Final
Specific Plan
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AKA
SEA COUNTRY HOMES

# Cambria Pines
# Final Specific Plan

*(Villages of Brighton and Strathmore)*

LIBRARY COPY

Adopted by the City of Carson City Council
November 18, 1997
Ordinance No. 97-1124
Specific Plan No. 7-97

*City of Carson*
Community Development Department
Carson, California

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## Adopting Resolutions by the Planning Commission and the City Council of the City of Carson

**CITY OF CARSON**

**PLANNING COMMISSION**

**RESOLUTION NO. 97-1692**

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CARSON RECOMMENDING TO THE CITY COUNCIL APPROVAL OF PROPOSED ORDINANCE NO. 97- , AN ORDINANCE OF THE CITY OF CARSON ADOPTING THE CAMBRIA PINES SPECIFIC PLAN (SPECIFIC PLAN NO. 7-97)**

**THE PLANNING COMMISSION OF THE CITY OF CARSON HEREBY FINDS, RESOLVES AND ORDERS AS FOLLOWS:**

Section 1. An application was duly filed by the applicant, Comstock Crosser and Associates, with respect to real property located at 250 W. 228th Street and described in Exhibit "A" attached hereto, requesting the approval of a Specific Plan for a residential gated development consisting of 20.7 acres for 162 single-family homes, and seeking approval of proposed Ordinance No. 97- , an Ordinance of the City of Carson adopting the Cambria Pines Specific Plan (Specific Plan No. 7-97).

Section 2. Public hearings were duly held on September 23, 1997 and October 14, 1997, at 6:30 P.M. at the City Hall, Council Chambers, 701 East Carson Street, Carson, California. A notice of time, place and purpose of the aforesaid meetings were duly given. Evidence, both written and oral, was duly presented to and considered by the Planning Commission at the aforesaid meeting.

Section 3. Based on the findings presented in the proposed Ordinance, attached as Exhibit "B", the Commission hereby recommends to the City Council approval of the proposed Ordinance with respect to the property described in Section 1 hereof, subject to the recommended findings and the conditions set forth in the Ordinance.

Section 4. The Secretary shall certify to the adoption of the Resolution and shall transmit copies of the same to the applicant.

Section 5. This action shall become final and effective fifteen days after the adoption of this Resolution unless within such time an appeal is filed with the City Clerk in accordance with the provisions of the Carson Zoning Ordinance.

**PASSED, APPROVED AND ADOPTED THIS 14TH DAY OF OCTOBER, 1997**

Chairman Cannon
CHAIRMAN

ATTEST:

SECRETARY

RES797P.DOC

**Supplemental Information for Request for Hearing**
(page 7 of application)

Legal Description

The legal description of the proposed project site is as follows:

The land referred to herein is situated in the County of Los Angeles, State of California, and is described as follows:

That portion of Lots 8 and 9 of the 750 acre tract of Maria Machado de Rocha, in the Rancho San Pedro, in the City of Carson, as per map recorded in Book 6, Page 161 of miscellaneous records, in the Office of the County Recorder of said County, described as follows:

Commencing at a point in the north line of said Lot 9 and its intersection with the centerline of the 80 foot strip of land conveyed to the County of Los Angeles for road purposes, by deed recorded in Book 3734, page 214 of deeds, in the Office of the County Recorder of said County; thence, north 89°39'45" west 100.0 feet to the true point of beginning; thence, south 0°20'15" west 13.5 feet; thence, south 89 39'45" east 33.0 feet to the beginning of a tangent curve concave to the southwest, having a radius of 17.0 feet; thence, southeasterly along said curve 26.75 feet; thence, south 0°29'00" west 237.58 feet along a line parallel to the centerline of Main Street to the northerly boundary line of Tract 27087, as per map recorded in said County; thence, along the boundary line of said tract, north 89°39'25" west 621.0 feet, south 0°29'00" west 351.0 feet, south 89 39'45" east 11.0 feet and south 0°29'00" west 100.0 feet to the northerly boundary line of Tract 28346, as per map recorded in the Book 764, pages 1 to 4, inclusive of maps; thence, along the boundary lines of said tract, north 89°39'45" west 147.0 feet and south 0 20'00" west 10.95 feet; thence, continuing along said boundary lines and its prolongation north 89°39'45" west 872.33 feet to the easterly boundary line of Tract 28802, as per map recorded in Book 767, pages 16 to 18, inclusive of maps, in the Office of the County Recorder of said County; thence, along said boundary line north 0°30'29" east 716.50 feet; thence, south 89 39'45" east 120.0 feet; thence, north 0°20'15" east 13.5 feet; thence south 89°39'45" east 1463.42 feet, more or less, to the terminus of this description at the true point of beginning.

Said land being a portion of parcel 1 as shown on record of survey filed in Book 83, Page 22 of record of surveys, in the Office of the County Recorder of said County.

# ORDINANCE NO. 97-1124

## AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CARSON ADOPTING THE CAMBRIA PINES SPECIFIC PLAN (SPECIFIC PLAN NO. 7-97)

THE CITY COUNCIL OF THE CITY OF CARSON HEREBY ORDAINS AS FOLLOWS:

Section 1. An application was duly filed by the applicant, Comstock Crosser and Associates, with respect to real property located at 250 W. 228th Street and described in Exhibit "A" attached hereto, requesting approval of the Cambria Pines Specific Plan (Specific Plan No. 7-97), pursuant to California Government Code Sections 65450 through 65457, for the development of a 20.7 acre site to be known as "The Cambria Pines" development proposal. The Project is proposed to consist of 162 single-family homes, and specific lots designated for open space, in a gated community. The applicant has also requested to change the zone designation of the subject property from MH-D (Manufacturing Heavy- Design Overlay Review) to RS (Residential Single-Family) and to change the land use designation in the General Plan from Heavy Industrial to Low Density Residential. The Project site is generally bounded by residential uses and a church to the north, residential uses and Main Street to the east, and residential units to the south and west.

Section 2. An Initial Study was completed for the Project by the Community Development Department, pursuant to Section 15063 and 15070 of the State of California Environmental Quality Act (CEQA) Guidelines, which identified that there were potentially significant effects but revisions in the project plans or proposals made by or agreed to by the applicant before the proposed Negative Declaration was released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur and there would be no significant effect upon the environment. No substantial evidence has been presented that the project will create a significant physical impact on the environment.

Section 3. The Planning Commission conducted duly noticed public hearings on the Cambria Pines Specific Plan (Specific Plan No. 7-97) on September 23, 1997 and October 14, 1997 at 6:30 p.m. at City Hall, Council Chambers, 701 East Carson Street, Carson, California. Notice of the time, place and purpose of the aforesaid meeting was duly provided in accordance with California Government Code Sections 65090 and 65355. Following the aforesaid public hearings at which evidence was presented to and considered by said Commission, the Commission voted to recommend approval of the Mitigated Negative Declaration and approval of Specific Plan No. 7-97.

Section 4. The City Council conducted a duly noticed public hearing on Specific Plan No. 7-97 on November 4, 1997 at 6:00 p.m. at City Hall Council Chambers, 701 East Carson Street, Carson, California. Notice of time, place and purpose of the aforesaid meeting was duly provided in accordance with California Government Code Sections 65090 and 65355.

Section 5. Evidence, both written and oral, was duly presented to and considered by the City Council at the aforesaid meeting, including but not limited to staff reports, along with testimony received by the applicant and other members of the public.

Section 6. The City Council finds that the proposed use will not have a significant effect on the environment as indicated in the Initial Study and Mitigated Negative Declaration prepared for this project. Mitigation Measures have been incorporated into the project and are noted in the attached Specific Plan, environmental initial study and conditions of approval. The City Council has reviewed and considered those documents prior to acting on Specific Plan No. 7-97 and finds pursuant to CEQA Guidelines' Section 15074, that the Mitigated Negative Declaration has been completed in compliance with CEQA, the CEQA Guidelines and the City's CEQA Guidelines.

Section 7 With respect to the Cambria Pines Specific Plan (Specific Plan No. 7-97), the City Council finds:

a) The Cambria Pines Specific Plan (Specific Plan No. 7-97), dated April, 1997, which is on file in the office of the City Clerk and is hereby incorporated herein by reference, will comply with the requirements of California Government Code Section 65451 in that the incorporation of the conditions attached to this Ordinance as "Exhibit 'B', Conditions of Approval, Specific Plan No. 7-97", Specific Plan No. 7-97 ("Plan") does specify in detail:

i) The distribution, location and extent of the uses of land, including open space within the area covered by the Plan;

ii) The proposed distribution, location, extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy and other essential facilities proposed to be located within the area covered by the Plan and needed to support the land uses as described in the Plan;

iii) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable;

iv) A program of implementation measures including regulations, programs, public works projects and financing measures necessary to carry out the project

v) A statement of the relationship of the Specific Plan to the General Plan.

Section 8. Based on the aforementioned findings, the City Council hereby adopts Specific Plan No. 7-97 for the property described in Exhibit "A" attached hereto, subject to the Conditions of Approval set forth in Exhibit "B" attached hereto.

Section 9. The City Clerk shall certify to the adoption of this Ordinance and shall transmit copies of the same to the applicant.

PASSED, APPROVED AND ADOPTED THIS 18TH DAY OF NOVEMBER 1997.

ATTEST:

MAYOR

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

STATE OF CALIFORNIA )
COUNTY OF LOS ANGELES ) ss.
CITY OF CARSON )

I, Helen S. Kawagoe, City Clerk of the City of Carson, California, do hereby certify that the whole number of members of the City Council of said City is five; that the foregoing ordinance, being Ordinance No. 97-1124, passed first reading on November 4, 1997, was duly and regularly adopted by the City Council of said City at a regular meeting of said Council, duly and regularly held on November 18, 1997, and that the same was passed and adopted by the following roll call vote:

| | | |
|---|---|---|
| AYES: | COUNCIL MEMBERS: | Mayor Fajardo, Calas, Olaes, O'Neal and Sweeney |
| NOES: | COUNCIL MEMBERS: | None |
| ABSTAIN: | COUNCIL MEMBERS: | None |
| ABSENT: | COUNCIL MEMBERS: | None |



City Clerk, City of Carson, California

Supplemental Information for Request for Hearing
(page 7 of application)

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Commencing at a point in the north line of said Lot 9 and its intersection with the centerline of the 80 foot strip of land conveyed to the County of Los Angeles for road purposes, by deed recorded in Book 3734, page 214 of deeds, in the Office of the County Recorder of said County; thence, north 89°39'45" west 100.0 feet to the true point of beginning; thence, south 0°20'15" west 13.5 feet; thence, south 89 39'45" east 33.0 feet to the beginning of a tangent curve concave to the southwest, having a radius of 17.0 feet; thence, southeasterly along said curve 26.75 feet; thence, south 0°29'00" west 237.58 feet along a line parallel to the centerline of Main Street to the northerly boundary line of Tract 27087, as per map recorded in said County; thence, along the boundary line of said tract, north 89°39'25" west 621.0 feet, south 0°29'00" west 351.0 feet, south 89 39'45" east 11.0 feet and south 0°29'00" west 100.0 feet to the northerly boundary line of Tract 28346, as per map recorded in the Book 764, pages 1 to 4, inclusive of maps; thence, along the boundary lines of said tract, north 89°39'45" west 147.0 feet and south 0 20'00" west 10.95 feet; thence, continuing along said boundary lines and its prolongation north 89°39'45" west 872.33 feet to the easterly boundary line of Tract 28802, as per map recorded in Book 767, pages 16 to 18, inclusive of maps, in the Office of the County Recorder of said County; thence, along said boundary line north 0°30'29" east 716.50 feet; thence, south 89 39'45" east 120.0 feet; thence, north 0°20'15" east 13.5 feet; thence south 89°39'45" east 1463.42 feet, more or less, to the terminus of this description at the true point of beginning.

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CITY OF CARSON

COMMUNITY DEVELOPMENT DEPARTMENT

PLANNING DIVISION

EXHIBIT "B-2"

CONDITIONS OF APPROVAL

SPECIFIC PLAN NO. 7-97

## LOS ANGELES COUNTY UNIFIED SCHOOL DISTRICT

1. LAUSD Transportation Branch must be contacted regarding the potential impact, if any, upon the existing school bus routes.

2. Contractors must guarantee that safe and convenient pedestrian routes to nearby schools are maintained.

3.. Contractors must maintain ongoing communication with administrators at impacted school sites providing sufficient notice to forewarn children and parents when currently existing pedestrian routes to schools will be impacted.

4. Appropriate traffic controls (signs and signals) must be installed as needed to ensure pedestrian/vehicular safety.

5. Construction scheduling and haul routes shall be sequenced to minimize conflicts with pedestrians, school buses and cars at the arrival and dismissal times of the school day. Haul trucks are not to be routed past Carson High School except when school is not in session. Construction-related vehicles, including those of workers, may not stage adjacent to Carson High School.

6. Barriers must be constructed as needed to minimize trespassing, vandalism and short-cut attractions and attractive nuisances.

7. Fencing shall be installed to secure construction equipment and to minimize trespassing, vandalism and short-cut attractions.

## LOS ANGELES COUNTY SANITATION DISTRICTS

8. A connection fee is required to construct an incremental expansion of the Sewerage System to accommodate the proposed project which will mitigate the impact of the project on the present Sewerage System. Payment of the connection fee shall be required before a permit to connect to the sewer is issued.

9. In order to conform with the South Coast Air Quality Management Plan, all expansions of District Facilities must be sized and service phased in a manner which will be consistent with the Growth Management Plan of the Southern California Association of Government's 1994 Regional Comprehensive Plan and Guide.

UCLA INSTITUTE OF ARCHAEOLOGY

10. The site shall be evaluated for historical significance prior to the removal of tanks. A halt work condition shall be in place in the event that archeological remains are discovered during the removal of tanks and during minimal grading proposed for the site.

LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

11. The Regional Water Quality Control Board - Los Angeles Region ("RWQCB") will provide oversight of soil and groundwater assessment and remediation of the subject site.

12. The facility is required to comply with all Regional Board requirements prior to developing the subject site. The Regional Board shall have the responsibility to enforce compliance with all other agency requirements through consultation with those agencies.

13. Cleanup criteria for all contaminants of concern for the subject site shall meet the Regional Board's soil cleanup criteria, suitable for residential development.

14. a. No final subdivision map that creates lots for residential development shall be approved by the City or recorded until the requirements of paragraphs (b) through (d) of this condition have been completed with respect to the entire Parcel No. 1 of Tentative Parcel Map No. 24763, which will be the first portion of the subject property that will be remediated pursuant to the subdivider's Remedial Action Plan (as defined below). In addition, no building permit shall be issued for construction of residential structures on Parcel No. 2 of Tentative Parcel Map No. 24763 (which will be the second portion of the subject property that is remediated pursuant to the subdivider's Remedial Action Plan) until the requirements of paragraphs (b) through (e) of this condition have been completed on the entire second Parcel (Parcel No. 2 of Tentative Parcel Map No. 24763).

b. The subdivider shall complete all remedial action for each respective phase and Parcel of the subject property in the manner described in and in accordance with the Remedial Action Plan dated February 25, 1997, or by any further modifications or requirements by the RWQCB (collectively, the "RAP.")

c. The City shall receive written verification that all remedial work described in the RAP with respect to such phase of development and Parcel has been completed and verified to the satisfaction of the RWQCB, and the RWQCB shall issue either (i) an unrestricted "No Further Action" letter or (ii) a Certificate of Completion, pursuant to Health & Safety Code § 25264(b), as "Administering Agency", duly designated under Health & Safety Code §§ 25260(a) and 25262, which "No Further Action" letter or Certificate of Completion confirms that the site has been remediated in a manner such that the site and the concentration levels of any contaminants left in place, including

but not limited to hydrocarbons and lead, pose no risk to human health or the environment and the site is suitable for residential development and occupancy without limitation or restriction.

d. In the event that the RWQCB is not officially designated and does not thereafter act as the "Administering Agency", pursuant to Health & Safety Code § 25264(b), a health and environmental risk assessment shall be performed by one or more independent environmental consultants, who will be retained by the City at the subdivider's expense, following the completion and verification of the remediation, and which confirms to the satisfaction of the City that:

(i) all contaminants of concern with respect to the respective phase of development of this site and Parcel have been adequately characterized and defined, and remediated;

(ii) the concentration levels of any contaminants left in place upon completion of the remediation in accordance with the RAP, including but not limited to hydrocarbons and lead, pose no risk to human health or the environment; and

(iii) the site is suitable for residential development and occupancy without limitation or restriction; and

(iv) To the extent that the remediation action for that portion of the second Parcel (Parcel No. 2 of Tentative Parcel No. 24763) has not been completed prior to the approval of a final subdivision map on the first Parcel (Parcel No. 1 of Tentative Parcel Map No. 24763), the existing environmental condition of such remaining Parcel and the proposed remaining remedial action for second phase Parcel and the proposed remaining remedial action for second phase of the RAP with respect to such remaining Parcel do not pose a risk to human health or the environment or to potential occupants of that portion of the subject property which is within the first Parcel that has already been fully remediated (Parcel No. 1 of Tentative Parcel Map No. 24763).

## CITY OF CARSON COMMUNITY DEVELOPMENT DEPARTMENT

15. That the Specific Plan shall run with the land and shall bind upon the applicant, his/her successors and assignees, and shall continue in effect until otherwise released by the authority of the Planning Commission, or City Council of the City of Carson or until such time as the Carson Municipal Code unconditionally permits the release of this Plan.

16. The applicant shall comply with all city, county, state and federal regulations applicable to this project, unless otherwise stated within Specific Plan No. 7-97.

17. It is made a condition of this approval that if any condition is violated or if any law, statute or ordinance is violated, the Plan shall be subject to revocation, provided the applicant or other responsible party has been given

written notice to cease such violation and has failed to do so for a period of thirty days after receipt of written notice.

18. The applicant shall make any necessary site plan and design revisions in order to comply with all the conditions of approval and applicable Zoning Ordinance and Specific Plan provisions. Substantial changes will require review by the Planning Commission.

19. The applicant shall file an Affidavit of Acceptance form and submit the document to the Community Development Department within 30 days of receipt of the Planning Commission Resolution.

20. All buildings, grounds, parking areas and landscaping shall be maintained in a neat and orderly manner at all times.

21. The applicant shall submit two complete sets of plans that conform to all the Conditions of Approval to be reviewed and approved by the Community Development Department prior to the issuance of a building permit.

22. If Tentative Tract Map No. 52281 and Tentative Parcel Map 24763 are not recorded within the twenty-four months as provided in the Subdivision Ordinance, Specific Plan No. 7-97 and subsequent zone change/general plan amendment shall be declared null and void and new permits must be obtained from the Planning Commission and City Council prior to any extensions on the map before the twenty-four month expiration.

23. A modification of the Specific Plan or conditions of approval, including additions or deletions, may be considered upon filing of an application by the owner, applicant or any other relevant party or parties in accordance with Section 9173.1 of the Zoning Ordinance. If the Community Development Director, Planning Commission or City Council concludes the proposed modifications to the Plan or conditions extends beyond the intent of the original Plan or conditions, then a public hearing shall be held. In addition, modifications to the Plan may require, pursuant to the California Environmental Quality Act, additional environmental documentation to be prepared by the City of Carson and paid for by the applicant or other relevant party.

24. A minimum six (6) foot high decorative block wall shall be located on the 228th Street and Main Street frontage. A minimum six (6) foot high decorative block wall shall also be placed along the perimeter of the property that abuts all residential portions of the Specific Plan. An eight (8) foot high sound wall shall be included at the Main Street elevation. Said walls shall be setback a minimum of eight (8) feet from the residential property line. The area in front of the wall shall include drought tolerant landscaping as approved by the Director of Community Development. Landscape vines shall be utilized at the base of the wall to provide a graffiti deterrent. Such block wall and landscaping shall be paid for by the developer, and subsequently

maintained and incorporated into the project under provisions enumerated by the CC&R's.

25. That the phasing schedule for the development of the single-family homes and all infrastructure improvements shall follow the timetables listed in the approved Specific Plan and any additional requirements by the Community Development Department or conditions related to the Tentative Tract and Parcel Map. All perimeter landscaping and a new block wall (where applicable) surrounding the residential community on 228th Street and Main Street shall be installed under Phase I or as approved by the Community Development Director.

26. All playground and park equipment improvement plans are subject to the review and approval of the Community Development Director prior to the occupancy of any units.

27. All construction equipment, either fixed or mobile, shall be equipped with properly operating and maintained mufflers. The construction contracts shall require that all equipment and noise mufflers are in proper working order.

PARKING

28. All parking areas and driveways shall remain clear within the established residential areas.

29. All areas used for the movement parking, loading, repair or storage of vehicles shall be paved with either:

    a. Concrete or asphaltic concrete to a minimum thickness of three and one-half inches over four inches of crushed aggregate base; or

    b. Other surfacing material which, in the opinion of the Director of Engineering Services, provides equivalent life, service and appearance; or

30. No designated garage shall be converted to other uses without approval by the Community Development Department. An inspection shall be made by the Homeowners Association prior to property transfer. Any garages found to have been converted or altered shall be changed back to a 2 car garage within 30 days of the inspection notification of the homeowners association or the City of Carson.

31. Roll up garage doors with automatic garage door openers, including two portable opening devices, are required for each residential unit.

LANDSCAPING/IRRIGATION

32. The applicant shall submit two sets of landscaping and irrigation plans drawn, stamped, and signed by a licensed landscape architect. Such plans

are to be approved by the Community Development Department prior to the issuance of any building permit.

33. The applicant shall comply with the provisions of Section 9168 of the Zoning Ordinance, "Water Efficient Landscaping."

34. Landscaping shall be provided with a permanently installed, automatic irrigation system and operated by an electrically-timed controller station set for early morning or late evening irrigation.

35. Landscaping and irrigation requirements for the proposed Specific Plan shall include, but not be limited to:

    a. Vine-like landscaping along perimeter walls;

    b. A minimum of one thirty inch box specimen tree per residential unit to be located in the property front yard setback area of each residential property. The landscape plan shall consider placement of trees close to the sidewalk and/or types of trees with sufficient canopies in order to provide for the appearance of street trees and shading of the sidewalks and streets .

36. All existing oil related equipment, including but not limited to the corner of Main and 228th Streets and the western perimeter along 228th Street, shall be adequately screened from public view and depicted on all landscape plans.

37. When the side yard of a residential lot abuts a private street, a five (5) foot landscape area shall be provided between the Private street and the fence. The Homeowners Association shall assure that said landscape area is maintained at all times.

## UTILITIES

38. All new utility lines, other than major transmission lines, shall be placed underground. All aboveground equipment (other than power poles), such as transformers and pedestal terminals, which are visible from an adjacent public street or walkway, shall be within a solid enclosure or otherwise screened from public view unless otherwise provided for in these conditions.

39. All roof mounted equipment and structures shall be screened from public view or incorporated into the design of the structure. All stucco screens and air ducts shall be painted to match the structure.

40. All utility meter enclosures shall be in accordance with the utility's service requirement and, to the extent feasible, shall be painted to match existing or proposed buildings located on the subject property.

## AESTHETICS

41. Texture treatment (such as rough stucco, stone, brick, etc.) shall be incorporated into all building facades, subject to Community Development Department approval.

42. Individual television and radio antennae shall be prohibited outside any unit. The applicant shall provide either central antennae with connections to each unit via underground or internal wall wiring, or each unit shall be served by a cable antenna service provided by a company licensed to provide such service within the city. Any satellite dishes shall be screened from public view from either the public or private streets.

43. Exterior doors shall include a solid wood core (carved or paneled). Any other proposed materials shall be approved by the Community Development Director prior to building permit approval.

44. The specification of all colors and materials utilized for the newly proposed residential units shall be submitted and approved by the Community Development Department prior to the issuance of any building permits.

45. Graffiti shall be removed from all project areas within 15 days of written notification by the City of Carson. Should the graffiti problem persist more than twice in any calendar year, the matter may be brought before the Planning Commission for review and further consideration of site modifications (i.e., fencing, landscaping, chemical treatment, etc.).

SIGNS

46. Subdivision signs are subject to Section 9128.33 of the Zoning Ordinance.

BUILDING AND SAFETY

47. The applicant shall demolish all existing structures in conformance with the approved Tract and Parcel Maps and Specific Plan prior to the issuance of any occupancy permits.

PUBLIC SAFETY

48. Where practical, surface treatments, accessibility or landscaping strategies should work to deter graffiti. Security lighting, both in common residential areas and in the proposed commercial development should be used as a strategy to deter vandalism.

49. All drains leading to city/county storm drains should be permanently marked by stamped or metal plates "No Dumping - Drains to the Ocean".

50. In support of the City's commitment to AB939, every effort should be made to use recycled materials in the construction of this project.

OTHER

51. The specifications for the residential air conditioners shall be reviewed and approved by the Community Development Director prior to installation. The applicant shall utilize low noise and energy efficient air conditioning units.

52. A document containing Covenants Conditions and Restrictions (CC&R's) shall be reviewed and approved by the City prior to occupancy approval of any housing units. All Conditions of Approval shall be contained within the CC&Rs.

53. A Homeowner's Association shall be established to monitor and regulate all common areas, including, but not limited to landscaping and private streets.

54. High quality postal delivery receptacles shall be provided subject to approval of the Director of Community Development and the Postal Service.

55. The applicant shall, to the satisfaction of the Community Development Department and any other applicable department of the City of Carson, provide mitigation measures addressing impacts to any occupants of the existing residential community surrounding the proposed subdivision and any newly established residential property owners within the gated community who are affected by construction activities. This shall include, but not be limited to mitigation measures regarding noise, dust/dirt and hours of operation.

56. Stationary source air emissions will be mitigated by incorporating several energy efficient design features into the project that go beyond those required under Title 24. Said mitigation strategies will include, but not be limited to, built-in energy efficient appliances, central water heating systems, energy efficient air conditioning, light colored roofing materials, energy efficient lighting control and lights, shade trees to reduce solar load and wall/attic insulation.

57. Unless otherwise specified, the developer shall be financially responsible for the construction, installation, and maintenance of any item, including but not limited to walls, landscaping, or screening structures required by the specific plan or said conditions of approval.

58. All proposed single family homes shall provide a concrete tile roof, or consistent materials subject to approval of the Community Development Director.

59. The applicant/developer shall abide by all conditions and mitigation measures established in Specific Plan No. 7-97 and within the corresponding Mitigation Monitoring Program.

60. Handicap ramps shall be provided to accommodate disabled persons at all areas where sidewalks meet either public or private streets.

61. Driveway approaches shall be designed to minimize potential problems associated with handicap accessibility.

62. Develop an internal signing and striping plan that will provide clear signage for future residential development.

63. If asbestos is identified in any existing structures, the project applicant shall obtain an Asbestos Abatement Contractor to survey the project site and assess the potential hazard. The project applicant shall contact the SCAQMD and the City of Carson prior to asbestos removal.

64. In order to further reduce any potential PM10 impacts during all construction phases, the developer shall arrange to water active sites at least twice daily and suspend all excavating and grading operations at the project site when wind speeds exceed 25 miles per hour.

65. The developer shall work together with the Los Angeles County Sanitation District or the specific agency involved and take all steps to minimize any negative impacts regarding the rehabilitation and replacement of any and all sewer lines.

66. A minimum 8 foot landscaping setback shall be included for all areas adjacent to Main Street and 228th Street.

67. That parkways with sidewalks and street trees, if possible be incorporated within the project to the satisfaction of the Community Development Director.

68. That the existing two parks designated as Lots AA and BB be changed to Lots 98, 99, 119 and 120 in order to incorporate a centrally located community park..

69. Lots "AA" and "BB", designated open space/park areas within the Specific Plan and Tentative Maps shall be changed to residential lots.

70. All changes to the Specific Plan, including, but not limited to modification in number of units, square footage for open space and cul de sac modifications shall be included in the final maps prior to City Council review and approval.

71. A condition shall be placed within the Covenants, Conditions and Restrictions to allow access for all private roads within Specific Plan 7-97 subject to the request of the City. All private roads shall be considered "public right of ways" for purposes of reviewing maintenance issues related to the Property Maintenance Ordinance and provisions of Specific Plan No. 7-97.

72. Prior to the issuance of building permits for the project, a detailed phasing plan, which minimizes the construction impacts to onsite residents and adjacent neighborhoods, must be submitted to the Community Development Department for approval. Said phasing plan will address temporary construction impacts on drainage patterns, vehicular access, security, traffic/circulation pedestrian access, public utilities, noise, public health and safety as well as aesthetics.

73. Wiring shall be included for each garage to allow the opportunity to utilize electric vehicles.

SPECIFIC PLAN CHANGES

74. Section 2.3.3.4 "Yard Areas and Setbacks" shall be modified to read as follows: " Front Yard - Each lot shall have a front yard with a minimum depth of 15 feet, to the living area; units that provide a porch area may encroach into the 15 feet setback, leaving a minimum setback of 12 feet if approved by the Community Development Director under Section 2.3.3.5. "

75 That the reference to 164 residential units within the entire Specific Plan No. 7-97 document be changed to 162 residential units.

76. Prior to the issuance of any building or grading permit, the subdivider will provide the City with (I) a copy of the Notice of Intent to comply with the current State Construction Activity Storm Water Permit which it has filed with the State Water Resources Control Board; and (ii) a copy of the Storm Water Pollution Prevention Plan for the property, and will otherwise demonstrate compliance with the City's Storm Water Management and Discharge Control Ordinance (Ordinance No. 96-1101; Carson Municipal Code Sections 5800, et seq.), and all other applicable municipal ordinances, and state and federal statutes, regulations, permit conditions and guidelines regarding the control of storm water and urban run-off.

77. All matters set forth herein as Conditions 1 through 76 shall be incorporated in the text of the final version of the Specific Plan to be prepared at the expense of the developer following final action by the City Council.

Mg/SP797pc

CITY OF CARSON

PLANNING COMMISSION

RESOLUTION NO. 97-1693

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CARSON RECOMMENDING APPROVAL TO THE CITY COUNCIL OF GENERAL PLAN LAND USE ELEMENT NO. 59-97 AND ZONE CHANGE CASE NO. 125-97

THE PLANNING COMMISSION OF THE CITY OF CARSON HEREBY FINDS, RESOLVES AND ORDERS AS FOLLOWS:

Section 1. An application to change the Land Use Element of the General Plan from Heavy Industrial to Low Density Residential (1-8 units max.) and to change the zoning designation for the subject property from MH-D (Manufacturing, Heavy, Design Overlay Review) to RS (Residential, Single-Family) was duly filed by the applicant, Comstock Crosser and Associates, with respect to real property described in Exhibit "A" attached hereto, and requesting approval of General Plan Land Use Element Amendment No. 59-97 and Zone Change Case No. 125-97 for the property located at the southwest corner of Main Street and 228th Street (approximately 250 W. 228th Street).

Section 2. Public hearings were duly held on September 23, 1997 and October 14, 1997, at 6:30 P.M. in the City Hall, Council Chambers, 701 East Carson Street, Carson, California. A notice of time, place and purpose of the aforesaid meetings were duly given. Evidence, both written and oral, was duly presented to and considered by the Planning Commission at the said hearings. Following the aforesaid public hearings, the Planning Commission announced its decision to recommend approval of the amendment and zone change application.

Section 3. The Planning Commission hereby finds that:

a) The proposed RS (Residential, Single-Family) zoning designation for the existing 20.7 acre parcel of land is compatible with the single-family character of the surrounding neighborhood and will remove an existing incompatible land use, the Fletcher Oil storage facility. This project is consistent with the Housing Element goal of ensuring that newly constructed residences are compatible with the existing character of the neighborhood and providing housing for a variety of income groups.

b) The subject property is currently zoned MH-D (Manufacturing Heavy - Design Overlay Review). The existing land use consists of a Fletcher Oil petroleum storage site. The removal of the industrial portion of the use, including the petroleum storage tanks, and cleanup of the soils and groundwater to allow the addition of single-family residential homes will provide further land use compatibility with the existing surrounding single-family residential neighborhoods.

c) The proposed project is consistent with the Land Use Element goal of protecting residential areas from noise, odor, smoke and excessive traffic. The Fletcher Oil and Refining facility will be subject to California Environmental Protection Agency and Los Angeles Regional Water Quality Control Board requirements for the cleanup of any existing soils and groundwater contamination. A condition of approval has also been included to provide a block wall, landscaping and double paned windows to mitigate any adverse noise impacts from Main Street. A traffic impact report was completed and existing traffic levels were not determined to be excessive.

d) State Law requires compatibility between land use zoning classifications and the General Plan. Therefore, the Land Use Element for the subject property shall be changed to Low Density Residential (1-8 units max.) to reflect the change to an RS (Residential, Single-Family) zoning designation.

e) The high cost of new single family homes requires a large down payment and large monthly payments. Because most first time home buyers are younger and have smaller incomes, a new single family home is generally unaffordable. Due to the smaller lot design, the projected sales price of the homes will be more affordable than traditional single family homes. This project is consistent with the Land Use Element goal of providing housing for a variety of income groups.

f) An Initial Study was completed for the Project by the Community Development Department, pursuant to Section 15063 and 15070 of the State of California Environmental Quality Act (CEQA) Guidelines, which identified that there were potentially significant effects but revisions in the project plans or proposals made by or agreed to by the applicant before the proposed Negative Declaration was released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur and there would be no significant effect upon the environment. No substantial evidence has been presented that the project will create a significant physical impact on the environment.

Section 4. Based on the aforementioned findings, the Commission hereby recommends to the City Council that:

1). The Land Use Element of the Carson General Plan be amended to change the designation of certain properties as described in Exhibit "A" and as shown in Exhibit "B" attached hereto from Heavy Industrial to Low Density Residential (1-8 units max.).

2). The zone of certain properties described in Exhibit "A" and as shown in Exhibit "C" attached hereto be changed from MH-D (Manufacturing, Heavy-Design Overlay Review) to RS (Residential Single-Family).

**Section 5.** Based on the aforementioned findings, the Commission hereby recommends that the City Council approve Land Use Element Amendment No. 59-97 and Zone Change Case No. 125-97 with respect to the property described in Section 1 hereof, subject to the conditions set forth in Exhibit "B" attached hereto, and recommends adoption of the Mitigated Negative Declaration.

Section 6. The Secretary shall certify to the adoption of the Resolution and shall transmit copies of the same to the applicant.

**Section 7.** This action shall become final and effective fifteen days after the adoption of this Resolution unless within such time an appeal is filed with the City Clerk in accordance with the provisions of the Carson Zoning Ordinance.

PASSED, APPROVED AND ADOPTED THIS 14TH DAY OF OCTOBER 1997

CHAIRMAN

ATTEST:

SECRETARY

Mg/Res5997p

**Supplemental Information for Request for Hearing**
(page 7 of application)

Legal Description

The legal description of the proposed project site is as follows:

The land referred to herein is situated in the County of Los Angeles, State of California, and is described as follows:

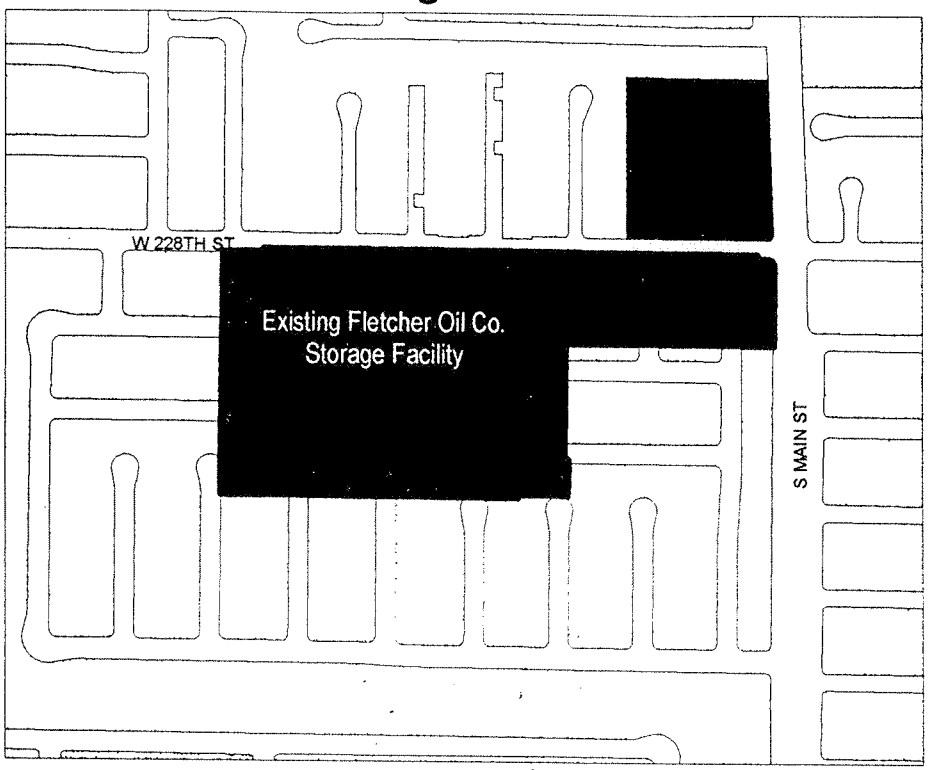
That portion of Lots 8 and 9 of the 750 acre tract of Maria Machado de Rocha, in the Rancho San Pedro, in the City of Carson, as per map recorded in Book 6, Page 161 of miscellaneous records, in the Office of the County Recorder of said County, described as follows:

Commencing at a point in the north line of said Lot 9 and its intersection with the centerline of the 80 foot strip of land conveyed to the County of Los Angeles for road purposes, by deed recorded in Book 3734, page 214 of deeds, in the Office of the County Recorder of said County; thence, north 89°39'45" west 100.0 feet to the true point of beginning; thence, south 0°20'15" west 13.5 feet; thence, south 89 39'45" east 33.0 feet to the beginning of a tangent curve concave to the southwest, having a radius of 17.0 feet; thence, southeasterly along said curve 26.75 feet; thence, south 0°29'00" west 237.58 feet along a line parallel to the centerline of Main Street to the northerly boundary line of Tract 27087, as per map recorded in said County; thence, along the boundary line of said tract, north 89°39'25" west 621.0 feet, south 0°29'00" west 351.0 feet, south 89 39'45" east 11.0 feet and south 0°29'00" west 100.0 feet to the northerly boundary line of Tract 28346, as per map recorded in the Book 764, pages 1 to 4, inclusive of maps; thence, along the boundary lines of said tract, north 89°39'45" west 147.0 feet and south 0 20'00" west 10.95 feet; thence, continuing along said boundary lines and its prolongation north 89°39'45" west 872.33 feet to the easterly boundary line of Tract 28802, as per map recorded in Book 767, pages 16 to 18, inclusive of maps, in the Office of the County Recorder of said County; thence, along said boundary line north 0°30'29" east 716.50 feet; thence, south 89 39'45" east 120.0 feet; thence, north 0°20'15" east 13.5 feet; thence south 89°39'45" east 1463.42 feet, more or less, to the terminus of this description at the true point of beginning.

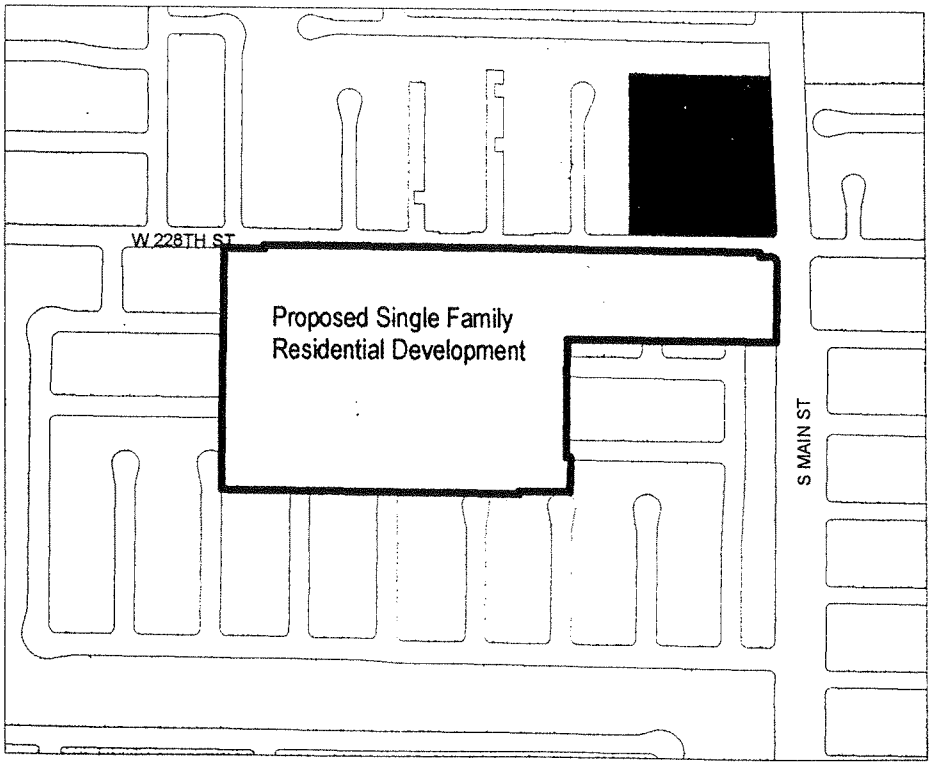
Said land being a portion of parcel 1 as shown on record of survey filed in Book 83, Page 27 of record of surveys, in the Office of the County Recorder of said County.

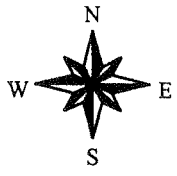
# *Land Use Element Amendment No. 59-97*
# *Zone Change Case No. 125-97*
# *Cambria Pines - Comstock Homes*

## Existing Land Use




## Proposed Land Use




300 0 300 600 Feet

Subject Property

General Plan Land Use Designations

- LOW DENSITY (1-8 Units Per Acre)
- MEDIUM DENSITY (9-12 Units Per Acre)
- HIGH DENSITY (13-25 Units Per Acre)
- GENERAL COMMERCIAL
- REGIONAL COMMERCIAL
- HEAVY INDUSTRIAL
- LIGHT INDUSTRIAL
- PUBLIC FACILITIES

15-Sept-97

Carson
Geographic
Services

CITY OF CARSON

DEPARTMENT OF COMMUNITY DEVELOPMENT

PLANNING DIVISION

EXHIBIT "B"

CONDITIONS OF APPROVAL

VESTING TENTATIVE TRACT MAP NO. 52281

VESTING TENTATIVE PARCEL MAP NO. 24763

## LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

1. Prior to recordation, approval must be obtained for detailed engineering geologic and soils reports. Geologic hazards identified in said reports must be eliminated. Alternately, the consultant geologist shall delineate, on the map, restricted use areas to the satisfaction of the City Engineer.

2. Prior to the issuance of a building permit, approval must be obtained for a grading plan which conforms with the approve geologic and soils reports and in general conformance with the approved drainage concept, to the satisfaction of the City Engineer.

3. Comply with all mitigation recommended in the approved drainage concept and the approved soils report.

4. Close any unused driveways with standard curb, gutter and sidewalk.

5. Repair any broken or damaged curb, gutter, sidewalk and pavement on streets within or abutting the subdivision.

6. Prior to final approval, enter into an agreement with the City's franchised cable TV operator to permit the installation of cable in a common utility trench.

7. Dedicate right of way 30 feet from centerline on 228th Street to the satisfaction of the City.

8. In stall street lights on 228th Street to the satisfaction of the City and install any needed street lights on the exterior cul-de-sacs.

9. Plant street trees on 228th Street and Main Street to the satisfaction of the City. Existing trees in dedicated right of way or right of way to be dedicated shall be removed if they are not acceptable as street trees.

10. All new utility lines shall be underground to the satisfaction of the City.

11. The subdivider shall submit an area study to the City Engineer to determine if capacity is available in the sewerage system to be used as the outlet for the sewers in this land division. If the system is found to have insufficient capacity, the problem must be resolved to the satisfaction of the City Engineer.

12. The subdivider shall send a print of the land division map to the Los Angeles County Sanitation District, with a request for annexation. The request must be approved by the District prior to final map approval.

13. A water system with appurtenant facilities to serve all lots in the land division must be provided. The system shall include fire hydrants of the type and location as determined by the Fire Department.

14. There shall be filed with the City Engineer, a statement from the water purveyor indicating that the water system will be operated by the purveyor and that under normal conditions, the system will meet the requirements for the land division, and that water service will be provided to each lot.

15. Provisions shall be made for the continual maintenance of the common areas.

16. Place a note on the final map to the satisfaction of the City Engineer indicating that this map is approved as a planned development project.

17. Provide suitable turnaround and label the driveways "Private Driveway and Fire Lane" on the final map to the satisfaction of the Fire Department.

18. Remove all existing structures (tanks) prior to approval of the final map to the satisfaction of the City.

19. If units are filed, show the remainder of the approved tentative map as a "Not a Part" to the satisfaction of the City.

20. The landscape areas and private streets should be indicated as number lots on the final map to the satisfaction of the City Engineer.

21. Dedicate to the City the right to prohibit the construction of structures within the landscape lots and private streets to the satisfaction of the City.

22. Provide reciprocal easements for ingress and egress purposes over the private street lots on the final map to the satisfaction of the City.

23. Private easements shall not be granted or recorded within areas proposed to be granted, dedicated, or offered for dedication until after the final map is filed with the County Recorder. If easements are granted after the date of tentative approval, a subordination must be executed by the easement holder prior to the filing of the final map.

24. A final guarantee will be required at the time of filing of the final map with the County Recorder.

LOS ANGELES COUNTY FIRE DEPARTMENT

25. Access shall comply with Section 902 of the Fire Code which requires all weather access. All weather access may also require paving.

26. Fire Department Access shall be extended to within 150 feet distance of any exterior portion of all structures.

27. Where driveways extend further than 300 feet and are of single access design, turnarounds suitable for fire protection equipment use shall be provided and shown on the final map. Turnarounds shall be designed, constructed and maintained to insure their integrity for Fire Department use. Where topography dictates, turnarounds shall be provided for driveways which extend over 150 feet.

28. The private driveways shall be indicated on the final map as "Private Driveway and Firelane" with the widths clearly depicted and shall be maintained in accordance with the Fire Code.

29. Vehicular access must be provided and maintained serviceable throughout construction to all required fire hydrants. All required fire hydrants shall be installed, tested, and accepted prior to construction.

30. Provide Fire Department and/or City Approved street signs and building access numbers prior to occupancy.

31. Provide a minimum of 20 feet of ingress and 20 feet of egress at the gated entrance. The egress shows less than 20 feet on the current plan. Gates shall be equipped with an approved electronic limited access device for Fire Department use.

32. Phase 3 shall provide the improvement of the second means of access to 228th Street.

33. All current use shall cease prior to any construction of new use.

34. The required fire flow for public fire hydrants at this location is 1,250 gallons per minute at 20 psi for a duration of 2 hours, over and above maximum daily domestic demand. 1 hydrant(s) flowing simultaneously may be used to achieve the required fire flow.

35. Install 10 public fire hydrant(s).

36. All hydrants shall measure 6" x 4" x $2^1/_2$" brass or bronze, conforming to current AWWA standard C503 or approved equal. All hydrants shall be installed a minimum

of 25' from a structure or protected by a two (2) hour fire wall as per map on file with this office.

37. All required fire hydrants shall be installed, tested and accepted prior to construction. Vehicular access must be provided and maintained serviceable throughout construction.

## CITY OF CARSON RECREATION AND COMMUNITY SERVICES DEPARTMENT

38. Prior to recordation of the Tentative Tract Map No. 52281 and Tentative Parcel Map No. 24763, the applicant is required to pay to the City a park dedication fee amounting to $338,660. The applicant is further required to notify this department when the fee is paid. Arrangements can be made for the payment of the required fee in phases pursuant to their proposed phasing of development.

## CITY OF CARSON ENGINEERING SERVICES DEPARTMENT

39. The public (offsite) infrastructure improvements, including sidewalks, cul-de-sacs, storm drains, parkway landscaping and other improvements to be maintained by the city shall be designed prior to recordation and the appropriate surety posted. Said improvements shall be installed with Phase I construction, to the satisfaction of the City Engineer.

40. The sidewalk along the south side of 228th Street shall be a minimum of 5 feet wide and shall be located adjacent to the curb. Street trees with root barriers shall be located behind the sidewalk within the public right of way. Additionally, all above ground utilities such as poles and controller boxes shall be located outside of the sidewalk area in a public parkway.

41. All cul-de-sac (one interior and six exterior) configurations and right of-way dedications shown on the tentative map are approved in concept only. A precise design of each turnaround must be prepared so as to minimize the disturbance to existing improvements while, at the same time, conforming more closely to the city standards for cul-de-sacs. The final design shall be such that vehicles will not come into contact with the perimeter walls, street lights, etc.

42. The approved cul-de-sac improvements shall be constructed with Phase I.

43. Prior to the issuance of a building permit, a detailed plan shall be prepared for review and approval for the access driveways showing the gate locations, striping, sidewalks, walls, landscaping, signs, sight distance triangles, pedestrian refuge islands etc.

44. Prior to the issuance of a building permit, a striping plan shall be prepared for review and approval for the intersection of Figueroa Street and Sepulveda Boulevard. Said plan shall show how an additional right turn lane will be provided on westbound Sepulveda Boulevard, as suggested in the applicant's traffic impact study. All mitigation measures for traffic impact at this intersection shall be installed as a part of Phase I.

45. All of the interior infrastructure shall be owned and maintained by the homeowner's association, and the city shall not be responsible for the maintenance of streets, lighting, sewers, storm drains, curbs, gutters, landscaping, or any other improvements within the tract boundaries. All of the interior infrastructure shall be designed to current city standards. Surety need not be provided for private infrastructure within the tract boundaries.

46. Stop signs and limit lines shall be installed at each of the two egress roads where they intersect 228th Street.

CITY OF CARSON COMMUNITY DEVELOPMENT DEPARTMENT

47. Any extension of said maps, provided for in the Subdivision Ordinance, must be accompanied by an extension of Specific Plan No. 7-97. All extensions must be secured from the Planning Commission prior to expiration of this map.

48. The applicant shall comply with all city, county, state and federal laws and regulations applicable to this land division.

49. A copy of the CC&Rs (Covenants, Conditions and Restrictions) shall be submitted to the Community Development Department for transmittal to the City Attorney for review and approval as to form and content. The CC&Rs shall contain statements that the project will be in compliance with city, county and state regulations and that the project will be architecturally compatible with the surrounding neighborhood. All Conditions of Approval shall be included within the CC&Rs. No changes to the approved CC&Rs shall be made without the City's consent. The CC&Rs shall be recorded concurrently with the map unless otherwise authorized.

50. The applicant shall provide a final City Attorney approved copy of the CC&Rs to the Community Development Department prior to any occupancy of any unit.

51. Conditions not required to be fulfilled prior to, or shown on the final map, shall be stated on a separate document to be recorded with the final map.

52. On the date the Tentative Map and/or Tentative Parcel Map is approved for this site, any previously approved by unrecorded maps shall become null and void.

53. The recorded maps shall conform to the tentative maps and to the Conditions of Approval. Two copies of the finally recorded maps shall be submitted to the Community Development Department.

54. This tentative map shall be recorded with the County Recorder within two years of the date of final approval by the City Council.

55. Within forty-eight hours of approval of the subject project, the applicant shall deliver to the Community Development Department a cashier's check or money order payable to the County Clerk in the amount of $25.00 (twenty-five dollars) pursuant to AB 3185, Chapter 1706, Statutes of 1990, to enable the City to file the Notice of Determination required under Public Resources Code Section 21152 and 14 Cal. Code of Regulations 15075. If within such forty-eight hour period the applicant has not delivered to the Community Development Department the above-noted cashier's check or money order, the approval for the project granted herein may be considered automatically null and void.

56. In addition, should the Department of Fish and Game reject the Certificate of Fee Exemption filed with the Notice of Determination and require payment of fees, the applicant shall deliver to the Community Development Department, within forty-eight hours of notification, a cashier's check or money order payable to the County Clerk in the amount of $1,250 (one thousand two hundred fifty dollars) pursuant to AB 3158, Chapter 1706, Statutes of 1990. If this fee is imposed, the subject project shall not be operative, vested or final unless and until the fee is paid.

57. Minor lot line adjustments may be made to the satisfaction of the Community Development Director and Public Works Director prior to the final approval of the map by the City Council.

58. No lot on the final map shall have less area, width, or depth than that required by the approval of the Specific Plan No. 7-97.

STREETS

59. All private street names shall be reviewed and approved by the Community Development Director prior to approval of the final map. The approved street names shall be labeled on the final map.

UTILITIES

60. Public utility easements shall be provided in the locations as required by all utility companies with easements free and clear of obstructions, and electrical utilities shall be installed underground.

61. The subdivider shall remove at his own expense any obstructions within the utility easements that would interfere with the use for which the easements are intended.

SUBDIVISION DIRECTIONAL SIGNS

62. The applicant shall comply with the requirement for subdivision sign as provided for in Section 9128.33 of the Zoning Ordinance.

AESTHETICS

63. High quality postal delivery receptacles shall be provided subject to the approval of the Director.

OTHER

64 A Remedial Action Plan shall be approved by the California Environmental Protection Agency, Water Quality Control Board and any other responsible agency for tank removal and soil remediation prior to the approval of building permits. All tanks will be removed and all soil remediation shall be completed for each phase prior to the issuance of any building permits for that particular phase.

65. That the site shall be tested for the presence of hazardous waste products prior to the issuance of building permits and that said report shall be provided to the Community Development Department for review. If the tests indicate a potential significant health risk, appropriate mitigation measures shall be required as determined by the Director of Community Development or other appropriate agencies.

66. Perimeter landscaping on Main Street and 228th Street shall be installed prior to development of Phase 1 for Parcel No. 1.

67. The cul-de-sac proposed for the westerly portion of 230th Street shall be modified to exclude the excess portion of concreted area and conform with the other proposed cul-de sacs. Said change shall be noted on the final map.

CITY OF CARSON

PLANNING COMMISSION

RESOLUTION NO. 97-1694

# A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CARSON GRANTING VESTING TENTATIVE TRACT MAP NO. 52281 VESTING TENTATIVE PARCEL MAP NO. 24763

**THE PLANNING COMMISSION OF THE CITY OF CARSON HEREBY FINDS, RESOLVES AND ORDERS AS FOLLOWS:**

Section 1. An application was duly filed by the applicants, Comstock Crosser and Associates, with respect to real property located at the southwest corner of Main Street and 228th Street (approximately 250 W. 228th Street) and described in Exhibit "A" attached hereto, requesting the approval of Vesting Tentative Parcel Map No. 24763 and Vesting Tentative Tract Map No. 52281 for a two lot subdivision dividing the 20.7 acre parcel of land and a subsequent subdivision into a proposed 162 unit private residential development consisting of individual single-family lots and common interior streets.

Public Hearings were duly held on September 23, 1997 and October 14, 1997, at 6:30 P.M. at City Hall, Council Chambers, 701 East Carson Street, Carson, California. A notice of time, place and purpose of the aforesaid meetings were duly given.

Section 2. Evidence, both written and oral, was duly presented to and considered by the Planning Commission at the aforesaid meetings.

Section 3. The Planning Commission finds that:

a) The proposed map, use and development will be consistent with the Land Use Element of the General Plan which designates the property for Low Density Residential uses after the approval of a General Plan amendment. The proposed single-family residential development is compatible with the surrounding neighborhood, which is predominantly single-family residential in nature.

b). The site is adequate in size, shape, topography, location, utilities and other factors to accommodate the proposed use. The 20.7 acre site, of which is to be utilized for residential single-family uses with common interior streets, is adequate for the approximate 162 unit development.

c). The tentative map is consistent with the Circulation Element of the General Plan as the residential portion of the subdivision provides vehicular access directly on Main Street, a fully dedicated and improved major highway, and 228th Street, a fully dedicated and improved collector street. Interior access will be provided by way of a common street system.

d). The design of the subdivision and its proposed improvements will not cause serious public health problems. Pursuant to the Los Angeles County Regional Water Quality Control Board, the lead agency in the cleanup of soils and groundwater for the site, the subject property will be suitable for residential development. Conditions of Approval have been included to require, upon completion of work designated within the Remedial Action Plan (RAP), written verification of completion from the Water Quality Control Board or by one or more independent environmental consultants The required fire fighting facilities, with the addition of ten (10) additional fire hydrants, will also provide adequate water supply, while the required sewage system will be adequate to meet the needs of the proposed subdivision.

e). The primary purpose of the proposed parcel map is to divide the existing 20.7 acre parcel in half for the purposes of remediation and subsequent development of single-family homes. The purpose of the tract map is to subdivide the newly created two parcels into 162 individual single-family residential lots with common interior street system and 20,142 square foot interior park/recreation area.

f) The design of the proposed subdivision and its proposed improvements will not have a significant effect on the environment. Specific mitigation measures have been incorporated into the project, including, but not limited to cleanup of soils to residential standards prior to development and the incorporation of block walls around the perimeter of the development and landscape buffers between the residential development and public streets.

g) The project involves no potential for any adverse effect, either individually or cumulatively, on wildlife resources and therefore a De Minimis Impact Finding is made relative to AB 3158, Chapter 1706, Statutes of 1990.

Section 4. The Planning Commission further finds that although the use permitted by the proposed Tentative Tract an Parcel Maps could have a significant effect on the environment there will not be a significant effect in this case due to the mitigation measures proposed in the attached Initial Study and Specific Plan. Therefore, a Mitigated Negative Declaration has been prepared for this project. The proposed use will not alter the predominantly residential character of the surrounding area and meets all City standards for protection of the environment.

Section 5. Based on the aforementioned findings, the Commission hereby approves said project with respect to the property described in Section 1 hereof, subject to the conditions set forth in Exhibit "B" attached hereto, and adopts the Mitigated Negative Declaration.

Section 6. The Secretary shall certify to the adoption of the Resolution and shall transmit copies of the same to the applicant.

Section 7. This action shall become final and effective fifteen days after the adoption of this Resolution unless within such time an appeal is filed with the City Clerk in accordance with the provisions of the Carson Zoning Ordinance.

**PASSED, APPROVED AND ADOPTED THIS 14TH DAY OF OCTOBER, 1997**

CHAIRMAN

**ATTEST:**

SECRETARY

**Supplemental Information for Request for Hearing**
(page 7 of application)

Legal Description

The legal description of the proposed project site is as follows:

The land referred to herein is situated in the County of Los Angeles, State of California, and is described as follows:

That portion of Lots 8 and 9 of the 750 acre tract of Maria Machado de Rocha, in the Rancho San Pedro, in the City of Carson, as per map recorded in Book 6, Page 161 of miscellaneous records, in the Office of the County Recorder of said County, described as follows:

Commencing at a point in the north line of said Lot 9 and its intersection with the centerline of the 80 foot strip of land conveyed to the County of Los Angeles for road purposes, by deed recorded in Book 3734, page 214 of deeds, in the Office of the County Recorder of said County; thence, north 89°39'45" west 100.0 feet to the true point of beginning; thence, south 0°20'15" west 13.5 feet; thence, south 89 39'45" east 33.0 feet to the beginning of a tangent curve concave to the southwest, having a radius of 17.0 feet; thence, southeasterly along said curve 26.75 feet; thence, south 0°29'00" west 237.58 feet along a line parallel to the centerline of Main Street to the northerly boundary line of Tract 27087, as per map recorded in said County; thence, along the boundary line of said tract, north 89°39'25" west 621.0 feet, south 0°29'00" west 351.0 feet, south 89 39'45" east 11.0 feet and south 0°29'00" west 100.0 feet to the northerly boundary line of Tract 28346, as per map recorded in the Book 764, pages 1 to 4, inclusive of maps; thence, along the boundary lines of said tract, north 89°39'45" west 147.0 feet and south 0 20'00" west 10.95 feet; thence, continuing along said boundary lines and its prolongation north 89°39'45" west 872.33 feet to the easterly boundary line of Tract 28802, as per map recorded in Book 767, pages 16 to 18, inclusive of maps, in the Office of the County Recorder of said County; thence, along said boundary line north 0°30'29" east 716.50 feet; thence, south 89 39'45" east 120.0 feet; thence, north 0°20'15" east 13.5 feet; thence south 89°39'45" east 1463.42 feet, more or less, to the terminus of this description at the true point of beginning.

Said land being a portion of parcel 1 as shown on record of survey filed in Book 83, Page 22 of record of surveys, in the Office of the County Recorder of said County.

CITY OF CARSON

DEPARTMENT OF COMMUNITY DEVELOPMENT

PLANNING DIVISION

EXHIBIT "B"

CONDITIONS OF APPROVAL

VESTING TENTATIVE TRACT MAP NO. 52281

VESTING TENTATIVE PARCEL MAP NO. 24763

## LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

1. Prior to recordation, approval must be obtained for detailed engineering geologic and soils reports. Geologic hazards identified in said reports must be eliminated. Alternately, the consultant geologist shall delineate, on the map, restricted use areas to the satisfaction of the City Engineer.

2. Prior to the issuance of a building permit, approval must be obtained for a grading plan which conforms with the approve geologic and soils reports and in general conformance with the approved drainage concept, to the satisfaction of the City Engineer.

3. Comply with all mitigation recommended in the approved drainage concept and the approved soils report.

4. Close any unused driveways with standard curb, gutter and sidewalk.

5. Repair any broken or damaged curb, gutter, sidewalk and pavement on streets within or abutting the subdivision.

6. Prior to final approval, enter into an agreement with the City's franchised cable TV operator to permit the installation of cable in a common utility trench.

7. Dedicate right of way 30 feet from centerline on 228th Street to the satisfaction of the City.

8. In stall street lights on 228th Street to the satisfaction of the City and install any needed street lights on the exterior cul-de-sacs.

9. Plant street trees on 228th Street and Main Street to the satisfaction of the City. Existing trees in dedicated right of way or right of way to be dedicated shall be removed if they are not acceptable as street trees.

10. All new utility lines shall be underground to the satisfaction of the City.

11. The subdivider shall submit an area study to the City Engineer to determine if capacity is available in the sewerage system to be used as the outlet for the sewers in this land division. If the system is found to have insufficient capacity, the problem must be resolved to the satisfaction of the City Engineer.

12. The subdivider shall send a print of the land division map to the Los Angeles County Sanitation District, with a request for annexation. The request must be approved by the District prior to final map approval.

13. A water system with appurtenant facilities to serve all lots in the land division must be provided. The system shall include fire hydrants of the type and location as determined by the Fire Department.

14. There shall be filed with the City Engineer, a statement from the water purveyor indicating that the water system will be operated by the purveyor and that under normal conditions, the system will meet the requirements for the land division, and that water service will be provided to each lot.

15. Provisions shall be made for the continual maintenance of the common areas.

16. Place a note on the final map to the satisfaction of the City Engineer indicating that this map is approved as a planned development project.

17. Provide suitable turnaround and label the driveways "Private Driveway and Fire Lane" on the final map to the satisfaction of the Fire Department.

18. Remove all existing structures (tanks) prior to approval of the final map to the satisfaction of the City.

19. If units are filed, show the remainder of the approved tentative map as a "Not a Part" to the satisfaction of the City.

20. The landscape areas and private streets should be indicated as number lots on the final map to the satisfaction of the City Engineer.

21. Dedicate to the City the right to prohibit the construction of structures within the landscape lots and private streets to the satisfaction of the City.

22. Provide reciprocal easements for ingress and egress purposes over the private street lots on the final map to the satisfaction of the City.

23. Private easements shall not be granted or recorded within areas proposed to be granted, dedicated, or offered for dedication until after the final map is filed with the County Recorder. If easements are granted after the date of tentative approval, a subordination must be executed by the easement holder prior to the filing of the final map.

24. A final guarantee will be required at the time of filing of the final map with the County Recorder.

LOS ANGELES COUNTY FIRE DEPARTMENT

25. Access shall comply with Section 902 of the Fire Code which requires all weather access. All weather access may also require paving.

26. Fire Department Access shall be extended to within 150 feet distance of any exterior portion of all structures.

27. Where driveways extend further than 300 feet and are of single access design, turnarounds suitable for fire protection equipment use shall be provided and shown on the final map. Turnarounds shall be designed, constructed and maintained to insure their integrity for Fire Department use. Where topography dictates, turnarounds shall be provided for driveways which extend over 150 feet.

28. The private driveways shall be indicated on the final map as "Private Driveway and Firelane" with the widths clearly depicted and shall be maintained in accordance with the Fire Code.

29. Vehicular access must be provided and maintained serviceable throughout construction to all required fire hydrants. All required fire hydrants shall be installed, tested, and accepted prior to construction.

30. Provide Fire Department and/or City Approved street signs and building access numbers prior to occupancy.

31. Provide a minimum of 20 feet of ingress and 20 feet of egress at the gated entrance. The egress shows less than 20 feet on the current plan. Gates shall be equipped with an approved electronic limited access device for Fire Department use.

32. Phase 3 shall provide the improvement of the second means of access to 228th Street.

33. All current use shall cease prior to any construction of new use.

34. The required fire flow for public fire hydrants at this location is 1,250 gallons per minute at 20 psi for a duration of 2 hours, over and above maximum daily domestic demand. 1 hydrant(s) flowing simultaneously may be used to achieve the required fire flow.

35. Install 10 public fire hydrant(s).

36. All hydrants shall measure 6" x 4" x $2^1/_2$" brass or bronze, conforming to current AWWA standard C503 or approved equal. All hydrants shall be installed a minimum

of 25' from a structure or protected by a two (2) hour fire wall as per map on file with this office.

37. All required fire hydrants shall be installed, tested and accepted prior to construction. Vehicular access must be provided and maintained serviceable throughout construction.

## CITY OF CARSON RECREATION AND COMMUNITY SERVICES DEPARTMENT

38. Prior to recordation of the Tentative Tract Map No. 52281 and Tentative Parcel Map No. 24763, the applicant is required to pay to the City a park dedication fee amounting to $338,660. The applicant is further required to notify this department when the fee is paid. Arrangements can be made for the payment of the required fee in phases pursuant to their proposed phasing of development.

## CITY OF CARSON ENGINEERING SERVICES DEPARTMENT

39. The public (offsite) infrastructure improvements, including sidewalks, cul-de-sacs, storm drains, parkway landscaping and other improvements to be maintained by the city shall be designed prior to recordation and the appropriate surety posted. Said improvements shall be installed with Phase I construction, to the satisfaction of the City Engineer.

40. The sidewalk along the south side of 228th Street shall be a minimum of 5 feet wide and shall be located adjacent to the curb. Street trees with root barriers shall be located behind the sidewalk within the public right of way. Additionally, all above ground utilities such as poles and controller boxes shall be located outside of the sidewalk area in a public parkway.

41. All cul-de-sac (one interior and six exterior) configurations and right of way dedications shown on the tentative map are approved in concept only. A precise design of each turnaround must be prepared so as to minimize the disturbance to existing improvements while, at the same time, conforming more closely to the city standards for cul-de-sacs. The final design shall be such that vehicles will not come into contact with the perimeter walls, street lights, etc.

42. The approved cul-de-sac improvements shall be constructed with Phase I.

43. Prior to the issuance of a building permit, a detailed plan shall be prepared for review and approval for the access driveways showing the gate locations, striping, sidewalks, walls, landscaping, signs, sight distance triangles, pedestrian refuge islands etc.

44. Prior to the issuance of a building permit, a striping plan shall be prepared for review and approval for the intersection of Figueroa Street and Sepulveda Boulevard. Said plan shall show how an additional right turn lane will be provided on westbound Sepulveda Boulevard, as suggested in the applicant's traffic impact study. All mitigation measures for traffic impact at this intersection shall be installed as a part of Phase I.

45. All of the interior infrastructure shall be owned and maintained by the homeowner's association, and the city shall not be responsible for the maintenance of streets, lighting, sewers, storm drains, curbs, gutters, landscaping, or any other improvements within the tract boundaries. All of the interior infrastructure shall be designed to current city standards. Surety need not be provided for private infrastructure within the tract boundaries.

46. Stop signs and limit lines shall be installed at each of the two egress roads where they intersect 228th Street.

CITY OF CARSON COMMUNITY DEVELOPMENT DEPARTMENT

47. Any extension of said maps, provided for in the Subdivision Ordinance, must be accompanied by an extension of Specific Plan No. 7-97. All extensions must be secured from the Planning Commission prior to expiration of this map.

48. The applicant shall comply with all city, county, state and federal laws and regulations applicable to this land division.

49. A copy of the CC&Rs (Covenants, Conditions and Restrictions) shall be submitted to the Community Development Department for transmittal to the City Attorney for review and approval as to form and content. The CC&Rs shall contain statements that the project will be in compliance with city, county and state regulations and that the project will be architecturally compatible with the surrounding neighborhood. All Conditions of Approval shall be included within the CC&Rs. No changes to the approved CC&Rs shall be made without the City's consent. The CC&Rs shall be recorded concurrently with the map unless otherwise authorized.

50. The applicant shall provide a final City Attorney approved copy of the CC&Rs to the Community Development Department prior to any occupancy of any unit.

51. Conditions not required to be fulfilled prior to, or shown on the final map, shall be stated on a separate document to be recorded with the final map.

52. On the date the Tentative Map and/or Tentative Parcel Map is approved for this site, any previously approved by unrecorded maps shall become null and void.

53. The recorded maps shall conform to the tentative maps and to the Conditions of Approval. Two copies of the finally recorded maps shall be submitted to the Community Development Department.

54. This tentative map shall be recorded with the County Recorder within two years of the date of final approval by the City Council.

55. Within forty-eight hours of approval of the subject project, the applicant shall deliver to the Community Development Department a cashier's check or money order payable to the County Clerk in the amount of $25.00 (twenty-five dollars) pursuant to AB 3185, Chapter 1706, Statutes of 1990, to enable the City to file the Notice of Determination required under Public Resources Code Section 21152 and 14 Cal. Code of Regulations 15075. If within such forty-eight hour period the applicant has not delivered to the Community Development Department the above-noted cashier's check or money order, the approval for the project granted herein may be considered automatically null and void.

56. In addition, should the Department of Fish and Game reject the Certificate of Fee Exemption filed with the Notice of Determination and require payment of fees, the applicant shall deliver to the Community Development Department, within forty-eight hours of notification, a cashier's check or money order payable to the County Clerk in the amount of $1,250 (one thousand two hundred fifty dollars) pursuant to AB 3158, Chapter 1706, Statutes of 1990. If this fee is imposed, the subject project shall not be operative, vested or final unless and until the fee is paid.

57. Minor lot line adjustments may be made to the satisfaction of the Community Development Director and Public Works Director prior to the final approval of the map by the City Council.

58. No lot on the final map shall have less area, width, or depth than that required by the approval of the Specific Plan No. 7-97.

STREETS

59. All private street names shall be reviewed and approved by the Community Development Director prior to approval of the final map. The approved street names shall be labeled on the final map.

UTILITIES

60. Public utility easements shall be provided in the locations as required by all utility companies with easements free and clear of obstructions, and electrical utilities shall be installed underground.

61. The subdivider shall remove at his own expense any obstructions within the utility easements that would interfere with the use for which the easements are intended.

## SUBDIVISION DIRECTIONAL SIGNS

62. The applicant shall comply with the requirement for subdivision sign as provided for in Section 9128.33 of the Zoning Ordinance.

## AESTHETICS

63. High quality postal delivery receptacles shall be provided subject to the approval of the Director.

## OTHER

64 A Remedial Action Plan shall be approved by the California Environmental Protection Agency, Water Quality Control Board and any other responsible agency for tank removal and soil remediation prior to the approval of building permits. All tanks will be removed and all soil remediation shall be completed for each phase prior to the issuance of any building permits for that particular phase.

65. That the site shall be tested for the presence of hazardous waste products prior to the issuance of building permits and that said report shall be provided to the Community Development Department for review. If the tests indicate a potential significant health risk, appropriate mitigation measures shall be required as determined by the Director of Community Development or other appropriate agencies.

66. Perimeter landscaping on Main Street and 228th Street shall be installed prior to development of Phase 1 for Parcel No. 1.

67. The cul-de-sac proposed for the westerly portion of 230th Street shall be modified to exclude the excess portion of concreted area and conform with the other proposed cul-de sacs. Said change shall be noted on the final map.

# ORDINANCE NO. 97-1124

## AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CARSON ADOPTING THE CAMBRIA PINES SPECIFIC PLAN (SPECIFIC PLAN NO. 7-97)

THE CITY COUNCIL OF THE CITY OF CARSON HEREBY ORDAINS AS FOLLOWS:

Section 1. An application was duly filed by the applicant, Comstock Crosser and Associates, with respect to real property located at 250 W. 228th Street and described in Exhibit "A" attached hereto, requesting approval of the Cambria Pines Specific Plan (Specific Plan No. 7-97), pursuant to California Government Code Sections 65450 through 65457, for the development of a 20.7 acre site to be known as "The Cambria Pines" development proposal. The Project is proposed to consist of 162 single-family homes, and specific lots designated for open space, in a gated community. The applicant has also requested to change the zone designation of the subject property from MH-D (Manufacturing Heavy- Design Overlay Review) to RS (Residential Single-Family) and to change the land use designation in the General Plan from Heavy Industrial to Low Density Residential. The Project site is generally bounded by residential uses and a church to the north, residential uses and Main Street to the east, and residential units to the south and west.

Section 2. An Initial Study was completed for the Project by the Community Development Department, pursuant to Section 15063 and 15070 of the State of California Environmental Quality Act (CEQA) Guidelines, which identified that there were potentially significant effects but revisions in the project plans or proposals made by or agreed to by the applicant before the proposed Negative Declaration was released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur and there would be no significant effect upon the environment. No substantial evidence has been presented that the project will create a significant physical impact on the environment.

Section 3. The Planning Commission conducted duly noticed public hearings on the Cambria Pines Specific Plan (Specific Plan No. 7-97) on September 23, 1997 and October 14, 1997 at 6:30 p.m. at City Hall, Council Chambers, 701 East Carson Street, Carson, California. Notice of the time, place and purpose of the aforesaid meeting was duly provided in accordance with California Government Code Sections 65090 and 65355. Following the aforesaid public hearings at which evidence was presented to and considered by said Commission, the Commission voted to recommend approval of the Mitigated Negative Declaration and approval of Specific Plan No. 7-97.

Section 4. The City Council conducted a duly noticed public hearing on Specific Plan No. 7-97 on November 4, 1997 at 6:00 p.m. at City Hall Council Chambers, 701 East Carson Street, Carson, California. Notice of time, place and purpose of the aforesaid meeting was duly provided in accordance with California Government Code Sections 65090 and 65355.

Section 5. Evidence, both written and oral, was duly presented to and considered by the City Council at the aforesaid meeting, including but not limited to staff reports, along with testimony received by the applicant and other members of the public.

Section 6. The City Council finds that the proposed use will not have a significant effect on the environment as indicated in the Initial Study and Mitigated Negative Declaration prepared for this project. Mitigation Measures have been incorporated into the project and are noted in the attached Specific Plan, environmental initial study and conditions of approval. The City Council has reviewed and considered those documents prior to acting on Specific Plan No. 7-97 and finds pursuant to CEQA Guidelines' Section 15074, that the Mitigated Negative Declaration has been completed in compliance with CEQA, the CEQA Guidelines and the City's CEQA Guidelines.

Section 7 With respect to the Cambria Pines Specific Plan (Specific Plan No. 7-97), the City Council finds:

a) The Cambria Pines Specific Plan (Specific Plan No. 7-97), dated April, 1997, which is on file in the office of the City Clerk and is hereby incorporated herein by reference, will comply with the requirements of California Government Code Section 65451 in that the incorporation of the conditions attached to this Ordinance as "Exhibit 'B', Conditions of Approval, Specific Plan No. 7-97", Specific Plan No. 7-97 ("Plan") does specify in detail:

i) The distribution, location and extent of the uses of land, including open space within the area covered by the Plan;

ii) The proposed distribution, location, extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy and other essential facilities proposed to be located within the area covered by the Plan and needed to support the land uses as described in the Plan;

iii) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable;

iv) A program of implementation measures including regulations, programs, public works projects and financing measures necessary to carry out the project

v) A statement of the relationship of the Specific Plan to the General Plan.

Section 8. Based on the aforementioned findings, the City Council hereby adopts Specific Plan No. 7-97 for the property described in Exhibit "A" attached hereto, subject to the Conditions of Approval set forth in Exhibit "B" attached hereto.

Section 9. The City Clerk shall certify to the adoption of this Ordinance and shall transmit copies of the same to the applicant.

**PASSED, APPROVED AND ADOPTED THIS 18TH DAY OF NOVEMBER 1997.**

ATTEST:

MAYOR

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

STATE OF CALIFORNIA )
COUNTY OF LOS ANGELES ) ss.
CITY OF CARSON )

I, Helen S. Kawagoe, City Clerk of the City of Carson, California, do hereby certify that the whole number of members of the City Council of said City is five; that the foregoing ordinance, being Ordinance No. 97-1124, passed first reading on November 4, 1997, was duly and regularly adopted by the City Council of said City at a regular meeting of said Council, duly and regularly held on November 18, 1997, and that the same was passed and adopted by the following roll call vote:

| | | |
|---|---|---|
| AYES: | COUNCIL MEMBERS: | Mayor Fajardo, Calas, Olaes, O'Neal and Sweeney |
| NOES: | COUNCIL MEMBERS: | None |
| ABSTAIN: | COUNCIL MEMBERS: | None |
| ABSENT: | COUNCIL MEMBERS: | None |



City Clerk, City of Carson, California

Supplemental Information for Request for Hearing
(page 7 of application)

Legal Description

The legal description of the proposed project site is as follows:

The land referred to herein is situated in the County of Los Angeles, State of California, and is described as follows:

That portion of Lots 8 and 9 of the 750 acre tract of Maria Machado de Rocha, in the Rancho San Pedro, in the City of Carson, as per map recorded in Book 6, Page 161 of miscellaneous records, in the Office of the County Recorder of said County, described as follows:

Commencing at a point in the north line of said Lot 9 and its intersection with the centerline of the 80 foot strip of land conveyed to the County of Los Angeles for road purposes, by deed recorded in Book 3734, page 214 of deeds, in the Office of the County Recorder of said County; thence, north 89°39'45" west 100.0 feet to the true point of beginning; thence, south 0°20'15" west 13.5 feet; thence, south 89 39'45" east 33.0 feet to the beginning of a tangent curve concave to the southwest, having a radius of 17.0 feet; thence, southeasterly along said curve 26.75 feet; thence, south 0°29'00" west 237.58 feet along a line parallel to the centerline of Main Street to the northerly boundary line of Tract 27087, as per map recorded in said County; thence, along the boundary line of said tract, north 89°39'25" west 621.0 feet, south 0°29'00" west 351.0 feet, south 89 39'45" east 11.0 feet and south 0°29'00" west 100.0 feet to the northerly boundary line of Tract 28346, as per map recorded in the Book 764, pages 1 to 4, inclusive of maps; thence, along the boundary lines of said tract, north 89°39'45" west 147.0 feet and south 0 20'00" west 10.95 feet; thence, continuing along said boundary lines and its prolongation north 89°39'45" west 872.33 feet to the easterly boundary line of Tract 28802, as per map recorded in Book 767, pages 16 to 18, inclusive of maps, in the Office of the County Recorder of said County; thence, along said boundary line north 0°30'29" east 716.50 feet; thence, south 89 39'45" east 120.0 feet; thence, north 0°20'15" east 13.5 feet; thence south 89°39'45" east 1463.42 feet, more or less, to the terminus of this description at the true point of beginning.

Said land being a portion of parcel 1 as shown on record of survey filed in Book 83, Page 22 of record of surveys, in the Office of the County Recorder of said County.

CITY OF CARSON

COMMUNITY DEVELOPMENT DEPARTMENT

PLANNING DIVISION

EXHIBIT "B-2"

CONDITIONS OF APPROVAL

SPECIFIC PLAN NO. 7-97

## LOS ANGELES COUNTY UNIFIED SCHOOL DISTRICT

1. LAUSD Transportation Branch must be contacted regarding the potential impact, if any, upon the existing school bus routes.

2. Contractors must guarantee that safe and convenient pedestrian routes to nearby schools are maintained.

3.. Contractors must maintain ongoing communication with administrators at impacted school sites providing sufficient notice to forewarn children and parents when currently existing pedestrian routes to schools will be impacted.

4. Appropriate traffic controls (signs and signals) must be installed as needed to ensure pedestrian/vehicular safety.

5. Construction scheduling and haul routes shall be sequenced to minimize conflicts with pedestrians, school buses and cars at the arrival and dismissal times of the school day. Haul trucks are not to be routed past Carson High School except when school is not in session. Construction-related vehicles, including those of workers, may not stage adjacent to Carson High School.

6. Barriers must be constructed as needed to minimize trespassing, vandalism and short-cut attractions and attractive nuisances.

7. Fencing shall be installed to secure construction equipment and to minimize trespassing, vandalism and short-cut attractions.

## LOS ANGELES COUNTY SANITATION DISTRICTS

8. A connection fee is required to construct an incremental expansion of the Sewerage System to accommodate the proposed project which will mitigate the impact of the project on the present Sewerage System. Payment of the connection fee shall be required before a permit to connect to the sewer is issued.

9. In order to conform with the South Coast Air Quality Management Plan, all expansions of District Facilities must be sized and service phased in a manner which will be consistent with the Growth Management Plan of the Southern California Association of Government's 1994 Regional Comprehensive Plan and Guide.

## UCLA INSTITUTE OF ARCHAEOLOGY

10. The site shall be evaluated for historical significance prior to the removal of tanks. A halt work condition shall be in place in the event that archeological remains are discovered during the removal of tanks and during minimal grading proposed for the site.

## LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

11. The Regional Water Quality Control Board - Los Angeles Region ("RWQCB") will provide oversight of soil and groundwater assessment and remediation of the subject site.

12. The facility is required to comply with all Regional Board requirements prior to developing the subject site. The Regional Board shall have the responsibility to enforce compliance with all other agency requirements through consultation with those agencies.

13. Cleanup criteria for all contaminants of concern for the subject site shall meet the Regional Board's soil cleanup criteria, suitable for residential development.

14. a. No final subdivision map that creates lots for residential development shall be approved by the City or recorded until the requirements of paragraphs (b) through (d) of this condition have been completed with respect to the entire Parcel No. 1 of Tentative Parcel Map No. 24763, which will be the first portion of the subject property that will be remediated pursuant to the subdivider's Remedial Action Plan (as defined below). In addition, no building permit shall be issued for construction of residential structures on Parcel No. 2 of Tentative Parcel Map No. 24763 (which will be the second portion of the subject property that is remediated pursuant to the subdivider's Remedial Action Plan) until the requirements of paragraphs (b) through (e) of this condition have been completed on the entire second Parcel (Parcel No. 2 of Tentative Parcel Map No. 24763).

b. The subdivider shall complete all remedial action for each respective phase and Parcel of the subject property in the manner described in and in accordance with the Remedial Action Plan dated February 25, 1997, or by any further modifications or requirements by the RWQCB (collectively, the "RAP.")

c. The City shall receive written verification that all remedial work described in the RAP with respect to such phase of development and Parcel has been completed and verified to the satisfaction of the RWQCB, and the RWQCB shall issue either (i) an unrestricted "No Further Action" letter or (ii) a Certificate of Completion, pursuant to Health & Safety Code § 25264(b), as "Administering Agency", duly designated under Health & Safety Code §§ 25260(a) and 25262, which "No Further Action" letter or Certificate of Completion confirms that the site has been remediated in a manner such that the site and the concentration levels of any contaminants left in place, including

but not limited to hydrocarbons and lead, pose no risk to human health or the environment and the site is suitable for residential development and occupancy without limitation or restriction.

d. In the event that the RWQCB is not officially designated and does not thereafter act as the "Administering Agency", pursuant to Health & Safety Code § 25264(b), a health and environmental risk assessment shall be performed by one or more independent environmental consultants, who will be retained by the City at the subdivider's expense, following the completion and verification of the remediation, and which confirms to the satisfaction of the City that:

(i) all contaminants of concern with respect to the respective phase of development of this site and Parcel have been adequately characterized and defined, and remediated;

(ii) the concentration levels of any contaminants left in place upon completion of the remediation in accordance with the RAP, including but not limited to hydrocarbons and lead, pose no risk to human health or the environment; and

(iii) the site is suitable for residential development and occupancy without limitation or restriction; and

(iv) To the extent that the remediation action for that portion of the second Parcel (Parcel No. 2 of Tentative Parcel No. 24763) has not been completed prior to the approval of a final subdivision map on the first Parcel (Parcel No. 1 of Tentative Parcel Map No. 24763), the existing environmental condition of such remaining Parcel and the proposed remaining remedial action for second phase Parcel and the proposed remaining remedial action for second phase of the RAP with respect to such remaining Parcel do not pose a risk to human health or the environment or to potential occupants of that portion of the subject property which is within the first Parcel that has already been fully remediated (Parcel No. 1 of Tentative Parcel Map No. 24763).

## CITY OF CARSON COMMUNITY DEVELOPMENT DEPARTMENT

15. That the Specific Plan shall run with the land and shall bind upon the applicant, his/her successors and assignees, and shall continue in effect until otherwise released by the authority of the Planning Commission, or City Council of the City of Carson or until such time as the Carson Municipal Code unconditionally permits the release of this Plan.

16. The applicant shall comply with all city, county, state and federal regulations applicable to this project, unless otherwise stated within Specific Plan No. 7-97.

17. It is made a condition of this approval that if any condition is violated or if any law, statute or ordinance is violated, the Plan shall be subject to revocation, provided the applicant or other responsible party has been given

written notice to cease such violation and has failed to do so for a period of thirty days after receipt of written notice.

18. The applicant shall make any necessary site plan and design revisions in order to comply with all the conditions of approval and applicable Zoning Ordinance and Specific Plan provisions. Substantial changes will require review by the Planning Commission.

19. The applicant shall file an Affidavit of Acceptance form and submit the document to the Community Development Department within 30 days of receipt of the Planning Commission Resolution.

20. All buildings, grounds, parking areas and landscaping shall be maintained in a neat and orderly manner at all times.

21. The applicant shall submit two complete sets of plans that conform to all the Conditions of Approval to be reviewed and approved by the Community Development Department prior to the issuance of a building permit.

22. If Tentative Tract Map No. 52281 and Tentative Parcel Map 24763 are not recorded within the twenty-four months as provided in the Subdivision Ordinance, Specific Plan No. 7-97 and subsequent zone change/general plan amendment shall be declared null and void and new permits must be obtained from the Planning Commission and City Council prior to any extensions on the map before the twenty-four month expiration.

23. A modification of the Specific Plan or conditions of approval, including additions or deletions, may be considered upon filing of an application by the owner, applicant or any other relevant party or parties in accordance with Section 9173.1 of the Zoning Ordinance. If the Community Development Director, Planning Commission or City Council concludes the proposed modifications to the Plan or conditions extends beyond the intent of the original Plan or conditions, then a public hearing shall be held. In addition, modifications to the Plan may require, pursuant to the California Environmental Quality Act, additional environmental documentation to be prepared by the City of Carson and paid for by the applicant or other relevant party.

24. A minimum six (6) foot high decorative block wall shall be located on the 228th Street and Main Street frontage. A minimum six (6) foot high decorative block wall shall also be placed along the perimeter of the property that abuts all residential portions of the Specific Plan. An eight (8) foot high sound wall shall be included at the Main Street elevation. Said walls shall be setback a minimum of eight (8) feet from the residential property line. The area in front of the wall shall include drought tolerant landscaping as approved by the Director of Community Development. Landscape vines shall be utilized at the base of the wall to provide a graffiti deterrent. Such block wall and landscaping shall be paid for by the developer, and subsequently

maintained and incorporated into the project under provisions enumerated by the CC&R's.

25. That the phasing schedule for the development of the single-family homes and all infrastructure improvements shall follow the timetables listed in the approved Specific Plan and any additional requirements by the Community Development Department or conditions related to the Tentative Tract and Parcel Map. All perimeter landscaping and a new block wall (where applicable) surrounding the residential community on 228th Street and Main Street shall be installed under Phase I or as approved by the Community Development Director.

26. All playground and park equipment improvement plans are subject to the review and approval of the Community Development Director prior to the occupancy of any units.

27. All construction equipment, either fixed or mobile, shall be equipped with properly operating and maintained mufflers. The construction contracts shall require that all equipment and noise mufflers are in proper working order.

PARKING

28. All parking areas and driveways shall remain clear within the established residential areas.

29. All areas used for the movement parking, loading, repair or storage of vehicles shall be paved with either:

    a. Concrete or asphaltic concrete to a minimum thickness of three and one-half inches over four inches of crushed aggregate base; or

    b. Other surfacing material which, in the opinion of the Director of Engineering Services, provides equivalent life, service and appearance; or

30. No designated garage shall be converted to other uses without approval by the Community Development Department. An inspection shall be made by the Homeowners Association prior to property transfer. Any garages found to have been converted or altered shall be changed back to a 2 car garage within 30 days of the inspection notification of the homeowners association or the City of Carson.

31. Roll up garage doors with automatic garage door openers, including two portable opening devices, are required for each residential unit.

LANDSCAPING/IRRIGATION

32. The applicant shall submit two sets of landscaping and irrigation plans drawn, stamped, and signed by a licensed landscape architect. Such plans

are to be approved by the Community Development Department prior to the issuance of any building permit.

33. The applicant shall comply with the provisions of Section 9168 of the Zoning Ordinance, "Water Efficient Landscaping."

34. Landscaping shall be provided with a permanently installed, automatic irrigation system and operated by an electrically-timed controller station set for early morning or late evening irrigation.

35. Landscaping and irrigation requirements for the proposed Specific Plan shall include, but not be limited to:

    a. Vine-like landscaping along perimeter walls;

    b. A minimum of one thirty inch box specimen tree per residential unit to be located in the property front yard setback area of each residential property. The landscape plan shall consider placement of trees close to the sidewalk and/or types of trees with sufficient canopies in order to provide for the appearance of street trees and shading of the sidewalks and streets .

36. All existing oil related equipment, including but not limited to the corner of Main and 228th Streets and the western perimeter along 228th Street, shall be adequately screened from public view and depicted on all landscape plans.

37. When the side yard of a residential lot abuts a private street, a five (5) foot landscape area shall be provided between the Private street and the fence. The Homeowners Association shall assure that said landscape area is maintained at all times.

UTILITIES

38. All new utility lines, other than major transmission lines, shall be placed underground. All aboveground equipment (other than power poles), such as transformers and pedestal terminals, which are visible from an adjacent public street or walkway, shall be within a solid enclosure or otherwise screened from public view unless otherwise provided for in these conditions.

39. All roof mounted equipment and structures shall be screened from public view or incorporated into the design of the structure. All stucco screens and air ducts shall be painted to match the structure.

40. All utility meter enclosures shall be in accordance with the utility's service requirement and, to the extent feasible, shall be painted to match existing or proposed buildings located on the subject property.

AESTHETICS

41. Texture treatment (such as rough stucco, stone, brick, etc.) shall be incorporated into all building facades, subject to Community Development Department approval.

42. Individual television and radio antennae shall be prohibited outside any unit. The applicant shall provide either central antennae with connections to each unit via underground or internal wall wiring, or each unit shall be served by a cable antenna service provided by a company licensed to provide such service within the city. Any satellite dishes shall be screened from public view from either the public or private streets.

43. Exterior doors shall include a solid wood core (carved or paneled). Any other proposed materials shall be approved by the Community Development Director prior to building permit approval.

44. The specification of all colors and materials utilized for the newly proposed residential units shall be submitted and approved by the Community Development Department prior to the issuance of any building permits.

45. Graffiti shall be removed from all project areas within 15 days of written notification by the City of Carson. Should the graffiti problem persist more than twice in any calendar year, the matter may be brought before the Planning Commission for review and further consideration of site modifications (i.e., fencing, landscaping, chemical treatment, etc.).

SIGNS

46. Subdivision signs are subject to Section 9128.33 of the Zoning Ordinance.

BUILDING AND SAFETY

47. The applicant shall demolish all existing structures in conformance with the approved Tract and Parcel Maps and Specific Plan prior to the issuance of any occupancy permits.

PUBLIC SAFETY

48. Where practical, surface treatments, accessibility or landscaping strategies should work to deter graffiti. Security lighting, both in common residential areas and in the proposed commercial development should be used as a strategy to deter vandalism.

49. All drains leading to city/county storm drains should be permanently marked by stamped or metal plates "No Dumping - Drains to the Ocean".

50. In support of the City's commitment to AB939, every effort should be made to use recycled materials in the construction of this project.

OTHER

51. The specifications for the residential air conditioners shall be reviewed and approved by the Community Development Director prior to installation. The applicant shall utilize low noise and energy efficient air conditioning units.

52. A document containing Covenants Conditions and Restrictions (CC&R's) shall be reviewed and approved by the City prior to occupancy approval of any housing units. All Conditions of Approval shall be contained within the CC&Rs.

53. A Homeowner's Association shall be established to monitor and regulate all common areas, including, but not limited to landscaping and private streets.

54. High quality postal delivery receptacles shall be provided subject to approval of the Director of Community Development and the Postal Service.

55. The applicant shall, to the satisfaction of the Community Development Department and any other applicable department of the City of Carson, provide mitigation measures addressing impacts to any occupants of the existing residential community surrounding the proposed subdivision and any newly established residential property owners within the gated community who are affected by construction activities. This shall include, but not be limited to mitigation measures regarding noise, dust/dirt and hours of operation.

56. Stationary source air emissions will be mitigated by incorporating several energy efficient design features into the project that go beyond those required under Title 24. Said mitigation strategies will include, but not be limited to, built-in energy efficient appliances, central water heating systems, energy efficient air conditioning, light colored roofing materials, energy efficient lighting control and lights, shade trees to reduce solar load and wall/attic insulation.

57. Unless otherwise specified, the developer shall be financially responsible for the construction, installation, and maintenance of any item, including but not limited to walls, landscaping, or screening structures required by the specific plan or said conditions of approval.

58. All proposed single family homes shall provide a concrete tile roof, or consistent materials subject to approval of the Community Development Director.

59. The applicant/developer shall abide by all conditions and mitigation measures established in Specific Plan No. 7-97 and within the corresponding Mitigation Monitoring Program.

60. Handicap ramps shall be provided to accommodate disabled persons at all areas where sidewalks meet either public or private streets.

61. Driveway approaches shall be designed to minimize potential problems associated with handicap accessibility.

62. Develop an internal signing and striping plan that will provide clear signage for future residential development.

63. If asbestos is identified in any existing structures, the project applicant shall obtain an Asbestos Abatement Contractor to survey the project site and assess the potential hazard. The project applicant shall contact the SCAQMD and the City of Carson prior to asbestos removal.

64. In order to further reduce any potential PM10 impacts during all construction phases, the developer shall arrange to water active sites at least twice daily and suspend all excavating and grading operations at the project site when wind speeds exceed 25 miles per hour.

65. The developer shall work together with the Los Angeles County Sanitation District or the specific agency involved and take all steps to minimize any negative impacts regarding the rehabilitation and replacement of any and all sewer lines.

66. A minimum 8 foot landscaping setback shall be included for all areas adjacent to Main Street and 228th Street.

67. That parkways with sidewalks and street trees, if possible be incorporated within the project to the satisfaction of the Community Development Director.

68. That the existing two parks designated as Lots AA and BB be changed to Lots 98, 99, 119 and 120 in order to incorporate a centrally located community park..

69. Lots "AA" and "BB", designated open space/park areas within the Specific Plan and Tentative Maps shall be changed to residential lots.

70. All changes to the Specific Plan, including, but not limited to modification in number of units, square footage for open space and cul de sac modifications shall be included in the final maps prior to City Council review and approval.

71. A condition shall be placed within the Covenants, Conditions and Restrictions to allow access for all private roads within Specific Plan 7-97 subject to the request of the City. All private roads shall be considered "public right of ways" for purposes of reviewing maintenance issues related to the Property Maintenance Ordinance and provisions of Specific Plan No. 7-97.

72. Prior to the issuance of building permits for the project, a detailed phasing plan, which minimizes the construction impacts to onsite residents and adjacent neighborhoods, must be submitted to the Community Development Department for approval. Said phasing plan will address temporary construction impacts on drainage patterns, vehicular access, security, traffic/circulation pedestrian access, public utilities, noise, public health and safety as well as aesthetics.

73. Wiring shall be included for each garage to allow the opportunity to utilize electric vehicles.

SPECIFIC PLAN CHANGES

74. Section 2.3.3.4 "Yard Areas and Setbacks" shall be modified to read as follows: " Front Yard - Each lot shall have a front yard with a minimum depth of 15 feet, to the living area; units that provide a porch area may encroach into the 15 feet setback, leaving a minimum setback of 12 feet if approved by the Community Development Director under Section 2.3.3.5. "

75 That the reference to 164 residential units within the entire Specific Plan No. 7-97 document be changed to 162 residential units.

76. Prior to the issuance of any building or grading permit, the subdivider will provide the City with (I) a copy of the Notice of Intent to comply with the current State Construction Activity Storm Water Permit which it has filed with the State Water Resources Control Board; and (ii) a copy of the Storm Water Pollution Prevention Plan for the property, and will otherwise demonstrate compliance with the City's Storm Water Management and Discharge Control Ordinance (Ordinance No. 96-1101; Carson Municipal Code Sections 5800, et seq.), and all other applicable municipal ordinances, and state and federal statutes, regulations, permit conditions and guidelines regarding the control of storm water and urban run-off.

77. All matters set forth herein as Conditions 1 through 76 shall be incorporated in the text of the final version of the Specific Plan to be prepared at the expense of the developer following final action by the City Council.

Mg/SP797pc

# Chapter 1
# Introduction

## 1.1 Jurisdiction

Specific plans were first introduced by the California State Legislature in 1965. Since that time, the legislature has steadily increased the possible uses and the role of the specific plan. California Government Code Section 65450 provides a legislative body the authority to prepare specific plans for the systematic implementation of the general plan for all or part of the area covered by the general plan. As identified in Government Code Sections 65451 and 65452:

> *A Specific Plan is a tool for the "systematic implementation" of the general plan. It may be applied to all or a portion of the area covered by a general plan...At minimum, a specific plan must include a statement of its relationship to the general plan (Government Code Section 65451 (b)) and a text and diagram (s) specifying all of the following in detail...distribution, location and extent of the uses of land...proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy,...standards and criteria by which development will proceed...a program of implementation measures...*

The role of specific plans can range from identification and clarification of city policies to the method by which public facilities are funded and operated. This means that planning, regulations, design, and engineering details can be included in one document. Regulations and standards can be tailored to specific sites rather than to citywide zones. An adopted specific plan has an effect similar to the local general plan; for example, the state's Subdivision Map Act requires that the legislative body deny approval of a final or tentative subdivision map if it is not in substantial conformance with the specific plan. Furthermore, the specific plan may also have an effect similar to a zoning ordinance in that the specific plan contains the development and performance standards that are applicable to the specific plan area.

The Cambria Pines Specific Plan will serve as its own zoning district. The Specific Plan is tailored to the existing site configuration, natural constraints, man-made constraints and environmental setting. This Specific Plan provides specific implementation plans which will govern development and will allow expeditious review, processing, and approval of development phases which are in compliance with this Specific Plan and its goals and policies.

## 1.2 Location and Setting

### 1.2.1 Regional Location

The Cambria Pines Specific Plan is located in the City of Carson. Carson is located approximately 20 miles south of downtown Los Angeles, and is surrounded on all sides primarily by the City of Los Angeles with small unincorporated portions of Los Angeles County located to the north, west, and northeast of the City (refer to Figure 1, Location Map). Other neighboring cities in the general area include the cities of Long Beach, Torrance, Compton and Gardena.

The City of Carson is characterized by generally flat topography with elevations of 20 to 30 feet above sea level. The most dominant landform in the City are the Dominguez Hills in the northeast portion of the City, with elevations of approximately 200 feet above sea level in this area of the City.

The City of Carson is currently developed with urban uses such as residential, commercial, and industrial facilities. Similar to its neighboring cities, Carson is rapidly approaching its potential development capacity. The imminent realization of its full buildout is illustrated by the comparison of the increase in growth rates of both population and housing units between the decades of 1970 to 1980 and 1980 to 1990. The 1990 U.S. Census reported the population of the City to be 83,995. This represented an increase of 3.3 percent over the 1980 population of 81,221. This signifies a growth rate of two percent less than that of the decade between 1970 and 1980. The increase in housing units between 1980 and 1990 represented a growth rate of only 4.8 percent from 23,259 in 1980 to 24,441 in 1990. This is a sharp decline compared to the 1970 to 1980 increase of 14.1 percent.

### 1.2.2 Local Setting

The project site is located at the western portion of the City of Carson along Main Street. The surrounding properties include a mix of residential, educational (senior high school), religious and retail commercial land uses. The 20.7 acre site is bordered to the north, south and west by single-family residential uses and to the east by a mix of retail commercial uses on Main Street and Carson High School; see Figure 2, Site Location.

The project site is currently developed with eleven (11) functioning oil storage tanks. The project site has been developed for more than 50 years with oil tanks and related uses. In addition, the adjacent residential areas are developed on areas once developed with oil storage tanks.

The adjacent residential neighborhood to the north, west and south of the site consists of one- and two-story single family homes which were primarily built in the 1960s. Retail commercial uses are located on Main Street to the east of the project site. In addition, a church is located immediately adjacent to the site at the corner of 228th and Main Streets.

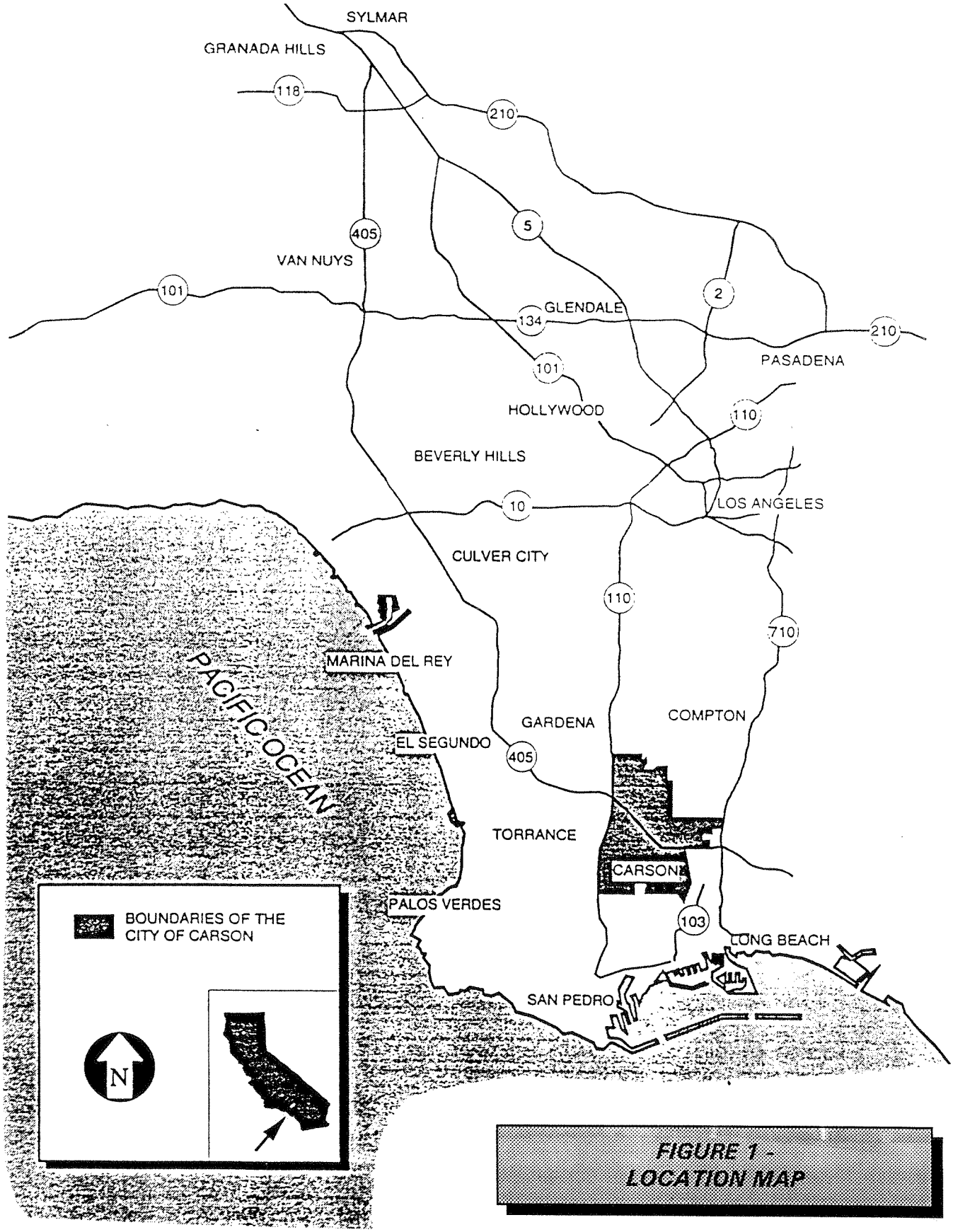
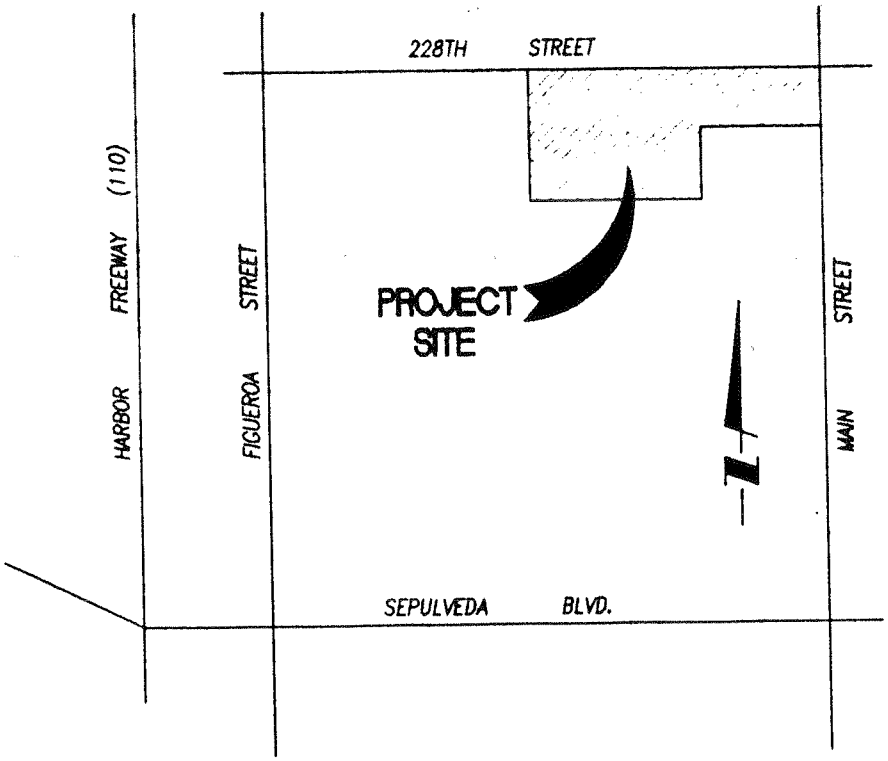



**FIGURE 1 - LOCATION MAP**




VICINITY MAP:
NTS

**FIGURE 2 - SITE LOCATION**

### 1.2.3 Project Site

The project site is currently zoned MH-D (Heavy Industrial-Design Review Overlay). The existing land uses on the site include functioning oil storage tanks.

The topography of the project site is generally flat. There are no significant ridges or slopes on the site, other than berms that have been graded to surround the 11 oil tanks on the project site. The majority of the site has been developed at one time or another for oil tanks and related uses.

The vegetation and plant life on the site is limited. The site is primarily vacant and the only animal life would include small mammals, such as rodents.

## 1.3 Project Description

The Cambria Pines Specific Plan proposes the development of 162 single-family detached homes on a 20.7 acre site (resulting in a density of 7.9 units per acre) located on 228th Street to the west of Main Street. The average lot size will be approximately 3,800 square feet. The dwelling units will be one- and two-stories and contain between 1,000 to 2,100 square feet. Each house will have a two-car garage and driveways (to meet the City's requirement for off-street parking spaces). The Cambria Pines Specific Plan seeks to promote home ownership by median income households, increasing the City's affordable housing stock. The architectural theme of The Cambria Pines Specific Plan will be New England/Cape Cod/Traditional. Landscaping will include landscaped buffers on the site's northern and eastern boundaries with grass, trees, and shrubs.

## 1.4 Purpose of The Cambria Pines Specific Plan

Within California there have been tremendous pressures to provide adequate and affordable housing for the growing population. Many of communities, particularly within southern California, are near their full buildout potential as determined by their general plan land use plans and policies. Therefore, in order to meet the demand for housing these communities must recycle existing housing stock, increase densities, or convert other areas for residential uses. Many cities have identified areas currently underutilized which would be appropriate to meet the housing demand. Converting sites can be accomplished by either simple zone changes and general plan amendments or by the adoption of specific plans which also incorporate the former.

Currently, the project site is designated for industrial uses and is primarily developed with functioning oil storage tanks. The purpose of this Specific Plan is to permit the development of a residential community. The Cambria Pines Specific Plan will establish specific design guidelines for development of the site and standards for the operation and maintenance of the community and the infrastructure necessary to support it. The Specific Plan seeks to ensure affordable housing opportunities are provided consistent with the City's adopted Housing Element.

## 1.5 Relationship to the General Plan

As identified in Section 1.1 above, a specific plan is an implementation tool for the general plan and, therefore, it must include a statement of its relationship to the general plan (Government Code Section 65451 (b)). The Cambria Pines Specific Plan has been developed to address the goals and polices of the 1982 Carson General Plan and ensure consistency with it.

The Cambria Pines Specific Plan is consistent with several goals and objectives contained within the City of Carson General Plan Land Use Element, as discussed below.

- Goal/Objective 1 of the Land Use Element states that the City shall:

  *Allow each land use type sufficient area to develop to the fullest extent indicated by the economy and general welfare.*

  Currently, use of the site for industrial purposes only is not the highest and best use, as indicated by the economy. The development of the 20.7 acre site with 164 single-family homes is responsive to both the economy and general welfare of the community.

- Goal/Objective 2 of the Land Use Element seeks to:

  *...replace substandard buildings and prevent deterioration of residential, commercial and industrial neighborhoods.*

  Implementation of the Specific Plan will remove the existing unattractive industrial uses (oil tanks) on the site and permit development of an aesthetically pleasing and stable and cohesive neighborhood. This would be beneficial to the surrounding residential neighborhoods.

  Additionally, the project will have a beneficial impact on the property of other persons located in the vicinity of the site because it will revitalize the property. The site will be maintained by a private homeowner's association.

- Goal/Objective 5 of the Land Use Element requires the City to:

  *Improve development standards in order to control urban blight and protect property values.*

  The Specific Plan will establish design and development standards for the site. Development will be consistent with these standards and any alterations to structures or any portion of the site will be subject to specific administrative procedures which will ensure the adherence to these guidelines.

- Goal/Objective 8 of the Land Use Element identifies the need to:

  *Plan for the orderly future growth by updating and revising the General Plan whenever necessary.*

This Specific Plan is an implementation tool of the General Plan. The Specific Plan will permit the City to meet the demand for increased affordable housing(as represented by the request to permit residential uses on a site currently zoned for heavy industrial uses) in a planned and organized manner.

- Goal/Objective 2 of the Land Use Element, under Residential Land Uses states:

  *Housing should be provided for a variety of income groups.*

  The proposed Specific Plan will achieve the City's long-term housing and land use objectives. The residential component of the Specific Plan will add to the City's affordable housing stock and will implement the City's above stated goal. Additionally, the proposed project is a private-sector development that will achieve the City's land use and housing objectives without requiring the City's commitment of scarce public funds and resources.

## 1.6 Relationship to Other Agencies

The Cambria Pines Specific Plan is located within the incorporated area of the City of Carson in Los Angeles County. The area is served by Los Angeles Unified School District, the Dominguez Water Corporation, and the County Sanitation Districts of Los Angeles County. Fire and police protection services are provided by the Los Angeles County Fire Department and Los Angeles County Sheriff's Department.

Clean-up of the project site, as required by the County of Los Angeles and the state, shallbe completed in phases. Specifically, all eleven oil tanks on the project site will be removed at the initiation of site development. The site's oil remediation will be in two phases. The eastern portion of the site (designated as Parcel 1 in the tentative tract map) will be remediated with the soil moved to the western portion (Parcel 2) of the site. Following remediation of Parcel 1, remediation of Parcel 2 will be completed (which will also be prior to the development of phases 3, 4 and 5 of the residential development, as illustrated in Figure 13 of this specific plan). The state's Regional Water Quality Control Board (RWQCB) will be the lead agency for the approval of the site's remediation plan and compliance.

# Chapter 2
# Specific Plan Components

The Cambria Pines Specific Plan contains five primary components: (1) Site Plan; (2) Infrastructure Plan; (3) Development Standards and Design Guidelines; (4) Performance Standards; and (5) Phasing Plan. These five components are described in the following five sub-sections of this chapter of the Specific Plan.

## 2.1 Site Plan

The basic objective of The Cambria Pines Specific Plan is to provide a safe community of quality, detached single family homesites which will make home ownership available and affordable to median income households.

### 2.1.1 Land Uses

The residential development will be subject to development standards specified in this Specific Plan. Where specific development standards have not been identified in this Specific Plan, development will comply with applicable sections of the City of Carson Zoning Ordinance, Sections 9121-9128 (inclusive) of the City Municipal Code. Where this Specific Plan does detail standards or regulations, however, its provisions will supersede any conflicting provisions of the City of Carson Municipal Code.

The conceptual layout of the proposed lots and arterials is shown in the Illustrative Site Plan (Figure 3). There will be a total of 162 one- and two-story single family detached homes. Approximately one-half of the homes will contain three bedrooms and the other half will contain four bedrooms. The parking will include two-car garages (to meet City requirements) as well as space for two additional cars in the driveways.

The average lot size will be 3,800 square feet and permit the development of 1,000 to 2,100 square foot homes. The setbacks will include a 15-foot front-yard setback for the living area of each house (with a 12-foot front yard setback for front porches), a 15-foot rear-yard setback and five-foot side yard setbacks for all lots except for corner lots which will have a 10-foot side yard on the street side. The unit per acre density will be 7.9 units per acre, consistent with low density residential definition of the Land Use Element of the Carson General Plan. The density and the minimum lot area definitions are included in the Development Standards in Section 2.3 of this Specific Plan.

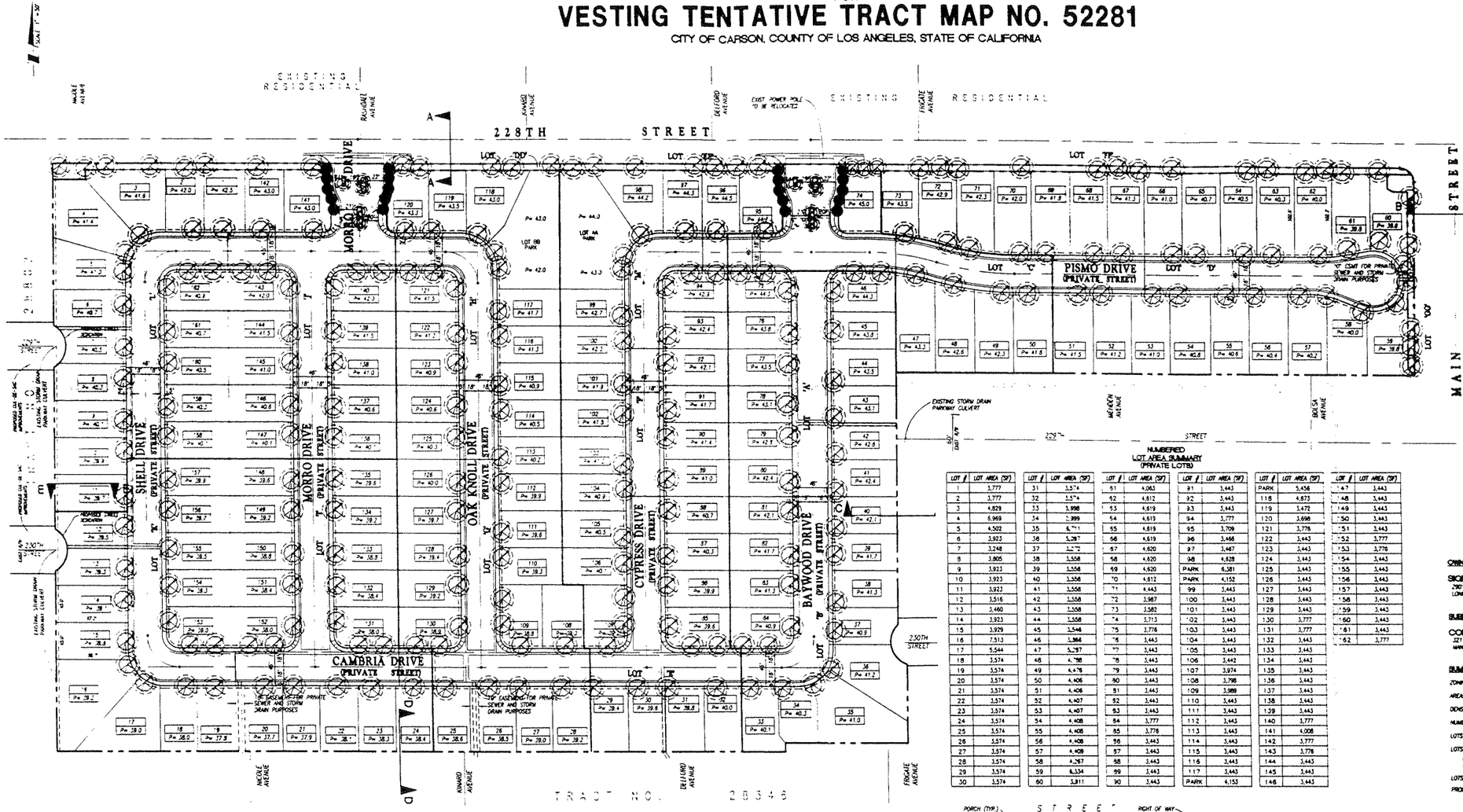
The development will be a gated community with access to the site through two non-manned gated entries on 228th Street. The proposed 162 single-family homes will be served by private streets; see Illustrative Site Plan, Figure 3.

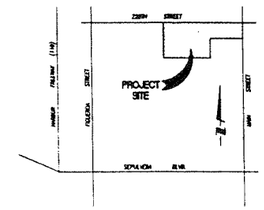
The architectural style of the homes will represent a Cape Cod/New England/Traditional theme. Parkways providing landscaped areas for grass and flowers will be located at the gated entrances to the site.

*FIGURE 3 -*
*ILLUSTRATIVE SITE PLAN*

# ILLUSTRATIVE SITE PLAN
## FOR
# VESTING TENTATIVE TRACT MAP NO. 52281

CITY OF CARSON, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA




**LETTERED LOT AREA SUMMARY (PRIVATE STREETS)**

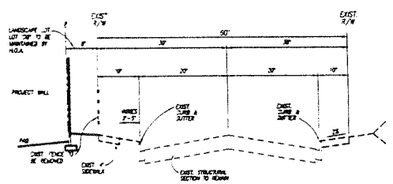
| LOT # | LOT AREA (SF) |
|---|---|
| A | 29,165 |
| B | 13,313 |
| C | 13,836 |
| D | 16,109 |
| E | 16,825 |
| F | 9,346 |
| G | 21,267 |
| H | 24,919 |
| I | 16,358 |
| J | 19,811 |
| K | 16,029 |
| L | 15,837 |
| M | 8,157 |

**LETTERED LOT AREA SUMMARY (LANDSCAPED)**

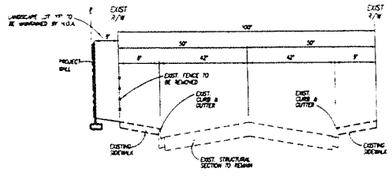
| LOT # | LOT AREA (SF) |
|---|---|
| AA | 10,532 |
| BB | 9,608 |
| CC | 2,991 |
| DD | 1,952 |
| EE | 2,091 |
| FF | 4,984 |
| GG | 2,528 |

**NUMBERED LOT AREA SUMMARY (PRIVATE LOTS)**

| LOT # | LOT AREA (SF) | LOT # | LOT AREA (SF) | LOT # | LOT AREA (SF) | LOT # | LOT AREA (SF) | LOT # | LOT AREA (SF) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3,777 | 31 | 3,574 | 61 | 4,063 | 91 | 3,443 | PARK | 5,456 | 147 | 3,443 |
| 2 | 3,777 | 32 | 3,574 | 62 | 4,812 | 92 | 3,443 | 118 | 4,873 | 148 | 3,443 |
| 3 | 4,829 | 33 | 3,998 | 63 | 4,619 | 93 | 3,443 | 119 | 3,472 | 149 | 3,443 |
| 4 | 5,969 | 34 | 3,399 | 64 | 4,619 | 94 | 3,777 | 120 | 3,698 | 150 | 3,443 |
| 5 | 4,502 | 35 | 4,771 | 65 | 4,619 | 95 | 3,709 | 121 | 3,778 | 151 | 3,443 |
| 6 | 3,923 | 36 | 3,287 | 66 | 4,619 | 96 | 3,466 | 122 | 3,443 | 152 | 3,777 |
| 7 | 3,248 | 37 | 3,272 | 67 | 4,620 | 97 | 3,467 | 123 | 3,443 | 153 | 3,778 |
| 8 | 3,805 | 38 | 3,558 | 68 | 4,620 | 98 | 4,828 | 124 | 3,443 | 154 | 3,443 |
| 9 | 3,923 | 39 | 3,558 | 69 | 4,620 | PARK | 6,381 | 125 | 3,443 | 155 | 3,443 |
| 10 | 3,923 | 40 | 3,558 | 70 | 4,812 | PARK | 4,152 | 126 | 3,443 | 156 | 3,443 |
| 11 | 3,923 | 41 | 3,558 | 71 | 4,443 | 99 | 3,443 | 127 | 3,443 | 157 | 3,443 |
| 12 | 3,516 | 42 | 3,558 | 72 | 3,987 | 100 | 3,443 | 128 | 3,443 | 158 | 3,443 |
| 13 | 3,460 | 43 | 3,558 | 73 | 3,582 | 101 | 3,443 | 129 | 3,443 | 159 | 3,443 |
| 14 | 3,923 | 44 | 3,558 | 74 | 3,713 | 102 | 3,443 | 130 | 3,777 | 160 | 3,443 |
| 15 | 3,929 | 45 | 3,546 | 75 | 3,776 | 103 | 3,443 | 131 | 3,777 | 161 | 3,443 |
| 16 | 7,513 | 46 | 3,366 | 76 | 3,443 | 104 | 3,443 | 132 | 3,443 | 162 | 3,777 |
| 17 | 5,544 | 47 | 5,287 | 77 | 3,443 | 105 | 3,443 | 133 | 3,443 | | |
| 18 | 3,574 | 48 | 4,788 | 78 | 3,443 | 106 | 3,442 | 134 | 3,443 | | |
| 19 | 3,574 | 49 | 4,476 | 79 | 3,443 | 107 | 3,974 | 135 | 3,443 | | |
| 20 | 3,574 | 50 | 4,406 | 80 | 3,443 | 108 | 3,798 | 136 | 3,443 | | |
| 21 | 3,574 | 51 | 4,406 | 81 | 3,443 | 109 | 3,988 | 137 | 3,443 | | |
| 22 | 3,574 | 52 | 4,407 | 82 | 3,443 | 110 | 3,443 | 138 | 3,443 | | |
| 23 | 3,574 | 53 | 4,407 | 83 | 3,443 | 111 | 3,443 | 139 | 3,443 | | |
| 24 | 3,574 | 54 | 4,408 | 84 | 3,777 | 112 | 3,443 | 140 | 3,777 | | |
| 25 | 3,574 | 55 | 4,408 | 85 | 3,778 | 113 | 3,443 | 141 | 4,008 | | |
| 26 | 3,574 | 56 | 4,408 | 86 | 3,443 | 114 | 3,443 | 142 | 3,777 | | |
| 27 | 3,574 | 57 | 4,408 | 87 | 3,443 | 115 | 3,443 | 143 | 3,778 | | |
| 28 | 3,574 | 58 | 4,287 | 88 | 3,443 | 116 | 3,443 | 144 | 3,443 | | |
| 29 | 3,574 | 59 | 6,334 | 89 | 3,443 | 117 | 3,443 | 145 | 3,443 | | |
| 30 | 3,574 | 60 | 3,811 | 90 | 3,443 | PARK | 4,153 | 146 | 3,443 | | |

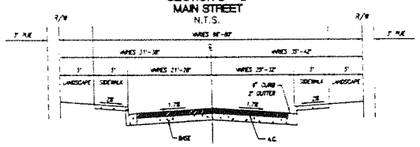



SECTION A' - A'
228TH STREET
N.T.S.

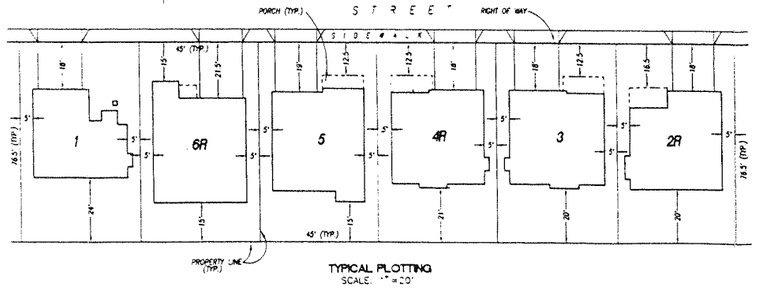



SECTION B' - B'
MAIN STREET
N.T.S.


TYPICAL SECTION FOR
'A'-'E' STREETS
(PRIVATE STREET)
N.T.S.




TYPICAL SECTION FOR
ENTRY
(PRIVATE STREET)
N.T.S.




TYPICAL PLOTTING
SCALE: 1" = 20'

**OWNER:**

SIGNAL HILL PETROLEUM
2301 OBRADOR AVENUE
LONG BEACH, CALIFORNIA 90807

**SUBDIVIDER:**

COMSTOCK CROSSER ASSOCIATES
321 - 12TH STREET
MANHATTAN BEACH, CA 90266

**SUMMARY:**

ZONING: EXIST.: MH-D, PROPOSED: RS

AREA: 30.7 GROSS ACRES (APPROX.)

DENSITY: 7.9 D.U./A.C. (GROSS)

NUMBER OF LOTS: RESIDENTIAL LOTS 164

LOTS 1 - 164 FOR SINGLE FAMILY RESIDENCES

LOTS A - J FOR STREET AND PUBLIC UTILITY PURPOSES. (ALL STREETS ARE PRIVATE AND WILL CONTAIN EASEMENTS FOR PUBLIC UTILITIES)

LOTS AA - FF FOR LANDSCAPE AREAS

PROPOSED 228TH STREET RIGHT OF WAY DEDICATION .45 AC.

**NOTES:**

1. EXISTING LAND USE: PETROLEUM TANK FARM
2. PROPOSED LAND USE: RESIDENTIAL
3. ALL INTERIOR STREETS ARE PRIVATE AND CONTAIN EASEMENTS FOR INGRESS, EGRESS, SEWER, WATER, STORM DRAIN AND PUBLIC UTILITIES.
4. PROPOSED DRAINAGE: SURFACE DRAIN SITE INTO EXISTING FACILITIES IN ACCORDANCE WITH THE CITY OF CARSON AND COUNTY OF LOS ANGELES.
5. PROPOSED SEWER FACILITIES: CONNECT TO EXISTING CITY OF CARSON FACILITIES IN MAIN ST., MICOLE AVE., AND KINARD AVE., SEWER TO BE PUBLIC.
6. PROPOSED WATER FACILITIES: CONNECT TO EXISTING DOMINGUEZ WATER CO. LINES WITHIN 228TH STREET; WATER TO BE PUBLIC.
7. CABLE T.V.: PARAGON CABLE
8. GAS CO.: SOUTHERN CALIFORNIA GAS CO.
9. POWER: SOUTHERN CALIFORNIA EDISON CO.
10. TELEPHONE: PACIFIC BELL
11. EXISTING STRUCTURES: ALL EXISTING STRUCTURES TO BE REMOVED.
12. ALL EXISTING UTILITIES ON-SITE TO BE REMOVED EXCEPT AS NOTED (PIPE LINES, POWER POLE & LINES, LIGHT POLES, ETC.)

REVISED: JANUARY 21, 1998

| NO. | DATE | REVISIONS |
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| | DATE |
|---|---|
| DES. ENG.: | |
| DESIGNER: | |
| DRAFTER: | |
| CHECKED BY: | |


THE KEITH COMPANIES
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Mapping • Environmental Services
Water Resources • Land Planning
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Costa Mesa, CA 92626
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ILLUSTRATIVE SITE PLAN
TENTATIVE TRACT MAP NO. 52281
228TH AND MAIN
CARSON, CALIFORNIA

PROJECT NO. 12888.000
SHEET 1 OF 1

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### 2.1.2 Circulation Master Plan

The circulation master plan for The Cambria Pines Specific Plan provides a framework and standards with which to guide the development of a safe and adequate system of vehicular, pedestrian and bicycle circulation within the gated residential community.

#### Existing Circulation System

The existing circulation system serving the project areas consists primarily of a series of public streets taking access from 228th Street (the site's northern boundary). In addition, Main Street (the site's eastern boundary) serves the general area; refer to Figure 4. The Carson General Plan Circulation Element designates Main Street as a "major highway" with a 100 foot right-of-way (currently developed with 2 travel lanes in each direction and left turn lanes at major intersections).

All major intersections in the site vicinity are currently controlled by traffic signals. The intersections near the site are multi-phase operations ranging from two to eight phases. Protected left turn phasing is currently provided at most of the major intersections in the area.

#### Vehicular Circulation Plan

The on-site circulation system will consist of the construction of a new private road system that will include two gated entrances on 228th Street plus a series of internal streets. The interior street system on the site will be developed within 46-foot rights-of-way, including 5 foot sidewalks on each side of the street with adequate area for street trees (see Figure 6). Parking will be allowed on both sides of the street. The streets will only serve The Cambria Pines gated community; there will be no through access for outside traffic.

## 2.2 Infrastructure Plan

The intent of the infrastructure plan is to ensure that the site is developed in a manner that will support the intensity of land use proposed and the on-site and off-site infrastructure systems have adequate capacity to serve the project.

The utility demand, wastewater and solid waste generation will not increase upon implementation of the Specific Plan. Although the residential land use allowed under The Cambria Pines Specific Plan represents a significant change in the type of use and an increase in land use intensity on the site, it does not represent a significant change compared to existing land uses in the immediate vicinity. The project site is currently developed with urban uses and is located in an urban area.

An existing oil line (on the site's western property line) will be re-routed to a new easement between lots 3 and 4, between lots 16 and 17 and through a private street (see Figure 3).

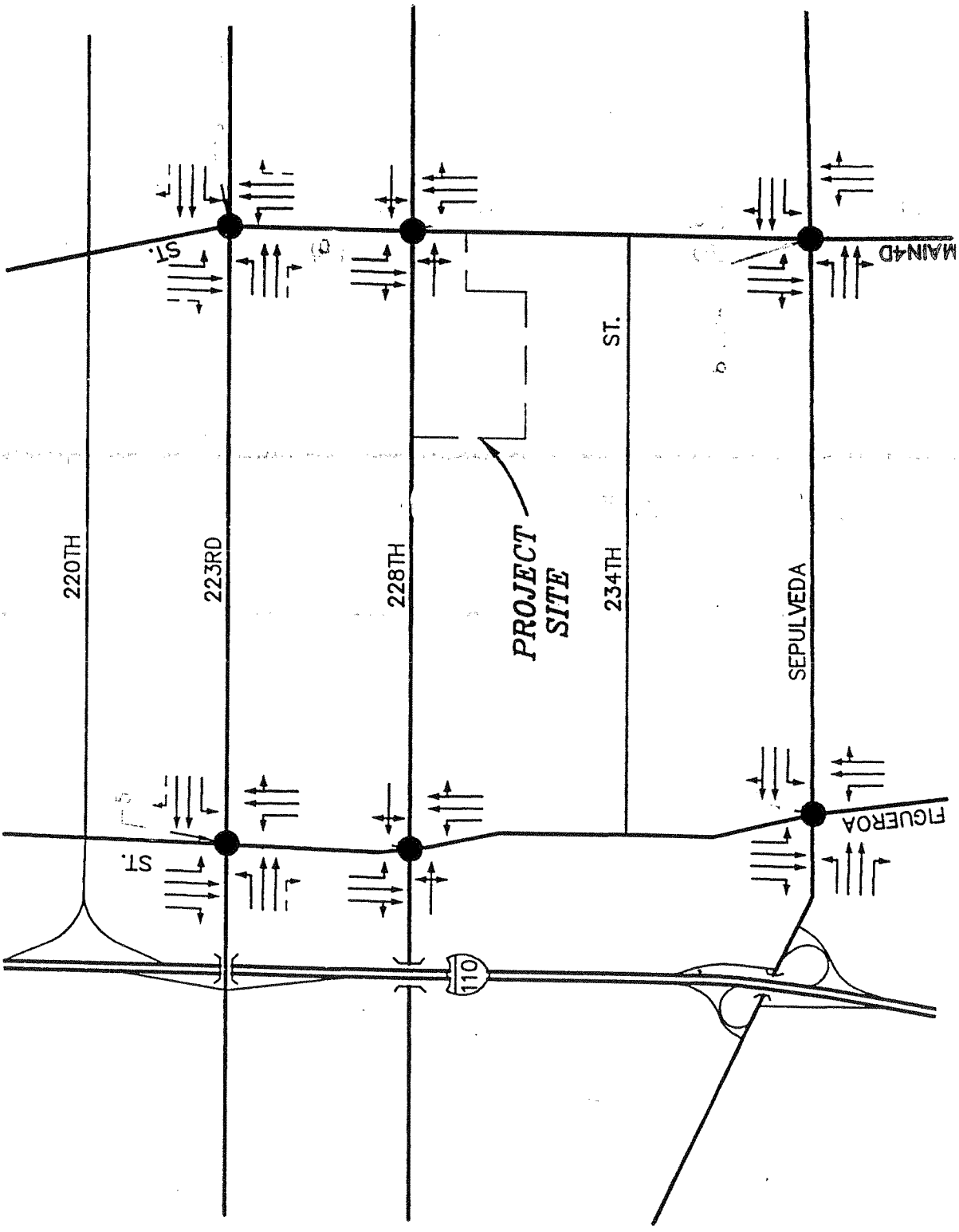



*FIGURE 4 -*
*EXISTING CIRCULATION SYSTEM*

## 2.2.1 Grading and Drainage

### 2.2.1.1 Grading

The project site has been developed with industrial uses (oil tanks) for over 50 years. Although the existing development on the site will be removed, only moderate additional grading is anticipated during site development. The elevations of the proposed residential building pads are going to be roughly the same as the existing grade of the site. Existing earthern berms (developed for purpose of containing any on-site oil tank linkage) will be removed. Therefore, the grading activities will not be extensive because of the existing gradient difference between the street grade and the future building pad elevations.

### 2.2.1.2 Drainage

The Los Angeles County Department of Public Works is the agency responsible for the installation and maintenance of the wastewater trunk lines and catch-basins along Main Street. Any improvements or modifications to drainage facilities shall be subject to the County Department of Public Works policies.

The development of the site will include a drainage plan which will permit rainwater and other runoff to be collected and carried within the street gutter system to designated on-site drainage culverts and dispersed oto the streets in the immediate adjoining neighborhood. The run-off then proceeds into the County's storm dain system. The site currently drains in this manner through existing parkway pipe culverts.

On-site drainage facilities will be provided for by the developer of The Cambria Pines Specific Plan area. All surface drainage will be carried in concrete drainage facilities as approved by the City Engineer and maintained by the homeowners' association.

The implementation of The Cambria Pines Specific Plan will not alter the quantity of runoff or general drainage patterns on the project site or it's immediate environs. Specifically, the site currently drains 35 cubic feet per second (CFS); the proposed development will result in a minor increase to 48 CFS.

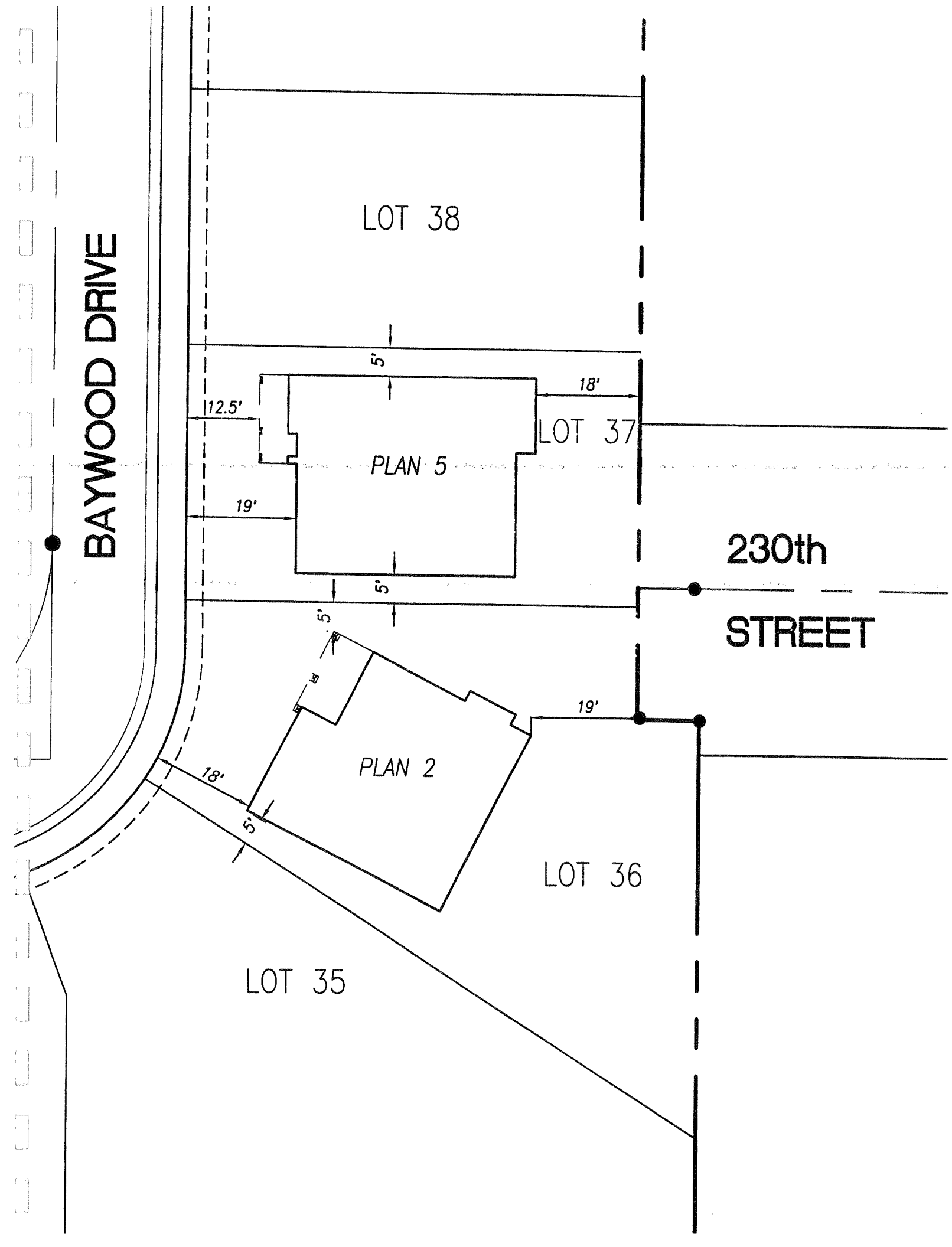
## 2.2.2 Streets

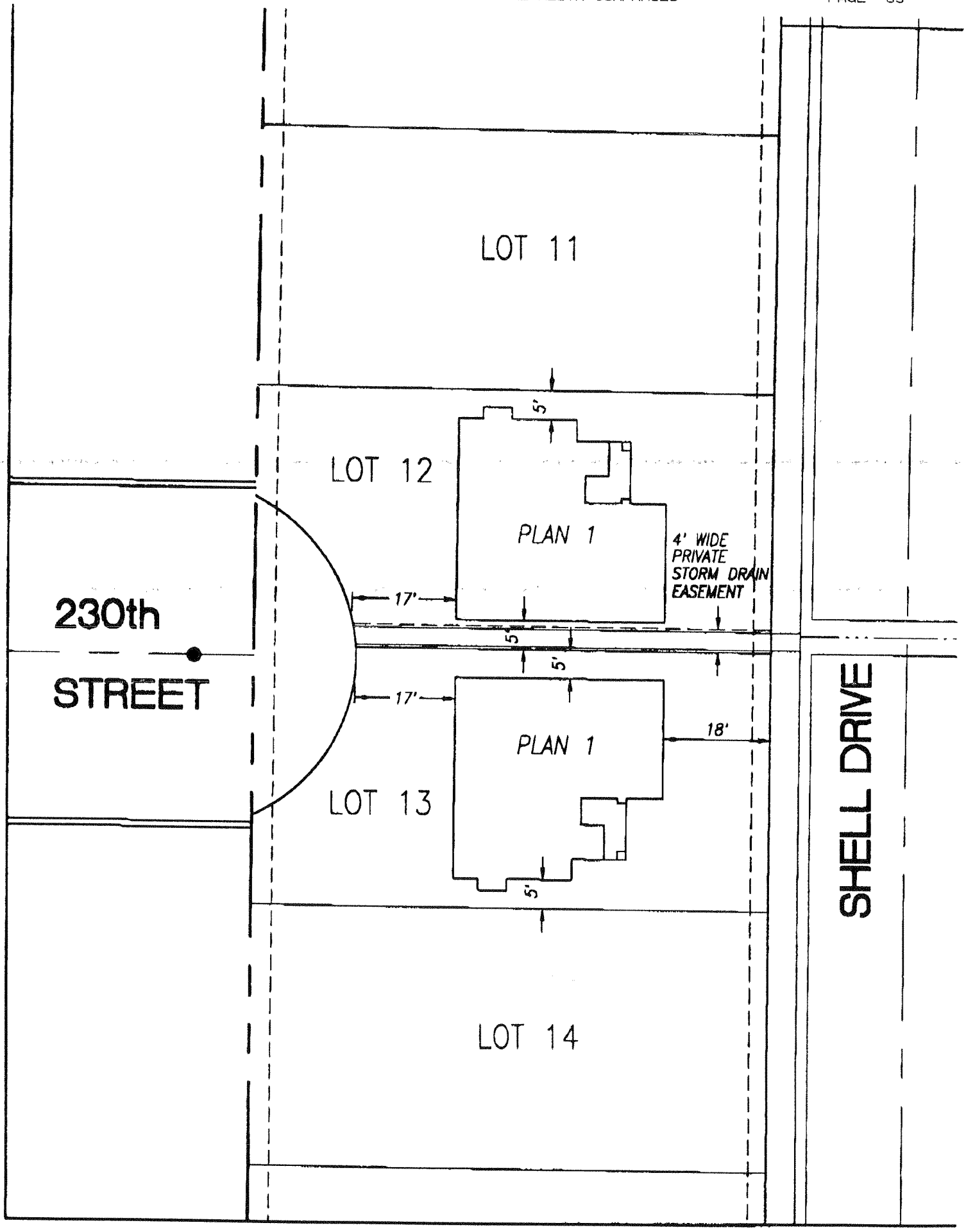
As discussed above in Section 2.1.3 of this Specific Plan, the main exterior/public roadway serving the project site is 228th Street. The proposed residences will be accessible from two non-manned gated entrances accessible from 228th Street and served by interior streets developed with homes. The interior streets will be maintained by the homeowners association. The existing "hammer-head" streets abutting the project site will be improved (see Figure 5) to City cul de sac standards; all proposed floor plans/models will be able to fit on the lots adjacent to the proposed cul de sac improvements.

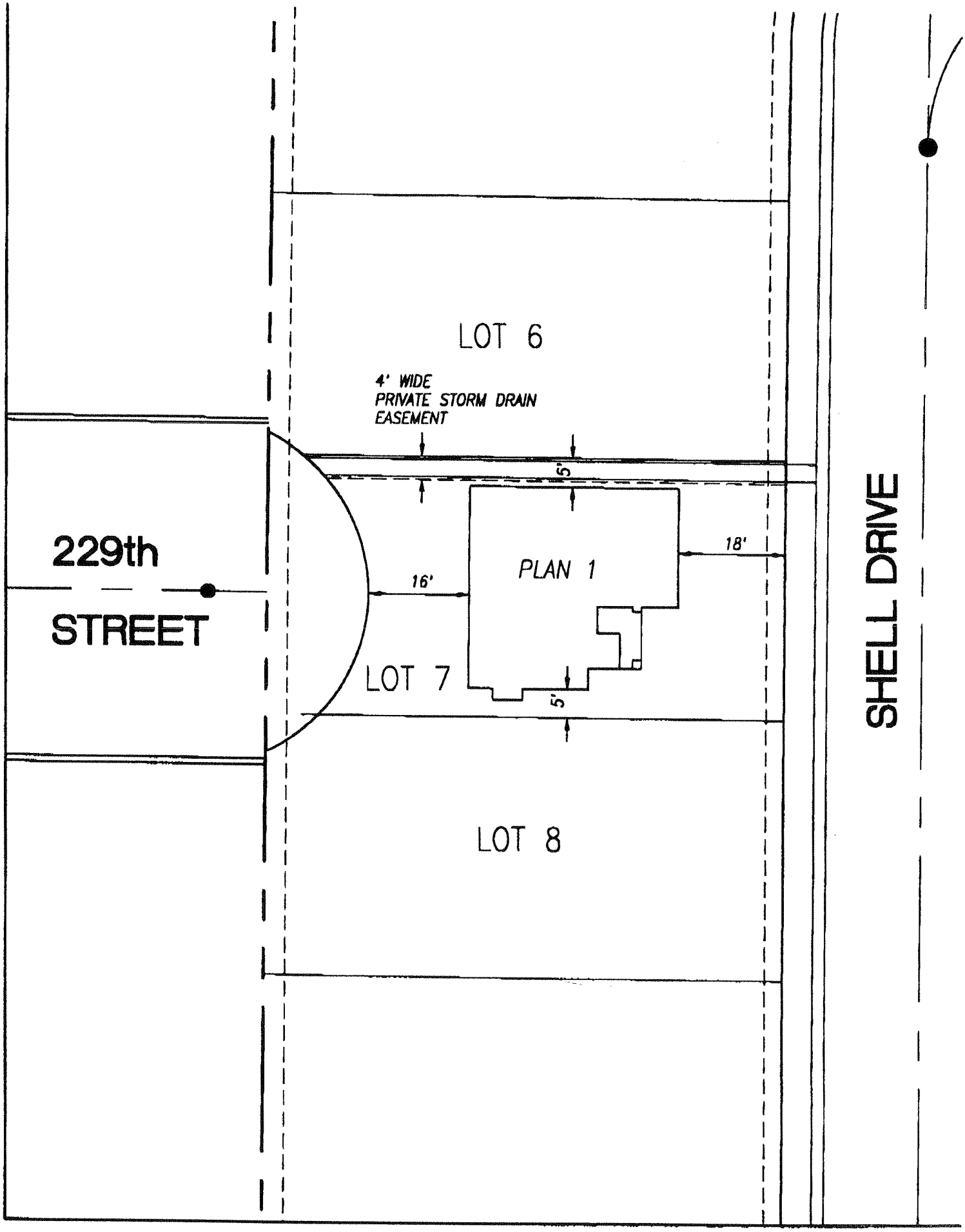
## 2.2.3 Water Service

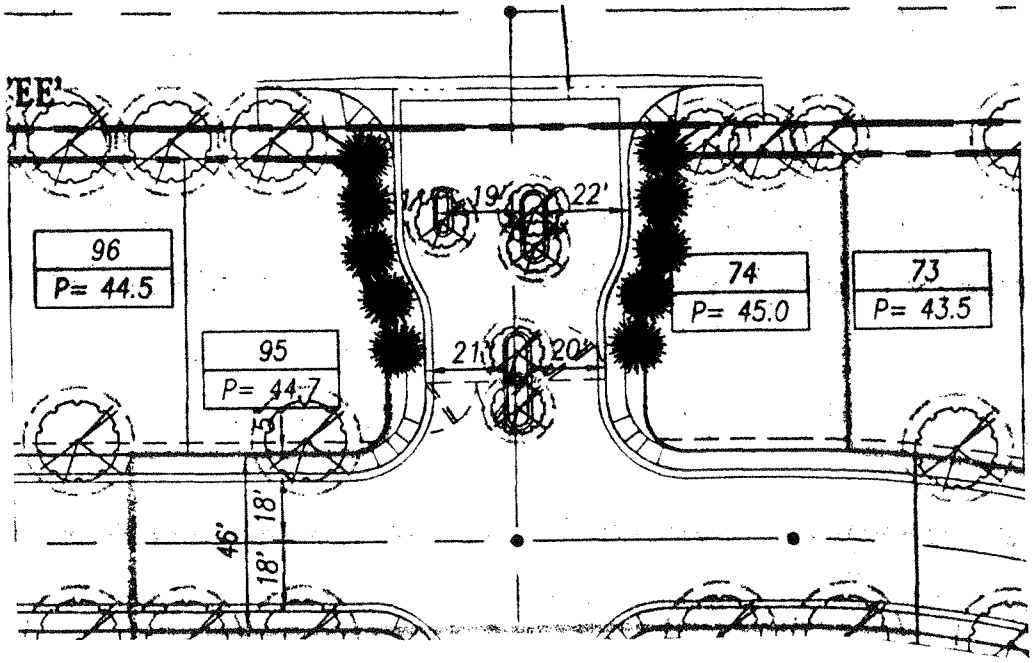
The Specific Plan area is currently served by the Dominguez Water Corporation (DWC). DWC receives its supply of water from Metropolitan Water District. The homes and industrial use on the site will be served from water mains operated by DWC. Water lines and service for the

*FIGURE 5-*
***LOT LAYOUT ON CUL DE SAC STREETS***


BAYWOOD DRIVE
LOT 38
5'
18'
12.5'
LOT 37
PLAN 5
19'
230th
STREET
5'
5'
19'
PLAN 2
18'
5'
LOT 36
LOT 35


LOT 11
LOT 12
PLAN 1
5'
4' WIDE PRIVATE STORM DRAIN EASEMENT
17'
230th STREET
5'
5'
17'
PLAN 1
18'
LOT 13
5'
SHELL DRIVE
LOT 14


LOT 6
4' WIDE
PRIVATE STORM DRAIN
EASEMENT
5'
229th
STREET
16'
PLAN 1
18'
LOT 7
5'
LOT 8
SHELL DRIVE



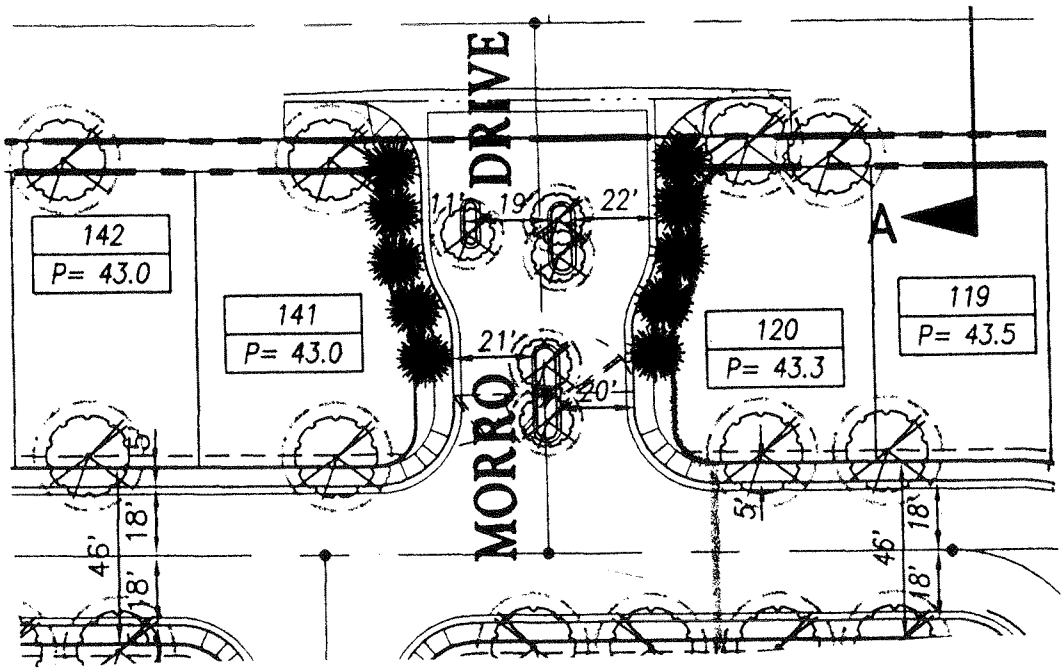




**FIGURE 6 - ILLUSTRATIVE ENTRY/GATEWAYS**

proposed development must comply with all requirements of the City of Carson. Landscape area to be designed to facilitate future use of reclaimed water. Landscaped areas will be placed on separate meters.

### 2.2.4 Sewers

The sewer system in the area is part of the Los Angeles county wastewater treatment system. Where inadequate, additional lines, pipes, or mains will be developed on-site to transfer sewage to the main sewer lines. The proposed development must comply with the standards set forth by the City of Carson Engineering Services Department.

### 2.2.5 Electrical Service

Electrical service to the project site is supplied by the Southern California Edison Company (SCE). SCE has adequate facilities and capabilities to continue serving the site and its future development. Electrical service must comply with all requirements of SCE and the City of Carson. All on-site service lines will be underground.

### 2.2.6 Energy Conservation

The energy consumption of new construction in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations[1]. The efficiency standards apply to new construction of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Compliance with Title 24 can be achieved through building design techniques which include but are not limited to the following features:

- Installation of double paned windows on units closest to Main Street, and other areas as may be required by Title 24, and for other units if determined by an accoustical study prepared by or for the City;
- Installation of certified insulating materials such as thermal insulation in walls and ceilings;
- Specifications for minimum piping insulation;
- Use of certified appliances and water and space heating systems;
- Use of building materials and techniques including finishing exterior walls with light-colored materials with high emissivity characteristics to reduce cooling loads and finishing interior walls with light-colored materials to reflect more light and thus increase lighting efficiency, glazing, lighting, and shading;

---

[1] The State Building Energy Efficiency Standards are contained in the California Code of Regulations, Title 24, Part 2, Chapter 2--53. Enforcement of Title 24 standards is addressed in the California Code of Regulations, Title 20, Chapter 2, Subchapter 4, Article 1.

- Installation of fluorescent and high-intensity-discharge (HID) lamps, which give the highest light output per watt of electricity consumed, wherever possible;

- Installation of high-efficiency lamps for all street lot lighting to reduce electrical consumption;

- Installation of occupant-controlled light switches and thermostats to permit individual adjustment of lighting, heating, and cooling, to avoid unnecessary energy consumption;

These building design techniques will be incorporated into the construction of the residential units to ensure compliance with Title 24, California Energy Conservation Standards, and any additional City required conservation measures.

In addition, each residential unit will be pre-wired to permit re-charging of electric automobiles, a statewide program intended to reduce both energy consumption and the generation of auto-related pollutants.

### 2.2.7 Telephone and Cable Television Service

The project site will be provided local telephone service and cable television service; all service will be provided by underground lines.

## 2.3 Development Standards and Design Guidelines

The Cambria Pines Specific Plan's development standards and design guidelines will ensure a consistent use of setbacks, height, bulk, density, common areas, building materials, landscaping and streetscape, colors and other design features. The guidelines are intended to ensure that the Specific Plan area will: (a) have a clear identity and sense of place; (b) meet the needs of the residents; and (c) provide a harmonious and pleasing environment with a distinctive aesthetic, stable, and safe character.

This section of the Specific Plan will provide guidance to the physical development of proposed 162 single-family development, as well as the qualitative aspects of the proposed single-family homes and common landscaped areas may affect the residents or visitors. Moreover, the development standards will reduce potential land use conflicts with the adjacent land uses that are anticipated to remain in the area. The guidelines also establish standards to achieve and maintain a harmonious development identity and level of quality throughout the community, while providing the flexibility to maximize individual characteristics of the dwelling units.

A comprehensive landscape plan, consistent with the standards established in this Specific Plan and addressing proposed landscaping treatments and lighting treatments, shall be submitted to and approved by the Community Development Department prior to the issuance of building permits. Such plan shall show conformance with all applicable sections of this Specific Plan.

### 2.3.1 Architectural Guidelines

A primary goal of the Specific Plan is to ensure the development of The Cambria Pines

community in a consistent, high quality manner. Since the future of The Cambria Pines will depend on the quality of its visual environment and safety, the following guidelines and standards will help shape The Cambria Pines's overall image within a coordinated design theme. The design theme chosen for The Cambria Pines is a Cape Cod/New England/Traditional style. There will be several different models, but each will incorporate the classic elements of this architectural theme. A prototypical application of the architectural guidelines and development standards set forth in this section is illustrated by Figures 7 to 12.

Sidewalks and pedestrian walkways and open space pockets shall use plants integrated within a hardscape design; no plantings shall obstruct pedestrian movement. Visual interest along the walkways can be enhanced by the introduction of open space common areas, as space permits. The proposed landscaped buffers will be located along the site's northern and eastern boundaries.

### 2.3.2 Building Design and Building Materials Standards

The idea of visual unity is crucial to the goal of both the aesthetically pleasing, as well as the stable and safe images of The Cambria Pines. With its setting between both residential and industrial neighborhoods, the development of this Specific Plan should emphasize and incorporate key architectural elements found in traditional family neighborhoods and communities. This design approach will reflect a contemporary interpretation of traditional architectural materials and features.

#### 2.3.2.1 Design

The following objectives shall apply to The Cambria Pines Specific Plan:

a. Harmony, continuity, proportion, and balance should prevail in all aspects of the project.

b. The design should be simple, not congested.

c. The building mass of each home should be broken up with decorative detailing which provides a sense of scale, rhythm, and proportion.

d. Each different model type should be compatible and should not dominate or stand out in contrast to adjacent buildings.

e. Dwelling units should respond to the scale and character of the streets and sidewalks/walkways by emphasizing relief on the facades particularly as they approach the pedestrian level.

f. Structures should be generally rectilinear in shape, or perpendicular to the pedestrian level.

g. The elevation of the buildings should have overall directional emphasis, either horizontal or vertical.

h. The roofline should be essentially pitched or stepped up to horizontal elements.

#### 2.3.2.2 Materials

The following requirements shall apply to The Cambria Pines Specific Plan:

a. Building materials should enhance the aesthetic appeal of the structures to convey an inviting and pleasant atmosphere to the resident or visitor.

b. Materials shall be of those types which require low maintenance.

c. Acceptable building materials include wood, concrete, masonry, and the "drywall" building system (plaster, stucco). Accent materials, such as concrete roofing materials, bricks, etc., shall not be painted.

d. Metal buildings and metal architectural features used to accent buildings shall not be permitted, however, metal or iron lamp posts or lighting fixtures are acceptable.

e. A minimum of two types of building texture or materials, exclusive of window glazing and frames, shall be provided on all building elevations.

### 2.3.3 Building Development Standards

#### 2.3.3.1 Height

The maximum building height shall not exceed a height of 30 feet as measured from the average grade of the proposed curb abutting the subject lot (Section 9126.12).

#### 2.3.3.2 Minimum Lot Areas

The typical lot will be 76.5 feet deep and 45 feet wide. The minimum lot size will be no less than 2,999 square feet.

*FIGURE 7 -*
*FRONT ELEVATION, PLAN 1*

*FIGURE 8-*
*FRONT ELEVATION, PLAN 2*

*FIGURE 9*
*FRONT ELEVATION, PLAN 3*

*FIGURE 10-*
*FRONT ELEVATION, PLAN 4*

*FIGURE 11-*
*FRONT ELEVATION, PLAN 5*

*FIGURE 12-*
*FRONT ELEVATION, PLAN 6*

### 2.3.3.3 Maximum Lot Coverage

The following standards shall apply to The Cambria Pines Specific Plan:

a. The total ground floor coverage of structures shall not exceed 45 percent of the total site area; and

b. In the front-yard setback, the maximum coverage with paved surfaces (including the driveway and walkways) shall not exceed 50 percent.

### 2.3.3.4 Yard Areas and Setbacks

All required yard areas, as specified in the following section, shall be measured from the property line, as follows:

Front Yard - Each lot shall have a front yard with a minimum depth of 15 feet to the living area; units that provide a porch area may encroach into the 15 ft. setback, leaving a minimum setback of 12 feet if approved by the Community Development Director under Section 2.3.3.5..

Side Yard - There shall be a side yard width of 5 feet on each side of the lot. Where the side yard abuts a street, the side yard shall be increased to a minimum of 10 feet.

Rear Yard - Each lot shall have a rear yard with a minimum of depth of 15 feet.

### 2.3.3.5 Encroachments

Every part of a required yard or open space shall be open and unobstructed from finished grade or floor surface to the sky except for the facilities indicated in Section 9126.29 of the Zoning Ordinance, except as specifically restricted by this section. Within the front yard, the Community Development Director may approve an encroachment not to exceed 3 feet for open and unenclosed porches that occupy less that 50% of the front elevation of the residence. No detached accessory building, or additions to the main building, shall be permitted in the required rear yard except for open lattice style patio covers and minor additions to the building, subject to approval by the Community Development Director and review under the administrative procedures contained in Chapter 3 of this Specific Plan. To the extent feasible, permitted encroachments shall facilitate landscaping, recreational facilities and open lattice style patios or gazebos, in order to promote and preserve open space.

### 2.3.3.6 Fences, Walls and Hedges

The following requirements shall apply to The Cambria Pines Specific Plan:

a. Due to high noise levels on Main Street, an 8-feet high sound wall shall be constructed. Where there is a difference between the grades on the two sides of the fence, wall or hedge, the higher grade shall be used.

b. The appearance of walls shall be visually softened by landscaping, which shall be depicted on the landscaping plan.

### 2.3.3.7 Open Space

The following requirements shall apply to The Cambria Pines Specific Plan:

a. Open space, inclusive of both the landscaped buffers and front and year yards of the residential development, shall comprise not less than 30 percent of the net project area.

b. Open Space may include the landscaped buffers along the site's northern and western limits.

In addition, a centrally located passive park (20,140 square feet) will be developed to include benches, a sand pit and one piece of playground equipment.

### 2.3.3.8 Exterior Lighting Standards

**Safety and Security Lighting**

The following requirements shall apply to The Cambria Pines Specific Plan:

a. Lighting shall be indirect and subtle. Overhead pole-mounted fixtures (with underground wiring), consistent with the City's adopted requirements, that direct light downward shall be used.

b. The internal vehicular circulation network shall have sufficient illumination for safety and security. The street illumination level shall achieve a uniformity ratio of 3:1 (average to minimum) with a minimum of 1.5-foot candles.

c. Outdoor pedestrian use areas (open space and parks) shall have sufficient illumination for safety and security. Primary pedestrian use area lighting should achieve a uniformity ratio of 3.5 to 1 average illumination of 0.60-foot candles and a minimum of 0.18-foot candles.

d. All exterior building lights shall be integrated into the building design and shall not be directed onto adjacent properties.

**Architectural and Landscape Lighting**

The following requirements shall apply to The Cambria Pines Specific Plan:

a. Lighting shall be indirect, such as soft lighting, neon tube, or full cutoff shield-type fixtures.

b. Architectural overhead down-lighting or interior illumination that illuminates the exterior of the dwelling units is encouraged. Lighting should illuminate the exterior of the structure and enhance the structures's visual character design.

c. Landscape lighting shall be subtle, indirect, and should accentuate rather than overpower landscape features.

### 2.3.3.10 Garages

All garages will have access from one of the site's private streets and shall be set back at least 18 feet from the street property line; all garages will be built with roll-up garage doors to permit parking on the driveways and have a minimum interior dimension, as specified in Section 9162.41 of the Carson Zoning Ordinance which is 18 feet by 20 feet deep provided that storage area is provided. The driveways shall be no less than 16 feet wide directly fronting the garages.

### 2.3.3.11 Signs

All signage must comply with the standards contained within Section 9126.7 of the Zoning Ordinance.

### 2.3.3.12 Utilities

The following requirements shall apply to The Cambria Pines Specific Plan:

a. All new utility lines, other than major transmission lines, shall be placed underground. Under grounding shall be in accordance with the applicable rules and regulations of the utility, as currently on file with the California Public Utilities Commission.

b. On-site underground utilities shall be located so as to minimize disruption during maintenance and repair.

c. No ground level antenna, transmission or reception device that can be viewed from adjacent residential properties and public streets shall be permitted.

### 2.3.3.13 Storage and Refuse Collection Areas

The following requirements shall apply to The Cambria Pines Specific Plan:

a. No storage shall be permitted in any front-yard within the residential community.

b. All storage areas shall be contained within the individual structures and shall not be visible to the public.

c. All refuse containment areas shall be maintained in a sanitary manner and shielded from public view. All refuse containers must be kept in a garage or on the side yard out of public view.

d. Recycling of waste will be encouraged and a community-wide recycling area will be designated within The Cambria Pines Specific Plan.

#### 2.3.3.14 Equipment Screening

Exterior-mounted electrical equipment is prohibited. In addition, roof-mounted electronic equipment, such as antennae for radio or telephone communications and satellite dishes, shall not be visible from adjacent properties and/or streets. Small disk antennae, not visible from the public street and/or adjacent properties are permitted.

### 2.3.4 Landscape Master Plan

The following landscape design guidelines are intended to focus the direction of future landscape design and planting efforts within The Cambria Pines Specific Plan; see also previous Figure 3, Illustrative Site Plan. The intention is to establish a direction that will result in a landscape character which is appropriate to the community and accents the architectural character of the residences. The Cambria Pines Specific Plan Landscape Master Plan will be consistent with the City's adopted Water Efficient Landscape Ordinance, including use of drought-resistant plantings. If available through the local water delivery system, reclaimed water shall be used for landscape irrigation.

The landscape design for the project will soften the visible impact of the built environment, enhance architectural design and mitigate environmental factors, such as sun and wind.

All landscaping will conform to the City of Carson's landscape standards as established in the City's Zoning Ordinance which includes adoption of water efficient landscape and irrigation practices. If any discrepancies should occur between the language contained in this Specific Plan and the language contained in the City landscape standards, the language of the City's landscape standards shall prevail.

Each single-family residential lot shall be provided with one (1) 30-inch box specimen tree within the front yard setback.

#### 2.3.4.1 Design Standards

**Planting Materials**

The following requirements shall apply to The Cambria Pines Specific Plan:

1. Plant materials will be consistent with the City's adopted Landscape Ordinance. Tree and plant selections shall be based on climate, exposure, soil conditions, level of maintenance anticipated, low water inside and appropriateness of use. A variety of trees and plants is encouraged.

2. Ground cover size and spacing shall ensure complete coverage of the ground within one year of planting.

3. Nonliving ground covers (rock, gravel, bark chips, etc.) shall not be permitted in the Specific Plan except as necessary for mulching. However, decorative boulders within landscaped areas will be permitted.

4. Turf will be noninvasive grass species.

5. Reclaimed water will be used, when and if available from public agencies.

**Irrigation**

The following requirements shall apply to The Cambria Pines Specific Plan:

1. All irrigation equipment in the site's common areas and landscaped buffers shall be in accordance with the City of Carson's zoning regulations which includes adoption of water efficient irrigation.

2. The landscaped buffers will be provided with automatic irrigation systems.

3. The irrigation system installed for The Cambria Pines' landscaped common areas will allow for future connection to a reclaimed water (often referred to as "grey-water") line; that is, if in the future a water line transmitting treated sewage suitable for irrigation of common areas is provided in either Main Street or 228th Street, adjacent to the project site, then the landscaping system can be adapted to use "grey water" for irrigation.

## 2.4 Performance Standards

This section identifies the requirements and permitted activities within The Cambria Pines Specific Plan.

### 2.4.1 General

The maximum permitted levels of operational characteristics resulting from land uses on the project site shall be called performance standards. Continued compliance with the performance standards shall be required of all uses, except as otherwise provided for in these regulations.

Land or buildings within The Cambria Pines Specific Plan area shall not be used or occupied in any manner so as to create any dangerous, noxious, injurious or otherwise objectionable fire, explosive or other hazards; noise or vibration; smoke, dust, odor or other form of direct air pollution; electrical disturbance; glare; liquid or solid refuse or wastes; or other dangerous or objectionable substance, condition or element in a manner or amount that would adversely affect the environment, residents, or surrounding community as measured from the project site boundary.

More restrictive performance standards or regulations enacted by authorized state or federal government agencies having jurisdiction on such matters shall take precedence over the provisions of these regulations.

### 2.4.2 Exceptions

The regulations established within the performance standards do not apply to unexpected brief periods where these standards are exceeded based upon a reasonable cause when it is evident

that such cause was not reasonably preventable. These regulations shall not apply to the operation of motor vehicles or other transportation equipment unless otherwise specified. Residents shall abide by all standards in the City of Carson Municipal Code relating to property maintenance and vehicle repair.

### 2.4.3 Homeowners' Association

1. Prior to the issuance of any occupancy permits, the developer will prepare and record the original Conditions, Covenants and Restrictions (CCRs). Included in such CC&Rs shall be, among other things:

   a. Provisions for the disclosure of, and prospective residents' acknowledgment of, the nature and extent of the existing non--residential uses in the area of the project site.

   b. Provisions for the disclosure of, and prospective residents' acknowledgment of, the presence and effect of the nearby County wastewater treatment facility.

   c. Provisions providing that unfilled or continuing duties of the developer shall be assumed by the Homeowner's Association.

   The CCRs will establish guidelines for election of a Board of Directors and all permitted and prohibited use of common areas and individual units.

2. The Board of Directors will meet no less than two times each calendar year and the entire Homeowners Association will meet no less than once every calendar year as established by the CCRs.

3. The CCRs will contain guidelines for citations and penalties to be enforced in the event of violations of the CCRs.

4. In addition to the gated entrance and perimeter of the residential community, the Homeowners' Association will establish a neighborhood/community watch committee to be selected or elected annually.

5. The Homeowners' Association will hire a gardener and prepare a list of approved repair and maintenance companies for services such as plumbing, electrical, etc. All repairs or maintenance to common space or exterior spaces will be performed by one of the approved companies.

6. Residents will be responsible for the maintenance and upkeep of their individual unit. The CCRs shall contain property maintenance standards and any violation of maintenance of lawn or other landscaping or visual features will be subject to penalty by the Homeowners' Association. In addition, consistent with applicable state laws, the Homeowners' Association will maintain adequate funds to ensure proper maintenance of the developments streets, lighting, landscaping and other common improvements.

### 2.4.4 Control of Potential Public Nuisances

The following standards apply in particular to The Cambria Pines Specific Plan.

#### 2.4.4.1 Noise

Residential uses and any other adjacent noise-sensitive uses shall be protected from noise by adhering to noise standards set forth in the Carson General Plan and the adopted Noise Ordinance. Any uses not in compliance with those standards will be subject to the City of Carson enforcement procedures. In addition, the use will be required to mitigate noise, or show substantial progress of noise mitigation, to an acceptable level within 3 months for mechanical-related equipment and within one (1) month for nonmechanical equipment from the time of written citation from the City of Carson.

#### 2.4.4.2 Smoke and Particulates

Visible emissions of smoke that exceed Ringlemann No. 1 on the Ringlemann Chart of the U.S. Bureau of Mines will not be permitted, except for exhausts emitted by motor vehicles or other transportation facilities. This requirement shall also be applicable to the disposal of trash and waste materials. Windborne dust, dirt, fly ash, airborne solids, sprays and mists (except for water vapor) originating from any use will not be permitted.

#### 2.4.4.3 Toxic or Noxious Matter

Toxic gases or noxious matter that can cause any damage to health, animals, vegetation or other forms of property, or that cause any excessive soiling beyond the project site boundaries shall not be emitted.

#### 2.4.4.4 Odorous Matter

No residential use shall be permitted to have on-site operations or storage of products emitting offensive odors that are detectable at any point beyond the property lines of that particular lot.

#### 2.4.4.5 Glare or Heat

No residence may produce intense glare or heat discernable to adjacent residential property owners and/or tenants.

#### 2.4.4.6 Liquid and Solid Wastes

Discharge of liquid or solid wastes shall not be permitted (except for permitted discharges to the Los Angeles County Sanitation Districts' sewer lines). In addition, the disposal or dumping of solid wastes shall not be permitted on any parcel within The Cambria Pines Specific Plan.

#### 2.4.4.7 Fire and Explosive Hazards

No activities involving the use or storage of combustible, flammable or explosive materials shall permitted within the Specific Plan boundaries. Burning of waste materials in open fires is prohibited.

## 2.5 Phasing Plan

The project site will be developed as two separate parcels. A tentative parcel map will divide the subject site into two parcels. Under this process, the applicant will file for an Eligibility for Waiver of a final parcel map and submit a Certificate of Compliance to complete the division of the project site. The site would be divided into the two parcels between phases 2 and 3 (see Figure 13). The objective of developing the project site as two separate parcels is to facilitate the use of a portion of the project site during site preparation, grading and construction.

Existing underground pipes to and through the project site will be removed as part of the removal of the 11 oil tanks prior to Phase 1.

The Cambria Pines Specific Plan will be developed in twelve phases; see Figure 13, Illustrative Phasing Plan. These phases will occur sequentially, however there may be some overlap; construction access will be provided through a temporary street access point from 228th Street. All perimeter landscaping shall be installed in Phase I, or as approved by the Community Development Director, as per Condition No. 66 of Vested Tentative Tract Map 52281 and Condition No. 25 of Specific Plan 7-97.

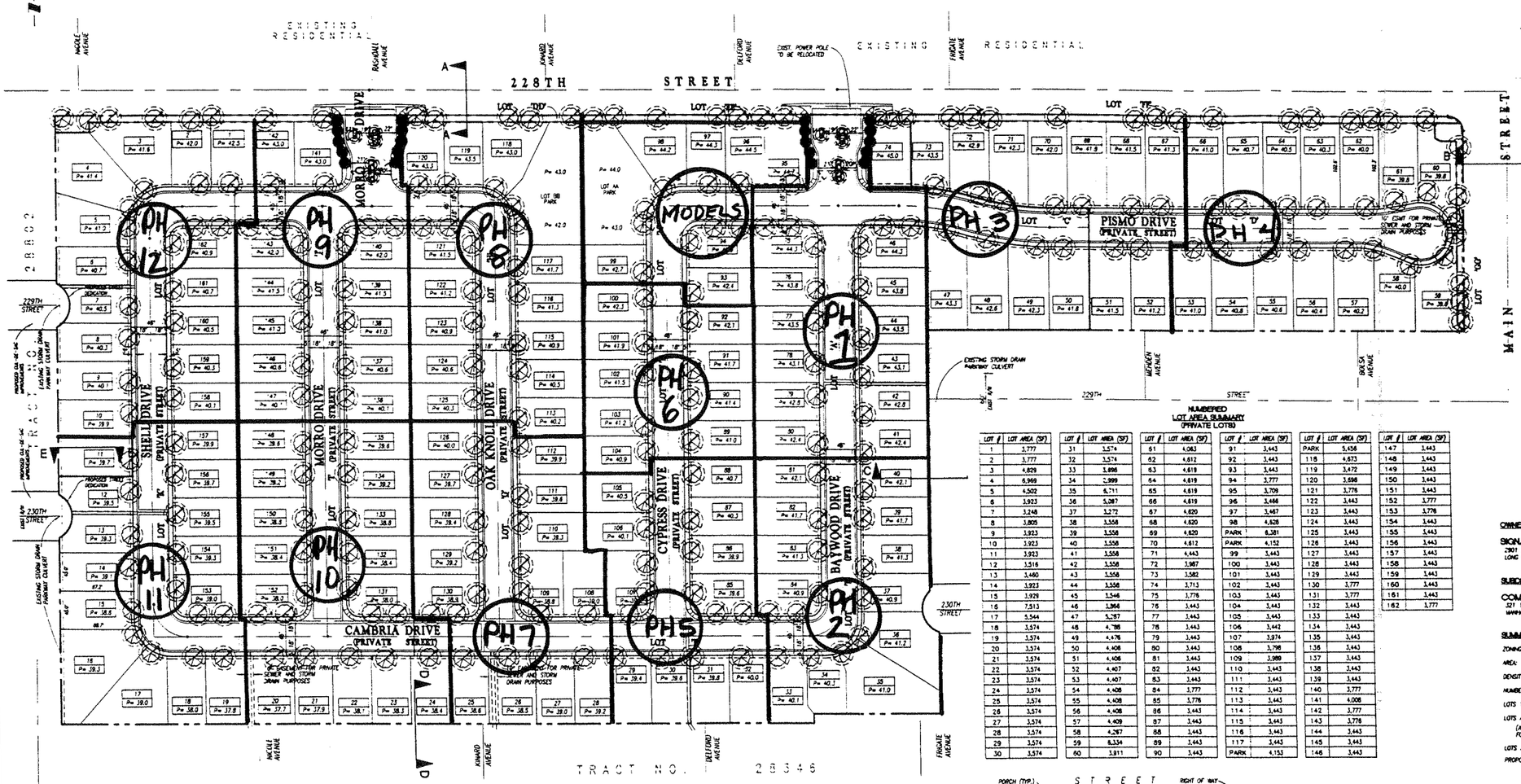
Demolition of the existing uses scheduled to be removed will occur prior to any construction. However during the development of the various phases much of the site preparation and construction activities will occur concurrently. Any required off-site improvements associated with the development of the site will occur concurrently with the construction of the on-site buildings where possible.

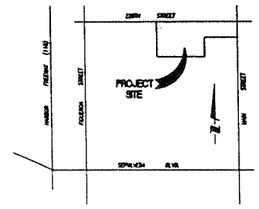
Prior to the issuance of building permits for the project, a detailed phasing plan which minimizes the construction impacts to on-site residents, as well as the adjacent neighborhoods, must be submitted to the City of Carson Community Development Department for approval. This phasing plan should address the temporary construction impacts on the following environmental categories:

- Drainage Patterns
- Vehicular Access
- Security
- Traffic and Circulation
- Pedestrian Access
- Public Utilities
- Noise
- Public Health and Safety
- Aesthetics

*FIGURE 13 -*
*ILLUSTRATIVE PHASING PLAN*

# ILLUSTRATIVE SITE PLAN
## FOR
# VESTING TENTATIVE TRACT MAP NO. 52281
CITY OF CARSON, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA




**LETTERED LOT AREA SUMMARY (PRIVATE STREETS)**

| LOT # | LOT AREA (SF) |
|---|---|
| A | 29,165 |
| B | 13,313 |
| C | 13,836 |
| D | 16,108 |
| E | 16,825 |
| F | 8,346 |
| G | 21,267 |
| H | 24,819 |
| I | 18,358 |
| J | 19,611 |
| K | 16,029 |
| L | 15,837 |
| M | 8,157 |

**LETTERED LOT AREA SUMMARY (LANDSCAPE)**

| LOT # | LOT AREA (SF) |
|---|---|
| AA | 10,532 |
| BB | 9,608 |
| CC | 2,991 |
| DD | 1,952 |
| EE | 2,091 |
| FF | 4,984 |
| GG | 2,528 |

**NUMBERED LOT AREA SUMMARY (PRIVATE LOTS)**

| LOT # | LOT AREA (SF) | LOT # | LOT AREA (SF) | LOT # | LOT AREA (SF) | LOT # | LOT AREA (SF) | LOT # | LOT AREA (SF) | LOT # | LOT AREA (SF) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3,777 | 31 | 3,574 | 61 | 4,083 | 91 | 3,443 | PARK | 5,456 | 147 | 3,443 |
| 2 | 3,777 | 32 | 3,574 | 62 | 4,612 | 92 | 3,443 | 118 | 4,673 | 148 | 3,443 |
| 3 | 4,829 | 33 | 3,898 | 63 | 4,619 | 93 | 3,443 | 119 | 3,472 | 149 | 3,443 |
| 4 | 6,969 | 34 | 2,999 | 64 | 4,619 | 94 | 3,777 | 120 | 3,898 | 150 | 3,443 |
| 5 | 4,502 | 35 | 6,711 | 65 | 4,619 | 95 | 3,709 | 121 | 3,778 | 151 | 3,443 |
| 6 | 3,923 | 36 | 5,387 | 66 | 4,619 | 96 | 3,466 | 122 | 3,443 | 152 | 3,777 |
| 7 | 3,248 | 37 | 3,272 | 67 | 4,620 | 97 | 3,467 | 123 | 3,443 | 153 | 3,778 |
| 8 | 3,805 | 38 | 3,558 | 68 | 4,620 | 98 | 4,828 | 124 | 3,443 | 154 | 3,443 |
| 9 | 3,923 | 39 | 3,558 | 69 | 4,620 | PARK | 6,381 | 125 | 3,443 | 155 | 3,443 |
| 10 | 3,923 | 40 | 3,558 | 70 | 4,612 | PARK | 4,152 | 126 | 3,443 | 156 | 3,443 |
| 11 | 3,923 | 41 | 3,558 | 71 | 4,443 | 99 | 3,443 | 127 | 3,443 | 157 | 3,443 |
| 12 | 3,516 | 42 | 3,558 | 72 | 3,987 | 100 | 3,443 | 128 | 3,443 | 158 | 3,443 |
| 13 | 3,460 | 43 | 3,558 | 73 | 3,582 | 101 | 3,443 | 129 | 3,443 | 159 | 3,443 |
| 14 | 3,923 | 44 | 3,558 | 74 | 3,713 | 102 | 3,443 | 130 | 3,777 | 160 | 3,443 |
| 15 | 3,929 | 45 | 3,546 | 75 | 3,778 | 103 | 3,443 | 131 | 3,777 | 161 | 3,443 |
| 16 | 7,513 | 46 | 1,966 | 76 | 3,443 | 104 | 3,443 | 132 | 3,443 | 162 | 3,777 |
| 17 | 5,544 | 47 | 5,287 | 77 | 3,443 | 105 | 3,443 | 133 | 3,443 | | |
| 18 | 3,574 | 48 | 4,786 | 78 | 3,443 | 106 | 3,442 | 134 | 3,443 | | |
| 19 | 3,574 | 49 | 4,476 | 79 | 3,443 | 107 | 3,974 | 135 | 3,443 | | |
| 20 | 3,574 | 50 | 4,408 | 80 | 3,443 | 108 | 3,798 | 136 | 3,443 | | |
| 21 | 3,574 | 51 | 4,408 | 81 | 3,443 | 109 | 3,989 | 137 | 3,443 | | |
| 22 | 3,574 | 52 | 4,407 | 82 | 3,443 | 110 | 3,443 | 138 | 3,443 | | |
| 23 | 3,574 | 53 | 4,407 | 83 | 3,443 | 111 | 3,443 | 139 | 3,443 | | |
| 24 | 3,574 | 54 | 4,408 | 84 | 3,777 | 112 | 3,443 | 140 | 3,777 | | |
| 25 | 3,574 | 55 | 4,408 | 85 | 3,778 | 113 | 3,443 | 141 | 4,008 | | |
| 26 | 3,574 | 56 | 4,408 | 86 | 3,443 | 114 | 3,443 | 142 | 3,777 | | |
| 27 | 3,574 | 57 | 4,409 | 87 | 3,443 | 115 | 3,443 | 143 | 3,778 | | |
| 28 | 3,574 | 58 | 4,287 | 88 | 3,443 | 116 | 3,443 | 144 | 3,443 | | |
| 29 | 3,574 | 59 | 8,334 | 89 | 3,443 | 117 | 3,443 | 145 | 3,443 | | |
| 30 | 3,574 | 60 | 3,811 | 90 | 3,443 | PARK | 4,153 | 146 | 3,443 | | |

**OWNER:**

SIGNAL HILL PETROLEUM
2301 ORANGE AVENUE
LONG BEACH, CALIFORNIA 90807

**SUBDIVIDER:**

COMSTOCK CROSSER ASSOCIATES
321 12th STREET
MANHATTAN BEACH, CA 90266

**SUMMARY:**

ZONING: EXIST.: MH-3, PROPOSED: RS

AREA: 20.7 GROSS ACRES (APPROX.)

DENSITY: 7.9 D.U./A.C. (GROSS)

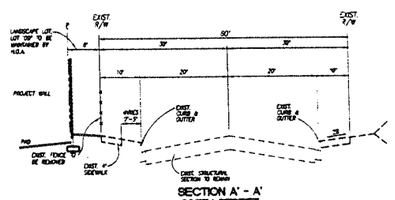
NUMBER OF LOTS: RESIDENTIAL LOTS 164

LOTS 1 - 164 FOR SINGLE FAMILY RESIDENCES

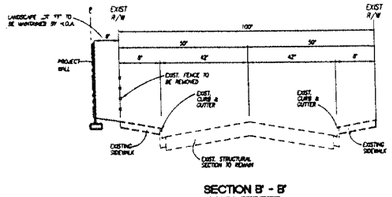
LOTS A - J FOR STREET AND PUBLIC UTILITY PURPOSES. (ALL STREETS ARE PRIVATE AND WILL CONTAIN EASEMENTS FOR PUBLIC UTILITIES)

LOTS AA - FF FOR LANDSCAPE AREAS

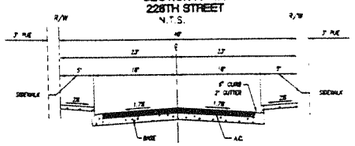
PROPOSED 228TH STREET RIGHT OF WAY DEDICATION .45 AC.



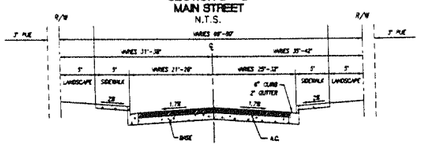

SECTION A' - A'
228TH STREET
N.T.S.



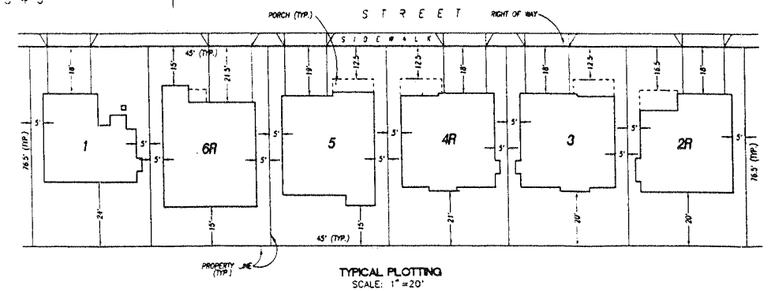

SECTION B' - B'
MAIN STREET
N.T.S.




TYPICAL SECTION FOR
'A'-'E' STREETS
(PRIVATE STREET)
N.T.S.




TYPICAL SECTION FOR
ENTRY
(PRIVATE STREET)
N.T.S.




TYPICAL PLOTTING
SCALE: 1" = 20'

**NOTES:**

1. EXISTING LAND USE: PETROLEUM TANK FARM
2. PROPOSED LAND USE: RESIDENTIAL
3. ALL INTERIOR STREETS ARE PRIVATE AND CONTAIN EASEMENTS FOR INGRESS, EGRESS, SEWER, WATER, STORM DRAIN AND PUBLIC UTILITIES.
4. PROPOSED DRAINAGE: SURFACE DRAIN SITE INTO EXISTING FACILITIES IN ACCORDANCE WITH THE CITY OF CARSON AND COUNTY OF LOS ANGELES.
5. PROPOSED SEWER FACILITIES: CONNECT TO EXISTING CITY OF CARSON FACILITIES IN MAIN ST., MCCOLL AVE., AND KENARD AVE. SEWER TO BE PUBLIC.
6. PROPOSED WATER FACILITIES: CONNECT TO EXISTING DOMINGUEZ WATER CO. LINES WITHIN 228TH STREET; WATER TO BE PUBLIC.
7. CABLE T.V.: PARAGON CABLE
8. GAS CO.: SOUTHERN CALIFORNIA GAS CO.
9. POWER: SOUTHERN CALIFORNIA EDISON CO.
10. TELEPHONE: PACIFIC BELL
11. EXISTING STRUCTURES: ALL EXISTING STRUCTURES TO BE REMOVED.
12. ALL EXISTING UTILITIES ON-SITE TO BE REMOVED EXCEPT AS NOTED (PIPE LINES, POWER POLE & LINES, LIGHT POLES, ETC.)

REVISED: JANUARY 21, 1998

| NO. | DATE | REVISIONS |
|---|---|---|

DES. ENG.: DATE
DESIGNER:
DRAFTER:
CHECKED BY:


THE KEITH COMPANIES
Civil Engineering • Land Surveying
Mapping • Environmental Services
Water Resources • Land Planning
2955 Red Hill Avenue
Costa Mesa, CA 92626
(714)540-0800


ILLUSTRATIVE SITE PLAN
TENTATIVE TRACT MAP NO. 52281
228TH AND MAIN
CARSON, CALIFORNIA

PROJECT NO. 12888.000
SHEET 1 OF 1

# Chapter 3
# Administrative Procedures

The intent of the implementation procedures set forth in this section is to ensure that the development of The Cambria Pines Specific Plan is in accordance with the design and development standards contained in this Specific Plan and other applicable City of Carson development and performance standards.

## 3.1 Relationship of the Specific Plan to the City of Carson General Plan

The Cambria Pines Specific Plan is consistent with the goals and policies of the Carson General Plan and is intended to implement each of the general plan elements as they respectively apply to the proposed project. Section 1.5 outlined how the Specific Plan is consistent with the relevant policies of the General Plan. As previously identified, implementation of the Specific Plan will comply with several goals of the General Plan. However, more significantly, the proposed Specific Plan will achieve the City's long-term housing and land use objectives. The Specific Plan will add to the City's affordable housing stock and it will implement the City's above stated goal. Additionally, the proposed project is a private-sector development that will achieve the City's land use and housing objectives without requiring the City's commitment of scarce public funds and resources.

## 3.2 Development Review Procedures

All phases within The Cambria Pines Specific Plan area shall be subject to development review by the City of Carson. The purpose of this review is to ensure that all building designs and site plans are in conformance with the design and development standards contained in The Cambria Pines Specific Plan and other applicable City of Carson development and performance standards.

All submittals and approvals shall be coordinated through the Carson Community Development Department. The Department will have the responsibility of determining the types of approvals necessary to bring about the proposed development, alterations, additions, or modifications affecting the project.

All submittals for review shall be in accordance with Community Development Department procedures which may be established by the City of Carson.

## 3.3 Adoption and Amendment Procedures

The Cambria Pines Specific Plan shall be adopted and amended by ordinance of the City of Carson City Council.

## 3.4 Establishing and Updating CCRs

The Developer will establish the CCRs which will include policies for electing a Board of Directors and amending or updating the CCRs in accordance with and consistent with applicable state laws and City of Carson ordinances.

# Chapter 4
# Preparers of Cambria Pines Specific Plan

**Preparation of Specific Plan**

| | |
|---|---|
| Frank B. Wein, AICP | Project Director |

**The Keith Companies - Tentative Tract Map and Preliminary Engineering**

| | |
|---|---|
| Eric Nelson, P.E. | Vice President - Engineering Services |
| Wilhelm J. Maul, P.E. | Project Manager |

2955 Red Hill Avenue
Costa Mesa, California 92626
(714) 641-4252

**William Hezmalhach Architects, Inc. - Preparation of Architectural Plans and Concepts**

| | |
|---|---|
| William Hayes | Director of Planning |
| Roland F. Fournier | Director of Design |

17875 Von Karman, Suite 404
Irvine, California 92714
(714) 250-0607

**Comstock, Crosser & Associates Development Company - Project Applicant and Developer**

| | |
|---|---|
| Robert Comstock | Managing Partner |

321 12th Street
Manhattan Beach, California 90266
(310) 546-5781

**City of Carson - Community Development Department**

| | |
|---|---|
| Patrick Brown | Community Development Director |
| Sheri Repp | Community Planner |
| Mark Gross | Assistant Planner |

# APPENDICES

# *Appendix 5.1: Noise Assessment*

## Noise Standards

Residential Exterior and Interior Noise Standards: The City of Carson Noise Element specifies that exterior CNEL should not exceed 65 dB for residential locations. In addition, interior CNEL should not exceed 45 dB. These standards are to be applied to transportation noise sources such as roadway traffic, railroad movements and aircraft noise.

Exterior Intrusive Noise Standards: The City's adopted Noise Ordinance (Ord. No. 95-1068) standard for a residential zoned property located adjacent to an industrial zoned property are as follows:

I. Exterior noise level that may not be exceeded for a cumulative period of more than 30 minutes in any hour, L50, is 50 dBA;
II. Exterior noise level that may not be exceeded for a cumulative period of more than 15 minutes in any hour, L25, is 55 dBA
III. Exterior noise level that may not be exceeded for a cumulative period of more than 5 minutes in any hour, L8, is 60 dBA
IV. Exterior noise level that may not be exceeded for a cumulative period of more than one minute in any hour, L2, is 65 dBA
V. The exterior noise level that may not be exceeded for any period, Lmax, is 70 dBA.

## Noise Measurements

Background noise measurements were obtained on October 28, 1996 at the project site. An equivalent sound level ( Leq) of 67.6 dBA was measured near the eastern property line. This was generated by traffic on Main Street. Traffic noise measurements represent typical midmorning noise levels. The traffic noise analysis provides the existing and future 24-hour CNEL (Community Noise Equivalent Level) which the City of Carson has adopted as the acceptable criteria. The noise measurements along the site's eastern property line are also representative of midmorning ambient noise levels. These levels are representative of an average hour of activity between 7 a.m. and 7 p.m.

## Noise Sources

The predominant sources of noise associated with the project are generated by traffic on Main Street. Traffic on Main Street currently generates a CNEL as high as 72 dBA along the site's eastern property line bordering the arterial. Future traffic will also generate a CNEL of 72 dBA at the same location. The traffic noise currently exceeds the exterior CNEL standard of 65 dBA, and will continue to exceed the standard in the future. The project would generate approximately 166 vehicle movements during the peak traffic hour. The additional vehicles would not generate an increase in the exterior CNEL along the eastern property line bordering Main Street.

## Mitigation Measures

In summary, the potential noise impacts on the project site from adjacent land uses related to vehicular sources. The following mitigation measures are recommended for compliance with the noise standards:

1. A continuous block wall with a minimum height of 6 feet is required along the future eastern residential boundary bordering Main Street. The boundary would be located 5 feet from the Main Street right-of-way, and adjacent to the proposed landscaped buffer. This wall should extend perpendicular to the property line at the entrance to the project, and along the east and west property line to prevent traffic noise from flanking around the ends of the wall.

2. Residences located adjacent to Main Street would require sound rated windows and doors to meet the interior noise standard.

The actual wall heights, wall location, and sound ratings for windows and doors should be determined as part of the final engineering design of the project. With the incorporation of the mitigation measures listed above, noise levels generated by surrounding land uses will be reduced to levels below the City of Carson Noise Element standards.

# *Appendix 5.2: Fiscal Impact Analysis*

The intent of the following analysis of The Cambria Pines Specific Plan is to provide a generalized analysis of the potential municipal costs and revenues associated with the development of the proposed project as prescribed in the Specific Plan. The fiscal impact analysis is provided for information purposes only and is not meant to imply that the projected public costs and revenues will actually occur. The projections are based on certain assumptions, as described in the following, that may change over time. However, in general, if factors change the potential municipal costs associated with the project, more often than not the municipal revenues will change correspondingly.

## Project Associated Costs

The proposed development of single-family homes will require the delivery of a variety of public services. The City of Carson provides most of the public services to the site; however, the Los Angeles Unified School District (LAUSD) provides K-12 educational service, the Los Angeles Community College District provides educational programs to the City; and various services (i.e., sheriff, fire, library) are provided by the County of Los Angeles under contract to the City. The Cambira Pines Specific Plan will generate to the LAUSD approximately $510,000 in school fees (based on $1.84/sq. ft. of residential use). The school impact fees to the LAUSD will off-set impacts due to project-related student enrollment.

Table 1 provides a summary of the City's expenditures for each major budget category for the since the 1990-91 fiscal year. In general, the City's total expenditures have remained relatively constant although there have been fluctuations in spending between the various categories. In addition, the City's population has remained relatively constant, with only a slight growth since 1990. Table 2 provides a summary of the City's budget on a per-capita basis. Although many of the City provided services are not directly affected by changes in population, a per-capita assessment of expenditures provides a general view of the City's budget patterns and is often used in fiscal analysis in communities with a relatively stable population. As indicated in Table 2, the City of Carson expends approximately $327 per resident, a slight decrease in spending per-capita since the 1990-91 fiscal year.

The proposed Cambria Pines Specific Plan will increase the City's costs by approximately $161,000 per year based on the City's per-capita expenditures in 1995-96 (see Table 3).

## Project Associated Revenue

The Cambria PinesSpecific Plan will produce revenue to the City of Carson in the form of sales tax (due to increased spending by additional residents in the City), and other taxes and fees. Table 4 provides a summary of the City's revenue from various sources over the past several fiscal years; again, the revenue to the City has remained relatively constant.

On a per capita basis, the City receives approximately $342 per resident (see Table 5). Therefore, based on the City's past budgets, the proposed project will generate approximately $168,300 per year in municipal revenue (see Table 6).

## Cost/Revenue Analysis and Conclusion

Based on the projection of costs to the City of Carson and revenue from various direct and indirect sources, the proposed development of single-family homes will not result in a fiscal impact to the City of Carson (see Table 7).

## *Appendix 5.3: School Enrollment Projection*

| | 232th St. Elementary School | White Intermediate School | Carson High School |
|---|---|---|---|
| Current Enrolment | 459 | 1748 | 2993 |
| Current Capacity | 481 | 1862 | 2920 |
| (Over)/Under Capacity | 22 | 114 | (73) |
| Cambria Pines Specific Plan Impacts (162 single family detached homes) | 81 students | 40 students | 40 students |
| Future Enrollment (existing plus Cambria Pines projected enrollment) | (59) | 74 | (113) |

| *Table 1: Summary of Annual Municipal Budgets* | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Annual Budget Category** | **Actual 1990-91** | **Actual 1991-92** | **Actual 1992-93** | **Actual 1993-94** | **Actual 1994-95** | **Actual 1995-96** | **Budget 1996-97** |
| **City Administration** | $6,450,538 | $5,882,566 | $4,335,890 | $5,436,159 | $3,505,961 | $2,521,253 | $2,420,531 |
| **Community Development** | $1,836,745 | $1,666,538 | $1,864,258 | $1,948,282 | $1,762,819 | $2,121,196 | $2,131,921 |
| **Recreation/Community Services** | $6,901,060 | $5,995,680 | $4,166,295 | $4,166,295 | $3,873,730 | $4,231,998 | $4,223,799 |
| **Facilities and Maintenance** | $3,166,442 | $3,266,167 | $6,733,398 | $7,501,397 | $6,523,084 | $7,865,035 | $7,802,998 |
| **Public Safety** | $8,129,461 | $8,191,878 | $8,741,723 | $9,146,762 | $9,246,812 | $9,372,854 | $9,895,637 |
| **Personnel** | $363,320 | $319,068 | $0 | $0 | $0 | $0 | $0 |
| **Eng'g. Services** | $0 | $0 | $939,025 | $840,846 | $775,736 | $802,368 | $859,124 |
| **Non-departmental** | $2,669,044 | $2,514,460 | $2,235,078 | $2,178,015 | $1,461,736 | $525,000 | $656,350 |
| **Special Projects** | $4,240 | $125,128 | $110,126 | $100,000 | $0 | $0 | $0 |
| **Capital Improvement Projects** | $325,452 | $77,172 | $256,377 | $0 | $0 | $0 | $0 |
| **TOTAL EXPENDITURES** | **$29,846,302** | **$28,038,657** | **$29,382,170** | **$31,317,756** | **$30,334,949** | **$32,012,549** | **$32,367,634** |

| *Table 2: Summary of Costs/Capita* | | | | | | | |
|---|---|---|---|---|---|---|---|
| City of Carson Population | 83995 | 83589 | 84362 | 85005 | 85200 | 85500 | 85700 |
| **Per Capita Expenditures** | **Actual 1990-91** | **Actual 1991-92** | **Actual 1992-93** | **Actual 1993-94** | **Actual 1994-95** | **Actual 1995-96** | **Budget 1996-97** |
| **City Administration** | $77 | $70 | $51 | $64 | $41 | $29 | $28 |
| **Community Development** | $22 | $20 | $22 | $23 | $21 | $25 | $25 |
| **Recreation/Community Services** | $82 | $72 | $49 | $49 | $45 | $49 | $49 |
| **Facilities and Maintenance** | $38 | $39 | $80 | $88 | $77 | $92 | $91 |
| **Public Safety** | $97 | $98 | $104 | $108 | $109 | $110 | $115 |
| **Personnel** | $4 | $4 | $0 | $0 | $0 | $0 | $0 |
| **Eng'g. Services** | $0 | $0 | $11 | $10 | $9 | $9 | $10 |
| **Non-departmental** | $32 | $30 | $26 | $26 | $17 | $6 | $8 |
| **Special Projects** | $0 | $1 | $1 | $1 | $0 | $0 | $0 |
| **Capital Improvement Projects** | $4 | $1 | $3 | $0 | $0 | $0 | $0 |
| **TOTAL EXPENDITURES** | **$355** | **$335** | **$348** | **$368** | **$319** | **$321** | **$327** |

*Table 3: Projected Municipal Costs*

| Project-Related Expenditures | Proposed Project |
|---|---|
| City Administration | $13,953 |
| Community Development | $12,289 |
| Recreation/Community Services | $24,347 |
| Facilities and Maintenance | $44,979 |
| Public Safety | $57,041 |
| Personnel | $0 |
| Eng'g. Services | $4,952 |
| Non-departmental | $3,783 |
| Special Projects | $0 |
| Capital Improvement Projects | $0 |
| **TOTAL EXPENDITURES** | **$161,345** |

| *Table 4: Summary of Annual Municipal Revenue* | | | | | | | |
|---|---|---|---|---|---|---|---|
| Revenue Sources/City Budget | Actual 1990-91 | Actual 1991-92 | Actual 1992-93 | Actual 1993-94 | Actual 1994-95 | Actual 1995-96 | Budget 1996-97 |
| Sales & Use Tax | $14,271,466 | $13,309,698 | $12,869,541 | $13,842,325 | $14,233,308 | $13,450,000 | $14,000,000 |
| Franchise Tax | $2,157,287 | $2,518,569 | $2,297,552 | $2,538,562 | $2,669,569 | $2,750,000 | $2,219,700 |
| Transient Occupancy Tax | $400,160 | $391,781 | $337,292 | 451900 | $417,323 | $450,000 | $470,000 |
| Cigarette Tax | $201,602 | $95,766 | $14,680 | $0 | $0 | $0 | $0 |
| Real Property Transfer Tax | $130,963 | $235,317 | $102,657 | $121,500 | $92,567 | $98,000 | $100,000 |
| State Allocation/No-low Prop. Tax | $425,128 | $1,693,657 | $1,888,923 | $2,647,088 | $3,213,899 | $3,917,000 | $3,850,000 |
| Admission Fee | $2,100 | $1,016 | $0 | $0 | $0 | $0 | $0 |
| Other Misc. Taxes | $0 | $3,591 | $0 | $0 | $0 | $0 | $0 |
| Business Licenses | $114,583 | $1,337,887 | $1,386,113 | $1,391,402 | $0 | $0 | $0 |
| Building Permits | $1,676,753 | $1,528,824 | $1,358,745 | $1,650,000 | $3,124,744 | $3,094,000 | $2,971,800 |
| Other Misc. Lic. and Permits | $237,930 | $177,125 | $247,027 | $287,895 | $0 | $0 | $0 |
| Fines & Forfeitures | $559,997 | $644,280 | $670,241 | $640,000 | $910,959 | $858,600 | $807,400 |
| Use of Money & Property | $1,392,713 | $1,383,124 | $1,175,557 | $1,431,000 | $1,459,394 | $1,409,000 | $1,374,600 |
| Motor Vehicle In-Lieu | $3,152,659 | $2,949,814 | $3,089,740 | $2,994,061 | $3,145,335 | $3,050,000 | $3,000,000 |
| Trailer Coach License | $70,107 | $43,252 | $39,173 | $78,300 | $681,082 | $120,000 | $75,000 |
| Other Intergovernmental Fees | $51,246 | $104,538 | $118,087 | $76,500 | $0 | $0 | $0 |
| Charges for Services | $398,756 | $518,561 | $222,341 | $423,230 | $575,405 | $295,400 | $271,900 |
| Misc. other revenue | $344,374 | $335,319 | $211,264 | $345,000 | $149,497 | $262,000 | $184,200 |
| TOTAL REVENUE | $25,587,824 | $27,272,119 | $26,028,933 | $28,918,763 | $30,673,082 | $29,754,000 | $29,324,600 |

| *Table 5: Summary of Revenue/Capita* | | | | | | | |
|---|---|---|---|---|---|---|---|
| City of Carson Population | 83995 | 83589 | 84362 | 85005 | 85200 | 85500 | 85700 |
| **Revenue Sources/City Budget** | **Actual 1990-91** | **Actual 1991-92** | **Actual 1992-93** | **Actual 1993-94** | **Actual 1994-95** | **Actual 1995-96** | **Budget 1996-97** |
| **Sales & Use Tax** | $170 | $159 | $153 | $163 | $167 | $157 | $163 |
| **Franchise Tax** | $26 | $30 | $27 | $30 | $31 | $32 | $26 |
| **Transient Occupancy Tax** | $5 | $5 | $4 | $5 | $5 | $5 | $5 |
| **Cigarette Tax** | $2 | $1 | $0 | $0 | $0 | $0 | $0 |
| **Real Property Transfer Tax** | $2 | $3 | $1 | $1 | $1 | $1 | $1 |
| **State Allocation/No-low Prop. Tax** | $5 | $20 | $22 | $31 | $38 | $46 | $45 |
| **Admission Fee** | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| **Other Misc. Taxes** | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| **Business Licenses** | $1 | $16 | $16 | $16 | $0 | $0 | $0 |
| **Building Permits** | $20 | $18 | $16 | $19 | $37 | $36 | $35 |
| **Other Misc. Lic. and Permits** | $3 | $2 | $3 | $3 | $0 | $0 | $0 |
| **Fines & Forfeitures** | $7 | $8 | $8 | $8 | $11 | $10 | $9 |
| **Use of Money & Property** | $17 | $17 | $14 | $17 | $17 | $16 | $16 |
| **Motor Vehicle In-Lieu** | $38 | $35 | $37 | $35 | $37 | $36 | $35 |
| **Trailer Coach License** | $1 | $1 | $0 | $1 | $8 | $1 | $1 |
| **Other Intergovernmental Fees** | $1 | $1 | $1 | $1 | $0 | $0 | $0 |
| **Charges for Services** | $5 | $6 | $3 | $5 | $7 | $3 | $3 |
| **Misc. other revenue** | $4 | $4 | $3 | $4 | $2 | $3 | $2 |
| **TOTAL REVENUE** | $305 | $326 | $309 | $340 | $360 | $348 | $342 |

*Table 6: Municipal Project-Related Revenue*

| Revenue Sources/City Budget | Proposed Project |
|---|---|
| Sales & Use Tax | $80,373 |
| Franchise Tax | $12,743 |
| Transient Occupancy Tax | $2,698 |
| Cigarette Tax | $0 |
| Real Property Transfer Tax | $574 |
| State Allocation/No-low Prop. Tax | $22,103 |
| Admission Fee | $0 |
| Other Misc. Taxes | $0 |
| Business Licenses | $0 |
| Building Permits | $17,061 |
| Other Misc. Lic. and Permits | $0 |
| Fines & Forfeitures | $4,635 |
| Use of Money & Property | $7,892 |
| Motor Vehicle In-Lieu | $17,223 |
| Trailer Coach License | $431 |
| Other Intergovernmental Fees | $0 |
| Charges for Services | $1,561 |
| Misc. other revenue | $1,057 |
| TOTAL REVENUE | $168,351 |

# Environmental Checklist Form

1. **Project Title:** Cambria Pines Specific Plan

2. **Lead Agency Name and Address:**
City of Carson Community Development Dept.
701 West Main Street
Carson, California

3. **Contact Person and Phone Number:**
Mark Gross (310) 830-7600

4. **Project Location:** 228th and Main Streets

5. **Project Sponsor's Name and Address:**
Comstock, Crosser & Associates Development Company
321 12th Street
Manhattan Beach, California

6. General Plan Designation: Industrial

7. **Zoning:** MH-D (Heavy Industrial, Design Review Overlay)

8. Description of Project:

The Cambria Pines Specific Plan proposes the development of 164 single-family detached homes on a 20.7 acre site (resulting in a density of 7.9 units per acre) located on 228th Street to the west of Main Street. The average lot size will be approximately 3,800 square feet. The dwelling units will be one- and two-stories and contain between 1,000 to 2,100 square feet. Each house will have a two-car garage and driveways (to meet the City's requirement for off-street parking spaces). The Cambria Pines Specific Plan seeks to promote home ownership by median income households, increasing the City's affordable housing stock. The architectural theme of The Cambria Pines Specific Plan will be New England/Cape Cod/Traditional. Landscaping will include landscaped buffers on the site's northern and eastern boundaries with grass, trees, and shrubs. Currently, the project site is designated for industrial uses and is primarily developed with functioning oil storage tanks. The purpose of this Specific Plan is to permit the development of a residential community. The Cambria Pines Specific Plan will establish specific design guidelines for development of the site and standards for the operation and maintenance of the community and the infrastructure necessary to support it. The Specific Plan seeks to ensure affordable housing opportunities are provided consistent with the City's adopted Housing Element.

9. **Surrounding land uses and setting:** Briefly describe the project's surroundings:

The project site is currently zoned MH-D (Heavy Industrial-Design Review Overlay). The existing land uses on the site include functioning oil storage tanks. The site is adjacent to single family residential uses on 228th Street and the other abitting streets to the west and south, and a variety of commercial uses on Main Street. The topography of the project site is generally flat. There are no significant ridges or slopes on the site, other than berms that have been graded to surround the 11 oil tanks on the project site. The majority of the site has been developed at one time or another for oil tanks and related uses. The vegetation and plant life on the site is limited. The site is primarily vacant and the only animal life would include small mammals, such as rodents.

10. Other agencies whose approval is required (i.e., permits, financing approval or participation agreement).

None

**Environmental Factors Potentially Affected:**

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

| | | |
|---|---|---|
| ❑ Land Use and Planning | ❑ Transportation/Circulation | ❑ Public Services |
| ❑ Population and Housing | ❑ Biological Resources | ❑ Utilities & Service Systems |
| ❑ Geological Problems | ❑ Energy and Mineral Resources | ❑ Aesthetics |
| ❑ Water | ❑ Hazards | ❑ Cultural Resources |
| ❑ Air Quality | ❑ Noise | ❑ Recreation |
| | ❑ Mandatory Findings of Significance | |

Determination

On the basis of this initial evaluation:

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

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

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

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

I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects: (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards; and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project. ❑

Mark Gross — 6/4/97

Signature — Date

Mark Gross — City of Carson

Printed Name — For

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to "Less than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analysis" may be cross-referenced).

5. Earlier analysis may be used where, pursuant to the tiering, program EIR or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). Earlier analysis are discussed in Section XVII at the end of the checklist.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinance). References to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. See the sample question below. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7. This is only a suggested form, and agencies are free to use different ones.

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the proposal result in potential impacts involving: | | | | |
| Landslide or mudslides? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: The project site is relatively level and is not susceptible to landslides or mudslides.*

**I. LAND USE AND PLANNING:** Would the proposal:

| | | | | |
|---|---|---|---|---|
| a) Conflict with general plan designation or zoning? | ☐ | ■ | ☐ | ☐ |
| b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project? | ☐ | ☐ | ☐ | ■ |
| c) Be incompatible with existing land use in the vicinity? | ☐ | ☐ | ☐ | ■ |
| d) Affect agricultural resources or operations (e.g., impacts to soils or farmlands or impacts from incompatible land uses)? | ☐ | ☐ | ☐ | ■ |
| e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: The project site will be developed with exterior lighting of the project's streets. All street lighting will be in compliance with applicable City of Carson standards; potential effect on adjacent land uses will be minimal. Although the change of use from industrial use to single-family residential use will constitute a change of use, the proposed change is consistent with the City's General Plan policies to increase opportunities for ownership of new single-family homes in the City of Carson.*

II. POPULATION AND HOUSING: Would the proposal:

| | | | | |
|---|---|---|---|---|
| a) Cumulatively exceed official regional or local population projections? | ☐ | ☐ | ☐ | ■ |
| b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)? | ☐ | ☐ | ☐ | ■ |

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Displace existing housing, especially affordable housing? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: The proposed project will result in an increase in the City resident population (approximately 3 persons/dwelling unit, or 495 new residents in the City). The increase represents less than 0.03% of the City's current population, an insignificant increase. The proposed project will address the City's long-term objectives to provide additional housing opportunities, satisfying an identified demand. The proposed project will increase the City's housing stock in response to existing demands for single-family detached homes.*

**III. GEOLOGIC PROBLEMS:** Would the proposal result in or expose of people to potential impacts involving:

| | | | | |
|---|---|---|---|---|
| a) fault rupture? | ☐ | ☐ | ☐ | ■ |
| b) Seismic ground shaking? | ☐ | ■ | ☐ | ☐ |
| c) Seismic ground failure, including liquefaction? | ☐ | ☐ | ☐ | ■ |
| d) Seiche, tsumani or volcanic hazard? | ☐ | ☐ | ☐ | ■ |
| e) Landslides or mudflows? | ☐ | ☐ | ☐ | ■ |
| f) Erosion, changes in topography or unstable soil conditions from excavation, grading or fill? | ☐ | ☐ | ☐ | ■ |
| g) Subsidence of the land? | ☐ | ☐ | ☐ | ■ |
| h) Expansive soils? | ☐ | ☐ | ☐ | ■ |
| i) Unique geologic or physical features? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: A "Phase I Environmental Assessment" of the site was conducted by CET Environmental Services in March, 1996; the purpose of the Phase I Assessment was to identify potential soil contamination of any portion of the site and to recommend, if necessary, additional studies. A Phase II Environmental Assessment was completed by CET Environmental Services in May, 1996 and is on file with the City of Carson Community Development Department. A complete copy of the Phase I Assessment is provided as Attachment A to this Environmental Checklist. In addition, a full and complete copy of the California Regional Water Qualty Control Board's (LA Region) for alnd treatment of contaminated soil is provided as Attachment B to this Environmental Checklist; all conditions required by the Board, as the lead agency for site remediation, will be completed to the satisfaction of the Board and, therefore, no impacts will occur. The remediation of the project site will be prepared and conducted consistent with the requirements of responsible state and local agencies.*

| Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|

*The following mitigation measures are applicable to both the parcel map and the tract map relative to the Cambria Pines Specific Plan and are proposed to minimize the risk of upset to the proposed project.*

1. *Applicant will submit a work plan to the regional Water Quality Control Board (RWQCB). The applicant shall receive approval for the proposed project's remediation with the lead agency, the RWQCB.*

2. *Applicant will obtain approval and acceptance of remediation by the RWQCB.*

3. *All components of the applicant's remediation program shall be approved by the California Environmental Protection Agency (Cal-EPA) requirements,and implemented prior to receipt of the City's Certificate of Occupancy for the proposed project.*

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

*The project site is currently developed with eleven (11) functioning oil tanks. as well as remnants of paved and unpaved parking areas. Approximately 20-25 percent of the project site is covered with impervious materials and a substantial additional portion of the site is covered with either crushed rock and gravel or asphalt; however, most of the site's covered surface is in poor condition. In total, more than 50 percent of the project site is covered with either impervious material or with soil that has been substantially compacted due to long-term use of the site. The proposed project will require the removal of existing site improvements. Following the proposed development, approximately 80 percent of the 20.2 acre site will be covered by impervious material (such as streets, homes, driveways, patios, etc.).*

*The proposed General Plan amendment, zone change and other requests leading to the subsequent development of the single-family homes will not result in a change in the site's topography. There are no known geologic features on the project site nor are any features suspected based on the development of other sites in the project area and the history of the development of the site. The proposed single-family home development will not substantially increase site-generated water run-off. All surface run-off will be collected in storm drains connected to the regional storm drainage system. There is no neighboring body of water. Although all of southern California is identified as a seismically active region, there are no known geologic hazards, including faults, present on the project site.*

IV. WATER: Would the proposal result in:

| | | | | |
|---|---|---|---|---|
| a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff? | ☐ | ☐ | ■ | ☐ |
| b) Exposure of people or property to water related hazards such as flooding? | ☐ | ☐ | ☐ | ■ |
| c) Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity)? | ☐ | ☐ | ☐ | ■ |
| d) Changes in the amount of surface water in any water body? | ☐ | ☐ | ☐ | ■ |
| e) Changes in currents or the course or direction of water movements? | ☐ | ☐ | ☐ | ■ |
| f) Change in quantity of ground water, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge capability? | ☐ | ☐ | ☐ | ■ |
| g) Altered direction or rate of flow of | | | | |

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| groundwater? | ☐ | ☐ | ☐ | ■ |
| h) Impacts to groundwater quality? | ☐ | ☐ | ☐ | ■ |
| i) Substantial reduction in the amount of groundwater otherwise available for public water supplies? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: There is no adjacent body of water that will be affected by the project. The proposed project will not significantly alter the amount of storm water run-off from the project site. At present, the site generates 35 cubic feet per second (CFS) of storm runoff; following the project's development, the storm runoff is projected to increase to 48 CFS. (NOTE: These calculations are based on formula provided by the Los Angeles County Flood Control District in their Hydrology Manual and described as the "rationale method"). On-site runoff will be collected in an on-site private drainage system to be connected to the existing LA County Flood Control system's box culvert abutting the site's northern property line. Storm water will still flow into local storm drains; there will no change. There are no water bodies within close proximity to the project site and the amount of runoff will be insignificant compared to cumulative runoff in the region.*

*The proposed residential uses will not increase the potential for contamination (resulting from non-point sources, such as vehicles on local streets, or from direct sources, such as the use of fertilizers on lawns and gardens). This project will represent an improvement in the surface water quality over previous conditions. There will be no topographical alterations to the site and therefore the direction and rate of flow of ground water will remain constant. The proposed project will not affect any local aquifer. There will be no effect by the project on the local sources of public water. There will be no additional risks of water hazard posed by the project. The project site is located in flood Zone C.*

V. AIR QUALITY. Would the proposal:

| | | | | |
|---|---|---|---|---|
| a) Violate any air quality standard or contribute to an existing or projected air quality violation? | ☐ | ☐ | ■ | ☐ |
| b) Expose sensitive receptors to pollutants? | ☐ | ☐ | ☐ | ■ |
| c) Alter air movements, moisture or temperatures, or cause any change in climate? | ☐ | ☐ | ☐ | ■ |
| d) Create objectional odors? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: Preparation of the site will result in short-term exhaust emissions from demolition and grading equipment, fugitive dust emissions, and vehicle emissions. NOx emissions related to on-site grading can be reduced by use of electricity from power poles rather than temporary diesel power generators (which will*

*result in a 97% reduction in NOx emissions during construction and grading); this reduction will be partially off-set by use of methanol or natural gas on-site mobile equipment instead of diesel fuel (which will result in a 29% increase in CO). PM10 emissions during construction can be mitigated by the following: (a) apply approved chemical soil stabilizers to all inactive grading areas (a 30-65% reduction in PM10); (b) enclose, cover, water twice daily or apply approved soil binders to exposed piles (a 30-74% reduction in PM10); (c) water active sites at least twice daily (a 34-68% reduction in PM10); (d) all trucks hauling dirt, sand, soil or other loose material are to be covered and should maintain at least two feet of freeboard (a 7-14% reduction in PM10); and (e) suspend all excavating and grading operations when wind speeds exceed 25 miles per hour (an nonquantifiable reduction in PM10). Implementation of these measures will reduce potential short-term effects to less than significant levels established by the South Coast Air Quality Management District. No long-term effects are anticipated as the residential uses on the project site will generate considerably less air emissions than was generated by the previous industrial uses on the project site. The following table provides an estimate of project-related emissions and reflects the reduction in emissions due to the implementation of SCAQMD suggested mitigation measures:*

| Proposed Project: 164 Single-Family Detached Homes | Emissions (pounds/day) | | | |
|---|---|---|---|---|
| | ROG | NOx | PM10 | CO |
| Unmitigated Construction | | | | |
| Construction Vehicles | 1.20 | 1.72 | 0.13 | 19.36 |
| Construction Equipment | 38.50 | 565.62 | 40.04 | 123.86 |
| PM10 | 0.00 | 0.00 | 1064.80 | 0.00 |
| Total Construction Emissions | 39.70 | 567.34 | 1104.97 | 143.22 |
| Construction Thresholds of | 75.00 | 100.00 | 150.00 | 550.00 |
| Significant (before mitigation | no | yes | yes | no |
| Total Emissions (reflecting reduction due to mitigation measures | (no mitigation needed) | 113.46 | 220.99 | (no mitigation needed) |
| Significant (after mitigation | no | yes | yes | no |
| Unmitigated Operations Emissions | | | | |
| Mobile Sources | 36.43 | 53.04 | 3.31 | 584.64 |
| Energy | 0.03 | 1.69 | 0.06 | 0.29 |
| Total Operations Emissions | 36.46 | 54.73 | 3.37 | 584.93 |
| Operations Thresholds of | 55.00 | 55.00 | 150.00 | 550.00 |
| Significant | no | no | no | no |

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

*NOTES*:
1. Assumes avg. of 1,600 sq.ft. per residential unit
2. Assumes 261 days of construction
3. Assumes grading of 20.2 acres

SOURCE: CEQA Air Quality Handbook, South Coast Air Quality Management District (1992)

*The proposed residential development will not create odors. Further, any existing odors emanating from currently permitted industrial uses on the project site will be eliminated. In addition, the project site will not be affected by odors resulting from off-site land uses in the general area; adjacent land uses must comply with applicable SCAQMD regulations that limit the generation of odors. The proposed residential development will not effect the climate in any way. The climate in the area is influenced by regional factors that will not be changed or altered by the proposed project.*

VI. **TRANSPORTATION/CIRCULATION.** Would the proposal result in:

| | | | | |
|---|---|---|---|---|
| a) Increase vehicle trip or traffic congestion? | ❑ | ❑ | ■ | ❑ |
| b) Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ❑ | ❑ | ❑ | ■ |
| c) Inadequate emergency access or access to nearby uses? | ❑ | ❑ | ❑ | ■ |
| d) Insufficient parking capacity on-site or off-site? | ❑ | ❑ | ❑ | ■ |
| e) Hazards or barriers for pedestrians or bicyclists? | ❑ | ❑ | ❑ | ■ |
| f) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | ❑ | ❑ | ❑ | ■ |
| g) Rail, waterborne or air traffic impacts? | ❑ | ❑ | ❑ | ■ |

*DISCUSSION: The proposed residential use of the project site will result in an increase of 1,650 vehicle trips per day. The traffic associated with proposed Specific Plan will not have an impact at any of the intersections studied as part of this environmental review process; see a complete project-specific traffic study provided as Attachment C to this Environmental Checklist.*

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

*The proposed 164-unit development will not create any adverse impacts on the area's street system and will an insignificant number of peak-hour and daily trips, as shown in the following table.*

Project-Generated Vehicle Trips -
**Cambria Pines Specific Plan**

| Description | A.M. Peak Hour Trips | | | P.M. Peak Hour Trips | | | Daily Trips |
|---|---|---|---|---|---|---|---|
| | Enter | Exit | Total | Enter | Exit | Total | |
| Generation Factors - Detached Single-family Residential | 0.16 | 0.64 | 0.80 | 0.70 | 0.30 | 1.00 | 10.00 |
| Generation Forecasts - (164 dwelling units) | 27 | 106 | 133 | 116 | 50 | 166 | 1,650 |

Source: Linscott, Law & Greenspan (October, 1996)

*DISCUSSION: The proposed residential development will fully comply with applicable City requirements for on-site (resident) and off-site (guest/visitor) parking demands. The project will not result in a decrease in the LOS at any intersections beyond existing conditions, or those associated with ambient growth in the region; see response to 46.A and attached Figures 1 to 3. The proposed project will be served by two interior private streets; no existing streets will be affected by the proposed private streets and, as a result, the area's circulation pattern will be able to accommodate the project-related traffic. There are no waterborne, rail, or air traffic trips on or through the site. The decrease in site-generated traffic will reduce traffic hazards due to traffic movements/volumes.*

VII. BIOLOGICAL RESOURCES. Would the proposal result in impact to:

| | | | | |
|---|---|---|---|---|
| a) Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals and birds)? | ☐ | ☐ | ☐ | ■ |
| b) Locally designated species (e.g., heritage trees)? | ☐ | ☐ | ☐ | ■ |
| c) Locally designated natural communities (e.g., oak forest, coastal habitat, etc.)? | ☐ | ☐ | ☐ | ■ |
| d) Wetland habitat (e.g., marsh, riparian and vernal pool)? | ☐ | ☐ | ☐ | ■ |

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| e) Wildlife dispersal or migration corridors? | ❑ | ❑ | ❑ | ■ |

*DISCUSSION: There is only a very limited amount of introduced ornamental plant life on the project site. The proposed single-family residential development will also have introduced ornamental landscaping. No change is anticipated. There are no identified unique, rare, or endangered species on the site and since the project site has been developed since 1928, no reduction will occur. There are no identified endangered species in the area of the site that would be affected by the proposed project.*

*The only animals currently inhabiting the site are ground squirrels, field mice, rodents and vectors. These types of animals will continue to live in the area. In term osf animal life, there are no identified unique, rare, or endangered species on the site. Since portions of the project site have been developed for more than 50 years, no reduction will occur. The current oil tanks are already a barrier to animal movement. There are no fish or wildlife habitat in the area of the project site.*

## VIII. ENERGY AND MINERAL RESOURCES.

Would the proposal:

| | | | | |
|---|---|---|---|---|
| a) Conflict with adopted energy conservation plans? | ❑ | ❑ | ❑ | ■ |
| b) Use non-renewable resources in a wasteful and inefficient manner? | ❑ | ❑ | ❑ | ■ |
| c) Result in the loss of availability of a known mineral resource that would be of cultural value to the region and the residents of the State? | ❑ | ❑ | ❑ | ■ |

*DISCUSSION: There will be no additional amounts of energy required by the project, such as gas and electricity. The additional energy demands created by the project will not require the development of any new sources of energy as existing source can supply them easily. The following building design techniques will be incorporated into the construction of the residential units to ensure compliance with Title 24, California Energy Conservation Standards, and any additional City required conservation measures:*

- *Installation of certified insulating materials such as thermal insulation in walls and ceilings of the proposed single-family homes;*
- *Specifications for minimum piping insulation;*
- *Use of certified appliances and water and space heating systems;*
- *Use of building materials and techniques including finishing exterior walls with light-colored materials with high emissivity characteristics to reduce cooling loads and finishing interior walls with light-colored materials to reflect more light and thus increase lighting efficiency, glazing, lighting, and shading;*

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

- *Installation of fluorescent and high-intensity-discharge (HID) lamps, which give the highest light output per watt of electricity consumed, wherever possible;*
- *Installation of high-efficiency lamps for all street lighting to reduce electrify consumption;*
- *Installation of occupant-controlled light switches and thermostats to permit individual adjustment of lighting, heating, and cooling, to avoid unnecessary energy consumption;*

*In addition, each residential unit will be pre-wired to permit re-charging of electric automobiles, a statewide program intended to reduce both energy consumption and the generation of auto-related pollutants.*

*Although the project will result in expenditures of non-renewable resources, such as oil and gas, during site preparation, the applicant proposes to "recycle" concrete and asphalt pavement for the construction of the new street system proposed as part of the single-family residential development. Therefore, the consumption of natural resources will be mitigated. While there will be use of natural resources, as cited above, it will not be a substantial depletion.*

IX. HAZARDS. Would the proposal involve:

| | | | | |
|---|---|---|---|---|
| a) A risk of accidental explosion or release of hazardous substances (including but not limited to oil, pesticides, chemical or radiation)? | ☐ | ☐ | ☐ | ■ |
| b) Possible interference with an emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ■ |
| c) The creation of any health hazard or potential health hazard? | ☐ | ☐ | ☐ | ■ |
| d) Exposure of people to existing hazards or potential health hazards? | ☐ | ☐ | ☐ | ■ |
| e) Increase fire hazard in areas with flammable brush, grass or trees? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: The proposed single-family residential uses will reduce the risk of explosion that could occur from industrial uses currently on the project site. The new residential uses proposed for the site will replace industrial uses that are not compatible with the residential uses in the area; therefore, the project will reduce the risk of upset by removing a potentially hazardous condition.*

*The proposed residential development will replace industrial uses on the project site, reducing existing risks to human health. The proposed residential development will not introduce noise, odor, or dust that could*

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

*pose a potential health hazard. All existing on-site oil wells and tanks will be removed; in addition, all on-site contaminated soils will be removed and/or remediated as required by applicable local, state and federal laws and guidelines. Compliance with applicable laws and guidelines will result in no significant risks to human health following site remediation. Responsible agencies for review of the site remediation to ensure compliance with applicable state and federal laws and guidelines include: the California Regional Water Quality Control Board; the California Department of Health Services; the County of Los Angeles Department of Health Services; the California Department of Conservation (Division of Oil and Gas and Geothermal Resources); Los Angeles County Department of Public Works (Waste Management Division); and the Los Angeles County Fire Department.*

X. **NOISE.** Would the proposal result in:

| | | | | |
|---|---|---|---|---|
| a) Increase in existing noise levels? | ☐ | ☐ | ☐ | ■ |
| b) Exposure of people to severe noise levels? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: There will be a short-term increase in noise levels during demolition of the existing building on the site and general site preparation and construction. This is a short-term impact that will be mitigated by applicable City codes and ordinances that limit construction hours to 7 a.m. to 6 p.m. weekdays. Construction is estimated to require 261 weekdays. As a result, the impact will be less than significant on adjacent residential uses. No long-term affects are anticipated as the residential uses at the site will generate considerably less noise than was generated by the industrial uses previously operating at the site.*

*The project is not anticipated to result in extreme noise levels. The proposed residential uses will generate noise levels comparable to the existing residential uses east and northeast of the project site. The noise generated by the adjacent industrial uses may generate noise levels in excess of the City's adopted maximum permissible noise levels for residential areas. The City of Carson Noise Element specifies the following noise standards for residential locations:*

*Exterior CNEL should not exceed 65 dB*
*Interior CNEL should not exceed 45 dB*

*The City's adopted Noise Ordinance standard for a residential zoned property located adjacent to a non-residential zoned property are as follows:*

1. *Exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour, L50, is 50 dBA;*
2. *Exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour, L25, is 55 dBA;*
3. *Exterior noise level which may not be exceeded for a cumulative period of more than 5 minutes in any hour, L8, is 60 dBA;*
4. *Exterior noise level which may not be exceeded for a cumulative period of more than 1 minute in any hour, L2, is 65 dBA; and*

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

5. *Exterior noise level which may not be exceeded for any period of time, Lmax, is 70 dBA.*

*The predominant sources of noise associated with the project are generated by traffic on Main Street. Traffic on Main Street currently generate a CNEL as high as 72 dBA along the eastern property line bordering the arterial. Future traffic will also generate a CNEL of 72 dBA at the same location. The traffic noise currently exceeds the exterior CNEL standard of 65 dBA, and will continue to exceed the standard in the future. The project would generate approximately 166 vehicle movements during the peak traffic hour. The additional vehicles would not generate an increase in the exterior CNEL along the site's property lines.*

*The following mitigation measures are recommended for compliance with the noise standards:*

1. *A continuous block noise wall with a minimum height of 6 feet is required along the residential boundaries of the project site. As described in the Specific Plan, the boundary block wall will be located 5 feet west of Main Street right-of-way and adjacent to the proposed landscaped buffer. This wall will extend perpendicular to the property line along the east and west property line to prevent traffic noise from flanking around the ends of the wall.*

2. *Residences located adjacent to Main Street would require sound rated windows and doors to meet the interior noise standard.*

4. *The actual wall heights, wall location, and sound ratings for windows and doors should be determined as part of the final engineering design of the project.*

5. *Additionally, several design and performance standards are incorporated into the Specific Plan to ensure noise compatibility between the proposed single-family residential uses and the existing adjacent industrial uses. The measure incorporated in the Specific Plan include: (a) walls will be constructed on the project site to reduce potential noise levels from adjacent industrial uses; and (b) the project site will have 5-feet wide landscaped buffers on the site's boundaries.*

| XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas: | | | | |
|---|---|---|---|---|
| a) Fire protection? | ☐ | ☐ | ☐ | ■ |
| b) Police protection? | ☐ | ☐ | ☐ | ■ |
| c) Schools? | ☐ | ☐ | ☐ | ■ |
| d) Maintenance of public facilities, including roads? | ☐ | ☐ | ☐ | ■ |
| e) Other governmental services? | ☐ | ☐ | ☐ | ■ |

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

*DISCUSSION: The demand for fire protection by the proposed residential uses are well within the current capacity of existing services; the demand will be less than from the existing industrial uses on the project site. The demand for police protection by the proposed residential uses are well within the current capacity of existing services. The school fees (based on $1.84/sq. ft. of residential use) is estimated to be $510,000 to the Los Angeles Unified School District. The schools fees will be used by the LAUSD to off-set the effects of project-related student enrollment. Approximately 83 elementary school students, 41 junior high school students, and 41 high school students will be generated by the proposed project. No new schools would be required by the increased population generated by the project and the school impact fees will enable the LAUSD to increase the capacity of the area's public school system to accommodate the project-related enrollment.*

*No additional demand for recreational facilities will be generated by the project.*

*There will be no impact on the maintenance of the road system; in fact, the proposed project may represent a beneficial impact since the forecasted decrease in site-generated traffic will be primarily passenger cars, rather than a mix of large trucks and passenger cars traveling to and from the site. Other governmental services will not be have increased demands on them because of the project.*

XII. UTILITIES AND SERVICE SYSTEMS.
Would the proposal result in a need for new systems or supplies, or substantial alternation to the following utilities:

| | | | | |
|---|---|---|---|---|
| a) Power or natural gas? | ☐ | ☐ | ☐ | ■ |
| b) Communication systems? | ☐ | ☐ | ☐ | ■ |
| c) Local or regional water treatment or distribution facilities? | ☐ | ☐ | ☐ | ■ |
| d) Sewer or septic tanks? | ☐ | ☐ | ☐ | ■ |
| e) Storm water drainage? | ☐ | ☐ | ☐ | ■ |
| f) Solid waste disposal? | ☐ | ☐ | ☐ | ■ |
| g) Local or regional water supplies? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: Existing capacities in power and gas utility lines (with existing lines in both 228th Street and Main Street.) are adequate to serve the project. Existing communication systems are adequate to serve the project. The existingwater system supply is adequate to serve the proposed project.*

*The proposed residential development will not create a significant demand for sewage conveyance or sewage treatment; the proposed project is estimated to generate approximately 8,500 gallons of sewage per day, a less than significant amount. Continued industrial/warehouse uses on the site could result in potential*

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

*hazardous waste disposal problems that will be eliminated by the development of residential uses and compatible industrial uses of the proposed project.*

*There will be no significant increase in storm water run-off. The project site currently has an estimated storm runoff of 35 cubic feet per second (cfs); the proposed project will result in a minor increase to 48 cfs. On-site runoff will be collected in an on-site private drainage system to be connected to the existing LA County Flood Control system lines in Main Street.*

*The proposed project will decrease the amount of site-generated solid waste requiring disposal in landfill(s). The proposed project will participate in the City's curb-side recycling program. The proposed Specific Plan is estimated to generate 2,200 pounds per day of solid waste; the existing industrial land use and zoning designation for the project site could result in approximately 10,000 pounds per day of solid waste.*

XIII. **AESTHETICS.** Would the proposal:

| | | | | |
|---|---|---|---|---|
| a) Affect a scenic vista or scenic highway? | ☐ | ☐ | ☐ | ■ |
| b) Have a demonstrated negative aesthetic effect? | ☐ | ☐ | ☐ | ■ |
| c) Create light or glare? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: The existing view of a old and poorly maintained industrial uses on the site from the adjacent residential areas will be improved by the introduction of single-family homes more in keeping with the scale of uses in the area.*

XIV. CULTURAL RESOURCES. Would the proposal:

| | | | | |
|---|---|---|---|---|
| a) Disturb paleontological resources? | ☐ | ☐ | ☐ | ■ |
| b) Disturb archaeological resources? | ☐ | ☐ | ☐ | ■ |
| c) Affect historical resources? | ☐ | ☐ | ☐ | ■ |
| d) Have the potential to cause a physical change which would affect unique ethnic cultural values? | ☐ | ☐ | ☐ | ■ |
| e) Restrict existing religious or sacred uses within the potential impact area? | ☐ | ☐ | ☐ | ■ |

*DISCUSSION: Any archaeological sites would have been discovered and removed at that time the site was developed with oil tanks. There are no local, state or federally designated sites in the area of the site.*

| | Potentially Significant Impact | Potentially Significant Impact Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XV. RECREATION.** Would the proposal: | | | | |
| a) Increase the demand for neighborhood or regional parks or other recreational facilities? | ❑ | ❑ | ❑ | ■ |
| b) Affect existing recreational opportunities? | ❑ | ❑ | ❑ | ■ |

*DISCUSSION: The project will not effect the level of demand, level of use, or physical features of existin recreational opportunities.*

**XVI. MANDATORY FINDINGS OF SIGNIFICANCE.**

| | | | | |
|---|---|---|---|---|
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ❑ | ❑ | ❑ | ■ |
| b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definite period of time while long-term impacts will endure well into the future.) | ❑ | ❑ | ❑ | ■ |
| c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resource is relatively small, but where the effect of the total of those impacts on the environment is significant.) | ❑ | ❑ | ❑ | ■ |
| d. Does the project have environmental effects which all cause substantial adverse effects on human beings, either directly or indirectly? | ❑ | ❑ | ❑ | ■ |

*DISCUSSION: The current use of the land is devoid of significant animal and plant communities. The historic resources on the project site will be donated for preservation off-site. Retaining the existing uses on the project site is an example of a short-term environmental goal at the cost of a longer term goal. The project will aid in the City's long-term goal to improve the City's owner-occupied residential housing stock. The project will not result in cumulative adverse effects. There will be no potential effects (ie., air quality, noise, traffic, etc.) that may effect humans directly or indirectly.*

## EARLIER ANALYSIS

Earlier analysis may be used where, pursuant to the tiering, program EIR or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a discussion should identify the following on attached sheets:

a) **Earlier Analysis Uses**. Identify earlier analysis and state where they are available for review.

b) **Impacts adequately addressed.** Identify which effect from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state where such effects were addressed by mitigation measures based on the earlier analysis.

c) **Mitigation Measures.** For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

# ATTACHMENT A: PHASE I ENVIRONMENTAL ASSESSMENT

PHASE I ENVIRONMENTAL AVAILABLE AT THE CITY OF CARSON PLANNING DEPARTMENT.

LINSCOTT LAW & GREENSPAN
ENGINEERS

ENGINEERS & PLANNERS ▪ TRAFFIC, TRANSPORTATION, PARKING

1580 Corporate Drive, Suite 122 ▪ Costa Mesa, California 92626
Phone: 714 641-1587 ▪ Fax: 714 641-0139

5400.3.2

APR 1 ^ 1997

April 8, 1997

Mr. Michael C. Battaglia
**COMSTOCK, CROSSER & ASSOCIATES**
**DEVELOPMENT COMPANY, INC.**
321 12th Street, Suite 200
Manhattan Beach, California 90266

**SUBJECT: REALIGNED RESIDENTIAL PROJECT ENTRIES ON 228TH STREET FOR TENTATIVE TRACT MAP NO. 52281**

Dear Mr. Battaglia:

This letter has been prepared in response to your request for a safety evaluation of the Tentative Tract Map No. 52281 residential project entries on 228th Street. You stated that the City of Carson requested that the two proposed project entries be relocated, for safety purposes, to align directly with the existing streets on the north side of 228th Street.

228th Street is a 40-foot wide, two-lane residential collector road with centerline striping and parking on both sides. The posted speed limit is 30 miles per hour and the adjacent land uses are primarily residential with few driveways located on 228th Street. This reduces the amount of conflicting vehicle movements between intersecting streets. Based on our evaluation of the revised site plan, it is our finding that the project entries on 228th Street have been adequately relocated to eliminate the potential safety concerns presented in the prior site plan.

The easterly entry has been relocated to be aligned directly with Rashdall Avenue. This is a safety improvement because it creates standard intersection movements which eliminates conflicting left-turn movements from 228th Street. In our opinion, the westerly entry need not be relocated. This project entry is centrally located between Delford and Frigate Avenues which are spaced 250 feet apart. The separation between Delford and Frigate Avenues and the new project entry, along with the fact that 228th Street is a two lane residential collector (ie. low speeds) with no striped turn lanes, means no conflicting left turn movements at Delford Avenue, Frigate Avenue and the westerly project entry.

Philip M. Linscott, P.E. (Ret.)
Jack M. Greenspan, P.E.
William A. Law, P.E. (Ret.)
Paul W. Wilkinson, P.E.
John P. Keating, P.E.
David S. Shender, P.E.

Pasadena - 818 796-2322 ▪ San Diego - 619 299-3090 ▪ Las Vegas - 702 451-1920 ▪ An LG2WB Company

We appreciate the opportunity to provide this evaluation for you. Should you need any further assistance, or have any questions regarding this evaluation, please call me or Richard Barretto.

Very truly yours,
**LINSCOTT, LAW & GREENSPAN, ENGINEERS**

Keil D. Maberry, P.E.
Transportation Engineer III

cc: Richard Barretto / LLG

A:\tm52281

LINSCOTT
LAW &
GREENSPAN
ENGINEERS

# TRAFFIC IMPACT ANALYSIS REPORT
# CARSON TERMINAL SITE
# RESIDENTIAL PROJECT
## Carson, California

Prepared For:

**COMSTOCK CROSSER & ASSOCIATES**
321 - 12th Street
Manhattan Beach, California 90266

Prepared By:

**LINSCOTT, LAW & GREENSPAN, ENGINEERS**
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2-961843-1

October 28, 1996

Prepared By:
Richard E. Barretto
Transportation Engineer III

Under the Supervision of:
Jack M. Greenspan, P.E.
Principal

REGISTERED PROFESSIONAL ENGINEER
JACK M. GREENSPAN
No. 0142
Exp. 3/31/00
TRAFFIC
STATE OF CALIFORNIA

LINSCOTT LAW & GREENSPAN
ENGINEERS

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ENGINEERS & PLANNERS ▪ TRAFFIC, TRANSPORTATION, PARKING

1580 Corporate Drive, Suite 122 ▪ Costa Mesa, California 92626
Phone: 714 641-1587 ▪ Fax: 714 641-0139

October 28, 1996

Mr. Robert Comstock
**COMSTOCK CROSSER & ASSOCIATES**
321 12th Street
Manhattan Beach, California 90266

Subject: **TRAFFIC IMPACT ANALYSIS REPORT**
**CARSON TERMINAL SITE RESIDENTIAL PROJECT**
Carson, California

Dear Mr. Comstock:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Traffic Impact Analysis Report for the Carson Terminal Site single family residential development, located west of Main Street and south of 228th Street in the City of Carson, California.

Our study investigates the potential traffic impacts as well as circulation needs associated with the development of the proposed residential housing tract development within the project study area. Per City requirements, the analysis evaluates the relative traffic impacts of the project at six study intersections upon buildout of the site (2001) and two years afterwards (2003), and presents specific recommendations as to local area circulation improvements. Briefly, based on the results of our analysis, the project will have a significant impact on the operating conditions at only one of the six study intersections. An Executive Summary sets forth a summary of findings and conclusions on the following pages.

We appreciate the opportunity to prepare this investigation. Should you have any questions regarding this analysis, please call us at (714) 641-1587.

Very truly yours,
**LINSCOTT, LAW & GREENSPAN, ENGINEERS**

Richard E. Barretto
Transportation Engineer III

Jack M. Greenspan, P.E.
Principal


1843COV.LTR
Philip M. Linscott, P.E. (Ret.)
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Paul W. Wilkinson, P.E.
John P. Keating, P.E.
David S. Shender, P.E.

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ENGINEERS

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# EXECUTIVE SUMMARY
# TRAFFIC IMPACT ANALYSIS REPORT
# CARSON TERMINAL SITE RESIDENTIAL PROJECT
## Carson, California

## INTRODUCTION

This report addresses the potential traffic impacts and circulation needs associated with the Carson Terminal Site (CTS) Residential Project. The potential traffic impacts of the proposed project have been evaluated in a year 2001 and 2003 by analyzing future Levels of Service (LOS) during the AM and PM peak hours at six key intersections.

Further, this report identifies recommended intersection improvements that may be required to accommodate future traffic volumes and restore/maintain an acceptable Level of Service, and/or mitigate the impact of CTS project traffic. This report is intended to satisfy the traffic impact requirements of the City of Carson and be consistent with the 1995 Congestion Management Program (CMP) for Los Angeles County.

## PROJECT DESCRIPTION AND TRAFFIC CHARACTERISTICS

- The project site is at the Carson Terminal Site in the City of Carson. The project site is a rectangular-shaped 20.6-acre parcel of land located south of 228th Street and west of Main Street. The project consists of 166 single family residential homes.

- At buildout, the CTS project is expected to generate 1,660 daily trips, with 133 trips produced in the AM peak hour (27 inbound, 106 outbound) and 166 trips produced in the PM peak hour (116 inbound, 50 outbound).

## EXISTING TRAFFIC CONDITIONS

- Based on existing traffic volumes and existing intersection geometries, each of the six key signalized intersections currently operate at Level of Service D or better during the AM and PM peak commute hour.

## FUTURE TRAFFIC CONDITIONS

- Currently, there are no known planned and/or approved, related projects in the vicinity of the Cottages Specific Plan. Hence, horizon year background traffic growth estimates have been calculated using the growth factors recommended for use by the City of Carson. Per City criteria, traffic growth has been calculated at 3% per year. This growth factor is assumed to account for "small projects" and/or undeveloped land inside the study area and regional traffic growth.

### Intersection Capacity Analysis

- A review of future 2001 traffic conditions indicates that ambient traffic growth will deteriorate the AM PM peak hour Level of Service at four locations. However, only the Figueroa/223rd intersection is expected to operate at an adverse service level when compared to the City of Carson LOS criteria. The remaining key intersections are forecast to operate at Level of Service D or better during the peak hours.

- An analysis of future 2003 traffic conditions indicates that ambient traffic growth will deteriorate the AM and/or PM peak hour Level of Service at five locations. The intersections of Figueroa/223rd and Figueroa/Sepulveda are expected to operate at unacceptable LOS E and will require improvements to alleviate the traffic conditions. The remaining three affected intersections are expected to operate at acceptable LOS D or better during the peak hours.

- Traffic associated with the CTS project will have a significant impact at only one of the six key intersections when compared to the City impact criteria. The Figueroa/Sepulveda is forecast to operate at LOS E during the PM peak hour. The project is expected to add 1.4% to the ICU value at this impacted intersection.

### Freeway Segment (Mainline) CMP Analysis

- The Carson Terminal Site project is expected to generate a maximum of 29 peak hour trips on any of the freeway segments in the study area. Therefore, since AM and PM peak hour project generated trips on the key freeway segments in the project study area are below the threshold of 150 trips required for the freeway segment analysis, a Freeway Segment (Mainline) CMP Analysis was not conducted.

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## LIST OF EXHIBITS

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# *EXECUTIVE SUMMARY*

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## AREA TRAFFIC IMPROVEMENT MEASURES

- Based on this analysis, areawide traffic improvements are required at the intersections of Figueroa/223rd and Figueroa/Sepulveda to alleviate unacceptable traffic conditions caused by ambient traffic growth. The improvements, which would restore acceptable traffic conditions, consist of the following:

    1. Figueroa Street @ 223rd Street: Restripe eastbound approach of 223rd Street to provide dual left-turn lanes and two through lanes.

    2. Figueroa Street @ Sepulveda Boulevard: Restripe the westbound approach on Sepulveda Boulevard to provide one left-turn lane, two through lanes, and a separate right-turn lane.

Parking restrictions on 223rd Street and Sepulveda Boulevard will most likely be required to implement these improvements.

## PROJECT-SPECIFIC IMPROVEMENTS

- The proposed project is projected to have significant traffic impact at only the Figueroa Street and Sepulveda Boulevard intersection.

- The CTS residential development project may be required to contribute to the improvement costs of the Figueroa/Sepulveda intersection on fair share basis.

- In addition to the above mitigation measures the following improvements are recommended in conjunction with the development of the Carson Terminal Site residential project:

    1. For the gated project access roadways intersecting 228th Street, provide two inbound lanes and one outbound lane. Install a "STOP" sign to control exiting project traffic.

    2. Develop an internal signing and striping plan that will provide clear signage for future residential development.

    3. Validate final plans, including landscaping plans, for adequate sight distance on 228th Street.

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# *TRAFFIC IMPACT ANALYSIS REPORT*

LINSCOTT LAW & GREENSPAN
ENGINEERS

# TRAFFIC IMPACT ANALYSIS
# CARSON TERMINAL SITE RESIDENTIAL PROJECT
## Carson, California

## INTRODUCTION

This Traffic Impact Analysis Report addresses the potential traffic impacts and circulation needs associated with the development of a single family residential housing tract located south of 228th Street and west of Main Street in the City of Carson.

The traffic analysis focuses on evaluating the potential traffic impacts of the proposed project on the streets and intersections in the vicinity of the site. This traffic report is intended to satisfy the traffic impact requirements of the City of Carson and be consistent with the 1995 Congestion Management Program (CMP) for Los Angeles County.

The project site has been visited and an inventory of adjacent area roadways and intersections made. Existing traffic information has been compiles and supplemented with manual peak period turning movement counts conducted at three locations in support of detailed intersection capacity analyses. Prior traffic studies have been reviewed and information concerning cumulative projects (planned/and/or approved) in the vicinity of the project have been researched. Based on our research, there are no planned and/or approved related projects in the immediate vicinity of the project site or within the study area.

Per City guidelines, this traffic report analyzes existing and future peak hour traffic conditions upon buildout the project (2001) and two years afterwards (2003) at the six key area intersections listed below, which provide both regional and local access to the site area:

1) Main Street @ 223rd Street
2) Main Street @ 228th Street
3) Main Street @ Sepulveda Boulevard
4) Figueroa Street @ 223rd Street
5) Figueroa Street @ 228th Street
6) Figueroa Street @ Sepulveda Boulevard

The key intersections analyzed in this study were selected for evaluation based on the City of Carson guidelines for traffic impact studies. The Volume-Capacity (V/C) characteristics and Level of Service (LOS) investigations for the AM and PM peak hour at these six key locations were used to evaluate the potential traffic-related impacts associated with anticipated area growth and the proposed Main/228th residential project. Further, this report identifies recommended intersection improvements that may be required to accommodate future traffic volumes and restore/maintain an acceptable Level of Service, and/or mitigate the impact of project traffic.

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## PROJECT DESCRIPTION AND LOCATION

The project site is at the Carson Terminal Site (CTS) located in the City of Carson. The project site, which was previously used by Fletcher Oil as a storage facility, is a rectangular-shaped 20.6-acre parcel of land located south of 228th Street, and west of Main Street. Existing homes/apartments border the project site to the south and west. A church is located directly north of the site, north of 228th Street. **Exhibit 1** presents a Vicinity Map, which illustrates the general location of the project and depicts the surrounding street system. Existing development in the vicinity of the proposed residential project consists of a mixture of uses, including industrial, residential and commercial uses. Currently, there are eleven abandoned oil storage tanks on the project site.

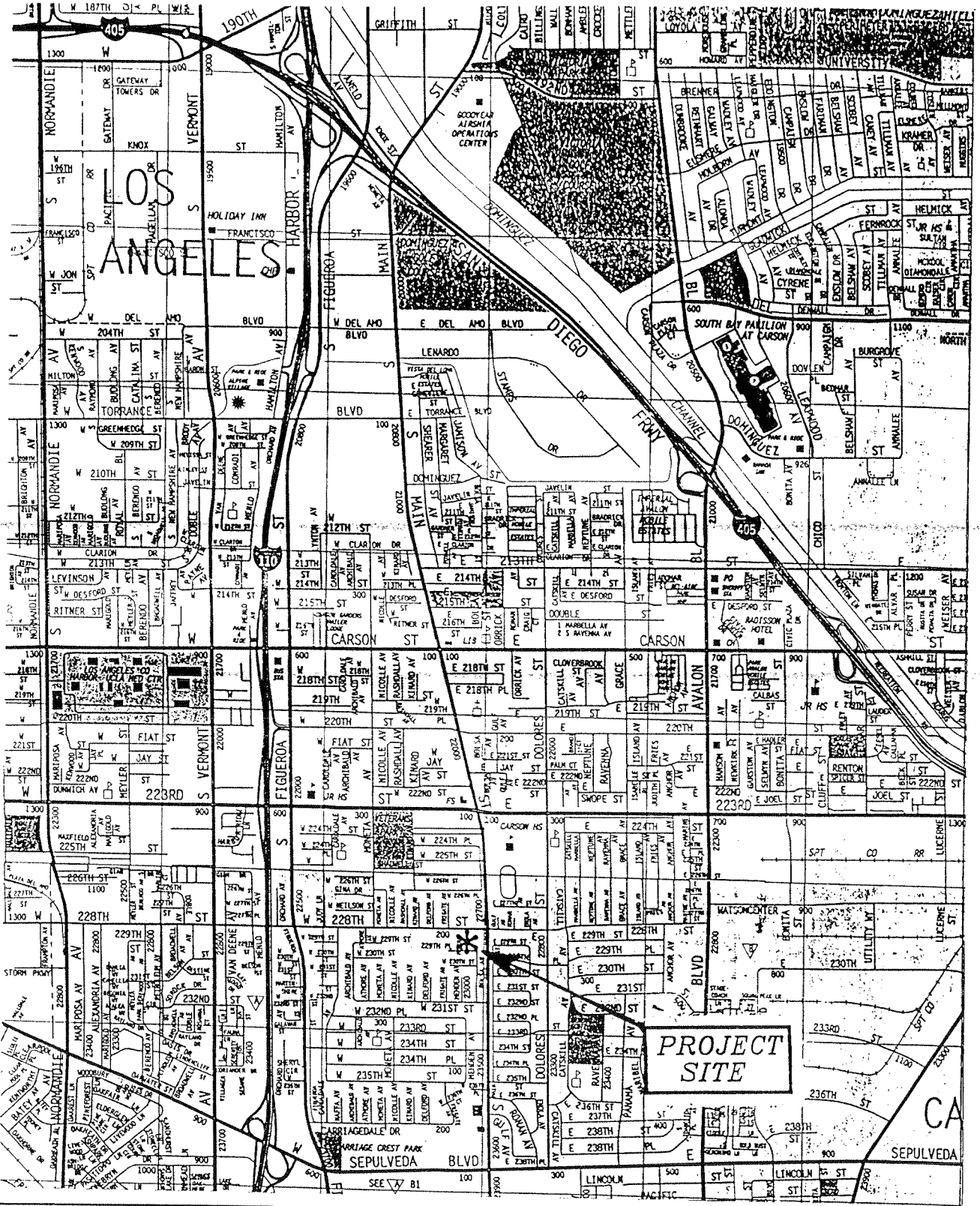
**Exhibit 2** presents the conceptual site plan for the project as prepared by the Keith Companies. Review of the site plan indicates that the proposed CTS residential project consists of 166 single family residential homes, which are to be constructed in four phases. The first phase of development (anticipated to be completed by 1998) consists of 42 single family homes. The second phase consists of another 42 single family homes (completion by 1999). The third and fourth phases are expected to be completed by the end of 2000 and 2001, and consists of 41 single family homes each.

Primary access to the proposed residential project will be provided by two, gate-access controlled driveways along 228th Street. Both access points are proposed as full access driveways, allowing all movements into and out of the site.

## EXISTING STREET NETWORK

Regional access to the project site is provided by the Harbor (I-110), San Diego (I-405) and Long Beach (I-710) Freeways. The 8-lane Harbor Freeway is located directly west of the project site and intersects the San Diego Freeway approximately 2½ miles north of the project site. Primary project access from the Harbor Freeway is provided via an interchange at Sepulveda Boulevard. Other Harbor Freeway interchanges are provided at 223rd Street (southbound) and 220th Street (northbound). San Diego Freeway interchange facilities are provided at Main Street, Avalon Boulevard, Carson Street, and Wilmington Boulevard. Access from the Long Beach Freeway, which is located approximately 5½ miles east of the project site, is provided via an interchange at Sepulveda Boulevard-Willow Street.

The principal local network of streets serving the Carson Terminal Site residential project are Main Street, Sepulveda Boulevard, Figueroa Street, 223rd Street, and 228th Street. The following discussion provides a brief synopsis of these key area streets. These descriptions are based on an inventory of existing roadway conditions.




MAP SOURCE: THOMAS BROS.

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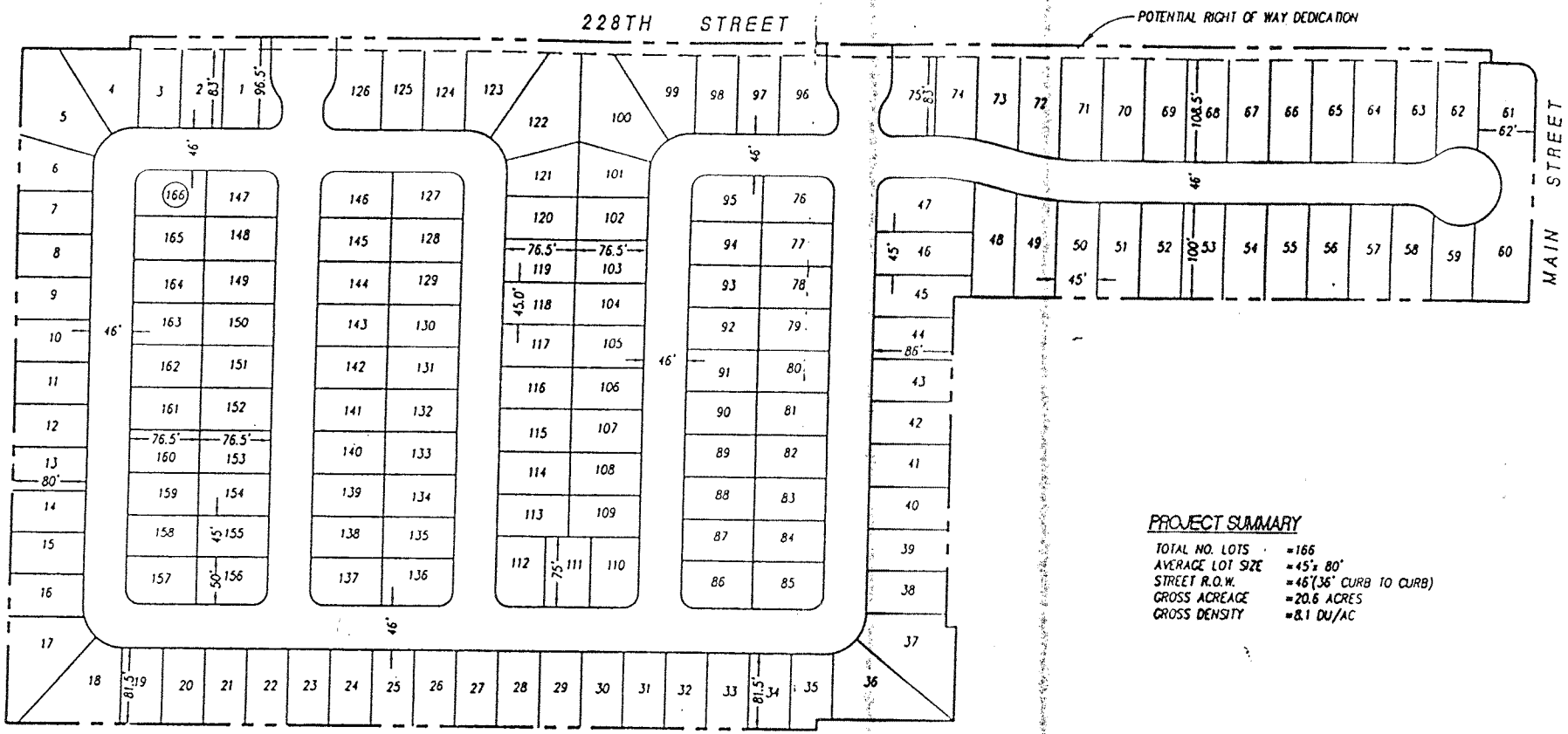
VICINTY MAP

CARSON TERMINAL SITE




SOURCE: KEITH COMPANIES

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2

PROPOSED SITE PLAN
CARSON TERMINAL SITE

**Main Street** is an existing north-south arterial which borders the project site on the west. According to the City of Carson Circulation Element, Main Street is classified as a major highway (100-foot right-of-way). Main Street is a fully improved four-lane roadway with landscaped medians. Curb parking is allowed along all sections of this roadway in the project study area. The posted speed limit on Main is 40 miles per hour (mph). Traffic signals control the study intersections on Main at 223rd, 228th, and Sepulveda. Daily traffic on Main Street, adjacent to the site, totals approximately 14,800 vehicles per day (vpd).

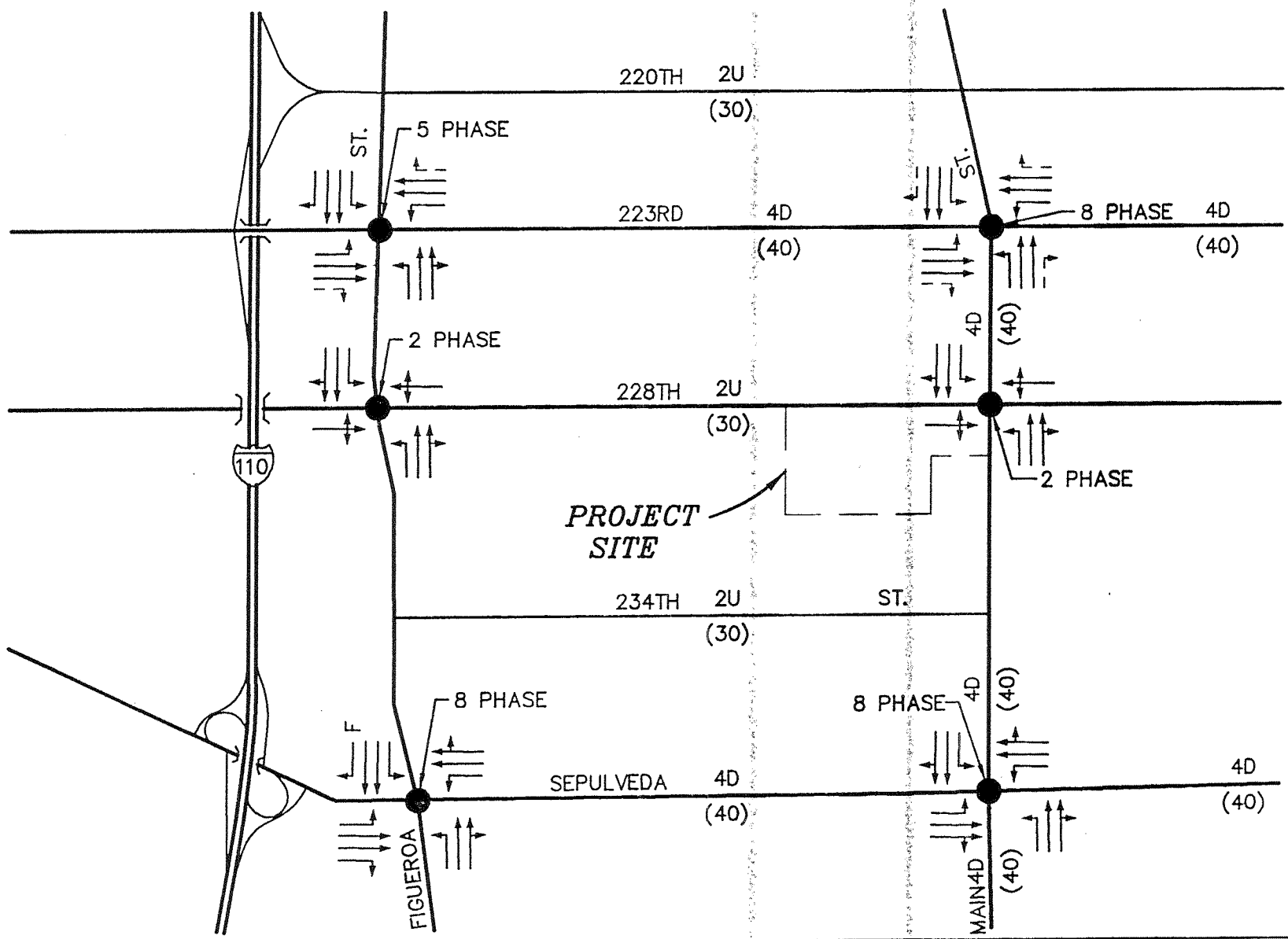
**Sepulveda Boulevard** is an east-west primary arterial highway located south of the project site. This roadway is constructed as a four-lane divided roadway over most of its length in the project study area. Parking is permitted along most sections of this roadway. The posted speed limit is 40 mph. Sepulveda provides full access to the I-110 Freeway via a partial cloverleaf interchange. Traffic signals control the intersections with Figueroa and Main. Sepulveda Boulevard is estimated to carry daily traffic volumes on the order of 19,000 vpd to 20,000 vpd.

**Figueroa Street** is north-south, four-lane divided arterial, which parallels the I-110 Freeway west of the project site. The posted speed limit is 40 mph. Curb parking is allowed along all sections of this roadway in the project study area. Traffic signals control the study intersections with 223rd, 228th and Sepulveda Boulevard. Daily traffic volumes range from approximately 10,000 vpd to 13,000 vpd.

**223rd Street** is an east-west, four-lane arterial located north of the project site. Parking is permitted along most sections of this roadway. The posted speed limit is 40 mph. Traffic signals control the study intersections with Figueroa and Main. Daily traffic volumes range from approximately 15,900 vpd to 18,100 vpd.

**228th Street** is a two-lane undivided street which borders the site to the north. 228th is estimated to carry daily traffic volumes on the order of 6,500 to 7,500 vpd within the study area. Traffic signals control the study intersections with Figueroa and Main. Parking is permitted on all sections of this local residential street. The posted speed limit is 30 mph.

**Exhibit 3** presents an inventory of the existing roadway conditions for the arterials and intersections evaluated in this report. The number of travel lanes and intersection controls for the key area intersections are identified.

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KEY

F = FREE RIGHT TURN
= APPROACH LANE ASSIGNMENT
= TRAFFIC SIGNAL
= STOP SIGN
= FUNCTIONS AS SEPARATE TURN LANE
2U = NUMBER OF TRAVEL LANES
(XX) = SPEED LIMIT
D = DIVIDED, U = UNDIVIDED

3

EXISTING 1996 ROADWAY CONDITIONS AND INTERSECTION CONTROLS

CARSON TERMINAL SITE

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## EXISTING AREA TRAFFIC VOLUMES

Existing AM and PM peak hour traffic volumes for the six key intersections evaluated in this report were obtained from manual morning and evening peak hour turning movement counts conducted by H.K Traffic Data in August and September 1994. The 1994 traffic data were supplemented with counts completed by Accutek in October 1996. The measured 1994 volumes were increased by three percent per year (6%) to reflect 1996 existing conditions.

The six key intersections were designated for evaluation based on City of Carson guidelines for traffic impact studies and discussions with Mr. Richard Garland, City Traffic Engineer. **Exhibit 4** presents the existing AM and PM peak hour traffic volumes for the study intersections. **Appendix A** contains the detailed manual count sheets.

## EXISTING INTERSECTION CONDITIONS

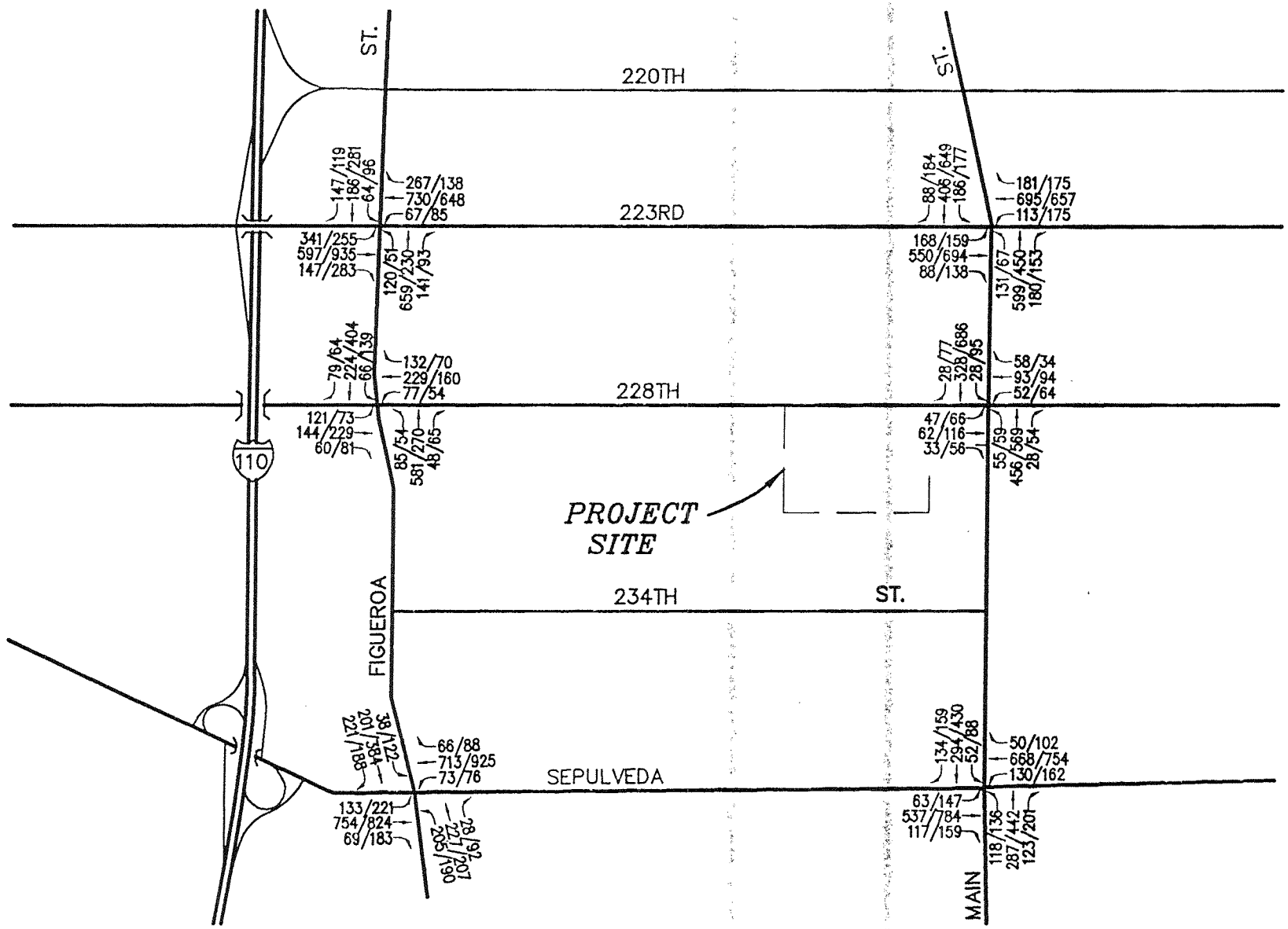
### ICU Method of Analysis

In conformance with the City of Carson and LA County CMP requirements, existing AM and PM peak hour operating conditions for six key signalized intersections were evaluated using the Intersection Capacity Utilization (ICU) method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

The ICU value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. Per the City of Carson criteria, the six qualitative categories of Level of Service have been defined along with the corresponding ICU value range, as shown in **Table 1**.

The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements. The City has established the following guidelines of acceptable service levels for intersection operations:

- Local/Residential Street Intersections: LOS C (ICU = 0.70 - 0.79)
- Other Surface Street Intersections: LOS D (ICU = 0.80 - 0.89)
- Freeway Ramp Intersections: LOS E (ICU = 0.90 - 0.94)




KEY
XX/YY = AM/PM PEAK HOUR TRAFFIC VOLUMES

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4

EXISTING 1996 PEAK HOUR TRAFFIC VOLUMES
CARSON TERMINAL SITE

8

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## TABLE 1

## LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS[1]

Carson Terminal Site Residential Project

| Level of Service (LOS) | Intersection Capacity Utilization Value (V/C) | Level of Service Description |
|---|---|---|
| A | 0.00 - 0.59 | Free Flow |
| B | 0.60 - 0.69 | Rural Design |
| C | 0.70 - 0.79 | Urban Design |
| D | 0.80 - 0.89 | Maximum Urban Design |
| E | 0.90 - 1.00 | Capacity |
| F | ≥ 1.01 | Forced Flow |

[1] See Appendix B for detailed explanation of ICU method and LOS Concept

### Existing Level of Service Results

**Table 2** summarizes the existing peak hour service level calculations for the six study intersections based on existing traffic volumes and current street geometry. Review of Table 2 shows that based on the ICU method of analysis and the City's LOS criteria, all six key signalized intersections currently operate at acceptable Levels of Service during the AM and PM peak commute hour.

Only the study intersection of Figueroa at 223rd operates at LOS D during the AM and/or PM peak hour. The five remaining study intersections currently operate at LOS C or better during the AM and/or PM peak hour.

## TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the proposed CTS residential project, a multi-step process has been utilized. The first step is traffic generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is traffic distribution which identifies the origins and destinations of inbound and outbound project traffic. These origins and destinations are typically based on demographics and existing/expected future travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the project is isolated by comparing operational (LOS) conditions at selected key intersections using expected future traffic volumes with and without forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated

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## TABLE 2

### 1996 EXISTING PEAK HOUR LEVELS OF SERVICE[2]
Carson Terminal Site Residential Project

| KEY INTERSECTION | TIME PERIOD | CONTROL TYPE | ICU (V/C) | LOS |
|---|---|---|---|---|
| Main Street @ 223rd Street | AM | 8∅ Traffic | 0.702 | C |
| | PM | Signal | 0.656 | B |
| Main Street @ 228th Street | AM | 2∅ Traffic | 0.387 | A |
| | PM | Signal | 0.510 | A |
| Main Street @ Sepulveda Boulevard | AM | 8∅ Traffic | 0.573 | A |
| | PM | Signal | 0.736 | C |
| Figueroa Street @ 223rd Street | AM | 5∅ Traffic | 0.802 | D |
| | PM | Signal | 0.605 | B |
| Figueroa Street @ 228th Street | AM | 2∅ Traffic | 0.600 | B |
| | PM | Signal | 0.525 | A |
| Figueroa Street @ Sepulveda Boulevard | AM | 8∅ Traffic | 0.599 | A |
| | PM | Signal | 0.768 | C |

| ICU | LOS | CRITERIA |
|---|---|---|
| < 0.70 | B | OK for all I/S |
| > 0.70 - 0.79 | C | OK for all I/S |
| > 0.79 - 0.85 | D+ | OK for LA County Arterials |
| > 0.85 - 0.89 | D | OK for Carson Arterials |
| > 0.89 - 0.94 | E+ | OK for Carson I/C Ramps |
| > 0.94 - < 1.00 | E | NO GOOD for all Carson I/S |
| ≥ 1.00 | F | NO GOOD for all I/S |

[2] Appendix B contains ICU/LOS sheets for key study intersections.

**Project Traffic Generation**

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation factors and equations used in the traffic forecasting procedure are found in the 1995 Congestion Management Program for Los Angeles County, dated November 1995, published by the Metropolitan Transportation Agency (MTA) and San Diego Traffic Generators, dated July 1995, published by SANDAG as well as the City of Carson Guidelines for Traffic Impact Studies.

**Table 3** summarizes the trip generation rates used in forecasting the impact of the CTS residential project, and presents the forecast peak hour and daily project traffic volumes for a "typical" weekday. As shown, the proposed project is expected, at buildout of the site, to generate 1,660 daily trips, with 134 trips produced in the AM peak hour (28 inbound, 106 outbound) and 166 trips produced in the PM peak hour (116 inbound, 50 outbound).

Phase I (1998) and Phase II (1999) are each expected to generate 420 daily trips with an AM peak hour of 34 trips and a PM peak hour of 42 trips. Phases III (2000) and IV (2001) will each add an additional 410 daily trips, 33 AM peak hour and 41 PM peak hour trips.

**Project Traffic Distribution and Assignment**

The general directional traffic distribution pattern for the project has been furnished by the City of Carson. **Table 4** presents the general directional distribution pattern based on the model provided by the Traffic Engineer.

The specific traffic distribution and assignment patterns for the proposed residential project is presented in **Exhibit 5**. Project traffic volumes in and out of the site have been distributed and assigned to the adjacent street system based upon the following considerations: 1) the traffic model distribution patterns shown in Table 4, 2) the site's proximity to major traffic carriers (e.g., I-110, I-405, I-710 Freeways); 3) expected localized traffic flow patterns based on adjacent street channelization and presence of traffic signals; and 4) ingress/egress availability at site driveways on 228th Street.

**Exhibit 6** displays the added project traffic volumes for the CTS residential project at adjacent intersections and site driveways during the AM peak hour and PM peak hour. **Exhibit 7** presents the added daily project traffic assignments on the key roadways in the study area.

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## TABLE 3

## PROJECT TRAFFIC GENERATION FORECAST[3]
Carson Terminal Site Residential Project

| DESCRIPTION | DAILY | AM PEAK HOUR | | | PM PEAK HOUR | | |
|---|---|---|---|---|---|---|---|
| | | IN | OUT | TOTAL | IN | OUT | TOTAL |
| ***Generation Factors:*** | | | | | | | |
| Single Family Residential (TE/DU) | 10.00 | 0.16 | 0.64 | 0.80 | 0.70 | 0.30 | 1.00 |
| ***Generation Forecast:*** | | | | | | | |
| Carson Terminal Site Project (166 DU) | 1,660 | 27 | 106 | 133 | 116 | 50 | 166 |
| *Trips Per Phase* | | | | | | | |
| Phase I - 1998 (42 DU) | 420 | 7 | 27 | 34 | 29 | 13 | 42 |
| Phase II - 1999 (42 DU) | 420 | 7 | 27 | 34 | 29 | 13 | 42 |
| Phase III - 2000 (41 DU) | 410 | 7 | 26 | 33 | 29 | 12 | 41 |
| Phase IV - 2001 (41 DU) | 410 | 7 | 26 | 33 | 29 | 12 | 41 |

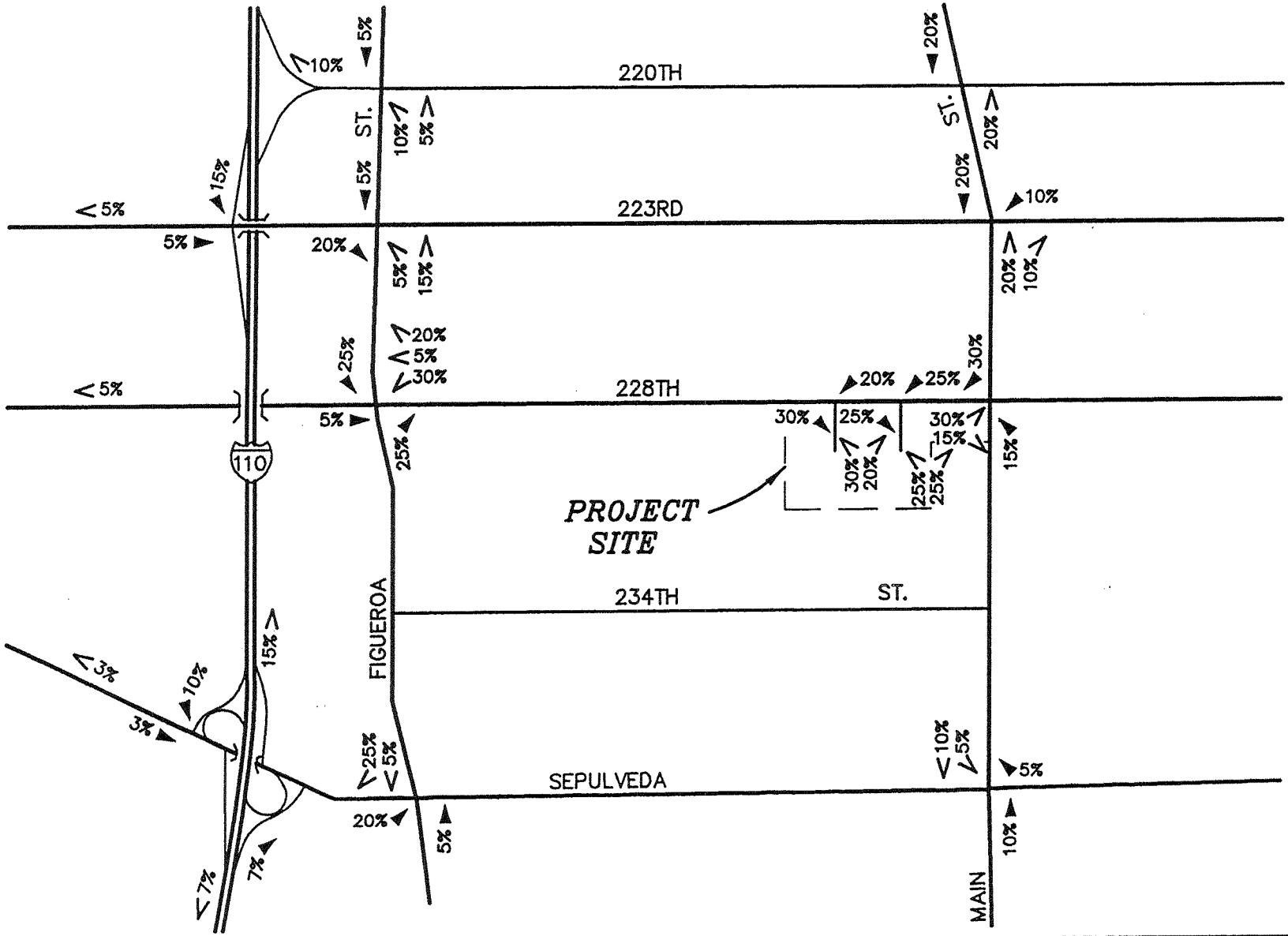
[3] Source: 1995 Congestion Management Program for Los Angeles County, dated November 1995, published by MTA and San Diego Traffic Generators, dated July 1995, published by SANDAG, per City of Carson Guidelines for Traffic Impact Study.

## TABLE 4

### DIRECTIONAL DISTRIBUTION PATTERN[4]
Carson Terminal Site Residential Project

| DISTRIBUTION PERCENTAGE | ORIENTATION |
|---|---|
| 20% | To the north and west via Harbor and San Diego Freeways and Artesia Boulevard. |
| 20% | To the north and east via Long Beach and Artesia Freeways. |
| 20% | To the south and east via the San Diego and Long Beach Freeways and Pacific Coast Highway. |
| 7% | To the south and west via the Harbor Freeway and Pacific Coast Highway. |
| 5% | To the north via arterial streets. |
| 13% | To the west via arterial streets. |
| 5% | To the south via arterial streets. |
| 5% | To the east via arterial streets. |
| 5% | Internal to Carson via local streets. |

[4] Source: City of Carson.




N NO SCALE

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KEY

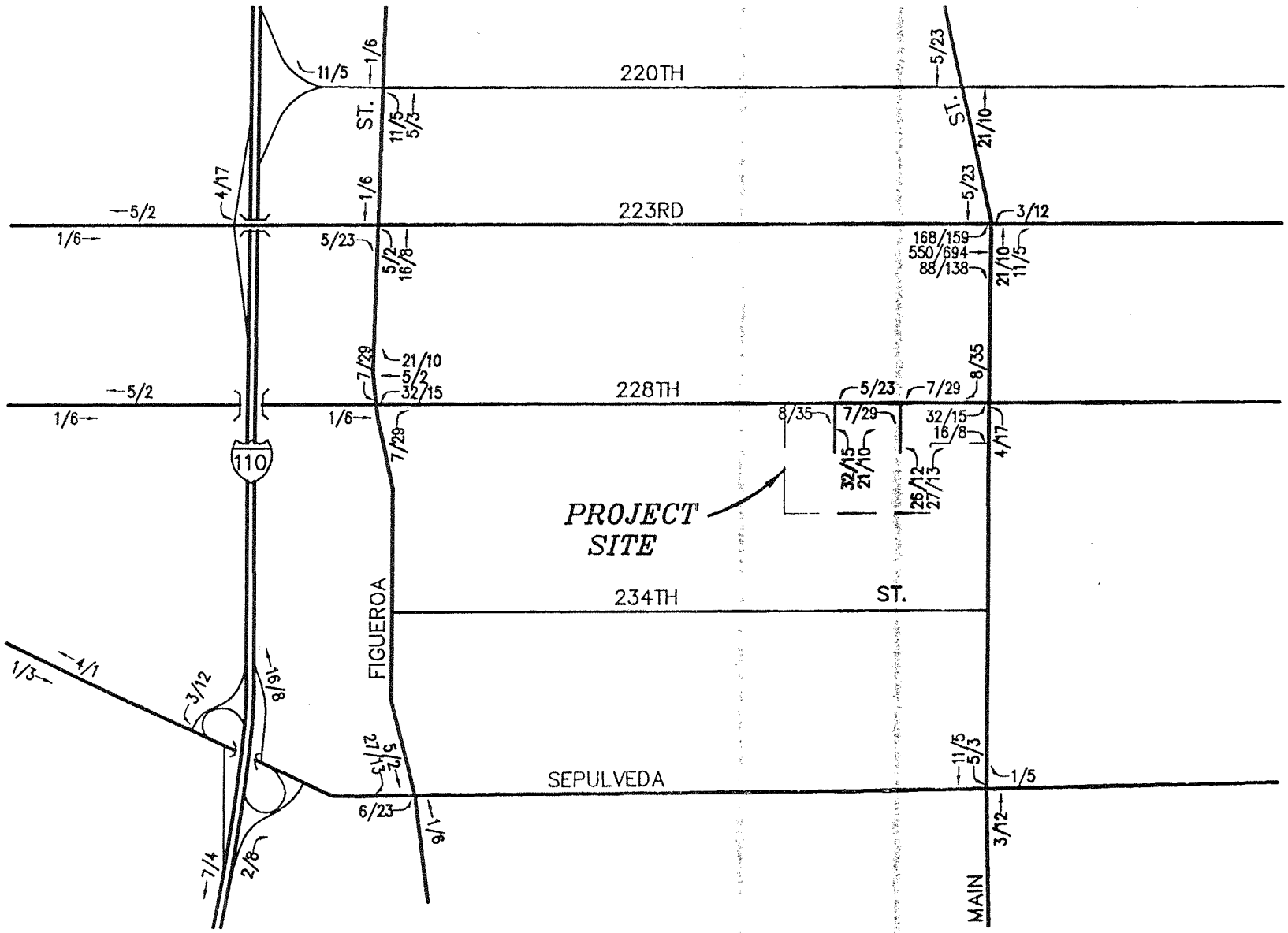
< XX% = OUTBOUND PERCENTAGE

◀ XX% = INBOUND PERCENTAGE

5

PROJECT TRAFFIC DISTRIBUTION PATTERN

CARSON TERMINAL SITE




KEY

XX/YY = AM/PM PEAK HOUR PROJECT TRAFFIC VOLUMES

N

NO SCALE

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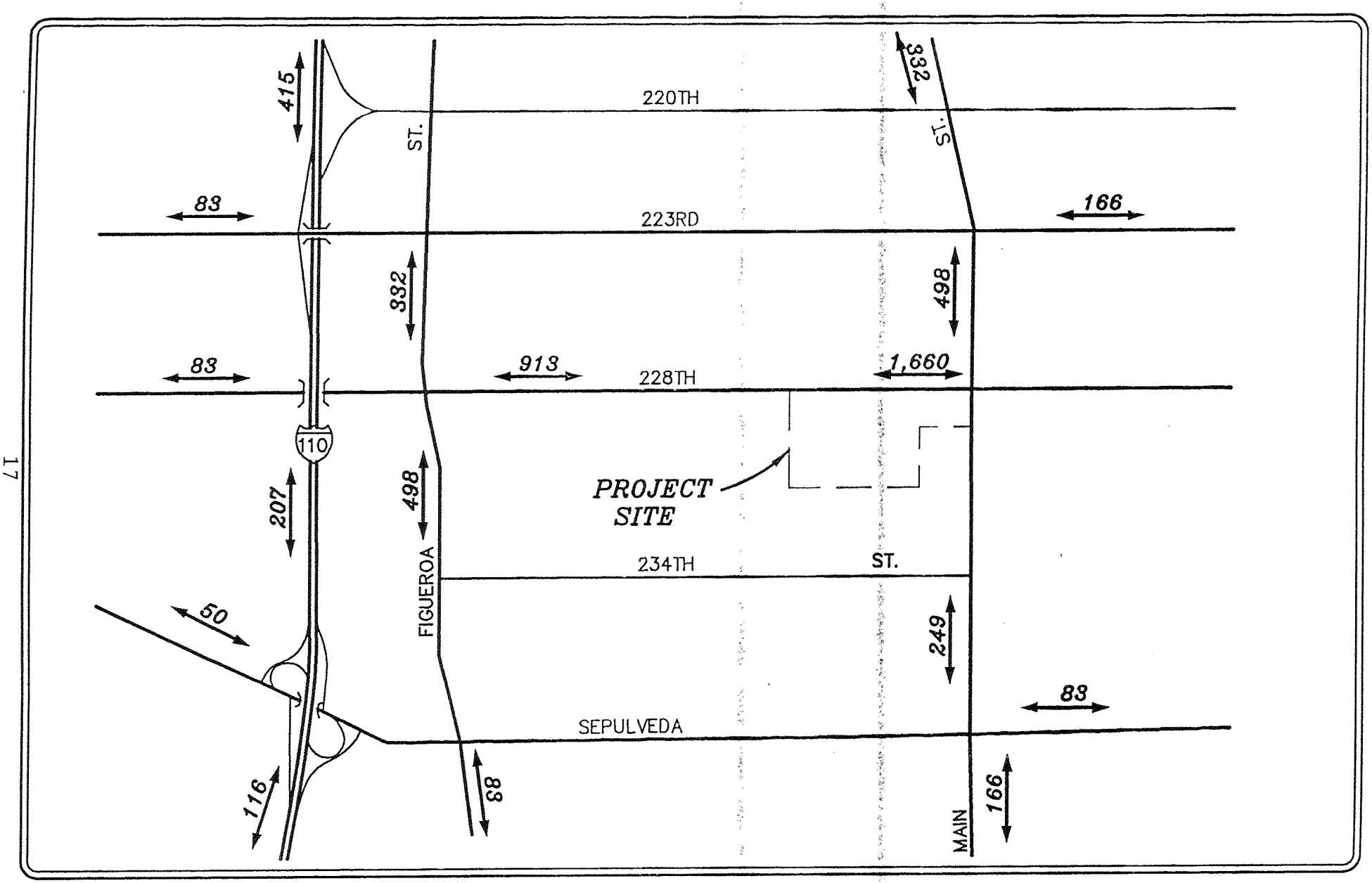
6

PEAK HOUR PROJECT TRAFFIC VOLUMES

CARSON TERMINAL SITE






N NO SCALE

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KEY

X,XXX = DAILY VOLUME

7

AVERAGE DAILY PROJECT TRAFFIC VOLUMES

CARSON TERMINAL SITE

## BACKGROUND TRAFFIC CONDITIONS

### Pre-Project Conditions

Currently, there are no known planned and/or approved, related projects in the vicinity of the CTS residential project. Hence, horizon year background traffic growth estimates have been calculated using only the growth factors recommended for use by the City of Carson.

The ambient traffic growth factor is intended to include unknown and future related projects in the study area, as well as regular growth in traffic volumes due to development of projects located outside the study area. Per City criteria, traffic growth has been calculated at three percent (3%) per year. Applied to existing 1996 traffic volumes results in a 15 percent and 21 percent growth in existing volumes at the six key intersections to horizon years 2001 and 2003, respectively. By comparison, the 1995 Congestion Management Program for Los Angeles County concludes that the South Bay communities can expect a cumulative growth in traffic volumes of 5.3 percent from 1995 to 2005. Thus, the ambient growth rate required for use in the City's traffic study guidelines would appear to overstate the actual growth that the CMP expects to occur on the Carson City streets.

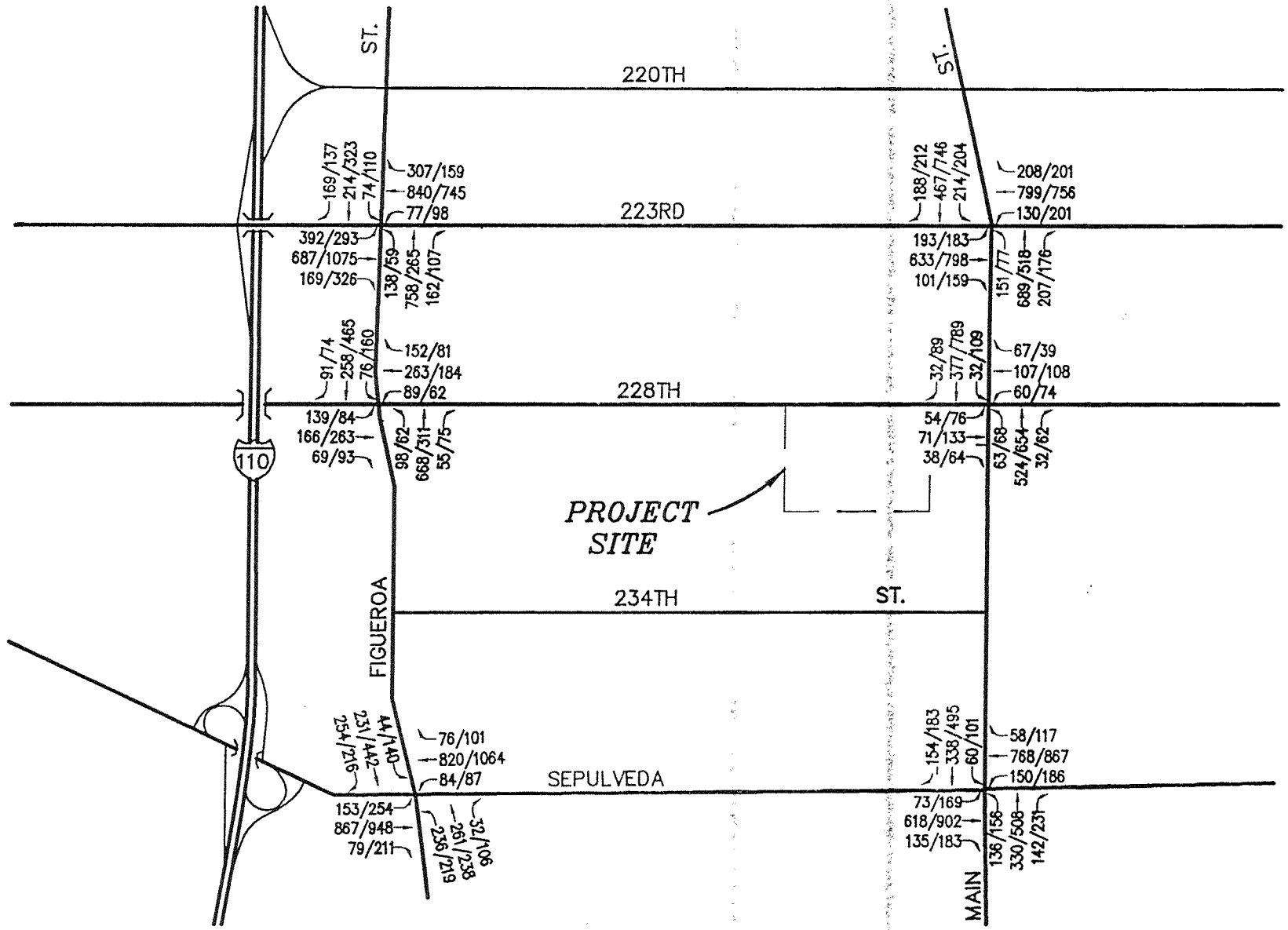
**Exhibits 8** and **9** present future AM/PM peak hour background traffic volumes at the six existing key intersections in the Year 2001 and 2003, respectively.

**Exhibits 10** and **11** illustrate forecast AM/PM peak hour traffic volumes with the inclusion of the Carson Terminal Site project buildout (2001) and two years afterwards (2003). Per City criteria, 2001 project traffic conditions assume 90% occupancy. Year 2003 project traffic conditions assumes 100% occupancy.

## TRAFFIC IMPACT ANALYSIS METHODOLOGY

### Impact Criteria and Thresholds

The relative impact of the added project traffic volumes generated by the proposed residential project during the AM and PM peak hours was evaluated based on analysis of future operating conditions at the six key area intersections, without, then with, the proposed project. The previously-discussed capacity analysis procedures were utilized to investigate the future volume-to-capacity relationships and service level characteristics at each study intersection. The significance of the potential impacts of the project at each key intersection was then evaluated using traffic impact criteria of the City of Carson and the County of Los Angeles CMP guidelines.

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KEY
XX/YY = AM/PM PEAK HOUR TRAFFIC VOLUMES

N NO SCALE

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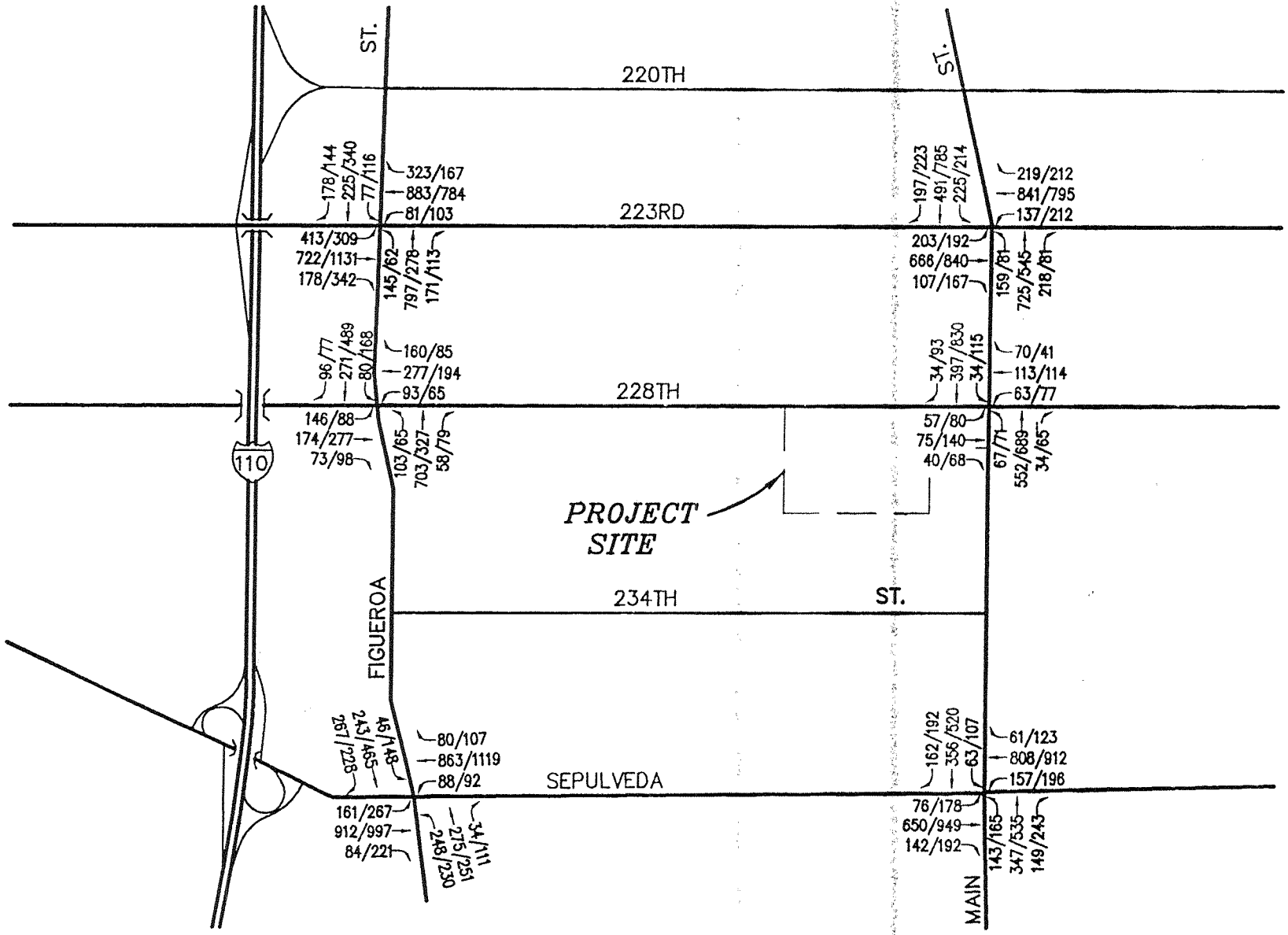
8

FUTURE 2001 BACKGROUND PEAK HOUR TRAFFIC VOLUMES
CARSON TERMINAL SITE




KEY
XX/YY = AM/PM PEAK HOUR TRAFFIC VOLUMES

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FUTURE 2003 BACKGROUND PEAK HOUR TRAFFIC VOLUMES
CARSON TERMINAL SITE

9

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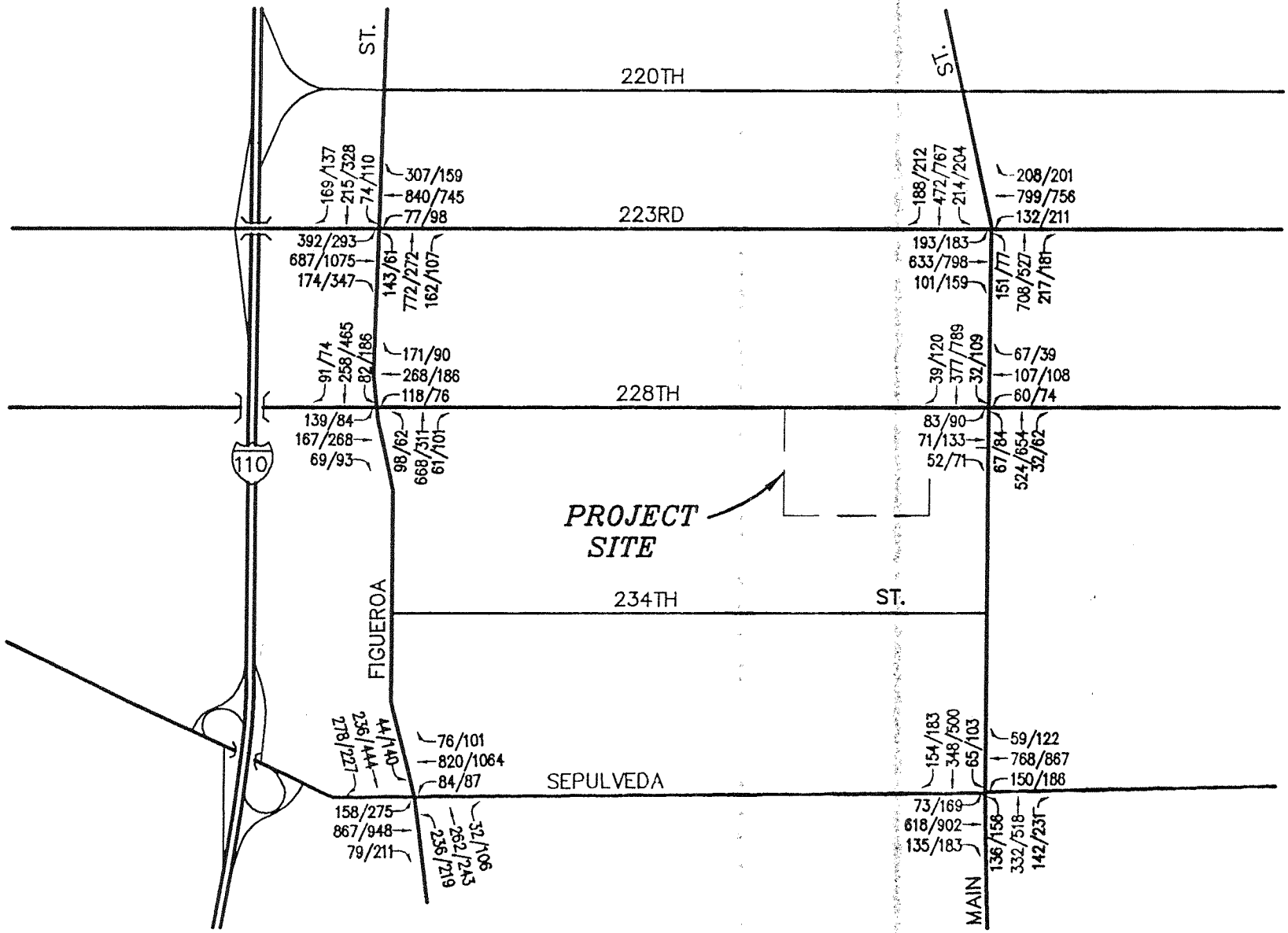


KEY
XX/YY = AM/PM PEAK HOUR TRAFFIC VOLUMES

N NO SCALE

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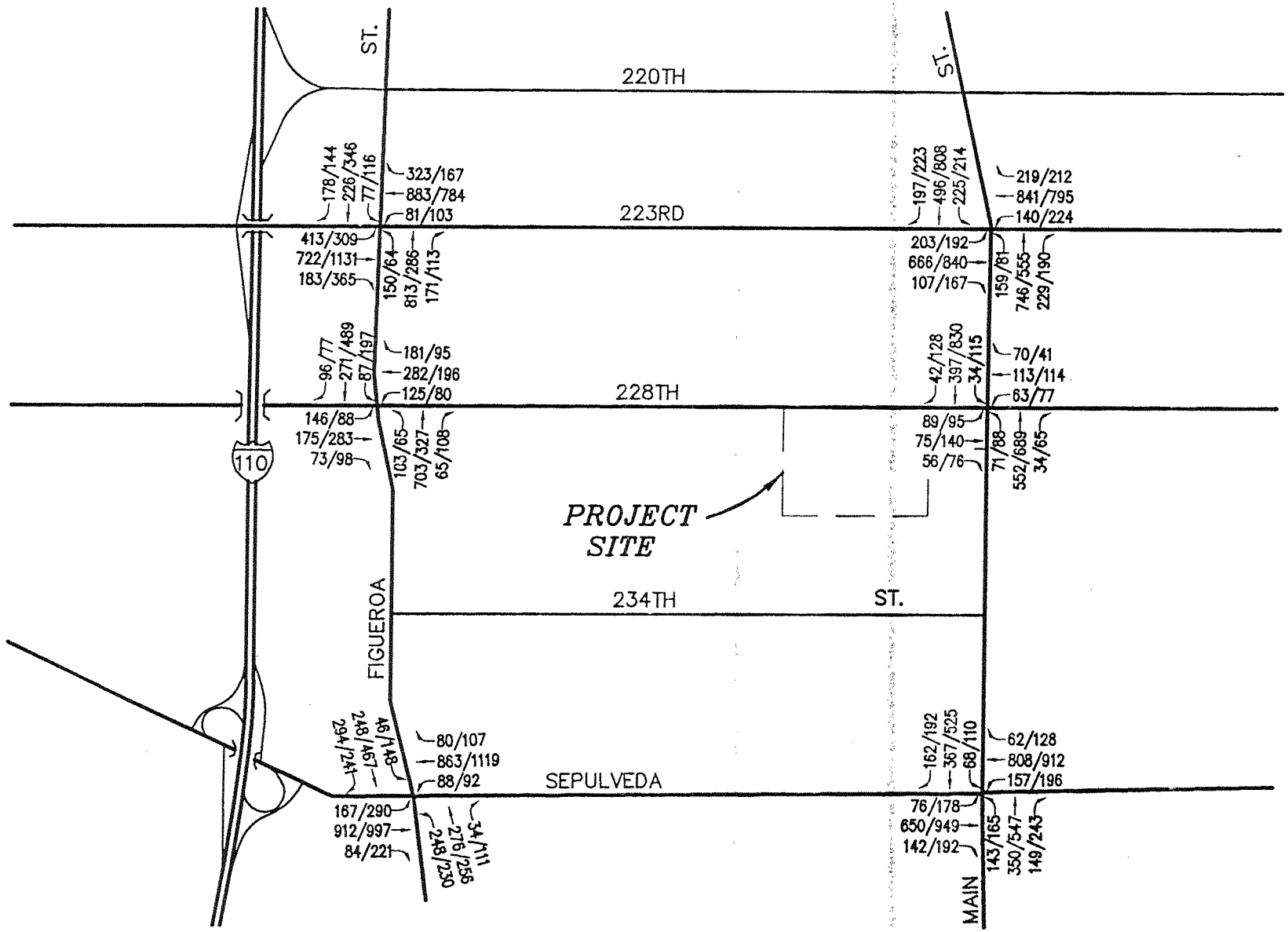
10

FUTURE 2001 BACKGROUND PEAK HOUR TRAFFIC VOLUMES WITH PROJECT TRAFFIC

CARSON TERMINAL SITE




KEY

XX/YY = AM/PM PEAK HOUR TRAFFIC VOLUMES

N NO SCALE

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11

FUTURE 2003 BACKGROUND PEAK HOUR TRAFFIC VOLUMES WITH PROJECT TRAFFIC

CARSON TERMINAL SITE

As mentioned previously, LOS E (ICU = 0.90 - 0.94) is the minimum acceptable service level that should be maintained during the peak hours at City street/freeway ramps intersections. The City considers LOS C (ICU = 0.70 - 0.79) to be the minimum acceptable for local/residential street intersections and LOS D (ICU = 0.80 - 0.89) for all other signalized intersections.

The City of Carson traffic impact criteria identifies a significant project impact when the project increases traffic demand at a study intersection by 1% of capacity (ICU ≥ 0.010), causing or worsening an unacceptable LOS per City criteria.

**Traffic Impact Analysis Scenarios**

The following scenarios are those for which LOS calculations have been performed:

1) 1996: Existing Traffic Conditions

2001 Horizon Year

2) 2001: Future Background (Existing plus Growth to 2001 at 3% per year)
3) 2001: Future Background with CTS Project Traffic (90% occupancy)
4) Condition (3) with Mitigation, if necessary

2003 Horizon Year

5) 2003: Future Background (Existing plus Growth to 2003 at 3% per year)
6) 2003: Future Background with CTS Project Traffic (100% occupancy)
7) Condition (6) with Mitigation, if necessary

## PEAK HOUR INTERSECTIONS CAPACITY ANALYSIS

### 2001 Horizon Year

**Table 5** summarizes the peak hour Level of Service results at the six study intersections for the 2001 horizon year. The first column (1) of ICU/LOS values in Table 5 presents a summary of existing AM/PM peak hour traffic conditions (which were also presented in Table 2). The second column (2) lists existing plus ambient growth traffic conditions (to the Year 2001) based on existing intersection geometry, but without any CTS project traffic.

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# TABLE 5

## 2001 PEAK HOUR INTERSECTION CAPACITY ANALYSIS
## ICU/LOS SUMMARY
Carson Terminal Site Residential Project

| Key Intersections | Time | (1) 1996 Existing Traffic Conditions | | (2) Year 2001 Background Traffic | | (3) Year 2001 CTS Project Traffic | | (4) Project Impact/ Significance | |
|---|---|---|---|---|---|---|---|---|---|
| | | ICU | LOS | ICU | LOS | ICU | LOS | ICU Inc. | Y/N |
| Main Street @ | AM | .702 | C | .793 | C | .798 | C | .005 | N |
| 223rd Street | PM | .656 | B | .741 | C | .750 | C | .009 | N |
| Main Street @ | AM | .387 | A | .430 | A | .430 | A | .000 | N |
| 228th Street | PM | .540 | A | .572 | A | .604 | B | .032 | N |
| Main Street @ | AM | .573 | A | .645 | B | .648 | B | .003 | N |
| Sepulveda Blvd | PM | .736 | C | .832 | D | .834 | D | .002 | N |
| Figueroa St. @ | AM | .802 | D | .909 | E | .913 | E | .004 | N |
| 223rd Street | PM | .605 | B | .680 | B | .682 | B | .002 | N |
| Figueroa St. @ | AM | .600 | B | .676 | B | .713 | C | .037 | N |
| 228th Street | PM | .525 | A | .589 | A | .615 | B | .026 | N |
| Figueroa St. @ | AM | .599 | A | .676 | B | .680 | B | .004 | N |
| Sepulveda Blvd. | PM | .768 | C | .869 | D | .883 | D | .014 | N |

| ICU | LOS | CRITERIA |
|---|---|---|
| < 0.70 | B | OK for all I/S |
| > 0.70 - 0.79 | C | OK for all I/S |
| > 0.79 - 0.85 | D+ | OK for LA County Arterials |
| > 0.85 - 0.89 | D | OK for Carson Arterials |
| > 0.89 - 0.94 | E+ | OK for Carson I/C Ramps |
| > 0.94 - < 1.00 | E | NO GOOD for all Carson I/S |
| ≥ 1.00 | F | NO GOOD for all I/S |

The third column (3) presents future forecast traffic conditions with the addition of project traffic. Per City criteria, project traffic conditions assume 90% occupancy of the site. The fourth column (4) shows the increase in ICU value due to the added peak hour project trips and indicates whether the traffic associated with the residential project will have a significant impact based on City of Carson criteria.

1996 Existing Conditions

As previously presented in Table 2, review of this table indicates that existing peak hour operating conditions are within satisfactory ranges based on the City's LOS standards. Each of the six key intersections currently operate at LOS D or better during the AM and PM peak hours.

2001 Future Background Traffic Conditions

An analysis of future (2001) background traffic conditions indicates that ambient traffic growth will deteriorate the AM peak hour Level of Service at one location. Figueroa Street @ 223rd Street is expected to operate at LOS E (ICU value = 0.909) during the AM peak hour and LOS B during the PM peak hour.

The Levels of Service at the Main/223rd, Main/Sepulveda, and Figueroa/Sepulveda are expected to deteriorate one service level, but are still forecast to operate at an acceptable LOS during the AM and PM peak hours based on City LOS Criteria. The addition of ambient growth traffic is not expected to result in any changes to the existing service levels at the Main/228th and Figueroa/228th intersections.

Carson Terminal Site Residential Project Traffic (90% Occupancy)

Review of Columns 3 and 4 of Table 5 shows that traffic associated with the proposed single family development will not have a significant impact at any of the six study intersections when compared to the City of Carson impact and LOS criteria. The proposed project is not expected to adversely change the service level to an unacceptable condition at any intersection. The addition of project traffic is expected to result in a maximum project-related ICU increase of 0.032 and 0.037 at the intersection of Main/228th (LOS B) and Figueroa/228th (LOS C), respectively, with either a 0.014 or less ICU increase at all other intersections.

At the intersection of Figueroa and 223rd, CTS project traffic will increase the ICU value by 0.004 in the AM peak hour, which is already projected to operate at LOS E in Year 2001 background conditions. This is not a significant impact. As mentioned earlier, a "significant" adverse project traffic impact occurs when the project increases traffic demand at the study intersection by 1% of capacity (ICU $\geq$ 0.010), causing or worsening LOS E or F conditions.

**2003 Horizon Year**

**Table 6** presents a summary of the Year 2003 ICU calculations and corresponding LOS values. The structure of this table is similar to the 2001 Horizon Year capacity analysis presented in Table 5. However, project traffic conditions assume 100% occupancy of the site. Further, the fifth column (5) of Table 6 indicates the forecast operating conditions with intersection improvements (mitigation), if required, recommended to achieve an acceptable Level of Service.

2003 Future Background Traffic Conditions

As shown in column 2 of Table 6, under future year 2003 conditions without any project traffic, two of the six analyzed intersections are projected to operate at an unsatisfactory service level (LOS E or F). Figueroa at 223rd and Figueroa at Sepulveda are forecast to operate at LOS E during the morning and evening peak commute hour, respectively. The addition of ambient growth traffic is not expected to result in any significant changes to the existing service levels at the remaining four key intersections.

The Carson Terminal Site Residential Project Traffic (100% Occupancy)

Review of Columns 3 and 4 of Table 6 shows that traffic associated with the proposed residential project will have a significant impact at only one of the six key intersections in the Year 2003 when compared to the City impact criteria. This intersection, Figueroa at Sepulveda, is projected to operate at unacceptable LOS E during the PM peak hour. The project is expected to add 1.4% (0.014) to the ICU value at this impacted intersection.

As described earlier, a significant project impact occurs when the project increases traffic demand at a study intersection by 1% of capacity (ICU $\geq$ 0.010), causing or worsening an unacceptable LOS per City criteria.

**Freeway Segment (Mainline) CMP Analysis**

The Congestion Management Program (CMP) is a state mandated program providing a framework for addressing state-wide congestion concerns. In Los Angeles County, the CMP is administered by the Los Angeles Metropolitan Transportation Authority (LACMTA). The CMP includes a Land Use Analysis Program that sets the warrants and procedure for the transportation impact analysis (TIA) of new development, the generated trips of which have a potential for significantly impacting the adopted CMP highway and arterial network. The objective of the mainline freeway analysis is to identify the potential project traffic impacts on the CMP network within the immediate vicinity of this project.

Based on the project traffic distribution pattern shown in Exhibit 5, the Carson Terminal Site project is expected to generate a maximum of 29 peak hour trips on any freeway segment. Therefore, since AM and PM peak hour project generated trips on the key freeway segments in the project study area were below the threshold of 150 trips required for the freeway segment analysis, a Freeway Segment (Mainline) CMP Analysis was not conducted.

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# TABLE 6

## 2003 PEAK HOUR INTERSECTION CAPACITY ANALYSIS
## ICU/LOS SUMMARY
Carson Terminal Site Residential Project

| Key Intersections | Time | (1) 1996 Existing Traffic Conditions | | (2) Year 2003 Background Traffic | | (3) Year 2003 CTS Project Traffic | | (4) Project Impact/ Significance | | (5) Future Conditions W/ Improvements[5] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ICU | LOS | ICU | LOS | ICU | LOS | ICU Inc. | Y/N | ICU | LOS |
| Main Street @ | AM | .702 | C | .828 | D | .834 | D | .006 | N | — | — |
| 223rd Street | PM | .656 | B | .774 | C | .784 | C | .010 | N | — | — |
| **Main Street @** | **AM** | **.387** | **A** | **.447** | **A** | **.447** | **A** | **.000** | **N** | — | — |
| 228th Street | PM | .540 | A | .595 | A | .631 | B | .036 | N | — | — |
| **Main Street @** | **AM** | **.573** | **A** | **.672** | **C** | **.676** | **C** | **.004** | **N** | — | — |
| Sepulveda Blvd | PM | .736 | C | .871 | D | .873 | D | .002 | N | — | — |
| Figueroa St. @ | AM | .802 | D | .951 | E | .955 | E | .004 | N | 0.840 | D |
| 223rd Street | PM | .605 | B | .712 | C | .714 | B | .002 | N | 0.794 | C |
| Figueroa St. @ | AM | .600 | B | .705 | C | .748 | C | .043 | N | — | — |
| 228th Street | PM | .525 | A | .613 | B | .644 | B | .031 | N | — | — |
| Figueroa St. @ | AM | .599 | A | .704 | C | .709 | C | .004 | N | .686 | B |
| Sepulveda Blvd. | PM | .768 | C | .909 | E | .923 | E | .014 | Y | .891 | D |

| ICU | LOS | CRITERIA |
|---|---|---|
| < 0.70 | B | OK for all I/S |
| > 0.70 - 0.79 | C | OK for all I/S |
| > 0.79 - 0.85 | D+ | OK for LA County Arterials |
| > 0.85 - 0.89 | D | OK for Carson Arterials |
| > 0.89 - 0.94 | E+ | OK for Carson I/C Ramps |
| > 0.94 - < 1.00 | E | NO GOOD for all Carson I/S |
| ≥ 1.00 | F | NO GOOD for all I/S |

[5] Improvements recommended are required specifically to mitigate the future non-project (ambient) traffic and/or project traffic.

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## AREA TRAFFIC IMPROVEMENT MEASURES

For those intersections where future traffic volumes are expected to result in poor operating conditions, this report recommends improvements which change the intersection geometry to increase capacity. These capacity improvements involve roadway restriping to reconfigure (add lanes) to specific approaches of a key intersection. The identified improvements are expected to: 1) mitigate the impact of existing and/or future non-project (ambient growth) traffic and/or 2) improve Levels of Service to an acceptable range.

Year 2001 Improvements

As shown in Table 5, in Year 2001 one of the six key intersections is projected to operate at unacceptable LOS E during the AM and/or PM peak hour (without or with the addition of the CTS project traffic). Ambient traffic growth is expected to deteriorate the service level at the Figueroa/223rd intersection.

Year 2003 Improvements

As illustrated in Table 6, ambient traffic growth will deteriorate Level of Service at the intersections of Figueroa/223rd and Figueroa/Sepulveda to unacceptable LOS E during the AM and/or PM peak hour.

The intersections' service levels can be improved to acceptable levels by implementing the following improvements:

- Figueroa Street @ 223rd Street: Restripe the eastbound approach on 223rd Street to provide dual left-turn lanes and two through lanes. The existing "unstriped" right-turn lane will most likely be eliminated. Parking restrictions on the eastbound approach of 223rd will be required.

- Figueroa Street @ Sepulveda Boulevard: Restripe the westbound approach on Sepulveda Boulevard to provide an exclusive left-turn lane, two through lanes, and a separate right-turn lane. The right-turn lane addition can be achieved by restriping and without widening the existing roadway. Parking restrictions on the westbound approach of Sepulveda will be required.

All the other four key intersections are expected to operate at an acceptable LOS D or better without or with project traffic. Improvements recommended to specifically mitigate the traffic impact of the Carson Terminal Site residential development are discussed under Project-Specific Improvements.

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## GATE ACCESS EVALUATION

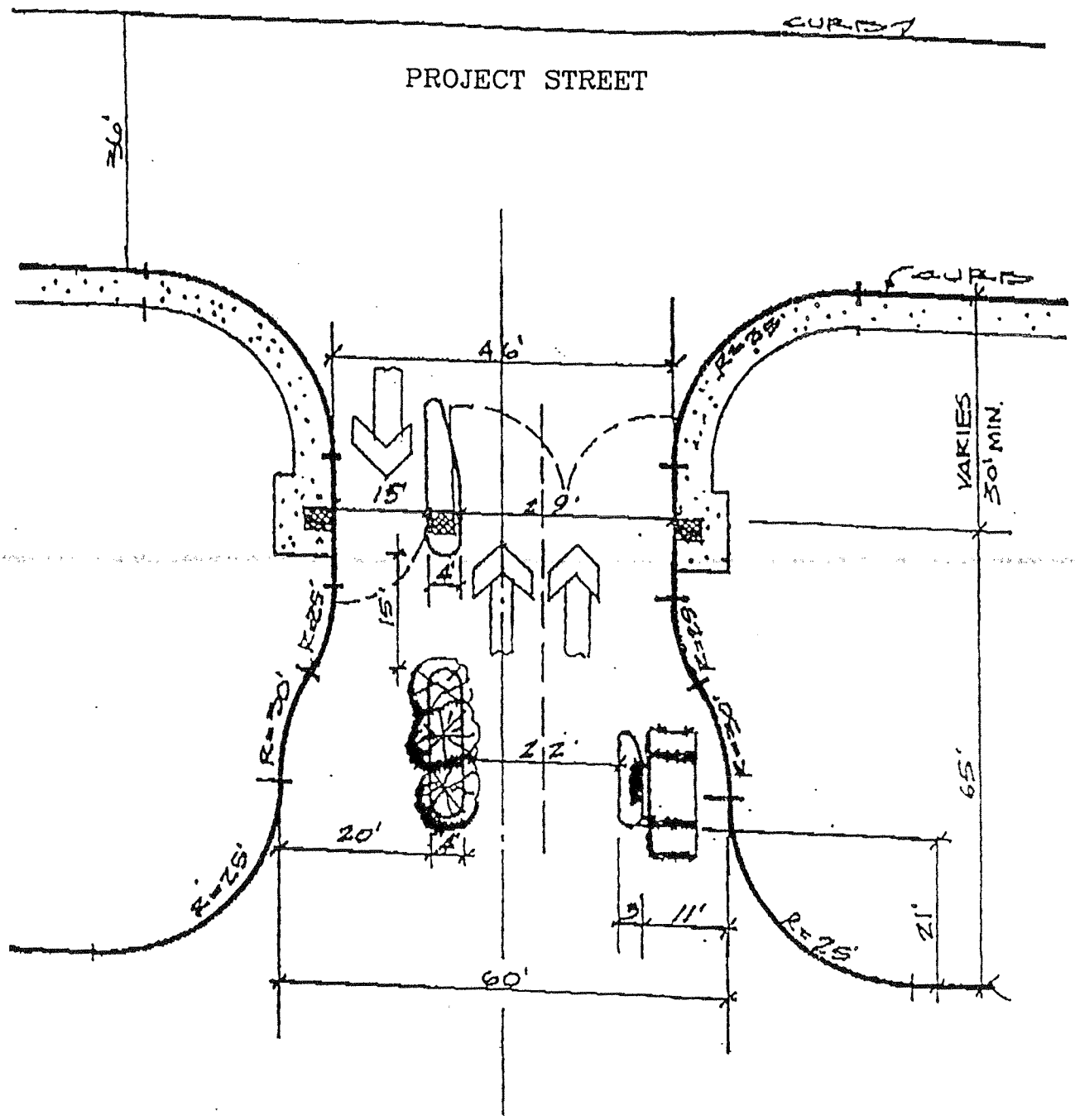
This section of this traffic study focuses on an evaluation of the design and configuration of the project's gated entry/exit, and the adequacy of storage to be provided for peak hour project traffic at the project's entrances on 228th Street. Review of the entry/exit design configuration prepared by the Keith Companies, illustrated in **Exhibit 12**, shows that two inbound lanes and one outbound lane are planned for the gated entry/exit roadways of the project, with gates located approximately 65 feet from the adjacent roadway (228th Street). Additional storage has also been provided for visitors to call and wait for a resident to open the gate. Further, a turn around area is provided in front of the gates, eliminating the possibility of "backing onto" 228th.

Our review of the current site plan reveals the proposed configuration of the project's gated entry/exit roadway will provide efficient access for project traffic. The project's driveway layout permits both visitors and residents to enter and exit the site without backing up onto 228th Street and impacting traffic flow. Further, the driveway dimensions, which measure 60 feet across at 228th and 46 feet as you enter the project, ensure that vehicles waiting at the call box do not obstruct the entry of resident vehicles. Two main entry lanes, measuring 11 feet each, and a separate visitor call box lane, measuring 11 feet in width, is provided within the 60 foot dimension.

An evaluation of the amount of reservoir (stacking) space provided in front of the gate versus the AM and/or PM peak hour indicates that adequate storage is provided for vehicles entering the site. Research has shown that random arrivals of traffic stream tend to follow the Poisson mathematical distribution. This distribution provides a means that, if the average arrival rate is known, the probability of exceeding a given volume in a unit of time may be calculated. Using this methodology the surges in traffic volumes can be calculated to properly design the reservoir or stacking space required in front of the controlled access gate.

As presented earlier, the proposed Carson Terminal Site residential project (166 dwelling units) is expected to generate 1,660 daily trips, with 133 trips (27 inbound, 106 outbound) produced in the AM peak hour and 166 trips (116 inbound, 50 outbound) produced in the PM peak hour. During the PM peak hour, 58 inbound project trips are anticipated at each of the two entry/exits. A coded-card operated gate has a design capacity of 340 vehicles per hour per lane. A "remote access control" system, similar to the "remote garage-door" opener, is anticipated for the project and would have a significantly higher capacity.

It is expected that two car lengths of storage plus accommodations for one visitor will provide adequate storage reservoir space behind the project's gated entry based on a "worst-case" analysis, which assumes a card operated gate. However, the proposed entryway design provides storage for up to seven vehicles (three in each of the two inbound lanes, plus one in the visitor position). This design could accommodate twice the anticipated project traffic volume without exceeding the planned reservoir capacity even with a card operated gate. The proposed design will provide for efficient ingress and egress to the project and is not expected to adversely impact traffic on 228th Street.




SOURCE: KEITH COMPANIES

NO SCALE

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12

ILLUSTRATIVE PROJECT ENTRY/GATEWAYS

CARSON TERMINAL SITE

## PROJECT-SPECIFIC IMPROVEMENTS

Table 6 indicates that the proposed residential development, at full occupancy (2003), is projected to significantly impact one key intersection. The intersection impacted by project traffic is Figueroa Street at Sepulveda Boulevard, which is shown to operate at an unacceptable LOS before the addition of project traffic.

Improvements for the intersection of Figueroa/Sepulveda are described in the preceding page (Year 2003 Improvements). These improvements are expected to alleviate unacceptable PM peak hour traffic conditions (background LOS E, ICU = 0.923) to LOS D (ICU = 0.891) with project traffic included. Since the CTS project is expected to have a significant impact at this intersection, the project may be required to participate in the improvement costs on fair-share basis.

In addition to the above described improvements, the following measures are recommended in conjunction with the development of the Carson Terminal Site residential development project:

- For the gated project access roadways intersecting 228th, provide two inbound lanes and one outbound lane, as conceptually illustrated in Exhibit 12. Install "STOP" signs and appropriate pavement legends to control exiting traffic.

- Develop an internal signing and striping plan that will provide clear signage for future residential development.

- Validate final plans, including landscaping plans, for adequate sight distance on 228th Street.

1843TIA.DOC (October 28, 1996)

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*APPENDICES*

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# APPENDIX A

## EXISTING TRAFFIC COUNT DATA

INTERSECTION TURNING MOVEMENT COUNT SUMMARY
ACCUTEK

CITY: CARSON
NORTH-SOUTH: MAIN ST.
EAST-WEST ST: 223RD ST.

DATE: 10-2-96
DAY: WEDNESDAY
PROJ NO. 2160

| | TIME | SOUTH BOUND RT | SOUTH BOUND THRU | SOUTH BOUND LT | SB TOTAL | WEST BOUND RT | WEST BOUND THRU | WEST BOUND LT | WB TOTAL | NORTH BOUND RT | NORTH BOUND THRU | NORTH BOUND LT | NB TOTAL | EAST BOUND RT | EAST BOUND THRU | EAST BOUND LT | EB TOTAL | 15' TOTAL | HR TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | 7:15 | 17 | 62 | 20 | 99 | 13 | 112 | 35 | 160 | 31 | 91 | 14 | 136 | 10 | 92 | 28 | 130 | 525 | |
| | 7:30 | 23 | 74 | 51 | 148 | 37 | 148 | 19 | 204 | 48 | 122 | 41 | 211 | 12 | 119 | 16 | 147 | 710 | |
| | 7:45 | 62 | 144 | 74 | 280 | 67 | 255 | 34 | 356 | 60 | 164 | 52 | 276 | 29 | 197 | 50 | 276 | 1188 | |
| | 8:00 | 39 | 115 | 30 | 184 | 31 | 134 | 19 | 184 | 35 | 157 | 21 | 213 | 14 | 139 | 59 | 212 | 793 | |
| | TOTAL | 141 | 395 | 175 | 711 | 148 | 649 | 107 | 904 | 174 | 534 | 128 | 836 | 65 | 547 | 153 | 765 | | 3216 |
| | 8:15 | 37 | 77 | 21 | 135 | 28 | 134 | 19 | 181 | 27 | 121 | 14 | 162 | 12 | 102 | 34 | 148 | 626 | |
| | 8:30 | 19 | 53 | 24 | 96 | 35 | 153 | 21 | 209 | 26 | 73 | 14 | 113 | 9 | 95 | 27 | 131 | 549 | |
| | 8:45 | 30 | 68 | 18 | 116 | 20 | 111 | 21 | 152 | 31 | 91 | 10 | 132 | 9 | 86 | 25 | 120 | 520 | |
| | 9:00 | 22 | 70 | 16 | 108 | 24 | 93 | 12 | 129 | 34 | 91 | 11 | 136 | 11 | 64 | 25 | 100 | 473 | |
| | TOTAL | 108 | 268 | 79 | 455 | 107 | 491 | 73 | 671 | 118 | 376 | 49 | 543 | 41 | 347 | 111 | 499 | | 2168 |
| PM | 4:15 | 36 | 115 | 23 | 174 | 38 | 129 | 38 | 205 | 35 | 117 | 11 | 163 | 35 | 141 | 43 | 219 | 761 | |
| | 4:30 | 42 | 165 | 38 | 245 | 31 | 149 | 24 | 204 | 34 | 107 | 14 | 155 | 28 | 155 | 34 | 217 | 821 | |
| | 4:45 | 44 | 140 | 31 | 215 | 32 | 140 | 42 | 214 | 31 | 106 | 13 | 150 | 44 | 170 | 31 | 245 | 824 | |
| | 5:00 | 43 | 140 | 41 | 224 | 36 | 140 | 44 | 220 | 36 | 119 | 15 | 170 | 22 | 165 | 45 | 232 | 846 | |
| | TOTAL | 165 | 560 | 133 | 858 | 137 | 558 | 148 | 843 | 136 | 449 | 53 | 638 | 129 | 631 | 153 | 913 | | 3252 |
| | 5:15 | 47 | 141 | 41 | 229 | 46 | 175 | 37 | 258 | 21 | 104 | 14 | 139 | 34 | 185 | 42 | 261 | 887 | |
| | 5:30 | 41 | 180 | 42 | 263 | 46 | 159 | 57 | 262 | 44 | 129 | 23 | 196 | 46 | 231 | 33 | 310 | 1031 | |
| | 5:45 | 52 | 161 | 53 | 266 | 40 | 168 | 43 | 251 | 34 | 110 | 22 | 166 | 44 | 158 | 41 | 243 | 926 | |
| | 6:00 | 49 | 155 | 37 | 241 | 48 | 150 | 43 | 241 | 48 | 116 | 23 | 187 | 32 | 137 | 41 | 210 | 879 | |
| | TOTAL | 189 | 637 | 173 | 999 | 180 | 652 | 180 | 1012 | 147 | 459 | 82 | 688 | 156 | 711 | 157 | 1024 | | 3723 |
| AM PEAK HOUR | 7:15-8:15 | 161 | 410 | 176 | 747 | 163 | 671 | 91 | 925 | 170 | 564 | 128 | 862 | 67 | 557 | 159 | 783 | | 3317 |
| PM PEAK HOUR | 5:00-6:00 | 189 | 637 | 173 | 999 | 180 | 652 | 180 | 1012 | 147 | 459 | 82 | 688 | 156 | 711 | 157 | 1024 | | 3723 |

INTERSECTION TURNING MOVEMENT COUNT SUMMARY
ACCUTEK

CITY: CARSON
NORTH-SOUTH: ~~ROSEMEAD BLVD.~~ MAIN STREET
EAST-WEST ST: ~~VALLEY BLVD.~~ 223rd STREET
DATE: 10-8-96
DAY: TUESDAY
PROJ NO. 2160

| | TIME | SOUTH BOUND RT | SOUTH BOUND THRU | SOUTH BOUND LT | SB TOTAL | WEST BOUND RT | WEST BOUND THRU | WEST BOUND LT | WB TOTAL | NORTH BOUND RT | NORTH BOUND THRU | NORTH BOUND LT | NB TOTAL | EAST BOUND RT | EAST BOUND THRU | EAST BOUND LT | EB TOTAL | 15' TOTAL | HR TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | 7:15 | 19 | 57 | 19 | 95 | 21 | 116 | 22 | 159 | 39 | 76 | 16 | 131 | 17 | 92 | 25 | 134 | 519 | |
| | 7:30 | 19 | 67 | 51 | 137 | 38 | 157 | 39 | 234 | 38 | 113 | 34 | 185 | 24 | 119 | 35 | 178 | 734 | |
| | 7:45 | 51 | 139 | 76 | 266 | 78 | 224 | 42 | 344 | 72 | 183 | 57 | 312 | 44 | 169 | 45 | 258 | 1180 | |
| | 8:00 | 46 | 100 | 48 | 194 | 44 | 179 | 32 | 255 | 39 | 196 | 24 | 259 | 25 | 145 | 56 | 226 | 934 | |
| | TOTAL | 135 | 363 | 194 | 692 | 181 | 676 | 135 | 992 | 188 | 568 | 131 | 887 | 110 | 525 | 161 | 796 | | 3367 |
| | 8:15 | 49 | 96 | 20 | 165 | 38 | 159 | 21 | 218 | 41 | 142 | 19 | 202 | 15 | 110 | 41 | 166 | 751 | |
| | 8:30 | 21 | 55 | 11 | 87 | 26 | 137 | 24 | 187 | 34 | 119 | 14 | 167 | 15 | 97 | 30 | 142 | 583 | |
| | 8:45 | 25 | 60 | 16 | 101 | 20 | 131 | 19 | 170 | 19 | 77 | 14 | 110 | 10 | 85 | 23 | 118 | 499 | |
| | 9:00 | 23 | 75 | 15 | 113 | 21 | 125 | 22 | 168 | 27 | 66 | 9 | 102 | 17 | 65 | 25 | 107 | 490 | |
| | TOTAL | 118 | 286 | 62 | 466 | 105 | 552 | 86 | 743 | 121 | 404 | 56 | 581 | 57 | 357 | 119 | 533 | | 2323 |
| PM | 4:15 | 42 | 132 | 28 | 202 | 36 | 116 | 36 | 188 | 28 | 113 | 18 | 159 | 20 | 155 | 37 | 212 | 761 | |
| | 4:30 | 33 | 116 | 54 | 203 | 36 | 101 | 23 | 160 | 31 | 134 | 12 | 177 | 33 | 151 | 27 | 211 | 751 | |
| | 4:45 | 34 | 149 | 41 | 224 | 40 | 134 | 37 | 211 | 41 | 101 | 11 | 153 | 26 | 158 | 39 | 223 | 811 | |
| | 5:00 | 52 | 167 | 43 | 262 | 31 | 149 | 34 | 214 | 36 | 114 | 17 | 167 | 25 | 167 | 45 | 237 | 880 | |
| | TOTAL | 161 | 564 | 166 | 891 | 143 | 500 | 130 | 773 | 136 | 462 | 58 | 656 | 104 | 631 | 148 | 883 | | 3203 |
| | 5:15 | 47 | 178 | 44 | 269 | 32 | 144 | 34 | 210 | 28 | 102 | 14 | 144 | 31 | 197 | 38 | 266 | 889 | |
| | 5:30 | 53 | 155 | 45 | 253 | 32 | 162 | 39 | 233 | 51 | 120 | 14 | 185 | 33 | 165 | 45 | 243 | 914 | |
| | 5:45 | 28 | 174 | 46 | 248 | 54 | 192 | 48 | 294 | 37 | 110 | 7 | 154 | 25 | 183 | 38 | 246 | 942 | |
| | 6:00 | 51 | 154 | 46 | 251 | 51 | 164 | 48 | 263 | 43 | 108 | 16 | 167 | 31 | 131 | 40 | 202 | 883 | |
| | TOTAL | 179 | 661 | 181 | 1021 | 169 | 662 | 169 | 1000 | 159 | 440 | 51 | 650 | 120 | 676 | 161 | 957 | | 3628 |
| AM PEAK HOUR 7:15-8:15 | | 165 | 402 | 195 | 762 | 198 | 719 | 134 | 1051 | 190 | 634 | 134 | 958 | 108 | 543 | 177 | 828 | | 3599 |
| PM PEAK HOUR 5:00-6:00 | | 179 | 661 | 181 | 1021 | 169 | 662 | 169 | 1000 | 159 | 440 | 51 | 650 | 120 | 676 | 161 | 957 | | 3628 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH-SOUTH ST: MAIN
EAST-WEST ST: 228 TH ST

DATE: 8-30-94
DAY: TUESDAY
PROJ NO:

| | TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | 7:15 | 6 | 60 | 3 | 13 | 12 | 6 | 6 | 62 | 6 | 5 | 4 | 9 |
| | 7:30 | 4 | 65 | 4 | 11 | 12 | 10 | 5 | 88 | 10 | 13 | 8 | 6 |
| | 7:45 | 8 | 91 | 6 | 18 | 25 | 20 | 8 | 112 | 14 | 12 | 18 | 10 |
| | 8:00 | 3 | 67 | 4 | 17 | 19 | 10 | 6 | 107 | 11 | 4 | 9 | 13 |
| | TOTAL | 21 | 283 | 17 | 59 | 68 | 46 | 25 | 369 | 41 | 34 | 39 | 38 |
| | 8:15 | 1 | 65 | 12 | 9 | 19 | 6 | 4 | 100 | 11 | 14 | 11 | 12 |
| | 8:30 | 6 | 52 | 5 | 5 | 7 | 7 | 1 | 40 | 6 | 1 | 7 | 4 |
| | 8:45 | 8 | 71 | 5 | 7 | 10 | 5 | 12 | 79 | 13 | 5 | 8 | 7 |
| | 9:00 | 4 | 72 | 5 | 6 | 12 | 9 | 3 | 84 | 9 | 3 | 17 | 3 |
| | TOTAL | 19 | 260 | 27 | 27 | 48 | 27 | 20 | 303 | 39 | 23 | 43 | 26 |
| AM PEAK HOUR 7:15-8:15 | TOTAL | 16 | 288 | 26 | 55 | 75 | 46 | 23 | 407 | 46 | 43 | 46 | 41 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH-SOUTH ST: MAIN
EAST-WEST ST: 228 TH ST

DATE: 8-30-94
DAY: TUESDAY
PROJ NO:

| TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PM 4:15 | 22 | 125 | 13 | 6 | 14 | 8 | 13 | 114 | 8 | 7 | 29 | 13 |
| 4:30 | 17 | 145 | 15 | 10 | 15 | 9 | 14 | 127 | 12 | 11 | 19 | 15 |
| 4:45 | 12 | 147 | 20 | 6 | 14 | 21 | 10 | 115 | 18 | 15 | 23 | 22 |
| 5:00 | 11 | 155 | 26 | 8 | 23 | 8 | 17 | 144 | 14 | 15 | 35 | 19 |
| TOTAL | 62 | 572 | 74 | 30 | 66 | 46 | 54 | 500 | 52 | 48 | 106 | 69 |
| 5:15 | 18 | 129 | 20 | 7 | 20 | 12 | 8 | 144 | 17 | 12 | 30 | 8 |
| 5:30 | 24 | 178 | 25 | 8 | 16 | 11 | 28 | 92 | 12 | 22 | 35 | 11 |
| 5:45 | 19 | 153 | 12 | 5 | 19 | 16 | 12 | 115 | 14 | 10 | 34 | 12 |
| 6:00 | 14 | 150 | 18 | 8 | 25 | 15 | 13 | 135 | 12 | 8 | 19 | 11 |
| TOTAL | 75 | 610 | 75 | 28 | 80 | 54 | 61 | 486 | 55 | 52 | 118 | 42 |
| PM PEAK HOUR 4:30-5:30 TOTAL | 65 | 609 | 91 | 29 | 73 | 52 | 63 | 495 | 61 | 64 | 123 | 60 |

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH-SOUTH ST: MAIN
EAST-WEST ST: 228 TH ST

DATE: 9-8-94
DAY: THURSDAY
PROJ NO:

| | TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | 7:15 | 6 | 46 | 5 | 9 | 7 | 12 | 9 | 72 | 3 | 9 | 12 | 11 |
| | 7:30 | 9 | 56 | 3 | 14 | 22 | 11 | 9 | 102 | 10 | 1 | 11 | 8 |
| | 7:45 | 9 | 79 | 6 | 15 | 31 | 16 | 7 | 141 | 8 | 10 | 22 | 14 |
| | 8:00 | 12 | 118 | 7 | 18 | 30 | 16 | 6 | 120 | 28 | 3 | 29 | 10 |
| | TOTAL | 36 | 299 | 21 | 56 | 90 | 55 | 31 | 435 | 49 | 23 | 74 | 43 |
| | 8:15 | 5 | 77 | 10 | 7 | 18 | 8 | 7 | 90 | 12 | 5 | 8 | 14 |
| | 8:30 | 5 | 67 | 3 | 6 | 7 | 5 | 4 | 68 | 7 | 6 | 12 | 3 |
| | 8:45 | 6 | 85 | 11 | 13 | 13 | 13 | 8 | 103 | 5 | 8 | 13 | 15 |
| | 9:00 | 14 | 96 | 6 | 19 | 11 | 12 | 5 | 87 | 10 | 4 | 11 | 20 |
| | TOTAL | 30 | 325 | 30 | 45 | 49 | 38 | 24 | 348 | 34 | 23 | 44 | 52 |
| AM PEAK HOUR 7:15-8:15 | TOTAL | 35 | 330 | 26 | 54 | 101 | 51 | 29 | 453 | 58 | 19 | 70 | 46 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH-SOUTH ST: MAIN
EAST-WEST ST: 228 TH ST

DATE: 9-8-94
DAY: THURSDAY
PROJ NO:

| TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PM 4:15 | 22 | 181 | 12 | 14 | 16 | 9 | 17 | 117 | 12 | 6 | 23 | 13 |
| 4:30 | 21 | 124 | 11 | 11 | 15 | 9 | 10 | 104 | 5 | 6 | 18 | 9 |
| 4:45 | 16 | 156 | 12 | 12 | 29 | 7 | 13 | 121 | 9 | 11 | 34 | 10 |
| 5:00 | 18 | 183 | 26 | 6 | 25 | 13 | 14 | 157 | 22 | 6 | 26 | 15 |
| TOTAL | 77 | 644 | 61 | 43 | 85 | 38 | 54 | 499 | 48 | 29 | 101 | 47 |
| 5:15 | 13 | 151 | 29 | 8 | 18 | 10 | 9 | 117 | 13 | 17 | 30 | 14 |
| 5:30 | 31 | 202 | 17 | 13 | 32 | 24 | 9 | 152 | 12 | 10 | 24 | 17 |
| 5:45 | 18 | 148 | 16 | 8 | 29 | 20 | 7 | 152 | 4 | 9 | 15 | 18 |
| 6:00 | 24 | 146 | 20 | 9 | 25 | 9 | 20 | 136 | 21 | 15 | 28 | 6 |
| TOTAL | 86 | 647 | 82 | 38 | 104 | 63 | 45 | 557 | 50 | 51 | 97 | 55 |
| PM PEAK HOUR 4:45-5:45 TOTAL | 80 | 684 | 88 | 35 | 104 | 67 | 39 | 578 | 51 | 42 | 95 | 64 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH-SOUTH ST: MAIN
EAST-WEST ST: SEPULVEDA

DATE: 9-13-94
DAY: TUESDAY
PROJ NO:

| TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM 7:15 | 28 | 46 | 13 | 10 | 124 | 29 | 20 | 43 | 10 | 20 | 95 | 16 |
| 7:30 | 30 | 62 | 12 | 13 | 145 | 36 | 38 | 67 | 29 | 19 | 153 | 13 |
| 7:45 | 31 | 65 | 12 | 6 | 184 | 33 | 27 | 76 | 29 | 25 | 142 | 22 |
| 8:00 | 35 | 87 | 15 | 9 | 142 | 33 | 32 | 69 | 31 | 35 | 136 | 17 |
| TOTAL | 124 | 260 | 52 | 38 | 595 | 131 | 117 | 255 | 99 | 99 | 526 | 68 |
| 8:15 | 36 | 75 | 18 | 6 | 186 | 35 | 39 | 81 | 31 | 27 | 128 | 18 |
| 8:30 | 26 | 51 | 11 | 15 | 117 | 24 | 21 | 50 | 19 | 24 | 83 | 14 |
| 8:45 | 21 | 61 | 12 | 9 | 152 | 24 | 16 | 53 | 12 | 17 | 97 | 15 |
| 9:00 | 21 | 53 | 8 | 11 | 112 | 22 | 25 | 37 | 20 | 14 | 108 | 30 |
| TOTAL | 104 | 240 | 49 | 41 | 567 | 105 | 101 | 221 | 82 | 82 | 416 | 77 |
| AM PEAK HOUR 7:15-8:15 TOTAL | 132 | 289 | 57 | 34 | 657 | 137 | 136 | 293 | 120 | 106 | 559 | 70 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH-SOUTH ST: MAIN
EAST-WEST ST: SEPULVEDA

DATE: 8-30-94
DAY: TUESDAY
PROJ NO:

| TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM 7:15 | 21 | 44 | 13 | 5 | 99 | 16 | 21 | 40 | 17 | 22 | 88 | 14 |
| 7:30 | 29 | 61 | 14 | 13 | 121 | 13 | 24 | 59 | 30 | 27 | 93 | 12 |
| 7:45 | 34 | 91 | 6 | 13 | 185 | 33 | 28 | 74 | 23 | 32 | 123 | 11 |
| 8:00 | 26 | 71 | 9 | 16 | 135 | 28 | 22 | 54 | 29 | 35 | 134 | 14 |
| TOTAL | 110 | 267 | 42 | 47 | 540 | 90 | 95 | 227 | 99 | 116 | 438 | 51 |
| 8:15 | 22 | 43 | 14 | 11 | 127 | 15 | 16 | 50 | 16 | 21 | 75 | 10 |
| 8:30 | 22 | 52 | 11 | 21 | 134 | 19 | 24 | 39 | 12 | 13 | 101 | 11 |
| 8:45 | 10 | 68 | 9 | 17 | 133 | 20 | 16 | 66 | 18 | 16 | 73 | 16 |
| 9:00 | 20 | 39 | 8 | 18 | 92 | 25 | 15 | 50 | 20 | 11 | 81 | 22 |
| TOTAL | 74 | 202 | 42 | 67 | 486 | 79 | 71 | 205 | 66 | 61 | 330 | 59 |
| AM PEAK HOUR 7:15-8:15 TOTAL | 111 | 266 | 43 | 53 | 568 | 89 | 90 | 237 | 98 | 115 | 425 | 47 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH-SOUTH ST: MAIN
EAST-WEST ST: SEPULVEDA

DATE: 8-30-94
DAY: TUESDAY
PROJ NO:

| TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PM 4:15 | 28 | 81 | 22 | 25 | 133 | 14 | 34 | 85 | 28 | 24 | 127 | 25 |
| 4:30 | 15 | 64 | 14 | 15 | 114 | 35 | 28 | 67 | 18 | 27 | 106 | 27 |
| 4:45 | 21 | 80 | 24 | 25 | 142 | 49 | 40 | 85 | 27 | 20 | 151 | 33 |
| 5:00 | 28 | 80 | 15 | 21 | 124 | 36 | 30 | 90 | 13 | 28 | 151 | 33 |
| TOTAL | 92 | 305 | 75 | 76 | 513 | 134 | 132 | 327 | 86 | 99 | 535 | 118 |
| 5:15 | 46 | 112 | 24 | 28 | 192 | 36 | 56 | 129 | 56 | 43 | 208 | 42 |
| 5:30 | 33 | 88 | 24 | 22 | 164 | 35 | 41 | 81 | 28 | 32 | 133 | 28 |
| 5:45 | 56 | 122 | 16 | 21 | 196 | 46 | 65 | 122 | 32 | 28 | 193 | 35 |
| 6:00 | 20 | 52 | 7 | 17 | 189 | 33 | 28 | 40 | 5 | 26 | 171 | 32 |
| TOTAL | 155 | 374 | 71 | 88 | 741 | 150 | 190 | 372 | 121 | 129 | 705 | 137 |
| PM PEAK HOUR 4:45-5:45 TOTAL | 163 | 402 | 79 | 92 | 676 | 153 | 192 | 422 | 129 | 131 | 685 | 138 |

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH-SOUTH ST: MAIN
EAST-WEST ST: SEPULVEDA

DATE: 9-8-94
DAY: THURSDAY
PROJ NO:

| | TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | 7:15 | 17 | 49 | 11 | 11 | 89 | 23 | 20 | 47 | 16 | 16 | 93 | 15 |
| | 7:30 | 34 | 50 | 11 | 9 | 147 | 27 | 28 | 66 | 23 | 22 | 93 | 9 |
| | 7:45 | 32 | 63 | 12 | 12 | 177 | 34 | 38 | 72 | 32 | 28 | 127 | 16 |
| | 8:00 | 30 | 82 | 8 | 13 | 149 | 35 | 24 | 55 | 32 | 33 | 158 | 18 |
| | TOTAL | 113 | 244 | 42 | 45 | 562 | 119 | 110 | 240 | 103 | 99 | 471 | 58 |
| | 8:15 | 40 | 81 | 16 | 19 | 193 | 46 | 31 | 90 | 27 | 22 | 159 | 17 |
| | 8:30 | 21 | 68 | 9 | 14 | 120 | 27 | 21 | 64 | 20 | 33 | 96 | 21 |
| | 8:45 | 23 | 84 | 9 | 14 | 151 | 24 | 28 | 57 | 22 | 16 | 123 | 3 |
| | 9:00 | 33 | 64 | 16 | 12 | 119 | 18 | 21 | 47 | 13 | 19 | 104 | 29 |
| | TOTAL | 117 | 297 | 50 | 59 | 583 | 115 | 101 | 258 | 82 | 90 | 482 | 70 |
| AM PEAK HOUR 7:15-8:15 | TOTAL | 136 | 276 | 47 | 53 | 666 | 142 | 121 | 283 | 114 | 105 | 537 | 60 |

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH-SOUTH ST: MAIN
EAST-WEST ST: SEPULVEDA

DATE: 9-8-94
DAY: THURSDAY
PROJ NO:

| | TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PM | 4:15 | 27 | 86 | 17 | 23 | 152 | 30 | 30 | 79 | 34 | 38 | 144 | 33 |
| | 4:30 | 21 | 107 | 14 | 20 | 153 | 29 | 44 | 89 | 15 | 22 | 132 | 32 |
| | 4:45 | 32 | 83 | 31 | 18 | 166 | 33 | 32 | 95 | 36 | 55 | 190 | 32 |
| | 5:00 | 25 | 105 | 17 | 28 | 178 | 30 | 41 | 126 | 31 | 70 | 206 | 25 |
| | TOTAL | 105 | 381 | 79 | 89 | 649 | 122 | 147 | 389 | 116 | 185 | 672 | 122 |
| | 5:15 | 31 | 108 | 24 | 13 | 161 | 37 | 49 | 108 | 49 | 34 | 198 | 30 |
| | 5:30 | 29 | 106 | 22 | 21 | 207 | 47 | 47 | 97 | 24 | 36 | 213 | 46 |
| | 5:45 | 52 | 90 | 23 | 37 | 199 | 38 | 50 | 81 | 23 | 28 | 177 | 38 |
| | 6:00 | 42 | 94 | 22 | 27 | 155 | 50 | 48 | 95 | 22 | 26 | 173 | 37 |
| | TOTAL | 154 | 398 | 91 | 98 | 722 | 172 | 194 | 381 | 118 | 124 | 761 | 151 |
| PM PEAK HOUR 4:45-5:45 | TOTAL | 137 | 409 | 86 | 99 | 745 | 152 | 187 | 412 | 127 | 168 | 794 | 139 |

INTERSECTION TURNING MOVEMENT COUNT SUMMARY
ACCUTEK

CITY: CARSON
NORTH-SOUTH: FIGUEROA ST.
EAST-WEST ST: 223RD ST.

DATE: 10-2-96
DAY: WEDNESDAY
PROJ NO. 2160

| | TIME | SOUTH BOUND RT | SOUTH BOUND THRU | SOUTH BOUND LT | SB TOTAL | WEST BOUND RT | WEST BOUND THRU | WEST BOUND LT | WB TOTAL | NORTH BOUND RT | NORTH BOUND THRU | NORTH BOUND LT | NB TOTAL | EAST BOUND RT | EAST BOUND THRU | EAST BOUND LT | EB TOTAL | 15' TOTAL | HR TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | 7:15 | 26 | 20 | 7 | 53 | 35 | 122 | 11 | 168 | 14 | 78 | 16 | 108 | 32 | 103 | 69 | 204 | 533 | |
| | 7:30 | 24 | 30 | 18 | 72 | 63 | 147 | 11 | 221 | 19 | 104 | 24 | 147 | 34 | 144 | 81 | 259 | 699 | |
| | 7:45 | 38 | 56 | 20 | 114 | 105 | 188 | 14 | 307 | 41 | 172 | 30 | 243 | 28 | 182 | 88 | 298 | 962 | |
| | 8:00 | 64 | 63 | 18 | 145 | 64 | 208 | 28 | 300 | 38 | 159 | 39 | 236 | 44 | 147 | 92 | 283 | 964 | |
| | TOTAL | 152 | 169 | 63 | 384 | 267 | 665 | 64 | 996 | 112 | 513 | 109 | 734 | 138 | 576 | 330 | 1044 | | 3158 |
| | 8:15 | 23 | 39 | 13 | 75 | 27 | 151 | 16 | 194 | 34 | 118 | 26 | 178 | 43 | 118 | 58 | 219 | 666 | |
| | 8:30 | 35 | 30 | 17 | 82 | 34 | 163 | 13 | 210 | 18 | 103 | 20 | 141 | 21 | 81 | 56 | 158 | 591 | |
| | 8:45 | 16 | 34 | 12 | 62 | 24 | 124 | 15 | 163 | 20 | 76 | 13 | 109 | 19 | 80 | 59 | 158 | 492 | |
| | 9:00 | 23 | 29 | 8 | 60 | 23 | 108 | 17 | 148 | 15 | 68 | 14 | 97 | 21 | 70 | 65 | 156 | 461 | |
| | TOTAL | 97 | 132 | 50 | 279 | 108 | 546 | 61 | 715 | 87 | 365 | 73 | 525 | 104 | 349 | 238 | 691 | | 2210 |
| PM | 4:15 | 16 | 49 | 10 | 75 | 39 | 132 | 19 | 190 | 24 | 58 | 9 | 91 | 43 | 220 | 86 | 349 | 705 | |
| | 4:30 | 18 | 60 | 29 | 107 | 31 | 132 | 19 | 182 | 22 | 81 | 7 | 110 | 55 | 169 | 53 | 277 | 676 | |
| | 4:45 | 28 | 46 | 21 | 95 | 38 | 153 | 13 | 204 | 23 | 96 | 11 | 130 | 52 | 213 | 61 | 326 | 755 | |
| | 5:00 | 33 | 68 | 26 | 127 | 40 | 145 | 10 | 195 | 19 | 61 | 15 | 95 | 81 | 225 | 65 | 371 | 788 | |
| | TOTAL | 95 | 223 | 86 | 404 | 148 | 562 | 61 | 771 | 88 | 296 | 42 | 426 | 231 | 827 | 265 | 1323 | | 2924 |
| | 5:15 | 25 | 68 | 32 | 125 | 42 | 154 | 6 | 202 | 17 | 69 | 17 | 103 | 67 | 231 | 62 | 360 | 790 | |
| | 5:30 | 35 | 67 | 27 | 129 | 41 | 169 | 14 | 224 | 20 | 59 | 10 | 89 | 71 | 291 | 67 | 429 | 871 | |
| | 5:45 | 23 | 74 | 19 | 116 | 35 | 170 | 27 | 232 | 19 | 76 | 13 | 108 | 70 | 211 | 66 | 347 | 803 | |
| | 6:00 | 37 | 71 | 24 | 132 | 35 | 172 | 18 | 225 | 27 | 74 | 14 | 115 | 60 | 203 | 53 | 316 | 788 | |
| | TOTAL | 120 | 280 | 102 | 502 | 153 | 665 | 65 | 883 | 83 | 278 | 54 | 415 | 268 | 936 | 248 | 1452 | | 3252 |
| AM PEAK HOUR 7:15-8:15 | | 149 | 188 | 69 | 406 | 259 | 694 | 69 | 1022 | 132 | 553 | 119 | 804 | 149 | 591 | 319 | 1059 | | 3291 |
| PM PEAK HOUR 4:45-5:45 | | 116 | 277 | 104 | 497 | 158 | 638 | 57 | 853 | 75 | 265 | 55 | 395 | 289 | 958 | 260 | 1507 | | 3252 |

INTERSECTION TURNING MOVEMENT COUNT SUMMARY
ACCUTEK

CITY: CARSON
NORTH-SOUTH: FIGUEROA ST.
EAST-WEST ST: 223RD ST.

DATE: 10-08-96
DAY: TUESDAY
PROJ NO. 2160

| TIME | SOUTH BOUND RT | SOUTH BOUND THRU | SOUTH BOUND LT | SB TOTAL | WEST BOUND RT | WEST BOUND THRU | WEST BOUND LT | WB TOTAL | NORTH BOUND RT | NORTH BOUND THRU | NORTH BOUND LT | NB TOTAL | EAST BOUND RT | EAST BOUND THRU | EAST BOUND LT | EB TOTAL | 15' TOTAL | HR TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM 7:15 | 25 | 20 | 7 | 52 | 35 | 120 | 8 | 163 | 9 | 74 | 16 | 99 | 27 | 123 | 66 | 216 | 530 | |
| 7:30 | 24 | 29 | 12 | 65 | 50 | 150 | 12 | 212 | 29 | 97 | 15 | 141 | 28 | 133 | 91 | 252 | 670 | |
| 7:45 | 45 | 50 | 24 | 119 | 117 | 225 | 19 | 361 | 39 | 207 | 34 | 280 | 33 | 190 | 105 | 328 | 1088 | |
| 8:00 | 50 | 69 | 9 | 128 | 74 | 196 | 19 | 289 | 40 | 262 | 35 | 337 | 47 | 157 | 99 | 303 | 1057 | |
| TOTAL | 144 | 168 | 52 | 364 | 181 | 691 | 58 | 930 | 117 | 640 | 100 | 857 | 135 | 603 | 361 | 1099 | | 3345 |
| 8:15 | 25 | 39 | 13 | 77 | 34 | 195 | 14 | 243 | 41 | 199 | 37 | 277 | 37 | 123 | 68 | 228 | 825 | |
| 8:30 | 29 | 31 | 16 | 76 | 32 | 135 | 15 | 182 | 21 | 147 | 26 | 194 | 29 | 104 | 58 | 191 | 643 | |
| 8:45 | 22 | 37 | 11 | 70 | 33 | 127 | 17 | 177 | 22 | 115 | 18 | 155 | 19 | 73 | 60 | 152 | 554 | |
| 9:00 | 21 | 28 | 11 | 60 | 23 | 127 | 21 | 171 | 12 | 65 | 10 | 87 | 23 | 69 | 63 | 155 | 473 | |
| TOTAL | 97 | 135 | 51 | 283 | 122 | 584 | 67 | 773 | 96 | 526 | 91 | 713 | 108 | 369 | 249 | 726 | | 2495 |
| PM 4:15 | 37 | 74 | 16 | 127 | 28 | 109 | 15 | 152 | 20 | 66 | 11 | 97 | 47 | 207 | 72 | 326 | 702 | |
| 4:30 | 29 | 50 | 24 | 103 | 18 | 111 | 11 | 140 | 11 | 65 | 12 | 88 | 76 | 192 | 62 | 330 | 661 | |
| 4:45 | 20 | 55 | 20 | 95 | 32 | 126 | 13 | 171 | 28 | 89 | 10 | 127 | 49 | 208 | 84 | 341 | 734 | |
| 5:00 | 37 | 70 | 22 | 129 | 31 | 144 | 15 | 190 | 25 | 70 | 13 | 108 | 59 | 197 | 72 | 328 | 755 | |
| TOTAL | 123 | 249 | 82 | 454 | 109 | 490 | 54 | 653 | 84 | 290 | 46 | 420 | 231 | 804 | 290 | 1325 | | 2852 |
| 5:15 | 44 | 67 | 26 | 137 | 28 | 159 | 29 | 216 | 28 | 67 | 14 | 109 | 78 | 276 | 70 | 424 | 886 | |
| 5:30 | 35 | 75 | 24 | 134 | 27 | 167 | 26 | 220 | 30 | 68 | 9 | 107 | 58 | 228 | 71 | 357 | 818 | |
| 5:45 | 22 | 68 | 22 | 112 | 31 | 158 | 33 | 222 | 20 | 67 | 17 | 104 | 69 | 223 | 58 | 350 | 788 | |
| 6:00 | 21 | 75 | 15 | 111 | 32 | 174 | 24 | 230 | 33 | 89 | 6 | 128 | 71 | 184 | 51 | 306 | 775 | |
| TOTAL | 122 | 285 | 87 | 494 | 118 | 658 | 112 | 888 | 111 | 291 | 46 | 448 | 276 | 911 | 250 | 1437 | | 3267 |
| AM PEAK HOUR 7:15-8:15 | 144 | 187 | 58 | 389 | 275 | 766 | 64 | 1105 | 149 | 765 | 121 | 1035 | 145 | 603 | 363 | 1111 | | 3640 |
| PM PEAK HOUR 5:00-6:00 | 122 | 285 | 87 | 494 | 118 | 658 | 112 | 888 | 111 | 291 | 46 | 448 | 276 | 911 | 250 | 1437 | | 3267 |

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY
ACCUTEK

CITY: CARSON
NORTH-SOUTH: FIGUEROA ST.
EAST-WEST ST: 228TH ST.

DATE: 10-2-96
DAY: WEDNESDAY
PROJ NO. 2160

| | TIME | SOUTH BOUND RT | SOUTH BOUND THRU | SOUTH BOUND LT | SB TOTAL | WEST BOUND RT | WEST BOUND THRU | WEST BOUND LT | WB TOTAL | NORTH BOUND RT | NORTH BOUND THRU | NORTH BOUND LT | NB TOTAL | EAST BOUND RT | EAST BOUND THRU | EAST BOUND LT | EB TOTAL | 15' TOTAL | HR TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | 7:15 | 7 | 36 | 11 | 54 | 27 | 21 | 9 | 57 | 4 | 57 | 17 | 78 | 7 | 20 | 18 | 45 | 234 | |
| | 7:30 | 17 | 45 | 17 | 79 | 37 | 48 | 14 | 99 | 8 | 87 | 15 | 110 | 15 | 27 | 23 | 65 | 353 | |
| | 7:45 | 25 | 53 | 17 | 95 | 53 | 56 | 20 | 129 | 16 | 140 | 26 | 182 | 15 | 40 | 27 | 82 | 488 | |
| | 8:00 | 21 | 78 | 15 | 114 | 62 | 59 | 21 | 142 | 14 | 136 | 23 | 173 | 14 | 45 | 34 | 93 | 522 | |
| | TOTAL | 70 | 212 | 60 | 342 | 179 | 184 | 64 | 427 | 42 | 420 | 81 | 543 | 51 | 132 | 102 | 285 | | 1597 |
| | 8:15 | 15 | 48 | 11 | 74 | 33 | 71 | 27 | 131 | 9 | 100 | 14 | 123 | 17 | 41 | 28 | 86 | 414 | |
| | 8:30 | 10 | 35 | 8 | 53 | 20 | 43 | 15 | 78 | 10 | 97 | 18 | 125 | 7 | 22 | 17 | 46 | 302 | |
| | 8:45 | 11 | 45 | 9 | 65 | 23 | 33 | 13 | 69 | 4 | 70 | 9 | 83 | 7 | 20 | 20 | 47 | 264 | |
| | 9:00 | 16 | 34 | 8 | 58 | 22 | 25 | 12 | 59 | 4 | 54 | 8 | 66 | 7 | 18 | 21 | 46 | 229 | |
| | TOTAL | 52 | 162 | 36 | 250 | 98 | 172 | 67 | 337 | 27 | 321 | 49 | 397 | 38 | 101 | 86 | 225 | | 1209 |
| PM | 4:15 | 11 | 84 | 23 | 118 | 16 | 33 | 9 | 58 | 10 | 66 | 11 | 87 | 14 | 43 | 12 | 69 | 332 | |
| | 4:30 | 15 | 81 | 31 | 127 | 10 | 33 | 21 | 64 | 20 | 73 | 7 | 100 | 20 | 46 | 22 | 88 | 379 | |
| | 4:45 | 17 | 83 | 29 | 129 | 21 | 35 | 17 | 73 | 25 | 69 | 10 | 104 | 18 | 48 | 30 | 96 | 402 | |
| | 5:00 | 15 | 102 | 30 | 147 | 13 | 27 | 15 | 55 | 21 | 61 | 16 | 98 | 20 | 40 | 19 | 79 | 379 | |
| | TOTAL | 58 | 350 | 113 | 521 | 60 | 128 | 62 | 250 | 76 | 269 | 44 | 389 | 72 | 177 | 83 | 332 | | 1492 |
| | 5:15 | 11 | 94 | 41 | 146 | 19 | 38 | 17 | 74 | 17 | 62 | 16 | 95 | 19 | 66 | 19 | 104 | 419 | |
| | 5:30 | 18 | 99 | 36 | 153 | 20 | 47 | 13 | 80 | 20 | 60 | 15 | 95 | 25 | 62 | 15 | 102 | 430 | |
| | 5:45 | 17 | 108 | 34 | 159 | 16 | 35 | 7 | 58 | 13 | 69 | 17 | 99 | 16 | 46 | 23 | 85 | 401 | |
| | 6:00 | 12 | 100 | 26 | 138 | 14 | 32 | 20 | 66 | 22 | 76 | 13 | 111 | 25 | 64 | 12 | 101 | 416 | |
| | TOTAL | 58 | 401 | 137 | 596 | 69 | 152 | 57 | 278 | 72 | 267 | 61 | 400 | 85 | 238 | 69 | 392 | | 1666 |
| AM PEAK HOUR 7:15-8:15 | | 78 | 224 | 60 | 362 | 185 | 234 | 82 | 501 | 47 | 463 | 78 | 588 | 61 | 153 | 112 | 326 | | 1777 |
| PM PEAK HOUR 5:00-6:00 | | 58 | 401 | 137 | 596 | 69 | 152 | 57 | 278 | 72 | 267 | 61 | 400 | 85 | 238 | 69 | 392 | | 1666 |

INTERSECTION TURNING MOVEMENT COUNT SUMMARY
ACCUTEK

CITY: CARSON
NORTH-SOUTH: FIGUEROA ST.
EAST-WEST ST: 228TH ST.

DATE: 10-08-96
DAY: TUESDAY
PROJ NO. 2160

| TIME | SOUTH BOUND RT | SOUTH BOUND THRU | SOUTH BOUND LT | SB TOTAL | WEST BOUND RT | WEST BOUND THRU | WEST BOUND LT | WB TOTAL | NORTH BOUND RT | NORTH BOUND THRU | NORTH BOUND LT | NB TOTAL | EAST BOUND RT | EAST BOUND THRU | EAST BOUND LT | EB TOTAL | 15' TOTAL | HR TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM 7:15 | 7 | 35 | 11 | 53 | 28 | 36 | 10 | 74 | 5 | 57 | 12 | 74 | 11 | 22 | 11 | 44 | 245 | |
| 7:30 | 13 | 42 | 10 | 65 | 39 | 59 | 20 | 118 | 11 | 114 | 13 | 138 | 18 | 26 | 19 | 63 | 384 | |
| 7:45 | 17 | 69 | 14 | 100 | 55 | 68 | 21 | 144 | 13 | 183 | 28 | 224 | 6 | 35 | 31 | 72 | 540 | |
| 8:00 | 26 | 67 | 25 | 118 | 57 | 57 | 32 | 146 | 10 | 211 | 28 | 249 | 24 | 35 | 44 | 103 | 616 | |
| TOTAL | 63 | 213 | 60 | 336 | 179 | 220 | 83 | 482 | 39 | 565 | 81 | 685 | 59 | 118 | 105 | 282 | | 1785 |
| 8:15 | 23 | 46 | 22 | 91 | 31 | 58 | 11 | 100 | 14 | 190 | 22 | 226 | 11 | 38 | 35 | 84 | 501 | |
| 8:30 | 22 | 41 | 15 | 78 | 21 | 47 | 16 | 84 | 8 | 150 | 20 | 178 | 3 | 23 | 17 | 43 | 383 | |
| 8:45 | 19 | 42 | 4 | 55 | 30 | 41 | 16 | 87 | 9 | 93 | 16 | 118 | 8 | 32 | 21 | 61 | 321 | |
| 9:00 | 6 | 43 | 8 | 57 | 13 | 24 | 5 | 42 | 7 | 58 | 4 | 69 | 4 | 16 | 12 | 32 | 200 | |
| TOTAL | 70 | 172 | 49 | 291 | 95 | 170 | 48 | 313 | 38 | 491 | 62 | 591 | 26 | 109 | 85 | 220 | | 1405 |
| PM 4:15 | 12 | 83 | 24 | 119 | 20 | 29 | 11 | 60 | 18 | 67 | 9 | 94 | 18 | 51 | 22 | 91 | 364 | |
| 4:30 | 16 | 87 | 31 | 134 | 9 | 34 | 12 | 55 | 19 | 71 | 11 | 101 | 25 | 58 | 17 | 100 | 390 | |
| 4:45 | 13 | 69 | 27 | 109 | 12 | 28 | 9 | 49 | 11 | 65 | 14 | 90 | 20 | 58 | 29 | 107 | 355 | |
| 5:00 | 18 | 87 | 29 | 134 | 10 | 40 | 10 | 60 | 15 | 69 | 13 | 97 | 14 | 51 | 33 | 98 | 389 | |
| TOTAL | 59 | 326 | 111 | 496 | 51 | 131 | 42 | 224 | 63 | 272 | 47 | 382 | 77 | 218 | 101 | 396 | | 1498 |
| 5:15 | 21 | 92 | 33 | 146 | 18 | 47 | 13 | 78 | 9 | 74 | 13 | 96 | 27 | 64 | 22 | 113 | 433 | |
| 5:30 | 13 | 107 | 43 | 163 | 13 | 37 | 15 | 65 | 21 | 74 | 16 | 111 | 15 | 72 | 15 | 102 | 441 | |
| 5:45 | 17 | 108 | 31 | 156 | 20 | 32 | 9 | 61 | 19 | 57 | 11 | 87 | 21 | 44 | 16 | 81 | 385 | |
| 6:00 | 18 | 99 | 33 | 150 | 20 | 51 | 14 | 85 | 9 | 67 | 7 | 83 | 14 | 39 | 24 | 77 | 395 | |
| TOTAL | 69 | 406 | 140 | 615 | 71 | 167 | 51 | 289 | 58 | 272 | 47 | 377 | 77 | 219 | 77 | 373 | | 1654 |
| AM PEAK HOUR 7:15-8:15 | 79 | 224 | 71 | 374 | 182 | 242 | 84 | 508 | 48 | 698 | 91 | 837 | 59 | 134 | 129 | 322 | | 2041 |
| PM PEAK HOUR 5:00-6:00 | 69 | 406 | 140 | 615 | 71 | 167 | 51 | 289 | 58 | 272 | 47 | 377 | 77 | 219 | 77 | 373 | | 1654 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH–SOUTH ST: FIGUEROA
EAST–WEST ST: SEPULVEDA

DATE: 8–30–94
DAY: TUESDAY
PROJ NO :

| TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM 7:15 | 48 | 26 | 2 | 18 | 94 | 17 | 9 | 22 | 29 | 11 | 120 | 19 |
| 7:30 | 61 | 25 | 4 | 15 | 110 | 18 | 6 | 37 | 43 | 7 | 143 | 22 |
| 7:45 | 58 | 25 | 4 | 35 | 154 | 22 | 6 | 39 | 51 | 13 | 199 | 13 |
| 8:00 | 57 | 31 | 1 | 19 | 146 | 14 | 12 | 62 | 53 | 17 | 155 | 27 |
| TOTAL | 224 | 107 | 11 | 87 | 504 | 71 | 33 | 160 | 176 | 48 | 617 | 81 |
| 8:15 | 45 | 24 | 4 | 10 | 133 | 26 | 3 | 32 | 46 | 11 | 162 | 18 |
| 8:30 | 43 | 31 | 6 | 15 | 133 | 14 | 10 | 39 | 40 | 10 | 170 | 13 |
| 8:45 | 37 | 25 | 1 | 17 | 100 | 20 | 5 | 44 | 56 | 5 | 134 | 12 |
| 9:00 | 30 | 35 | 4 | 15 | 120 | 17 | 3 | 43 | 55 | 7 | 140 | 9 |
| TOTAL | 155 | 115 | 15 | 57 | 486 | 77 | 21 | 158 | 197 | 33 | 606 | 52 |
| AM PEAK HOUR 7:30–8:30 TOTAL | 203 | 111 | 15 | 79 | 566 | 76 | 31 | 172 | 190 | 51 | 686 | 71 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH–SOUTH ST: FIGUEROA
EAST–WEST ST: SEPULVEDA

DATE: 8–30–94
DAY: TUESDAY
PROJ NO :

| TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PM 4:15 | 20 | 60 | 12 | 19 | 141 | 22 | 2 | 59 | 31 | 32 | 154 | 31 |
| 4:30 | 21 | 113 | 20 | 22 | 115 | 16 | 7 | 52 | 68 | 70 | 137 | 64 |
| 4:45 | 23 | 78 | 27 | 7 | 168 | 9 | 9 | 56 | 33 | 62 | 155 | 51 |
| 5:00 | 11 | 69 | 13 | 23 | 154 | 13 | 15 | 41 | 35 | 32 | 186 | 28 |
| TOTAL | 75 | 320 | 72 | 71 | 578 | 60 | 33 | 208 | 167 | 196 | 632 | 174 |
| 5:15 | 39 | 110 | 25 | 15 | 210 | 42 | 11 | 41 | 54 | 55 | 134 | 42 |
| 5:30 | 67 | 98 | 68 | 33 | 183 | 17 | 78 | 20 | 81 | 74 | 143 | 84 |
| 5:45 | 48 | 142 | 25 | 18 | 238 | 15 | 15 | 49 | 43 | 49 | 181 | 62 |
| 6:00 | 27 | 100 | 32 | 10 | 151 | 11 | 10 | 51 | 15 | 30 | 193 | 26 |
| TOTAL | 181 | 450 | 150 | 76 | 782 | 85 | 114 | 161 | 193 | 208 | 651 | 214 |
| PM PEAK HOUR 4:45–5:45 TOTAL | 165 | 419 | 131 | 89 | 785 | 87 | 119 | 151 | 213 | 210 | 644 | 216 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH–SOUTH ST: FIGUEROA
EAST–WEST ST: SEPULVEDA

DATE: 10–20–94
DAY: THURSDAY
PROJ NO :

| TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM 7:15 | 30 | 23 | 5 | 5 | 128 | 15 | 3 | 40 | 46 | 23 | 122 | 29 |
| 7:30 | 42 | 43 | 5 | 11 | 167 | 11 | 4 | 48 | 50 | 37 | 159 | 31 |
| 7:45 | 52 | 77 | 14 | 5 | 195 | 18 | 8 | 72 | 72 | 23 | 186 | 33 |
| 8:00 | 55 | 73 | 21 | 20 | 240 | 15 | 3 | 57 | 48 | 16 | 219 | 34 |
| TOTAL | 179 | 216 | 45 | 41 | 730 | 59 | 18 | 217 | 216 | 99 | 686 | 127 |
| 8:15 | 54 | 68 | 10 | 13 | 194 | 19 | 2 | 72 | 35 | 22 | 160 | 59 |
| 8:30 | 51 | 50 | 12 | 6 | 150 | 10 | 7 | 55 | 41 | 18 | 171 | 52 |
| 8:45 | 56 | 63 | 7 | 7 | 148 | 11 | 5 | 47 | 37 | 13 | 126 | 20 |
| 9:00 | 42 | 43 | 11 | 15 | 147 | 16 | 7 | 24 | 30 | 14 | 124 | 22 |
| TOTAL | 203 | 224 | 40 | 41 | 639 | 56 | 21 | 198 | 143 | 67 | 581 | 153 |
| AM PEAK HOUR 7:30–8:30 TOTAL | 212 | 268 | 57 | 44 | 779 | 62 | 20 | 256 | 196 | 79 | 736 | 178 |

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CITY: CARSON
NORTH–SOUTH ST: FIGUEROA
EAST–WEST ST: SEPULVEDA

DATE: 10–20–94
DAY: THURSDAY
PROJ NO :

| TIME | SOUTH BOUND RIGHT | SOUTH BOUND THRU | SOUTH BOUND LEFT | WEST BOUND RIGHT | WEST BOUND THRU | WEST BOUND LEFT | NORTH BOUND RIGHT | NORTH BOUND THRU | NORTH BOUND LEFT | EAST BOUND RIGHT | EAST BOUND THRU | EAST BOUND LEFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PM 4:15 | 39 | 46 | 14 | 14 | 75 | 6 | 13 | 53 | 44 | 31 | 200 | 34 |
| 4:30 | 36 | 69 | 17 | 20 | 156 | 4 | 6 | 58 | 33 | 24 | 194 | 43 |
| 4:45 | 39 | 76 | 15 | 9 | 340 | 7 | 15 | 51 | 23 | 32 | 162 | 49 |
| 5:00 | 42 | 63 | 21 | 20 | 150 | 6 | 7 | 46 | 21 | 30 | 180 | 43 |
| TOTAL | 156 | 254 | 67 | 63 | 721 | 23 | 41 | 208 | 121 | 117 | 736 | 169 |
| 5:15 | 59 | 86 | 19 | 23 | 285 | 13 | 12 | 73 | 45 | 26 | 276 | 48 |
| 5:30 | 52 | 67 | 28 | 20 | 221 | 14 | 6 | 54 | 30 | 31 | 236 | 64 |
| 5:45 | 32 | 61 | 20 | 15 | 211 | 14 | 11 | 68 | 34 | 34 | 169 | 42 |
| 6:00 | 46 | 90 | 32 | 18 | 244 | 16 | 25 | 44 | 37 | 45 | 228 | 45 |
| TOTAL | 189 | 304 | 99 | 76 | 961 | 57 | 54 | 239 | 146 | 136 | 909 | 199 |
| PM PEAK HOUR 5:00–6:00 TOTAL | 189 | 304 | 99 | 76 | 961 | 57 | 54 | 239 | 146 | 136 | 909 | 199 |

LINSCOTT LAW & GREENSPAN
ENGINEERS

# APPENDIX B

# ICU/LOS CALCULATION SHEETS

LINSCOTT LAW & GREENSPAN
ENGINEERS

## APPENDIX B

## LEVEL OF SERVICE (LOS) AND INTERSECTION CAPACITY UTILIZATION (ICU)

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Level of Service concept denotes any one of a number of various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the Highway Capacity Manual of 1985. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing. The capacity per hour of green time for each approach is calculated based on the methods of the Highway Capacity Manual. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the Highway Capacity Manual) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e., when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

| LEVEL OF SERVICE | LOAD FACTOR | EQUIVALENT |
|---|---|---|
| A (free flow) | 0.0 | 0.0 - 0.60 |
| B (rural design) | 0.0 - 0.1 | 0.61 - 0.70 |
| C (urban design) | 0.1 - 0.3 | 0.71 - 0.80 |
| D (maximum urban design) | 0.3 - 0.7 | 0.81 - 0.90 |
| E (capacity) | 0.7 - 1.0 | 0.91 - 1.00 |
| F (forced flow) | Not Applicable | Not Applicable |

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ENGINEERS

**SERVICE LEVEL A**

There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

**SERVICE LEVEL B**

This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

**SERVICE LEVEL C**

At this level stable operation continues. Loading is still intermittent but more frequent that at Level B. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

**SERVICE LEVEL D**

This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

**SERVICE LEVEL E**

This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

**SERVICE LEVEL F**

Jammed conditions. Traffic backed up from a downstream location on one of the streets restricts or prevents movement of traffic through the intersection under consideration.

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ENGINEERS

# 2001 HORIZON YEAR ANALYSIS

PROJECT NAME: CARSON TERMINAL SITE RESIDENTIAL PROJECT

OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2001 Traffic | | | | Project Traffic 90% Occupancy | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 150 | | | | | | | | | | | | | | | | | |
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 131 | 1600 | 0.082 | | 20 | 151 | 1600 | 0.094 | 0 | 151 | 1600 | 0.094 | 0 | 151 | 1600 | 0.094 | 0 | 151 | 1600 | 0.094 | 0 | 151 | 1600 | 0.094 |
| NBT | 599 | 3400 | 0.176 | * | 90 | 689 | 3400 | 0.203 | * 0 | 689 | 3400 | 0.203 | * 19 | 708 | 3400 | 0.208 | * 0 | 708 | 3400 | 0.208 | * 0 | 708 | 3400 | 0.208 * |
| NBR* | 180 | 1600 | 0.113 | | 27 | 207 | 1600 | 0.129 | 0 | 207 | 1600 | 0.129 | 10 | 217 | 1600 | 0.136 | 0 | 217 | 1600 | 0.136 | 0 | 217 | 1600 | 0.136 |
| SBL | 186 | 1600 | 0.116 | * | 28 | 214 | 1600 | 0.134 | * 0 | 214 | 1600 | 0.134 | * 0 | 214 | 1600 | 0.134 | * 0 | 214 | 1600 | 0.134 | * 0 | 214 | 1600 | 0.134 * |
| SBT | 406 | 3400 | 0.119 | | 61 | 467 | 3400 | 0.137 | 0 | 467 | 3400 | 0.137 | 5 | 472 | 3400 | 0.139 | 0 | 472 | 3400 | 0.139 | 0 | 472 | 3400 | 0.139 |
| SBR* | 163 | 1600 | 0.102 | | 25 | 188 | 1600 | 0.118 | 0 | 188 | 1600 | 0.118 | 0 | 188 | 1600 | 0.118 | 0 | 188 | 1600 | 0.118 | 0 | 188 | 1600 | 0.118 |
| EBL | 168 | 1600 | 0.105 | * | 25 | 193 | 1600 | 0.121 | * 0 | 193 | 1600 | 0.121 | * 0 | 193 | 1600 | 0.121 | * 0 | 193 | 1600 | 0.121 | * 0 | 193 | 1600 | 0.121 * |
| EBT | 550 | 3400 | 0.162 | | 83 | 633 | 3400 | 0.186 | 0 | 633 | 3400 | 0.186 | 0 | 633 | 3400 | 0.186 | 0 | 633 | 3400 | 0.186 | 0 | 633 | 3400 | 0.186 |
| EBR* | 88 | 1600 | 0.055 | | 13 | 101 | 1600 | 0.063 | 0 | 101 | 1600 | 0.063 | 0 | 101 | 1600 | 0.063 | 0 | 101 | 1600 | 0.063 | 0 | 101 | 1600 | 0.063 |
| WBL | 113 | 1600 | 0.071 | | 17 | 130 | 1600 | 0.081 | 0 | 130 | 1600 | 0.081 | 2 | 132 | 1600 | 0.083 | 0 | 132 | 1600 | 0.083 | 0 | 132 | 1600 | 0.083 |
| WBT | 695 | 3400 | 0.204 | * | 104 | 799 | 3400 | 0.235 | * 0 | 799 | 3400 | 0.235 | * 0 | 799 | 3400 | 0.235 | * 0 | 799 | 3400 | 0.235 | * 0 | 799 | 3400 | 0.235 * |
| WBR* | 181 | 1600 | 0.113 | | 27 | 208 | 1600 | 0.130 | 0 | 208 | 1600 | 0.130 | 0 | 208 | 1600 | 0.130 | 0 | 208 | 1600 | 0.130 | 0 | 208 | 1600 | 0.130 |
| | CLEARANCE | | 0.10 | | CLEARANCE | | | 0.10 | CLEARANCE | | | 0.10 | CLEARANCE | | | 0.10 | CLEARANCE | | | 0.10 | CLEARANCE | | | 0.10 |
| | ICU VALUE | | 0.702 | | ICU VALUE | | | 0.793 | ICU VALUE | | | 0.793 | ICU VALUE | | | 0.798 | ICU VALUE | | | 0.798 | ICU VALUE | | | 0.798 |
| | LEVEL OF SERVICE | | C | | LEVEL OF SERVICE | | | C | LEVEL OF SERVICE | | | C | LEVEL OF SERVICE | | | C | LEVEL OF SERVICE | | | C | LEVEL OF SERVICE | | | C |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 67 | 1600 | 0.042 | | 10 | 77 | 1600 | 0.048 | 0 | 77 | 1600 | 0.048 | 0 | 77 | 1600 | 0.048 | 0 | 77 | 1600 | 0.048 | 0 | 77 | 1600 | 0.048 |
| NBT | 450 | 3400 | 0.132 | * | 68 | 518 | 3400 | 0.152 | * 0 | 518 | 3400 | 0.152 | * 9 | 527 | 3400 | 0.155 | * 0 | 527 | 3400 | 0.155 | * 0 | 527 | 3400 | 0.155 * |
| NBR* | 153 | 1600 | 0.096 | | 23 | 176 | 1600 | 0.110 | 0 | 176 | 1600 | 0.110 | 5 | 181 | 1600 | 0.113 | 0 | 181 | 1600 | 0.113 | 0 | 181 | 1600 | 0.113 |
| SBL | 177 | 1600 | 0.111 | * | 27 | 204 | 1600 | 0.128 | * 0 | 204 | 1600 | 0.128 | * 0 | 204 | 1600 | 0.128 | * 0 | 204 | 1600 | 0.128 | * 0 | 204 | 1600 | 0.128 * |
| SBT | 649 | 3400 | 0.191 | | 97 | 746 | 3400 | 0.219 | 0 | 746 | 3400 | 0.219 | 21 | 767 | 3400 | 0.226 | 0 | 767 | 3400 | 0.226 | 0 | 767 | 3400 | 0.226 |
| SBR* | 184 | 1600 | 0.115 | | 28 | 212 | 1600 | 0.133 | 0 | 212 | 1600 | 0.133 | 0 | 212 | 1600 | 0.133 | 0 | 212 | 1600 | 0.133 | 0 | 212 | 1600 | 0.133 |
| EBL | 159 | 1600 | 0.099 | | 24 | 183 | 1600 | 0.114 | 0 | 183 | 1600 | 0.114 | 0 | 183 | 1600 | 0.114 | 0 | 183 | 1600 | 0.114 | 0 | 183 | 1600 | 0.114 |
| EBT | 694 | 3400 | 0.204 | * | 104 | 798 | 3400 | 0.235 | * 0 | 798 | 3400 | 0.235 | * 0 | 798 | 3400 | 0.235 | * 0 | 798 | 3400 | 0.235 | * 0 | 798 | 3400 | 0.235 * |
| EBR* | 138 | 1600 | 0.086 | | 21 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 |
| WBL | 175 | 1600 | 0.109 | * | 26 | 201 | 1600 | 0.126 | * 0 | 201 | 1600 | 0.126 | * 10 | 211 | 1600 | 0.132 | * 0 | 211 | 1600 | 0.132 | * 0 | 211 | 1600 | 0.132 * |
| WBT | 657 | 3400 | 0.193 | | 99 | 756 | 3400 | 0.222 | 0 | 756 | 3400 | 0.222 | 0 | 756 | 3400 | 0.222 | 0 | 756 | 3400 | 0.222 | 0 | 756 | 3400 | 0.222 |
| WBR* | 175 | 1600 | 0.109 | | 26 | 201 | 1600 | 0.126 | 0 | 201 | 1600 | 0.126 | 0 | 201 | 1600 | 0.126 | 0 | 201 | 1600 | 0.126 | 0 | 201 | 1600 | 0.126 |
| | CLEARANCE | | 0.10 | | CLEARANCE | | | 0.10 | CLEARANCE | | | 0.10 | CLEARANCE | | | 0.10 | CLEARANCE | | | 0.10 | CLEARANCE | | | 0.10 |
| | ICU VALUE | | 0.656 | | ICU VALUE | | | 0.741 | ICU VALUE | | | 0.741 | ICU VALUE | | | 0.750 | ICU VALUE | | | 0.750 | ICU VALUE | | | 0.750 |
| | LEVEL OF SERVICE | | B | | LEVEL OF SERVICE | | | C | LEVEL OF SERVICE | | | C | LEVEL OF SERVICE | | | C | LEVEL OF SERVICE | | | C | LEVEL OF SERVICE | | | C |

* = functions as right-turn lane, but not striped as such

N/S: MAIN STREET
E/W: 223RD STREET
FILE: 1843-1A

**MAIN STREET / 223RD STREET**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 1A

4-7

PROJECT NAME: CARSON TERMINAL SITE RESIDENTIAL PROJECT

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2001 Traffic | | | | Project Traffic 90% Occupancy | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | .150 | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | |
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 55 | 1600 | 0.034 | | 8 | 63 | 1600 | 0.039 | 0 | 63 | 1600 | 0.039 | 4 | 67 | 1600 | 0.042 | 0 | 67 | 1600 | 0.042 | 0 | 67 | 1600 | 0.042 |
| NBT | 456 | 3400 | 0.142 | * | 68 | 524 | 3400 | 0.164 | * 0 | 524 | 3400 | 0.164 | * 0 | 524 | 3400 | 0.164 | * 0 | 524 | 3400 | 0.164 | * 0 | 524 | 3400 | 0.164 | * |
| NBR | 28 | 0 | 0.000 | | 4 | 32 | 0 | 0.000 | 0 | 32 | 0 | 0.000 | 0 | 32 | 0 | 0.000 | 0 | 32 | 0 | 0.000 | 0 | 32 | 0 | 0.000 |
| SBL | 28 | 1600 | 0.018 | * | 4 | 32 | 1600 | 0.020 | * 0 | 32 | 1600 | 0.020 | * 0 | 32 | 1600 | 0.020 | * 0 | 32 | 1600 | 0.020 | * 0 | 32 | 1600 | 0.020 | * |
| SBT | 328 | 3400 | 0.105 | | 49 | 377 | 3400 | 0.120 | 0 | 377 | 3400 | 0.120 | 0 | 377 | 3400 | 0.122 | 0 | 377 | 3400 | 0.122 | 0 | 377 | 3400 | 0.122 |
| SBR | 28 | 0 | 0.000 | | 4 | 32 | 0 | 0.000 | 0 | 32 | 0 | 0.000 | 7 | 39 | 0 | 0.000 | 0 | 39 | 0 | 0.000 | 0 | 39 | 0 | 0.000 |
| EBL | 47 | 0 | 0.000 | * | 7 | 54 | 0 | 0.000 | * 0 | 54 | 0 | 0.000 | * 29 | 83 | 0 | 0.000 | * 0 | 83 | 0 | 0.000 | * 0 | 83 | 0 | 0.000 | * |
| EBT | 62 | 1600 | 0.089 | | 9 | 71 | 1600 | 0.102 | 0 | 71 | 1600 | 0.102 | 0 | 71 | 1600 | 0.129 | 0 | 71 | 1600 | 0.129 | 0 | 71 | 1600 | 0.129 |
| EBR | 33 | 0 | 0.000 | | 5 | 38 | 0 | 0.000 | 0 | 38 | 0 | 0.000 | 14 | 52 | 0 | 0.000 | 0 | 52 | 0 | 0.000 | 0 | 52 | 0 | 0.000 |
| WBL | 52 | 0 | 0.000 | | 8 | 60 | 0 | 0.000 | 0 | 60 | 0 | 0.000 | 0 | 60 | 0 | 0.000 | 0 | 60 | 0 | 0.000 | 0 | 60 | 0 | 0.000 |
| WBT | 93 | 1600 | 0.127 | * | 14 | 107 | 1600 | 0.146 | * 0 | 107 | 1600 | 0.146 | * 0 | 107 | 1600 | 0.146 | * 0 | 107 | 1600 | 0.146 | * 0 | 107 | 1600 | 0.146 | * |
| WBR | 58 | 0 | 0.000 | | 9 | 67 | 0 | 0.000 | 0 | 67 | 0 | 0.000 | 0 | 67 | 0 | 0.000 | 0 | 67 | 0 | 0.000 | 0 | 67 | 0 | 0.000 |
| | CLEARANCE | | 0.10 | | | CLEARANCE | | 0.10 | | CLEARANCE | | 0.10 | | CLEARANCE | | 0.10 | | CLEARANCE | | 0.10 | | CLEARANCE | | 0.10 |
| | ICU VALUE | | 0.387 | | | ICU VALUE | | 0.430 | | ICU VALUE | | 0.430 | | ICU VALUE | | 0.430 | | ICU VALUE | | 0.430 | | ICU VALUE | | 0.430 |
| | LEVEL OF SERVICE | | A | | | LEVEL OF SERVICE | | A | | LEVEL OF SERVICE | | A | | LEVEL OF SERVICE | | A | | LEVEL OF SERVICE | | A | | LEVEL OF SERVICE | | A |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 59 | 1600 | 0.037 | * | 9 | 68 | 1600 | 0.043 | * 0 | 68 | 1600 | 0.043 | * 16 | 84 | 1600 | 0.053 | * 0 | 84 | 1600 | 0.053 | * 0 | 84 | 1600 | 0.053 | * |
| NBT | 569 | 3400 | 0.183 | | 85 | 654 | 3400 | 0.211 | 0 | 654 | 3400 | 0.211 | 0 | 654 | 3400 | 0.211 | 0 | 654 | 3400 | 0.211 | 0 | 654 | 3400 | 0.211 |
| NBR | 54 | 0 | 0.000 | | 8 | 62 | 0 | 0.000 | 0 | 62 | 0 | 0.000 | 0 | 62 | 0 | 0.000 | 0 | 62 | 0 | 0.000 | 0 | 62 | 0 | 0.000 |
| SBL | 95 | 1600 | 0.059 | | 14 | 109 | 1600 | 0.068 | 0 | 109 | 1600 | 0.068 | 0 | 109 | 1600 | 0.068 | 0 | 109 | 1600 | 0.068 | 0 | 109 | 1600 | 0.068 |
| SBT | 686 | 3400 | 0.224 | * | 103 | 789 | 3400 | 0.258 | * 0 | 789 | 3400 | 0.258 | * 0 | 789 | 3400 | 0.267 | * 0 | 789 | 3400 | 0.267 | * 0 | 789 | 3400 | 0.267 | * |
| SBR | 77 | 0 | 0.000 | | 12 | 89 | 0 | 0.000 | 0 | 89 | 0 | 0.000 | 31 | 120 | 0 | 0.000 | 0 | 120 | 0 | 0.000 | 0 | 120 | 0 | 0.000 |
| EBL | 66 | 0 | 0.000 | | 10 | 76 | 0 | 0.000 | 0 | 76 | 0 | 0.000 | 14 | 90 | 0 | 0.000 | 0 | 90 | 0 | 0.000 | 0 | 90 | 0 | 0.000 |
| EBT | 116 | 1600 | 0.149 | * | 17 | 133 | 1600 | 0.171 | * 0 | 133 | 1600 | 0.171 | * 0 | 133 | 1600 | 0.184 | * 0 | 133 | 1600 | 0.184 | * 0 | 133 | 1600 | 0.184 | * |
| EBR | 56 | 0 | 0.000 | | 8 | 64 | 0 | 0.000 | 0 | 64 | 0 | 0.000 | 7 | 71 | 0 | 0.000 | 0 | 71 | 0 | 0.000 | 0 | 71 | 0 | 0.000 |
| WBL | 64 | 0 | 0.000 | * | 10 | 74 | 0 | 0.000 | * 0 | 74 | 0 | 0.000 | * 0 | 74 | 0 | 0.000 | * 0 | 74 | 0 | 0.000 | * 0 | 74 | 0 | 0.000 | * |
| WBT | 94 | 1600 | 0.120 | | 14 | 108 | 1600 | 0.138 | 0 | 108 | 1600 | 0.138 | 0 | 108 | 1600 | 0.138 | 0 | 108 | 1600 | 0.138 | 0 | 108 | 1600 | 0.138 |
| WBR | 34 | 0 | 0.000 | | 5 | 39 | 0 | 0.000 | 0 | 39 | 0 | 0.000 | 0 | 39 | 0 | 0.000 | 0 | 39 | 0 | 0.000 | 0 | 39 | 0 | 0.000 |
| | CLEARANCE | | 0.10 | | | CLEARANCE | | 0.10 | | CLEARANCE | | 0.10 | | CLEARANCE | | 0.10 | | CLEARANCE | | 0.10 | | CLEARANCE | | 0.10 |
| | ICU VALUE | | 0.510 | | | ICU VALUE | | 0.572 | | ICU VALUE | | 0.572 | | ICU VALUE | | 0.604 | | ICU VALUE | | 0.604 | | ICU VALUE | | 0.604 |
| | LEVEL OF SERVICE | | A | | | LEVEL OF SERVICE | | A | | LEVEL OF SERVICE | | A | | LEVEL OF SERVICE | | B | | LEVEL OF SERVICE | | B | | LEVEL OF SERVICE | | B |

N/S: MAIN STREET
E/W: 228TH STREET
FILE: 1843-2A

**MAIN STREET / 228TH STREET**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 2A

PROJECT NAME: CARSON TERMINAL SITE RESIDENTIAL PROJECT

OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2001 Traffic | | | | | Project Traffic 90% Occupancy | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 150 | | | | | | | | | | | | | | | | | |
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | |
| NBL | 118 | 1600 | 0.074 | * | 18 | 136 | 1600 | 0.085 | * | 0 | 136 | 1600 | 0.085 | * | 0 | 136 | 1600 | 0.085 | * | 0 | 136 | 1600 | 0.085 | * |
| NBT | 287 | 3400 | 0.121 | | 43 | 330 | 3400 | 0.139 | | 0 | 330 | 3400 | 0.139 | | 2 | 332 | 3400 | 0.139 | | 0 | 332 | 3400 | 0.139 | |
| NBR | 123 | 0 | 0.000 | | 19 | 142 | 0 | 0.000 | | 0 | 142 | 0 | 0.000 | | 0 | 142 | 0 | 0.000 | | 0 | 142 | 0 | 0.000 | |
| SBL | 52 | 1600 | 0.033 | | 8 | 60 | 1600 | 0.038 | | 0 | 60 | 1600 | 0.038 | | 5 | 65 | 1600 | 0.041 | | 0 | 65 | 1600 | 0.041 | |
| SBT | 294 | 3400 | 0.126 | * | 44 | 338 | 3400 | 0.145 | * | 0 | 338 | 3400 | 0.145 | * | 10 | 348 | 3400 | 0.148 | * | 0 | 348 | 3400 | 0.148 | * |
| SBR | 134 | 0 | 0.000 | | 20 | 154 | 0 | 0.000 | | 0 | 154 | 0 | 0.000 | | 0 | 154 | 0 | 0.000 | | 0 | 154 | 0 | 0.000 | |
| EBL | 63 | 1600 | 0.039 | | 10 | 73 | 1600 | 0.046 | | 0 | 73 | 1600 | 0.046 | | 0 | 73 | 1600 | 0.046 | | 0 | 73 | 1600 | 0.046 | |
| EBT | 537 | 3400 | 0.192 | * | 81 | 618 | 3400 | 0.221 | * | 0 | 618 | 3400 | 0.221 | * | 0 | 618 | 3400 | 0.221 | * | 0 | 618 | 3400 | 0.221 | * |
| EBR | 117 | 0 | 0.000 | | 18 | 135 | 0 | 0.000 | | 0 | 135 | 0 | 0.000 | | 0 | 135 | 0 | 0.000 | | 0 | 135 | 0 | 0.000 | |
| WBL | 130 | 1600 | 0.081 | * | 20 | 150 | 1600 | 0.094 | * | 0 | 150 | 1600 | 0.094 | * | 0 | 150 | 1600 | 0.094 | * | 0 | 150 | 1600 | 0.094 | * |
| WBT | 668 | 3400 | 0.211 | | 100 | 768 | 3400 | 0.243 | | 0 | 768 | 3400 | 0.243 | | 0 | 768 | 3400 | 0.243 | | 0 | 768 | 3400 | 0.243 | |
| WBR | 50 | 0 | 0.000 | | 8 | 58 | 0 | 0.000 | | 0 | 58 | 0 | 0.000 | | 1 | 59 | 0 | 0.000 | | 0 | 59 | 0 | 0.000 | |
| | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | |
| | ICU VALUE | 0.573 | | | ICU VALUE | 0.645 | | | | ICU VALUE | 0.645 | | | | ICU VALUE | 0.648 | | | | ICU VALUE | 0.648 | | |
| | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | B | | | | LEVEL OF SERVICE | B | | | | LEVEL OF SERVICE | B | | | | LEVEL OF SERVICE | B | | |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 136 | 1600 | 0.085 | * | 20 | 156 | 1600 | 0.098 | * | 0 | 156 | 1600 | 0.098 | * | 0 | 156 | 1600 | 0.098 | * | 0 | 156 | 1600 | 0.098 | * |
| NBT | 442 | 3400 | 0.189 | | 66 | 508 | 3400 | 0.217 | | 0 | 508 | 3400 | 0.217 | | 10 | 518 | 3400 | 0.220 | | 0 | 518 | 3400 | 0.220 | |
| NBR | 201 | 0 | 0.000 | | 30 | 231 | 0 | 0.000 | | 0 | 231 | 0 | 0.000 | | 0 | 231 | 0 | 0.000 | | 0 | 231 | 0 | 0.000 | |
| SBL | 88 | 1600 | 0.055 | | 13 | 101 | 1600 | 0.063 | | 0 | 101 | 1600 | 0.063 | | 2 | 103 | 1600 | 0.064 | | 0 | 103 | 1600 | 0.064 | |
| SBT | 430 | 3400 | 0.173 | * | 65 | 495 | 3400 | 0.199 | * | 0 | 495 | 3400 | 0.199 | * | 5 | 500 | 3400 | 0.201 | * | 0 | 500 | 3400 | 0.201 | * |
| SBR | 159 | 0 | 0.000 | | 24 | 183 | 0 | 0.000 | | 0 | 183 | 0 | 0.000 | | 0 | 183 | 0 | 0.000 | | 0 | 183 | 0 | 0.000 | |
| EBL | 147 | 1600 | 0.092 | | 22 | 169 | 1600 | 0.106 | | 0 | 169 | 1600 | 0.106 | | 0 | 169 | 1600 | 0.106 | | 0 | 169 | 1600 | 0.106 | |
| EBT | 784 | 3400 | 0.277 | * | 118 | 902 | 3400 | 0.319 | * | 0 | 902 | 3400 | 0.319 | * | 0 | 902 | 3400 | 0.319 | * | 0 | 902 | 3400 | 0.319 | * |
| EBR | 159 | 0 | 0.000 | | 24 | 183 | 0 | 0.000 | | 0 | 183 | 0 | 0.000 | | 0 | 183 | 0 | 0.000 | | 0 | 183 | 0 | 0.000 | |
| WBL | 162 | 1600 | 0.101 | * | 24 | 186 | 1600 | 0.116 | * | 0 | 186 | 1600 | 0.116 | * | 0 | 186 | 1600 | 0.116 | * | 0 | 186 | 1600 | 0.116 | * |
| WBT | 754 | 3400 | 0.252 | | 113 | 867 | 3400 | 0.289 | | 0 | 867 | 3400 | 0.289 | | 0 | 867 | 3400 | 0.291 | | 0 | 867 | 3400 | 0.291 | |
| WBR | 102 | 0 | 0.000 | | 15 | 117 | 0 | 0.000 | | 0 | 117 | 0 | 0.000 | | 5 | 122 | 0 | 0.000 | | 0 | 122 | 0 | 0.000 | |
| | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | |
| | ICU VALUE | 0.736 | | | ICU VALUE | 0.832 | | | | ICU VALUE | 0.832 | | | | ICU VALUE | 0.834 | | | | ICU VALUE | 0.834 | | |
| | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | D | | | | LEVEL OF SERVICE | D | | | | LEVEL OF SERVICE | D | | | | LEVEL OF SERVICE | D | | |

N/S: MAIN STREET
E/W: SEPULVEDA BOULEVARD
FILE: 1843-3A

**MAIN STREET / SEPULVEDA BOULEVARD**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 3A

PROJECT NAME: CARSON TERMINAL SITE RESIDENTIAL PROJECT

## AM PEAK HOUR

| | Existing 1996 Traffic | | | Ambient 2001 Traffic .150 | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MVT | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 120 | 1600 | 0.075 | 18 | 138 | 1600 | 0.086 | 0 | 138 | 1600 | 0.086 | 5 | 143 | 1600 | 0.089 | 0 | 143 | 1600 | 0.089 | 0 | 143 | 1600 | 0.089 |
| NBT | 659 | 3400 | 0.235 * | 99 | 758 | 3400 | 0.271 * | 0 | 758 | 3400 | 0.271 * | 14 | 772 | 3400 | 0.275 * | 0 | 772 | 3400 | 0.275 * | 0 | 772 | 3400 | 0.275 * |
| NBR | 141 | 0 | 0.000 | 21 | 162 | 0 | 0.000 | 0 | 162 | 0 | 0.000 | 0 | 162 | 0 | 0.000 | 0 | 162 | 0 | 0.000 | 0 | 162 | 0 | 0.000 |
| SBL | 64 | 1600 | 0.040 * | 10 | 74 | 1600 | 0.046 * | 0 | 74 | 1600 | 0.046 * | 0 | 74 | 1600 | 0.046 * | 0 | 74 | 1600 | 0.046 * | 0 | 74 | 1600 | 0.046 * |
| SBT | 186 | 3400 | 0.098 | 28 | 214 | 3400 | 0.113 | 0 | 214 | 3400 | 0.113 | 1 | 215 | 3400 | 0.113 | 0 | 215 | 3400 | 0.113 | 0 | 215 | 3400 | 0.113 |
| SBR | 147 | 0 | 0.000 | 22 | 169 | 0 | 0.000 | 0 | 169 | 0 | 0.000 | 0 | 169 | 0 | 0.000 | 0 | 169 | 0 | 0.000 | 0 | 169 | 0 | 0.000 |
| EBL | 341 | 1600 | 0.213 * | 51 | 392 | 1600 | 0.245 * | 0 | 392 | 1600 | 0.245 * | 0 | 392 | 1600 | 0.245 * | 0 | 392 | 1600 | 0.245 * | 0 | 392 | 1600 | 0.245 * |
| EBT | 597 | 3400 | 0.176 | 90 | 687 | 3400 | 0.202 | 0 | 687 | 3400 | 0.202 | 0 | 687 | 3400 | 0.202 | 0 | 687 | 3400 | 0.202 | 0 | 687 | 3400 | 0.202 |
| EBR* | 147 | 1600 | 0.092 | 22 | 169 | 1600 | 0.106 | 0 | 169 | 1600 | 0.106 | 5 | 174 | 1600 | 0.109 | 0 | 174 | 1600 | 0.109 | 0 | 174 | 1600 | 0.109 |
| WBL | 67 | 1600 | 0.042 | 10 | 77 | 1600 | 0.048 | 0 | 77 | 1600 | 0.048 | 0 | 77 | 1600 | 0.048 | 0 | 77 | 1600 | 0.048 | 0 | 77 | 1600 | 0.048 |
| WBT | 730 | 3400 | 0.215 * | 110 | 840 | 3400 | 0.247 * | 0 | 840 | 3400 | 0.247 * | 0 | 840 | 3400 | 0.247 * | 0 | 840 | 3400 | 0.247 * | 0 | 840 | 3400 | 0.247 * |
| WBR* | 267 | 1600 | 0.167 | 40 | 307 | 1600 | 0.192 | 0 | 307 | 1600 | 0.192 | 0 | 307 | 1600 | 0.192 | 0 | 307 | 1600 | 0.192 | 0 | 307 | 1600 | 0.192 |
| CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| ICU VALUE | **0.802** | | | ICU VALUE | **0.909** | | | ICU VALUE | **0.909** | | | ICU VALUE | **0.913** | | | ICU VALUE | **0.913** | | | ICU VALUE | **0.913** | | |
| LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | E | | | LEVEL OF SERVICE | E | | | LEVEL OF SERVICE | E | | | LEVEL OF SERVICE | E | | | LEVEL OF SERVICE | E | | |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 51 | 1600 | 0.032 | 8 | 59 | 1600 | 0.037 | 0 | 59 | 1600 | 0.037 | 2 | 61 | 1600 | 0.038 | 0 | 61 | 1600 | 0.038 | 0 | 61 | 1600 | 0.038 |
| NBT | 230 | 3400 | 0.095 * | 35 | 265 | 3400 | 0.109 * | 0 | 265 | 3400 | 0.109 * | 7 | 272 | 3400 | 0.111 * | 0 | 272 | 3400 | 0.111 * | 0 | 272 | 3400 | 0.111 * |
| NBR | 93 | 0 | 0.000 | 14 | 107 | 0 | 0.000 | 0 | 107 | 0 | 0.000 | 0 | 107 | 0 | 0.000 | 0 | 107 | 0 | 0.000 | 0 | 107 | 0 | 0.000 |
| SBL | 96 | 1600 | 0.060 * | 14 | 110 | 1600 | 0.069 * | 0 | 110 | 1600 | 0.069 * | 0 | 110 | 1600 | 0.069 * | 0 | 110 | 1600 | 0.069 * | 0 | 110 | 1600 | 0.069 * |
| SBT | 281 | 3400 | 0.118 | 42 | 323 | 3400 | 0.135 | 0 | 323 | 3400 | 0.135 | 5 | 328 | 3400 | 0.137 | 0 | 328 | 3400 | 0.137 | 0 | 328 | 3400 | 0.137 |
| SBR | 119 | 0 | 0.000 | 18 | 137 | 0 | 0.000 | 0 | 137 | 0 | 0.000 | 0 | 137 | 0 | 0.000 | 0 | 137 | 0 | 0.000 | 0 | 137 | 0 | 0.000 |
| EBL | 255 | 1600 | 0.159 * | 38 | 293 | 1600 | 0.183 * | 0 | 293 | 1600 | 0.183 * | 0 | 293 | 1600 | 0.183 * | 0 | 293 | 1600 | 0.183 * | 0 | 293 | 1600 | 0.183 * |
| EBT | 935 | 3400 | 0.275 | 140 | 1075 | 3400 | 0.316 | 0 | 1075 | 3400 | 0.316 | 0 | 1075 | 3400 | 0.316 | 0 | 1075 | 3400 | 0.316 | 0 | 1075 | 3400 | 0.316 |
| EBR* | 283 | 1600 | 0.177 | 43 | 326 | 1600 | 0.204 | 0 | 326 | 1600 | 0.204 | 21 | 347 | 1600 | 0.217 | 0 | 347 | 1600 | 0.217 | 0 | 347 | 1600 | 0.217 |
| WBL | 85 | 1600 | 0.053 | 13 | 98 | 1600 | 0.061 | 0 | 98 | 1600 | 0.061 | 0 | 98 | 1600 | 0.061 | 0 | 98 | 1600 | 0.061 | 0 | 98 | 1600 | 0.061 |
| WBT | 648 | 3400 | 0.191 * | 97 | 745 | 3400 | 0.219 * | 0 | 745 | 3400 | 0.219 * | 0 | 745 | 3400 | 0.219 * | 0 | 745 | 3400 | 0.219 * | 0 | 745 | 3400 | 0.219 * |
| WBR* | 138 | 1600 | 0.086 | 21 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 |
| CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| ICU VALUE | **0.605** | | | ICU VALUE | **0.680** | | | ICU VALUE | **0.680** | | | ICU VALUE | **0.682** | | | ICU VALUE | **0.682** | | | ICU VALUE | **0.682** | | |
| LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | |

* = functions as right-turn lane, but not striped as such

N/S: FIGUEROA STREET
E/W: 223RD STREET
FILE: 1843-4A

**FIGUEROA STREET / 223RD STREET**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 4A

PROJECT NAME: CARSON TERMINAL SITE RESIDENTIAL PROJECT

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2001 Traffic | | | | Project Traffic 90% Occupancy | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | |
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 85 | 1600 | 0.053 | | 13 | 98 | 1600 | 0.061 | 0 | 98 | 1600 | 0.061 | 0 | 98 | 1600 | 0.061 | 0 | 98 | 1600 | 0.061 |
| NBT | 581 | 3400 | 0.185 | * | 87 | 668 | 3400 | 0.213 | * 0 | 668 | 3400 | 0.213 | * 0 | 668 | 3400 | 0.214 | * 0 | 668 | 3400 | 0.214 | * 0 | 668 | 3400 | 0.214 | * |
| NBR | 48 | 0 | 0.000 | | 7 | 55 | 0 | 0.000 | 0 | 55 | 0 | 0.000 | 6 | 61 | 0 | 0.000 | 0 | 61 | 0 | 0.000 | 0 | 61 | 0 | 0.000 | |
| SBL | 66 | 1600 | 0.041 | * | 10 | 76 | 1600 | 0.048 | * 0 | 76 | 1600 | 0.048 | * 6 | 82 | 1600 | 0.051 | * 0 | 82 | 1600 | 0.051 | * 0 | 82 | 1600 | 0.051 | * |
| SBT | 224 | 3400 | 0.089 | | 34 | 258 | 3400 | 0.103 | 0 | 258 | 3400 | 0.103 | 0 | 258 | 3400 | 0.103 | 0 | 258 | 3400 | 0.103 | 0 | 258 | 3400 | 0.103 | |
| SBR | 79 | 0 | 0.000 | | 12 | 91 | 0 | 0.000 | 0 | 91 | 0 | 0.000 | 0 | 91 | 0 | 0.000 | 0 | 91 | 0 | 0.000 | 0 | 91 | 0 | 0.000 | |
| EBL | 121 | 0 | 0.000 | * | 18 | 139 | 0 | 0.000 | * 0 | 139 | 0 | 0.000 | * 0 | 139 | 0 | 0.000 | * 0 | 139 | 0 | 0.000 | * 0 | 139 | 0 | 0.000 | * |
| EBT | 144 | 1600 | 0.203 | | 22 | 166 | 1600 | 0.234 | 0 | 166 | 1600 | 0.234 | 1 | 167 | 1600 | 0.234 | 0 | 167 | 1600 | 0.234 | 0 | 167 | 1600 | 0.234 | |
| EBR | 60 | 0 | 0.000 | | 9 | 69 | 0 | 0.000 | 0 | 69 | 0 | 0.000 | 0 | 69 | 0 | 0.000 | 0 | 69 | 0 | 0.000 | 0 | 69 | 0 | 0.000 | |
| WBL | 77 | 0 | 0.000 | | 12 | 89 | 0 | 0.000 | 0 | 89 | 0 | 0.000 | 29 | 118 | 0 | 0.000 | 0 | 118 | 0 | 0.000 | 0 | 118 | 0 | 0.000 | |
| WBT | 229 | 1600 | 0.274 | * | 34 | 263 | 1600 | 0.315 | * 0 | 263 | 1600 | 0.315 | * 5 | 268 | 1600 | 0.348 | * 0 | 268 | 1600 | 0.348 | * 0 | 268 | 1600 | 0.348 | * |
| WBR | 132 | 0 | 0.000 | | 20 | 152 | 0 | 0.000 | 0 | 152 | 0 | 0.000 | 19 | 171 | 0 | 0.000 | 0 | 171 | 0 | 0.000 | 0 | 171 | 0 | 0.000 | |
| | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| | ICU VALUE | 0.600 | | | ICU VALUE | 0.676 | | | ICU VALUE | 0.676 | | | ICU VALUE | 0.713 | | | ICU VALUE | 0.713 | | | ICU VALUE | 0.713 | | |
| | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 54 | 1600 | 0.034 | | 8 | 62 | 1600 | 0.039 | 0 | 62 | 1600 | 0.039 | 0 | 62 | 1600 | 0.039 | 0 | 62 | 1600 | 0.039 |
| NBT | 270 | 3400 | 0.099 | * | 41 | 311 | 3400 | 0.114 | * 0 | 311 | 3400 | 0.114 | * 0 | 311 | 3400 | 0.121 | * 0 | 311 | 3400 | 0.121 | * 0 | 311 | 3400 | 0.121 | * |
| NBR | 65 | 0 | 0.000 | | 10 | 75 | 0 | 0.000 | 0 | 75 | 0 | 0.000 | 26 | 101 | 0 | 0.000 | 0 | 101 | 0 | 0.000 | 0 | 101 | 0 | 0.000 | |
| SBL | 139 | 1600 | 0.087 | * | 21 | 160 | 1600 | 0.100 | * 0 | 160 | 1600 | 0.100 | * 26 | 186 | 1600 | 0.116 | * 0 | 186 | 1600 | 0.116 | * 0 | 186 | 1600 | 0.116 | * |
| SBT | 404 | 3400 | 0.138 | | 61 | 465 | 3400 | 0.159 | 0 | 465 | 3400 | 0.159 | 0 | 465 | 3400 | 0.159 | 0 | 465 | 3400 | 0.159 | 0 | 465 | 3400 | 0.159 | |
| SBR | 64 | 0 | 0.000 | | 10 | 74 | 0 | 0.000 | 0 | 74 | 0 | 0.000 | 0 | 74 | 0 | 0.000 | 0 | 74 | 0 | 0.000 | 0 | 74 | 0 | 0.000 | |
| EBL | 73 | 0 | 0.000 | | 11 | 84 | 0 | 0.000 | 0 | 84 | 0 | 0.000 | 0 | 84 | 0 | 0.000 | 0 | 84 | 0 | 0.000 | 0 | 84 | 0 | 0.000 | |
| EBT | 229 | 1600 | 0.239 | * | 34 | 263 | 1600 | 0.275 | * 0 | 263 | 1600 | 0.275 | * 5 | 268 | 1600 | 0.278 | * 0 | 268 | 1600 | 0.278 | * 0 | 268 | 1600 | 0.278 | * |
| EBR | 81 | 0 | 0.000 | | 12 | 93 | 0 | 0.000 | 0 | 93 | 0 | 0.000 | 0 | 93 | 0 | 0.000 | 0 | 93 | 0 | 0.000 | 0 | 93 | 0 | 0.000 | |
| WBL | 54 | 0 | 0.000 | * | 8 | 62 | 0 | 0.000 | * 0 | 62 | 0 | 0.000 | * 14 | 76 | 0 | 0.000 | * 0 | 76 | 0 | 0.000 | * 0 | 76 | 0 | 0.000 | * |
| WBT | 160 | 1600 | 0.178 | | 24 | 184 | 1600 | 0.204 | 0 | 184 | 1600 | 0.204 | 2 | 186 | 1600 | 0.220 | 0 | 186 | 1600 | 0.220 | 0 | 186 | 1600 | 0.220 | |
| WBR | 70 | 0 | 0.000 | | 11 | 81 | 0 | 0.000 | 0 | 81 | 0 | 0.000 | 9 | 90 | 0 | 0.000 | 0 | 90 | 0 | 0.000 | 0 | 90 | 0 | 0.000 | |
| | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| | ICU VALUE | 0.525 | | | ICU VALUE | 0.589 | | | ICU VALUE | 0.589 | | | ICU VALUE | 0.615 | | | ICU VALUE | 0.615 | | | ICU VALUE | 0.615 | | |
| | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | |

N/S: FIGUEROA STREET
E/W: 228TH STREET
FILE: 1843-5A

**FIGUEROA STREET / 228TH STREET**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 5A

PROJECT NAME: **CARSON TERMINAL SITE RESIDENTIAL PROJECT**

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2001 Traffic .150 | | | | Project Traffic 90% Occupancy | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | |
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 205 | 1600 | 0.128 | * | 31 | 236 | 1600 | 0.148 | * 0 | 236 | 1600 | 0.148 | * 0 | 236 | 1600 | 0.148 | * 0 | 236 | 1600 | 0.148 | * 0 | 236 | 1600 | 0.148 * |
| NBT | 227 | 3400 | 0.075 | | 34 | 261 | 3400 | 0.086 | 0 | 261 | 3400 | 0.086 | 1 | 262 | 3400 | 0.086 | 0 | 262 | 3400 | 0.086 | 0 | 262 | 3400 | 0.086 |
| NBR | 28 | 0 | 0.000 | | 4 | 32 | 0 | 0.000 | 0 | 32 | 0 | 0.000 | 0 | 32 | 0 | 0.000 | 0 | 32 | 0 | 0.000 | 0 | 32 | 0 | 0.000 |
| SBL | 38 | 1600 | 0.024 | | 6 | 44 | 1600 | 0.028 | 0 | 44 | 1600 | 0.028 | 0 | 44 | 1600 | 0.028 | 0 | 44 | 1600 | 0.028 | 0 | 44 | 1600 | 0.028 |
| SBT | 201 | 3400 | 0.059 | * | 30 | 231 | 3400 | 0.068 | * 0 | 231 | 3400 | 0.068 | * 5 | 236 | 3400 | 0.069 | * 0 | 236 | 3400 | 0.069 | * 0 | 236 | 3400 | 0.069 * |
| SBR | 221 | FREE | 0.000 | | 33 | 254 | FREE | 0.000 | 0 | 254 | FREE | 0.000 | 24 | 278 | FREE | 0.000 | 0 | 278 | FREE | 0.000 | 0 | 278 | FREE | 0.000 |
| EBL | 133 | 1600 | 0.083 | * | 20 | 153 | 1600 | 0.096 | * 0 | 153 | 1600 | 0.096 | * 5 | 158 | 1600 | 0.099 | * 0 | 158 | 1600 | 0.099 | * 0 | 158 | 1600 | 0.099 * |
| EBT | 754 | 3400 | 0.222 | | 113 | 867 | 3400 | 0.255 | 0 | 867 | 3400 | 0.255 | 0 | 867 | 3400 | 0.255 | 0 | 867 | 3400 | 0.255 | 0 | 867 | 3400 | 0.255 |
| EBR | 69 | 1600 | 0.043 | | 10 | 79 | 1600 | 0.049 | 0 | 79 | 1600 | 0.049 | 0 | 79 | 1600 | 0.049 | 0 | 79 | 1600 | 0.049 | 0 | 79 | 1600 | 0.049 |
| WBL | 73 | 1600 | 0.046 | | 11 | 84 | 1600 | 0.053 | 0 | 84 | 1600 | 0.053 | 0 | 84 | 1600 | 0.053 | 0 | 84 | 1600 | 0.053 | 0 | 84 | 1600 | 0.053 |
| WBT | 713 | 3400 | 0.229 | * | 107 | 820 | 3400 | 0.264 | * 0 | 820 | 3400 | 0.264 | * 0 | 820 | 3400 | 0.264 | * 0 | 820 | 3400 | 0.264 | * 0 | 820 | 3400 | 0.264 * |
| WBR | 66 | 0 | 0.000 | | 10 | 76 | 0 | 0.000 | 0 | 76 | 0 | 0.000 | 0 | 76 | 0 | 0.000 | 0 | 76 | 0 | 0.000 | 0 | 76 | 0 | 0.000 |
| | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| | ICU VALUE | 0.599 | | | ICU VALUE | 0.676 | | | ICU VALUE | 0.676 | | | ICU VALUE | 0.680 | | | ICU VALUE | 0.680 | | | ICU VALUE | 0.680 | | |
| | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 190 | 1600 | 0.119 | * | 29 | 219 | 1600 | 0.137 | * 0 | 219 | 1600 | 0.137 | * 0 | 219 | 1600 | 0.137 | * 0 | 219 | 1600 | 0.137 | * 0 | 219 | 1600 | 0.137 * |
| NBT | 207 | 3400 | 0.088 | | 31 | 238 | 3400 | 0.101 | 0 | 238 | 3400 | 0.101 | 5 | 243 | 3400 | 0.103 | 0 | 243 | 3400 | 0.103 | 0 | 243 | 3400 | 0.103 |
| NBR | 92 | 0 | 0.000 | | 14 | 106 | 0 | 0.000 | 0 | 106 | 0 | 0.000 | 0 | 106 | 0 | 0.000 | 0 | 106 | 0 | 0.000 | 0 | 106 | 0 | 0.000 |
| SBL | 122 | 1600 | 0.076 | | 18 | 140 | 1600 | 0.088 | 0 | 140 | 1600 | 0.088 | 0 | 140 | 1600 | 0.088 | 0 | 140 | 1600 | 0.088 | 0 | 140 | 1600 | 0.088 |
| SBT | 384 | 3400 | 0.113 | * | 58 | 442 | 3400 | 0.130 | * 0 | 442 | 3400 | 0.130 | * 2 | 444 | 3400 | 0.131 | * 0 | 444 | 3400 | 0.131 | * 0 | 444 | 3400 | 0.131 * |
| SBR | 188 | FREE | 0.000 | | 28 | 216 | FREE | 0.000 | 0 | 216 | FREE | 0.000 | 11 | 227 | FREE | 0.000 | 0 | 227 | FREE | 0.000 | 0 | 227 | FREE | 0.000 |
| EBL | 221 | 1600 | 0.138 | * | 33 | 254 | 1600 | 0.159 | * 0 | 254 | 1600 | 0.159 | * 21 | 275 | 1600 | 0.172 | * 0 | 275 | 1600 | 0.172 | * 0 | 275 | 1600 | 0.172 * |
| EBT | 824 | 3400 | 0.242 | | 124 | 948 | 3400 | 0.279 | 0 | 948 | 3400 | 0.279 | 0 | 948 | 3400 | 0.279 | 0 | 948 | 3400 | 0.279 | 0 | 948 | 3400 | 0.279 |
| EBR | 183 | 1600 | 0.114 | | 28 | 211 | 1600 | 0.132 | 0 | 211 | 1600 | 0.132 | 0 | 211 | 1600 | 0.132 | 0 | 211 | 1600 | 0.132 | 0 | 211 | 1600 | 0.132 |
| WBL | 76 | 1600 | 0.048 | | 11 | 87 | 1600 | 0.054 | 0 | 87 | 1600 | 0.054 | 0 | 87 | 1600 | 0.054 | 0 | 87 | 1600 | 0.054 | 0 | 87 | 1600 | 0.054 |
| WBT | 925 | 3400 | 0.298 | * | 139 | 1064 | 3400 | 0.343 | * 0 | 1064 | 3400 | 0.343 | * 0 | 1064 | 3400 | 0.343 | * 0 | 1064 | 3400 | 0.343 | * 0 | 1064 | 3400 | 0.343 * |
| WBR | 88 | 0 | 0.000 | | 13 | 101 | 0 | 0.000 | 0 | 101 | 0 | 0.000 | 0 | 101 | 0 | 0.000 | 0 | 101 | 0 | 0.000 | 0 | 101 | 0 | 0.000 |
| | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| | ICU VALUE | 0.768 | | | ICU VALUE | 0.869 | | | ICU VALUE | 0.869 | | | ICU VALUE | 0.883 | | | ICU VALUE | 0.883 | | | ICU VALUE | 0.883 | | |
| | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | D | | |

N/S: FIGUEROA STREET
E/W: SEPULVEDA BOULEVARD
FILE: 1843-6A

**FIGUEROA STREET / SEPULVEDA BOULEVARD**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 6A

W
10

LINSCOTT
LAW &
GREENSPAN
ENGINEERS

# 2003 HORIZON YEAR ANALYSIS

PROJECT NAME: CARSON TERMINAL SITE RESIDENTIAL PROJECT

OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2003 Traffic | | | | Project Traffic 100% Occupancy | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 210 | | | | | | | | | | | | | | | | | | | |
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 131 | 1600 | 0.082 | | 28 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 | 0 | 159 | 1600 | 0.099 |
| NBT | 599 | 3400 | 0.176 | * | 126 | 725 | 3400 | 0.213 | * 0 | 725 | 3400 | 0.213 | * 21 | 746 | 3400 | 0.219 | * 0 | 746 | 3400 | 0.219 | * 0 | 746 | 3400 | 0.219 | * |
| NBR* | 180 | 1600 | 0.113 | | 38 | 218 | 1600 | 0.136 | 0 | 218 | 1600 | 0.136 | 11 | 229 | 1600 | 0.143 | 0 | 229 | 1600 | 0.143 | 0 | 229 | 1600 | 0.143 |
| SBL | 186 | 1600 | 0.116 | * | 39 | 225 | 1600 | 0.141 | * 0 | 225 | 1600 | 0.141 | * 0 | 225 | 1600 | 0.141 | * 0 | 225 | 1600 | 0.141 | * 0 | 225 | 1600 | 0.141 | * |
| SBT | 406 | 3400 | 0.119 | | 85 | 491 | 3400 | 0.144 | 0 | 491 | 3400 | 0.144 | 5 | 496 | 3400 | 0.146 | 0 | 496 | 3400 | 0.146 | 0 | 496 | 3400 | 0.146 |
| SBR* | 163 | 1600 | 0.102 | | 34 | 197 | 1600 | 0.123 | 0 | 197 | 1600 | 0.123 | 0 | 197 | 1600 | 0.123 | 0 | 197 | 1600 | 0.123 | 0 | 197 | 1600 | 0.123 |
| EBL | 168 | 1600 | 0.105 | * | 35 | 203 | 1600 | 0.127 | * 0 | 203 | 1600 | 0.127 | * 0 | 203 | 1600 | 0.127 | * 0 | 203 | 1600 | 0.127 | * 0 | 203 | 1600 | 0.127 | * |
| EBT | 550 | 3400 | 0.162 | | 116 | 666 | 3400 | 0.196 | 0 | 666 | 3400 | 0.196 | 0 | 666 | 3400 | 0.196 | 0 | 666 | 3400 | 0.196 | 0 | 666 | 3400 | 0.196 |
| EBR* | 88 | 1600 | 0.055 | | 19 | 107 | 1600 | 0.067 | 0 | 107 | 1600 | 0.067 | 0 | 107 | 1600 | 0.067 | 0 | 107 | 1600 | 0.067 | 0 | 107 | 1600 | 0.067 |
| WBL | 113 | 1600 | 0.071 | | 24 | 137 | 1600 | 0.086 | 0 | 137 | 1600 | 0.086 | 3 | 140 | 1600 | 0.088 | 0 | 140 | 1600 | 0.088 | 0 | 140 | 1600 | 0.088 |
| WBT | 695 | 3400 | 0.204 | * | 146 | 841 | 3400 | 0.247 | * 0 | 841 | 3400 | 0.247 | * 0 | 841 | 3400 | 0.247 | * 0 | 841 | 3400 | 0.247 | * 0 | 841 | 3400 | 0.247 | * |
| WBR* | 181 | 1600 | 0.113 | | 38 | 219 | 1600 | 0.137 | 0 | 219 | 1600 | 0.137 | 0 | 219 | 1600 | 0.137 | 0 | 219 | 1600 | 0.137 | 0 | 219 | 1600 | 0.137 |
| CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| ICU VALUE | **0.702** | | | | ICU VALUE | **0.828** | | | ICU VALUE | **0.828** | | | ICU VALUE | **0.834** | | | ICU VALUE | **0.834** | | | ICU VALUE | **0.834** | | |
| LEVEL OF SERVICE | C | | | | LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | D | | |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 67 | 1600 | 0.042 | | 14 | 81 | 1600 | 0.051 | 0 | 81 | 1600 | 0.051 | 0 | 81 | 1600 | 0.051 | 0 | 81 | 1600 | 0.051 | 0 | 81 | 1600 | 0.051 |
| NBT | 450 | 3400 | 0.132 | * | 95 | 545 | 3400 | 0.160 | * 0 | 545 | 3400 | 0.160 | * 10 | 555 | 3400 | 0.163 | * 0 | 555 | 3400 | 0.163 | * 0 | 555 | 3400 | 0.163 | * |
| NBR* | 153 | 1600 | 0.096 | | 32 | 185 | 1600 | 0.116 | 0 | 185 | 1600 | 0.116 | 5 | 190 | 1600 | 0.119 | 0 | 190 | 1600 | 0.119 | 0 | 190 | 1600 | 0.119 |
| SBL | 177 | 1600 | 0.111 | * | 37 | 214 | 1600 | 0.134 | * 0 | 214 | 1600 | 0.134 | * 0 | 214 | 1600 | 0.134 | * 0 | 214 | 1600 | 0.134 | * 0 | 214 | 1600 | 0.134 | * |
| SBT | 649 | 3400 | 0.191 | | 136 | 785 | 3400 | 0.231 | 0 | 785 | 3400 | 0.231 | 23 | 808 | 3400 | 0.238 | 0 | 808 | 3400 | 0.238 | 0 | 808 | 3400 | 0.238 |
| SBR* | 184 | 1600 | 0.115 | | 39 | 223 | 1600 | 0.139 | 0 | 223 | 1600 | 0.139 | 0 | 223 | 1600 | 0.139 | 0 | 223 | 1600 | 0.139 | 0 | 223 | 1600 | 0.139 |
| EBL | 159 | 1600 | 0.099 | | 33 | 192 | 1600 | 0.120 | 0 | 192 | 1600 | 0.120 | 0 | 192 | 1600 | 0.120 | 0 | 192 | 1600 | 0.120 | 0 | 192 | 1600 | 0.120 |
| EBT | 694 | 3400 | 0.204 | * | 146 | 840 | 3400 | 0.247 | * 0 | 840 | 3400 | 0.247 | * 0 | 840 | 3400 | 0.247 | * 0 | 840 | 3400 | 0.247 | * 0 | 840 | 3400 | 0.247 | * |
| EBR* | 138 | 1600 | 0.086 | | 29 | 167 | 1600 | 0.104 | 0 | 167 | 1600 | 0.104 | 0 | 167 | 1600 | 0.104 | 0 | 167 | 1600 | 0.104 | 0 | 167 | 1600 | 0.104 |
| WBL | 175 | 1600 | 0.109 | * | 37 | 212 | 1600 | 0.133 | * 0 | 212 | 1600 | 0.133 | * 12 | 224 | 1600 | 0.140 | * 0 | 224 | 1600 | 0.140 | * 0 | 224 | 1600 | 0.140 | * |
| WBT | 657 | 3400 | 0.193 | | 138 | 795 | 3400 | 0.234 | 0 | 795 | 3400 | 0.234 | 0 | 795 | 3400 | 0.234 | 0 | 795 | 3400 | 0.234 | 0 | 795 | 3400 | 0.234 |
| WBR* | 175 | 1600 | 0.109 | | 37 | 212 | 1600 | 0.133 | 0 | 212 | 1600 | 0.133 | 0 | 212 | 1600 | 0.133 | 0 | 212 | 1600 | 0.133 | 0 | 212 | 1600 | 0.133 |
| CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| ICU VALUE | **0.656** | | | | ICU VALUE | **0.774** | | | ICU VALUE | **0.774** | | | ICU VALUE | **0.784** | | | ICU VALUE | **0.784** | | | ICU VALUE | **0.784** | | |
| LEVEL OF SERVICE | B | | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | |

* = functions as right-turn lane, but not striped as such

N/S: MAIN STREET
E/W: 223RD STREET
FILE: 1843-1B

**MAIN STREET / 223RD STREET**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 1B

PROJECT NAME: CARSON TERMINAL SITE RESIDENTIAL PROJECT

OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2003 Traffic | | | | Project Traffic 100% Occupancy | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 210 | | | | | | | | | | | | | | | | | | | |
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 55 | 1600 | 0.034 | | 12 | 67 | 1600 | 0.042 | 0 | 67 | 1600 | 0.042 | 4 | 71 | 1600 | 0.044 | 0 | 71 | 1600 | 0.044 | 0 | 71 | 1600 | 0.044 |
| NBT | 456 | 3400 | 0.142 | * | 96 | 552 | 3400 | 0.172 | * 0 | 552 | 3400 | 0.172 | * 0 | 552 | 3400 | 0.172 | * 0 | 552 | 3400 | 0.172 | * 0 | 552 | 3400 | 0.172 | * |
| NBR | 28 | 0 | 0.000 | | 6 | 34 | 0 | 0.000 | 0 | 34 | 0 | 0.000 | 0 | 34 | 0 | 0.000 | 0 | 34 | 0 | 0.000 | 0 | 34 | 0 | 0.000 |
| SBL | 28 | 1600 | 0.018 | * | 6 | 34 | 1600 | 0.021 | * 0 | 34 | 1600 | 0.021 | * 0 | 34 | 1600 | 0.021 | * 0 | 34 | 1600 | 0.021 | * 0 | 34 | 1600 | 0.021 | * |
| SBT | 328 | 3400 | 0.105 | | 69 | 397 | 3400 | 0.127 | 0 | 397 | 3400 | 0.127 | 0 | 397 | 3400 | 0.129 | 0 | 397 | 3400 | 0.129 | 0 | 397 | 3400 | 0.129 |
| SBR | 28 | 0 | 0.000 | | 6 | 34 | 0 | 0.000 | 0 | 34 | 0 | 0.000 | 8 | 42 | 0 | 0.000 | 0 | 42 | 0 | 0.000 | 0 | 42 | 0 | 0.000 |
| EBL | 47 | 0 | 0.000 | * | 10 | 57 | 0 | 0.000 | * 0 | 57 | 0 | 0.000 | * 32 | 89 | 0 | 0.000 | * 0 | 89 | 0 | 0.000 | * 0 | 89 | 0 | 0.000 | * |
| EBT | 62 | 1600 | 0.089 | | 13 | 75 | 1600 | 0.108 | 0 | 75 | 1600 | 0.108 | 0 | 75 | 1600 | 0.138 | 0 | 75 | 1600 | 0.138 | 0 | 75 | 1600 | 0.138 |
| EBR | 33 | 0 | 0.000 | | 7 | 40 | 0 | 0.000 | 0 | 40 | 0 | 0.000 | 16 | 56 | 0 | 0.000 | 0 | 56 | 0 | 0.000 | 0 | 56 | 0 | 0.000 |
| WBL | 52 | 0 | 0.000 | | 11 | 63 | 0 | 0.000 | 0 | 63 | 0 | 0.000 | 0 | 63 | 0 | 0.000 | 0 | 63 | 0 | 0.000 | 0 | 63 | 0 | 0.000 |
| WBT | 93 | 1600 | 0.127 | * | 20 | 113 | 1600 | 0.154 | * 0 | 113 | 1600 | 0.154 | * 0 | 113 | 1600 | 0.154 | * 0 | 113 | 1600 | 0.154 | * 0 | 113 | 1600 | 0.154 | * |
| WBR | 58 | 0 | 0.000 | | 12 | 70 | 0 | 0.000 | 0 | 70 | 0 | 0.000 | 0 | 70 | 0 | 0.000 | 0 | 70 | 0 | 0.000 | 0 | 70 | 0 | 0.000 |
| CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| ICU VALUE | 0.387 | | | | ICU VALUE | 0.447 | | | ICU VALUE | 0.447 | | | ICU VALUE | 0.447 | | | ICU VALUE | 0.447 | | | ICU VALUE | 0.447 | | |
| LEVEL OF SERVICE | A | | | | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | A | | |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 59 | 1600 | 0.037 | * | 12 | 71 | 1600 | 0.044 | * 0 | 71 | 1600 | 0.044 | * 17 | 88 | 1600 | 0.055 | * 0 | 88 | 1600 | 0.055 | * 0 | 88 | 1600 | 0.055 | * |
| NBT | 569 | 3400 | 0.183 | | 120 | 689 | 3400 | 0.222 | 0 | 689 | 3400 | 0.222 | 0 | 689 | 3400 | 0.222 | 0 | 689 | 3400 | 0.222 | 0 | 689 | 3400 | 0.222 |
| NBR | 54 | 0 | 0.000 | | 11 | 65 | 0 | 0.000 | 0 | 65 | 0 | 0.000 | 0 | 65 | 0 | 0.000 | 0 | 65 | 0 | 0.000 | 0 | 65 | 0 | 0.000 |
| SBL | 95 | 1600 | 0.059 | | 20 | 115 | 1600 | 0.072 | 0 | 115 | 1600 | 0.072 | 0 | 115 | 1600 | 0.072 | 0 | 115 | 1600 | 0.072 | 0 | 115 | 1600 | 0.072 |
| SBT | 686 | 3400 | 0.224 | * | 144 | 830 | 3400 | 0.271 | * 0 | 830 | 3400 | 0.271 | * 0 | 830 | 3400 | 0.282 | * 0 | 830 | 3400 | 0.282 | * 0 | 830 | 3400 | 0.282 | * |
| SBR | 77 | 0 | 0.000 | | 16 | 93 | 0 | 0.000 | 0 | 93 | 0 | 0.000 | 35 | 128 | 0 | 0.000 | 0 | 128 | 0 | 0.000 | 0 | 128 | 0 | 0.000 |
| EBL | 66 | 0 | 0.000 | | 14 | 80 | 0 | 0.000 | 0 | 80 | 0 | 0.000 | 15 | 95 | 0 | 0.000 | 0 | 95 | 0 | 0.000 | 0 | 95 | 0 | 0.000 |
| EBT | 116 | 1600 | 0.149 | * | 24 | 140 | 1600 | 0.180 | * 0 | 140 | 1600 | 0.180 | * 0 | 140 | 1600 | 0.194 | * 0 | 140 | 1600 | 0.194 | * 0 | 140 | 1600 | 0.194 | * |
| EBR | 56 | 0 | 0.000 | | 12 | 68 | 0 | 0.000 | 0 | 68 | 0 | 0.000 | 8 | 76 | 0 | 0.000 | 0 | 76 | 0 | 0.000 | 0 | 76 | 0 | 0.000 |
| WBL | 64 | 0 | 0.000 | * | 13 | 77 | 0 | 0.000 | * 0 | 77 | 0 | 0.000 | * 0 | 77 | 0 | 0.000 | * 0 | 77 | 0 | 0.000 | * 0 | 77 | 0 | 0.000 | * |
| WBT | 94 | 1600 | 0.120 | | 20 | 114 | 1600 | 0.145 | 0 | 114 | 1600 | 0.145 | 0 | 114 | 1600 | 0.145 | 0 | 114 | 1600 | 0.145 | 0 | 114 | 1600 | 0.145 |
| WBR | 34 | 0 | 0.000 | | 7 | 41 | 0 | 0.000 | 0 | 41 | 0 | 0.000 | 0 | 41 | 0 | 0.000 | 0 | 41 | 0 | 0.000 | 0 | 41 | 0 | 0.000 |
| CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| ICU VALUE | 0.510 | | | | ICU VALUE | 0.595 | | | ICU VALUE | 0.595 | | | ICU VALUE | 0.631 | | | ICU VALUE | 0.631 | | | ICU VALUE | 0.631 | | |
| LEVEL OF SERVICE | A | | | | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | |

N/S: MAIN STREET
E/W: 228TH STREET
FILE: 1843-2B

**MAIN STREET / 228TH STREET**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 28

W

PROJECT NAME: **CARSON TERMINAL SITE RESIDENTIAL PROJECT**

OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2003 Traffic | | | | Project Traffic 100% Occupancy | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | |
| NBL | 118 | 1600 | 0.074 | * | 25 | 143 | 1600 | 0.089 | * | 0 | 143 | 1600 | 0.089 | * | 0 | 143 | 1600 | 0.089 | * | 0 | 143 | 1600 | 0.089 | * | 0 | 143 | 1600 | 0.089 | * |
| NBT | 287 | 3400 | 0.121 | | 60 | 347 | 3400 | 0.146 | | 0 | 347 | 3400 | 0.146 | | 3 | 350 | 3400 | 0.147 | | 0 | 350 | 3400 | 0.147 | | 0 | 350 | 3400 | 0.147 | |
| NBR | 123 | 0 | 0.000 | | 26 | 149 | 0 | 0.000 | | 0 | 149 | 0 | 0.000 | | 0 | 149 | 0 | 0.000 | | 0 | 149 | 0 | 0.000 | | 0 | 149 | 0 | 0.000 | |
| SBL | 52 | 1600 | 0.033 | | 11 | 63 | 1600 | 0.039 | | 0 | 63 | 1600 | 0.039 | | 5 | 68 | 1600 | 0.043 | | 0 | 68 | 1600 | 0.043 | | 0 | 68 | 1600 | 0.043 | |
| SBT | 294 | 3400 | 0.126 | * | 62 | 356 | 3400 | 0.152 | * | 0 | 356 | 3400 | 0.152 | * | 11 | 367 | 3400 | 0.156 | * | 0 | 367 | 3400 | 0.156 | * | 0 | 367 | 3400 | 0.156 | * |
| SBR | 134 | 0 | 0.000 | | 28 | 162 | 0 | 0.000 | | 0 | 162 | 0 | 0.000 | | 0 | 162 | 0 | 0.000 | | 0 | 162 | 0 | 0.000 | | 0 | 162 | 0 | 0.000 | |
| EBL | 63 | 1600 | 0.039 | | 13 | 76 | 1600 | 0.048 | | 0 | 76 | 1600 | 0.048 | | 0 | 76 | 1600 | 0.048 | | 0 | 76 | 1600 | 0.048 | | 0 | 76 | 1600 | 0.048 | |
| EBT | 537 | 3400 | 0.192 | * | 113 | 650 | 3400 | 0.233 | * | 0 | 650 | 3400 | 0.233 | * | 0 | 650 | 3400 | 0.233 | * | 0 | 650 | 3400 | 0.233 | * | 0 | 650 | 3400 | 0.233 | * |
| EBR | 117 | 0 | 0.000 | | 25 | 142 | 0 | 0.000 | | 0 | 142 | 0 | 0.000 | | 0 | 142 | 0 | 0.000 | | 0 | 142 | 0 | 0.000 | | 0 | 142 | 0 | 0.000 | |
| WBL | 130 | 1600 | 0.081 | * | 27 | 157 | 1600 | 0.098 | * | 0 | 157 | 1600 | 0.098 | * | 0 | 157 | 1600 | 0.098 | * | 0 | 157 | 1600 | 0.098 | * | 0 | 157 | 1600 | 0.098 | * |
| WBT | 668 | 3400 | 0.211 | | 140 | 808 | 3400 | 0.256 | | 0 | 808 | 3400 | 0.256 | | 0 | 808 | 3400 | 0.256 | | 0 | 808 | 3400 | 0.256 | | 0 | 808 | 3400 | 0.256 | |
| WBR | 50 | 0 | 0.000 | | 11 | 61 | 0 | 0.000 | | 0 | 61 | 0 | 0.000 | | 1 | 62 | 0 | 0.000 | | 0 | 62 | 0 | 0.000 | | 0 | 62 | 0 | 0.000 | |
| CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | |
| ICU VALUE | 0.573 | | | | ICU VALUE | 0.672 | | | | ICU VALUE | 0.672 | | | | ICU VALUE | 0.676 | | | | ICU VALUE | 0.676 | | | | ICU VALUE | 0.676 | | | |
| LEVEL OF SERVICE | A | | | | LEVEL OF SERVICE | B | | | | LEVEL OF SERVICE | B | | | | LEVEL OF SERVICE | B | | | | LEVEL OF SERVICE | B | | | | LEVEL OF SERVICE | B | | | |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 136 | 1600 | 0.085 | * | 29 | 165 | 1600 | 0.103 | * | 0 | 165 | 1600 | 0.103 | * | 0 | 165 | 1600 | 0.103 | * | 0 | 165 | 1600 | 0.103 | * | 0 | 165 | 1600 | 0.103 | * |
| NBT | 442 | 3400 | 0.189 | | 93 | 535 | 3400 | 0.229 | | 0 | 535 | 3400 | 0.229 | | 12 | 547 | 3400 | 0.232 | | 0 | 547 | 3400 | 0.232 | | 0 | 547 | 3400 | 0.232 | |
| NBR | 201 | 0 | 0.000 | | 42 | 243 | 0 | 0.000 | | 0 | 243 | 0 | 0.000 | | 0 | 243 | 0 | 0.000 | | 0 | 243 | 0 | 0.000 | | 0 | 243 | 0 | 0.000 | |
| SBL | 88 | 1600 | 0.055 | | 19 | 107 | 1600 | 0.067 | | 0 | 107 | 1600 | 0.067 | | 3 | 110 | 1600 | 0.069 | | 0 | 110 | 1600 | 0.069 | | 0 | 110 | 1600 | 0.069 | |
| SBT | 430 | 3400 | 0.173 | * | 90 | 520 | 3400 | 0.209 | * | 0 | 520 | 3400 | 0.209 | * | 5 | 525 | 3400 | 0.211 | * | 0 | 525 | 3400 | 0.211 | * | 0 | 525 | 3400 | 0.211 | * |
| SBR | 159 | 0 | 0.000 | | 33 | 192 | 0 | 0.000 | | 0 | 192 | 0 | 0.000 | | 0 | 192 | 0 | 0.000 | | 0 | 192 | 0 | 0.000 | | 0 | 192 | 0 | 0.000 | |
| EBL | 147 | 1600 | 0.092 | | 31 | 178 | 1600 | 0.111 | | 0 | 178 | 1600 | 0.111 | | 0 | 178 | 1600 | 0.111 | | 0 | 178 | 1600 | 0.111 | | 0 | 178 | 1600 | 0.111 | |
| EBT | 784 | 3400 | 0.277 | * | 165 | 949 | 3400 | 0.336 | * | 0 | 949 | 3400 | 0.336 | * | 0 | 949 | 3400 | 0.336 | * | 0 | 949 | 3400 | 0.336 | * | 0 | 949 | 3400 | 0.336 | * |
| EBR | 159 | 0 | 0.000 | | 33 | 192 | 0 | 0.000 | | 0 | 192 | 0 | 0.000 | | 0 | 192 | 0 | 0.000 | | 0 | 192 | 0 | 0.000 | | 0 | 192 | 0 | 0.000 | |
| WBL | 162 | 1600 | 0.101 | * | 34 | 196 | 1600 | 0.123 | * | 0 | 196 | 1600 | 0.123 | * | 0 | 196 | 1600 | 0.123 | * | 0 | 196 | 1600 | 0.123 | * | 0 | 196 | 1600 | 0.123 | * |
| WBT | 754 | 3400 | 0.252 | | 158 | 912 | 3400 | 0.304 | | 0 | 912 | 3400 | 0.304 | | 0 | 912 | 3400 | 0.306 | | 0 | 912 | 3400 | 0.306 | | 0 | 912 | 3400 | 0.306 | |
| WBR | 102 | 0 | 0.000 | | 21 | 123 | 0 | 0.000 | | 0 | 123 | 0 | 0.000 | | 5 | 128 | 0 | 0.000 | | 0 | 128 | 0 | 0.000 | | 0 | 128 | 0 | 0.000 | |
| CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | |
| ICU VALUE | 0.736 | | | | ICU VALUE | 0.871 | | | | ICU VALUE | 0.871 | | | | ICU VALUE | 0.873 | | | | ICU VALUE | 0.873 | | | | ICU VALUE | 0.873 | | | |
| LEVEL OF SERVICE | C | | | | LEVEL OF SERVICE | D | | | | LEVEL OF SERVICE | D | | | | LEVEL OF SERVICE | D | | | | LEVEL OF SERVICE | D | | | | LEVEL OF SERVICE | D | | | |

N/S: MAIN STREET
E/W: SEPULVEDA BOULEVARD
FILE: 1843-3B

**MAIN STREET / SEPULVEDA BOULEVARD**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 3B

PROJECT NAME: **CARSON TERMINAL SITE RESIDENTIAL PROJECT**

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2003 Traffic | | | | Project Traffic 100% Occupancy | | | | With Improvement | | | | With Improvement | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | | OPT. APPR. PHASING | | | |
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 120 | 1600 | 0.075 | | 25 | 145 | 1600 | 0.091 | 0 | 145 | 1600 | 0.091 | 5 | 150 | 1600 | 0.094 | 0 | 150 | 1600 | 0.094 |
| NBT | 659 | 3400 | 0.235 | * | 138 | 797 | 3400 | 0.285 | * 0 | 797 | 3400 | 0.285 | * 16 | 813 | 3400 | 0.289 | * 0 | 813 | 3400 | 0.289 | * 0 | 813 | 3400 | 0.289 | * |
| NBR | 141 | 0 | 0.000 | | 30 | 171 | 0 | 0.000 | 0 | 171 | 0 | 0.000 | 0 | 171 | 0 | 0.000 | 0 | 171 | 0 | 0.000 | 0 | 171 | 0 | 0.000 | |
| SBL | 64 | 1600 | 0.040 | * | 13 | 77 | 1600 | 0.048 | * 0 | 77 | 1600 | 0.048 | * 0 | 77 | 1600 | 0.048 | * 0 | 77 | 1600 | 0.048 | * 0 | 77 | 1600 | 0.048 | * |
| SBT | 186 | 3400 | 0.098 | | 39 | 225 | 3400 | 0.119 | 0 | 225 | 3400 | 0.119 | 1 | 226 | 3400 | 0.119 | 0 | 226 | 3400 | 0.119 | 0 | 226 | 3400 | 0.119 | |
| SBR | 147 | 0 | 0.000 | | 31 | 178 | 0 | 0.000 | 0 | 178 | 0 | 0.000 | 0 | 178 | 0 | 0.000 | 0 | 178 | 0 | 0.000 | 0 | 178 | 0 | 0.000 | |
| EBL | 341 | 1600 | 0.213 | * | 72 | 413 | 1600 | 0.258 | * 0 | 413 | 1600 | 0.258 | * 0 | 413 | 1600 | 0.258 | * 0 | 413 | 2880 | 0.143 | * 0 | 413 | 2880 | 0.143 | * |
| EBT | 597 | 3400 | 0.176 | | 125 | 722 | 3400 | 0.212 | 0 | 722 | 3400 | 0.212 | 0 | 722 | 3400 | 0.212 | 0 | 722 | 3400 | 0.266 | 0 | 722 | 3400 | 0.266 | |
| EBR* | 147 | 1600 | 0.092 | | 31 | 178 | 1600 | 0.111 | 0 | 178 | 1600 | 0.111 | 5 | 183 | 1600 | 0.114 | 0 | 183 | 0 | 0.000 | 0 | 183 | 0 | 0.000 | |
| WBL | 67 | 1600 | 0.042 | | 14 | 81 | 1600 | 0.051 | 0 | 81 | 1600 | 0.051 | 0 | 81 | 1600 | 0.051 | 0 | 81 | 1600 | 0.051 | 0 | 81 | 1600 | 0.051 | |
| WBT | 730 | 3400 | 0.215 | * | 153 | 883 | 3400 | 0.260 | * 0 | 883 | 3400 | 0.260 | * 0 | 883 | 3400 | 0.260 | * 0 | 883 | 3400 | 0.260 | * 0 | 883 | 3400 | 0.260 | * |
| WBR* | 267 | 1600 | 0.167 | | 56 | 323 | 1600 | 0.202 | 0 | 323 | 1600 | 0.202 | 0 | 323 | 1600 | 0.202 | 0 | 323 | 1600 | 0.202 | 0 | 323 | 1600 | 0.202 | |
| CLEARANCE | | | 0.10 | | | | | 0.10 | | | | 0.10 | | | | 0.10 | | | | 0.10 | | | | 0.10 | |
| ICU VALUE | | | **0.802** | | | | | **0.951** | | | | **0.951** | | | | **0.955** | | | | **0.840** | | | | **0.840** | |
| LEVEL OF SERVICE | | | **D** | | | | | **E** | | | | **E** | | | | **E** | | | | **D** | | | | **D** | |

## PM PEAK HOUR

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 51 | 1600 | 0.032 | | 11 | 62 | 1600 | 0.039 | 0 | 62 | 1600 | 0.039 | 2 | 64 | 1600 | 0.040 | 0 | 64 | 1600 | 0.040 |
| NBT | 230 | 3400 | 0.095 | * | 48 | 278 | 3400 | 0.115 | * 0 | 278 | 3400 | 0.115 | * 8 | 286 | 3400 | 0.117 | * 0 | 286 | 3400 | 0.117 | * 0 | 286 | 3400 | 0.117 | * |
| NBR | 93 | 0 | 0.000 | | 20 | 113 | 0 | 0.000 | 0 | 113 | 0 | 0.000 | 0 | 113 | 0 | 0.000 | 0 | 113 | 0 | 0.000 | 0 | 113 | 0 | 0.000 | |
| SBL | 96 | 1600 | 0.060 | * | 20 | 116 | 1600 | 0.073 | * 0 | 116 | 1600 | 0.073 | * 0 | 116 | 1600 | 0.073 | * 0 | 116 | 1600 | 0.073 | * 0 | 116 | 1600 | 0.073 | * |
| SBT | 281 | 3400 | 0.118 | | 59 | 340 | 3400 | 0.142 | 0 | 340 | 3400 | 0.142 | 6 | 346 | 3400 | 0.144 | 0 | 346 | 3400 | 0.144 | 0 | 346 | 3400 | 0.144 | |
| SBR | 119 | 0 | 0.000 | | 25 | 144 | 0 | 0.000 | 0 | 144 | 0 | 0.000 | 0 | 144 | 0 | 0.000 | 0 | 144 | 0 | 0.000 | 0 | 144 | 0 | 0.000 | |
| EBL | 255 | 1600 | 0.159 | * | 54 | 309 | 1600 | 0.193 | * 0 | 309 | 1600 | 0.193 | * 0 | 309 | 1600 | 0.193 | * 0 | 309 | 2880 | 0.107 | 0 | 309 | 2880 | 0.107 | |
| EBT | 935 | 3400 | 0.275 | | 196 | 1131 | 3400 | 0.333 | 0 | 1131 | 3400 | 0.333 | 0 | 1131 | 3400 | 0.333 | 0 | 1131 | 3400 | 0.440 | * 0 | 1131 | 3400 | 0.440 | * |
| EBR* | 283 | 1600 | 0.177 | | 59 | 342 | 1600 | 0.214 | 0 | 342 | 1600 | 0.214 | 23 | 365 | 1600 | 0.228 | 0 | 365 | 0 | 0.000 | 0 | 365 | 0 | 0.000 | |
| WBL | 85 | 1600 | 0.053 | | 18 | 103 | 1600 | 0.064 | 0 | 103 | 1600 | 0.064 | 0 | 103 | 1600 | 0.064 | 0 | 103 | 1600 | 0.064 | * 0 | 103 | 1600 | 0.064 | * |
| WBT | 648 | 3400 | 0.191 | * | 136 | 784 | 3400 | 0.231 | * 0 | 784 | 3400 | 0.231 | * 0 | 784 | 3400 | 0.231 | * 0 | 784 | 3400 | 0.231 | 0 | 784 | 3400 | 0.231 | |
| WBR* | 138 | 1600 | 0.086 | | 29 | 167 | 1600 | 0.104 | 0 | 167 | 1600 | 0.104 | 0 | 167 | 1600 | 0.104 | 0 | 167 | 1600 | 0.104 | 0 | 167 | 1600 | 0.104 | |
| CLEARANCE | | | 0.10 | | | | | 0.10 | | | | 0.10 | | | | 0.10 | | | | 0.10 | | | | 0.10 | |
| ICU VALUE | | | **0.605** | | | | | **0.712** | | | | **0.712** | | | | **0.714** | | | | **0.794** | | | | **0.794** | |
| LEVEL OF SERVICE | | | **B** | | | | | **C** | | | | **C** | | | | **C** | | | | **C** | | | | **C** | |

* = functions as right-turn lane, but not striped as such

N/S: FIGUEROA STREET
E/W: 223RD STREET
FILE: 1843-4B

**FIGUEROA STREET / 223RD STREET**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 4B

Restripe EB approach for 2nd EB left
Eliminate EBR lane

PROJECT NAME: CARSON TERMINAL SITE RESIDENTIAL PROJECT

OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2003 Traffic | | | | Project Traffic 100% Occupancy | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 85 | 1600 | 0.053 | | 18 | 103 | 1600 | 0.064 | 0 | 103 | 1600 | 0.064 | 0 | 103 | 1600 | 0.064 | 0 | 103 | 1600 | 0.064 | 0 | 103 | 1600 | 0.064 |
| NBT | 581 | 3400 | 0.185 | * | 122 | 703 | 3400 | 0.224 | * 0 | 703 | 3400 | 0.224 | * 0 | 703 | 3400 | 0.226 | * 0 | 703 | 3400 | 0.226 | * 0 | 703 | 3400 | 0.226 * |
| NBR | 48 | 0 | 0.000 | | 10 | 58 | 0 | 0.000 | 0 | 58 | 0 | 0.000 | 7 | 65 | 0 | 0.000 | 0 | 65 | 0 | 0.000 | 0 | 65 | 0 | 0.000 |
| SBL | 66 | 1600 | 0.041 | * | 14 | 80 | 1600 | 0.050 | * 0 | 80 | 1600 | 0.050 | * 7 | 87 | 1600 | 0.054 | * 0 | 87 | 1600 | 0.054 | * 0 | 87 | 1600 | 0.054 * |
| SBT | 224 | 3400 | 0.089 | | 47 | 271 | 3400 | 0.108 | 0 | 271 | 3400 | 0.108 | 0 | 271 | 3400 | 0.108 | 0 | 271 | 3400 | 0.108 | 0 | 271 | 3400 | 0.108 |
| SBR | 79 | 0 | 0.000 | | 17 | 96 | 0 | 0.000 | 0 | 96 | 0 | 0.000 | 0 | 96 | 0 | 0.000 | 0 | 96 | 0 | 0.000 | 0 | 96 | 0 | 0.000 |
| EBL | 121 | 0 | 0.000 | * | 25 | 146 | 0 | 0.000 | * 0 | 146 | 0 | 0.000 | * 0 | 146 | 0 | 0.000 | * 0 | 146 | 0 | 0.000 | * 0 | 146 | 0 | 0.000 * |
| EBT | 144 | 1600 | 0.203 | | 30 | 174 | 1600 | 0.246 | 0 | 174 | 1600 | 0.246 | 1 | 175 | 1600 | 0.246 | 0 | 175 | 1600 | 0.246 | 0 | 175 | 1600 | 0.246 |
| EBR | 60 | 0 | 0.000 | | 13 | 73 | 0 | 0.000 | 0 | 73 | 0 | 0.000 | 0 | 73 | 0 | 0.000 | 0 | 73 | 0 | 0.000 | 0 | 73 | 0 | 0.000 |
| WBL | 77 | 0 | 0.000 | | 16 | 93 | 0 | 0.000 | 0 | 93 | 0 | 0.000 | 32 | 125 | 0 | 0.000 | 0 | 125 | 0 | 0.000 | 0 | 125 | 0 | 0.000 |
| WBT | 229 | 1600 | 0.274 | * | 48 | 277 | 1600 | 0.331 | * 0 | 277 | 1600 | 0.331 | * 5 | 282 | 1600 | 0.368 | * 0 | 282 | 1600 | 0.368 | * 0 | 282 | 1600 | 0.368 * |
| WBR | 132 | 0 | 0.000 | | 28 | 160 | 0 | 0.000 | 0 | 160 | 0 | 0.000 | 21 | 181 | 0 | 0.000 | 0 | 181 | 0 | 0.000 | 0 | 181 | 0 | 0.000 |
| CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| ICU VALUE | 0.600 | | | | ICU VALUE | 0.705 | | | ICU VALUE | 0.705 | | | ICU VALUE | 0.748 | | | ICU VALUE | 0.748 | | | ICU VALUE | 0.748 | | |
| LEVEL OF SERVICE | A | | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 54 | 1600 | 0.034 | | 11 | 65 | 1600 | 0.041 | 0 | 65 | 1600 | 0.041 | 0 | 65 | 1600 | 0.041 | 0 | 65 | 1600 | 0.041 | 0 | 65 | 1600 | 0.041 |
| NBT | 270 | 3400 | 0.099 | * | 57 | 327 | 3400 | 0.119 | * 0 | 327 | 3400 | 0.119 | * 0 | 327 | 3400 | 0.128 | * 0 | 327 | 3400 | 0.128 | * 0 | 327 | 3400 | 0.128 * |
| NBR | 65 | 0 | 0.000 | | 14 | 79 | 0 | 0.000 | 0 | 79 | 0 | 0.000 | 29 | 108 | 0 | 0.000 | 0 | 108 | 0 | 0.000 | 0 | 108 | 0 | 0.000 |
| SBL | 139 | 1600 | 0.087 | * | 29 | 168 | 1600 | 0.105 | * 0 | 168 | 1600 | 0.105 | * 29 | 197 | 1600 | 0.123 | * 0 | 197 | 1600 | 0.123 | * 0 | 197 | 1600 | 0.123 * |
| SBT | 404 | 3400 | 0.138 | | 85 | 489 | 3400 | 0.166 | 0 | 489 | 3400 | 0.166 | 0 | 489 | 3400 | 0.166 | 0 | 489 | 3400 | 0.166 | 0 | 489 | 3400 | 0.166 |
| SBR | 64 | 0 | 0.000 | | 13 | 77 | 0 | 0.000 | 0 | 77 | 0 | 0.000 | 0 | 77 | 0 | 0.000 | 0 | 77 | 0 | 0.000 | 0 | 77 | 0 | 0.000 |
| EBL | 73 | 0 | 0.000 | | 15 | 88 | 0 | 0.000 | 0 | 88 | 0 | 0.000 | 0 | 88 | 0 | 0.000 | 0 | 88 | 0 | 0.000 | 0 | 88 | 0 | 0.000 |
| EBT | 229 | 1600 | 0.239 | * | 48 | 277 | 1600 | 0.289 | * 0 | 277 | 1600 | 0.289 | * 6 | 283 | 1600 | 0.293 | * 0 | 283 | 1600 | 0.293 | * 0 | 283 | 1600 | 0.293 * |
| EBR | 81 | 0 | 0.000 | | 17 | 98 | 0 | 0.000 | 0 | 98 | 0 | 0.000 | 0 | 98 | 0 | 0.000 | 0 | 98 | 0 | 0.000 | 0 | 98 | 0 | 0.000 |
| WBL | 54 | 0 | 0.000 | * | 11 | 65 | 0 | 0.000 | * 0 | 65 | 0 | 0.000 | * 15 | 80 | 0 | 0.000 | * 0 | 80 | 0 | 0.000 | * 0 | 80 | 0 | 0.000 * |
| WBT | 160 | 1600 | 0.178 | | 34 | 194 | 1600 | 0.215 | 0 | 194 | 1600 | 0.215 | 2 | 196 | 1600 | 0.232 | 0 | 196 | 1600 | 0.232 | 0 | 196 | 1600 | 0.232 |
| WBR | 70 | 0 | 0.000 | | 15 | 85 | 0 | 0.000 | 0 | 85 | 0 | 0.000 | 10 | 95 | 0 | 0.000 | 0 | 95 | 0 | 0.000 | 0 | 95 | 0 | 0.000 |
| CLEARANCE | 0.10 | | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | |
| ICU VALUE | 0.525 | | | | ICU VALUE | 0.613 | | | ICU VALUE | 0.613 | | | ICU VALUE | 0.644 | | | ICU VALUE | 0.644 | | | ICU VALUE | 0.644 | | |
| LEVEL OF SERVICE | A | | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | | |

N/S: FIGUEROA STREET
E/W: 228TH STREET
FILE: 1843-5B

**FIGUEROA STREET / 228TH STREET**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 5B

PROJECT NAME: **CARSON TERMINAL SITE RESIDENTIAL PROJECT**

OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING | OPT. APPR. PHASING

## AM PEAK HOUR

| | Existing 1996 Traffic | | | | Ambient 2003 Traffic (210) | | | | Project Traffic 100% Occupancy | | | | With Improvement | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
| NBL | 205 | 1600 | 0.128 | * | 43 | 248 | 1600 | 0.155 | * 0 | 248 | 1600 | 0.155 | * 0 | 248 | 1600 | 0.155 | * 0 | 248 | 1600 | 0.155 * | 0 | 248 | 1600 | 0.155 * |
| NBT | 227 | 3400 | 0.075 | | 48 | 275 | 3400 | 0.091 | 0 | 275 | 3400 | 0.091 | 1 | 276 | 3400 | 0.091 | 0 | 276 | 3400 | 0.091 | 0 | 276 | 3400 | 0.091 |
| NBR | 28 | 0 | 0.000 | | 6 | 34 | 0 | 0.000 | 0 | 34 | 0 | 0.000 | 0 | 34 | 0 | 0.000 | 0 | 34 | 0 | 0.000 | 0 | 34 | 0 | 0.000 |
| SBL | 38 | 1600 | 0.024 | | 8 | 46 | 1600 | 0.029 | 0 | 46 | 1600 | 0.029 | 0 | 46 | 1600 | 0.029 | 0 | 46 | 1600 | 0.029 | 0 | 46 | 1600 | 0.029 |
| SBT | 201 | 3400 | 0.059 | * | 42 | 243 | 3400 | 0.071 | * 0 | 243 | 3400 | 0.071 | * 5 | 248 | 3400 | 0.073 | * 0 | 248 | 3400 | 0.073 * | 0 | 248 | 3400 | 0.073 * |
| SBR | 221 | FREE | 0.000 | | 46 | 267 | FREE | 0.000 | 0 | 267 | FREE | 0.000 | 27 | 294 | FREE | 0.000 | 0 | 294 | FREE | 0.000 | 0 | 294 | FREE | 0.000 |
| EBL | 133 | 1600 | 0.083 | * | 28 | 161 | 1600 | 0.101 | * 0 | 161 | 1600 | 0.101 | * 6 | 167 | 1600 | 0.104 | * 0 | 167 | 1600 | 0.104 * | 0 | 167 | 1600 | 0.104 * |
| EBT | 754 | 3400 | 0.222 | | 158 | 912 | 3400 | 0.268 | 0 | 912 | 3400 | 0.268 | 0 | 912 | 3400 | 0.268 | 0 | 912 | 3400 | 0.268 | 0 | 912 | 3400 | 0.268 |
| EBR | 69 | 1600 | 0.043 | | 15 | 84 | 1600 | 0.053 | 0 | 84 | 1600 | 0.053 | 0 | 84 | 1600 | 0.053 | 0 | 84 | 1600 | 0.053 | 0 | 84 | 1600 | 0.053 |
| WBL | 73 | 1600 | 0.046 | | 15 | 88 | 1600 | 0.055 | 0 | 88 | 1600 | 0.055 | 0 | 88 | 1600 | 0.055 | 0 | 88 | 1600 | 0.055 | 0 | 88 | 1600 | 0.055 |
| WBT | 713 | 3400 | 0.229 | * | 150 | 863 | 3400 | 0.277 | * 0 | 863 | 3400 | 0.277 | * 0 | 863 | 3400 | 0.277 | * 0 | 863 | 3400 | 0.254 * | 0 | 863 | 3400 | 0.254 * |
| WBR | 66 | 0 | 0.000 | | 14 | 80 | 0 | 0.000 | 0 | 80 | 0 | 0.000 | 0 | 80 | 0 | 0.000 | 0 | 80 | 1600 | 0.050 | 0 | 80 | 1600 | 0.050 |
| | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | |
| | ICU VALUE | 0.599 | | | ICU VALUE | 0.704 | | | ICU VALUE | 0.704 | | | ICU VALUE | 0.709 | | | ICU VALUE | 0.686 | | | ICU VALUE | 0.686 | |
| | LEVEL OF SERVICE | A | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | B | | | LEVEL OF SERVICE | B | |

## PM PEAK HOUR

| MVT | TOT VOL | CAP | V/C | | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C | ADD VOL | TOT VOL | CAP | V/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBL | 190 | 1600 | 0.119 | * | 40 | 230 | 1600 | 0.144 | * 0 | 230 | 1600 | 0.144 | * 0 | 230 | 1600 | 0.144 | * 0 | 230 | 1600 | 0.144 * | 0 | 230 | 1600 | 0.144 * |
| NBT | 207 | 3400 | 0.088 | | 44 | 251 | 3400 | 0.106 | 0 | 251 | 3400 | 0.106 | 5 | 256 | 3400 | 0.108 | 0 | 256 | 3400 | 0.108 | 0 | 256 | 3400 | 0.108 |
| NBR | 92 | 0 | 0.000 | | 19 | 111 | 0 | 0.000 | 0 | 111 | 0 | 0.000 | 0 | 111 | 0 | 0.000 | 0 | 111 | 0 | 0.000 | 0 | 111 | 0 | 0.000 |
| SBL | 122 | 1600 | 0.076 | | 26 | 148 | 1600 | 0.093 | 0 | 148 | 1600 | 0.093 | 0 | 148 | 1600 | 0.093 | 0 | 148 | 1600 | 0.093 | 0 | 148 | 1600 | 0.093 |
| SBT | 384 | 3400 | 0.113 | * | 81 | 465 | 3400 | 0.137 | * 0 | 465 | 3400 | 0.137 | * 2 | 467 | 3400 | 0.137 | * 0 | 467 | 3400 | 0.137 * | 0 | 467 | 3400 | 0.137 * |
| SBR | 188 | FREE | 0.000 | | 40 | 228 | FREE | 0.000 | 0 | 228 | FREE | 0.000 | 13 | 241 | FREE | 0.000 | 0 | 241 | FREE | 0.000 | 0 | 241 | FREE | 0.000 |
| EBL | 221 | 1600 | 0.138 | * | 46 | 267 | 1600 | 0.167 | * 0 | 267 | 1600 | 0.167 | * 23 | 290 | 1600 | 0.181 | * 0 | 290 | 1600 | 0.181 * | 0 | 290 | 1600 | 0.181 * |
| EBT | 824 | 3400 | 0.242 | | 173 | 997 | 3400 | 0.293 | 0 | 997 | 3400 | 0.293 | 0 | 997 | 3400 | 0.293 | 0 | 997 | 3400 | 0.293 | 0 | 997 | 3400 | 0.293 |
| EBR | 183 | 1600 | 0.114 | | 38 | 221 | 1600 | 0.138 | 0 | 221 | 1600 | 0.138 | 0 | 221 | 1600 | 0.138 | 0 | 221 | 1600 | 0.138 | 0 | 221 | 1600 | 0.138 |
| WBL | 76 | 1600 | 0.048 | | 16 | 92 | 1600 | 0.058 | 0 | 92 | 1600 | 0.058 | 0 | 92 | 1600 | 0.058 | 0 | 92 | 1600 | 0.058 | 0 | 92 | 1600 | 0.058 |
| WBT | 925 | 3400 | 0.298 | * | 194 | 1119 | 3400 | 0.361 | * 0 | 1119 | 3400 | 0.361 | * 0 | 1119 | 3400 | 0.361 | * 0 | 1119 | 3400 | 0.329 * | 0 | 1119 | 3400 | 0.329 * |
| WBR | 88 | 0 | 0.000 | | 19 | 107 | 0 | 0.000 | 0 | 107 | 0 | 0.000 | 0 | 107 | 0 | 0.000 | 0 | 107 | 1600 | 0.067 | 0 | 107 | 1600 | 0.067 |
| | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | | | CLEARANCE | 0.10 | |
| | ICU VALUE | 0.768 | | | ICU VALUE | 0.909 | | | ICU VALUE | 0.909 | | | ICU VALUE | 0.923 | | | ICU VALUE | 0.891 | | | ICU VALUE | 0.891 | |
| | LEVEL OF SERVICE | C | | | LEVEL OF SERVICE | E | | | LEVEL OF SERVICE | E | | | LEVEL OF SERVICE | E | | | LEVEL OF SERVICE | D | | | LEVEL OF SERVICE | D | |

N/S: FIGUEROA STREET
E/W: SEPULVEDA BOULEVARD
FILE: 1843-6B

**FIGUEROA STREET / SEPULVEDA BOULEVARD**
VOLUME-CAPACITY ANALYSIS
INTERSECTION #: 6B

Restripe WB approach to formalize
Right-turn lane; Post No Parking Restrictions

6B