The Otay Valley fault is suspected of traversing the Otay Valley fault beneath alluvium soils. It is east-west trending and referred to in Special Report 64, published by the California Division of Mines and Geology. (Exhibit #3.1-1)

Regional Faults

Regional faults could pose a greater threat to the Chula Vista area than do local faults since many epicenters have been recorded in northern San Diego County. The San Jacinto fault zone, lying approximately 65 miles to the northeast, is the most active large fault in the County. Seventeen earthquakes registering 6.0 to 7.0 on the Richter scale have occurred along it's 180 mile length since 1890. Several shocks have also been recorded along the Elsinore fault zone located about 45 miles northeast of Chula Vista. Events measuring from 4.0 to 5.5 on the Richter scale have been reported. The San Andreas fault is located farther from Chula Vista (approximately 95 miles), however, a higher maximum probable event (8.0 to 8.5 Richter scale) with a recurrence interval of 40 to 100 years could be anticipated.

Soils

The Seismic Element of the Chula Vista General Plan indicates that most of the City, including the site, is part of the San Diego Geologic Formation, a quaternary marine terrace depost. "Soil Survey, San Diego Area, California", issued in 1973 by the United States Department of Agriculture Soil Conversation Service and Forest Service, indicates that the soil overlaying the San Diego formation is part of the Huerhuero-Stockpen Association.

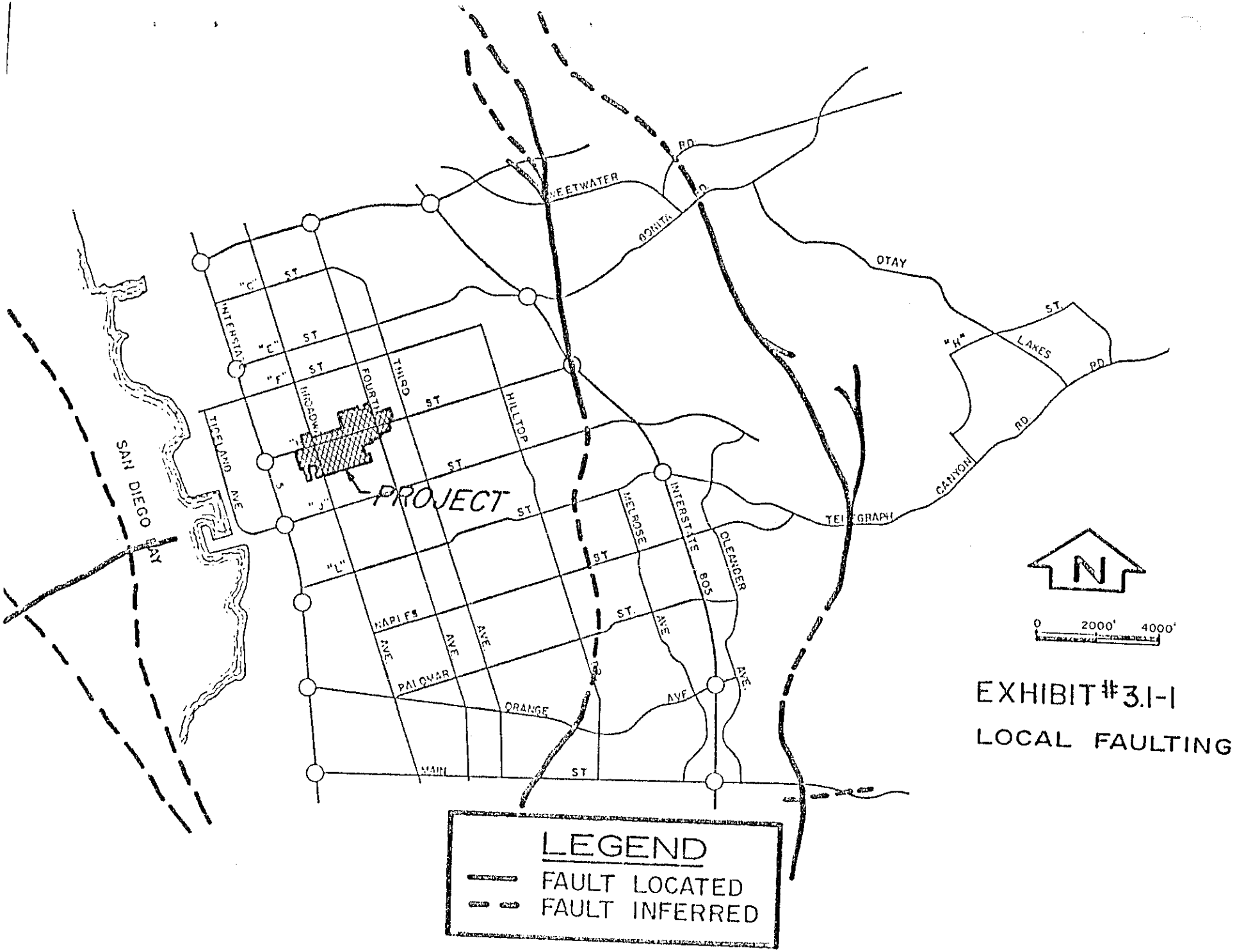


EXHIBIT # 3.1-1

LOCAL FAULTING

Exhibit 3.1-2 Modified Mercalli scale of earthquake intensities.

THE MERCALLI INTENSITY SCALE
(As modified by Charles F. Richter in 1956 and rearranged)

If most of these effects are observed	*then the intensity is:*
Earthquake shaking not felt. But people may observe marginal effects of large distance earthquakes without identifying these effects as earthquake-caused. Among them: trees, structures, liquids, bodies of water sway slowly, or doors swing slowly.	*I*
Effect on people: Shaking felt by those at rest, especially if they are indoors, and by those on upper floors.	*II*
Effect on people: Felt by most people indoors. Some can estimate duration of shaking. But many may not recognize shaking of building as caused by an earthquake; the shaking is like that caused by the passing of light trucks.	*III*
Other effects: Hanging objects swing. *Structural effects:* Windows or doors rattle. Wooden walls and frames creak.	*IV*
Effect on people: Felt by everyone indoors. Many estimate duration of shaking. But they still may not recognize it as caused by an earthquake. The shaking is like that caused by the passing of heavy trucks, though sometimes, instead, people may feel the sensation of a jolt, as if a heavy ball had struck the walls. *Other effects:* Hanging objects swing. Standing autos rock. Crockery clashes, dishes rattle or glasses clink. *Structural effects:* Doors close, open or swing. Windows rattle.	*V*
Effect on people: Felt by everyone indoors and by most people outdoors. Many now estimate not only the duration of shaking but also its direction and have no doubt as to its cause. Sleepers wakened. *Other effects:* Hanging objects swing. Shutters or pictures move. Pendulum clocks stop, start or change rate. Standing autos rock. Crockery clashes, dishes rattle or glasses clink. Liquids disturbed, some spilled. Small unstable objects displaced or upset. *Structural effects:* Weak plaster and Masonry D* crack. Windows break. Doors close, open or swing.	*VI*
Effect on people: Felt by everyone. Many are frightened and run outdoors. People walk unsteadily. *Other effects:* Small church or school bells ring. Pictures thrown off walls, knicknacks and books off shelves. Dishes or glasses broken. Furniture moved or overturned. Trees, bushes shaken visibly, or heard to rustle. *Structural effects:* Masonry D* damaged; some cracks in Masonry C*. Weak chimneys break at roof line. Plaster, loose bricks, stones, tiles, cornices, unbraced parapets and architectural ornaments fall. Concrete irrigation ditches damaged.	*VII*
Effect on people: Difficult to stand. Shaking noticed by auto drivers. *Other effects:* Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Furniture broken. Hanging objects quiver. *Structural effects:* Masonry D* heavily damaged; Masonry C* damaged, partially collapses in some cases; some damage to Masonry B*; none to Masonry A*. Stucco and some masonry walls fall. Chimneys, factory stacks, monuments, towers, elevated tanks twist or fall. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off.	*VIII*
Effect on people: General fright. People thrown to ground. *Other effects:* Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes. Steering of autos affected. Branches broken from trees. *Structural effects:* Masonry D* destroyed; Masonry C* heavily damaged, sometimes with complete collapse; Masonry B* is seriously damaged. General damage to foundations. Frame structures if not bolted, shifted off foundations. Frames racked. Reservoirs seriously damaged. Underground pipes broken.	*IX*
Effect on people: General Panic. *Other effects:* Conspicuous cracks in ground. In areas of soft ground, sand is ejected through holes and piles up into a small crater, and, in muddy areas, water fountains are formed. *Structural effects:* Most masonry and frame structures destroyed along with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes and embankments. Railroads bent slightly.	*X*
Effect on people: General panic. *Other effects:* Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. *Structural effects:* General destruction of buildings. Underground pipelines completely out of service. Railroads bent greatly.	*XI*
Effect on people: General panic. *Other effects:* Same as for Intensity X. *Structural effects:* Damage nearly total, the ultimate catastrophe. *Other effects:* Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.	*XII*

* Masonry A: Good workmanship and mortar, reinforced, designed to resist lateral forces.
Masonry B: Good workmanship and mortar, reinforced.
Masonry C: Good workmanship and mortar, unreinforced.
Masonry D: Poor workmanship and mortar and weak materials like adobe.

The Huerhuero series consists of moderately well-drained loams that have a clay subsoil and were developed in sandy marine sediments. The site and surrounding area are specifically defined by the Soil Conservation Service publication as "Huerhuero-Urban Land Complex, 2 to 9 percent slopes". This complex occurs on marine terraces, at elevations that range from sea level to 400 feet.

3.1.2 Potential Impacts

The project site will be exposed to ground shaking typical of Southern California's earthquake activity. Souther California is within Seismic Risk Zone #3. Earthquakes within this zone are anticipated to reach an intensity equal to VIII on the Modified Mercuric Scale (Exhibit 3.1-2). There are no potential impacts expected due to ground rupture or liquification.

Soils native to the site have been found to be both erodible and expansive.

3.1.3 Mitigation and/or Alternatives

New construction within the redevelopment area will be subject to the Uniform Building Code which requires adequate design to resist failure in the event of projected earthquake activity.

Soil testing should be required prior to any new construction. If highly expansive soils are encountered, removal from pad area and replacement with select, non-expansive materials should be required. A landscape plan utilizing protective ground cover and selected plant materials should be incorporated when erodible soils are found to avoid heavy erosion and siltation. Plans should be subject to the approval of the landscape architect.

3.1.4 Analysis of Significance

Potential impacts from adverse soil conditions can be mitigated and no substantial negative effect should result.

Ground shaking from the area earthquake faults has the potential to cause substantial damage to structures; however, required design control will reduce the severeness of damage and a relatively safe environment can be maintained.

3.2 TOPOGRAPHY, DRAINAGE AND GROUNDWATER

3.2.1 Project Setting

Topography

The topography of the redevelopment area is generally flat, sloping gently southeast to northwest. Elevations range from 65 feet above mean sea level at the intersection of I Street and Fig Avenue in the southeast to 32 feet AMSL at the intersection of H Street and Madison Avenue in the northwest.

Drainage Patterns

The redevelopment area lies within the Central Drainage Basin as discussed in the 1964 storm drain report prepared for Chula Vista by Lawrence, Foggs, Florer and Smith.

The northeast portion of the Project Area (north of H Street) drains into a 49" x 33" CSPA and 18" x 18" PCC box north of the Chula Vista Medical Center and directs the flow northwest through a 30" RCP traversing Chula Vista Jr. High School. A 36" RCP traverses Sears parking lot and several structures (42" to 45" RCP, 18" to 21" RCP and 18" to 30" RCP) underly the Broadway Shopping Center which directs the flow west into a 48" and 24" RCP located in Broadway. The flow then disburses to a northern course entering a 42" RCP in H Street, west of Broadway and a southern course into a 36" RCP underlying the Nurseryland parking lot. Drainage from the southernmost portion of the area is carried via sheet flow on I Street into a drainage structure under the intersection of Broadway and I Street.

Groundwater

Numerous soils investigations have been conducted within the Project vicinity and there has been no indication of a high ground water table. There are no private wells nor is there any public draw of groundwater near the site.

3.2.2 Potential Impacts

The Redevelopment Plan is not anticipated to result in any impact related to change in landform, drainage or groundwater.

3.2.3 Mitigation and/or Alternatives

None Required

3.2.4 Analysis of Significance

The areas topography is relatively level. Approximately 99.4% of the project site has been previously improved and graded. Therefore, new construction would not require any substantial grading or result in any substantial change in landform.

Drainage improvements are generally adequate within the project area. Expansion of existing uses or additional construction will not increase run-off or drainage volume since the project is currently in a developed state. Any development that proposes to modify existing improvements will be required to provide replacement facilities with equal protection against flooding.

3.3 LAND USE

3.3.1 Project Setting

Existing Land Uses

The primary existing land use within the project area involves commercial development. Approximately 65% (70.5 acres) of the site is developed with retail commercial uses and about 11% (12 acres) with service commercial uses.

The Chula Vista Shopping Center entails the greatest concentration of retail uses within the project area, Sears and the Broadway being the largest of the department stores. The commercial center located along

the north side of H Street, east of 5th Avenue consists of a wide variety of development involving restaurants and recreational and service-oriented uses as well as a wholesale merchandise outlet and several small shops. Another commercial complex is located on the west side of Broadway, south of H Street. Nurseryland is the largest single component. Several boutique style shops, personal service establishments and a bank comprise the remainder of the center. A vacant, former market is also in the area.

The bulk of the vicinity's fast food restaurants, service commercial and office uses are located along the strip commercial property located on the north side of H Street and west side of Broadway.

Several residental developments are within the project boundaries. Most involve multiple family structures located along the perimeter of the area. Specific locations are shown on Exhibit #3.3-1.

Quasi-public uses include the Boys' Club at the southeast corner of 5th Avenue and I Street and the Bay General Hospital located on the north side of H Street west of Fourth Avenue.

Existing land use, zoning and general plan summaries follow. Exhibits #3.3-2 and 3.3-3 graphically display zoning and General Plan designations.

TABLE 1

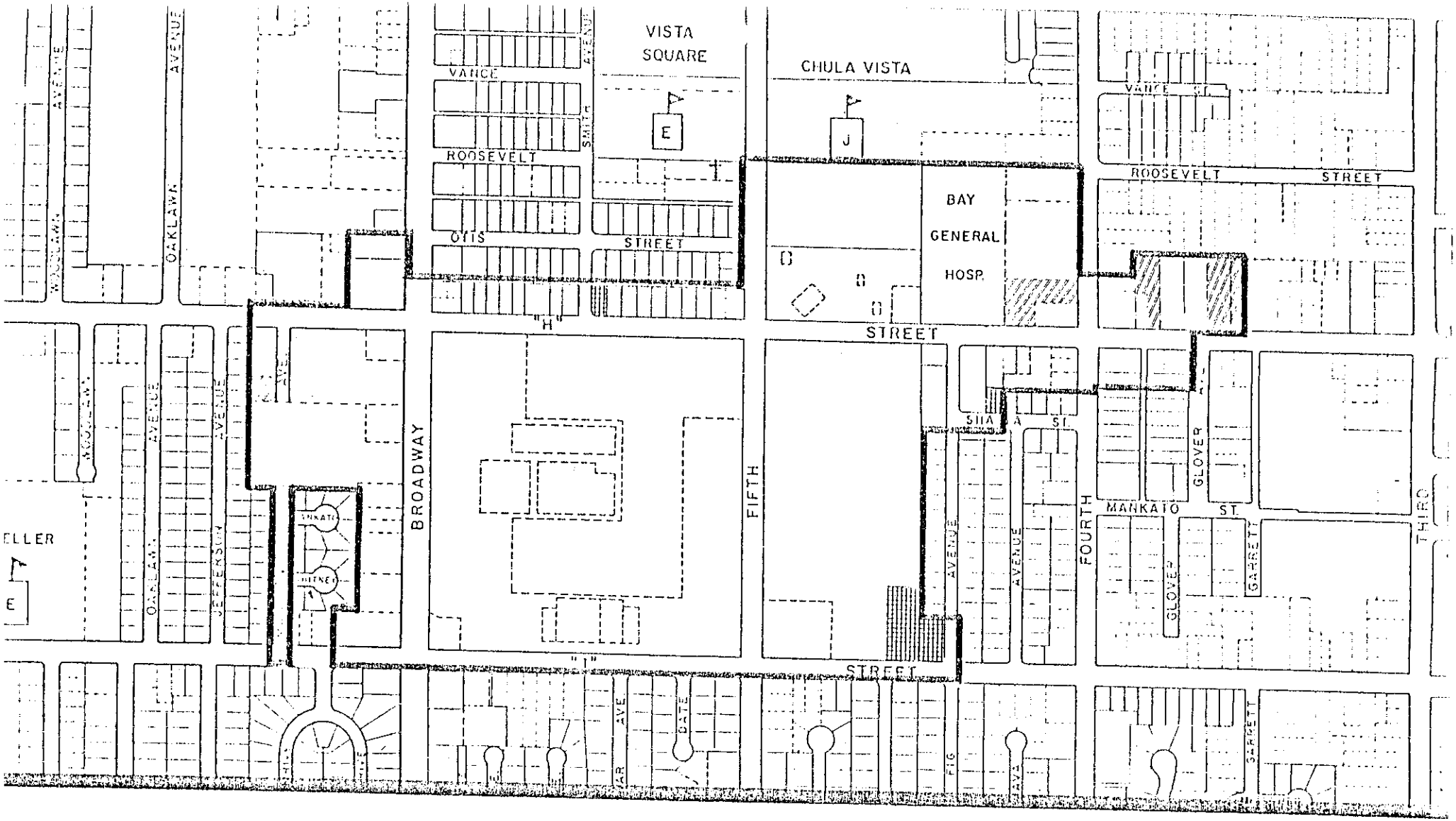
EXISTING LAND USE SUMMARY
February, 1978

Retail Commercial	70.47 acres (64.9%)
Service Commercial	11.87 acres (10.9%)
Residental	4.61 acres (4.2%)
Quasi-Public	5.86 acres (5.4%)
Vacant	.63 acres (.58%)
Subtotal	93.44 acres (86%)
Streets and Alleys	15.11 acres (14.0%)
TOTAL	108.55 gross acres

TABLE 2

EXISTING ZONING ACREAGE SUMMARY
February, 1978

Central Commercial (C-C & C-C-D)	63.36 acres
Commercial Office (C-O & C-O-P)	16.62 acres
Commercial Thoroughfare	12.93 acres
Residential - Single-family	.38 acres
Residential - two-family	.15 acres
	93.44 acres



TOWN CENTRE NO. II
RESIDENTIAL LAND USE

LEGEND

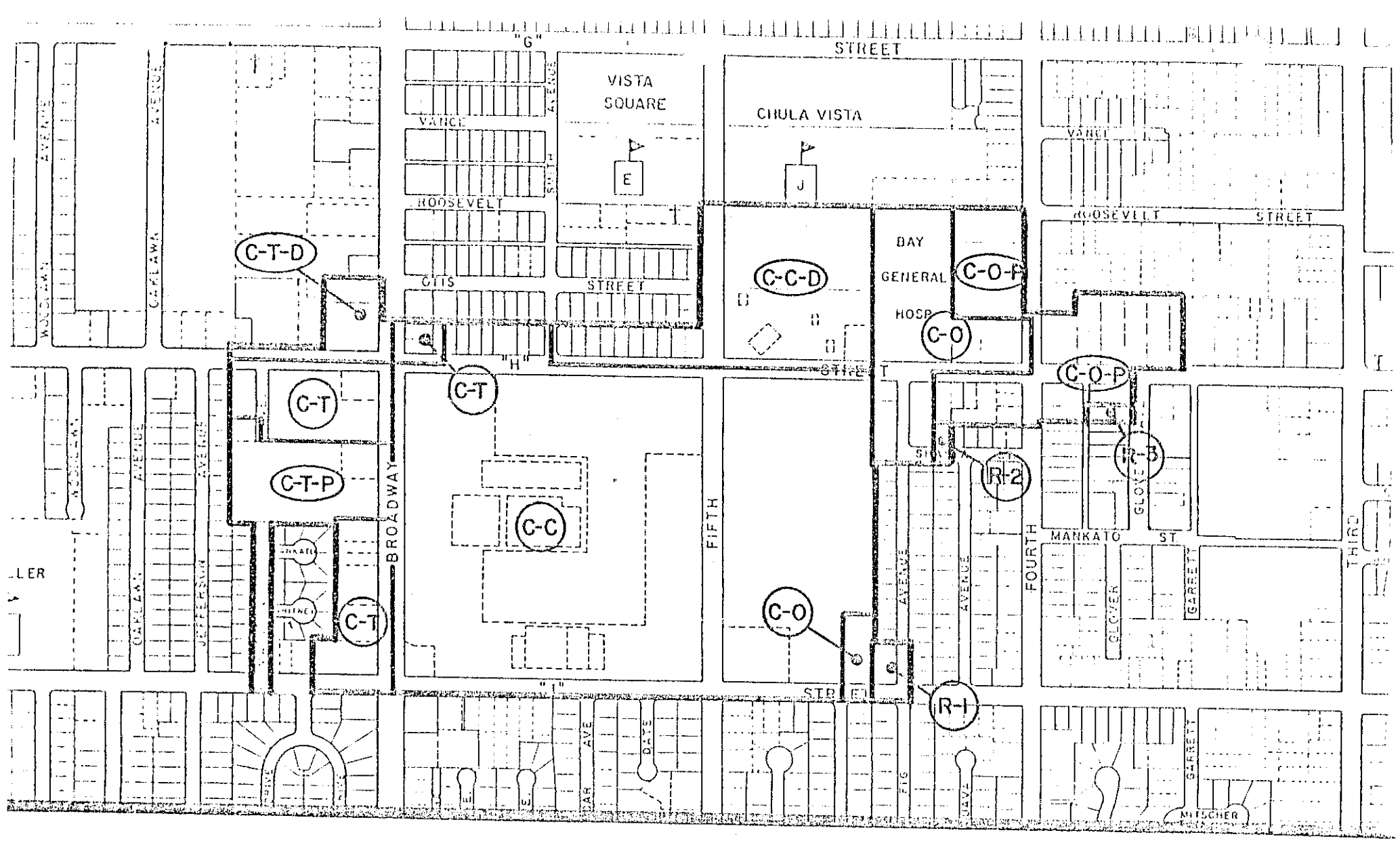
- Single-Family
- Multi-Family

NORTH

0 200' 400'

EXHIBIT # 3.3-1

3.3-1



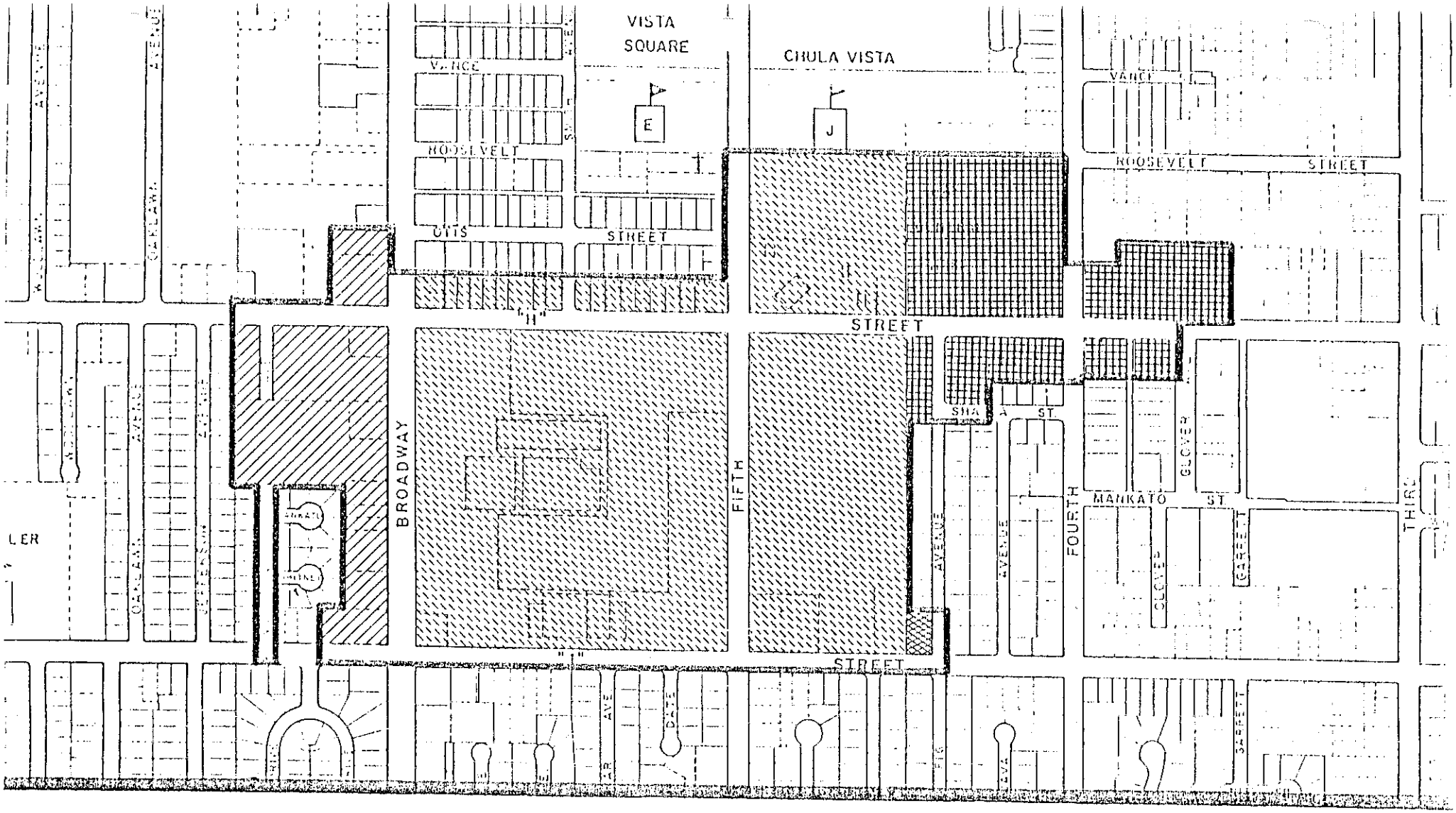
TOWN CENTRE NO. II
CURRENT ZONING

LEGEND

(C-C) ZONING

EXHIBIT #3.3-2

3.3-2



LEGEND

- Thoroughfare Commercial
- Retail Commercial
- Professional & Administrative Commercial
- Medium Density Residential

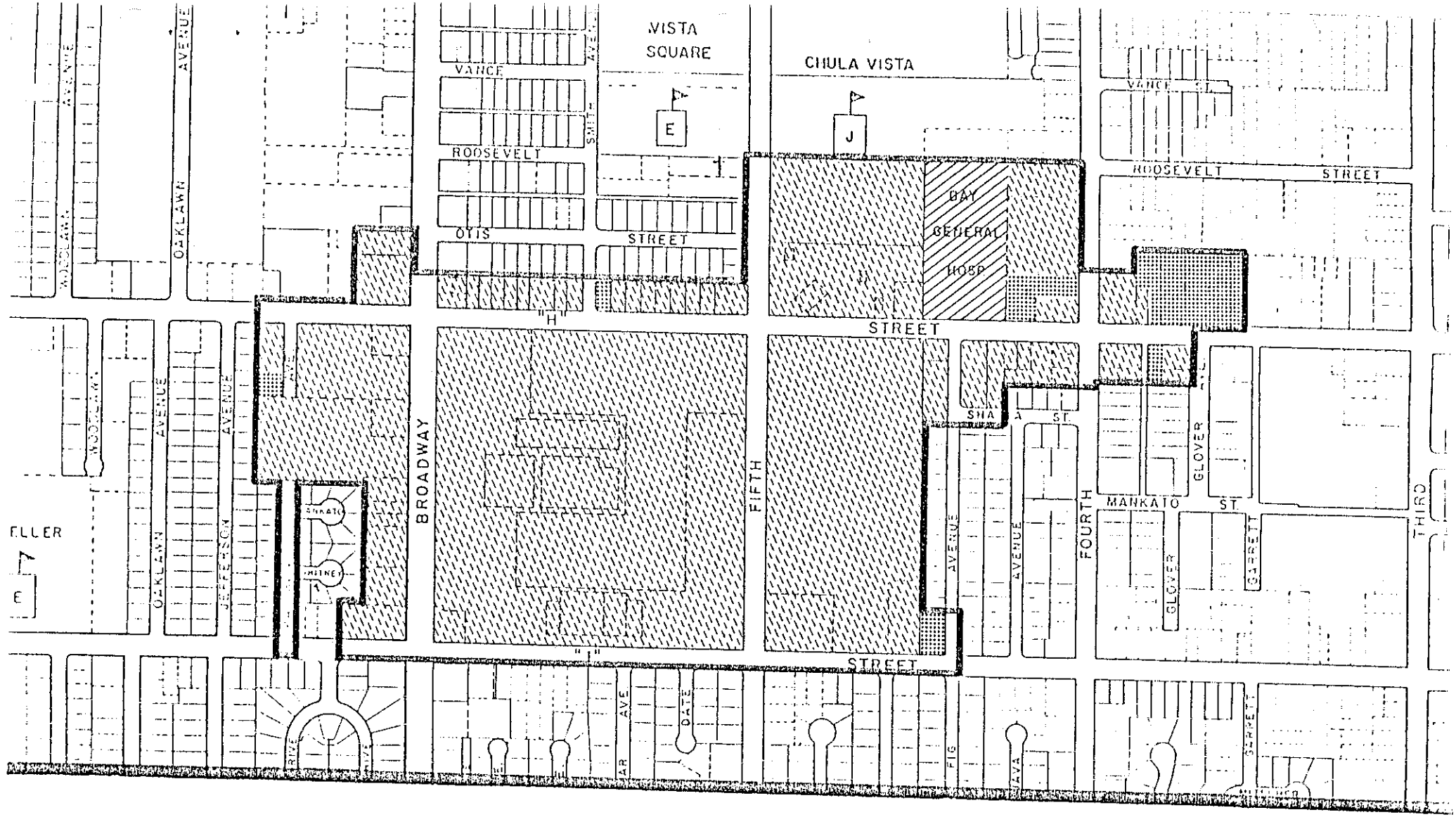
TOWN CENTRE NO. II
EXISTING GENERAL PLAN

NORTH

0 200' 400'

3.3-3

EXHIBIT #3.3-3



TOWN CENTRE NO. II REDEVELOPMENT LAND USE PLAN

LEGEND

- Quasi-Public
- Central Commercial
- Residential

NORTH

0 200' 400'

EXHIBIT # 3.3-4

3.3-4

TABLE 3

EXISTING GENERAL PLAN ACREAGE SUMMARY

February 1978

Thoroughfare Commercial	12.45 acres
Retail Commercial	64.69 acres
Professional & Administrative Commercial	16.30 acres
	93.44 acres

3.3.2 Potential Impacts

New development or expansion of existing uses could produce higher density and bulkier structures within the project area.

3.3.3 Mitigation and/or Alternatives

Proposed development and/or expansion will be regulated by the Town Centre II Redevelopment Plan, Land Use Plan and applicable ordinances and policies. (See proposed land use plan, Exhibit #3.3-4)

3.3.4 Analysis of Significance

The Redevelopment Plan is designed to revitalize existing uses within the project area. Development will be required to conform to the redevelopment land use plan promoting the project area as the principal regional shopping center of the South Bay.

3.4 BIOLOGY

3.4.1 Project Setting

The area included in the Town Centre II Redevelopment Project is within the City's urban core and has been developed for many years. Vegetation and wildlife that is present consists of decorative trees and landscaping and local birds that frequent the area.

3.4.2 Potential Impacts

None anticipated.

3.4.3 Mitigation and/or Alternatives

None proposed

3.4.4 Analysis of Significance

Since there is a general lack of wildlife present within the re-development area, no impact on biological resources will occur.

3.5 ARCHAEOLOGY AND HISTORY

3.5.1 Project Setting

Archaeology

An archaeological records search of the Chula Vista Planning area was conducted in 1975 in conjunction with the Federal Community Block Grant Program. The Museum of Man and the Anthropology Department of San Diego State University were consulted and both indicated that there are no known archaeological resources present within the Chula Vista urban core.

History

During the late 1800's and early 1900's, a large portion of the redevelopment area (40-45%) was cultivated for the production of citrus. Orchards were located at the southwest corner of H Street and Broadway, along the north side of H Street between 4th and 5th Avenues and on the major portion of the Sears' Department Store site. The Chula Vista orchards played an integral role in the founding and development of the City.

Most of the orchards and orchard houses have been replaced by urbanization. A few older homes are located along the outline of the general project area and one large, interesting house is located within the project boundary at 455 I Street. None of these structures have been documented as "Chula Vista Orchard Homes," however, and little information regarding their history is available.

3.5.2 Potential Impacts

None anticipated.

3.5.3 Mitigation and/or Alternatives

None proposed.

3.5.4 Analysis of Significance

Since there is no indication that any archaeological or historical sites exist within the project vicinity, no adverse effect on such resources is anticipated to occur.

3.6 TRANSPORTATION AND ACCESS

3.6.1 Project Setting

Existing Street Patterns and Access

Three major routes and several local streets provide access into and through the project area. The circulation system follows a basic

gridiron pattern (Exhibit 3.6-1).

"H" Street bisects the project in an east-west direction and is a main linkage between residential Chula Vista and the urban core. This major thoroughfare provides access to both interstate 5 and I-805, Rohr Industries, Bay General Hospital and Medical Center and of course, the Chula Vista Shopping Center. The site for the future County Court Complex is also located on the south side of "H" Street at 3rd Avenue. (See Exhibit #3.6-2 for existing traffic volumes.)

Broadway, Chula Vista's major thoroughfare commercial avenue, traverses the western portion of the project area. Approximately 18-20,000 vehicles per day utilize Broadway in the vicinity of "H" Street.

Fourth Avenue traverses the eastern extension of the Town Center II project. Although Fourth Avenue is primarily developed with residential uses, it serves as a truck route and accommodates approximately 18,000 vehicles per day within the project locale.

Existing Traffic Flows and Circulation

Intersections are the constraint on how much traffic an existing circulation system can accommodate. Therefore, peak hour turning movement counts (12:00-1:00 p.m. and 4:00-5:00 p.m.) were taken at six intersections in or near Town Centre II to determine how much of the capacity at these intersections is presently being utilized.

The analysis method used is Intersection Capacity Utilization (ICU), which is a technique for estimating the overall level of service at an intersection based on traffic volumes and intersection geometrics. This method compares lane volumes (left, through and right) against lane capacities, then sums the ratios for the different movements and when the total is less than 1.0, the intersection is operating at less than capacity. The following is a discussion of level of service and a comparison of level of service to ICU values.

Level of Service		
A,B	-	Condition of Free Flow
C	-	Condition of Stable Flow
D	-	Condition Approaching Unstable Flow
E	-	Unstable Flow; Volumes near or at Capacity
F	-	Forced Flow; Stoppages May Occur for Long Periods of Time

Level of Service		
A,B	-	0.74 and below
C	-	0.75 - 0.84
D	-	0.85 - 0.94
E	-	0.95 - 1.04
F	-	1.05 and greater

Using this method, the following ICU values were calculated using existing volumes and geometrics:

TABLE 4

	ICU (Level of Service)	
	12-1p	4-5p
Broadway/"H" Street	0.87 (D)	0.90 (D)
Broadway/"I" Street	0.59 (A)	0.50 (A)
Fourth Avenue/"H" Street	0.91 (D)	0.87 (D)
Fourth Avenue/"I" Street	0.48 (A)	0.50 (A)
Fifth Avenue/"H" Street	0.61 (A)	0.61 (A)
Fifth Avenue/"I" Street	0.48 (A)	0.51 (A)

3.6.2 Potential Impacts

A study of traffic flows on streets adjacent to the Chula Vista Shopping Center and major intersections within the project vicinity was undertaken. (See Appendix A for study.) To facilitate such an analysis certain alternative methods of redevelopment were discussed:

1. Status Quo - Fifth Avenue open/ 650,000 square feet gross leaseable floor area (GLA) in Chula Vista Shopping Center.

2. Closure of Fifth Avenue between "H" and "I" Streets; addition of about 140,000 square feet GLA in the Chula Vista Shopping Center.

3. Fifth Avenue open (tunnel); addition of about 140,000 square feet GLA in the Chula Vista Shopping Center.

4. Closure of Fifth Avenue between "H" and "I" Streets; addition of about 200,000 square feet GLA in the Chula Vista Shopping Center.

The three Town Centre II redevelopment alternatives outlined were analyzed based on the following discussion.

In Alternatives 2 and 4, the through traffic using Fifth Avenue was assumed to use the nearby parallel north-south routes - Broadway and Fourth Avenue - based on the location of the address of the registered owners -- that is, those vehicles registered to owners living east of Fifth Avenue were assumed to use Fourth Avenue and those registered to owners living west of Fifth Avenue were assumed to use Broadway.

In Alternatives 2, 3 and 4, the additional trips generated by an expansion of the shopping center were distributed on the basis of:

1. Driveway utilization data collected;
2. Geographic residential development in Chula Vista;
3. I-5 and I-805 freeway connections.

Estimated shopping center traffic distribution percentages are shown on Exhibit 3.6-3.

Using estimated trip generation rates, the expanded shopping center would be expected to generate the folloiwng number of trips:

TABLE 5

Projected Trip Generation

Chula Vista Shopping Center	Trips Generated 24-hour	peak hour
Existing	32,400	3,250
Expansion by 140,000 sq. ft. GLA (Alternatives 2 & 3)	39,340	3,950
Expansion by 200,000 sq. ft. GLA (Alternative 4)	42,330	4,250

If Fifth Avenue were closed (in Alternatives 2 & 4), it is estimated that 2,000 and 3,600 (through traffic) trips a day would be diverted to Broadway and Fourth Avenue respectively. These volumes of diverted through traffic and the additional traffic generated by the shopping center expansion were added to the existing peak hour volumes and the ICU's recalculated for each redevelopment alternative at the nearby intersections. Results are shown on Table 6.

Table 6 shows that if Fifth Avenue were closed and the shopping center expanded (either 140,000 or 200,00 sq. ft. GLA), the intersection of Fourth Avenue/"H" Street would be operating at capacity during the noon peak hour. This means that traffic would encounter significant delays and could have to wait through several traffic signal cycles (up to 2 minutes/cycle) at this intersection.

The intersection of Broadway/"H" Street would also experience similar congestion during both noon and evening peak hours.

The analysis shows if the shopping center were expanded and Fifth Avenue closed, these additional resulting impacts will occur:

1. The estimated increase in vehicle miles travelled (VMT) caused by the more circuitous routes necessary for through traffic on Fifth Avenue is 0.50-0.75 million miles/year.

2. If Fifth Avenue is closed and replaced by an expanded shopping center parking lot, the accident rate (between "H" and "I" Streets) would be eliminated. However, there would be an increase in accidents at nearby intersections due to higher traffic volumes. It is not possible to estimate the accident rate in the expanded parking lot.

3. The closing of Fifth Avenue would increase emergency vehicle response time (estimated 2-3 minutes) to areas immediately adjacent to Fifth Avenue both north of "H" Street and south of "I" Street.

4. The expansion of the Chula Vista Shopping Center would decrease the ratio of parking spaces per 1,000 sq. ft. GLA from the existing 5.39 to 4.67 and result in higher use of adjacent on-street parking during periods of peak activity at the shopping center (e.g. Christmas).

5. The expansion of the Chula Vista Shopping Center would permit redesign of the substandard parking lot (with respect to aisle width, stall layout, etc.) west of Fifth Avenue to provide for better internal circulation and facilitate vehicle parking.

6. The existing traffic signals at Broadway/"I" Street, Fourth Avenue/"I" Street, and Fifth Avenue/"H" Street are two-phase, fixed-time signals which permit both north-south and east-west progression, but inhibit left turning vehicles. As approach volumes at an intersection increase, there are more conflicts between through and turning movements and it is advisable to install a fully-actuated signal when the ICU becomes 0.75 or greater.

TABLE 6

Projected Intersection Levels of Service

Peak Hour	Existing	Alternate 2	Alternate 3	Alternate 4
		Broadway/"H" Street		
12:00- 1:00 p.m.	0.87 (D)	0.96 (E)	0.91 (D)	1.00 (E)
4:00- 5:00 p.m.	0.90 (D)	0.97 (E)	0.92 (D)	1.01 (E)
		Broadway/"I" Street		
12:00- 1:00 p.m.	0.59 (A,B)	0.69 (A,B)	0.65 (A,B)	0.73 (A,B)
4:00- 5:00 p.m.	0.50 (A,B)	0.58 (A,B)	0.54 (A,B)	0.62 (A,B)
		Fourth Avenue/"H" Street		
12:00- 1:00 p.m.	0.91 (D)	1.02 (E)	0.97 (E)	1.05 (E)
4:00- 5:00 p.m.	0.87 (D)	0.94 (D)	0.91 (D)	0.97 (E)
		Fourth Avenue/"I" Street		
12:00- 1:00 p.m.	0.48 (A,B)	0.61 (A,B)	0.58 (A,B)	0.66 (A,B)
4:00- 5:00 p.m.	0.50 (A,B)	0.65 (A,B)	0.60 (A,B)	0.70 (A,B)
		Fifth Avenue/"H" Street		
12:00- 1:00 p.m.	0.61 (A,B)	0.67 (A,B)	0.66 (A,B)	0.69 (A,B)
4:00- 5:00 p.m.	0.61 (A,B)	0.68 (A,B)	0.66 (A,B)	0.70 (A,B)
		Fifth Avenue/"I" Street		
12:00- 1:00 p.m.	0.48 (A,B)	0.57 (A,B)	0.55 (A,B)	0.59 (A,B)
4:00- 5:00 p.m.	0.51 (A,B)	0.58 (A,B)	0.55 (A,B)	0.61 (A,B)

(D) - Level of Service

7. As previously mentioned, intersections are the constraint on the volume of traffic the existing circulation system can accommodate. However, the resulting increase in traffic on Broadway and Fourth Avenue from the closing of Fifth Avenue and the expansion of the shopping center would not create capacity problems between intersections on these arterial streets but would increase the need for:

   a. Additional turn lanes at Broadway/"H" Street and Fourth Avenue/"H" Street - The through traffic at these intersections is seriously restricted by the necessity of right turning traffic to use the through lanes to make their turns.

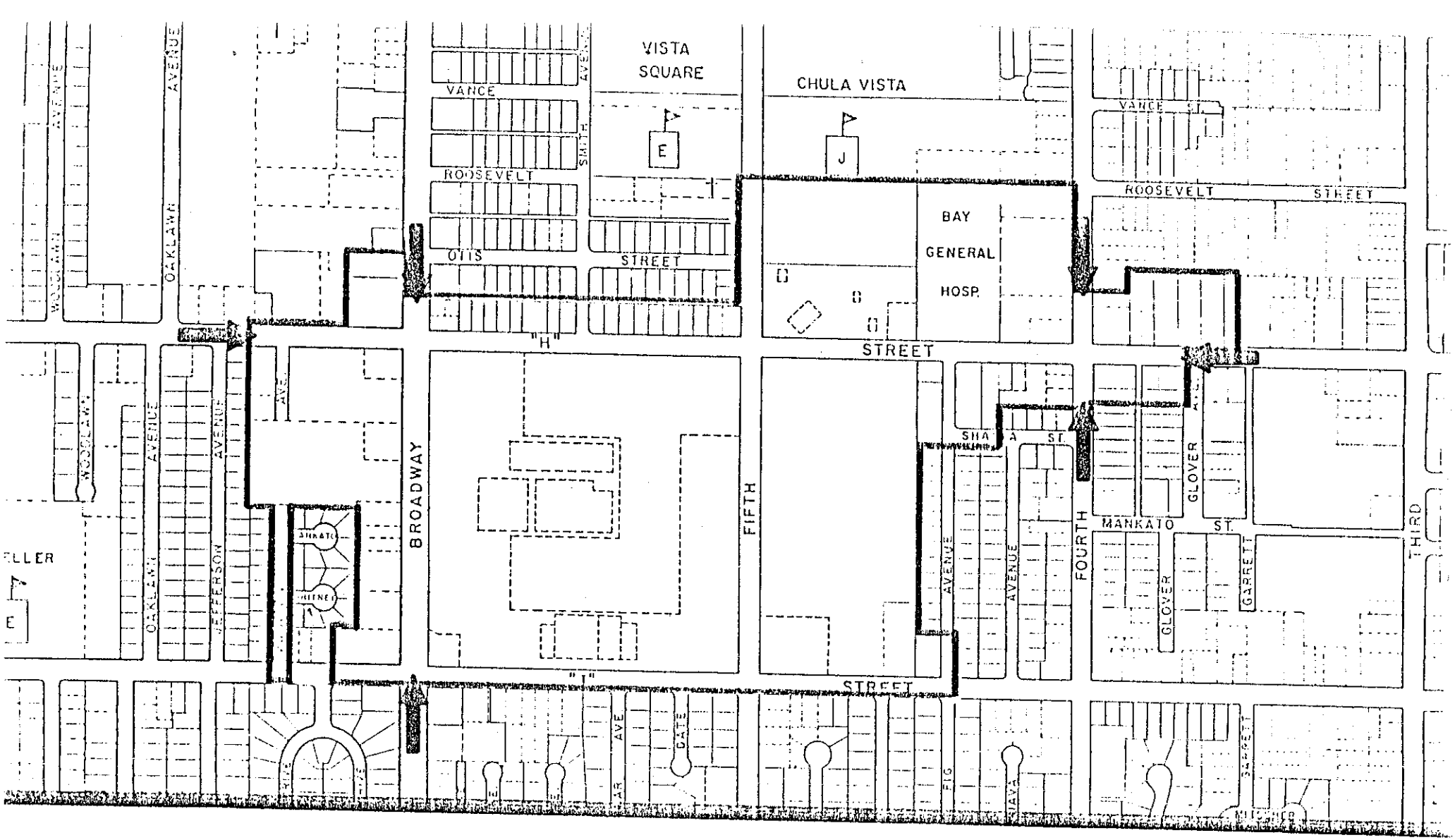
   b. Raised curb median on Broadway - An increase in traffic on this arterial would reduce the effectiveness of the existing two-way left turn lane (particularly between "H" and "I" Streets). The two-way left turn lane becomes ineffective when there is a high number of left turns being made. This condition is reflected by the high number of accidents on Broadway between "H" and "I" Stree-s and will worsen with additional traffic.

   c. A two-way left-turn lane of Fourth Avenue will be necessary to provide storage for turning vehicles and maximuze the flow of through traffic. Left turning vehicles into the driveways along Fourth Avenue between "H" and "I" Streets presently inhibit through traffic in the center lane on this arterial street. Additional traffic on Fourth Avenue that could be generated by the redevelopment alternatives would require this striping modification and the necessary elimination of on-street parking.

Cumulative Impact

The traffic study prepared for this MEIR analyzes potential impacts on circulation based on the alternative methods of redevelopment presented. It does not take into account increases in traffic volumes from the 2-3 percent/year normal growth and the South Bay County Court Facility which may occur before Town Centre II could be implemented (extimated 3-4 years).

With the construction of the South Bay County Court Facility, traffic volumes during the peak hours will be at or near the capacity which can be accommodated (given existing geometrics) at the intersections of Fourth Avenue/"H" Street and Broadway/"H" Street. Additional traffic generated by Town Centre II could create significant delays at these intersections. This may result in traffic being diverted to other (and often more circuitous) routes in order to avoid congestion. The amount of traffic diverted or its specific impact on the circulation system is not possible to estimate.



TOWN CENTRE NO. II
MAJOR ACCESS POINTS IN TO PROJECT.

LEGEND

Major Access

NORTH

0 200' 400'

EXHIBIT # 3.6-1

3.6-1

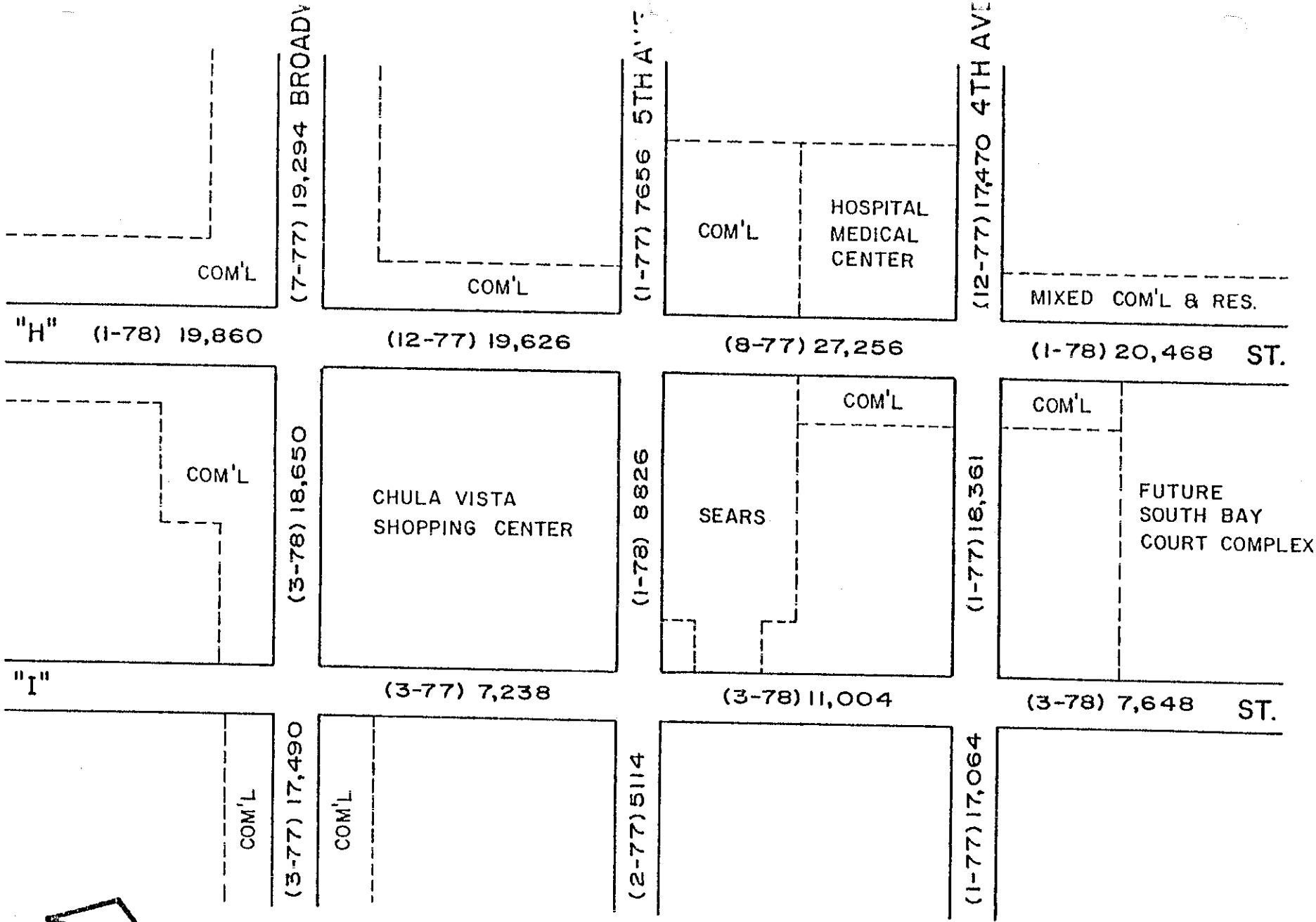
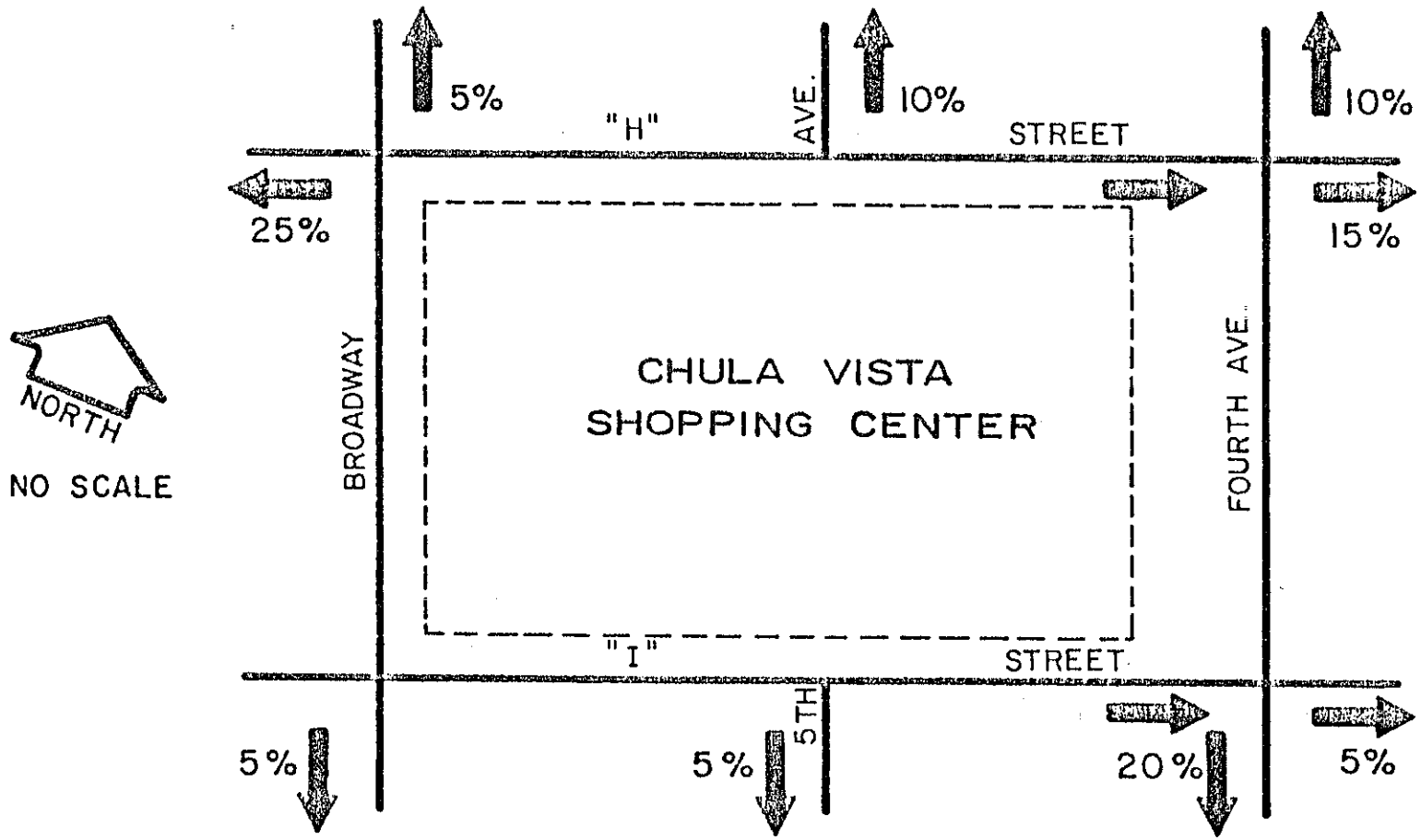


EXHIBIT #3.6-2
EXISTING TRAFFIC FLOWS



Estimated Trip Distribution – Chula Vista Shopping Center
EXHIBIT # 3.6-3

3.6.3 Mitigation and/or Alternatives

The following actions would increase the capacity at Fourth Ave./ "H" Street and Broadway/"H" Street and are necessary to make these intersections operate at a desirable level if Fifth Ave. were closed and the shopping center expanded:

1. The provision of a southbound right turn only lane on Fourth Ave. at "H" Street will reduce the ICU values between 0.10-0.12 for both existing and redevelopment alternatives as shown in Table 6. Thus, this intersection would then be operating at level of service D or better.

2. The provision of right turn only lanes on "H" Street at Broadway would reduce the ICU values 0.12-0.15 at that intersection and this intersection would then be operating at level of service D or better.

Implementation of a public transit program is vital toward the mitigation of potential circulation impacts. Mass transit and shuttle buses (or similar public transportation service) coordinated between the proposed MTDB system and adjacent project areas such as Town Center I, the County Court Complex, the Chula Vista Medical Center and Chula Vista Civic Center should be thoroughly investigated and implemented where improved circulation would result.

Improved bicycle routes which provide minimum conflict between cyclists and motor vehicles should also be investigated and implemented where feasible.

3.6.4 Analysis of Significance

The traffic analysis indicates that serious adverse effects on traffic circulation within Town Centre II could occur if re-development similar to alternative #2 or #4 occurs; specifically, the closure of 5th Avenue in conjunction with a major expansion of the Chula Vista Shopping Center. If such alternatives were implemented, an additional 7000 to 10,000 vehicle trips per day could occur within the area. This could result in adding 700 to 1000 trips during peak hours to already conjested intersections in the vicinity. Level of service at two major intersections, Broadway/ "H" Street and Fourth Avenue/"H" Street, could be significantly lowered. Increased conjestion, a higher rate of traffic accidents and delayed access to emergency medical facilities could result. Mitigation proposed could reduce the degree of significance of impacts anticipated. Broadway/"H" Street and Fourth Avenue/"H" Street could maintain its existing D level of service if additional turn lanes were provided. However; feasibility of this action due to physical constraints is questionable. A well coordinated public transit service has the potential to reduce ADT within the project vicinity substantially. Cumulative traffic impacts anticipated to occur due to adjacent projects could also be reduced significantly by means of inter-project public transportation.

3.7 AIR QUALITY AND CLIMATE

3.7.1 Project Setting

Climate

Chula Vista enjoys a semi-arid mediterranean climate characterized by mild winters and cool summers with gentle prevailing winds from the northwest. Temperatures range from an average of 55°F during January to 70°F during August. Average rainfall from 1940 to 1970 has been 10 inches/year. (See Exhibit 3.7-1 for additional climatic data.)

Air Quality

The redevelopment project lies within the San Diego regional air basin. Air quality in the S.D. basin is influenced by climatic conditions resulting in a low mixing height from ground level to a low inversion layer, low wind speed for horizontal mexing, little rain and a great deal of sun light. The Environmental Protection Agency has shown, through study, that atmospheric condition which most frequently contribute to adverse air quality occur at San Diego and Santa Monica more often than the remainder of the Continental United States.

The San Diego County Air Pollution Control District (SDAPCD) maintains ten monitoring stations throughout the region. The station nearest the project site is located at 100 East J Street, Chula Vista. Table 7 presents pertinent data relating to pollutant levels likely to exist in the Chula Vista area. Exhibit 3.7-2 delineates isoplots for the number of days the Federal Oxidant Standard (8ppm) was exceeded regionally in 1976.

TABLE 7

Existing Air Quality

Pollutant (Standard)	Number of Days Federal Standards Exceeded			
	1973	1974	1975	1976
Oxidant (.08 ppm, 1 hour average)	60	41	42	48
CO (9 ppm, 8 hour average)*	5	4	0	0
SO_2 (.14 ppm, 24 hour average)*	0	0	0	0
Non-Methane HC (.24 ppm, 3 hour average)	312	298	138	294
NO_2 (.25 ppm, 1 hour average)**	0	1	0	0

* Chula Vista data not available 1973-74, San Deigo Downtown data was used.

** State of California Standard, no Federal Standards available.

Localized Emissions

An analysis of vehicle traffic generating from existing land uses within the Town Centre II was conducted to estimate the amount of vehicle emissions generated over a 24 hour period. These calculations were then compared with Chula Vista's contribution to the San Diego Air Basin and total amount of emissions daily within the air basin. The results of the analysis are shown on Table 8.

TABLE 8

Emissions from Existing Traffic
within Town Centre II
1978

Pollutant	TCII Emissions ton/day	TCII % relative to C.V. contribution to S.D. air basin	TCII % relative to total S.D. air basin
Carbon Monoxide	11.3	18%	.87%
Hydrocarbons	1.46	10.2%	.51%
Nitrogen Oxides (No_x as NO_2)	1.39	11.2%	.55%
Particulates	.21	4.3%	.22%
Oxides of sulfur	.07	3.9%	.19%

3.7.2 Potential Impacts

As discussed in Section 2.4 of this report, the redevelopment project is directed to the revitalization of Chula Vista's regional shopping area. Improvement and expansion of existing facilities will undoubtedly result in increased vehicle traffic and related emissions unless a successful public transportion service is provided. Until specific plans for rehabilitation and/or expansion are submitted, the increase in emissions and degree of impact on the micro-environment as well as the region can not be accurately determined. Calculations based on the Town Centre II

traffic analysis (Appendix A and Section 3.6.2 of this report) and alternative methods of redevelopment presented were conducted, certain estimates were determined and general potential impacts discussed.

1. Sample traffic counts taken on Fifth Avenue between "H" and "I" Streets concluded that approximately 57% of the northbound and 36% of the southbaound traffic is through traffic. All traffic between 9 p.m. and 9 a.m. on weekdays and 5 p.m. and 9 a.m. on weekdays was assumed to be through traffic. If alternative #2 or #4, involving the closure of 5th Avenue, were implemented, an increase in VMT (vehicle miles travelled) could result. Due to more circuitous routes necessary for through traffic on 5th Avenue an increase of .50-.75 million miles traveled/year could occur. A summary of increase in pollutants levels (tons/day) from rerouting is shown on Table 9.

2. The traffic analysis indicates that alternative #2 and #4 would generate approximately 7000 and 10,000 new vehicle trips/day respectively within the project area. Increase in emissions due to these additional trips is shown on Table 9. Incremental increases in Chula Vista's contribution to the San Diego Air Basin and relative to total daily emissions within the San Diego Air Basin are shown on Table 10.

TABLE 9

Projected Increase in Emissions

Pollutant	Tons/Day Rerouting (1370-2055 VMT/day)	Tons/Day Alt. #2 (21,000 VMT/day)	Tons/Day Alt. #4 (30,000 VMT/day)
Carbon Monoxide	.043-.064	.651	.93
Hydrocarbons	.006-.008	.084	.120
Nitrogen Oxides (NO_x as NO_2)	.005-.008	.08	.114
Particulates	.0008-.001	.012	.017
Oxides of sulfur	.0003-.0004	.004	.006

TABLE 10

Projected Incremental
Increase in Emmissions*

Polluant	Incremental Increase in Chula Vista's Contribution to S.D. Air Basin		Incremental Increase relative to S.D. Air Basin	
	Alt #2	Alt #4	Alt #2	Alt #4
Carbon Monoxide	1.1 %	1.5 %	insignificant	insignificant
RHC	.59%	.88%	insignificant	insignificant
Nitrogen Oxides	.68%	.96%	insignificant	insignificant
Particualtes	.27%	.35%	insignificant	insignificant
Oxides of Sulfur	.22%	.39%	insignificant	insignificant

* Percent of increase includes total Tons/day generated by increased traffic estimated for alternative plus increase due to rerouting.

It is clear that the projected traffic increase from expansion and rerouting of Fifth Avenue through traffic would have no significance relative to ambient air quality within the San Diego Air Basin. However, increased traffic and intersection delays could result in an 5.8% increase (alternative #2) and 8.2% increase (alternative #4) in emissions within the projects's micro-enviroment.

TABLE 11

Projected Incremental Increase
in Emissions Relative to the
Town Centre II Micro-Enviroment

Pollutant	Existing Tons/Day	Estimated Increase Tons/Day	
		Alt #2	Alt #4
Carbon Monoxide	11.3	.651	.93
RHC	1.46	.84	.120
Nitrogen Oxides	1.39	.08	.114
Particualtes	.21	.012	.017
Oxides of Sulfur	.07	.004	.006

3. Generation of dust and other particulate matter during reconstruction or expansion operations would contribute to the degradation of localized air quality.

3.7.3 Mitigation and/or Alternatives

Good engineering practices should be implemented to reduce the generation of particulate matter during any construction phase.

Mitigation relative to transit programs in section 3.6.3 of this report also applies to the reduction of impacts on air quality.

The following methods of reducing VMT, thereby limiting total amount of emissions disbursed in the project area should be fully investigated and implemented where feasible.

1. Promotion of employee car pools.

2. Company van pools.

3. An inter project shuttle bus system (or similar type service).

4. Expansion of transit service to accommodate regional shopping service area.

5. Transit and shuttle service coordinated with the proposed MTDB system

6. Improved bicycle routes within the project area to encourage bicycle use.

7. Promotion of bicycle rental services.

8. Promotion of mail order, telephone order and home delivery services.

3.7.4 Analysis of Significance

Impacts due to construction activities are of a temporary nature. Effective engineering practices will reduce adverse effects to an insignificant level.

Increase in VMT, ADT and intersection delays estimated to occur from alternatives similar to those discussed will not seriously impact regional air quality. The micro-environment could, however, sustain significant air quality degradation if mitigation measures are not implemented. This is particularly true when considering additional vehicle traffic from major development in adjacent project areas (ie. County Court Complex, Third Avenue Redevelopment).

Until specific development and/or expansion of land uses are discussed potential impacts can not be anticipated. When specific plans for redevelopment become available stationary sources of air quality will be addressed.

EXHIBIT 3.7-1

Chula Vista Climate Data - 1940-1970

Record of Temperature

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	30 year
Highest	81	87	85	91	94	94	85	96	105	93	95	83	105
Mean Maximum	62.2	62.7	63.5	64.9	66.5	67.9	71.3	72.7	72.8	70.2	68.0	64.7	67.3
Mean Temperature	52.1	53.4	55.2	58.1	60.8	63.1	66.9	68.0	66.7	62.5	57.7	64.4	59.9
Mean Minimum	41.9	44.1	46.8	51.3	55.1	58.2	62.4	63.0	60.6	54.8	47.3	44.0	52.5
Lowest	26	30	32	36	43	46	50	54	47	37	33	30	26

Highest Monthly Rainfall - December 6.93 inches

Highest Annual Rainfall - 24.85 inches

Evaporation Loss - 59-71 inches per year

Relative Humidity - Coastal

Fall/Winter 50-70% Summer 60-80%

Sunshine - 3200 hours per year (70% of total available)

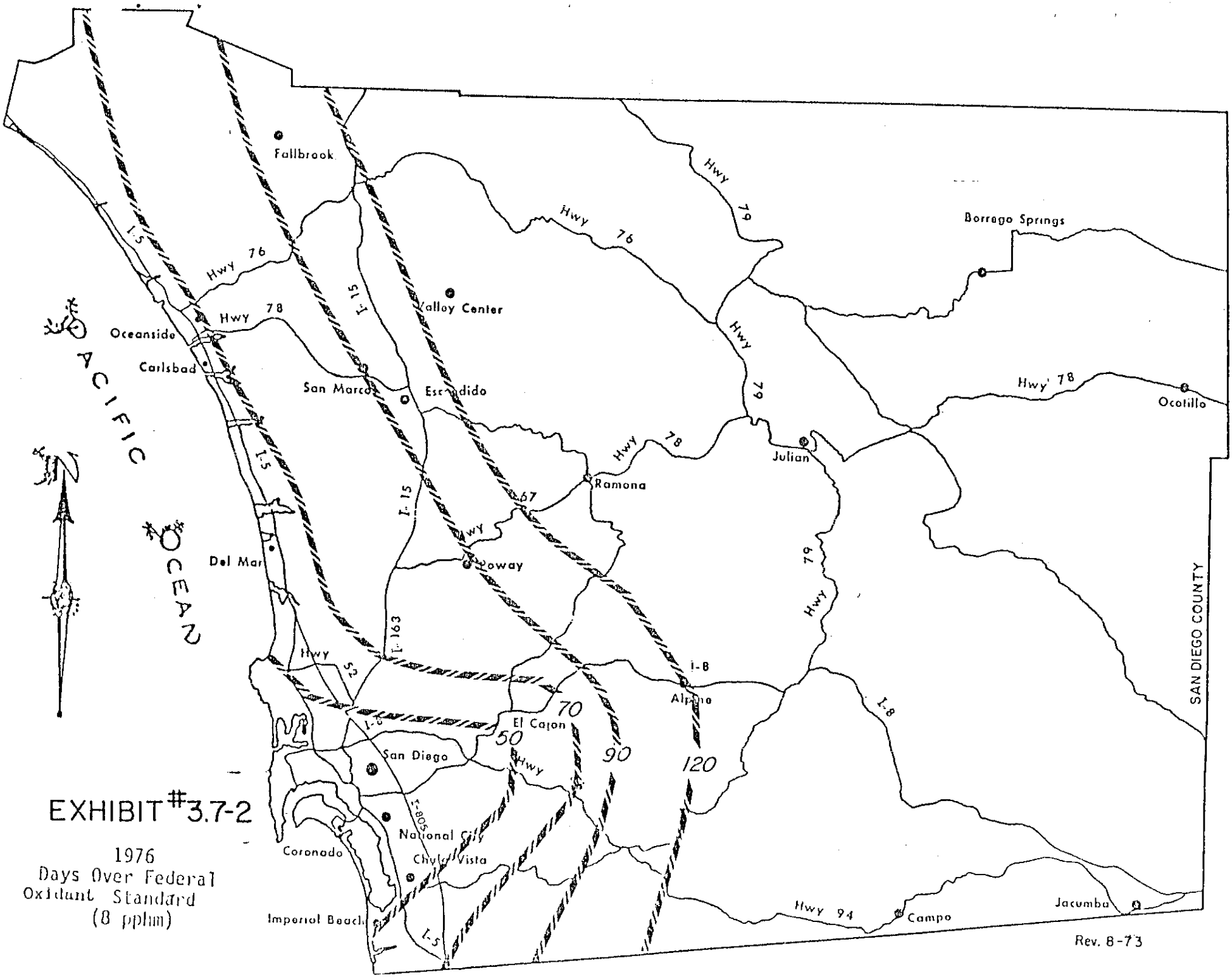


EXHIBIT #3.7-2

1976
Days Over Federal
Oxidant Standard
(8 pphm)

Rev. 8-73

3.8 NOISE

3.8.1 Project Setting

There is no significant source of stationary noise within the study area. Vehicular traffic is the primary source of exterior noise. The "noise element" of the Chula Vista General Plan indicates that the ground transportation noise levels within the project area ranged from 60 to 65dBA in 1973. Projected 1995 noise levels for the area are anitcipated to decrease to an average of 60dBA. The projected decrease is attributed to noise abatement required to be implemented by 1982.

A survey of ambient noise levels at four locations within the Town Centre II project area was conducted for this report utilizing the SWING method of analysis. Adjustments were made for noise levels surveyed at intersection locations by using the U.S. Department of Transportation's PPM 90-2 methodology. Exhibit # 3.8-1 shows survey locations and estimated Ldn levels measured at a distance of approximately 20-30 feet from the center line of the nearest travel lane.

3.8.2 Potential Impacts

Improvement and/or expansion of Town Centre II would cause an increase in vehicle trips into the project area. In turn, a higher noise level would result depending on the intensity of the additional flow.

Since the project area is predominantly comprised of non-residental uses no substantial impact on new development due to vehicle generated noise is anticipated to occur. Exterior noise levels during peak hour traffic could prove to be unpleasant for pedestrians utilizing street-side walkways, however.

3.8.3 Mitigation and/or Alternatives

Interior pedestrian ways could be substituted for exterior sidewalks, where feasible, and existing right-of-way could be converted into peripheral landscaped areas.

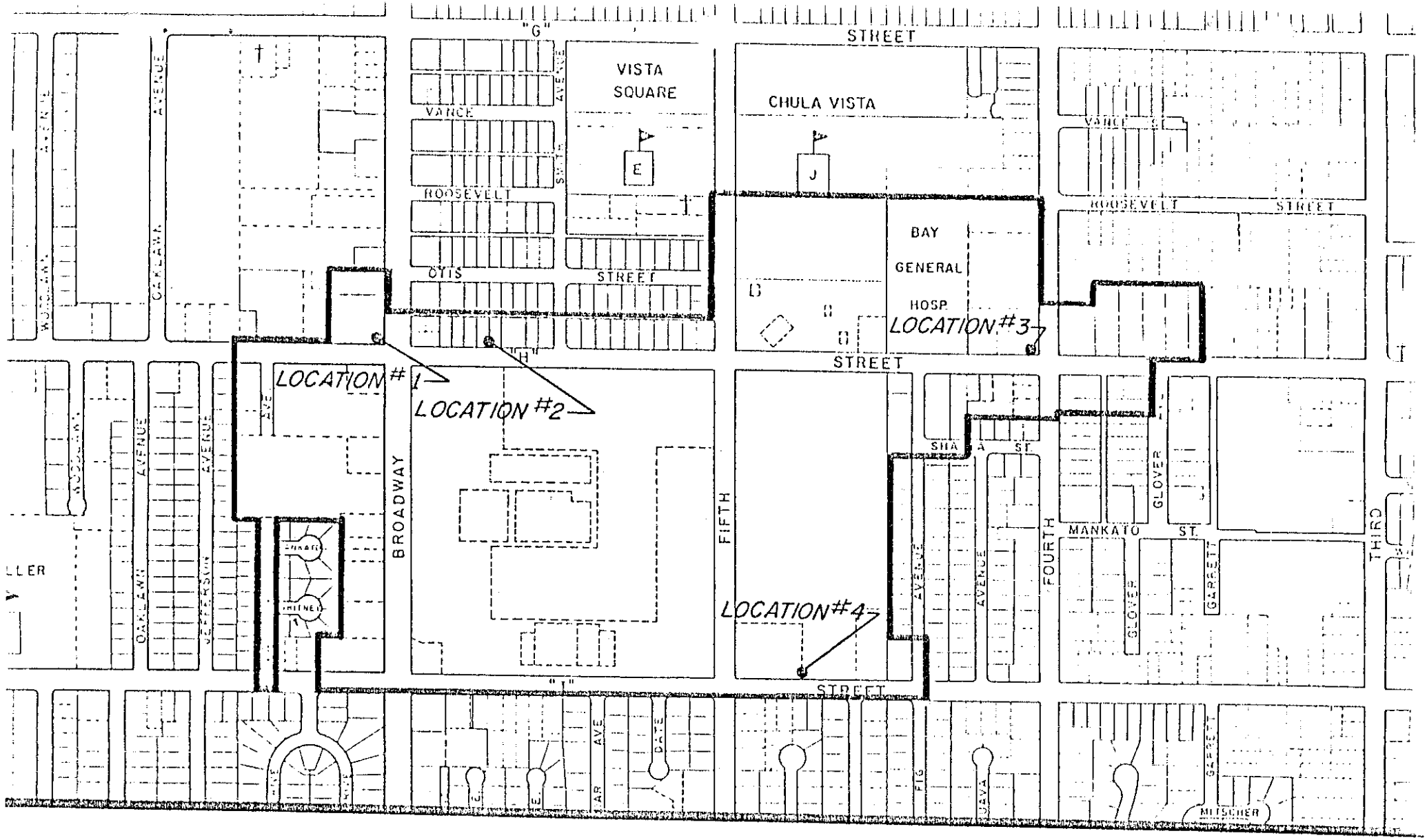
3.8.4 Analysis of Significance

Intensity of future noise levels or potential impact on existing residential development cannot be accurately calculated until specific land use plans and related traffic data are available. No substantial noise related impact on existing development is anticipated at this time, however.

3.9 AESTHETICS

3.9.1 Project Setting

The Chula Vista Shopping Center and Sears Department Store are the focal points of the redevelopment area. These facilities were constructed in the early 1960's when the "Shopping Center" concept was beginning to be popular. The Bay General Hospital was also constructed about 20 years



TOWN CENTRE NO. II
NOISE ANALYSIS
LOCATION POINTS

LEGEND

#1	L_{dn} = 74 dB
#2	L_{dn} = 71 dB
#3	L_{dn} = 74.5 dB
#4	L_{dn} = 65 dB

NORTH

0 200' 400'

EXHIBIT #3.8-1

ago, but has recently undergone a major expansion resulting in a major medical center. The Mayfair Market, orginally Furgeson's Market, was developed prior to 1955 and remodeled in the mid 1960's and was recently closed. Most of the small parcels along H Street and Broadway have been involved in isolated lot development and remodeling of older structures through the years.

Many structures within the redevelopment area are suffering from obsolete design. Also, much of the development preceeded the adoption of the City's landscape manual and lacks the aesthetic ammenities provided by good landscape planning. Inadequate parking and a congested interior and exterior circulation system also detracts from the area's physical personality.

3.9.2 Potential Impacts

One aspect of the Proposed Redevelopment Plan involves the comprehensive beautification of the project area. It provides for open spaces, streetscaping, street furniture and elimination of uses that are incompatible with the nature of the general area. These provisions are anticipated to result in a major beneficial impact on the target area and surrounding properties.

3.9.3 Mitigation and/or Alternatives

None proposed.

3.9.4 Analysis of Significance

Stability of a commercial center is largely dependent upon the center's aesthetic quality and ammenities provided. The Town Centre II Redevelopment Plan is designed to preserve the physical integrity of Chula Vista's major commercial development and to avoid the decline of uses within the project area. The Town Centre I Design Manual and Town Centre II Design Manual addendum provide guidelines and criteria to insure quality development and aesthetic ammenities.

3.10 UTILITIES

3.10.1 Project Setting

Water Service

Water service to the existing uses within the redevelopment area is supplied by the Sweetwater Authority which serves the majority of the South Bay including National City, Chula Vista, Imperial Beach, and a portion of the City of San Diego (community of San Ysidro). Potable water is imported into the area, primarily, from the Colorado River. An increasing portion of the water is piped in from Northern California, however.

There are 8" AC water mains located in Broadway, Fifth Avenue, and H Street east of Fifth Avenue to a point 170 feet west of Fifth Avenue where a 10" line loops into the shopping center. A 6" AC main extends from that point west through H Street. Also, two mains, a 12" and 8" parallel I Street.

Gas and Electric

The San Diego Gas and Electric Company provides service to existing uses. Natural gas is provided through a 10" and 20" high pressure main located in Fifth Avenue between H and I Streets. In addition, there are 1½ inch gas lines in Broadway between H and I Streets and in H Street east of Fifth Avenue. A two-inch line underlies H Street west of Fifth Avenue.

Electric service is carried into the project area by three underground 12 KV lines in Fifth Avenue, Broadway and H Street. Overhead service is provided along the west side of Fifth Avenue north of H Street and along the south side of I Street.

3.10.2 Potential Impacts

An increase in commercial uses will increase the amount of energy consumption resources necessary to operate uses. Estimation of consumption is not possible at this time, but when specific plans become available it is anticipated that approximately 2-5 kilowatt-hours of electricity/sq. ft. of floor area/month and 80 therms of natural gas/ 1,000 sq. ft. of floor area/month will be required to support general retail commercial establishments.

3.10.3 Mitigation and/or Alternatives

Solar heating and hot water systems should be investigated to reduce additional depletion of non-renewable resources.

Energy saving devices and applicances should be installed vs. less conservative machinery and insulation facilities should be investigated.

3.10.4 Analysis of Significance

Adequate water, gas and electic service is being provided to existing uses. If expansion of existing development or new construction is proposed, an analysis regarding extension of service or relocation of facilities will be required.

3.11 Health and Safety

3.11.1 Project Setting

Police Protection

Police protection within the project vicinity is provided by the Chula Vista Police Department. As of February 14, 1978 there were 93 law enforcement positions.

Fire Protection

Fire protection will be provided to the site by the City of Chula Vista Fire Department. As of February, 1978, there were 67 fire fighter positions in the Chula Vista Fire Department. The City is currently covered by four fire stations. Two of these existing facilities provide primary response to the area in the vicinity of the site

Station #1 is located at 447 "F" Street and has an engine and aerial ladder company consisting of a triple combination pumper and pumper with aerial ladder - 1.5 to 2.0 minute response time to the site.

Station #2 is located at 80 East "J" Street and has an engine company - 3 to 4 minutes response time to the site.

There are no plans at this time for additional fire station facilities in the area between Interstate 5 and 805.

Solid Waste Service

The Chula Vista Sanitary Service is franchised by the City of Chula Vista to provide solid waste collection and disposal services. It is estimated that approximately 280 tons of solid waste are collected by this private concern on a daily basis. The collected solid waste is transported to the Otay Sanitary Landfill. It is estimated that this landfill has a 10 to 15 year capacity. On a longer-range basis, the County of San Diego, in cooperation with the EPA and Occidental Petroleum is developing a demonstration pyrolysis plant, which converts trash into fuel oil. This undertaking may help to extend the useful life of the Otay and other sanitary landfills.

Sewer Service

The City of Chula Vista is a member of the Metropolitan Sewer District and has purchased contractual rights to a 21.2 MGD capacity. Although the City's actual average daily flow (5.2 MGD) is far less than that of capacity, the Metropolitan Sewer District's treatment plant is operating close to its capacity of about 120 MGD, based on Federal regulations. It is presently averaging about 115 million gallons per day and could reach its maximum capability in 1978-79. Environmental Protection Agency regulations require that all sewage be provided "secondary" treatment prior to ocean discharge. Plans to increase the capacity of the plant and provide additional treatment have not been approved by EPA at this time.

Existing service in the project area is provided through 10" lines in "H" Street and Fifth Avenue and underlying the Broadway Shopping Center; and a 12" line in Broadway and another paralleling the southern property line of the Chula Vista Square Shopping Complex.

3.11.2 Potential Impacts

Currently, local sewer capacity is adequate to service existing uses. However, when the planned County Court Complex is constructed at "H" Street and Third Avenue the lines located through the Broadway Shopping Center are expected to be operating at maximum capacity. If the Town Centre II project results in additional or expanded uses, additional sewage flows will further impact existing lines and sewer backup and overflows will most likely occur. Also, though additional sewage flow will not impact the City's capacity rights, it will exacerbate an already undesirable situation at the Metropolitan Sewer facility due to limited available treatment capacities.

3.11.3 Mitigation and/or Alternatives

The City Engineering Department is studying existing sewer capacity servicing the project area. Projected flow increases are being calculated and potential alternative improvements are being studied.

Prior to the approval of any specific plan for development within the Town Centre II project area, a detailed analysis of local sewer facilities should be undertaken and appropriate recommendations implemented to insure that adequate capacity is available.

3.11.4 Analysis of Significance

Fire and Police protection and solid waste facilities are currently adequate to service existing development within the Town Centre II project area. Future growth may require additional specific services, however, that will depend on type of use proposed. When specific plans are available an evaluation will be untertaken.

Local sewer facilities are currently under study. Appropriate mitigation will be required, if a significant impact is anticipated. Potential impact at the metropolitan level will continue to increase as urban growth continues.

3.12 PARKS, RECREATION AND OPEN SPACE

3.12.1 Project Setting

The redevelopment project is located, primarily, within City Park district no. 4. This district is currently void of any significant dedicated park land or open space. The existing park land acreage requirement for the area is 59.2 acres. Acreage requirements are based on residential population and need, however, and not on commercial development.

3.12.2 Potential Impact

The Redevelopment Plan authorizes the establishment of quasi-public open spaces, which includes malls, promenades, parades and vest pocket parks. This type of open space does not contribute to the City's park system, however it does provide an area for passive recreation and an opportunity to mold the urban form.

3.12.3 Mitigation and/or Alternatives

None proposed.

3.12.4 Analysis of Significance

Currently, the project area has limited open space and landscaping. The proposed redevelopment program will provide additional open space and abundant landscaping which will result in an improved and less intense sense of being within the micro-environment.

There will be little if any population increase due to the project and therefore no substantial increase in the demand for parks and recreation facilities.

3.13 COMMUNITY TAX STRUCTURE

3.13.1 Project Setting

The Town Centre II Redevelopment Project is located within County Tax Code Area (TCA) 1000, the largest TCA in the City of Chula Vista accounting for over 60 percent of the City's assessed valuation. The total County tax rate in this area has ranged from $10.133 to $11.045 between 1970 and 1975 and is currently at $9.479 per $100. The City of Chula Vista's portion has remained at $1.25 per $100 during the 1976/77 and 1977/78 fiscal years.

3.13.2 Potential Impacts

The redevelopment of Chula Vista's commercial center is aimed at avoiding blighting influences and strengthening the commercial structure. Attainment of these objectives will result in a stable market within the area and a beneficial impact on financial support of the City through taxes.

To ensure effective project implementation, financial assistance may be provided to commercial property owners. General Revenue Sharing Funds, Urban Development Action Grants (UDAG), sales, tax funds and use of the City owned property (Boys Club site and Fifth Avenue) or a combination of these sources may be made available. Tax increment financing is not anticipated at this time.

An impact is anticipated to result from financial aid to the project in that the allotment of tax dollars and/or grant monies would restrict the total amount of funds available for other eligible projects.

3.13.3 Mitigation and/or Alternatives

Tax increment financing would eliminate potential short-term impacts. However, due to tax increment financing of the Bayfront and Town Centre I redevelopment projects and pending tax reform legislation. Financing the Town Centre II project through tax increment may not be feasible since it could result in a more severe financial impact on the community.

3.13.4 Analysis of Significance

Redevelopment of the study area will cause an increased assessed valuation of improved properties wihich will provide a larger tax base in support of the community. Financial assistance, if made available, will be discussed further when specific plans are submitted.

4.0 UNAVOIDABLE SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS

A. Potential impacts in the following areas of concern can be mitigated to acceptable levels and no substantial and adverse impact anticipated to result.

Geology
Topography
Drainage
Groundwater
Biology
Archaeology
History
Aesthetics
Parks, Recreation and Open Space
Community Tax Structure

B. Implementation of the Plan will result in unavoidable impacts relative to the following areas of concern in varying degrees.

Traffic

An increase in traffic on streets in and adjacent to the project will occur. This cumulative impact will result in a substantial impact on the ability of various intersection to accomodate the increased traffic loads.

Land Use

Higher density and more intense land use could result.

Air Quality

An increase in emissions from mobile sources will result due to increased ADT and VMT.

Noise

Exterior noise levels will increase relative to increase in vehicle traffic.

Sewer Treatment Facilities

Increased flow into the Metropolitan Sewer facility will further reduce existing limited treatment capacity.

Energy

Additional energy consumption will result from new development and/or expansion of existing facilities.

5.0 ALTERNATIVES TO THE PROPOSED ACTION

1. A no-project alternative could result in the decline of the project area as the South Bay's principle regional shopping center, thereby jeopardizing the economic well being of commercial establishments within the area and the City's tax base. Isolated redevelopment and/or expansion of existing facilities would continue without the benefit of a coordinated comprehensive plan. Conditions as cited below could contribute to further deterioration of the central area of Chula Vista.

    a. An increased demand for open space and aesthetic ammenities.

    b. A continuing decline of the business of the City's sales tax base.

    c. Uncoordinated circulation patterns which would inhibit satisfactory relationships with adjacent project areas.

    d. Erosion of adjacent commercial and residential areas.

2. A comprehensive redevelopment plan, characterized by complete building clearance, the resubdivision of land, and the rearrangement of street patterns could be effecuated in the project area. However, a full redevelopment program is considered extreme and not to be in the best interest of the community. Such an extensive program would create the total disruption of Chula Vista's regional shopping area. Further, the financial requirements, clearance, and reconstruction would be prohibitive. Therefore, a comprehensive redevelopment plan was rejected as a viable project.

3. A "middle-of-the-road" redevelopment approach could be implemented to revitalize the Chula Vista Shopping Center. A comprehensive plan to coordinate the implementation of this approach could entail:

    a. Expansion of shopping facilities to adjacent properties that are currently in need of rehabilitation.

    b. Redesign of existing parking facilities to permit more efficient interior circulation patterns and development of satellite parking facilities to decrease localized traffic congestion.

    c. Development of convenient and unique pedestrian ways between shopping areas to promote their utilization such as: 1) enclosed overhead street crossings constructed in conjuction with automated stairways and uses such as cafes and other small shops, 2) open, landscaped plaza areas constructed as overhead street crossings.

    d. Comprehensive redesign of exterior architecture, open space and landscaping to promote a consistent and well planned aesthetic quality within the project area. The alternative has the potential to limit substantial impacts significantly; yet, achieve project goals and objectives.

4. A "low-key" redevelopment plan could be implemented as an alternative project. This type of "face lift" program would be accomplished by refurbishing store fronts, providing street furnishings, landscaping, and street improvements where feasible. The areas aesthetic quality and business climate would be improved, but to a limited degree only. The main goals and objectives of the proposed redevelopment project would not be attained if this action were effectuated. No substantial stregthening of the shopping center area would result from this type of project.

6.0 THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The project will result in some short-term disruptive environemntal effects, but these will be, on the most part, temporary and can be mitigated to a great extent as described within section 3.0 (impact analysis) of this report.

Potential cumulative long-term impacts anticipated basically unavoidable aspects of any proposal involving expansion or rehabilitation of a developed area. Major long-term effects include:

a. Increases in the demand for resources that provide building materials.

b. Increased energy demand and depletion of non-renewable resources that provide that energy.

c. Increased vehicle traffic and related emissions.

d. Increased demand for public services.

If the Plan is implemented, the overall enhancement of the project area would result as well as renewed market stability and productivity.

7.0 IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED WITH THE PROPOSED ACTION IF IMPLEMENTED

Natural resources utilized for construction materials and energy consumotion would be committed and their availability would be reduced for the near future.

8.0 GROWTH-INDUCING IMPACT OF THE PROPOSED ACTION

The Plan entails a developed area within urban Chula Vista. Growth, induced by project implementation, would be inhibited by both physical constraints and City development policies. The plan could also deferr the construction of additional commercial developments within undeveloped areas of Chula Vista and nearby areas by providing facilities adequate to service the existing and future population of the South Bay.

11.0 REFERENCE DOCUMENTS AND ORGANIZATIONS AND INDIVIDUALS CONSULTED

11.1 Reference Documents

City of Chula Vista, Town Centre Project No. II, Preliminary Redevelopment Plan; January 1978.

Seismic Safety Element, Chula Vista General Plan; December 1974.

Third Avenue Redevelopment Plan, Master EIR; February 1976

Community Block Grant EIR-75; April 1975

Public Works Department, Public Improvement Maps

Drainage Basin Maps, Chula Vista California prepared by Lawrence, Togg, Florer and Smith; June 1964

Noise Element, Chula Vista General Plan; September 1974

Town Centre II Traffic Impact Analysis; March 1978

County of San Diego, South County Regional Center, Draft EIR, prepared by Project Design Consultants; September 1976

State of California, Division of Mines and Geology, Special Report 123; Character and Recency of Faulting, San Diego Metropolitan Area, California, prepared by M.P. Kennedy, S.S. Tan, R.H. Chapman and G.W. Chase; 1975

Department of Health, Office of Noise Control, Estimation of Community Noise Exposure in Terms of Day-Night Average Level Noise Contours prepared by Jack W. Swing; May 1975

United States Department of Agriculture, Soil Conservation Service and Forest Service, Soils Survey, San Diego Area, California; December 1973

Department of Transportation, Federal Highway Administration, Policy and Procedure Memorandum 90-2, Noise Standards and Procedures, Appendix C-Modifications to design guide procedures; February 1973

11.2 INDIVIDUALS AND ORGANIZATIONS

City of Chula Vista
- Planning Department - Advance Planning
- Public Works Department - Traffic Division
- Public Works Department - Permit Division
- Public Works Department - Environmental Review Division
- Community Development Department
- Fire Department
- Police Department
- Public Library - Chula Vista Room
- Finance Department

San Diego Gas and Electric Co. - Gas Engineering Division
- Electrical Facilities

Sweetwater Authority - Engineering Division