

MEMORANDUM

TO: CHAIRMAN AND MEMBERS OF THE PLANNING COMMISSION
FROM: DIRECTOR OF PLANNING, BUILDING AND CODE ENFORCEMENT
DATE: JULY 22, 2008
SUBJECT: VESTING TENTATIVE TRACT MAP NO. 68796, ET AL. (CASE NOS. SUB2007-00003 & ZON2007-00072); PROPOSED 28-UNIT CONDOMINIUM PROJECT AT 28220 HIGHRIDGE ROAD

Staff Coordinator: Kit Fox, AICP, Associate Planner 

RECOMMENDATION

1) Review the revised project design and the additional information provided by the applicant to determine whether the modifications and additional information address the Commission's concerns with the proposed project's view and traffic impacts; and 2) if the proposed revisions are deemed acceptable by the Planning Commission, close the public hearing and direct Staff to bring back appropriate resolutions and conditions of approval for consideration at the August 12, 2008, Planning Commission meeting.

BACKGROUND

On June 24, 2008, the Planning Commission considered the applicant's revised 28-unit proposal, which now includes a density bonus request. The matter was continued to tonight's meeting so that the MND could be revised and recirculated to reflect the new project description; the applicant could explore the feasibility of modifying the site plan to reduce view impacts on 7 Via La Cima by placing the pool area at the front of the site and pushing the buildings further back from the street; Staff could more fully analyze and respond to the applicant's request for a density bonus; and the City Engineer could review the revised traffic impact analysis for the 28-unit project. Staff now presents this information for the Planning Commission's consideration.

DISCUSSION

Recirculation of the MND

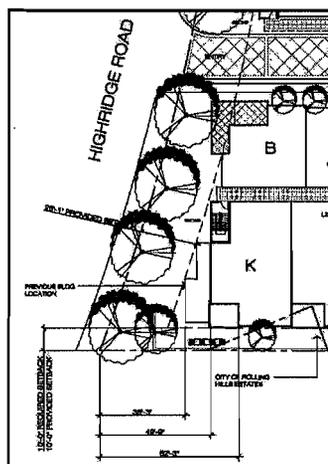
The project MND has been revised to reflect the 28-unit proposal and the increased grading, as well as the revised traffic impacts analysis. Notice of the recirculated MND was mailed on July 2, 2008 and published in the Palos Verdes *Peninsula News* on July 5, 2008. The 20-day public review period ends on July 22, 2008. As of the date that this report was completed, Staff had received no additional correspondence regarding the recirculated

MND, but the City of Rolling Hills Estates did ask to review the revised traffic impact analyses.

Feasibility of Site Plan Modifications

On June 24, 2008, the Planning Commission asked the developer to further explore the feasibility of reducing the view impacts of the project upon the residence at 7 Via La Cima by reconfiguring the site plan to place the pool area at the front of the site and push the buildings further back from the street, possibly placing units in the location of the proposed pool. Staff received an e-mail response from the developer's architect on July 3, 2008 (see attachments). To paraphrase his response:

- Moving the 'K' units to the rear, adjacent or attached to the 'J' units, would require a 20- to 30-foot separation from the 'E' units to meet Building Code requirements. Since a 20-foot rear setback is required and the 'E' units are currently less than sixty feet (60') from the property line, the relocated 'K' units would have to be very small. Furthermore, the relocated 'K' units would be beyond the Fire Department's 150-foot hose pull length requirement.
- Moving the pool area to the southeast corner adjacent to Highridge Road would require the podium level to be raised, increasing the height of the building by three feet (3'-0") to 487.0'. At the rear, the building height would exceed the 36-foot height limit. This would require direct equipment access for the Fire Department, but the slope along the east side of the property would make such access impractical for the Fire Department. The increased height of the building would exacerbate the view impact at 7 Via La Cima, and possibly at other residences on Via La Cima as well.



Notwithstanding the foregoing discussion, the applicant has modified the 'K' units to pull them back further from the front property line. The size of the 'K' units was reduced from 1,999 square feet to 1,730 square feet. As depicted in the site plan detail to the left, the patio and balcony areas were moved to the front facades of the units, which have been moved back eleven feet six inches (11'-6") from the previous proposal. The "notch" at the corner of the building that is provided by the patio/balcony areas serves to step these portions of the front facades back another twelve feet six inches (12'-6"). Staff believes that these changes will help to open up some of the near city-lights view from 7 Via La Cima that would have been blocked by the previous proposal.

Analysis of Density Bonus Request

On June 18, 2008, the applicant submitted a request for a density bonus pursuant to State law and the City's Development Code. The density bonus provisions of State law (Government Code Sections 65915-65918) and the City's Development Code (Section 17.11.060) are intended to serve as incentives for developers to provide a greater number of affordable units than the minimum number required, in exchange for an allowance to build a greater number of units than otherwise would be allowed by the underlying zoning designation and some other concession such as a waiver of a development standard. Due to the lateness of the submission, Staff did not have adequate time to fully assess the implications of this request for inclusion in the June 24, 2008 Staff report or for discussion at that night's meeting. However, since that time, Staff and the City Attorney have spoken with the applicant and his attorney to discuss our respective positions on this issue and to clarify the nature of the applicant's request.

The applicant's density bonus request involves requesting one (1) additional market-rate unit, for a total of twenty-eight (28) units. Of these, the applicant proposes to dedicate two (2) units for sale to very-low-income households, the same number of affordable units as required for the previous 27-unit proposal. With the additional unit in the project, the former 2-space off-street parking surplus is eliminated; the project now provides the minimum number of off-street resident and guest parking spaces required for twenty-eight (28) units, as depicted in the table below.

RM-22 Parking Standard¹	27 Units (Minimum)	27 Units (Proposed)	28 Units (Minimum)	28 Units (Proposed)
1-Bedroom Units	2	2	3	3
2+ Bedroom Units	50	51	50	50
Guest Parking ²	13	14	14	14
Total Parking	65	67	67	67

The density bonus request also included a request to reduce the open space requirement for the project. As mentioned above, in addition to providing affordable housing units, the applicant is entitled to some other development concession under the density bonus request. However, in recalculating the open space and lot coverage figures for the 27- and 28-unit proposals, the 28-unit project still provides significantly more open space than the minimum 35-percent open space required by the RM-22 development standards, as

¹ The 27-unit proposal consisted of two (2) 1-bedroom units and twenty-five (25) 2-or-more-bedroom units. The 28-unit proposal consists of three (3) 1-bedroom units and twenty-five (25) 2-or-more-bedroom units.

² The guest parking requirement is equal to twenty-five percent (25%) of the total resident parking.

depicted in the table below. As a result, no concession to reduce the Code-required open space is necessary in order to grant the requested density bonus.

Lot Coverage/Open Space	27-Unit Proposal	28-Unit Proposal
Building Coverage	25,557 SF	26,281 SF
Driveway Coverage	2,715 SF	2,715 SF
Subtotal	28,272 SF	28,996 SF
Private Open Space Area ³	<8,354 SF>	<5,802 SF>
Total Lot Coverage Area	19,918 SF	23,194 SF
Gross Lot Area	54,460 SF	54,460 SF
Lot Coverage (%)	36.6	42.6
Open Space (%)	63.4	57.4

The City's density bonus regulations are not fully consistent with the current State regulations, although a City code amendment is pending to resolve the discrepancy. Nevertheless, since this application includes a request for a vesting tentative tract map, it will be reviewed under the City's current density bonus language, which was in effect on the date that the application was deemed complete for processing in December 2007. In instances where local regulations conflict with State law, the State law rules. In this case, the applicable State law is Sections 65915-65918 of the Government Code. Under State law, setting aside five percent (5%) of the units in a project for very-low-income households allows an applicant to request a density bonus of up to twenty percent (20%) above the base project density. Five percent of the original 27-unit proposal equated to 1.35 units, which was rounded up to the next whole unit (i.e., 2 units). Staff and the applicant are in basic agreement on the interpretation of State law up to this point, but diverge on the following aspects of State law:

- Staff and the City Attorney believe that the density bonus provisions of State law are only triggered when an applicant proposes to provide a greater number of affordable units than are statutorily required by the City's inclusionary housing regulations (i.e., RPVDC Section 17.11.040). In other words, Staff and the City Attorney believe that the inclusionary units do not count in the calculation of density bonuses since they are a statutory requirement with which the applicant must comply. In this case, Section 17.11.040 requires the applicant to set aside five percent (5%) of the previously-proposed twenty-seven (27) units for very-low-income households, which equates to two (2) units (i.e., rounded up from 1.35 units). It is Staff's and the City Attorney's opinion that, if the applicant desires a density bonus, he must set aside an additional five percent (5%)—or a total of ten percent (10%)—of units for very-

³ In RM zoning districts, multi-family projects received a "credit" against lot coverage area for the total private open space area (i.e., patios, decks, balconies, etc.) provided by the project.

low-income households, which equates to a total of three (3) units (i.e., rounded up from 2.70 units). As such, Staff and the City Attorney believe that the applicant's density bonus request is not consistent with City or State regulations.

- The applicant and his attorney believe that the density bonus provisions of State law apply whenever an applicant proposes to provide affordable units as a part of a development project, regardless of whether or not there are local inclusionary housing regulations. In other words, the applicant and his attorney believe that the City's required inclusionary units do count in the calculation of density bonuses. As discussed above, Section 17.11.040 requires the applicant to set aside five percent (5%) of the previously-proposed twenty-seven (27) units for very-low-income households, which equates to two (2) units (i.e., rounded up from 1.35 units). It is the applicant's and his attorney's opinion that this 5-percent set-aside is sufficient to qualify for a density bonus for twenty-eight (28) units under State law. As such, the applicant and his attorney believe that the applicant's density bonus request is consistent with City and State regulations.

Although Staff and the City Attorney believe that the applicant should be required to provide three (3) affordable units in order to qualify for the requested 1-unit density bonus, we also recognize that City and State regulations in the area of density bonus law are sufficiently vague that reasonable arguments can be made for either case. This is reflected in conflicting opinions issued by members of the State legislature regarding the legislative intent of these Government Code sections. In fact, there is pending legislation that would modify and clarify the language of the Government Code in a manner consistent with Staff's and the City Attorney's position. However, the applicant and his attorney have made it clear that if the City does not accept two (2) very-low-income units in return for the requested 1-unit density bonus, they will have no choice but to pursue the maximum 20-percent density bonus allowed under State law. This would amount to a project of up to thirty-three (33) units with three (3) units set aside for very-low-income households. Given the constraints of the project site, it seems likely that the height of the project would have to be increased to accommodate thirty-three (33) units, possibly to or above the 36-foot height limit. Since the City's and State's density bonus regulations compel local jurisdictions to grant a development concession in conjunction with the density bonus request, the City would probably not be in a position to deny a taller project, even if it exceeded the property's height limit.

After discussing our relative positions on this issue with the applicant, Staff suggested to the applicant that the City might be willing to accept a 28-unit project at the reduced 26- to 36-foot height if the applicant agreed to provide two (2) very-low-income units as a part of the project and to pay the City's in-lieu fee (i.e., roughly \$222,000) for the third unit that Staff believes he is obligated to provide for the density bonus. Staff believes this to be a

reasonable position in that it upholds the City Attorney's interpretation of State law that three (3) affordable units are needed to qualify for the density bonus without requiring the applicant to alter the most-recent reduced-height building design to actually construct a third affordable unit. After some initial reluctance, in the spirit of cooperation the applicant has indicated willingness provide two (2) very-low-income units and pay the in-lieu fee for a third unit if the payment of the fee is deferred. Typically, the City collects these fees prior to final tract map recordation. However, there have been instances where the City has deferred compliance with the affordable housing requirement for a project until a certain percentage of the units in the project have been sold (e.g., Tract No. 52666). In this case, the applicant has asked for the payment of the in-lieu fee to be deferred until after the twenty-fourth (24th) unit of the twenty-eight (28) units is sold.

Given that the applicant can pursue a density bonus under State law that could increase the total number of units in the project and result in a taller building than the current proposal, Staff will be recommending that the City Council agree to accept the in-lieu fee for the third unit and deferred payment. It will ultimately be up to the City Council, however, to decide whether to accept an in-lieu fee for the third unit and/or to defer the payment of the in-lieu fee.

Analysis of Revised Cumulative Traffic Impacts

The applicant's traffic consultant prepared a traffic impact analysis of the previous 27-unit proposal and submitted it to Staff on May 7, 2008. Staff forwarded the traffic study to the City's Traffic Engineer on May 13, 2008, and received comments on June 11, 2008. Based upon the City Traffic Engineer's comments, the applicant's consultant concluded that the project would contribute in small part to increased AM peak-hour congestion at the intersection of Hawthorne Boulevard and Highridge Road. The applicant's consultant identified a mitigation measure to reduce this impact to less-than-significant levels, involving the re-striping of the northbound lanes of Highridge Road at Hawthorne Boulevard to create two (2) dedicated right-turn lanes. In the meantime, however, the applicant requested the 1-unit density bonus for the project on June 18, 2008. Therefore, the applicant's traffic consultant prepared a revised traffic impact analysis to reflect the 28-unit proposal and the traffic mitigation measure at Highridge Road and Hawthorne Boulevard.

The revised traffic impact analysis was submitted to Staff and forwarded to the City's Traffic Engineer on June 25, 2008. Staff received comments from the City's Traffic Engineer and forwarded them to the applicant on July 2, 2008. The City's Traffic Engineer raised further questions regarding the proposed mitigation measure at Highridge Road and Hawthorne Boulevard, as well as with the design of the proposed left-turn pocket at the project entry. Also, on July 8, 2008, the City's Traffic Engineer verbally informed Staff that, in responding to her questions about the design of the restriping at Highridge Road and

Hawthorne Boulevard, it appeared that the mitigation measure, while addressing the AM peak-hour impact, was creating a significant PM peak-hour impact.

On July 14, 2008, the final traffic impact analysis was received by Staff and forwarded to the City's Traffic Engineer. At the intersection of Highridge Road and Hawthorne Boulevard, the proposed mitigation measure was expanded to include:

- Convert the existing northbound left turn lane to a shared left-plus-through lane; and the existing northbound through lane to a dedicated right-turn lane;
- Keep the existing dedicated right-turn lane so there will be two (2) northbound right-turn lanes;
- Modify the existing traffic signal phases for the northbound and southbound approaches to split-phasing (from protected left-turn phasing);
- Set the cycle length to one hundred twenty (120) seconds or optimize the cycle length to allow for additional green time on all movements; and,
- Provide "cat-track" striping for the two (2) northbound right-turn lanes for their transition to the eastbound through lanes on Hawthorne Boulevard.

The applicant's consultant and the City's Traffic Engineer worked together to arrive at this mitigation measure to reduce the project's traffic impacts to less-than-significant levels. The applicant's consultant also identified design modifications for the proposed left-turn pocket to address the City traffic Engineer's concerns, to wit:

- The proposed median break and transition for the project entrance shall maintain a 60-foot-long pocket with a 60-foot-long transition; and,
- The existing left-turn pocket for northbound Highridge Road and Peacock Ridge Road shall be reconfigured to a 100-foot-long pocket with a 60-foot-long transition.

As of the date that this report was completed, the City's Traffic Engineer had not yet reviewed the final traffic study and response to comments. Therefore, Staff recommends that the Planning Commission defer taking any action on the MND or project until the City Traffic Engineer's review is complete. However, in the event that the City's Traffic Engineer approves the final traffic impact analysis, Staff believes that it would be appropriate to certify the MND and approve the proposed project.

CONCLUSION

Based upon the foregoing discussion in this and the previous Staff reports of April 8, May 13 and June 24, 2008, Staff believes that all of the necessary findings for the approval of the revised, 26- to 36-foot-tall project can be made. Furthermore, Staff intends to recommend accepting applicant's offer for deferred payment of an in-lieu fee for the third

very-low-income unit in return for granting the 1-unit density bonus. If the Planning Commission agrees that the revised project design and the additional information provided by the applicant address the Commission's concerns with the proposed project's view and traffic impacts, Staff recommends that the Planning Commission close the public hearing and direct Staff to bring back appropriate resolutions and conditions of approval for consideration at the August 12, 2008, Planning Commission meeting.

ALTERNATIVES

In addition to Staff's recommendation, the following alternatives are available for the Planning Commission's consideration:

1. Identify any remaining issues of concern with the project, provide the applicant with direction in modifying the project (if necessary), and continue the public hearing to a date certain.

Attachments:

Revised Initial Study and MND
E-mail regarding revised site plan studies
Revised site plan and front elevation
Memorandum from the City's Traffic Engineer
Revised Traffic Impact Analysis
Government Code Section 65915
RPVDC Section 17.11.060

City of Rancho Palos Verdes ENVIRONMENTAL CHECKLIST FORM



1. Project title:

Planning Case Nos. SUB2007-00003 and ZON2007-00072
(Vesting Tentative Tract Map No. 68796, General Plan Amendment, Zone Change, Conditional Use Permit, Grading Permit, Density Bonus and Environmental Assessment)

2. Lead agency name/ address:

City of Rancho Palos Verdes
Department of Planning, Building & Code Enforcement
30940 Hawthorne Boulevard
Rancho Palos Verdes, CA 90275

3. Contact person and phone number:

Kit Fox, AICP, Associate Planner
City of Rancho Palos Verdes
(310) 544-5228

4. Project location:

28220 Highridge Road (APN# 7587-007-800, -801, -802 and -803)
City of Rancho Palos Verdes
County of Los Angeles

5. Project sponsor's name and address:

REC Development
ATTN: Zaffar Hassanally
3812 Sepulveda Blvd., Ste. 540
Torrance, CA 90505

6. General plan designation:

Residential, 12-22 DU/acre

7. Coastal plan designation:

Not applicable

8. Zoning:

Residential Multi-Family, 22 DU/acre (RM-22)

9. Description of project:

The applicant now proposes to develop a 28-unit residential condominium complex on a 54,460-square-foot (1.250-acre) site on Highridge Road. This equates to a density of 22.4 units per acre or one (1) unit for every 1,945 square feet of lot area, which is not consistent with the current Residential Multi-Family, 22 DU/acre (RM-22) zoning designation for the site. However, the applicant has requested a density bonus of one (1) unit pursuant to State law and Chapter 17.11 of the Rancho Palos Verdes Municipal Code. Existing site improvements—consisting of a former telephone equipment building, antenna tower, access

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

driveway and perimeter fencing—would be removed. The revised condominium units would range from one (1) to three (3) bedrooms and from 776 square feet to 2,260 square feet in size, with both single-level and townhouse-style units. Each unit would have private balconies and dedicated private storage areas in the subterranean garage. According to the City’s affordable housing requirements, at least two (2) units would be designated for sale to very-low-income households. Sixty-seven (67) off-street parking spaces for residents and their guests would be provided, which is the minimum number required by the City’s Development Code. The applicant proposes to construct a left-turn pocket and a break in the landscaped median of Highridge Road for vehicular access to the property. A common swimming pool, spa and sun deck would be located on the lowest level at the rear of the building. The revised 26- to 36-foot-tall project would comply with the 36-foot height limit established for the RM-22 zoning district. The revised project now proposes 22,111 cubic yards of grading, consisting of 21,847 cubic yards of cut and 264 cubic yards of fill, for a net export of 21,583 cubic yards. If the project is approved as proposed, a 440-square-foot (0.010 acre) portion of the project site (APN 7587-007-802) that is currently located in the City of Rolling Hills Estates would be annexed to the City of Rancho Palos Verdes and rezoned RM-22 to match the zoning of the rest of the property.

10. Description of project site (as it currently exists):

The project site measures 1.250 acres and is currently developed with an abandoned 818-square-foot telephone equipment building, antenna tower, paved access road and perimeter fencing. The southwesterly portion of the site is a pad that varies from zero to roughly ten feet (10'-0") in elevation above the sidewalk of the adjacent public street (Highridge Road). The northeasterly portion of the site slopes down toward an abutting apartment complex in Rancho Palos Verdes and a church in Rolling Hills Estates.

11. Surrounding land uses and setting:

	Land Uses	Significant Features
On-site	818-square-foot former telephone equipment building and related site improvements	All existing site improvements are to be demolished
Northeast & Northwest	255-unit, 11-building 3-story apartment complex (Highridge Apartments) in the 29100-block of Peacock Ridge Drive, a private street	Approved and constructed under the County’s jurisdiction, in 1971, a few units in some buildings overlook the project site but most do not
Southeast	Church (Rolling Hills Adventist Church) at 28340 Highridge Road in the City of Rolling Hills Estates	The sanctuary building, constructed in 1972, sits at the extreme northeasterly end of the deep, narrow lot

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

	Land Uses	Significant Features
Southwest	10-unit multi-family residential complex (<i>La Cima</i>) across Highridge Road on Via La Cima, a gated private street	Approved by the City of Rancho Palos Verdes in 1979, neighborhood includes ten (10) split-level detached condominium units along the northeasterly and northwesterly perimeters of the site, oriented so as to take advantage of views of Santa Monica Bay, downtown Los Angeles, the greater Los Angeles Basin, the San Gabriel Mountains and the Los Angeles/Long Beach port complex

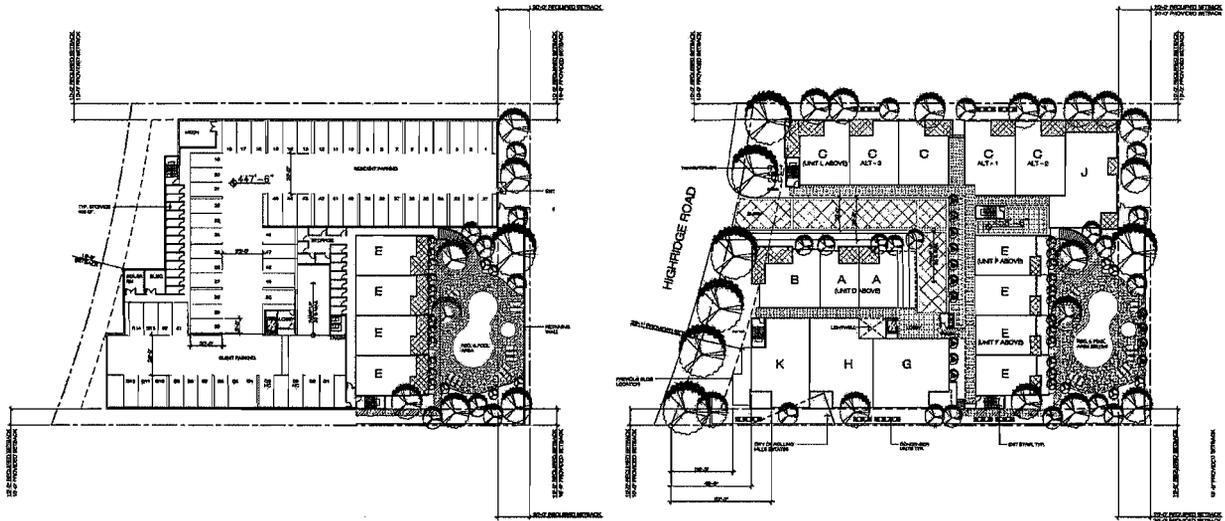
10. Other public agencies whose approval is required:

The annexation of the 440-square-foot (0.010 acre) portion of the subject property that is not currently in the City of Rancho Palos Verdes also requires the approval of the City of Rolling Hills Estates and the Los Angeles County Local Agency Formation Commission (LAFCO).



Project Site: 28220 Highridge Road

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008



SITE / PODIUM BUILDING PLAN



B - REAR ELEVATION (EAST)



A - REAR ELEVATION (WEST)

Site Plan and Elevations of Revised Project

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

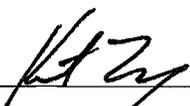
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicted by the checklist on the following pages.

- | | | |
|---|---|---|
| <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Aesthetics |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Energy/Mineral Resources | <input type="checkbox"/> Cultural Resources |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Hazards and Hazardous Material | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Noise | <input type="checkbox"/> Agricultural Resources |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Public Services | <input type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Transportation and Circulation | <input type="checkbox"/> Utilities and Service Systems | |

DETERMINATION:

On the basis of this initial evaluation:

- I find that the 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 MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated". An ENVIRONMENTAL IMPACT REPORT is required but 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 effect (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 on the proposed project

Signature:  Date: July 2, 2008

Printed Name: Kit Fox, Associate Planner For: City of Rancho Palos Verdes

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

EVALUATION OF ENVIRONMENTAL IMPACTS:

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
1. LAND USE AND PLANNING. Would the proposal:					
a) Conflict with any applicable land use plan, policy, or regulation including, but not limited to the general plan, specific plan, local coastal plan, or zoning ordinance?	1,2,8		X		
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	1,2,8		X		
c) Be incompatible with existing land use in the vicinity?	1,2			X	
d) Conflict with any applicable habitat conservation plan or natural community conservation plan?					X
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?					X
<p>Comments:</p> <p>a-b) A 440-square-foot portion of the 54,460-square-foot project site is located in the City of Rolling Hills Estates. This portion of the property is designated for institutional use, consistent with the abutting church property. Since multi-family residential uses are inconsistent with the current zoning of this portion of the site, this area will be annexed by the City of Rancho Palos Verdes and rezoned RM-22, which is the zoning designation for the remaining 54,020 square feet of the site. The annexation and rezoning of this area must occur with the concurrence of the City of Rolling Hills Estates and the Los Angeles County Local Agency Formation Commission (LAFCO). Therefore, in order to reduce the land use and planning impacts of the proposed project to less-than-significant levels, the following mitigation measure is recommended:</p> <p><u>LUP-1:</u> Prior to final tract map recordation, the 440-square-foot (0.010 acre) portion of the project site that is located in the City of Rolling Hills Estates (Assessor's Parcel No. 7589-007-802) shall be annexed to the City of Rancho Palos Verdes, in accordance with the procedures established by the Los Angeles County Local Agency Formation Commissioner (LAFCO). The applicant shall be responsible for all City costs associated with processing the annexation request.</p> <p>c) Surrounding land uses are predominantly multi-family residential in nature. The abutting church site in Rolling Hills Estates is zoned for institutional use, but the proposed project will only be adjacent to the church parking lot, not to the sanctuary or other church buildings.</p> <p>d) The City has an adopted Natural Communities Conservation Plan (NCCP). However, the subject property is located roughly 0.40 mile from the nearest portion of the NCCP Preserve, which is the Crestridge property near Crestridge Road and Crenshaw Boulevard.</p> <p>e) The project site is an abandoned telephone equipment facility that is surrounding be developed properties. The proposed project is an in-fill project within the surrounding community. The proposed project would replace the existing site improvements, but would not disrupt or divide the existing pattern of development surrounding the project site.</p>					

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
2. POPULATION AND HOUSING. Would the proposal:					
a) Cumulatively exceed official regional or local population projections?	6,15			X	
b) Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or major infrastructure)?	6,15			X	
c) Displace existing housing, especially affordable housing?					X
d) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?					X
Comments:					
<p>a-b) The proposed project involves the construction of twenty-eight (28) new dwelling units. Based upon the 2007 estimates from the State Department of Finance (DOF) of 2,769 persons per household, the proposed project would be expected to accommodate seventy-eight (78) new residents. The DOF estimates the 2007 population of the City of Rancho Palos Verdes as 43,092 persons, so the proposed project would result in increase of only 0.2%. Furthermore, the most recent Regional Housing Needs Assessment (RHNA) allotment for the City of Rancho Palos Verdes is sixty (60) additional housing units during the period from July 1, 2005 through June 30, 2014. The proposed project would increase the number of housing units in the City, but would not exceed total number of units allocated to the City by the Southern California Association of Governments (SCAG) for the current reporting period. Therefore, the population and housing impacts of the proposed project will be less than significant.</p> <p>c-d) There are no existing dwelling units on the subject property. Therefore, the proposed project will not displace any existing residences or people.</p>					
3. GEOLOGY AND SOILS. Would the proposal:					
a) Expose people or structure to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	4,13,14		X		
ii) Strong seismic ground shaking?	4,13,14		X		
iii) Seismic-related ground failure, including liquefaction?	4,13,14		X		
iv) Landslides?	4,13,14		X		
b) Result in substantial soil erosion or the loss of topsoil?	13,14			X	

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?	13,14		X		
d) Be located on expansive soil, as defined in the Uniform Building Code, thus creating substantial risks to life or property?	13,14		X		
e) Have soils incapable or adequately supporting the use of septic tanks or alternative wastewater disposal systems, where sewers are not available for the disposal of wastewater?					X
<p>Comments:</p> <p>a, c-d) The proposed project involves 22,111 cubic yards of grading (21,847 cubic yards of cut and 264 cubic yards of fill), with a net export of 21,583 cubic yards. The maximum depth of cut for the subterranean garage is 19'-0" and the maximum depth of fill is 5'-0" at the pool deck, which will be bounded on two (2) sides by a retaining walls. According to the Official Maps of Seismic Hazard Zones provided by the State of California Department of Conservation, the subject property lot is not located within an earthquake-induced landslide zone, although the existing slopes abutting the apartment complex to the northeast of the site (which are not a part of the subject property) are identified as being potentially subject to earthquake-induced landslides. The subject property is within the vicinity of the Palos Verdes fault zone, although there is no evidence of active faulting on the subject property. The soils of the Palos Verdes Peninsula are also generally known to be expansive and occasionally unstable. Given the known and presumed soils conditions on and around the project site, the applicant has conducted soil investigations, which have been reviewed and conceptually approved by the City's geotechnical consultant. Nevertheless, the following mitigation measure is recommended to reduce the geology and soils impacts of the project to less-than-significant levels:</p> <p><u>GEO-1:</u> Prior to the issuance of a building permit by the City's Building Official, the applicant shall obtain final approval of the grading and construction plans from the City's geotechnical consultant. The applicant shall be responsible for the preparation and submittal of all soil engineering and/or geology reports required by the City's geotechnical consultant in order to grant such final approval.</p> <p>b) During grading and construction operations, top soil will be exposed and removed from the property. However, the City's Building and Safety Division will require the preparation and implementation of an erosion control plan for wind- and waterborne soil. A site landscape plan will also be prepared and implemented to help stabilize post-construction slopes. These standard project conditions will reduce any project-related erosion to less-then-significant levels.</p> <p>e) The project will be connected to the existing public sanitary sewer system; septic systems or alternative wastewater disposal systems will not be permitted.</p>					
<p>4. HYDROLOGY AND WATER QUALITY. Would the proposal:</p>					
a) Violate any water quality standard or wastewater discharge requirements?	18			X	

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater?					X
c) Substantially alter the existing drainage pattern of the site or areas, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on or off site?	18			X	
d) Substantially alter the existing drainage pattern of the site or areas including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?	18			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	18			X	
f) Otherwise substantially degrade water quality?	18			X	
g) Place housing within a 100-year flood hazard area, as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate map or other flood hazard delineation map?					X
h) Place within a 100-year flood hazard area, structures which would impede or redirect flood flows?					X
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?					X
j) Inundation by seiche, tsunami, or mudflow?					X
Comments: a, c-f) The proposed parking lot would alter the topography of the site and increase the amount of impermeable surface area. This will result in changes to the current drainage patterns on the project site, as well as the potential for erosion and run-off during construction. Due to the scope of the project, it required the review and conceptual approval of the					

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>City's National Pollutant Discharge Elimination System (NPDES) consultant. The City's NPDES consultant has determined that the project will comply with all applicable requirements for the control and treatment of erosion and runoff from the project site. As such, the hydrology and water quality impacts of this project will be less than significant.</p> <p>b) The proposed project will not involve or require the withdrawal of groundwater. In addition, given the elevation and topography of the project site, it would not be likely to provide suitable opportunities for groundwater recharge.</p> <p>g-h) There are no Federally-mapped 100-year flood hazard areas in the City of Rancho Palos Verdes.</p> <p>i) There is no dam or levee anywhere in the vicinity of the project site.</p> <p>j) The subject property does not adjoin an ocean, lake or other body of water, so there is no risk of inundation by seiche, tsunami, or mudflow.</p>					
<p>5. AIR QUALITY. Would the proposal:</p>					
a) Violate any air quality standard or contribute to an existing or projected air quality violation?	3		X		
b) Expose sensitive receptors to substantial pollutant concentrations?	3		X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	3		X		
d) Create objectionable odors affecting a substantial number of people?					X
e) Conflict with or obstruct the implementation of any applicable air quality plan?	3,16		X		
<p>Comments:</p> <p>a-c, e) The subject site is located within the South Coast Air Basin, which is an area of non-attainment for Federal air quality standards for ozone (O₃), carbon monoxide (CO), and suspended particulate matter (PM¹⁰ and PM^{2.5}). The proposed project involves 22,111 cubic yards of grading (21,847 cubic yards of cut and 264 cubic yards of fill), with a net export of 21,583 cubic yards. The movement of soil and the operation of construction equipment have the potential to create short-term construction-related air quality impacts upon nearby sensitive receptors, including multi-family residences to the northeast, northwest and southwest. In addition, some of the proposed units would have fireplaces. The South Coast Air Quality Management District (SCAQMD) has recently adopted rules regulating wood-burning device, which include a prohibition against wood-burning fireplaces in new construction. As such, the following mitigation measures are recommended to reduce the air quality impacts of the project to less-than-significant levels:</p> <p><u>AIR-1:</u> Prior to the issuance of grading permits, the applicant shall demonstrate to the Director of Planning, Building and Code Enforcement that dust generated by grading activities shall comply with the South Coast Air Quality Management District Rule 403 and the City Municipal Code requirements that require regular watering for the control of dust.</p> <p><u>AIR-2:</u> During construction, all grading activities shall cease during periods of high winds (i.e., greater than 30 mph). To assure compliance with this measure, grading activities are subject to periodic inspections by City staff.</p> <p><u>AIR-3:</u> Construction equipment shall be kept in proper operating condition, including proper engine tuning and exhaust control systems.</p>					

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
---	---------	--------------------------------	--	------------------------------	-----------

AIR-4: Trucks and other construction vehicles shall not park, queue and/or idle at the project site or in the adjoining public rights-of-way before 7:00 AM, Monday through Saturday, in accordance with the permitted hours of construction stated in Section 17.56.020(B) of the Rancho Palos Verdes Municipal Code.

AIR-5: Prior to the issuance of building permits, the applicant shall demonstrate the project's compliance with the South Coast Air Quality Management District Rule 445 and the City Municipal Code requirements regarding wood-burning devices.

d) Since the proposed project is not an industrial or commercial use, no objectionable odors are expected to be generated during or after the completion of construction.

6. TRANSPORTATION/CIRCULATION. Would the proposal:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system?	9,10,19, 20,21		X		
b) Exceed either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	9,10,19, 20,21		X		
c) Result in inadequate emergency access or inadequate access to nearby uses?					X
d) Result in insufficient parking capacity on-site or off-site?					X
e) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?					X
f) Conflicts with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?					X
g) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	19,20,21		X		

Comments:

a-b) The project plans have been reviewed by the City's traffic engineer. Based upon the Los Angeles County trip generation standard for condominiums (which is more conservative than the current 7th Edition ITE trip generation standard for condominiums), the applicant's traffic engineer estimated that the revised project would generate two hundred twenty-four (224) daily trips. The applicant's traffic engineer completed a traffic impact analysis for the project, focusing particularly on impacts at three (3) intersections: Highridge Road and Hawthorne Boulevard, Hawthorne Boulevard and Indian Peak Road and Hawthorne Boulevard and Silver Spur Road. As a result of this analysis, a significant traffic impact was identified at the intersection of Highridge Road and Hawthorne Boulevard. However, the applicant's traffic engineer has identified a mitigation measure to reduce this impact to less than significant levels, and the City's traffic engineer has accepted this mitigation measure. Also, during construction, 21,583 cubic yards of soil would be removed from the site, which equates to roughly two thousand (2,000) truck trips. These truck trips have the

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>potential to create adverse impacts along the route on and off the Peninsula (i.e., Hawthorne Boulevard). Therefore, the a mitigation measure is recommended to reduce this impact to less-than-significant levels:</p> <p>TRA-1: In order to reduce the traffic impacts of the proposed project to less-than-significant levels, the intersection Highridge Road and Hawthorne Boulevard shall be modified as follows:</p> <ul style="list-style-type: none"> • Convert the existing northbound left turn lane to a shared left-plus-through lane; and the existing northbound through lane to a dedicated right-turn lane; • Keep the existing dedicated right-turn lane so there will be two (2) northbound right-turn lanes; • Modify the existing traffic signal phases for the northbound and southbound approaches to split-phasing (from protected left-turn phasing); • Set the cycle length to one hundred twenty (120) seconds or optimize the cycle length to allow for additional green time on all movements; and, • Provide "cat-track" striping for the two (2) northbound right-turn lanes for their transition to the eastbound through lanes on Hawthorne Boulevard. <p>TRA-2: Prior to building permit final, the applicant shall be responsible for contributing the project's fair share of the cost of the recommended improvements at Highridge Road and Hawthorne Boulevard (estimated at 15.5%) to the City of Rancho Palos Verdes; and shall contribute the project fair share of the cost of future improvements at Hawthorne Boulevard and Silver Spur Road (estimated at 2.5%) to the City of Rolling Hills Estates.</p> <p>TRA-3: Prior to grading permit issuance, the applicant shall obtain approval of a haul route from the Director of Public Works. The applicant shall ensure that loaded trucks are appropriately covered to prevent soil from spilling on the roadway along the haul route.</p> <p>c) The surface driveways serve as a fire lane for Fire Department access to the building. The new driveway curb cut will located northwesterly of the existing curb cut, and no other nearby uses take access to or through the subject property.</p> <p>d) Based upon the 28-unit proposal, a minimum of sixty-seven (67) on-site parking spaces are required for residents and guests, pursuant to the multi-family residential parking standards of the Rancho Palos Verdes Municipal Code. The proposed project would provide sixty-seven (67) parking spaces, including two (2) handicapped-accessible spaces. No off-site parking spaces are proposed or necessary.</p> <p>e) The proposed project is a residential condominium and has no impact upon air traffic patterns.</p> <p>f) There are no adopted policies, plans, or programs supporting alternative transportation that include the subject property and/or any abutting right-of-way.</p> <p>g) The project proposes a break in the median of Highridge Road to provide a left-turn pocket for access to the project site. This would be located at a descending curve in Highridge Road. The preliminary street improvements plans were reviewed by the City's traffic engineer, who recommended the imposition of conditions upon these proposed right-of-way improvements. These plans were subsequently revised by the applicant's consultant and reviewed by the City's Traffic Engineer, who recommended modifications to the design of the left-turn pocket. Therefore, in order to reduce the transportation/circulation impacts of the proposed project to less-than-significant levels, the following mitigation measures are recommended:</p> <p>TRA-4: The final design of the left-turn pocket shall incorporate the following modifications, to the satisfaction of the Director of Public Works:</p> <ul style="list-style-type: none"> • The proposed medium break and transition for the project entrance shall maintain a 60-foot-long pocket with a 60-foot-long transition. • The existing left-turn pocket for northbound Highridge Road and Peacock Ridge Road shall be reconfigured to a 100-foot-long pocket with a 60-foot-long transition. <p>TRA-5: Prior to recordation of the final tract map, the applicant shall submit street improvement plans for the median break and left-turn pocket on Highridge Road to the Director of Public Works for final review and approval.</p>					

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>TRA-6: Prior to recordation of the final tract map, the applicant shall post a bond or other security acceptable to the Director of Public Works for any approved improvements within the public right-of-way of Highridge Road.</p>					
<p>TRA-7: Vegetation, walls or other site improvements located on the south side of the driveway shall be limited to no more than thirty inches (30") in height so as to preserve sight distance in accordance with Section 17.48.070 of the Rancho Palos Verdes Municipal Code.</p>					
<p>7. BIOLOGICAL RESOURCES. Would the proposal result in:</p>					
<p>a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of fish and Game or US Fish and Wildlife Service?</p>					X
<p>b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?</p>					X
<p>c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc...), through direct removal, filling, hydrological interruption, or other means?</p>					X
<p>d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites</p>					X
<p>e) Conflict with any local polices or ordinances protecting biological resources, such as tree preservation policy or ordinance?</p>					X
<p>f) Conflict with the provisions of an adopted Habitat Conservation Plan or Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</p>					X
<p>Comments: a-d) According to the City's vegetation maps, the subject site is not located in an area where there is protected habitat and/or a wetlands area. The site was developed as a telephone equipment facility nearly sixty (60) years ago. As such, there will be no impacts to biological resources as a result of the proposed project.</p>					

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>e) The City has a Coastal Sage Scrub Conservation and Management Ordinance, which is codified as Chapter 17.41 of the Rancho Palos Verdes Municipal Code. However, this ordinance only applies to parcels over two (2) acres in size that contain coastal sage scrub (CSS) habitat. The subject property qualifies on neither of these grounds.</p> <p>f) The City has an adopted Natural Communities Conservation Plan (NCCP). However, the subject property is located roughly 0.40 mile from the nearest portion of the NCCP Preserve, which is the Crestridge property near Crestridge Road and Crenshaw Boulevard.</p>					
8. ENERGY AND MINERAL RESOURCES. Would the proposal:					
a) Conflict with adopted energy conservation plans?	18			X	
b) Use non-renewable resources in a wasteful and inefficient manner?	18			X	
c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?					X
d) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, Specific Plan, or other land use plan?					X
Comments:					
<p>a-b) The City has initiated a "Green Building" Ordinance, although it has not yet been reviewed or adopted by the City Council. Non-renewable resources would be used during the construction of the project, and by residents once the project is completed. The use of environmentally-friendly building materials, household appliances, lighting and plumbing fixtures and mechanical equipment will be encouraged through the project conditions of approval. As such, the project's impacts upon the use of energy and non-renewable resources is expected to be less than significant.</p> <p>c-d) There are no mineral resources known or expected to exist on the subject property.</p>					
9. HAZARDS AND HAZARDOUS MATERIAL. Would the proposal involve:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous material?	11		X		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	11		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of and existing or proposed school?	11		X		

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?					X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?					X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?					X
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?					X
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	17			X	
<p>Comments:</p> <p>a-c) The applicant has prepared a Phase I environmental assessment of the property to identify the presence or absence of hazardous materials. The Phase I report noted the possible presence of PCBs, asbestos-containing materials (ACMs) and lead paint in the abandoned telephone equipment building. The demolition of this building as a part of the proposed project has the potential to release these hazardous materials. Therefore, in order to reduce the hazards and hazardous materials impacts of the proposed project to less-than-significant levels, the following mitigation measures are recommended:</p> <p><u>HAZ-1:</u> Prior to approval of grading permits, the applicant shall conduct a soil investigation to determine whether site conditions pose any significant health or environmental risks associated with the past use of the site, and the nature and extent of any associated contamination. The investigation shall also include sampling and analysis to determine the PCB status of the site and building. The results of these investigations shall be presented in a report prepared in accordance with applicable law and standard practice.</p> <p><u>HAZ-2:</u> No grading associated with the project shall occur until the soils investigation report is reviewed and approved by the City. If the soils investigation report requires remedial actions to address contamination, no grading activities shall occur in identified areas until appropriate response actions have been completed in accordance with applicable law and standard practice to the satisfaction of the City.</p> <p><u>HAZ-3:</u> During grading or other soil disturbing activities, if malodorous or discolored soils or soils thought to contain significant levels of contaminants are encountered; the applicant or his contractors shall enlist the services of a qualified environmental consultant to recommend methods of handling and/or removal from the site. The need for and methods of any required response actions shall be coordinated with, and subject to, approval by the City.</p>					

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
---	---------	--------------------------------	--	------------------------------	-----------

HAZ-4: Prior to disturbing the suspected asbestos and/or lead containing materials identified in the Phase I report for the property, a consultant qualified in sampling and analysis of said materials shall be retained by the applicant. If samples test positive, specifications shall be prepared for the removal of identified asbestos and/or lead materials as necessary. A licensed asbestos contractor and Certified Asbestos Consultant, pursuant to EPA/AHERA Section 206 and CCR Title 8, Article 2.6 shall be retained by the applicant to properly document, inspect, monitor, remove, and encapsulate the asbestos materials prior to disposal. Prior to demolition, precautionary steps shall be taken to reduce worker exposure to lead, according to occupational health standards. Removal of lead-based paint, if necessary, shall be subject to applicable state and federal regulatory guidelines.

d) The proposed project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e-f) The subject property is not located within two (2) miles of Torrance Municipal Airport or in the vicinity of any private airstrip.

g) In 2004, the cities of Rancho Palos Verdes and Rolling Hills Estates adopted a Joint Natural Hazards Mitigation Plan (JNHMP). The purpose of the JNHMP is "to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from natural hazards." The development of the proposed project is not incompatible with the purpose of the JNHMP.

h) Based upon the most recent maps prepared by the California Department of Forestry and Fire Protection (CalFire), the entire Palos Verdes Peninsula is within a Very High Fire Hazard Severity Zone. However, the subject property is surrounded by other developed properties in an urbanized area of the Peninsula. Therefore, the risk of increased exposure of residents to wildland fires is expected to be less than significant.

10. NOISE. Would the proposal result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies?				X	
b) Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels?	18		X		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	18		X		
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	18		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?					X

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?					X
<p>Comments:</p> <p>a) The City of Rancho Palos Verdes does not have a noise ordinance. However, General Plan Noise Policy No. 5 "[requires] residential uses in the 70 dB(A) location range to provide regulatory screening or some other noise-inhibiting agent to ensure compliance with the noise ordinance." The Noise Levels Contour diagram in the General Plan depicts Highridge Road as falling with the 60 db(A) noise contour. Therefore, noise impacts upon future project residents are expected to be less than significant.</p> <p>b-d) The proposed project involves 22,111 cubic yards of grading (21,847 cubic yards of cut and 264 cubic yards of fill), with a net export of 21,583 cubic yards, and the construction of a 43,270-square-foot building. The movement of soil and the operation of construction equipment have the potential to create short-term construction-related noise impacts upon nearby sensitive receptors, including multi-family residences to the northeast, northwest and southwest. As such, the following mitigation measures are recommended to reduce the noise impacts of the project to less-than-significant levels:</p> <p><u>NOI-1:</u> Permitted hours and days for construction activity are 7:00 AM to 7:00 PM, Monday through Saturday, with no construction activity permitted on Sundays or on the legal holidays specified in Section 17.96.920 of the Rancho Palos Verdes Municipal Code without a special construction permit.</p> <p><u>NOI-2:</u> The project shall utilize construction equipment equipped with standard noise insulating features during construction to reduce source noise levels.</p> <p><u>NOI-3:</u> All project construction equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts is generated.</p> <p><u>NOI-4:</u> Haul routes used to transport soil exported from the project site shall be approved by the Director of Public Works to minimize exposure of sensitive receptors to potential adverse noise levels from hauling operations.</p> <p>e-f) The subject property is not located within two (2) miles of Torrance Municipal Airport or in the vicinity of any private airstrip.</p>					
11. PUBLIC SERVICES.					
a) Would the project result in substantial adverse physical impacts associated with the provisions of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:					
i) Fire protection?	15			X	
ii) Police protection?	15			X	
iii) Schools?	15			X	
iv) Parks?	15			X	
v) Other public facilities?	15			X	

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
---	---------	--------------------------------	--	------------------------------	-----------

Comments:

a) The estimated population of the proposed 28-unit project is seventy-eight (78) persons, which amounts to only a 0.2% increase in the City's 2007 estimated population of 43,092. This small increase in population is not expected to place significant additional demands upon public safety services (i.e., fire and police). As conditions of project approval, the applicant will be required to pay fees to the Palos Verdes Peninsula Unified School District (PVPUSD) and the City for the project's proportional impacts upon schools and parks, respectively. Therefore, the public services impacts of the project are expected to be less than significant.

12. UTILITIES AND SERVICE SYSTEMS. Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	18			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	18			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	18			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	18		X		
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	18			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	18			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?	18			X	

Comments:

a-c, e-g) The proposed project would result in the construction of twenty-eight (28) new dwelling units, which equates to only a 0.2% increase in the number of dwelling units in the City (based upon 2007 estimates). The project site has access to existing water, waste water and sewage disposal infrastructure in the vicinity and the City has existing contracts for solid waste disposal for residential properties in the City. Therefore, the additional demand for these services resulting from the proposed project is expected to be less than significant.

d) California Water Service Company (Cal Water) provides the City's water service. Given that the proposed project would increase the number of households and persons in the City by only 0.2%, the increase in demand for water attributable to this project is expected to be minimal compared to the amount of water used in the Cal Water

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>service area. The applicant would be responsible for installing any new water distribution facilities required on site. Nevertheless, the following mitigation measures are recommended to reduce the water supply impacts of the project to less-than-significant levels:</p> <p>UTL-1: Prior to final map approval, the applicant shall provide evidence of confirmation from California Water Service Company that current water supplies are adequate to serve the proposed project.</p> <p>UTL-2: Prior to building permit issuance, the applicant shall ensure that construction plans and specifications for the project includes the following interior water-conservation measures for the following plumbing devices and appliances:</p> <ul style="list-style-type: none"> • Reduce water pressure to 50 pounds per square inch or less by means of a pressure-reducing valve; • Install water-conserving clothes washers; • Install water-conserving dishwashers and/or spray emitters that are retrofitted to reduce flow; and, • Install one-and-one-half gallon, ultra-low flush toilets. <p>UTL-3: Prior to building permit issuance, the applicant shall submit landscape and irrigation plans for the common open space areas for the review and approval of the Director of Planning, Building and Code Enforcement. Said plans shall incorporate, at a minimum, the following water-conservation measures:</p> <ul style="list-style-type: none"> • Extensive use of native plant materials. • Low water-demand plants. • Minimum use of lawn or, when used, installation of warm season grasses. • Grouped plants of similar water demand to reduce over-irrigation of low water demand plants. • Extensive use of mulch in all landscaped areas to improve the soil's water-holding capacity. • Drip irrigation, soil moisture sensors, and automatic irrigation systems. • Use of reclaimed wastewater, stored rainwater or grey water for irrigation. 					
<p>13. AESTHETICS. Would the proposal:</p>					
a) Have a substantial effect on a scenic vista?	18		X		
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historical buildings, within a state scenic highway?					X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?					X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	18		X		
<p>Comments:</p> <p>a) The Visual Aspects diagram in the City's General Plan identifies the location of scenic vistas to be preserved, restored and enhanced. The subject property does not fall within any scenic vista identified in the General Plan. Currently, there are views over the subject property towards Santa Monica Bay, downtown Los Angeles, the greater Los Angeles Basin, the San Gabriel Mountains and the Los Angeles/Long Beach port complex from private property and public rights-of-way. The proposed building would block different portions of these views from different vantage points, but the proposed building height is consistent with the maximum 36-foot-height limit established for the RM-22 zoning district, and portions of the building are only twenty-six feet (26'-0") tall. With respect to the appearance of the building, most facades present a variety of windows, balconies, and wood, stucco and wrought-iron trim to soften the mass of the building. However, a few facades of the building are blank due to Development Code requirements for separation between adjoining wings of the building. The appearance of these blank facades could be improved by the placement of additional architectural trim and details to reduce their mass. The installation of site landscaping would also help to</p>					

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
---	---------	--------------------------------	--	------------------------------	-----------

soften the building's appearance. As such, the following mitigation measures are recommended to reduce the aesthetic impacts of the project to less-than-significant levels:

AES-1: Prior to building permit issuance, the building elevations shall be revised to provide architectural trim and detailing on any blank 2-story facades of the facing wings of the building.

AES-2: Prior to building permit issuance, the applicant shall submit a site landscape plan for the review and approval of the Director of Planning, Building and Code Enforcement.

AES-3: Common area landscaping shall be maintained so as not to result in significant view impairment from the viewing area of another property, as defined in Section 17.02.040 of the Rancho Palos Verdes Municipal Code.

AES-4: Any temporary or permanent project signage shall require the approval of a sign permit by the Director of Planning, Building and Code Enforcement, and shall be consistent with the provisions of Section 17.76.050(E)(2).

b-c) There are no significant scenic or historic resources on the subject property, nor does it display any unique visual character or quality. The project site is generally surrounded by other multi-family residential projects. The existing building on the site is functionally obsolete and in poor condition. The proposed project would replace the existing structure on this developed site.

d) The proposed condominium building will have exterior lighting, both in the private and common areas, as well as on the grounds. This lighting creates a significant new source of nighttime lighting in the area surrounding the project site, particularly compared to the existing site conditions. Therefore, the following mitigation measures are recommended to reduce the light and glare impacts of the project to less-than-significant levels:

AES-5: Prior to building permit issuance, the applicant shall submit a site lighting plan for the review and approval of the Director of Planning, Building and Code Enforcement. The plans shall demonstrate that lighting fixtures on the building and grounds shall be designed and installed so as to contain light on the subject property and not spill over onto adjacent private properties or public rights-of-way.

AES-6: Exterior lighting fixtures on the grounds shall be low, bollard-type fixtures, not to exceed forty-two inches (42") in height.

AES-7: Exterior lighting fixtures on private balconies and common exterior walkways shall be energy-efficient fixtures, such as compact fluorescents. Said fixtures shall be equipped with light sensors so that they will only be illuminated during hours of darkness.

AES-8: No internally-illuminated signage may be used on the project site.

14. CULTURAL RESOURCES Would the proposal:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines?	12			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines?	12		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	12		X		
d) Disturbed any human remains, including those interred outside of formal cemeteries?	12		X		

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
---	---------	--------------------------------	--	------------------------------	-----------

Comments:

a) The existing telephone equipment building on the site would be demolished as a part of the proposed project. The building is more than fifty (50) years old, and is a simple square building with a gable roof and no distinguishing architectural features. As such, it is not a "historically significant" structure as defined in the State CEQA Guidelines, and its demolition would have less-than-significant impacts upon the surrounding community.

b-d) According to the City's Archaeology Map, the subject site is not within a probable area of archaeological resources. The applicant consulted with the South Central Coastal Information Center (SCCIC), which identified no known archaeological sites on or within a half-mile radius of the subject property. Nevertheless, SCCIC notes that "there is still potential of buried prehistoric and/or history resources with the project boundaries," and recommends the preparation of a Phase I archaeological survey. Therefore, in order to reduce the cultural resources impacts of the proposed project to less-than-significant levels, the following mitigation measures are recommended:

CUL-1: Prior to the issuance of a grading permit, the applicant shall conduct a Phase 1 archaeological survey of the property. The survey results shall be provided to the Director of Planning, Building and Code Enforcement for review prior to grading permit issuance.

CUL-2: Prior to the commencement of grading, the applicant shall retain a qualified paleontologist and archeologist to monitor grading and excavation. In the event undetected buried cultural resources are encountered during grading and excavation, work shall be halted or diverted from the resource area and the archeologist and/or paleontologist shall evaluate the remains and propose appropriate mitigation measures.

15. RECREATION. Would the proposal:

a) Would the project increase the use of neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?	18		X		
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	18			X	

Comments:

a) The proposed project is expected to increase the City's population by seventy-eight (78) persons. Although this amounts to only a 0.2% population increase (based upon 2007 estimates), additional residents will place additional demands on the City's recreational facilities. The City's park acreage standard is four (4) acres of parkland per thousand (1,000) residents. Under the parkland dedication formula codified in the City's Subdivision Ordinance, the proposed 28-unit project would require the dedication of 0.3136 acre of parkland. However, the City's General Plan does not identify a recreational facility within or adjacent to the subject property. In such cases, a developer may pay a fee to the City in lieu of the dedication of parkland. Therefore, in order to reduce the recreation impacts of the proposed project to less-than-significant levels, the following mitigation measure is recommended:

REC-1: Prior to final tract map recordation, the applicant shall pay to the City a fee equal to the value of 0.3136 acre of parkland in lieu of the dedication of such land to the City, pursuant to the provision of Section 16.20.100 of the Rancho Palos Verdes Municipal Code.

b) The proposed project includes both common and private open space and recreation facilities. The common facilities include a pool, spa and sundeck on the lowest level. The private facilities include balconies for each unit. These facilities will be constructed concurrent with the proposed project and will, in and of themselves, have no significant impacts that are not addressed elsewhere in this analysis.

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
16. AGRICULTURE RESOURCES: Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resource Agency, to non-agricultural use?					X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?					X
c) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to a non-agricultural use?					X
<p>Comments: a-c) Although commercial agriculture on properties over one (1) acre in size is a conditionally permitted use in the RM-22 zoning district, there is no such current use on the property, nor is there evidence of such use since the establishment of the telephone equipment building and related improvements on the site in 1950. As such, there will be no agricultural resources impacts as a result of this project.</p>					
17. 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?				X	
<p>Comments: The proposed project will not 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 pre-history.</p>					
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects)?				X	
<p>Comments: The proposed project is a relatively small project compared to existing and on-going multi-family development in the vicinity of the project site, most of which is currently occurring in the commercial district of the City of</p>					

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>Rolling Hills Estates. The proposed project would result in negligible increases of 0.2% in the number of persons and households in the City. Once construction of the project is completed, the traffic expected to be generated by the project is less than one-half of the number of trips that would require a traffic impact analysis. This project is an in-fill development in an area of the City that is zoned for and developed with multi-family residences, many of them at higher densities than the proposed project. The environmental impacts of the project will be below the level of significance after mitigation. Therefore, the proposed project is not anticipated to result in a significant cumulative impact.</p>					
<p>c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?</p>				X	
<p>Comments: As discussed above, all potentially-significant environmental effects of the proposed project can be mitigated to less-than-significant levels. Therefore, the proposed project will have no substantial adverse effects on human beings, either directly or indirectly.</p>					
<p>18. EARLIER ANALYSES</p>					
<p>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 items:</p>					
<p>a) Earlier analysis used. Identify earlier analyses and state where they are available for review.</p>					
<p>Comments: There has been no previous analysis of this site under CEQA.</p>					
<p>b) Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.</p>					
<p>Comments: There has been no previous analysis of this site under CEQA.</p>					
<p>c) Mitigation measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions of the project.</p>					
<p>Comments: There has been no previous analysis of this site under CEQA.</p>					
<p>Authority: Public Resources Code Sections 21083 and 21087.</p>					
<p>Reference: Public Resources Code Sections 21080 (c), 21080.1, 21080.3, 21082.1, 21083, 21083.3, 21093, 321094, 21151; <i>Sundstrom v. County of Mendocino</i>, 202 Cal. App. 3d 296 (1988); <i>Leonoff v. Monterey Board of Supervisors</i>, 222 Cal. App. 3d 1337 (1990).</p>					
<p>19. SOURCE REFERENCES</p>					
1	City of Rancho Palos Verdes, <u>Rancho Palos Verdes General Plan</u> , and associated Environmental Impact Report. Rancho Palos Verdes, California as amended through August 2001.				
2	City of Rancho Palos Verdes Zoning Map				
3	South Coast Air Quality Management District. <u>CEQA AIR Quality Handbook</u> . Diamond Bar, California: November 1993				
4	Official Maps of Seismic Hazard Zones provided by the Department of Conservation of the State of California, Division of Mines and Geology				
5	City of Rancho Palos Verdes Archeology Map.				
6	City of Rancho Palos Verdes General Plan Housing Element, adopted August 2001				
7	City of Rancho Palos Verdes, <u>Natural Communities Conservation Plan</u> . Rancho Palos Verdes,				

Environmental Checklist
Case Nos. SUB2007-00003 & ZON2007-00072
July 2, 2008

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
	California as adopted August 2004				
8	Letter from the City of Rolling Hills Estates regarding annexation of APN 7589-007-802. Rolling Hills Estates, California, March 2007.				
9	DKS Associates, <u>Focused Traffic Analysis for 28220 Highridge Road in the City of Rancho Palos Verdes</u> . Irvine, California, August 2007.				
10	Institute of Traffic Engineers, <u>ITE Trip Generation, 7th Edition</u> .				
11	Waterstone Environmental, Inc., <u>Phase I Environmental Assessment Report</u> . Anaheim, California, August 2006.				
12	South Central Coastal Information Center, <u>Record Search Results for 28220 Highridge Road</u> . Fullerton, California, August 2006.				
13	Hu Associates, Inc., <u>Preliminary Soil Investigation, Proposed Condominium Complex, 28220 Highridge Road</u> . Santa Fe Springs, California, September 2006.				
14	Hu Associates, Inc., <u>Response to City of Rancho Palos Verdes Geotechnical Investigation Report Review Sheet, Proposed Condominium Complex, 28220 Highridge Road</u> . Santa Fe Springs, California, August 2007.				
15	State of California, Department of Finance, <u>2007 Population and Housing Estimates</u> . Sacramento, California, accessed via website March 2008				
16	South Coast Air Quality Management District, <u>Rule 445 "Wood Burning Devices."</u> Diamond Bar, California, accessed via website March 2008				
17	State of California, Department of Forestry and Fire Protection, <u>Very High Fire Hazard Severity Zone Maps</u> . Sacramento, California, accessed via website, March 2008				
18	Withee Malcolm Architects, Project Plans and Applications.				
19	DKS Associates, <u>Draft Traffic Impact Analysis, 28220 Highridge Road Residential Development, City of Rancho Palos Verdes</u> . Irvine, California, May 2008.				
20	DKS Associates, <u>Revised Traffic Impact Analysis, 28220 Highridge Road Residential Development, City of Rancho Palos Verdes</u> . Irvine, California, June 2008.				
21	DKS Associates, <u>Final Traffic Impact Analysis, 28220 Highridge Road Residential Development, City of Rancho Palos Verdes</u> . Irvine, California, July 2008.				

ATTACHMENTS:

Mitigation Monitoring Program

Kit Fox

From: Dirk Thelen [dthelen@witheemalcolm.com]
Sent: Thursday, July 03, 2008 3:29 PM
To: kitf@rpv.com
Cc: rec3131@aol.com; rec3812@yahoo.com
Subject: Highridge
Attachments: SD11 Elevations W-E.pdf; SD09 Site Plan-Parking Plan.pdf

Kit, the following are responses to the site plan studies requested by the planning commission.

1. Moving unit K to the rear adjacent or attached to unit J would require 20' - 30' of separation between unit E per the new CBC code table 704.8. Due to this requirement, the new unit would be too small to be functional. It would also be beyond the fire department 150' hose pull length required by code.

2. Moving the pool and entry to the southeast property line adjacent to Highridge, would rise the building elevation by 3'-0" for a podium height of 461.5 and a roof height of 487'. At the rear property line the building height would increase above 36' feet, requiring direct fire department access, and the slope would make it impractical for the fire department due to grade changes, it would also not meet zoning requirements. This also creates fire department and vehicular accessibility issues in regards to life safety. The building occupies the width of the site, and the design would increase the view impact La Cima unit 7.

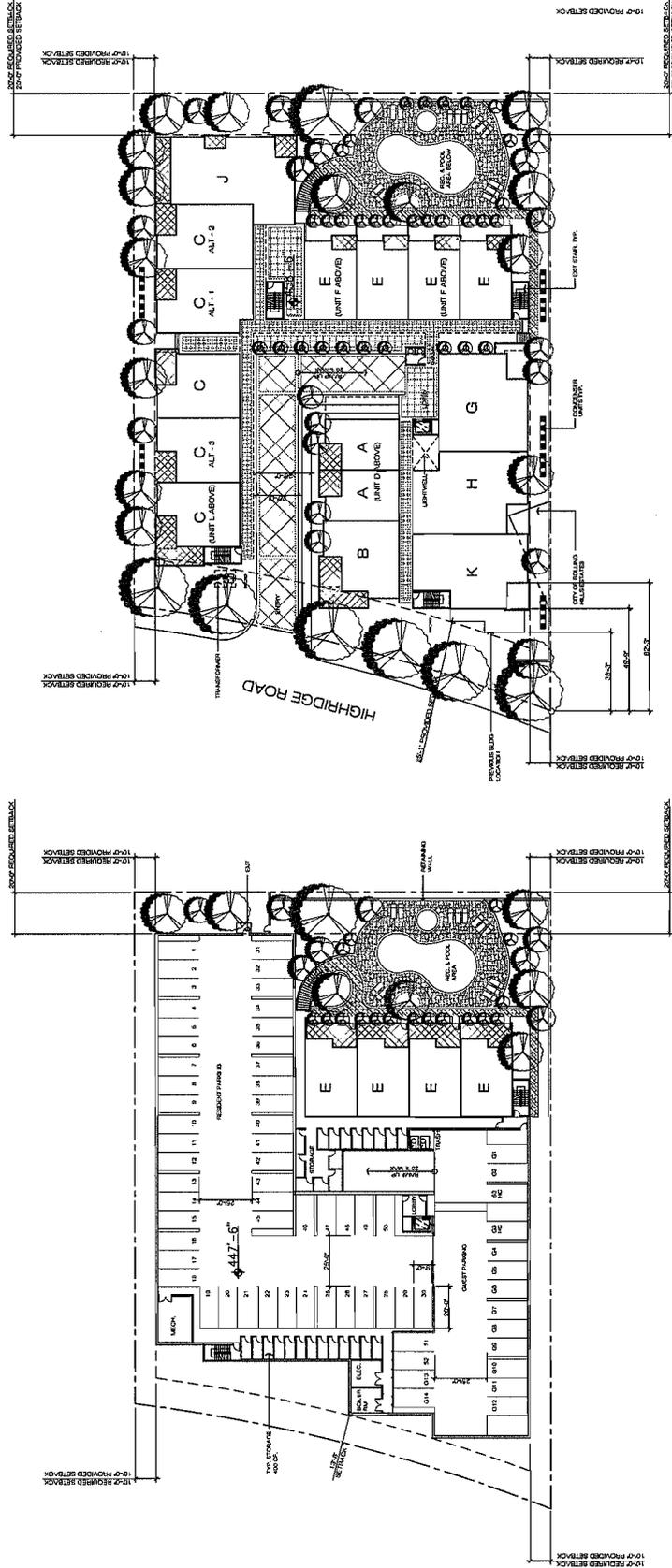
We have discussed additional revisions to the building plan to reduce impacts to La Cima unit 7 by moving the corner of unit K back 24' to reduce the view impact. Please see the attached revisions to the drawings.

We have done many studies and the site plan proposed to the planning commission on 6/24 is the best solution to minimize the view impacts to the adjacent property. The attached revision will help to minimize the impact to La Cima unit 7.

Please review the attached drawings, and call me if you have any questions.

Dirk D Thelen
Senior Associate
dthelen@witheemalcolm.com



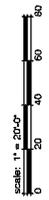


SITE / PODIUM BUILDING PLAN

SITE / BUILDING PLANS
 HIGHRISE CONDOMINIUMS

Wilhee Malcoim Architects, LLP
 REAL ESTATE CONNECTION
 3012 Rockwood Blvd, Suite 100, Carmel, CA 95006
 RR, 010 275-1057

PROJECT NO: 00001-0001
 DATE: JAN 24, 2008
 PRINTED: JUN 03, 2008



BUILDING A - PROJECT SUMMARY

LOT AREA: 1.24 ACRES (54,000 S.F.)
 TOTAL UNITS: 25 (24 residential and 1 townhome)
 BUILDING AREA: 22,400 S.F. (1,120 S.F. per unit)
 GARAGE AREA: 7,700 S.F. (1,100 S.F. per unit)
 PRIVATE OPEN SPACE: 5,810 S.F.

EXCLUSIONS: 3,125 S.F.

BASED ON CONCEPT: 26,297 S.F.
 BASED ON CONCEPT: 30,445 S.F.

OPEN SPACE: 22,400 S.F. (COMBINATION OPEN SPACE 6.00 ACRES 41% of 1,788 S.F. per unit)
 GARAGE AREA: 7,700 S.F. (2,200 S.F. OPEN SPACE)
 TOTAL OPEN SPACE: 28,200 S.F. (OPEN SPACE)

BUILDING A - RESIDENTIAL SUMMARY

UNIT TYPE	PLAN	DESCRIPTION	QUANTITY	CONCRETE AREA	RESIDENTIAL	LET AREA	SUBTOTAL	TOTAL
APARTMENT	A	1 BR 1 BA	2	730 S.F.	1,625 S.F.		1,625 S.F.	2,000 S.F.
APARTMENT	B	2 BR 2 BA	2	1,100 S.F.	2,300 S.F.		2,300 S.F.	2,800 S.F.
APARTMENT	C	3 BR 3 BA	2	1,230 S.F.	2,710 S.F.		2,710 S.F.	3,300 S.F.
APARTMENT	D	3 BR 3 BA	2	1,240 S.F.	2,720 S.F.		2,720 S.F.	3,300 S.F.
APARTMENT	E	2 BR 2 BA / 2.5 BA	2	1,240 S.F.	2,720 S.F.		2,720 S.F.	3,300 S.F.
APARTMENT	F	2 BR 2 BA / 2.5 BA	2	1,240 S.F.	2,720 S.F.		2,720 S.F.	3,300 S.F.
APARTMENT	G	2 BR 2 BA / 2.5 BA	2	1,240 S.F.	2,720 S.F.		2,720 S.F.	3,300 S.F.
APARTMENT	H	2 BR 2 BA / 2.5 BA	2	1,240 S.F.	2,720 S.F.		2,720 S.F.	3,300 S.F.
APARTMENT	I	2 BR 2 BA / 2.5 BA	2	1,240 S.F.	2,720 S.F.		2,720 S.F.	3,300 S.F.
APARTMENT	J	2 BR 2 BA / 2.5 BA	2	1,240 S.F.	2,720 S.F.		2,720 S.F.	3,300 S.F.
APARTMENT	K	2 BR 2 BA / 2.5 BA	2	1,240 S.F.	2,720 S.F.		2,720 S.F.	3,300 S.F.
TOWNHOME	L	3 BR 3 BA	1	1,700 S.F.	3,400 S.F.		3,400 S.F.	4,200 S.F.
TOTAL			24	14,760 S.F.	32,250 S.F.		32,250 S.F.	39,300 S.F.

BUILDING A - PARKING SUMMARY

RESIDENTIAL: 24 UNITS (1 car/1.25 units, 1 car/1.25 units, 1 car/1.25 units)
 REQUIRED COVERAGE: 30 spaces
 PROVIDED COVERAGE: 37 parking spaces

RESIDENTIAL TOWNHOMES: 1 townhome
 REQUIRED COVERAGE: 18 spaces
 PROVIDED COVERAGE: 18 spaces



MEMORANDUM

RANCHO PALOS VERDES

TO: KIT FOX, ASSOCIATE PLANNER
FROM: JOANNE ITAGAKI, CONSULTANT TRAFFIC ENGINEER
DATE: July 2, 2008
SUBJECT: DRAFT TRAFFIC IMPACT ANALYSIS FOR 28220 HIGHRIDGE ROAD RESIDENTIAL DEVELOPMENT – June 24, 2008

I have reviewed the traffic impact analysis for 28220 Highridge Road residential development. These comments are based on my review of the revised traffic study dated June 24, 2008 and my previous comments.

1. In the analysis, why was the intersection of Highridge Road/Hawthorne Boulevard calculated with only 2 decimal places while the other intersections are showing 3 decimal places? The analysis should be 3 decimal places as this will be consistent and would directly correlate to the LOS worksheets.
2. With the proposed mitigation measures for Highridge Road/Hawthorne Boulevard, what will the resultant LOS and V/C values be in both the a.m. and p.m. (only a.m. is identified)? An additional table should be included to clearly identify the improvement.
3. Provide a sketch of the proposed mitigation measure. This could be similar to Figure 5.
4. Figure 9 identifies the sight distance requirements for the proposed driveway. It appears the proposed left turn lane into the project will affect the northbound left turn lane onto Peacock Ridge Road. However, this can be addressed by requiring the development to re-design the median to better accommodate both movements (versus just a modification for left turns into the project).

Peak hour turning movement counts at Peacock Ridge Road and Hawthorne Boulevard will determine the length of the northbound left turn pocket that is needed. The study has already indicated the need for a 60 foot left turn pocket into the project site. Based on this information, the median between Peacock Ridge Road and the project entrance should be redesigned to accommodate both movements.

Should you have any questions, please contact me.

Copy: Siamak Motahari, Senior Engineer

July 11, 2008

Mr. Kit Fox
City of Rancho Palos Verdes
Planning, Building & Code Enforcement
Planning and Zoning Division
30940 Hawthorne Boulevard
Rancho Palos Verdes, California 90275

**Subject: Response to Comments on the Revised Traffic Impact Analysis
for the 28220 Highridge Road Residential Development, City of
Rancho Palos Verdes**

P# 08107-000-000

Dear Kit:

The following letter contains our responses to comments on the Revised Traffic Impact Analysis for the proposed residential development located at 28220 Highridge Road from Joanne Itagaki in her July 2, 2008 memorandum. The following revisions have been included in the Revised TIA dated July 11, 2008. The numbering and locations provided with each response is consistent with the format provided in Joanne's memorandum dated July 2, 2008 (attached).

Comment 1

The City uses the County's significance criteria, which shows the significance criteria as two decimals. Thus, the intersection of Highridge Road/Hawthorne Boulevard was reported with only two decimal places. The two other intersections are located in the City of Rolling Hill Estates which require the ICU value to be reported with three decimals.

Comment 2

The mitigated LOS and V/C values at the intersection of Highridge Road/Hawthorne Boulevard have been updated in Table K for both the a.m. and pm. peak hours. Please see page 26 for this revision.

Comment 3

A conceptual drawing of the proposed mitigation measure has been provided on Figure 9. Please see page 29 for this revision.



2222 Martin
Suite 140
Irvine, CA 92612

(949) 863-0041
(949) 863-1339 fax
www.dksassociates.com

Mr. Kit Fox
July 11, 2008
Page 2 of 2

Comment 4

Based on a review of aerial photography and the site plan, the existing northbound left turn pocket at the intersection of Highridge Road/Peacock Ridge Drive is approximately 160 feet with a transition of 50 feet. After analyzing the 95th percentile queue at Highridge Road/Peacock Ridge Road (per traffic counts collected in July 2008), the following are recommendations for the re-design of the median:

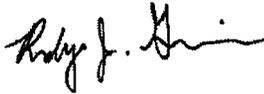
- Keep the proposed median break and transition for the project entrance with a pocket approximately 60 feet in length with a transition of 60 feet.
- Re-configure the existing northbound left turn pocket at Highridge Road/Peacock Ridge Road to 100 feet and a transition length of 60 feet (from 160 feet with a transition of 50 feet).

Please see Section 5 beginning on page 30 for this discussion.

This concludes our responses to the comments for the Revised Traffic Impact Analysis (dated June 24, 2008) for the 28220 Highridge Road Residential Development. If you have any questions regarding our responses, please call us at (949) 863-0041.

Sincerely,

DKS Associates
A California Corporation



Rudy J. Garcia, EIT
Transportation Engineer



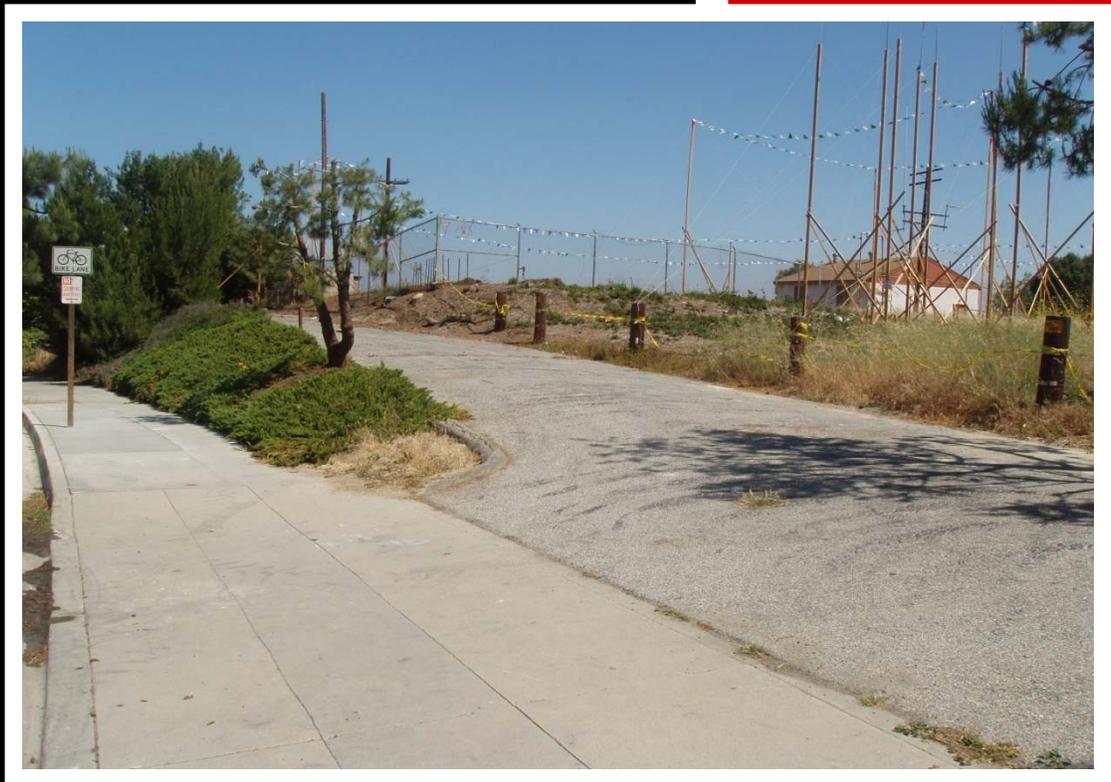
Dennis M. Pascua, PTP
Supervising Transportation Planner

cc: Barb Woodward
Joanne Itagaki

Attachment: Memorandum dated July 2, 2008

REVISED TRAFFIC IMPACT ANALYSIS

28220 HIGHRIDGE ROAD
RESIDENTIAL DEVELOPMENT
CITY OF RANCHO PALOS VERDES



DKS Associates
TRANSPORTATION SOLUTIONS

July 11, 2008

Revised Traffic Impact Analysis
28220 HIGHRIDGE ROAD
RESIDENTIAL DEVELOPMENT
CITY OF RANCHO PALOS VERDES

Prepared by

DKS Associates
TRANSPORTATION SOLUTIONS

Project No. 08107-000-000
May 6, 2008
Revised June 24, 2008
Revised July 11, 2008

DKS Associates
Denis R. Bilodeau, P.E.
Dennis M. Pascua, PTP
Rudy J. Garcia, EIT

2222 Martin Street, Suite 150
Irvine, California 92612
Telephone (949) 863-0041
Facsimile (949) 863-1339

TABLE OF CONTENTS

1.0	INTRODUCTION.....	3
	Purpose and Objectives of the TIA.....	3
	Site Location and Study Area.....	3
	Methodology	5
	Traffic Analysis Scenarios.....	7
2.0	PROJECT DESCRIPTION.....	9
	Project Size and Description	9
	Project Traffic.....	9
3.0	AREA CONDITIONS	14
	Existing Traffic Conditions.....	14
4.0	FUTURE TRAFFIC CONDITIONS.....	19
	2010 Opening Year	19
	2010 Opening Year + Project.....	24
	Mitigation Measures	27
5.0	PROJECT ACCESS & CIRCULATION, AND ON-SITE PARKING.....	30
	Project Access and Circulation	30
	Sight Distance.....	30
	On-site Parking	31
6.0	SUMMARY AND CONCLUSIONS	34
	Traffic.....	34
	Project Access and Circulation	34
	Parking.....	35
7.0	REFERENCES.....	36

LIST OF TABLES

Table A – Level of Service Definitions for Signalized Intersections Based on ICU.....	5
Table B – Level of Service Definitions for Unsignalized Intersections Based on Delay.....	5
Table C – Level of Service Descriptions	6
Table D – Significant Impact Thresholds for Intersections	6
Table E – Project Trip Generation Estimates	11
Table F – Existing Condition Intersection Level of Service Summary	15
Table G – City of Rancho Palos Verdes Related Projects Trip Generation Estimates	20
Table H – City of Rolling Hills Estates Related Projects Trip Generation Estimates	21
Table I – City of Los Angeles Related Projects Trip Generation Estimates.....	22
Table J – 2010 Opening Year Intersection Level of Service Summary	24
Table K – 2010 Opening Year + Project Intersection Level of Service Summary.....	26
Table L – Project Fair Share Contribution	28
Table M – City of Rancho Palos Verdes Parking Requirements	31

LIST OF FIGURES

Figure 1 – Project Site Location and Study Area.....	4
Figure 2 – Project Site Plan.....	10
Figure 3 – Project Trip Distribution.....	12
Figure 4 – Project Trip Assignment.....	13
Figure 5 – Existing Traffic Controls and Geometrics	16
Figure 6 – Existing Traffic Volumes.....	17
Figure 7 – 2010 Opening Year Traffic Volumes	23
Figure 8 – 2010 Opening Year + Project Traffic Volumes	25
Figure 9 – Conceptual Plan for the Proposed Mitigation Measure	29
Figure 10 – Sight Line Analysis.....	32

APPENDICES

- Appendix A – Raw Traffic Count Data Sheets
- Appendix B – Intersection Level of Service Worksheets & Synchro Worksheets
- Appendix C – Cumulative Trip Generation & Cumulative Trip Assignment from Linscott, Law, and Greenspan and DKS Associates

1.0 INTRODUCTION

The following presents the Traffic Impact Analysis (TIA) prepared by DKS Associates (DKS) for the proposed 28 unit residential condominium development at 28220 Highridge Road (proposed project), in the City of Rancho Palos Verdes (City). The proposed project would develop 28 condominiums on a 1.24 acre site located approximately one-half mile south of the intersection of Highridge Road/Hawthorne Boulevard in Rancho Palos Verdes. This TIA has been prepared consistent with the policies of the City of Rancho Palos Verdes' General Plan Circulation Element, Los Angeles County's *Traffic Impact Analysis Report Guidelines*, the City of Rolling Hills Estates' *Traffic Impact Study Guidelines*, and methodologies from the Institute of Transportation Engineers (ITE).

Purpose and Objectives of the TIA

The purpose of this TIA is to evaluate the traffic and circulation, and parking impacts of the proposed project. The study objectives of this TIA include:

- Documentation of existing traffic conditions and future traffic conditions corresponding to the "opening year" (existing plus ambient growth plus cumulative projects) of the proposed project when it would be completely built-out and fully occupied.
- Determination of additional circulation system features and system management actions needed to achieve City level of service requirements with implementation of the proposed project (if required).
- Determination of the adequacy of proposed on-site parking facilities based on the peak demands of the project's proposed land uses.

Per review of Appendix B of the 2004 Los Angeles County Congestion Management Program's (CMP) *Guidelines for CMP Transportation Impact Analysis*, a regional CMP-level traffic analysis is not required for the proposed project since it would not add 50 or more weekday peak hour trips to a CMP facility.

Site Location and Study Area

The project site is located within the City of Rancho Palos Verdes and currently consists of vacant land. Specifically, the project site is located at 28220 Highridge Road, between Peacock Ridge Road and Via Granada.

The project site is generally located in the center of the City. Regional access is provided by the Harbor Freeway (I-110) and the San Diego Freeway (I-405). Local access to the site is provided by Highridge Road and Hawthorne Boulevard.

Per discussion with the City, the study area intersections are as follows:

1. Highridge Road/Hawthorne Boulevard (within jurisdiction of Rancho Palos Verdes)
2. Indian Peak Road/Hawthorne Boulevard (within jurisdiction of Rolling Hills Estates)
3. Silver Spur Road/Hawthorne Boulevard (within jurisdiction of Rolling Hills Estates)

Figure 1 illustrates the project site location and study area intersections.

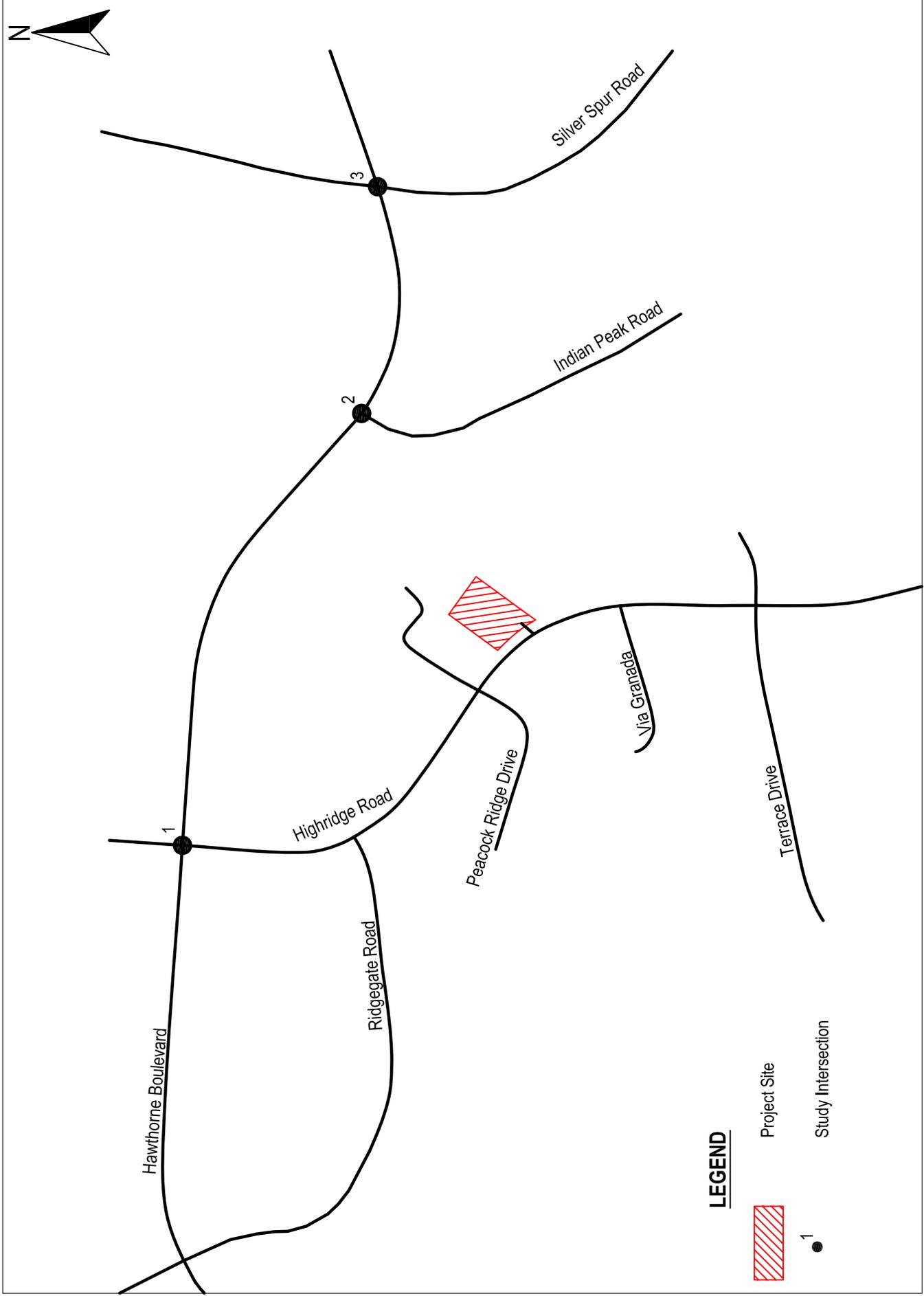


Figure 1
Site Location and Study Area

Methodology

Per consultation with the City Traffic Engineer, DKS was directed to use the County of Los Angeles (County), *Traffic Impact Analysis Report Guidelines* (1997) for the intersection within the City of Rancho Palos Verdes (Highridge Road/Hawthorne Boulevard). For the other two intersections, Indian Hill Road/Hawthorne Boulevard and Silver Spur Road/Hawthorne Boulevard, the guidelines of the City of Rolling Hills Estates were used.

For both cities, analysis of signalized intersections were based on peak hour Intersection Capacity Utilization (ICU) methodology. The assessment of intersection conditions addresses levels of service (LOS), in terms of volume-to-capacity (V/C) ratios values for signalized intersections. For unsignalized intersections, the methodologies contained in the *Highway Capacity Manual* (HCM) would be used to determine control delay. The TRAFFIX level of service software package was used to determine intersection LOS in the study area.

The degree of congestion at an intersection is described by the level of service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. A complete description of the meaning of level of service can be found in the Highway Research Board Special Report 209, *Highway Capacity Manual* (HCM 2000). Brief descriptions of the six levels of service for signalized and unsignalized intersections are shown in Tables A and B, respectively.

Table A – Level of Service Definitions for Signalized Intersections Based on ICU

Level of Service	V/C Ratio or ICU
A	0.00 – 0.60
B	0.61 – 0.70
C	0.71 – 0.80
D	0.81 – 0.90
E	0.91 – 1.00
F	1.01 or greater

Table B – Level of Service Definitions for Unsignalized Intersections Based on Delay

Level of Service	Delay per Vehicle (in seconds)
A	≤ 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

SOURCE: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Table C provides a description of each specific level of service grade (LOS A through LOS F).

Table C – Level of Service Descriptions

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. 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.
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 period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

SOURCE: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Significance Criteria

City of Rancho Palos Verdes

Based on review of the City’s General Plan, there is no specific minimum level of service criteria established. The relevant significance criteria for intersections in the City of Rancho Palos Verdes are defined in the County’s *Traffic Impact Analysis Report Guidelines*. The significance criteria used for intersections in this TIA is shown in Table D.

Table D – Significant Impact Thresholds for Intersections

Baseline (pre-project) Condition		Project V/C Increase
LOS	V/C	
C	0.71 to 0.80	0.04 or more
D	0.81 to 0.90	0.02 or more
E/F	0.91 or more	0.01 or more

SOURCE: County of Los Angeles, Traffic Impact Analysis Report Guidelines, 1997.

According to the guidelines, if the proposed project is forecast to cause an intersection to be significantly impacted, mitigation measures must be identified to bring the intersection LOS back to a level of insignificance. This criteria applies to the intersection of Highridge Road/Hawthorne Boulevard.

City of Rolling Hills Estates

Based on review of the City's General Plan, the minimum intersection level of service value is LOS C. The relevant significance criteria for intersections within the City of Rolling Hills Estates are defined in the City's *Traffic Impact Analysis Methodology Guidelines*. The significance criteria used for this TIA is described below:

"A change in Level of Service (LOS) from C to D or D to E is a traffic impact and mitigation measures are needed. Within LOS C or D, a change in ICU value greater than 0.020 is an impact and within LOS E or F a change in ICU greater than 0.010 is an impact. For unsignalized intersections, when the addition of project traffic increases the Level of Service to an unacceptable level (less than LOS C) mitigation measures are required."

For intersections significantly impacted by the project in the weekday a.m. and/or p.m. peak hours, mitigation measures will be provided to bring the intersection LOS back to baseline (i.e., "before project") LOS levels.

Traffic Analysis Scenarios

This TIA analyzed the following traffic scenarios:

Existing Condition

Existing traffic volumes in the study area were taken in October 2007 for the intersection of Silver Spur Road/Hawthorne Boulevard, and May 2008 for the intersections of Highridge Road/Hawthorne Boulevard and Indian Peak Road/Hawthorne Boulevard. The existing traffic scenario constitutes the environmental setting in accordance with the California Environmental Quality Act (CEQA) analysis at the time that the hearing body reviews the proposed project.

2010 Opening Year Baseline Condition

The proposed project is anticipated to be completely built-out and fully occupied by year 2010. Opening year traffic in this scenario was forecast for 2010 by applying an ambient growth rate of 1.0 percent per year (a total of 3.0 percent from 2007 to 2010 for traffic volumes taken in 2007 and a total of 2.0 percent for the traffic volumes taken in 2008) to the existing traffic volumes. In addition to the ambient growth rate, traffic from approved and pending projects (i.e. cumulative projects) in the project's vicinity has been added. Under the City's approval, specific data related to some of the cumulative projects' locations, proposed land uses, and sizes were obtained from the *Focused Traffic Analysis and Parking Study for Mediterranean Village*, prepared by Linscott, Law, and Green Span Engineers (LLG) in May 2007, and the *828 Silver Spur Road Traffic Impact Analysis*, prepared by DKS in April 2008.

2010 Opening Year plus Project Condition

The Opening Year plus Project Condition traffic was developed by adding the proposed project traffic to the Opening Year Baseline Condition. This scenario was the basis for determining project-specific impacts and mitigation measures.

2.0 PROJECT DESCRIPTION

The following section provides information on the permanent operation of the proposed project relative to the local and regional circulation network.

Project Size and Description

Figure 2 illustrates the site plan of the proposed project. The proposed project would develop 28 residential condominiums on a 1.24 acre site located approximately one-half a mile south of the intersection of Highridge Road/Hawthorne Boulevard.

A total of 67 parking spaces would be provided on-site. Of those spaces, 53 would be reserved for residents and the remaining 14 spaces would be reserved for guests.

Vehicular access into the site would occur off Highridge Road via a new median break for southbound access on Highridge Road.

Project Traffic

Trip Generation

Per the County's TIA criteria, trip generation estimates for the proposed project were developed using trip rates provided in Los Angeles County's *Traffic Impact Guidelines* (January 1997) for residential uses. A summary of the trip generation rates and resulting vehicle trips for the proposed project is presented in Table E.

As shown in the table, the proposed project would generate approximately 224 daily trips, 15 trips in the a.m. peak hour (2 inbound and 13 outbound), and 20 trips in the p.m. peak hour (13 inbound and 7 outbound).

Trip Distribution and Assignment

Trip distribution percentages for the proposed project were based on review of current commute corridors and travel routes in the study area and review of Regional Statistical Area (RSA) data for the Palos Verdes Peninsula as published in the CMP.

Table E – Project Trip Generation Estimates

Land Use	Size ²		Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
<i>LA County Trip Rates</i> ¹									
Condominiums/Townhomes	per	DU	8.0	0.06	0.48	0.54	0.47	0.26	0.73
<i>Trip Generation</i>									
Condominiums	28	DUs	224	2	13	15	13	7	20

Note:

¹ Trip rates based on Los Angeles County Traffic Impact Report Guidelines, January 1, 1997.

² DU = dwelling unit

Figure 3 illustrates the trip distribution percentages for the proposed project. The trip distribution percentages at each intersection were applied to the proposed project's trip generation to calculate the turn movement volumes that the project would generate at each study area intersection (i.e. trip assignment). The resulting a.m. and p.m. peak hour trip assignments are shown in Figure 4.

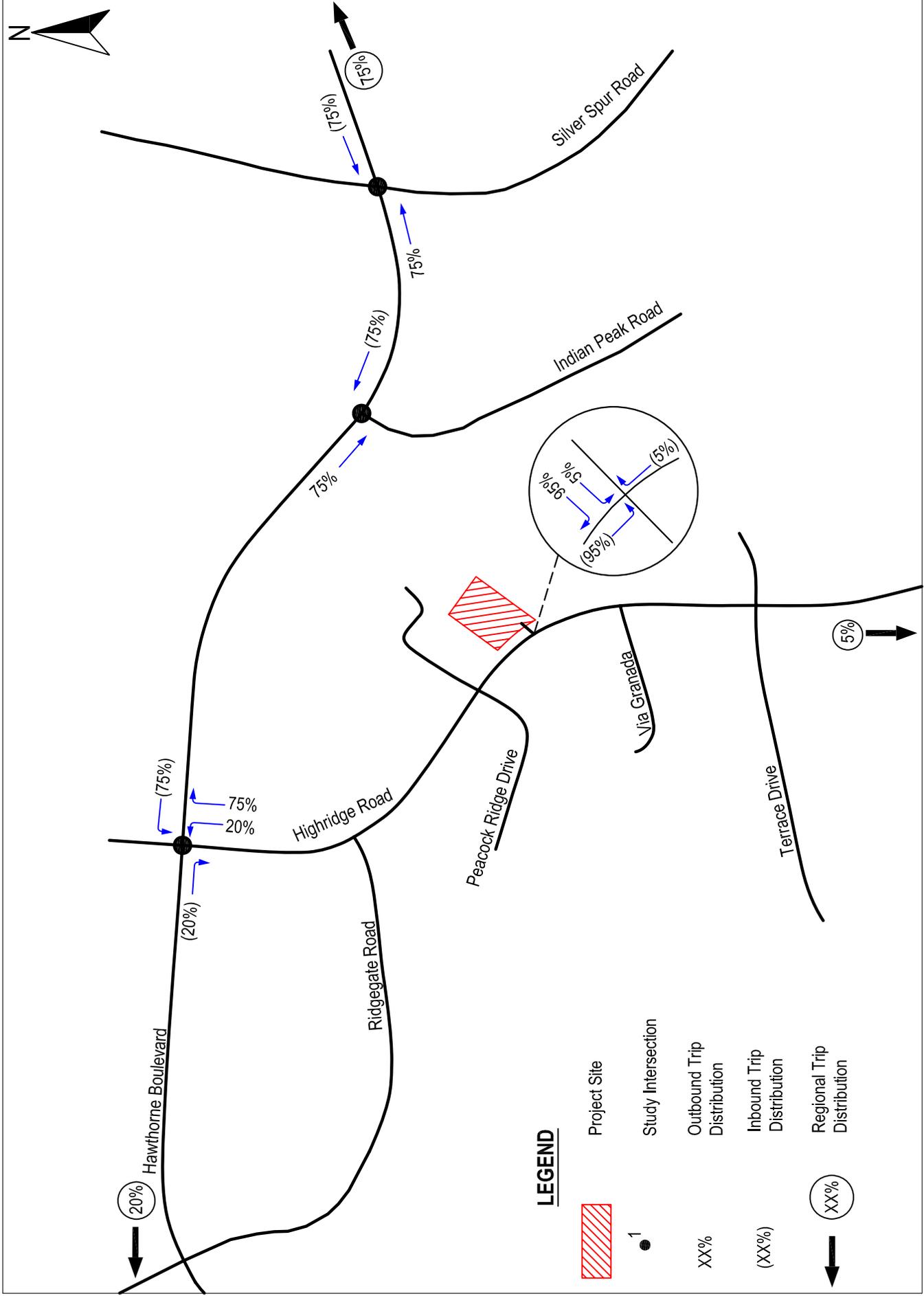


Figure 3
Project Trip Distribution

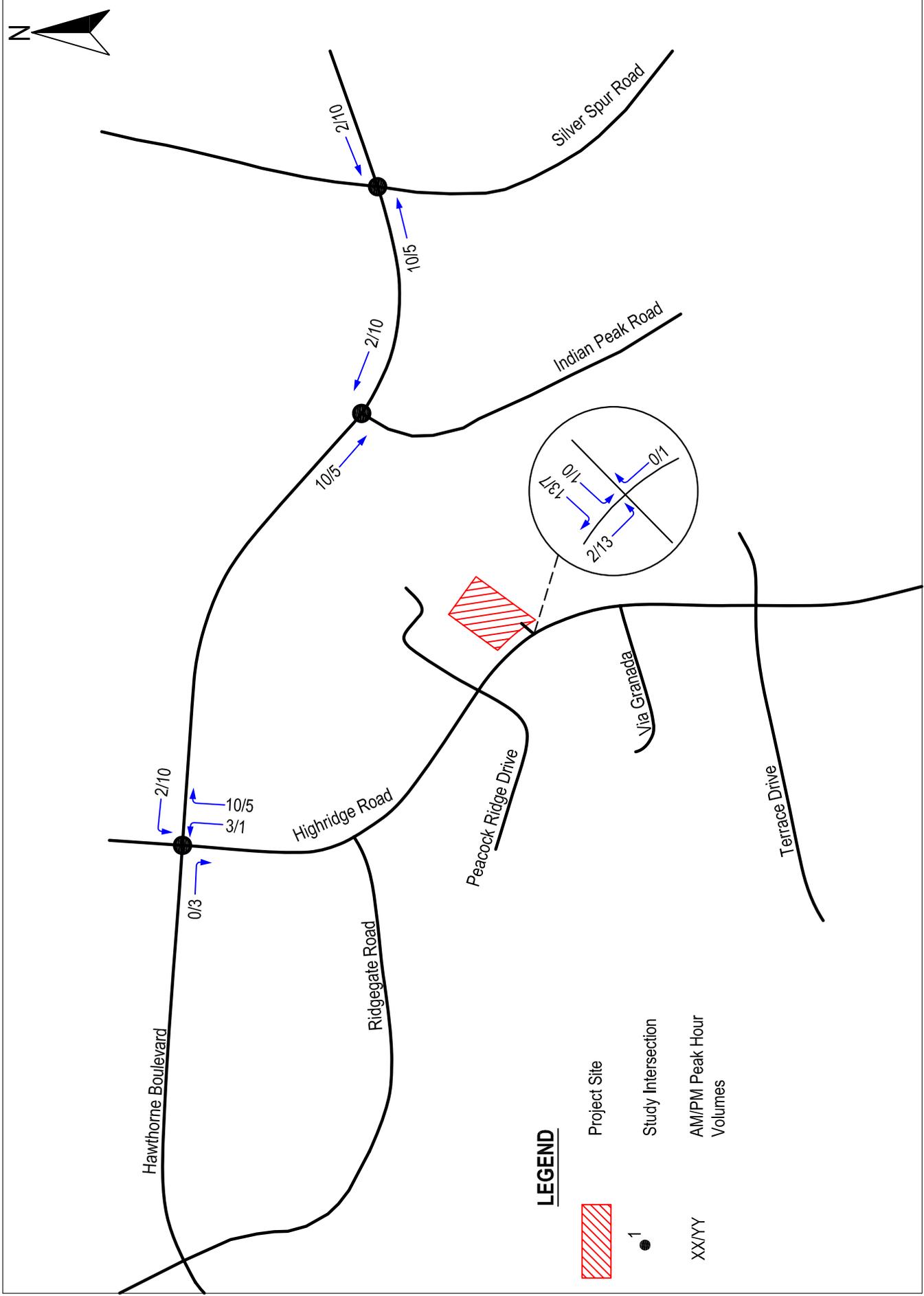


Figure 4
Project Trip Assignment

3.0 AREA CONDITIONS

The following section describes the existing traffic conditions in the project study area. Existing a.m. and p.m. peak hour traffic counts were collected in the study area in October 2007 for the Silver Spur Road/Hawthorne Boulevard intersection and in May 2008 for the Highridge Road/Hawthorne Boulevard and Indian Peak Road/Hawthorne Boulevard intersections.

Existing Traffic Conditions

Roadways

Regional access to the project vicinity is provided by the Harbor Freeway, or Interstate 110 (I-110) east of the project site, and State Route 1, or Pacific Coast Highway (PCH) north of the project site. Local access is provided via Hawthorne Boulevard, north of the project site, and Highridge Road immediately adjacent to the project site. The following describes the existing roads in the study area.

Harbor Freeway – Interstate 110

Within the vicinity of the project site, I-110 runs north-south and is an eight-lane freeway (four-lanes in each direction). I-110 is located approximately 10 miles east of the project site, and connects to the major freeways and highways in the Los Angeles area such as Interstate Freeways 405 (I-405), 10 (I-10) and 5 (I-5) and State Route 1 (Pacific Coast Highway or PCH). I-110 provides regional access to the downtown Los Angeles, as well as Ventura County to the north, the City of Long Beach, as well as Orange County and San Diego County to the south and Riverside County to the west.

Pacific Coast Highway

Pacific Coast Highway (PCH), or the State Route 1, generally runs in an east-west direction in the project vicinity and is a six-lane roadway (three-lanes in each direction). PCH is located approximately three miles north of the project site, and provides regional access through Los Angeles County, south to Orange County. Currently, PCH carries 58,000 ADT east of Crenshaw Boulevard and 45,000 ADT west of Crenshaw Boulevard. The posted speed limit on the PCH varies from 35 miles per hour (MPH) to 45 MPH.

Hawthorne Boulevard

Hawthorne Boulevard provides direct access to the project site via Highridge Road. Hawthorne Boulevard is designated as a major arterial street and runs east-west in the project's vicinity. Hawthorne Boulevard is a four-lane divided roadway with raised medians. The posted speed limit is 45 MPH.

Indian Peak Road

Indian Peak Road is located east of the project site. Indian Peak Road is a two-lane divided roadway with raised median and is a secondary arterial street. The posted speed limit on Indian Peak Road is 40 MPH.

Highridge Road

Highridge Road is a two-lane divided roadway with a landscaped median. Highridge Road serves as a collector road for adjacent residential subdivisions, and would provide direct access to the project site. The posted speed limit on Highridge Road is 35 MPH.

Traffic Controls and Intersection Geometrics

As shown in Figure 5, all of the study area intersections are currently controlled by traffic signals.

Traffic Volumes

Figure 6 illustrates the existing a.m. and p.m. peak hour traffic volumes at the study intersections.

Levels of Service

Based on the analysis methodology described in Section 1.0, the existing a.m. and p.m. peak hour traffic volumes were input into the TRAFFIX LOS software to determine the existing intersection ICU values. Table F presents the results of the existing intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Table F – Existing Condition Intersection Level of Service Summary

Intersection	Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Highridge Road/Hawthorne Boulevard ¹	signal	0.99	E	0.79	C
2. Indian Peak Road/Hawthorne Boulevard ²	signal	0.659	B	0.674	B
3. Silver Spur Road/Hawthorne Boulevard ²	signal	0.656	B	0.904	E

Notes: LOS based on Intersection Capacity Utilization (ICU) methodology.

¹ – Analyzer per City of Rancho Palos Verdes requirements.

² – Analyzed per City of Rolling Hills Estates' requirements.

Bold values denote unsatisfactory intersection LOS per its jurisdiction's criteria.

Based on the City of Rolling Hills Estates' level of service thresholds, the intersection of Silver Spur Road/Hawthorne Boulevard is currently operating with unsatisfactory levels of service in the p.m. peak hour at LOS E.

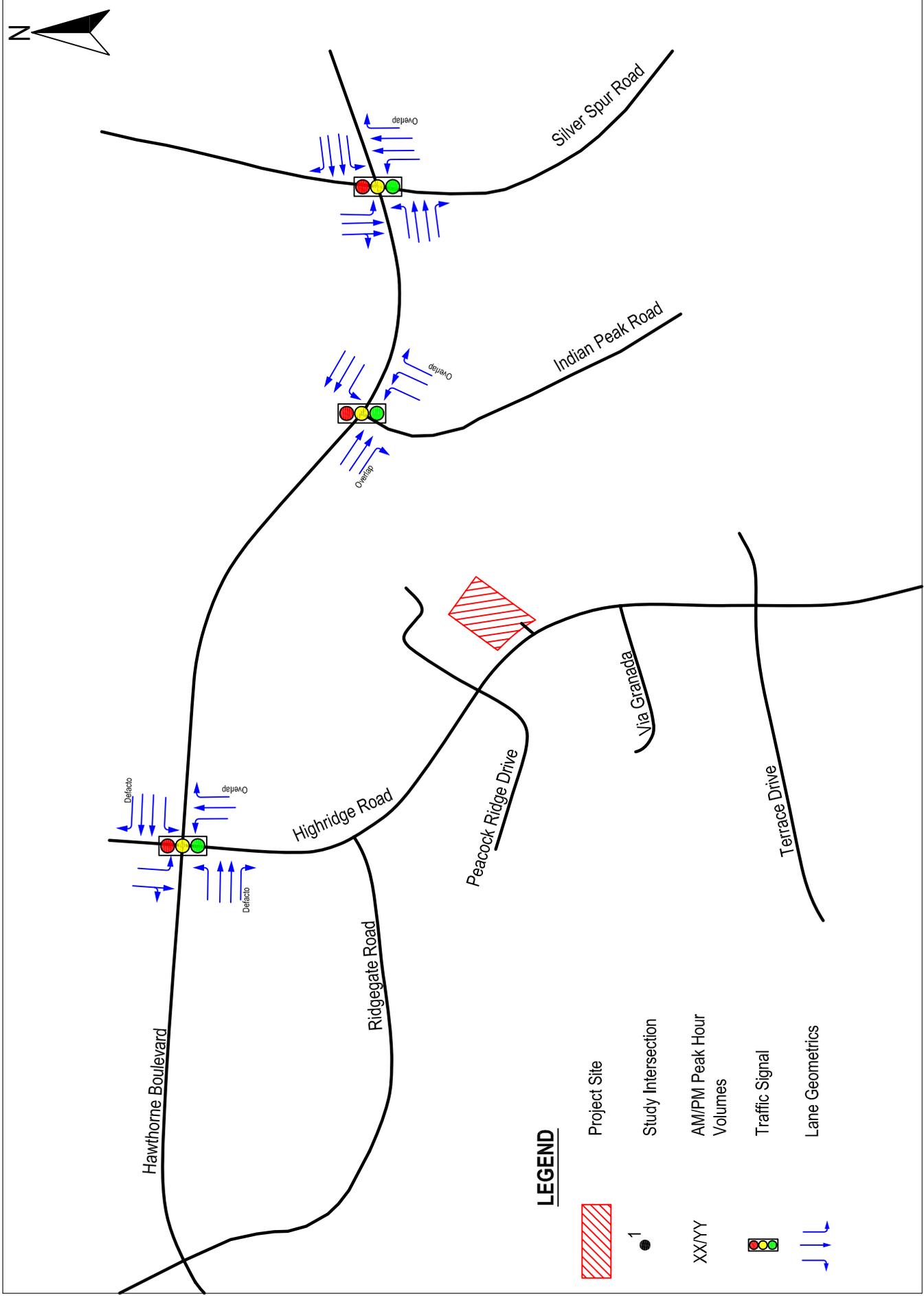


Figure 5
Existing Geometrics and Traffic Control

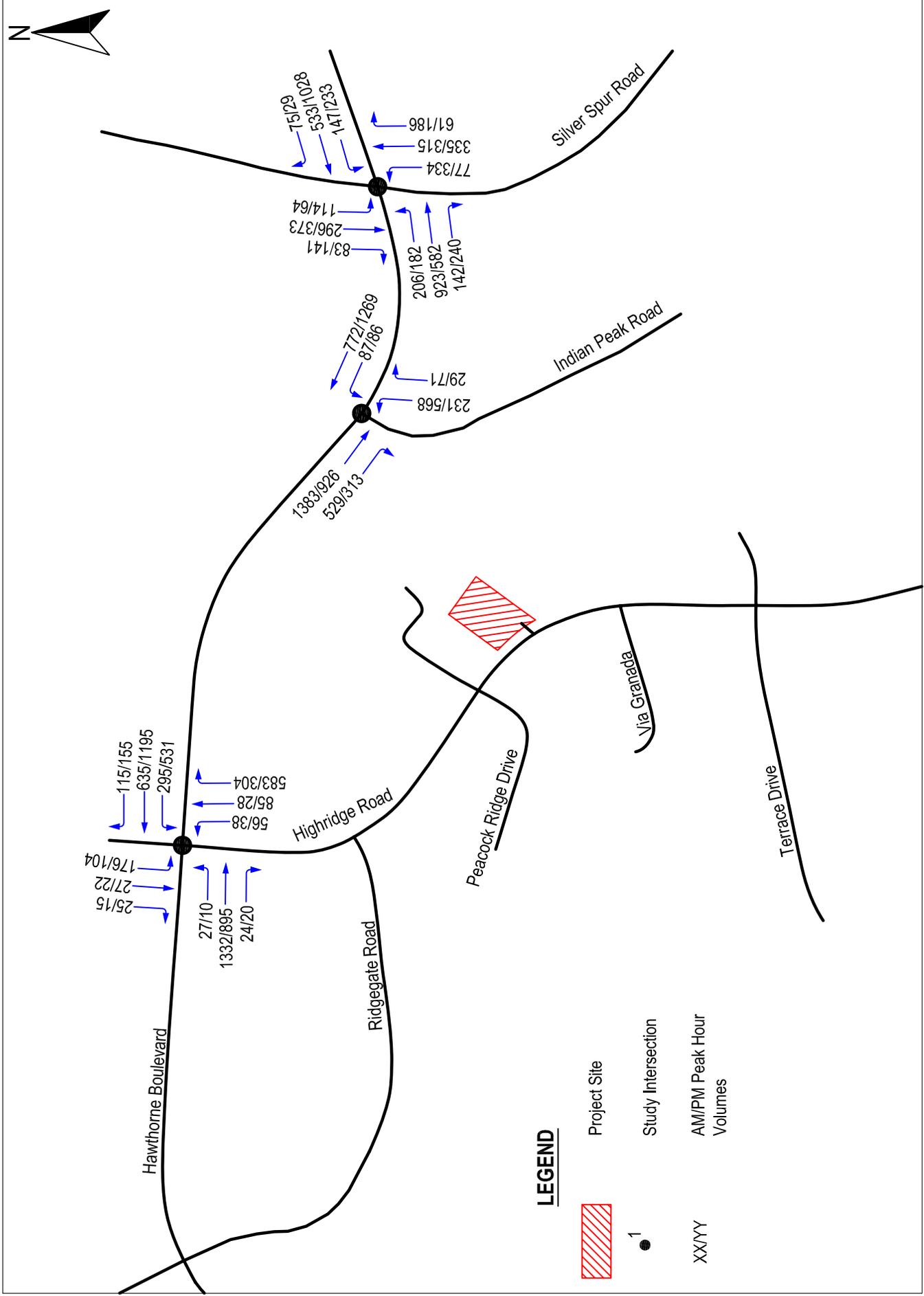


Figure 6
Existing Traffic Volumes

Transit Service

Transit services in the project vicinity are provided by the Palos Verdes Peninsula Transportation Authority. There are seven routes that serve Palos Verdes Estates, Rancho Palos Verdes, and Rolling Hills Estates. These routes are: White, Silver, Gold, Blue, Green, Green Eastview, and Orange. All routes operate from 6:30 a.m. to 6:30 p.m. from Monday through Friday except holidays. These routes also connect with other regional transit services provided by the Metropolitan Transportation Authority (MTA), the Municipal Area Express (MAX), and the Los Angeles Department of Transportation (LADOT).

Pedestrian and Bicycle Facilities

There are three basic categories of bike trails within the City, as defined by Caltrans. Class 1 bike paths involve designs which are completely separated from traffic lanes. Class 2 paths are on-street paths that are located along the edge of a street with a striped lane denoting this bike path. Class 3 paths also are located along a street edge, but are not striped. These paths are identified by street signs only.

As noted in the General Plan, Hawthorne Boulevard and Highridge Road are noted as being in the *Conceptual Bikeways Network* (Figure 20 in City's Infrastructure Element). Currently, there are no striped bike lanes (Class II) along either street.

4.0 FUTURE TRAFFIC CONDITIONS

This section describes the future traffic conditions related to the following traffic scenarios:

- 2010 Opening Year
- 2010 Opening Year + Project

2010 Opening Year

This scenario is comprised of existing traffic conditions plus traffic from all approved and/or pending developments in the study area. These approved and/or pending projects are located in the cities of Rancho Palos Verdes, Rolling Hills Estates and Los Angeles, and have not yet been constructed, but have been approved or are pending approval, through a discretionary action or building permit issuance. Under the City's approval, specific data related to some of the cumulative projects' locations, proposed land uses, and sizes were obtained from the *Focused Traffic Analysis and Parking Study for Mediterranean Village*, prepared by Linscott, Law, and Green Span Engineers (LLG) in May 2007, and the *828 Silver Spur Road Traffic Impact Analysis*, prepared by DKS in April 2008.

In addition to traffic from these cumulative projects, the application of an ambient growth rate of 1.0 percent per year (a total of 3.0 percent from 2007 to 2010) to the existing traffic volumes was also calculated. This ambient growth rate is based on regional growth rates for the South Bay area published in the *Los Angeles County Congestion Management Program* (CMP, 2004) in its *Appendix B, Exhibit B-1*.

Traffic Controls and Intersection Geometrics

No additional improvements to the study area roadways and intersections are anticipated to occur in the 2010 Opening Year Scenario. Therefore, the existing intersection traffic controls and geometrics were utilized in the level of service analysis.

Traffic Volumes

Traffic volumes for the 2010 Opening Year scenario were determined by adding the traffic generated by the approved/pending projects in the study area to the existing a.m. and p.m. peak hour traffic volumes in addition to the growth rate stated above. Trip generation estimates for the approved/pending projects were either obtained from the LLG and/or DKS traffic studies noted above, or have been estimated based from trip rates from ITE's *Trip Generation*, 7th Edition, and the County of Los Angeles *Traffic Impact Study Guidelines*, January 1997 (for residential uses).

Tables G, H, and I provide the trip generation estimates of the approved/pending projects for the cities of Rancho Palos Verdes, Rolling Hills Estates, and Los Angeles. Traffic data for the cumulative projects data received from the LLG and DKS traffic studies are provided in Appendix C.

Table G - City of Rancho Palos Verdes Cumulative Projects Trip Generation Estimates

Land Use	Size ²	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<i>Trip Generation</i>								
Trump National Golf (Ocean Trails) - Palos Verdes Drive Southwest of Shoreline Park ¹								
-Single Family Detached Housing	75 DU							
-Affordable Housing Units	4 DU							
-18 Hole Golf Course	18 Holes							
Total Trip Generation for Trump National Golf - Palos Verdes Drive Southwest of Shoreline Park		1,399	47	52	99	73	56	129
Point View - Palos Verdes Drive South ¹								
-Single Family Detached Housing	84 DU							
Total Trip Generation for Point View - Palos Verdes Drive South		804	16	47	63	54	31	85
Long Point Resort Hotel - Palos Verdes Drive South ¹								
Total Trip Generation for Long Point Resort Hotel - Palos Verdes Drive South		6,263	195	118	313	247	252	499
Pointe Vicente Interpretative Center ¹								
-General Office	2,000 TSF							
Total Trip Generation for Pointe Vicente Interpretative Center - Palos Verdes Drive South		170	6	3	9	4	9	13
Marymount College Facilities Expansion - 30800 Palos Verdes Drive East ¹								
-College Facilities Expansion	136,008 TSF							
Total Trip Generation for Marymount College Facilities Expansion - 30800 Palos Verdes Drive East		416	35	3	38	32	14	46
TTM No. 52666 - 3200 Palos Verdes Drive West ¹								
-Single Family Detached Housing	13,000 DU							
Total Trip Generation for TTM No. 52666 - 3200 Palos Verdes Drive West		124	2	7	9	8	5	13
Ocean Front Estates - Palos Verdes Drive South and Hawthorne Blvd. ¹								
-Single Family Detached Housing	79,000 DU							
Total Trip Generation for Ocean Front Estates - Palos Verdes Drive South and Hawthorne Blvd.		756	15	44	59	51	29	80
Golden Cove Shopping Center - Palos Verdes Drive West and Hawthorn Blvd. ¹								
-Addition to Shopping Center	12,600 TSF							
Total Trip Generation for Golden Cove Shopping Center - Palos Verdes Drive West and Hawthorne Blvd.		487	8	5	13	15	17	32
7-11 Convenience Market/Gas Station - 31186 Hawthorne Blvd. ¹								
-Convenience Market and Gas Station	2,754 TSF							
Total Trip Generation for 7-11 Convenience Market/Gas Station - 31186 Hawthorn Blvd.		118	2	1	3	5	5	10
Hawthorne/Crest Office Building - 29941 Hawthorne Blvd. ¹								
-General Office Uses	7,232 TSF							
Total Trip Generation for Hawthorne/Crest Office Building - 29941 Hawthorne Blvd		177	20	3	23	15	72	87
Salvation Army Crestridge ¹								
-Apartments	20 DU							
-Retail	28,627 TSF							
Total Trip Generation for Salvation Army Crestridge - 30840 Hawthorne Blvd		134	2	8	10	8	4	12
Total Trip Generation for the City of Rancho Palos Verdes Cumulative Projects		10,848	348	291	639	512	494	1,006

Note:
¹ Land use and trip generation data taken from *Focused Traffic Analysis and Parking Study for Mediterranean Village, May 7, 2007*.
² TSF GLA = thousand square feet of gross leasable area, TSF GFA = thousand square feet of gross floor area, DU = dwelling unit
³ Trips may be off by 1 due to rounding.

Table H - City of Rolling Hills Estates Cumulative Project Trip Generation Estimates

Land Use	Size ²	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation								
901 Deep Valley Drive - Rolling Hills Villas ¹								
-Senior Condominiums	41 DU							
-Retail Uses	1.526 TSF GLA							
Total Trip Generation 901 Deep Valley Drive - Rolling Hills Villas		211	3	3	6	5	4	9
981 Silver Spur Road - Silver Spur Court ¹								
-Condominiums	18 DU	105	1	7	8	6	3	9
Total Trip Generation 981 Silver Spur Road - Silver Spur Court		105	1	7	8	6	3	9
5880 Crest Road - Crest Road Building ¹								
-General Office	4.545 TSF							
-Retail	1.215 TSF							
Total Trip Generation 5880 Crest Road - Crest Road Building		175	15	2	17	16	72	88
627 Deep Valley Drive ¹								
-Condominiums	58 DU							
-Retail Uses	5.810 TSF GLA							
Total Trip Generation 627 Deep Valley Drive		636	-3	15	12	30	21	51
655 Deep Valley Drive (Laing Urban) ¹								
-Existing Office Uses	61.293 TSF GLA							
-Condominiums	100 DU							
-Townhomes	69 DU							
Total Trip Generation - 655 Deep Valley Drive (Laing Urban)		1,584	21	67	88	74	50	124
Butcher Subdivision - Palos Verdes Drive North and Montecillo Drive ¹								
-Single Family Detached Housing	13 DU							
Total Trip Generation - Palos Verdes Drive North and Montecillo Drive		124	2	7	9	8	5	13
Chandler Ranch - Chandler's Landfill, Palos Verdes Drive East ¹								
-Single Family Detached Housing	112 DU							
-Clubhouse	45 TSF							
Total Trip Generation - Chandler's Landfill, Palos Verdes Drive East		1,235	25	72	97	83	48	131
827 Deep Valley Drive ¹								
-Condominiums	16 DU							
Total Trip Generation for 827 Deep Valley Drive		128	1	8	9	8	4	12
Silver Center - 449 Silver Spur Road ³								
-General Office Uses	13.833 TSF							
-Retail	6.167 TSF							
Total Trip Generation for Silver Center - 449 Silver Spur Road		426	19	3	21	11	27	37
Promenade on the Peninsula - 550 Deep Valley Drive ⁴								
-Condominiums ³	66 DU							
-Retail	18.900 TSF							
Total Trip Generation for Promenade on the Peninsula - 550 Deep Valley Drive		1,366	4	32	36	54	46	99
Continental Development ⁴								
-Condominiums ³	70 DU							
-Retail	30.000 TSF							
Total Trip Generation for Continental Development		1,890	4	34	38	69	64	132
Medeteranean Village - 927 Deep Valley Drive ¹								
-Existing General Office Uses	13.588 TSF							
-Existing Medical Office	14.126 TSF							
-Existing Retail Uses	1.601 TSF							
-Condominiums	75.000 DU							
-Retail Uses	2.000 TSF							
Total Trip Generation for Medeteranean Village - 927 Deep Valley Drive		-42	-41	27	-14	17	-34	-17
Total Trip Generation for the City of Rolling Hills Estates Cumulative Projects		7,837	51	276	327	380	309	689

Note:
¹ Land use and trip generation data taken from *Focused Traffic Analysis and Parking Study for Mediterranean Village, May 7, 2007*.
² TSF GLA = thousand square feet of gross leasable area, TSF GFA = thousand square feet of gross floor area, DU = dwelling unit
³ Trip rates for condominiums based on LA County Traffic Impact Study Guidelines.
⁴ Trip generation calculated from ITE Trip Rates.
⁵ Trips may be off by 1 due to rounding.

Table I - Cumulative Projects and Trip Generation Estimates for City of Los Angeles Projects

<i>City of Los Angeles Cumulative Projects</i>								
<i>Ponte Vista Project - 26900 South Western Avenue¹</i>								
-Residential Condominiums	1725 DU							
-Senior Housing	575 DU							
-Baseball Fields	2 FIELDS							
Total Trip Generation for Ponte Vista Project - 26900 South Western Avenue		9,355	135	501	636	473	287	760
Total Trip Generation for City of Los Angeles		9,355	135	501	636	473	287	760

Note:

¹ Project data and trip generation data taken from *Draft Environmental Impact Report for the Ponte Vista Project, November 2006*.

² DU = dwelling unit

³ Trips may be off by 1 due to rounding.

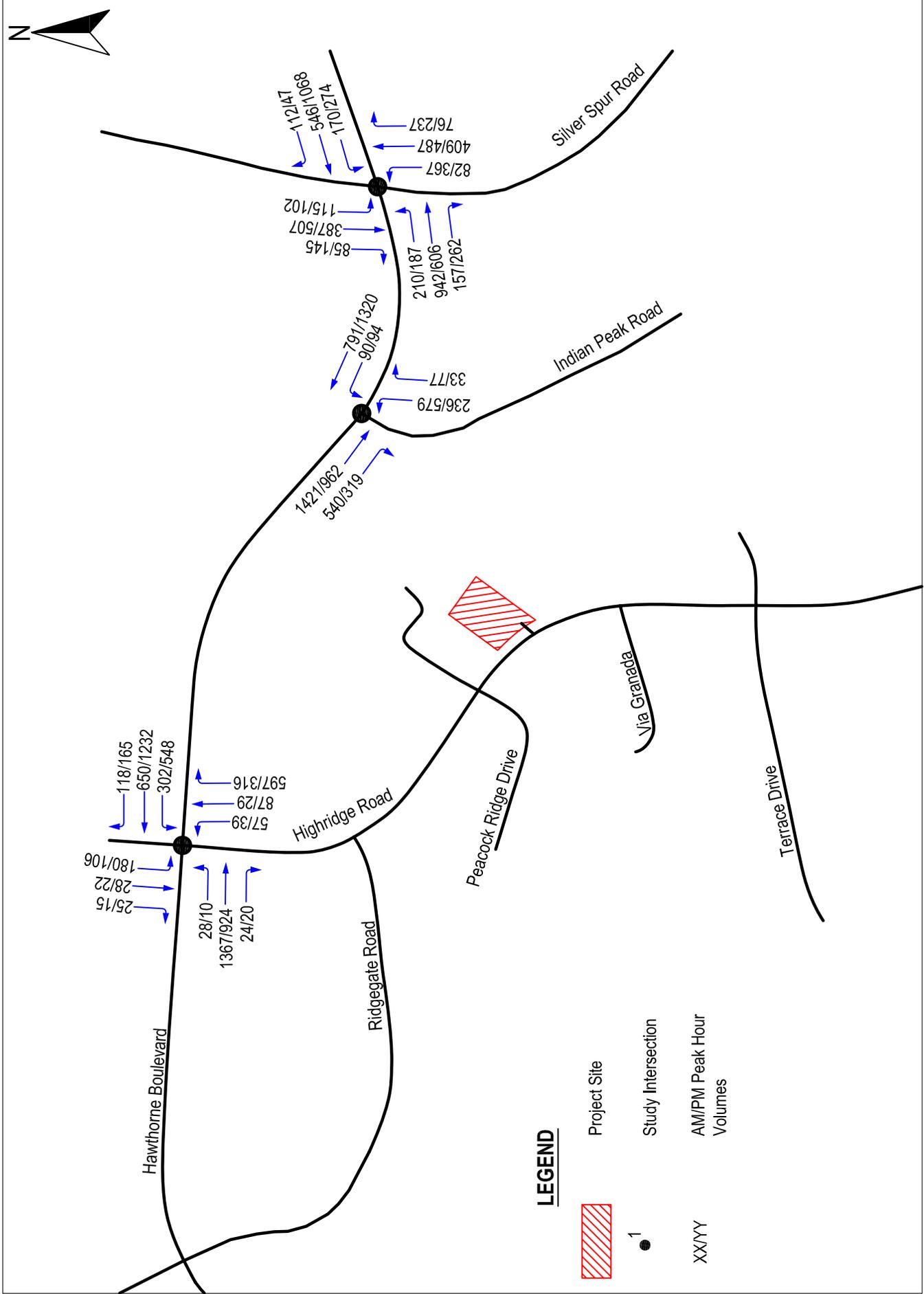


Figure 7
2010 Opening Year Traffic Volumes

Based on the tables, the approved/pending projects in the project’s vicinity would generate a total of 28,040 daily trips, 1,602 trips (534 inbound and 1,068 outbound) in the a.m. peak hour, and 2,455 trips (1,365 inbound and 1,090 outbound) in the p.m. peak hour. Figure 7 illustrates the a.m. and p.m. peak hour traffic volumes applicable to the study area intersections.

Levels of Service

The 2010 Opening Year a.m. and p.m. peak hour traffic volumes were input into the TRAFFIX LOS software to determine this scenario’s intersection ICU values. Table J presents the results of the 2010 intersection LOS analysis. Appendix B provides the LOS calculation worksheets at each study area intersection.

Table J – 2010 Opening Year Intersection Level of Service Summary

Intersection	Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Highridge Road/Hawthorne Boulevard ¹	signal	1.01	F	0.82	D
2. Indian Peak Road/Hawthorne Boulevard ²	signal	0.674	B	0.694	B
3. Silver Spur Road/Hawthorne Boulevard ²	signal	0.701	C	0.984	E

Notes: LOS based on Intersection Capacity Utilization (ICU) methodology.

¹ – Analyzed per City of Rancho Palos Verdes requirements.

² – Analyzed per City of Rolling Hills Estates’ requirements.

Bold values denote unsatisfactory intersection LOS per its jurisdiction’s criteria.

According to the table, in the 2010 Baseline condition, the intersection of Silver Spur Road/Hawthorne Boulevard, in the City of Rolling Hills Estates, is forecast to continue to operate with unsatisfactory LOS in the p.m. peak hour at LOS E.

2010 Opening Year + Project

Traffic generated by the proposed project was added to the 2010 Opening Year scenario, and the project impacts on the circulation system were analyzed. This scenario would determine project-specific impacts and mitigation measures (if required).

Traffic Volumes

The project trip assignment noted in Figure 4 was added to the 2010 Opening Year traffic volumes in Figure 8 which resulted in the 2010 Opening Year + Project traffic condition.

Levels of Service

The 2010 Opening Year + Project a.m. and p.m. peak hour traffic volumes were input into the TRAFFIX software to determine this scenario’s intersection ICU values. Table K presents the results of the intersection LOS analysis and provides a comparison between the 2010 Opening Year, with and without project scenarios, as well as the change in ICU values. The LOS calculation sheets are provided in Appendix B.

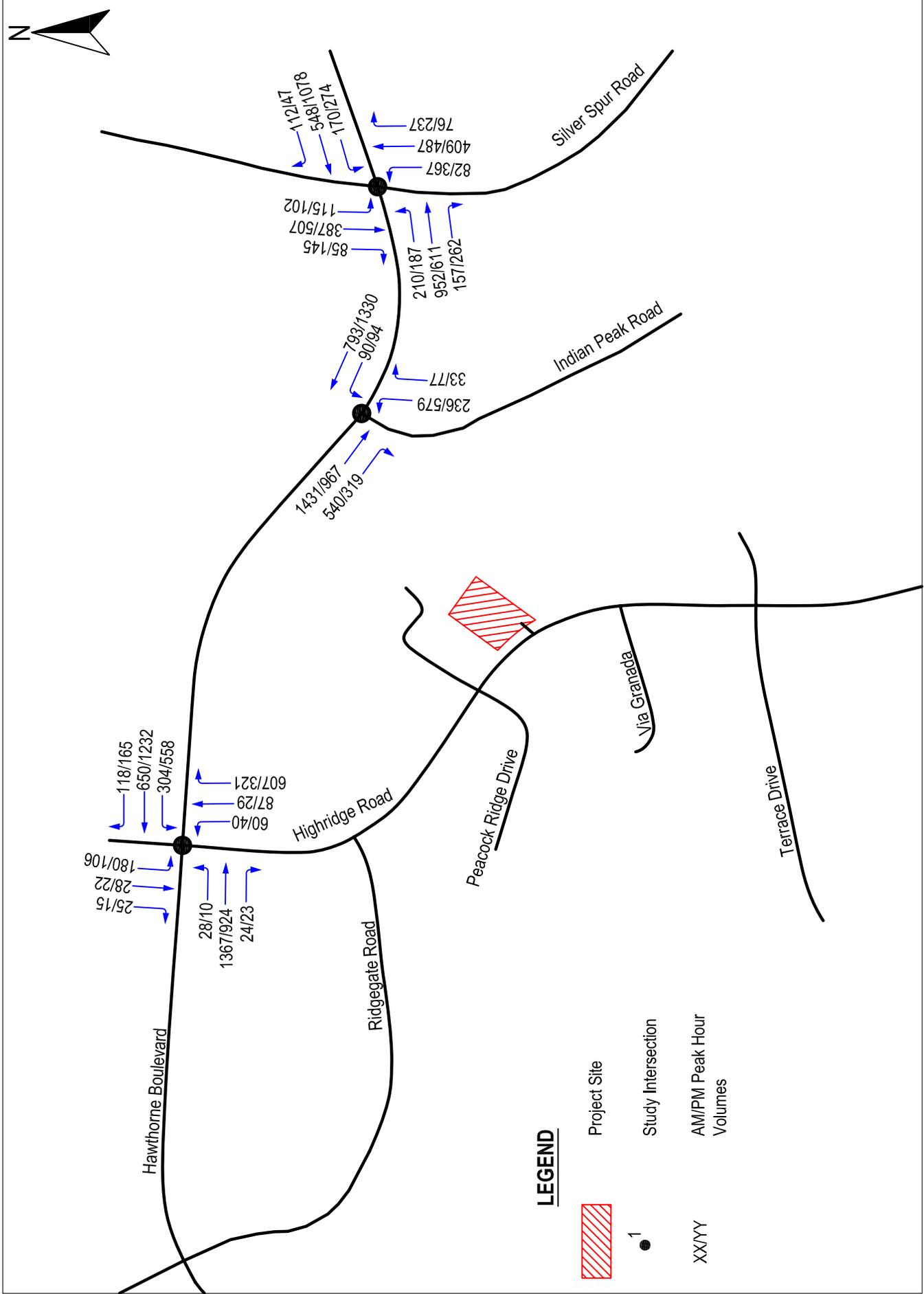


Figure 8
Opening Year 2010 plus Project Traffic Volumes

Table K – 2010 Opening Year + Project Intersection Level of Service Summary

Intersection Name	2010 Baseline				2010 Plus Project					
	AM Peak Hour ICU/Delay	LOS	PM Peak Hour ICU/Delay	LOS	AM Peak Hour ICU/Delay	LOS	Change in in ICU	PM Peak Hour ICU/Delay	LOS	Change in in ICU
1. Highridge Road/Hawthorne Boulevard ¹ -With Mitigation	1.01	F	0.82	D	1.02	F	0.01	0.82	D	0.00
2. Indian Peak Road/Hawthorne Boulevard ²	--	--	--	--	0.90	E	--	0.83	D	--
3. Silver Spur Road/Hawthorne Boulevard ²	0.674	B	0.694	B	0.677	B	0.003	0.697	B	0.003
	0.701	C	0.984	E	0.704	C	0.003	0.987	E	0.003

Notes: LOS based on Intersection Capacity Utilization (ICU) methodology.

¹ – Analyzer per City of Rancho Palos Verdes requirements.

² – Analyzed per City of Rolling Hills Estates' requirements.

Bold values denote unsatisfactory intersection LOS per its jurisdiction's criteria.

Applying the significance criteria provided in Table D – Significant Impact Thresholds for Intersections, with the addition of project traffic, there would be a significant impact to the intersection of Highridge Road/Hawthorne Boulevard in the City of Rancho Palos Verdes as the project would increase the forecast V/C by 0.01 V/C.

Highridge Road/Hawthorne Boulevard

With the addition of project traffic to the 2010 Baseline condition, the V/C increase in the a.m. peak hour would be 0.01 V/C and the intersection would continue to operate at LOS F. Based on the City of Rancho Palos Verdes significance criteria (i.e., LA County criteria), the change in V/C in the a.m. peak hour would be a significant impact because it would increase in V/C would be 0.01 at LOS F. The mitigation measures recommended below are necessary to offset the project impacts. During the p.m. peak hour, the intersection is forecast to operate at LOS D with no change in the V/C.

Indian Peak Road/Hawthorne Boulevard

With the addition of project traffic to the 2010 Baseline condition, the V/C increase in the a.m. and p.m. peak hours would be 0.003 V/C and the intersection would continue to operate at LOS B. Per the City of Rolling Hills Estates' significance criteria, the proposed project would not impact this intersection as it would continue to operate at LOS C or better with addition of project traffic.

Silver Spur Road/Hawthorne Boulevard

With the addition of project traffic to the 2010 Baseline condition, there would be no increase in the V/C in the a.m. peak hour and the intersection would continue to operate at LOS C. During the p.m. peak hour, the project would increase the V/C by 0.003 at LOS E. Per the City of Rolling Hills Estates' significance criteria, this would be a cumulative project impact since the increase in V/C is not greater than 0.010 at LOS E.

Mitigation Measures

Because the proposed project would contribute traffic to the intersection of Highridge Road/Hawthorne Boulevard which is forecast to operate at LOS F (1.01 V/C) in the a.m. peak hour during the 2010 Opening Year condition, and operate at LOS F (1.02 V/C) during the 2010 Opening Year plus Project condition, the following mitigation measures would be needed:

- Convert the existing northbound left turn lane to a shared left- plus through lane; and the existing northbound through lane to a dedicated right turn lane.
- Keep the existing dedicated right turn lane so there will be two northbound right turn lanes.
- Modify the existing traffic signal phases for the northbound and southbound approaches to split-phasing (from protected left turn phasing)
- Set the cycle length to 120 seconds or optimize the cycle length to allow for additional green time on all movements.
- Provide “cat-track” striping for the two northbound right turn lanes for their transition to the eastbound through lanes on Hawthorne Boulevard

Figure 9 conceptually illustrates this mitigation measure.

Per the County's fair-share percentage equation, the proposed project would contribute 15.5 percent to this intersection in the a.m. peak hour of the 2010 plus Project condition. Although currently the City does not have a City-wide Traffic Impact Fee Program to collect mitigation fees, the proposed project would be required to participate in that program, or similar program, and pay their fair-share to the improvements at the intersection. With the mitigation measures in place, the intersection is forecast to operate at LOS E (0.90) during the a.m. peak hour and LOS D (0.83) during the p.m. peak hour.

Table L provides the project's fair share contribution percentage. The project's fair share cost is calculated using County's formula below:

$$\text{Project Fair Share} = \frac{(\text{Project Traffic})}{(\text{Year 2010} + \text{Project Traffic}) - (\text{Existing Traffic})}$$

Table L – Project Fair Share Contribution

Intersection	Existing Traffic Volumes	Project Traffic	2010 Opening Year + Project Traffic Volumes	Fair-Share Percentage
1. Highridge Road/Hawthorne Boulevard (AM)	3,380	15	3,477	15.5 %
3. Silver Spur Road/Hawthorne Boulevard (PM)	3,707	15	4,305	2.5 %



Source: Microsoft Live Search Maps.

5.0 PROJECT ACCESS & CIRCULATION, AND ON-SITE PARKING

Project Access and Circulation

Based on review of the project site plan, access to the site would be provided by a new driveway constructed to the east of Highridge Road, and will also intersect with Highridge Road. The driveway into the residential development would be built to City standards.

Vehicular access into and out of the site would be provided by a new median break on Highridge Road. The median break would allow for full access into the site. Within the median break, a southbound left turn pocket would be constructed for ingress to the project site.

Because the driveway of the project site is in close proximity to Peacock Ridge Road, a queuing analysis was performed based on peak hour counts collected at Highridge Road/Peacock Ridge Road in July 2008. The Synchro LOS software was used to determine the 95th percentile (design) queue of the northbound left turn pocket. Based on the 95th percentile queue, the maximum queue during the a.m. and/or p.m. peak hour is approximately one vehicle or less. Thus, the median would be able to be reconfigured to accommodate the southbound left turn pocket into the project driveway. Thus, the northbound left turn at Highridge Road/Peacock Ridge Road and the proposed southbound left turn lane at the project entrance would essential be a back-to-back left turn lane. The following are recommendations for the re-design of the median:

- Keep the proposed median break and transition for the project entrance with a pocket approximately 60 feet in length with a transition of 60 feet.
- Reconfigure the northbound left turn pocket at the intersection of Highridge Road/Peacock Ridge Road with 100 feet and a transition length of 60 feet (from 160 feet with a transition of 50 feet).

With these recommendations in place, the northbound left turn movement at Highridge Road/Peacock Ridge Road and any movements at Highridge Road/Project Entrance can be accommodated.

Sight Distance

The median on Highridge Road currently contains some signing along with some landscaping including trees, shrubs, and some boulders. With the addition of the southbound left turn pocket, the median should remain clear of trees to provide adequate visibility for traffic traveling into and out of the project site.

Figure 10 illustrates the sight line analysis for the proposed southbound left turn pocket into the project site. Based on the figure, landscaping interfering with the project driveway or southbound left turn pocket should be cleared to avoid potential sight distance conflicts with northbound and southbound traffic traveling on Highridge Road. In addition, on-street parking on the east side of Highridge Road should be prohibited approximately 50 feet north and south of the project driveway.

On-site Parking

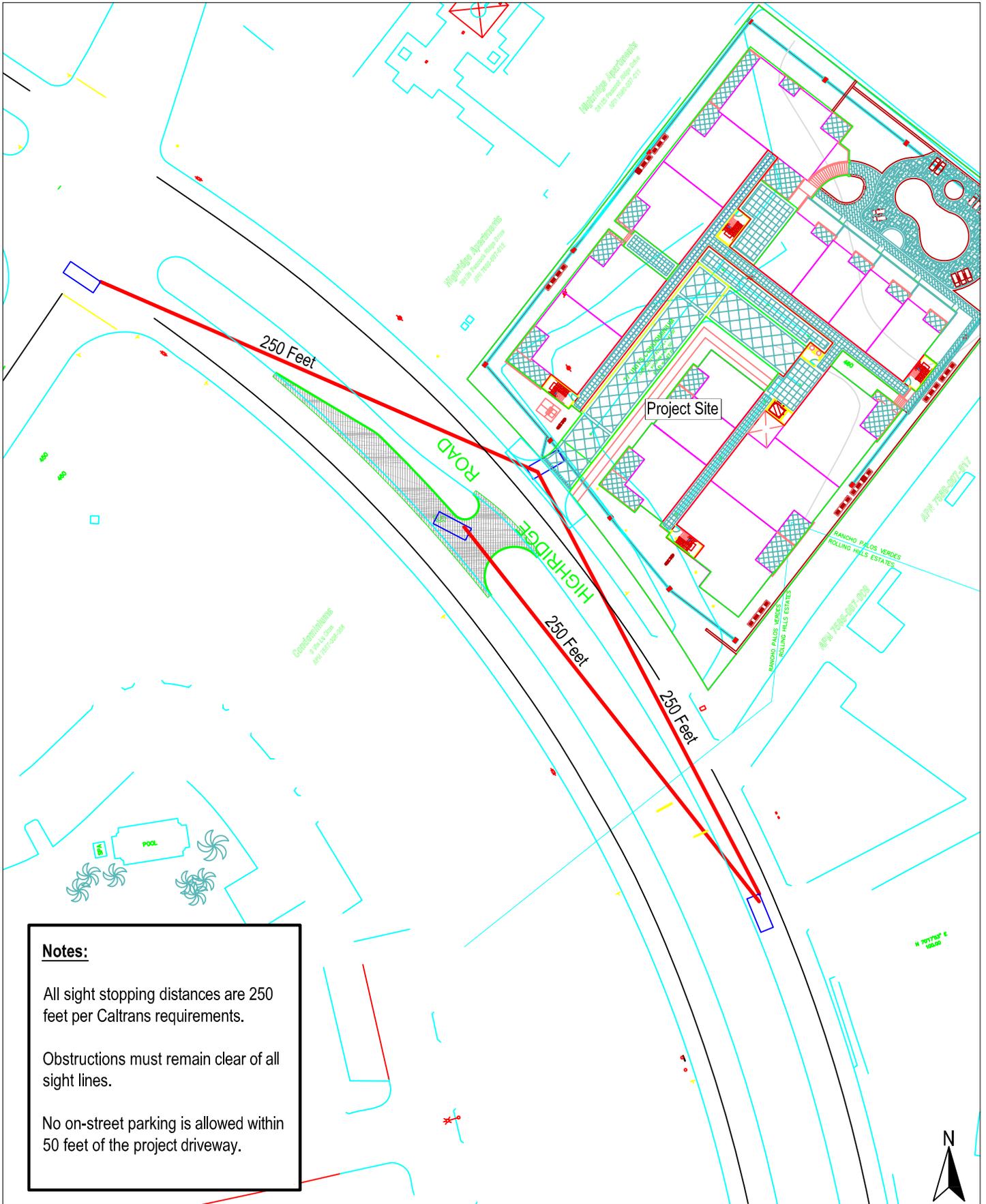
City Required Parking

Parking demand is a function of parking rates applied to the size of a particular land use. Based on City code, the project would require 67 spaces (53 spaces allocated for residents and 14 spaces allocated for guests). Table M illustrates the parking requirements of the proposed land uses.

Table M – City of Rancho Palos Verdes Parking Requirements

Land Use	Size	City's Parking Requirements	Spaces Required
<i>PROPOSED USES</i>			
Residential (1 bedroom) Uses	3 DU	1 space per DU	3 spaces
Residential (2 bedroom) Uses	25 DU	2 spaces per DU	50 spaces
Residential Guest Parking	53 spaces	¼ space per every residential use	14 spaces
Total Spaces Required			67 spaces

Note: Parking rates based on City of Rancho Palos Verdes Zoning Code.



As indicated in the table, the proposed residential use is required to provide 53 parking spaces exclusively for residents. An additional 14 spaces is required for residential guest parking. Based on the site plan, the project proposes to provide 67 spaces which results in the project meeting the City's parking code. Therefore, the project would be consistent with the City's parking code.

6.0 SUMMARY AND CONCLUSIONS

Traffic

Based on the results of the 2010 Opening Year plus Project analysis, the following intersections are forecast to be impacted by the proposed project either significantly or as a cumulative project impact:

- Highridge Road/Hawthorne Boulevard (LOS F in the a.m. peak hour with an increase of 0.01 ICU). Per the City of Rancho Palos Verdes' (LA County) criteria, this would be a *significant impact* since the increase in ICU is 0.01 at LOS F.
- Silver Spur Road/Hawthorne Boulevard (LOS E during the p.m. peak hour with an increase of 0.003 ICU). Per the City of Rolling Hills Estates' criteria, this would be a *cumulative impact* since the increase in ICU would not be greater than 0.010 at LOS E.

The following mitigation measure is recommended to improve the significantly impacted intersection of Highridge Road/Hawthorne Boulevard noted above back to satisfactory conditions per the City's criteria:

- Convert the existing northbound left turn lane to a shared left- plus through lane; and the existing northbound through lane to a dedicated right turn lane.
- Keep the existing dedicated right turn lane so there will be two northbound right turn lanes.
- Modify the existing traffic signal phases for the northbound and southbound approaches to split-phasing (from protected left turn phasing)
- Set the cycle length to 120 seconds or optimize the cycle length to allow for additional green time on all movements.
- Provide "cat-track" striping for the two northbound right turn lanes for their transition to the eastbound through lanes on Hawthorne Boulevard

As shown in Table L, the proposed project would contribute 15.5 percent to this intersection in the a.m. peak hour of the 2010 plus Project condition. Although currently the City does not have a City-wide Traffic Impact Fee Program to collect mitigation fees, the proposed project would be required to participate in that program, or similar program, and pay their fair-share to the improvements at the intersection. With the mitigation measures in place, Highridge Road/Hawthorne Boulevard is forecast to operate at LOS E (0.90) during the a.m. peak hour and LOS D (0.83) during the p.m. peak hour.

Project Access and Circulation

Based on review of the site plan, the proposed project would construct a drive to the east of Highridge Road. This driveway would allow for adequate vehicular circulation for public and emergency vehicles.

A new median break is proposed on Highridge Road to facilitate southbound left turns into the project site and westbound left turns out of the project site. Provided that the sight lines shown in Figure 10 remain clear of obstructions, and on-street parking on the east side of Highridge Road is prohibited approximately 50 feet north and south of the project driveway, no significant impacts to project access and circulation would occur.

The following are recommendations for the re-design of the median:

- Keep the proposed median break and transition for the project entrance with a pocket approximately 60 feet in length with a transition of 60 feet.
- Reconfigure the northbound left turn pocket at the intersection of Highridge Road/Peacock Ridge Road with 100 feet and a transition length of 60 feet (from 160 feet with a transition of 50 feet).

With these recommendations in place, the northbound left turn movement at Highridge Road/Peacock Ridge Road and any movements at Highridge Road/Project Entrance can be accommodated.

Parking

Based on a review of the site plan, the proposed project will meet the City requirement of 67 parking spaces as 67 on site spaces would be provided. Therefore, no significant impacts to on-site parking would occur.

7.0 REFERENCES

City of Rancho Palos Verdes, *General Plan, 1975*.

City of Rolling Hills Estates, *General Plan, 1992*.

City of Rolling Hills Estates, *Traffic Impact Analysis Methodology Guidelines*.

Linscott, Law, and Greenspan Engineers, *Focused Traffic Analysis and Parking Study for Mediterranean Village, May 7, 2007*.

DKS Associates, *Revised Traffic Impact Analysis 828 Silver Spur Road Silverdes Development, April 29, 2008*.

County of Los Angeles, *Traffic Impact Study Guidelines, January 1997*.

Transportation Research Board, *Highway Capacity Manual, Special Report No. 209, Washington, D.C., 2000*.

APPENDIX A

Raw Turning Movement Counts

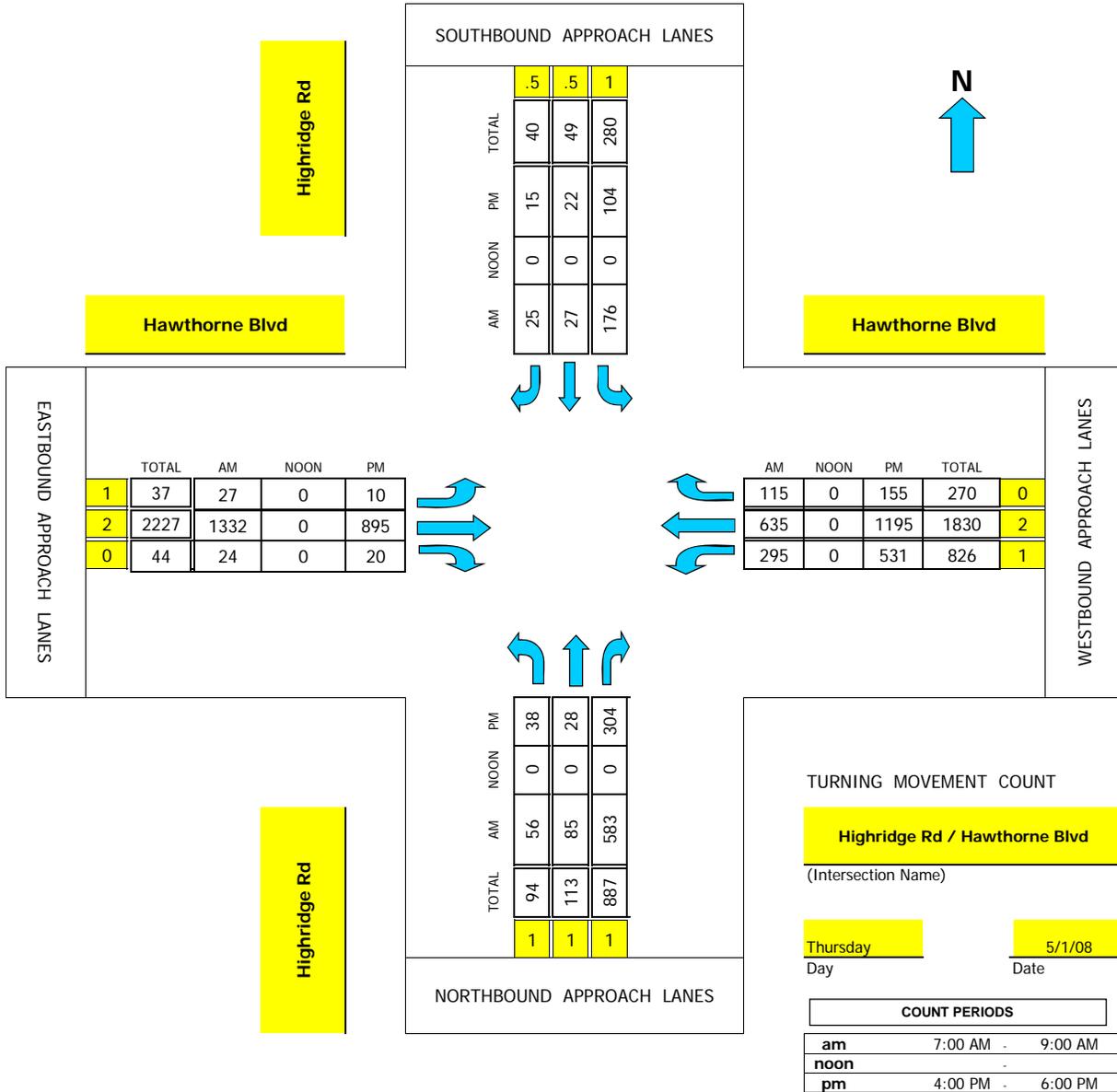
Intersection Turning Movement



National Data & Surveying Services

TMC Summary of Highridge Rd/Hawthorne Blvd

Project #: 08-2218-001



AM PEAK HOUR 730 AM

NOON PEAK HOUR 0 AM

PM PEAK HOUR 500 PM

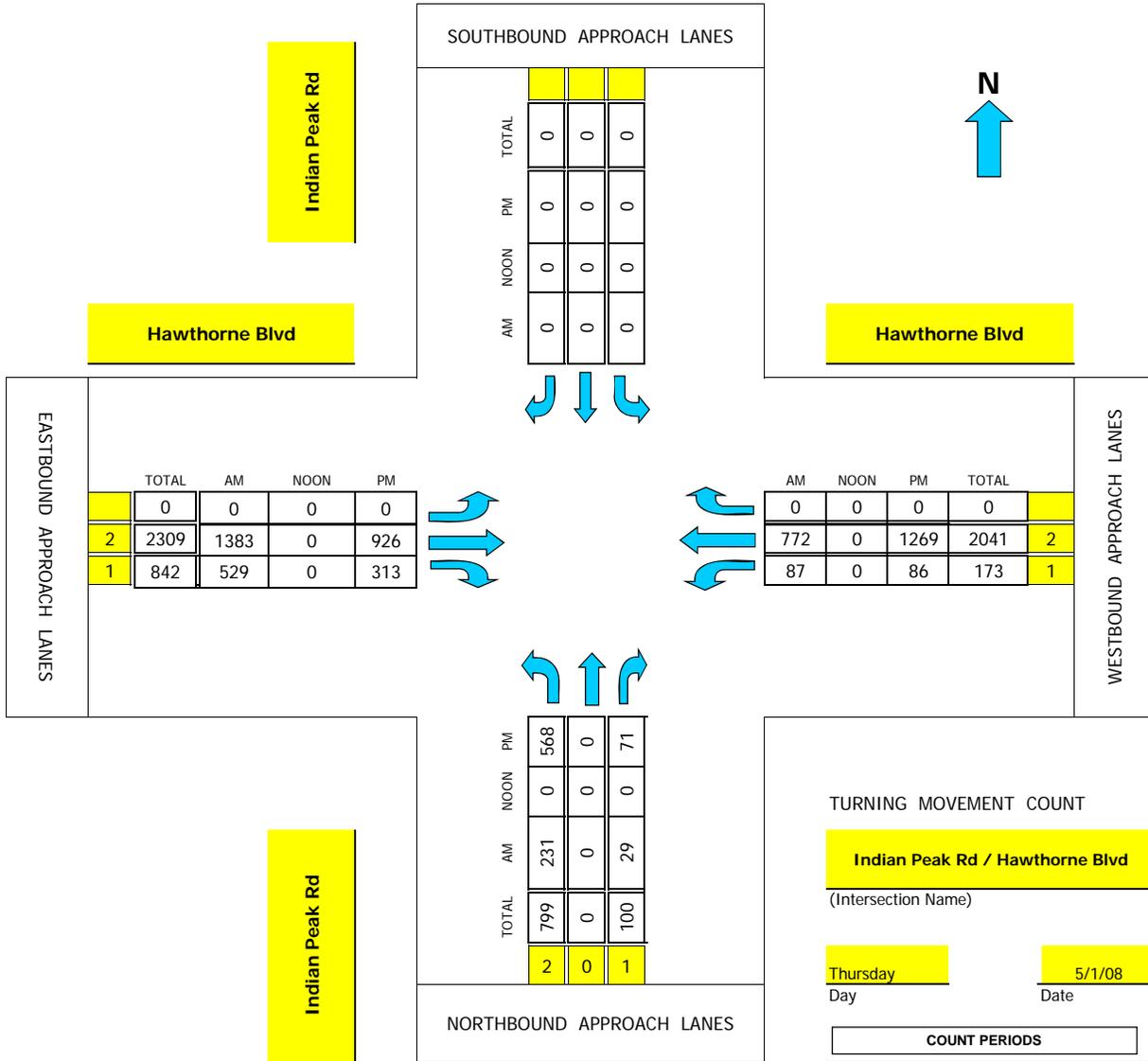
Intersection Turning Movement



National Data & Surveying Services

TMC Summary of Indian Peak Rd/Hawthorne Blvd

Project #: 08-2218-002



TURNING MOVEMENT COUNT

Indian Peak Rd / Hawthorne Blvd
(Intersection Name)

Thursday / **5/1/08**
Day / Date

COUNT PERIODS	
am	7:00 AM - 9:00 AM
noon	-
pm	4:00 PM - 6:00 PM

AM PEAK HOUR 800 AM
 NOON PEAK HOUR 0 AM
 PM PEAK HOUR 500 PM

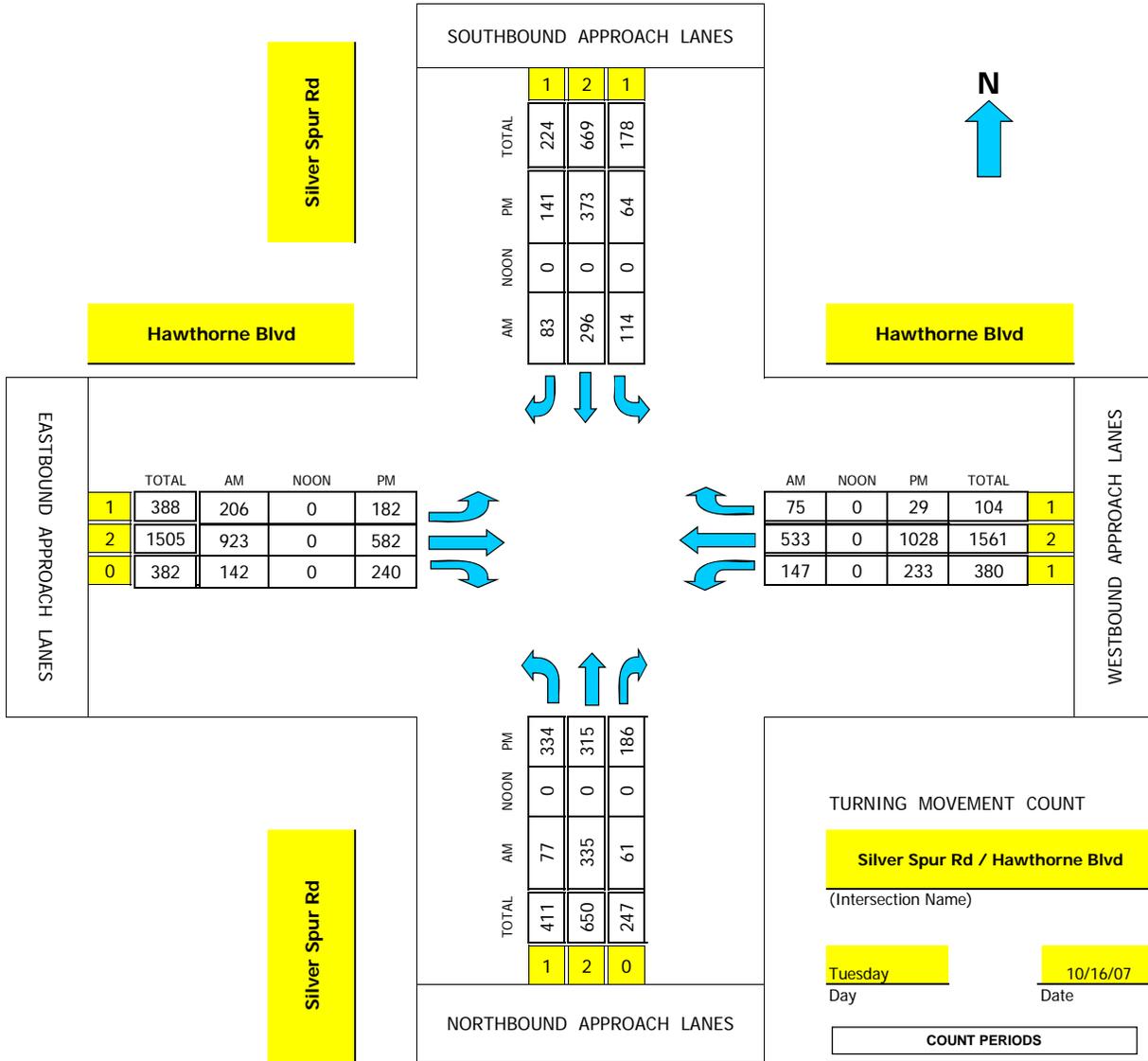
Intersection Turning Movement



National Data & Surveying Services

TMC Summary of Silver Spur Rd/Hawthorne Blvd

Project #: 07-2470-007



AM PEAK HOUR 715 AM

NOON PEAK HOUR 0 AM

PM PEAK HOUR 500 PM

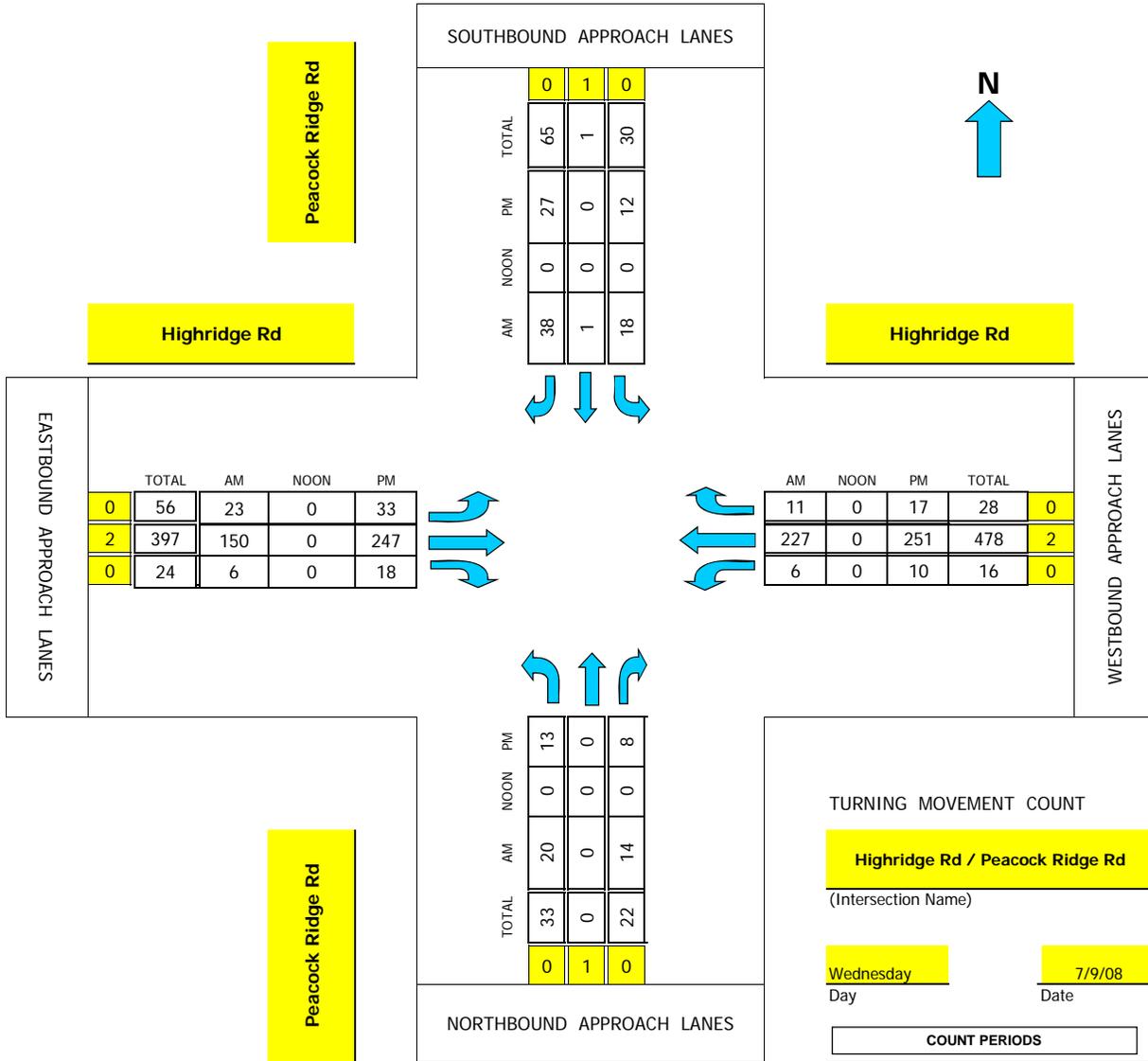
Intersection Turning Movement



National Data & Surveying Services

TMC Summary of Peacock Ridge Rd/Highridge Rd

Project #: 08-2324-001



AM PEAK HOUR 800 AM
 NOON PEAK HOUR 0 AM
 PM PEAK HOUR 500 PM

APPENDIX B

Intersection Level of Service Worksheets & Synchro Worksheets

Existing Conditions Level of Service (LOS) Worksheets

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Highridge/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.991

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: E

Street Name: Highridge Road Hawthorne Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected

Rights: Ovl Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 56 85 583 176 27 25 27 1332 24 295 635 115

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 56 85 583 176 27 25 27 1332 24 295 635 115

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 56 85 583 176 27 25 27 1332 24 295 635 115

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 56 85 583 176 27 25 27 1332 24 295 635 115

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 56 85 583 176 27 25 27 1332 24 295 635 115

OvlAdjVol: 288

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.52 0.48 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 831 769 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.05 0.36 0.11 0.03 0.03 0.02 0.42 0.02 0.18 0.20 0.07

OvlAdjV/S: 0.18

Crit Moves: **** **** **** ****

```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
*****
Intersection #2 Indian Peak/Hawthorne
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.659
Loss Time (sec):      10 (Y+R=4.0 sec)  Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        45          Level Of Service:              B
*****
Street Name:          Indian Peak Road          Hawthorne Blvd
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:                Protected          Protected          Protected          Protected
Rights:                  Ovl              Include          Ovl              Include
Min. Green:             0   0   0         0   0   0         0   0   0         0   0   0
Lanes:                   2  0  0  0  1     0  0  0  0  0     0  0  2  0  1     1  0  2  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:                231   0   29   0   0   0         0 1383  529   87  772   0
Growth Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:              231   0   29   0   0   0         0 1383  529   87  772   0
User Adj:                 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:                  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:              231   0   29   0   0   0         0 1383  529   87  772   0
Reduct Vol:              0   0   0         0   0   0         0   0   0         0   0   0
Reduced Vol:             231   0   29   0   0   0         0 1383  529   87  772   0
PCE Adj:                  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:                  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:             231   0   29   0   0   0         0 1383  529   87  772   0
OvlAdjVol:                0                               414
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:                1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                   2.00 0.00  1.00  0.00 0.00  0.00  0.00 2.00  1.00  1.00 2.00  0.00
Final Sat.:              3200   0  1600   0   0   0         0 3200  1600  1600 3200   0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:                 0.07 0.00  0.02  0.00 0.00  0.00  0.00 0.43  0.33  0.05 0.24  0.00
OvlAdjV/S:                0.00                               0.26
Crit Moves:              ****                               ****          ****
*****

```

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Silver Spur/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.656

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 45 Level Of Service: B

Street Name: Silver Spur Road Hawthorne Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Ovl Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 77 335 61 114 296 83 206 923 142 147 533 75

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 77 335 61 114 296 83 206 923 142 147 533 75

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 77 335 61 114 296 83 206 923 142 147 533 75

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 77 335 61 114 296 83 206 923 142 147 533 75

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 77 335 61 114 296 83 206 923 142 147 533 75

OvlAdjVol: 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.56 0.44 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 3200 1600 1600 2499 701 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.05 0.10 0.04 0.07 0.12 0.12 0.13 0.29 0.09 0.09 0.17 0.05

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Highridge/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.794

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 65 Level Of Service: C

Street Name: Highridge Road Hawthorne Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Protected Protected

Rights: Ovl Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 38 28 304 104 22 15 10 895 20 531 1195 155

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 38 28 304 104 22 15 10 895 20 531 1195 155

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 38 28 304 104 22 15 10 895 20 531 1195 155

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 38 28 304 104 22 15 10 895 20 531 1195 155

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 38 28 304 104 22 15 10 895 20 531 1195 155

OvlAdjVol: 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.59 0.41 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 951 649 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.02 0.19 0.07 0.02 0.02 0.01 0.28 0.01 0.33 0.37 0.10

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
*****
Intersection #2 Indian Peak/Hawthorne
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.674
Loss Time (sec):     10 (Y+R=4.0 sec)  Average Delay (sec/veh):          xxxxxx
Optimal Cycle:       47          Level Of Service:          B
*****
Street Name:          Indian Peak Road          Hawthorne Blvd
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Protected          Protected          Protected          Protected
Rights:               Ovl          Include          Ovl          Include
Min. Green:           0  0  0          0  0  0          0  0  0          0  0  0
Lanes:                2  0  0  0  1          0  0  0  0  0          0  0  2  0  1          1  0  2  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:             568  0  71          0  0  0          0  926  313          86 1269  0
Growth Adj:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:          568  0  71          0  0  0          0  926  313          86 1269  0
User Adj:             1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:           568  0  71          0  0  0          0  926  313          86 1269  0
Reduct Vol:           0  0  0          0  0  0          0  0  0          0  0  0  0
Reduced Vol:          568  0  71          0  0  0          0  926  313          86 1269  0
PCE Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:          568  0  71          0  0  0          0  926  313          86 1269  0
OvlAdjVol:           0          0          29
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                2.00 0.00  1.00  0.00 0.00  0.00  0.00 2.00  1.00  1.00 2.00  0.00
Final Sat.:           3200  0 1600          0  0  0          0 3200  1600  1600 3200  0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.18 0.00  0.04  0.00 0.00  0.00  0.00 0.29  0.20  0.05 0.40  0.00
OvlAdjV/S:           0.00          0.02
Crit Moves:          ****          ****          ****
*****

```

```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
*****
Intersection #3 Silver Spur/Hawthorne
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.904
Loss Time (sec):      10 (Y+R=4.0 sec)  Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        102          Level Of Service:          E
*****
Street Name:          Silver Spur Road          Hawthorne Blvd
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Protected          Protected          Protected          Protected
Rights:               Ovl          Include          Include          Include
Min. Green:           0  0  0          0  0  0          0  0  0          0  0  0
Lanes:                1  0  2  0  1          1  0  1  1  0          1  0  2  0  1          1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:             334  315  186          64  373  141          182  582  240          233 1028  29
Growth Adj:           1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
Initial Bse:          334  315  186          64  373  141          182  582  240          233 1028  29
User Adj:             1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Adj:              1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
PHF Volume:           334  315  186          64  373  141          182  582  240          233 1028  29
Reduct Vol:           0  0  0          0  0  0          0  0  0          0  0  0
Reduced Vol:          334  315  186          64  373  141          182  582  240          233 1028  29
PCE Adj:              1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
MLF Adj:              1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
FinalVolume:          334  315  186          64  373  141          182  582  240          233 1028  29
OvlAdjVol:            0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1600 1600  1600          1600 1600  1600          1600 1600  1600          1600 1600  1600
Adjustment:           1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00          1.00 1.00  1.00
Lanes:                1.00 2.00  1.00          1.00 1.45  0.55          1.00 2.00  1.00          1.00 2.00  1.00
Final Sat.:           1600 3200  1600          1600 2322  878          1600 3200  1600          1600 3200  1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.21 0.10  0.12          0.04 0.16  0.16          0.11 0.18  0.15          0.15 0.32  0.02
OvlAdjV/S:            0.00
Crit Moves:          ****          ****          ****          ****
*****

```

2010 Opening Year Level of Service (LOS) Worksheets

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Highridge/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 1.012

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Highridge Road Hawthorne Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Protected Protected

Rights: Ovl Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 56 85 583 176 27 25 27 1332 24 295 635 115

Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02

Initial Bse: 57 87 595 180 28 26 28 1359 24 301 648 117

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

LLG&DKS: 0 0 2 0 0 0 0 8 0 1 2 1

Initial Fut: 57 87 597 180 28 26 28 1367 24 302 650 118

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 57 87 597 180 28 26 28 1367 24 302 650 118

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 57 87 597 180 28 26 28 1367 24 302 650 118

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 57 87 597 180 28 26 28 1367 24 302 650 118

OvlAdjVol: 295

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.52 0.48 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 831 769 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.05 0.37 0.11 0.03 0.03 0.02 0.43 0.02 0.19 0.20 0.07

OvlAdjV/S: 0.18

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Indian Peak/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.674
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: B

Street Name: Indian Peak Road Hawthorne Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Include Ovl Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:
Base Vol: 231 0 29 0 0 0 0 1383 529 87 772 0
Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
Initial Bse: 236 0 30 0 0 0 0 1411 540 89 787 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
LLG&DKS: 0 0 3 0 0 0 0 10 0 1 4 0
Initial Fut: 236 0 33 0 0 0 0 1421 540 90 791 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 236 0 33 0 0 0 0 1421 540 90 791 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 236 0 33 0 0 0 0 1421 540 90 791 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 236 0 33 0 0 0 0 1421 540 90 791 0
OvlAdjVol: 0 422

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 1600 3200 0

Capacity Analysis Module:
Vol/Sat: 0.07 0.00 0.02 0.00 0.00 0.00 0.00 0.44 0.34 0.06 0.25 0.00
OvlAdjV/S: 0.00 0.26
Crit Moves: **** **** ****

```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #3 Silver Spur/Hawthorne
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.701
Loss Time (sec):      10 (Y+R=4.0 sec)  Average Delay (sec/veh):          xxxxxx
Optimal Cycle:        50          Level Of Service:          C
*****
Street Name:          Silver Spur Road          Hawthorne Blvd
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Protected          Protected          Protected          Protected
Rights:               Ovl              Include          Include          Include
Min. Green:           0  0  0          0  0  0          0  0  0          0  0  0
Lanes:                1  0  2  0  1    1  0  1  1  0    1  0  2  0  1    1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:             77  335  61  114  296  83  206  923  142  147  533  75
Growth Adj:           1.02 1.02  1.02  1.02 1.02  1.02  1.02 1.02  1.02  1.02 1.02  1.02
Initial Bse:          79  342  62  116  302  85  210  941  145  150  544  77
Added Vol:            0  0  0  0  0  0  0  0  0  0  0  0
LLG&DKS:              3  67  14  -1  85  0  0  1  12  20  2  35
Initial Fut:          82  409  76  115  387  85  210  942  157  170  546  112
User Adj:             1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:           82  409  76  115  387  85  210  942  157  170  546  112
Reduct Vol:           0  0  0  0  0  0  0  0  0  0  0  0
Reduced Vol:          82  409  76  115  387  85  210  942  157  170  546  112
PCE Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:          82  409  76  115  387  85  210  942  157  170  546  112
OvlAdjVol:           0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                1.00 2.00  1.00  1.00 1.64  0.36  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:           1600 3200  1600  1600 2626  574  1600 3200  1600  1600 3200  1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.05 0.13  0.05  0.07 0.15  0.15  0.13 0.29  0.10  0.11 0.17  0.07
OvlAdjV/S:           0.00
Crit Moves:           ****          ****          ****          ****
*****

```

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Highridge/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 70 Level Of Service: D

Table with columns for Street Name (Highridge Road, Hawthorne Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, LLG&DKS, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume, and OvlAdjVol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, and Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Indian Peak/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.694
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

Street Name: Indian Peak Road Hawthorne Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Ovl Include Ovl Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:
Base Vol: 568 0 71 0 0 0 0 0 926 313 86 1269 0
Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
Initial Bse: 579 0 72 0 0 0 0 0 945 319 88 1294 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
LLG&DKS: 0 0 5 0 0 0 0 0 17 0 6 26 0
Initial Fut: 579 0 77 0 0 0 0 0 962 319 94 1320 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 579 0 77 0 0 0 0 0 962 319 94 1320 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 579 0 77 0 0 0 0 0 962 319 94 1320 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 579 0 77 0 0 0 0 0 962 319 94 1320 0
OvlAdjVol: 0 30

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 3200 0 1600 0 0 0 0 0 3200 1600 1600 3200 0

Capacity Analysis Module:
Vol/Sat: 0.18 0.00 0.05 0.00 0.00 0.00 0.00 0.30 0.20 0.06 0.41 0.00
OvlAdjV/S: 0.00 0.02
Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Silver Spur/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.984

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 173 Level Of Service: E

Street Name: Silver Spur Road Hawthorne Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Ovl Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 334 315 186 64 373 141 182 582 240 233 1028 29

Growth Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03

Initial Bse: 344 324 192 66 384 145 187 599 247 240 1059 30

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

LLG&DKS: 23 163 45 36 123 0 0 7 15 34 9 17

Initial Fut: 367 487 237 102 507 145 187 606 262 274 1068 47

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 367 487 237 102 507 145 187 606 262 274 1068 47

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 367 487 237 102 507 145 187 606 262 274 1068 47

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 367 487 237 102 507 145 187 606 262 274 1068 47

OvlAdjVol: 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.00 1.00 1.00 1.55 0.45 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 3200 1600 1600 2488 712 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.23 0.15 0.15 0.06 0.20 0.20 0.12 0.19 0.16 0.17 0.33 0.03

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

2010 Opening Year plus Project Level of Service (LOS) Worksheets

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Highridge/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 1.018

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level Of Service: F

Street Name: Highridge Road Hawthorne Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected

Rights: Ovl Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 56 85 583 176 27 25 27 1332 24 295 635 115

Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02

Initial Bse: 57 87 595 180 28 26 28 1359 24 301 648 117

Added Vol: 3 0 10 0 0 0 0 0 0 2 0 0

LLG&DKS: 0 0 2 0 0 0 0 0 8 0 1 2 1

Initial Fut: 60 87 607 180 28 26 28 1367 24 304 650 118

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 60 87 607 180 28 26 28 1367 24 304 650 118

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 60 87 607 180 28 26 28 1367 24 304 650 118

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 60 87 607 180 28 26 28 1367 24 304 650 118

OvlAdjVol: 303

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.52 0.48 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 831 769 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.05 0.38 0.11 0.03 0.03 0.02 0.43 0.02 0.19 0.20 0.07

OvlAdjV/S: 0.19

Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Indian Peak/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.677

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 47 Level Of Service: B

Street Name: Indian Peak Road Hawthorne Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Ovl Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 231 0 29 0 0 0 0 1383 529 87 772 0

Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02

Initial Bse: 236 0 30 0 0 0 0 1411 540 89 787 0

Added Vol: 0 0 0 0 0 0 0 10 0 0 2 0

LLG&DKS: 0 0 3 0 0 0 0 10 0 1 4 0

Initial Fut: 236 0 33 0 0 0 0 1431 540 90 793 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 236 0 33 0 0 0 0 1431 540 90 793 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 236 0 33 0 0 0 0 1431 540 90 793 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 236 0 33 0 0 0 0 1431 540 90 793 0

OvlAdjVol: 0 422

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00

Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 1600 3200 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.07 0.00 0.02 0.00 0.00 0.00 0.00 0.45 0.34 0.06 0.25 0.00

OvlAdjV/S: 0.00 0.26

Crit Moves: **** **** ****

```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #3 Silver Spur/Hawthorne
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.704
Loss Time (sec):     10 (Y+R=4.0 sec)  Average Delay (sec/veh):          xxxxxx
Optimal Cycle:       50          Level Of Service:          C
*****
Street Name:          Silver Spur Road          Hawthorne Blvd
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Protected          Protected          Protected          Protected
Rights:               Ovl          Include          Include          Include
Min. Green:           0  0  0          0  0  0          0  0  0          0  0  0
Lanes:                1  0  2  0  1          1  0  1  1  0          1  0  2  0  1          1  0  2  0  1
-----|-----|-----|-----|
Volume Module:
Base Vol:             77  335  61  114  296  83  206  923  142  147  533  75
Growth Adj:           1.02 1.02  1.02  1.02 1.02  1.02  1.02 1.02  1.02  1.02 1.02  1.02
Initial Bse:           79  342  62  116  302  85  210  941  145  150  544  77
Added Vol:             0  0  0          0  0  0          0  10  0          0  2  0
LLG&DKS:              3  67  14  -1  85  0  0  1  12  20  2  35
Initial Fut:           82  409  76  115  387  85  210  952  157  170  548  112
User Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:           82  409  76  115  387  85  210  952  157  170  548  112
Reduct Vol:           0  0  0          0  0  0          0  0  0          0  0  0
Reduced Vol:          82  409  76  115  387  85  210  952  157  170  548  112
PCE Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:          82  409  76  115  387  85  210  952  157  170  548  112
OvlAdjVol:            0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                1.00 2.00  1.00  1.00 1.64  0.36  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:           1600 3200  1600  1600 2626  574  1600 3200  1600  1600 3200  1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.05 0.13  0.05  0.07 0.15  0.15  0.13 0.30  0.10  0.11 0.17  0.07
OvlAdjV/S:            0.00
Crit Moves:           ****          ****          ****          ****
*****

```

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Highridge/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.821

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 72 Level Of Service: D

Street Name: Highridge Road Hawthorne Blvd

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Permitted Permitted Protected Protected

Rights: Ovl Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 38 28 304 104 22 15 10 895 20 531 1195 155

Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02

Initial Bse: 39 29 310 106 22 15 10 913 20 542 1219 158

Added Vol: 1 0 5 0 0 0 0 0 3 10 0 0

LLG&DKS: 0 0 6 0 0 0 0 0 11 0 6 13 7

Initial Fut: 40 29 321 106 22 15 10 924 23 558 1232 165

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 40 29 321 106 22 15 10 924 23 558 1232 165

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 40 29 321 106 22 15 10 924 23 558 1232 165

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 40 29 321 106 22 15 10 924 23 558 1232 165

OvlAdjVol: 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 1.00 1.00 0.59 0.41 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 1600 1600 1600 951 649 1600 3200 1600 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.02 0.20 0.07 0.02 0.02 0.01 0.29 0.01 0.35 0.38 0.10

OvlAdjV/S: 0.00

Crit Moves: **** **** **** ****

```

-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 Indian Peak/Hawthorne
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.697
Loss Time (sec):     10 (Y+R=4.0 sec)  Average Delay (sec/veh):          xxxxxx
Optimal Cycle:       50          Level Of Service:          B
*****
Street Name:          Indian Peak Road          Hawthorne Blvd
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Protected          Protected          Protected          Protected
Rights:               Ovl              Include          Ovl              Include
Min. Green:           0    0    0          0    0    0          0    0    0          0    0    0
Lanes:                2  0  0  0  1          0  0  0  0  0          0  0  2  0  1          1  0  2  0  0
-----|-----|-----|-----|
Volume Module:
Base Vol:             568    0    71    0    0    0          0  926  313    86 1269    0
Growth Adj:           1.02 1.02  1.02  1.02 1.02  1.02  1.02 1.02  1.02  1.02 1.02  1.02
Initial Bse:          579    0    72    0    0    0          0  945  319    88 1294    0
Added Vol:             0    0    0    0    0    0          0    5    0    0    10    0
LLG&DKS:              0    0    5    0    0    0          0    17    0    6    26    0
Initial Fut:          579    0    77    0    0    0          0  967  319    94 1330    0
User Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:           579    0    77    0    0    0          0  967  319    94 1330    0
Reduct Vol:           0    0    0    0    0    0          0    0    0    0    0    0
Reduced Vol:          579    0    77    0    0    0          0  967  319    94 1330    0
PCE Adj:              1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:               1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:          579    0    77    0    0    0          0  967  319    94 1330    0
OvlAdjVol:            0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:           1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:                2.00 0.00  1.00  0.00 0.00  0.00  0.00 2.00  1.00  1.00 2.00  0.00
Final Sat.:           3200 0 1600    0    0    0          0 3200 1600 1600 3200    0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.18 0.00  0.05  0.00 0.00  0.00  0.00 0.30  0.20  0.06 0.42  0.00
OvlAdjV/S:            0.00
Crit Moves:          ****          ****          ****
*****

```

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #3 Silver Spur/Hawthorne

Cycle (sec): 100 Critical Vol./Cap.(X): 0.987
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 177 Level Of Service: E

Street Name: Silver Spur Road			Hawthorne Blvd								
Approach: North Bound			South Bound			East Bound			West Bound		
Movement: L - T - R			L - T - R			L - T - R			L - T - R		
Control: Protected			Protected			Protected			Protected		
Rights: Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	334	315	186	64	373	141	182	582	240	233	1028	29
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	344	324	192	66	384	145	187	599	247	240	1059	30
Added Vol:	0	0	0	0	0	0	0	5	0	0	10	0
LLG&DKS:	23	163	45	36	123	0	0	7	15	34	9	17
Initial Fut:	367	487	237	102	507	145	187	611	262	274	1078	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	367	487	237	102	507	145	187	611	262	274	1078	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	367	487	237	102	507	145	187	611	262	274	1078	47
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	367	487	237	102	507	145	187	611	262	274	1078	47
OvlAdjVol:	0											

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.55	0.45	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	2488	712	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.23	0.15	0.15	0.06	0.20	0.20	0.12	0.19	0.16	0.17	0.34	0.03	
OvlAdjV/S:	0.00												
Crit Moves:	****						****				****		

2010 Opening Year plus Project with Mitigation

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Highridge/Hawthorne

Cycle (sec): 120 Critical Vol./Cap.(X): 0.904
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 112 Level Of Service: E

Street Name:	Highridge Road						Hawthorne Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Split Phase			Split Phase			Protected			Protected					
Rights:	Ovl			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	1	0	0	2	1	0	0	1	0	1	0	2	0	1

Volume Module:

Base Vol:	56	85	583	176	27	25	27	1332	24	295	635	115
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	57	87	595	180	28	26	28	1359	24	301	648	117
Added Vol:	3	0	10	0	0	0	0	0	0	2	0	0
LLG&DKS:	0	0	2	0	0	0	0	8	0	1	2	1
Initial Fut:	60	87	607	180	28	26	28	1367	24	304	650	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	87	607	180	28	26	28	1367	24	304	650	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	87	607	180	28	26	28	1367	24	304	650	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	87	607	180	28	26	28	1367	24	304	650	118
OvlAdjVol:	0											

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.59	2.00	1.00	0.52	0.48	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	655	945	3200	1600	831	769	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.09	0.09	0.19	0.11	0.03	0.03	0.02	0.43	0.02	0.19	0.20	0.07
OvlAdjV/S:	0.00											
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Highridge/Hawthorne

Cycle (sec): 120 Critical Vol./Cap.(X): 0.830
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 79 Level Of Service: D

Street Name:	Highridge Road						Hawthorne Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Split Phase			Split Phase			Protected			Protected					
Rights:	Ovl			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	0	1	0	0	2	1	0	0	1	0	1	0	2	0	1

Volume Module:

Base Vol:	38	28	304	104	22	15	10	895	20	531	1195	155
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	39	29	310	106	22	15	10	913	20	542	1219	158
Added Vol:	1	0	5	0	0	0	0	0	3	10	0	0
LLG&DKS:	0	0	6	0	0	0	0	11	0	6	13	7
Initial Fut:	40	29	321	106	22	15	10	924	23	558	1232	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	29	321	106	22	15	10	924	23	558	1232	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	29	321	106	22	15	10	924	23	558	1232	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	29	321	106	22	15	10	924	23	558	1232	165
OvlAdjVol:	0											

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.58	0.42	2.00	1.00	0.59	0.41	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	931	669	3200	1600	951	649	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.10	0.07	0.02	0.02	0.01	0.29	0.01	0.35	0.38	0.10	
OvlAdjV/S:	0.00												
Crit Moves:	****	****			****			****			****		

Synchro Worksheets

Synchro Intersection Level of Service Worksheets for the Intersection of Highridge Road/Peacock Ridge Road

HCM Unsignalized Intersection Capacity Analysis
 3: Highridge Road & Peacock Ridge Road

EX AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Volume (veh/h)	23	150	6	6	227	11	20	0	14	18	1	38
Peak Hour Factor	0.77	0.77	0.77	0.65	0.65	0.65	0.94	0.94	0.94	0.75	0.75	0.75
Hourly flow rate (vph)	30	195	8	9	349	17	21	0	15	24	1	51
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	366			203			674			639		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	366			203			674			639		
tC, single (s)	4.1			4.1			7.1			6.5		
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5			4.0		
p0 queue free %	97			99			94			100		
cM capacity (veh/h)	1192			1369			333			381		
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2		
Volume Total	30	195	8	9	349	17	21	15	25	51		
Volume Left	30	0	0	9	0	0	21	0	24	0		
Volume Right	0	0	8	0	0	17	0	15	0	51		
cSH	1192	1700	1700	1369	1700	1700	333	847	374	694		
Volume to Capacity	0.03	0.11	0.00	0.01	0.21	0.01	0.06	0.02	0.07	0.07		
Queue Length 95th (ft)	2	0	0	1	0	0	5	1	5	6		
Control Delay (s)	8.1	0.0	0.0	7.6	0.0	0.0	16.6	9.3	15.3	10.6		
Lane LOS	A			A			C			A		
Approach Delay (s)	1.0			0.2			13.6			12.2		
Approach LOS							B			B		
Intersection Summary												
Average Delay				2.4								
Intersection Capacity Utilization	33.1%			ICU Level of Service			A					
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
 3: Highridge Road & Peacock Ridge Road

EX + Proj PM

																								
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR												
Lane Configurations																								
Sign Control	Free		Free		Free		Stop		Stop		Stop													
Grade	0%		0%		0%		0%		0%		0%													
Volume (veh/h)	33	260	18	10	258	17	13	0	8	12	0	27												
Peak Hour Factor	0.92	0.92	0.92	0.93	0.93	0.93	0.88	0.88	0.88	0.81	0.81	0.81												
Hourly flow rate (vph)	36	283	20	11	277	18	15	0	9	15	0	33												
Pedestrians																								
Lane Width (ft)																								
Walking Speed (ft/s)																								
Percent Blockage																								
Right turn flare (veh)																								
Median type							None			None														
Median storage (veh)																								
Upstream signal (ft)																								
pX, platoon unblocked																								
vC, conflicting volume	296			302			687			672			283			662			673			277		
vC1, stage 1 conf vol																								
vC2, stage 2 conf vol																								
vCu, unblocked vol	296			302			687			672			283			662			673			277		
tC, single (s)	4.1			4.1			7.1			6.5			6.2			7.1			6.5			6.2		
tC, 2 stage (s)																								
tF (s)	2.2			2.2			3.5			4.0			3.3			3.5			4.0			3.3		
p0 queue free %	97			99			96			100			99			96			100			96		
cM capacity (veh/h)	1266			1259			336			364			756			360			363			761		
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2														
Volume Total	36	283	20	11	277	18	15	9	15	33														
Volume Left	36	0	0	11	0	0	15	0	15	0														
Volume Right	0	0	20	0	0	18	0	9	0	33														
cSH	1266	1700	1700	1259	1700	1700	336	756	360	761														
Volume to Capacity	0.03	0.17	0.01	0.01	0.16	0.01	0.04	0.01	0.04	0.04														
Queue Length 95th (ft)	2	0	0	1	0	0	3	1	3	3														
Control Delay (s)	7.9	0.0	0.0	7.9	0.0	0.0	16.2	9.8	15.4	9.9														
Lane LOS	A			A			C			A			C			A								
Approach Delay (s)	0.8			0.3			13.8			11.6														
Approach LOS							B			B														
Intersection Summary																								
Average Delay				1.8																				
Intersection Capacity Utilization	34.4%			ICU Level of Service			A																	
Analysis Period (min)	15																							

HCM Unsignalized Intersection Capacity Analysis
3: Highridge Road & Peacock Ridge Road

Existing + Proj AM

																								
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR												
Lane Configurations																								
Sign Control	Free		Free		Free		Stop		Stop		Stop													
Grade	0%		0%		0%		0%		0%		0%													
Volume (veh/h)	23	152	6	6	240	11	20	0	14	18	1	38												
Peak Hour Factor	0.77	0.77	0.77	0.65	0.65	0.65	0.94	0.94	0.94	0.75	0.75	0.75												
Hourly flow rate (vph)	30	197	8	9	369	17	21	0	15	24	1	51												
Pedestrians																								
Lane Width (ft)																								
Walking Speed (ft/s)																								
Percent Blockage																								
Right turn flare (veh)																								
Median type							None			None														
Median storage veh)																								
Upstream signal (ft)																								
pX, platoon unblocked																								
vC, conflicting volume	386			205			696			662			197			660			653			369		
vC1, stage 1 conf vol																								
vC2, stage 2 conf vol																								
vCu, unblocked vol	386			205			696			662			197			660			653			369		
tC, single (s)	4.1			4.1			7.1			6.5			6.2			7.1			6.5			6.2		
tC, 2 stage (s)																								
tF (s)	2.2			2.2			3.5			4.0			3.3			3.5			4.0			3.3		
p0 queue free %	97			99			93			100			98			93			100			93		
cM capacity (veh/h)	1172			1366			320			370			844			361			374			676		
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2														
Volume Total	30	197	8	9	369	17	21	15	25	51														
Volume Left	30	0	0	9	0	0	21	0	24	0														
Volume Right	0	0	8	0	0	17	0	15	0	51														
cSH	1172	1700	1700	1366	1700	1700	320	844	362	676														
Volume to Capacity	0.03	0.12	0.00	0.01	0.22	0.01	0.07	0.02	0.07	0.07														
Queue Length 95th (ft)	2	0	0	1	0	0	5	1	6	6														
Control Delay (s)	8.2	0.0	0.0	7.7	0.0	0.0	17.0	9.3	15.7	10.8														
Lane LOS	A			A			C			A			C			B								
Approach Delay (s)	1.0			0.2			13.9			12.4														
Approach LOS							B			B														
Intersection Summary																								
Average Delay				2.4																				
Intersection Capacity Utilization				33.6%			ICU Level of Service			A														
Analysis Period (min)				15																				

HCM Unsignalized Intersection Capacity Analysis
3: Highridge Road & Peacock Ridge Road

EX + Proj PM

														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Sign Control	Free			Free			Stop			Stop				
Grade	0%			0%			0%			0%				
Volume (veh/h)	33	247	18	10	251	17	13	0	8	12	0	27		
Peak Hour Factor	0.92	0.92	0.92	0.93	0.93	0.93	0.88	0.88	0.88	0.81	0.81	0.81		
Hourly flow rate (vph)	36	268	20	11	270	18	15	0	9	15	0	33		
Pedestrians														
Lane Width (ft)														
Walking Speed (ft/s)														
Percent Blockage														
Right turn flare (veh)														
Median type							None			None				
Median storage (veh)														
Upstream signal (ft)														
pX, platoon unblocked														
vC, conflicting volume	288			288			665	650	268	641	651	270		
vC1, stage 1 conf vol														
vC2, stage 2 conf vol														
vCu, unblocked vol	288			288			665	650	268	641	651	270		
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2		
tC, 2 stage (s)														
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3		
p0 queue free %	97			99			96	100	99	96	100	96		
cM capacity (veh/h)	1274			1274			347	374	770	373	374	769		
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2				
Volume Total	36	268	20	11	270	18	15	9	15	33				
Volume Left	36	0	0	11	0	0	15	0	15	0				
Volume Right	0	0	20	0	0	18	0	9	0	33				
cSH	1274	1700	1700	1274	1700	1700	347	770	373	769				
Volume to Capacity	0.03	0.16	0.01	0.01	0.16	0.01	0.04	0.01	0.04	0.04				
Queue Length 95th (ft)	2	0	0	1	0	0	3	1	3	3				
Control Delay (s)	7.9	0.0	0.0	7.8	0.0	0.0	15.8	9.7	15.1	9.9				
Lane LOS	A			A			C	A	C	A				
Approach Delay (s)	0.9			0.3			13.5			11.5				
Approach LOS							B			B				
Intersection Summary														
Average Delay			1.8											
Intersection Capacity Utilization			33.9%			ICU Level of Service			A					
Analysis Period (min)			15											

APPENDIX C

Cumulative Project Data from LLG and DKS

AM TRIP ASSIGNMENT

ID	Intersection Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Silver Spurr/Hawthorne Blvd	1	79	4	21	76	0	0	8	0	5	3	38
Projects NOT INCLUDED IN SILVERDES STUDY													
0	Rolling Hills Covenant Church	0	-3	0	0	-1	0	0	0	0	0	0	0
0	South Coast County Golf Course	0	-2	0	0	0	0	0	0	0	0	0	0
0	Ocean Trails	0	0	0	0	0	0	0	0	0	0	0	0
0	930 Indian Peak Homes	0	-2	0	0	-2	0	0	0	0	0	0	0
0	Silverdes Medical Building	0	-8	0	0	-1	0	0	0	0	0	0	-2
0	Town & Country Center Exp.	0	0	-3	-14	0	0	-6	-1	0	-1	-1	-4
0	Total Projects Not Included	0	-15	-3	-16	-4	0	-7	-7	0	-1	-1	-7
0	Mediterranean Village (added)	0	0	-2	-6	0	0	0	0	0	1	0	4

Total Assignment from LLG 1 64 -1 -1 72 0 0 1 1 0 5 2 35

PM TRIP ASSIGNMENT

ID	Intersection Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	Silver Spurr/Hawthorne Blvd	0	145	12	48	118	0	0	12	0	13	18	47
Projects NOT INCLUDED IN SILVERDES STUDY													
0	Rolling Hills Covenant Church	0	-2	0	0	-3	0	0	0	0	0	0	0
0	South Coast County Golf Course	0	-1	0	0	-1	0	0	0	0	0	0	0
0	Ocean Trails	0	0	0	0	0	0	0	0	0	0	0	0
0	930 Indian Peak Homes	0	-3	0	0	-3	0	0	0	0	0	0	0
0	Silverdes Medical Building	0	-5	0	-2	-8	0	0	0	0	0	0	-1
0	Town & Country Center Exp.	0	0	-1	-7	0	0	-3	-3	0	-4	-7	-18
0	Total Projects Not Included	0	-11	-2	-15	-15	0	-5	-5	0	-5	-9	-25
0	Mediterranean Village (added)	0	0	1	3	0	0	0	0	0	-2	0	-5

Total Assignment from LLG 0 134 11 36 103 0 0 7 7 0 6 9 113

TABLE 1R
LOCATION AND DESCRIPTION OF UPDATED RELATED PROJECTS
MEDITERRANEAN VILLAGE, ROLLING HILLS ESTATES

No.	Cumulative Project	Location/Address	Description
<i>City of Rolling Hills Estates</i> ¹			
1.	Rolling Hills Covenant Church Expansion	2221/2222 Palos Verdes Drive North	1,650 seat sanctuary, 500 space parking garage and the conversion of the 1,200 seat auditorium into a multipurpose room/gymnasium
2.	South Coast County Golf Course	160 acres between Crenshaw Boulevard and Hawthorne Boulevard	18 hole golf course with a 29,000 SF club house
3.	Silver Spur Court	981 Silver Spur Road	18 DU Condominiums
4.	Rolling Hills Villas	901 Deep Valley Drive	41 DU Senior Condominiums & 1,526 SF retail shops
5.	Crest Road Building	5880 Crest Road	4,545 SF office and 1,215 SF retail
6.	627 Deep Valley Drive Mixed-Use Development	627 Deep Valley Drive	58 DU Condominiums and 5,810 SF Retail
7.	655 Deep Valley Drive Mixed-Use and 930 Indian Peak Townhomes	655 Deep Valley Drive and 930 Indian Peak	100 DU Condominiums, 14,360 SF Retail and 69 DU Townhomes in place of 61,293 SF of office
8.	Butcher Subdivision	Palos Verdes Drive North and Montecillo Drive	13 DU Single Family Detached
9.	Chandler Ranch	Chandler's Landfill, Palos Verdes Drive East	112 DU Single Family Detached, extend existing Rolling Hills Country Club to 7,000 yards and expand the clubhouse to 55,000 SF
10.	827 Deep Valley Condominiums	827 Deep Valley Drive	16 DU Condominium Complex
11.	Silverdes Medical/Retail Building	828 Silver Spur Road	29,656 SF office/commercial building with 24,532 SF of medical office space and 5,124 SF of retail/commercial space
12.	Town & Country Center Expansion	901 Silver Spur Road	10,472 SF expansion and additional of new drive-through pharmacy to existing 87,037 SF retail center

¹ Source: City of Rolling Hills Estates.

TABLE 1R (CONTINUED)
LOCATION AND DESCRIPTION OF UPDATED RELATED PROJECTS
MEDITERRANEAN VILLAGE, ROLLING HILLS ESTATES

No.	Cumulative Project	Location/Address	Description
<i>City of Rancho Palos Verdes</i> ²			
13.	Trump National Golf Club (Ocean Trails)	Palos Verdes Drive southwest of Shoreline Park	59 DU Single Family Detached, 4 DU Affordable Housing, 18 Hole Golf Course with clubhouse and driving range
14.	Point View	Palos Verdes Drive South	72 DU Single Family Detached
15.	Long Point Resort Hotel	Palos Verdes Drive South	582 hotel room accommodations (includes villas and casitas, banquet facilities, restaurants, spa, golf practice facility and clubhouse. For trip generation information see EIR TIA prepared by Urban Crossroads.
16.	Point Vicente Interpretive Center	Palos Verdes Drive South	Reconstruction of a 3,000 SF office building and construction of a 7,000 SF addition to the office building
17.	Marymount College Facilities Expansion	30800 Palos Verdes Drive East	139,008 SF of additional floor area consisting of a new gymnasium, academic buildings and residence halls for 270 students
18.	TTM No. 52666	3200 Palos Verdes Drive West	13 DU Single Family Detached
19.	Ocean Front Estates	Palos Verdes Drive South and Hawthorne Boulevard	79 DU Single Family Detached
20.	Golden Cove Shopping Center	Palos Verdes Drive West and Hawthorne Boulevard	12,600 SF of new commercial floor area within 77,550 SF existing retail center
21.	7-11 Convenience Market and Gas Station	31186 Hawthorne Boulevard	Demolish existing 1,430 SF service bays and construct a new 2,754 SF convenience market
22.	Hawthorne/Crest Office Building	29941 Hawthorne Boulevard	7,232 SF office, 6,370 SF subterranean garage & 4,613 SF parking lot
23.	Crestridge Villas and Peninsula Senior Center	North of Crestridge Road and west of Crenshaw Boulevard	85 condominium units, 5 affordable housing units and a 5,440 SF recreation community center; 12,000 SF senior center
24.	Highridge Condominium Project	28220 Highridge Road	27 DU condominium building with subterranean parking
25.	Salvation Army Crestridge College	30840 Hawthorne Boulevard	28,627 SF three-story dormitory building with 20 new apartment units

² Source: City of Rancho Palos Verdes.

TABLE 2R
UPDATED RELATED PROJECTS TRAFFIC GENERATION FORECAST³
MEDITERRANEAN VILLAGE, ROLLING HILLS ESTATES

Related Projects Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
<u>Rolling Hills Estates Development</u>							
1. Rolling Hills Covenant Church ⁴	--	68	28	96	41	59	100
2. South Coast County Golf Course	643	32	8	40	22	28	50
3. Silver Spur Court	105	1	7	8	6	3	9
4. Peninsula Villas	211	3	3	6	5	4	9
5. Crest Road Building	175	15	2	17	16	72	88
6. 627 Deep Valley Dr Mixed-Use Project	858	-3	26	23	43	29	72
7. 655 Deep Valley and 930 Indian Peak	1,988	19	87	106	96	66	162
8. Butcher Subdivision	124	2	7	9	8	5	13
9. Chandler Ranch	1,072	21	63	84	72	41	113
10. 827 Deep Valley Drive Condominiums	128	1	8	9	8	4	12
11. Silverdes Medical/Retail Building	943	55	14	69	26	73	99
12. Town & Country Center Expansion	473	6	4	10	22	23	45
<u>Rancho Palos Verdes Development</u>							
13. Trump National Golf (Ocean Trails)	1,246	44	43	87	62	51	113
14. Point View	689	14	40	54	46	27	73
15. Long Point Resort Hotel ⁵	6,263	195	118	313	247	252	499
16. Point Vicente Interpretative Center	247	16	4	20	6	18	24
17. Marymount College Facilities Exp ⁶	1,561	80	40	120	78	51	129
18. Tentative Tract Map No. 52666	124	2	7	9	8	5	13
19. Ocean Front Estates	756	15	44	59	51	29	80
20. Golden Cove Shopping Center ⁷	487	8	5	13	15	17	32
21. 7-11 Convenience Market/Gas Station	118	2	1	3	5	5	10
22. Hawthorne/Crest Office Building	177	20	3	23	15	72	87
23. Crestridge Villas and Peninsula Senior Center ⁸	995	18	51	69	48	38	86
24. Highridge Condominium Project	158	2	10	12	9	5	14
25. Salvation Army Crestridge College	134	2	8	10	8	4	12
Total Related Projects (No. 1-25) Trip Generation	19,675	638	631	1,269	963	981	1,944

³ Source: *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE) [Washington, D.C. (2003)].

⁴ Source: *Rolling Hills Covenant Church Traffic Impact Study*, prepared by LLG.

⁵ Source: *Long Point Resort Traffic Study*, prepared by Urban Crossroads.

⁶ Source: *Marymount College Facilities Expansion Project Traffic and Parking Impact Analysis*, prepared by RBF Consulting.

⁷ The trips presented above include adjustments for pass-by. Source: *Trip Generation Handbook*, ITE June 2004. The following pass-by reduction factors were utilized: -Land Use 820: Shopping Center (Daily = assume 10% and PM Peak Hour = 34%)

⁸ Source: *Traffic Impact Analysis for Crestridge Villas*, prepared by LLG.

TABLE 3R
PROJECT TRAFFIC GENERATION FORECAST COMPARISON
MEDITERRANEAN VILLAGE, ROLLING HILLS ESTATES

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Rates⁹							
▪ Residential Condominium / Townhouse (TE/DU) ¹⁰	8.00	0.06	0.48	0.54	0.47	0.26	0.73
▪ 710: General Office Building (TE/1000 SF)	11.01	1.36	0.19	1.55	0.25	1.24	1.49
▪ 720: Medical-Dental Office Building (TE/1000 SF)	36.13	1.96	0.52	2.48	1.00	2.72	3.72
▪ 814: Specialty Retail Center (TE/1000 SF)	44.32	0.63	0.40	1.03	1.19	1.52	2.71
Generation Forecast:							
<u>Existing Land Use</u>							
▪ General Office (13,588 SF)	150	18	3	21	3	17	20
▪ Medical Office (14,126 SF)	510	28	7	35	15	38	53
▪ Retail Shops (1,601 SF)	<u>71</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>4</u>
Total Existing Trip Generation	731	47	10	57	20	57	77
<u>Proposed Project</u>							
▪ Residential Condominiums (75 DU)	600	5	36	41	35	20	55
▪ Retail Shops (2,000 SF)	<u>89</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>5</u>
Total Alternative Project Trip Generation	689	6	37	43	37	23	60
Net Difference in Trip Generation Potential: Proposed Project minus Existing Land Uses	- 42	- 41	27	- 14	17	- 34	- 17

⁹ Source: *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2003). AM peak hour trip rates for Land Use 814: Specialty Retail Center were estimated based on Land Use 820: Shopping Center AM peak hour average trip rates.

¹⁰ Source: *Los Angeles County Traffic Impact Analysis Report Guidelines*, dated January 1, 1997.

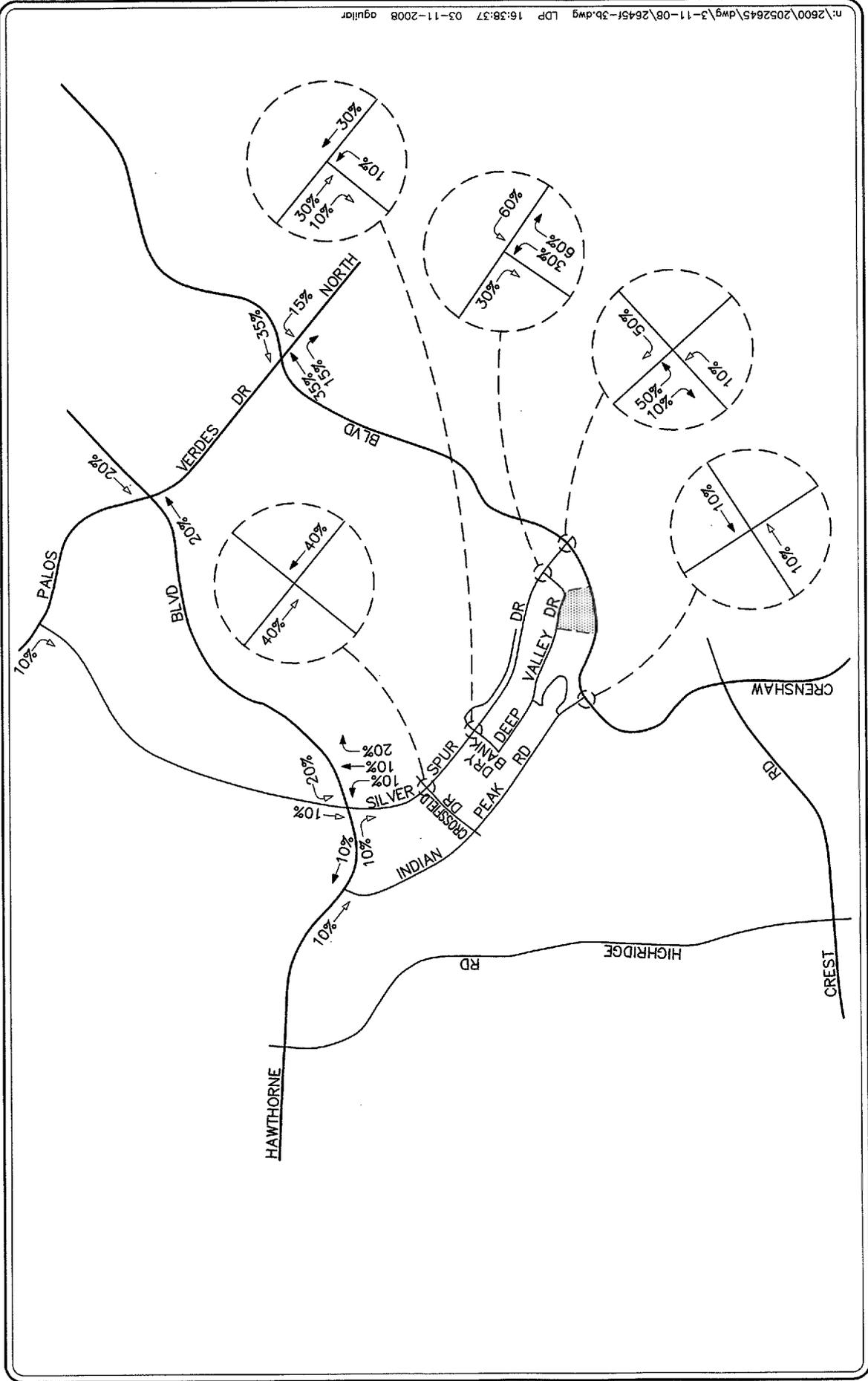


FIGURE 3A
 EXISTING OFFICE PROJECT TRAFFIC DISTRIBUTION PATTERN
 MEDITERRANEAN VILLAGE, ROLLING HILLS ESTATES

KEY
 <---XX% = INBOUND PERCENTAGE
 ---XX%> = OUTBOUND PERCENTAGE
 [Shaded Box] = PROJECT SITE



NO SCALE

LINSCOTT
 LAW &
 GREENSPAN
 engineers

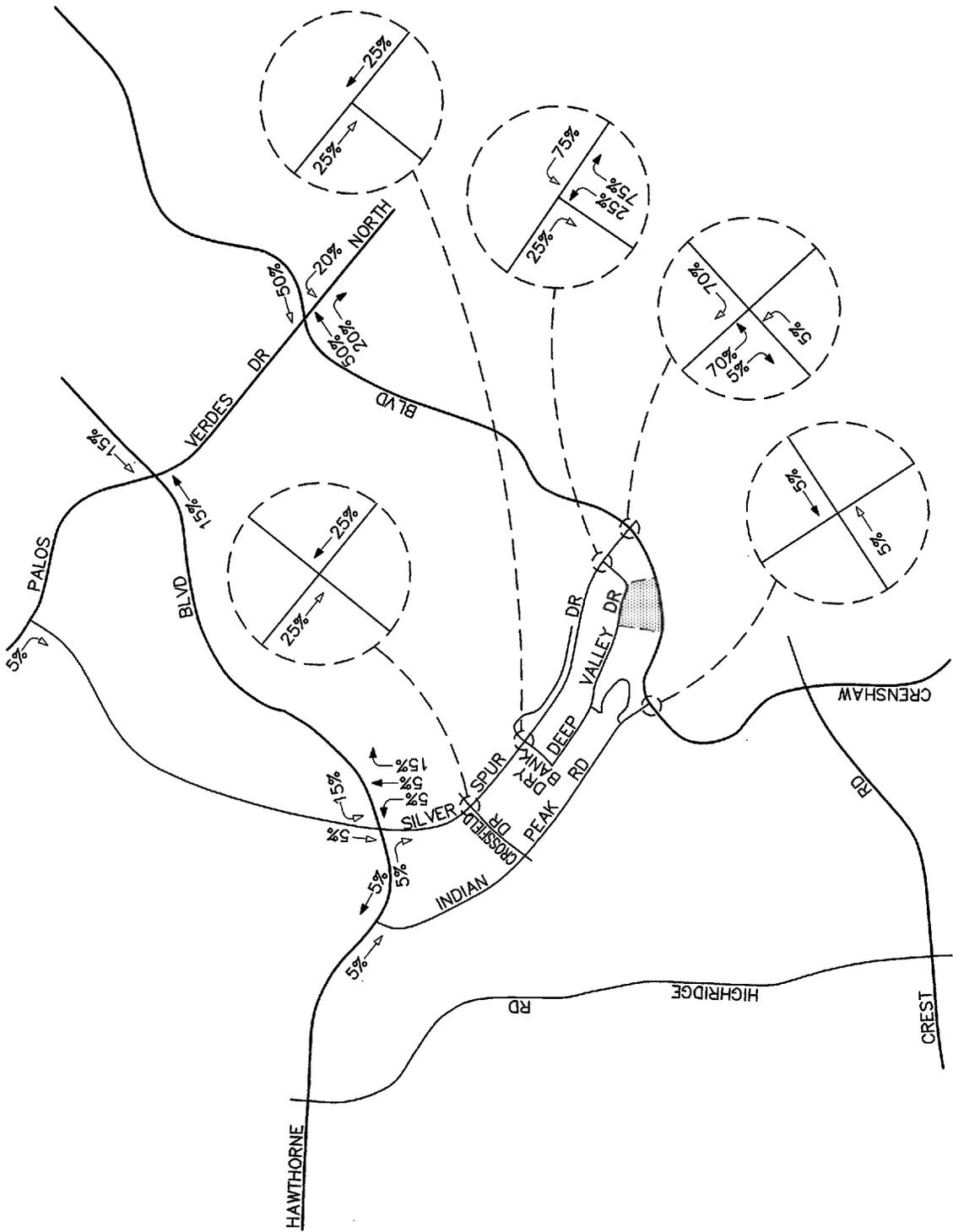


FIGURE 3B
PROPOSED RESIDENTIAL PROJECT TRAFFIC DISTRIBUTION PATTERN
 MEDITERRANEAN VILLAGE, ROLLING HILLS ESTATES

KEY
 <--- XX% = INBOUND PERCENTAGE
 ---> XX% = OUTBOUND PERCENTAGE
 [Shaded Area] = PROJECT SITE



LINSCOTT
 LAW &
 GREENSPAN
 engineers

Table C – Project Trip Generation Estimates

Land Use	Size ²	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<i>ITE Trip Rates</i> ¹								
General Office Building (ITE Code 710)	per TSF GFA	11.01	1.36	0.19	1.55	0.25	1.24	1.49
Medical Office Building (ITE Code 720)	per TSF GFA	36.13	1.96	0.52	2.48	1.00	2.72	3.72
<i>Trip Generation</i>								
Proposed General Office Use	5.124 TSF GFA	56	7	1	8	1	6	8
Proposed Medical Office Use	24.532 TSF GFA	886	48	13	61	25	67	91
Total Trip Generation		943	55	14	69	26	73	99

Note:

¹ Trip rates based on Institute of Transportation Engineers (ITE) Trip Generation, 7th Edition

² TSF GFA = thousand square feet of gross floor area

Figure 3 illustrates the trip distribution percentages for the medical and general office uses of the project.

The trip distribution percentages at each intersection were applied to the proposed project's trip generation to calculate the turn movement volumes that the project would generate at each study area intersection (i.e. trip assignment). The resulting a.m. and p.m. peak hour trip assignments are shown in Figure 4.

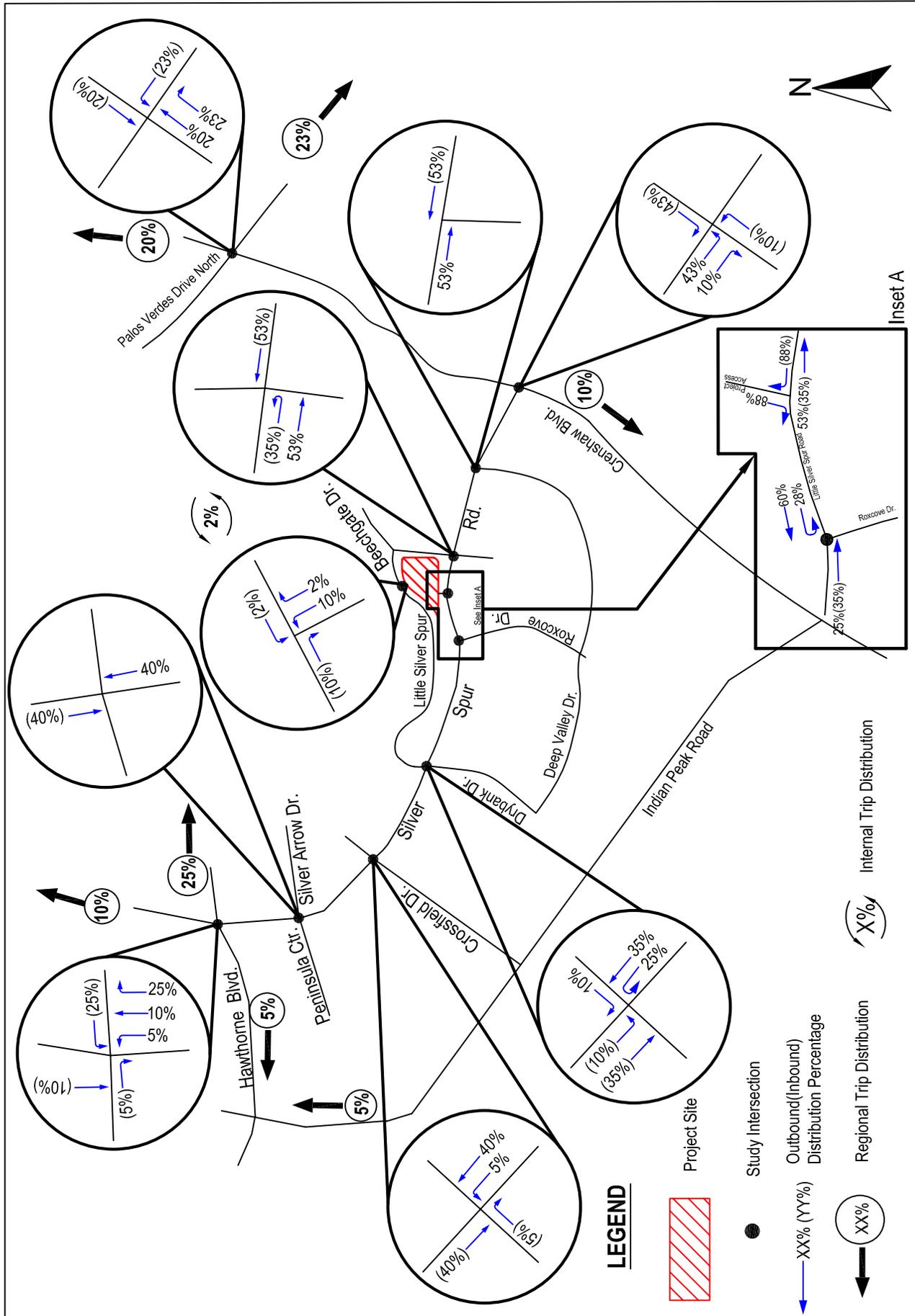


Figure 3
Project Trip Distribution
123

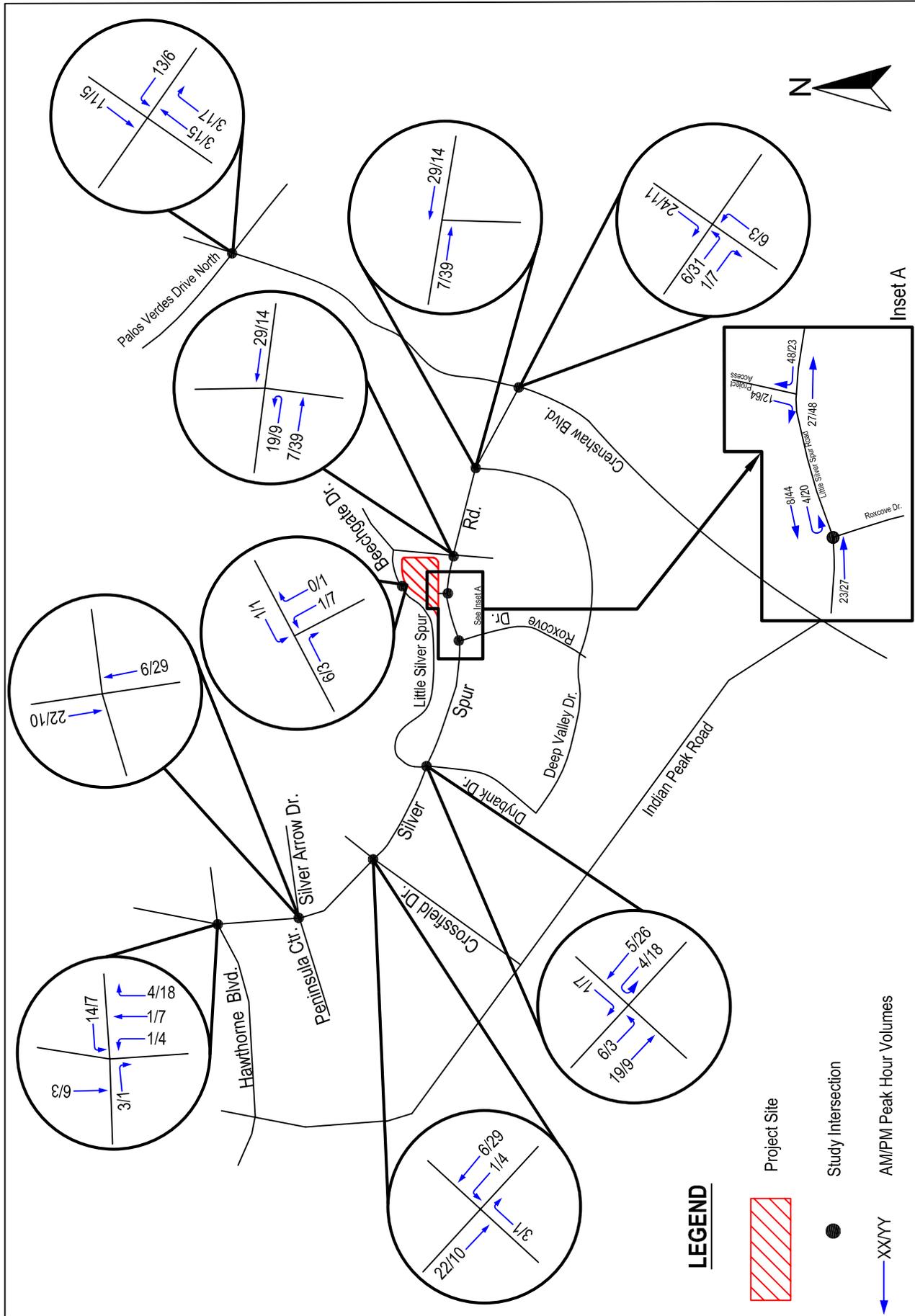


Figure 4
Project Trip Assignment
124

 Turning Movement Report
 Project AM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#101 Silver Spur/Hawthorne													
Base	77	335	61	114	296	83	206	923	142	147	533	75	2992
Added	1	1	4	0	6	0	0	0	3	14	0	0	29
Total	78	336	65	114	302	83	206	923	145	161	533	75	3021
#102 Silver Spur/Peninsula Ctr-Silver Arrow Dr													
Base	74	351	32	120	424	53	56	17	50	34	22	104	1337
Added	0	6	0	0	22	0	0	0	0	0	0	0	28
Total	74	357	32	120	446	53	56	17	50	34	22	104	1365
#103 Silver Spur/Crossfield Dr													
Base	122	7	56	2	0	2	40	412	101	50	334	9	1135
Added	0	0	3	0	0	0	0	22	0	1	6	0	32
Total	122	7	59	2	0	2	40	434	101	51	340	9	1167
#104 Drybank Dr/Silver Spur													
Base	29	1	26	5	0	8	18	428	33	32	365	31	976
Added	0	0	0	0	0	1	6	19	0	4	5	0	35
Total	29	1	26	5	0	9	24	447	33	36	370	31	1011
#105 Roxcove/Silver Spur Rd													
Base	6	0	4	0	0	0	0	373	50	21	436	0	890
Added	0	0	0	0	0	0	0	23	0	4	8	0	35
Total	6	0	4	0	0	0	0	396	50	25	444	0	925
#106 Project Access/Silver Spur													
Base	0	0	0	0	0	0	0	367	0	0	457	0	824
Added	0	0	0	0	0	12	0	27	0	0	0	48	87
Total	0	0	0	0	0	12	0	394	0	0	457	48	911
#107 Beechgate Dr/Silver Spur													
Base	30	8	34	140	4	14	23	311	33	35	413	161	1206
Added	0	0	0	0	0	0	19	7	0	0	29	0	55
Total	30	8	34	140	4	14	42	318	33	35	442	161	1261
#108 Deep Valley Dr/Silver Spur													
Base	14	0	85	0	0	0	0	459	45	175	611	0	1389
Added	0	0	0	0	0	0	0	7	0	0	29	0	36
Total	14	0	85	0	0	0	0	466	45	175	640	0	1425
#109 Crenshaw Blvd/Silver Spur													
Base	230	1191	0	1	606	552	416	0	119	0	0	1	3116
Added	6	0	0	0	0	24	6	0	1	0	0	0	37
Total	236	1191	0	1	606	576	422	0	120	0	0	1	3153
#110 Crenshaw Blvd/Palos Verdes Drive North													
Base	113	1085	644	66	683	249	543	644	74	616	546	161	5424
Added	0	3	3	0	11	0	0	0	0	13	0	0	30
Total	113	1088	647	66	694	249	543	644	74	629	546	161	5454

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#111 Project Access/Little Silver Spur													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	1	0	0	0	0	0	0	0	6	1	0	0	8
Total	1	0	0	0	0	0	0	0	6	1	0	0	8

 Turning Movement Report
 Project PM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#101 Silver Spur/Hawthorne													
Base	334	315	186	64	373	141	182	582	240	233	1028	29	3707
Added	4	7	18	0	3	0	0	0	1	7	0	0	40
Total	338	322	204	64	376	141	182	582	241	240	1028	29	3747
#102 Silver Spur/Peninsula Ctr-Silver Arrow Dr													
Base	215	652	26	25	697	92	102	48	101	26	20	30	2034
Added	0	29	0	0	10	0	0	0	0	0	0	0	39
Total	215	681	26	25	707	92	102	48	101	26	20	30	2073
#103 Silver Spur/Crossfield Dr													
Base	143	4	148	49	3	18	22	711	131	218	848	20	2315
Added	0	0	1	0	0	0	0	10	0	4	29	0	44
Total	143	4	149	49	3	18	22	721	131	222	877	20	2359
#104 Drybank Dr/Silver Spur													
Base	504	12	75	22	10	72	82	751	132	90	562	13	2325
Added	0	0	0	0	0	7	3	9	0	18	26	0	63
Total	504	12	75	22	10	79	85	760	132	108	588	13	2388
#105 Roxcove/Silver Spur Rd													
Base	27	0	40	0	0	0	0	767	41	23	609	0	1507
Added	0	0	0	0	0	0	0	27	0	20	44	0	91
Total	27	0	40	0	0	0	0	794	41	43	653	0	1598
#106 Project Access/Silver Spur													
Base	0	0	0	0	0	0	0	766	0	0	657	0	1423
Added	0	0	0	0	0	64	0	48	0	0	0	23	135
Total	0	0	0	0	0	64	0	814	0	0	657	23	1558
#107 Beechgate Dr/Silver Spur													
Base	124	18	61	103	15	35	50	633	83	53	498	116	1789
Added	0	0	0	0	0	0	9	39	0	0	14	0	62
Total	124	18	61	103	15	35	59	672	83	53	512	116	1851
#108 Deep Valley Dr/Silver Spur													
Base	63	0	348	0	0	0	0	729	163	175	611	0	2089
Added	0	0	0	0	0	0	0	39	0	0	14	0	53
Total	63	0	348	0	0	0	0	768	163	175	625	0	2142
#109 Crenshaw Blvd/Silver Spur													
Base	194	510	0	2	764	693	706	0	302	0	0	1	3172
Added	3	0	0	0	0	11	31	0	7	0	0	0	52
Total	197	510	0	2	764	704	737	0	309	0	0	1	3224
#110 Crenshaw Blvd/Palos Verdes Drive North													
Base	106	634	662	160	816	205	261	535	62	896	532	92	4961
Added	0	15	17	0	5	0	0	0	0	6	0	0	43
Total	106	649	679	160	821	205	261	535	62	902	532	92	5004

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#111 Project Access/Little Silver Spur													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	7	0	1	0	0	0	0	0	3	1	0	0	12
Total	7	0	1	0	0	0	0	0	3	1	0	0	12

CALIFORNIA CODES
GOVERNMENT CODE
SECTION 65915-65918

65915. (a) When an applicant seeks a density bonus for a housing development within, or for the donation of land for housing within, the jurisdiction of a city, county, or city and county, that local **government** shall provide the applicant incentives or concessions for the production of housing units and child care facilities as prescribed in this section. All cities, counties, or cities and counties shall adopt an ordinance that specifies how compliance with this section will be implemented.

(b) (1) A city, county, or city and county shall grant one density bonus, the amount of which shall be as specified in subdivision (g), and incentives or concessions, as described in subdivision (d), when an applicant for a housing development seeks and agrees to construct a housing development, excluding any units permitted by the density bonus awarded pursuant to this section, that will contain at least any one of the following:

(A) Ten percent of the total units of a housing development for lower income households, as defined in Section 50079.5 of the Health and Safety **Code**.

(B) Five percent of the total units of a housing development for very low income households, as defined in Section 50105 of the Health and Safety **Code**.

(C) A senior citizen housing development as defined in Sections 51.3 and 51.12 of the Civil **Code**, or mobilehome park that limits residency based on age requirements for housing for older persons pursuant to Section 798.76 or 799.5 of the Civil **Code**.

(D) Ten percent of the total dwelling units in a common interest development as defined in Section 1351 of the Civil **Code** for persons and families of moderate income, as defined in Section 50093 of the Health and Safety **Code**, provided that all units in the development are offered to the public for purchase.

(2) For purposes of calculating the amount of the density bonus pursuant to subdivision (f), the applicant who requests a density bonus pursuant to this subdivision shall elect whether the bonus shall be awarded on the basis of subparagraph (A), (B), (C), or (D) of paragraph (1).

(c) (1) An applicant shall agree to, and the city, county, or city and county shall ensure, continued affordability of all low- and very low income units that qualified the applicant for the award of the density bonus for 30 years or a longer period of time if required by the construction or mortgage financing assistance program, mortgage insurance program, or rental subsidy program. Rents for the lower income density bonus units shall be set at an affordable rent as defined in Section 50053 of the Health and Safety **Code**. Owner-occupied units shall be available at an affordable housing cost as defined in Section 50052.5 of the Health and Safety **Code**.

(2) An applicant shall agree to, and the city, county, or city and county shall ensure that, the initial occupant of the moderate-income units that are directly related to the receipt of the density bonus in the common interest development, as defined in Section 1351 of the Civil **Code**, are persons and families of moderate income, as defined in Section 50093 of the Health and Safety **Code**, and that the units are offered at an affordable housing cost, as that cost is defined in Section 50052.5 of the Health and Safety **Code**.

The local **government** shall enforce an equity-sharing agreement, unless it is in conflict with the requirements of another public funding source or law. The following apply to the equity-sharing agreement:

(A) Upon resale, the seller of the unit shall retain the value of any improvements, the downpayment, and the seller's proportionate share of appreciation. The local **government** shall recapture any initial subsidy and its proportionate share of appreciation, which shall then be used within three years for any of the purposes described in subdivision (e) of Section 33334.2 of the Health and Safety **Code** that promote homeownership.

(B) For purposes of this subdivision, the local **government's** initial subsidy shall be equal to the fair market value of the home at the time of initial sale minus the initial sale price to the moderate-income household, plus the amount of any downpayment assistance or mortgage assistance. If upon resale the market value is lower than the initial market value, then the value at the time of the resale shall be used as the initial market value.

(C) For purposes of this subdivision, the local **government's** proportionate share of appreciation shall be equal to the ratio of the initial subsidy to the fair market value of the home at the time of initial sale.

(d) (1) An applicant for a density bonus pursuant to subdivision (b) may submit to a city, county, or city and county a proposal for the specific incentives or concessions that the applicant requests pursuant to this section, and may request a meeting with the city, county, or city and county. The city, county, or city and county shall grant the concession or incentive requested by the applicant unless the city, county, or city and county makes a written finding, based upon substantial evidence, of either of the following:

(A) The concession or incentive is not required in order to provide for affordable housing costs, as defined in Section 50052.5 of the Health and Safety **Code**, or for rents for the targeted units to be set as specified in subdivision (c).

(B) The concession or incentive would have a specific adverse impact, as defined in paragraph (2) of subdivision (d) of Section 65589.5, upon public health and safety or the physical environment or on any real property that is listed in the California Register of Historical Resources and for which there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact without rendering the development unaffordable to low- and moderate-income households.

(2) The applicant shall receive the following number of incentives or concessions:

(A) One incentive or concession for projects that include at least 10 percent of the total units for lower income households, at least 5 percent for very low income households, or at least 10 percent for persons and families of moderate income in a common interest development.

(B) Two incentives or concessions for projects that include at least 20 percent of the total units for lower income households, at least 10 percent for very low income households, or at least 20 percent for persons and families of moderate income in a common interest development.

(C) Three incentives or concessions for projects that include at least 30 percent of the total units for lower income households, at least 15 percent for very low income households, or at least 30 percent for persons and families of moderate income in a common interest development.

(3) The applicant may initiate judicial proceedings if the city,

county, or city and county refuses to grant a requested density bonus, incentive, or concession. If a court finds that the refusal to grant a requested density bonus, incentive, or concession is in violation of this section, the court shall award the plaintiff reasonable attorney's fees and costs of suit. Nothing in this subdivision shall be interpreted to require a local **government** to grant an incentive or concession that has a specific, adverse impact, as defined in paragraph (2) of subdivision (d) of Section 65589.5, upon health, safety, or the physical environment, and for which there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact. Nothing in this subdivision shall be interpreted to require a local **government** to grant an incentive or concession that would have an adverse impact on any real property that is listed in the California Register of Historical Resources. The city, county, or city and county shall establish procedures for carrying out this section, that shall include legislative body approval of the means of compliance with this section. The city, county, or city and county shall also establish procedures for waiving or modifying development and zoning standards that would otherwise inhibit the utilization of the density bonus on specific sites. These procedures shall include, but not be limited to, such items as minimum lot size, side yard setbacks, and placement of public works improvements.

(e) In no case may a city, county, or city and county apply any development standard that will have the effect of precluding the construction of a development meeting the criteria of subdivision (b) at the densities or with the concessions or incentives permitted by this section. An applicant may submit to a city, county, or city and county a proposal for the waiver or reduction of development standards and may request a meeting with the city, county, or city and county. If a court finds that the refusal to grant a waiver or reduction of development standards is in violation of this section, the court shall award the plaintiff reasonable attorney's fees and costs of suit. Nothing in this subdivision shall be interpreted to require a local **government** to waive or reduce development standards if the waiver or reduction would have a specific, adverse impact, as defined in paragraph (2) of subdivision (d) of Section 65589.5, upon health, safety, or the physical environment, and for which there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact. Nothing in this subdivision shall be interpreted to require a local **government** to waive or reduce development standards that would have an adverse impact on any real property that is listed in the California Register of Historical Resources.

(f) The applicant shall show that the waiver or modification is necessary to make the housing units economically feasible.

(g) For the purposes of this chapter, "density bonus" means a density increase over the otherwise maximum allowable residential density under the applicable zoning ordinance and land use element of the general plan as of the date of application by the applicant to the city, county, or city and county. The applicant may elect to accept a lesser percentage of density bonus. The amount of density bonus to which the applicant is entitled shall vary according to the amount by which the percentage of affordable housing units exceeds the percentage established in subdivision (b).

(1) For housing developments meeting the criteria of subparagraph (A) of paragraph (1) of subdivision (b), the density bonus shall be calculated as follows:

Percentage Low-Income Units	Percentage Density Bonus
10	20
11	21.5
12	23
13	24.5
14	26
15	27.5
17	30.5
18	32
19	33.5
20	35

(2) For housing developments meeting the criteria of subparagraph (B) of paragraph (1) of subdivision (b), the density bonus shall be calculated as follows:

Percentage Very Low Income Units	Percentage Density Bonus
5	20
6	22.5
7	25
8	27.5
9	30
10	32.5
11	35

(3) For housing developments meeting the criteria of subparagraph (C) of paragraph (1) of subdivision (b), the density bonus shall be 20 percent.

(4) For housing developments meeting the criteria of subparagraph (D) of paragraph (1) of subdivision (b), the density bonus shall be calculated as follows:

Percentage Moderate-Income Units	Percentage Density Bonus
----------------------------------	--------------------------

10	5
11	6
12	7
13	8
14	9
15	10
16	11
17	12
18	13
19	14
20	15
21	16
22	17
23	18
24	19
25	20
26	21
27	22
28	23
29	24
30	25
31	26
32	27
33	28
34	29
35	30
36	31
37	32
38	33
39	34

(5) All density calculations resulting in fractional units shall be rounded up to the next whole number. The granting of a density bonus shall not be interpreted, in and of itself, to require a general plan amendment, local coastal plan amendment, zoning change, or other discretionary approval. As used in subdivision (b), "total units" or "total dwelling units" does not include units permitted by a density bonus awarded pursuant to this section or any local law granting a greater density bonus. The density bonus provided by this section shall apply to housing developments consisting of five or more dwelling units.

(h) (1) When an applicant for a tentative subdivision map, parcel map, or other residential development approval donates land to a city, county, or city and county as provided for in this subdivision, the applicant shall be entitled to a 15-percent increase above the otherwise maximum allowable residential density under the applicable zoning ordinance and land use element of the general plan for the entire development, as follows:

Percentage Very Low Income	Percentage Density Bonus
10	15
11	16
12	17
13	18
14	19
15	20
16	21
17	22
18	23
19	24
20	25
21	26
22	27
23	28
24	29
25	30
26	31

27	32
28	33
29	34
30	35

(2) This increase shall be in addition to any increase in density mandated by subdivision (b), up to a maximum combined mandated density increase of 35 percent if an applicant seeks both the increase required pursuant to this subdivision and subdivision (b). All density calculations resulting in fractional units shall be rounded up to the next whole number. Nothing in this subdivision shall be construed to enlarge or diminish the authority of a city, county, or city and county to require a developer to donate land as a condition of development. An applicant shall be eligible for the increased density bonus described in this subdivision if all of the following conditions are met:

(A) The applicant donates and transfers the land no later than the date of approval of the final subdivision map, parcel map, or residential development application.

(B) The developable acreage and zoning classification of the land being transferred are sufficient to permit construction of units affordable to very low income households in an amount not less than 10 percent of the number of residential units of the proposed development.

(C) The transferred land is at least one acre in size or of sufficient size to permit development of at least 40 units, has the appropriate general plan designation, is appropriately zoned for development as affordable housing, and is or will be served by adequate public facilities and infrastructure. The land shall have appropriate zoning and development standards to make the development of the affordable units feasible. No later than the date of approval of the final subdivision map, parcel map, or of the residential development, the transferred land shall have all of the permits and approvals, other than building permits, necessary for the development of the very low income housing units on the transferred land, except that the local **government** may subject the proposed development to subsequent design review to the extent authorized by subdivision (i) of Section 65583.2 if the design is not reviewed by the local **government** prior to the time of transfer.

(D) The transferred land and the affordable units shall be subject to a deed restriction ensuring continued affordability of the units consistent with paragraphs (1) and (2) of subdivision (c), which shall be recorded on the property at the time of dedication.

(E) The land is transferred to the local agency or to a housing developer approved by the local agency. The local agency may require the applicant to identify and transfer the land to the developer.

(F) The transferred land shall be within the boundary of the proposed development or, if the local agency agrees, within one-quarter mile of the boundary of the proposed development.

(i) (1) When an applicant proposes to construct a housing development that conforms to the requirements of subdivision (b) and includes a child care facility that will be located on the premises of, as part of, or adjacent to, the project, the city, county, or city and county shall grant either of the following:

(A) An additional density bonus that is an amount of square feet of residential space that is equal to or greater than the amount of

square feet in the child care facility.

(B) An additional concession or incentive that contributes significantly to the economic feasibility of the construction of the child care facility.

(2) The city, county, or city and county shall require, as a condition of approving the housing development, that the following occur:

(A) The child care facility shall remain in operation for a period of time that is as long as or longer than the period of time during which the density bonus units are required to remain affordable pursuant to subdivision (c).

(B) Of the children who attend the child care facility, the children of very low income households, lower income households, or families of moderate income shall equal a percentage that is equal to or greater than the percentage of dwelling units that are required for very low income households, lower income households, or families of moderate income pursuant to subdivision (b).

(3) Notwithstanding any requirement of this subdivision, a city, county, or a city and county shall not be required to provide a density bonus or concession for a child care facility if it finds, based upon substantial evidence, that the community has adequate child care facilities.

(4) "Child care facility," as used in this section, means a child day care facility other than a family day care home, including, but not limited to, infant centers, preschools, extended day care facilities, and schoolage child care centers.

(j) "Housing development," as used in this section, means one or more groups of projects for residential units constructed in the planned development of a city, county, or city and county. For the purposes of this section, "housing development" also includes a subdivision or common interest development, as defined in Section 1351 of the Civil Code, approved by a city, county, or city and county and consists of residential units or unimproved residential lots and either a project to substantially rehabilitate and convert an existing commercial building to residential use or the substantial rehabilitation of an existing multifamily dwelling, as defined in subdivision (d) of Section 65863.4, where the result of the rehabilitation would be a net increase in available residential units. For the purpose of calculating a density bonus, the residential units do not have to be based upon individual subdivision maps or parcels. The density bonus shall be permitted in geographic areas of the housing development other than the areas where the units for the lower income households are located.

(k) The granting of a concession or incentive shall not be interpreted, in and of itself, to require a general plan amendment, local coastal plan amendment, zoning change, or other discretionary approval. This provision is declaratory of existing law.

(1) For the purposes of this chapter, concession or incentive means any of the following:

(1) A reduction in site development standards or a modification of zoning code requirements or architectural design requirements that exceed the minimum building standards approved by the California Building Standards Commission as provided in Part 2.5 (commencing with Section 18901) of Division 13 of the Health and Safety Code, including, but not limited to, a reduction in setback and square footage requirements and in the ratio of vehicular parking spaces that would otherwise be required that results in identifiable, financially sufficient, and actual cost reductions.

(2) Approval of mixed use zoning in conjunction with the housing project if commercial, office, industrial, or other land uses will

reduce the cost of the housing development and if the commercial, office, industrial, or other land uses are compatible with the housing project and the existing or planned development in the area where the proposed housing project will be located.

(3) Other regulatory incentives or concessions proposed by the developer or the city, county, or city and county that result in identifiable, financially sufficient, and actual cost reductions.

This subdivision does not limit or require the provision of direct financial incentives for the housing development, including the provision of publicly owned land, by the city, county, or city and county, or the waiver of fees or dedication requirements.

(m) Nothing in this section shall be construed to supersede or in any way alter or lessen the effect or application of the California Coastal Act (Division 20 (commencing with Section 30000) of the Public Resources Code.

(n) Nothing in this section shall be construed to prohibit a city, county, or city and county from granting a density bonus greater than what is described in this section for a development that meets the requirements of this section or from granting a proportionately lower density bonus than what is required by this section for developments that do not meet the requirements of this section.

(o) For purposes of this section, the following definitions shall apply:

(1) "Development standard" includes site or construction conditions that apply to a residential development pursuant to any ordinance, general plan element, specific plan, charter amendment, or other local condition, law, policy, resolution, or regulation.

(2) "Maximum allowable residential density" means the density allowed under the zoning ordinance, or if a range of density is permitted, means the maximum allowable density for the specific zoning range applicable to the project.

(p) (1) Upon the request of the developer, no city, county, or city and county shall require a vehicular parking ratio, inclusive of handicapped and guest parking, of a development meeting the criteria of subdivision (b), that exceeds the following ratios:

(A) Zero to one bedrooms: one onsite parking space.

(B) Two to three bedrooms: two onsite parking spaces.

(C) Four and more bedrooms: two and one-half parking spaces.

(2) If the total number of parking spaces required for a development is other than a whole number, the number shall be rounded up to the next whole number. For purposes of this subdivision, a development may provide "onsite parking" through tandem parking or uncovered parking, but not through onstreet parking.

(3) This subdivision shall apply to a development that meets the requirements of subdivision (b) but only at the request of the applicant. An applicant may request additional parking incentives or concessions beyond those provided in this section, subject to subdivision (d).

65915.5. (a) When an applicant for approval to convert apartments to a condominium project agrees to provide at least 33 percent of the total units of the proposed condominium project to persons and families of low or moderate income as defined in Section 50093 of the Health and Safety Code, or 15 percent of the total units of the proposed condominium project to lower income households as defined in Section 50079.5 of the Health and Safety Code, and agrees to pay for the reasonably necessary administrative costs incurred by a city, county, or city and county pursuant to this section, the city,

county, or city and county shall either (1) grant a density bonus or (2) provide other incentives of equivalent financial value. A city, county, or city and county may place such reasonable conditions on the granting of a density bonus or other incentives of equivalent financial value as it finds appropriate, including, but not limited to, conditions which assure continued affordability of units to subsequent purchasers who are persons and families of low and moderate income or lower income households.

(b) For purposes of this section, "density bonus" means an increase in units of 25 percent over the number of apartments, to be provided within the existing structure or structures proposed for conversion.

(c) For purposes of this section, "other incentives of equivalent financial value" shall not be construed to require a city, county, or city and county to provide cash transfer payments or other monetary compensation but may include the reduction or waiver of requirements which the city, county, or city and county might otherwise apply as conditions of conversion approval.

(d) An applicant for approval to convert apartments to a condominium project may submit to a city, county, or city and county a preliminary proposal pursuant to this section prior to the submittal of any formal requests for subdivision map approvals. The city, county, or city and county shall, within 90 days of receipt of a written proposal, notify the applicant in writing of the manner in which it will comply with this section. The city, county, or city and county shall establish procedures for carrying out this section, which shall include legislative body approval of the means of compliance with this section.

(e) Nothing in this section shall be construed to require a city, county, or city and county to approve a proposal to convert apartments to condominiums.

(f) An applicant shall be ineligible for a density bonus or other incentives under this section if the apartments proposed for conversion constitute a housing development for which a density bonus or other incentives were provided under Section 65915.

65916. Where there is a direct financial contribution to a housing development pursuant to Section 65915 through participation in cost of infrastructure, write-down of land costs, or subsidizing the cost of construction, the city, county, or city and county shall assure continued availability for low- and moderate-income units for 30 years. When appropriate, the agreement provided for in Section 65915 shall specify the mechanisms and procedures necessary to carry out this section.

65917. In enacting this chapter it is the intent of the Legislature that the density bonus or other incentives offered by the city, county, or city and county pursuant to this chapter shall contribute significantly to the economic feasibility of lower income housing in proposed housing developments. In the absence of an agreement by a developer in accordance with Section 65915, a locality shall not offer a density bonus or any other incentive that would undermine the intent of this chapter.

65917.5. (a) As used in this section, the following terms shall have the following meanings:

(1) "Child care facility" means a facility installed, operated, and maintained under this section for the nonresidential care of children as defined under applicable state licensing requirements for the facility.

(2) "Density bonus" means a floor area ratio bonus over the otherwise maximum allowable density permitted under the applicable zoning ordinance and land use elements of the general plan of a city, including a charter city, city and county, or county of:

(A) A maximum of five square feet of floor area for each one square foot of floor area contained in the child care facility for existing structures.

(B) A maximum of 10 square feet of floor area for each one square foot of floor area contained in the child care facility for new structures.

For purposes of calculating the density bonus under this section, both indoor and outdoor square footage requirements for the child care facility as set forth in applicable state child care licensing requirements shall be included in the floor area of the child care facility.

(3) "Developer" means the owner or other person, including a lessee, having the right under the applicable zoning ordinance of a city council, including a charter city council, city and county board of supervisors, or county board of supervisors to make application for development approvals for the development or redevelopment of a commercial or industrial project.

(4) "Floor area" means as to a commercial or industrial project, the floor area as calculated under the applicable zoning ordinance of a city council, including a charter city council, city and county board of supervisors, or county board of supervisors and as to a child care facility, the total area contained within the exterior walls of the facility and all outdoor areas devoted to the use of the facility in accordance with applicable state child care licensing requirements.

(b) A city council, including a charter city council, city and county board of supervisors, or county board of supervisors may establish a procedure by ordinance to grant a developer of a commercial or industrial project, containing at least 50,000 square feet of floor area, a density bonus when that developer has set aside at least 2,000 square feet of floor area and 3,000 outdoor square feet to be used for a child care facility. The granting of a bonus shall not preclude a city council, including a charter city council, city and county board of supervisors, or county board of supervisors from imposing necessary conditions on the project or on the additional square footage. Projects constructed under this section shall conform to height, setback, lot coverage, architectural review, site plan review, fees, charges, and other health, safety, and zoning requirements generally applicable to construction in the zone in which the property is located. A consortium with more than one developer may be permitted to achieve the threshold amount for the available density bonus with each developer's density bonus equal to the percentage participation of the developer. This facility may be located on the project site or may be located offsite as agreed upon by the developer and local agency. If the child care facility is not located on the site of the project, the local agency shall determine whether the location of the child care facility is appropriate and whether it conforms with the intent of this section. The child care facility shall be of a size to comply with all state licensing requirements in order to accommodate at least 40 children.

(c) The developer may operate the child care facility itself or may contract with a licensed child care provider to operate the facility. In all cases, the developer shall show ongoing coordination with a local child care resource and referral network or local governmental child care coordinator in order to qualify for the density bonus.

(d) If the developer uses space allocated for child care facility purposes, in accordance with subdivision (b), for any purposes other than for a child care facility, an assessment based on the square footage of the project may be levied and collected by the city council, including a charter city council, city and county board of supervisors, or county board of supervisors. The assessment shall be consistent with the market value of the space. If the developer fails to have the space allocated for the child care facility within three years, from the date upon which the first temporary certificate of occupancy is granted, an assessment based on the square footage of the project may be levied and collected by the city council, including a charter city council, city and county board of supervisors, or county board of supervisors in accordance with procedures to be developed by the legislative body of the city council, including a charter city council, city and county board of supervisors, or county board of supervisors. The assessment shall be consistent with the market value of the space. Any penalty levied against a consortium of developers shall be charged to each developer in an amount equal to the developer's percentage square feet participation. Funds collected pursuant to this subdivision shall be deposited by the city council, including a charter city council, city and county board of supervisors, or county board of supervisors into a special account to be used for childcare services or child care facilities.

(e) Once the child care facility has been established, prior to the closure, change in use, or reduction in the physical size of, the facility, the city, city council, including a charter city council, city and county board of supervisors, or county board of supervisors shall be required to make a finding that the need for child care is no longer present, or is not present to the same degree as it was at the time the facility was established.

(f) The requirements of Chapter 5 (commencing with Section 66000) and of the amendments made to Sections 53077, 54997, and 54998, by Chapter 1002 of the Statutes of 1987 shall not apply to actions taken in accordance with this section.

(g) This section shall not apply to a voter-approved ordinance adopted by referendum or initiative.

65918. The provisions of this chapter shall apply to charter cities.

17.11.060 Affordable Housing Incentives.

A. Density Bonus.

1. **New Construction.** When a developer of a new housing project consisting of five or more dwelling units agrees to provide at least ten percent of all units as very low income units, twenty percent of all units as low income units, fifty percent of all units for qualifying senior residents, or twenty percent of the total dwelling units in a condominium project as defined in subdivision (f) of Section 1351 of the Civil Code for persons and families of moderate income, a density bonus, as defined by Section 17.96.550 of the Municipal Code, and/or affordable housing incentive shall be provided by the city. The density bonus shall not be included when determining the number of dwelling units equal to ten or twenty percent of the total units. At least one additional or alternative incentive, as described in Section 17.11.060(B) of this chapter, or other incentives or concessions of equivalent financial value based upon the land costs per dwelling unit, shall be provided in addition to the density bonus unless the city makes a written finding, based upon substantial evidence, that the additional concession or incentive is not required in order to provide for affordable housing costs, as defined in Section 50052.5 of the Health and Safety Code or Government Code Section 65915(c). The units shall be rented or sold only to households whose income is at a level that does not exceed the required affordability level of the unit. The affordable units shall be similar in exterior appearance, configuration and basic amenities (such as storage space and outdoor living areas) to the market rate units in the proposed project.

When a developer of new housing agrees to provide at least ten percent of all units as very low income units and twenty percent of all units as low income units, density bonuses shall not accrue cumulatively, and only one density bonus and at least one other additional incentive shall be provided.

2. **Condominium Conversion.** Where an applicant for a conversion of an apartment project to a condominium project agrees to provide at least thirty-three percent of the total proposed condominium units to low and moderate income households or at least fifteen percent of the total units to lower income households, and agrees to pay reasonably necessary administrative costs incurred by the city, a density bonus and/or affordable housing incentive shall be provided by the city. The density bonus units shall be provided within the existing structure or structures to be converted.

The units shall be sold only to households whose income is at a level which does not exceed the required affordability level of the unit. Except where it has been demonstrated not to be feasible, the affordable units

shall be similar in appearance, configuration and amenities to the market rate units in the proposed project.

An apartment project originally developed with a density bonus or other incentive pursuant to Section 17.11.060(A)(1) of this chapter, shall not be eligible for a further density bonus or incentive under this subsection.

- B. Additional or Alternative Incentives. At the option of the city, affordable housing incentives in lieu of, or in addition to, a density bonus may be provided. Incentives, both for purposes of mandatory incentives as may be required by Section 17.11.060(A)(1) and for purposes of in-lieu incentives pursuant to this subsection, include, but are not limited to:
1. A reduction in site development standards or modification of zoning requirements or architectural design requirements which exceed minimum state standards, including modification of setback, parking or lot size requirements;
 2. Approval of a mixed use project, if the other uses are compatible with residential development and with other development in the surrounding area;
 3. Other regulatory concessions which result in identifiable and actual cost reductions.
- C. Application. Applicants for density bonuses shall file an application for a density bonus with the director. The application shall specify the total number of dwelling units proposed, the number of low income, qualifying senior units, and/or condominium units for persons and families of moderate income proposed, proposed rent or price of the units, the location of the units, proposed means of administering the units, and such other information as may be required by the director. If an additional incentive is requested, beyond that required pursuant to Section 17.11.060(A)(1) of this chapter, the feasibility requirements of Section 17.11.080 of this chapter shall also apply. The application shall be accompanied by a fee, to be established by resolution of the city council, to cover the city's cost of reviewing and administering the proposed density bonus project.