MIKE BALKMAN COUNCIL CHAMBERS
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PLANNING COMMISSION
MEETING AGENDA
WEDNESDAY, JULY 11, 2012
7:00 P.M.

PUBLIC COMMENT

The Planning Commission will listen to the public on any item on the agenda or item of interest that is not on the agenda. The Planning Commission cannot legally take action on any item not scheduled on the agenda. Such items may be referred for administrative action or scheduled on a future agenda.

If you wish to speak to the Commissioners, please complete a Speaker's Card and present it to the Secretary before the agenda item is called. You will be called to the podium by name when it is your turn to speak to the Commissioners.

PUBLIC COMMENT FOR ITEMS ON THE AGENDA

Persons wishing to speak on agenda items will be called at the time the agenda item is brought forward. Comments will generally be limited to five minutes per speaker; however, a three-minute limit may be declared by the Chairperson for agenda items for which many Speaker Cards have been submitted.

PUBLIC COMMENT FOR ITEMS NOT ON THE AGENDA

A total of twenty minutes shall be devoted to audience participation at the beginning of the agenda. Speakers will be called on in the order cards were received by the Secretary. If additional time is needed, the Chairperson will allow for same at the end of the agenda.

When the Secretary calls your name, please advance to the podium and state your name and city of residence. Speakers must limit their comments to five minutes. A three-minute limit may be declared by the Chairperson if there is a large number of individuals desiring to address the Commissioners.

NOTE: AT OR ABOUT 11:00 P.M., COMMISSION MEMBERS WILL DETERMINE WHETHER TO CONTINUE WITH DISCUSSION OF REMAINING ITEMS ON THE AGENDA OR TO CARRY SOME/ALL OF THE ITEMS OVER TO A FUTURE MEETING DATE.

CELL PHONES AND OTHER DISTRACTIONS

Use of cell phones, pagers and other communication devices is prohibited while the Planning Commission Meeting is in session. Please turn all devices off or place on silent alert and leave the Chambers to use. During the meeting, please refrain from applause or other actions that may be disruptive to the speakers or the conduct of City business.

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ALD

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AGENDA
Planning Commission
Wednesday, July 11, 2012
7:00 p.m.
Mike Balkman Council Chambers

CALL TO ORDER & ROLL CALL

Anthony Pleskow, Chair
Scott Wyant, Vice Chair
Linda Smith Frost, Commissioner
Marcus Tiggs, Commissioner
John Kuechle, Commissioner

PLEDGE OF ALLEGIANCE

PUBLIC COMMENT – Items Not On The Agenda

ACTION ITEMS

A-1: **Election of Officers and Appointment of Committees**

PUBLIC HEARINGS

PH-1 1) Zoning Code Amendment (ZCA P-2011154) to amend Section 17.230.015, Table 2-8 of the Culver City Municipal Code, to allow for the expansion of existing private schools located in the Industrial General (IG) Zone, subject to approval of a Modification to an existing Conditional Use Permit; and 2) Modification to the existing Conditional Use Permit (CUP/M P-2011156) for the Willows Community School located at 8509 Higuera Street to permit the phased expansion of the school's operations to add 150 students, and expand school operations to abutting properties located at 8476 Warner Drive, 8510 Warner Drive, and 8525 Higuera Street.
Recommended Action: ***Adopt Resolution approving the application.***

PH-2 1)Modification to a previously approved Administrative Site Plan Review (ASPR/M P-2012073) to allow additional building square footage; 2), an Administrative Modification (AM P-2012074) to the parking requirements; and 3) an Administrative Modification (AM P-2012079) to the maximum height at 9920 Jefferson Boulevard.
Recommended Action: ***Adopt Resolution approving the application.***

CONSENT CALENDAR. *Note: Consent Calendar items are considered to be routine in nature and may be approved by one motion. Public requests to discuss Consent Calendar items must be filed with the Secretary before the Consent Calendar is called.*

C-1. Approval of Minutes of May 9, 2012, May 23, 2012 and June 13, 2012

ITEMS FROM STAFF

ITEMS FROM PLANNING COMMISSION

ADJOURN

Upcoming Public Meeting Schedule –Tentative – 2012

Date	Day	Time	Location
City Council			
July 23	*Monday*	*7:00PM*	*Council Chambers*
Civil Service Commission			
August 1	*Wednesday*	*7:00PM*	*Council Chambers*
Cultural Affairs Commission			
August 14	*Tuesday*	*7:00PM*	*Council Chambers*
Parks & Recreation Commission			
August 7	*Wednesday*	*7:00PM*	*Patacchia Room*
Planning Commission			
August 8	*Wednesday*	*7:00PM*	*Council Chambers*

Meetings may be added or changed.

City of Culver City, California

Planning Commission Agenda Item Report

Meeting Date: July 11, 2012	Item Number: A-1
AGENDA ITEM: Election of Officers and Appointment of Committees	
Contact Person/Dept.: Thomas Gorham Planning Manager	Phone Number: (310) 253-5727
Public Hearing: []	Action Item: [X] Attachments: [X]
Public Notification: None	
Planning Approval: Thomas Gorham July 5, 2011	

Planning Commission Bylaws establish the first regular meeting after July 1, and seating of any new members, as the time to choose officers. Committee appointments are also made at this time.

The list of officers and committees are listed below. The current Chairperson conducts the election of the new Chairperson. The new Chairperson then conducts the election of the Vice-Chairperson and committee appointments.

For reference, Attachment No. 1 lists current Planning Commission officers and committees, basic committee meeting information, and the past year's appointees. Attachment No. 2 is a matrix listing the committees that the Commissioners who served during the 2010-2011 year have served on during the last five years. Attachment No. 3 provides a brief description of each committee. As you are aware, alternates are no longer selected to the committees with two members due to potential Brown Act Violations as advised by the City Attorney's office.

A. Planning Commission:
   Chairperson
   Vice-Chairperson

B. Board of Zoning Adjustment:
   2 members

C. Community Development Block Grant Advisory Committee:
   1 member
   1 alternate

D. General Design Review Committee (GDRC):
   2 members

E. Commission/Council Sub-Committee (Non-standing)

The City Council has dissolved this subcommittee as the work of the committee has concluded. Therefore, it is recommended that this Sub-Committee be removed.

ATTACHMENTS:

1. Planning Commission Officer and Committee Listing
2. Planning Commission Committee Membership Matrix
3. Description of Committees

Attachment No. 1

Planning Commission
Officer and Committee Listing

What	**PLANNING COMMISSION**	7/1/11 - 6/30/12	**7/1/12 - 6/30/13**
When:	As determined by Council and Planning Commission.	Second Wednesday of the month at 7:00 p.m.; fourth Wednesday and other days/times as needed.	
Where:	Mike Balkman Council Chambers		
Chairperson:	Selected by Commission	Anthony Pleskow	
Vice Chairperson:	Selected by Commission	Scott Wyant	
Members:	Appointed by City Council for four-year (staggered) term	John Kuechle Anthony Pleskow Linda Smith-Frost Marcus Tiggs Scott Wyant	
	Planning Manager	Thomas Gorham	
Telephone:	Planning Division	310/253-5710	
FAX:	Planning Division	310/253-5721	

What:	**BOARD OF ZONING ADJUSTMENT**	7/1/11 - 6/30/12	**7/1/12-6/30/13**
When:	As needed		
Where:	Skelton Conference Room (second floor, Planning)		
Members:	Selected by Commission		
Staff Contact:	Planning Manager	Thomas Gorham	
Telephone:	Planning Division	310/253-5710	
FAX:	Planning Division	310/253-5721	

What:	**COMMUNITY DEVELOPMENT BLOCK GRANT COMMITTEE**	7/1/11 - 6/30/12	**7/1/12-6/30/13**
When:	Fall/Winter annual meeting(s) at 7:00 p.m.		
Where:	Dan Patacchia Conference Room (first floor)		
Members:	Selected by Commission		
Alternate:	Selected by Commission		
Other committee members are representatives from the following:	Park, Recreation & Human Services Commission Neighborhood Preservation Program Committee Disability Advisory Committee Culver City Homeowners Association		
Staff Contact:	Economic Development Manager	Kriss Casanova	
Telephone:	Administration	310/253-5769	
FAX:	Administration	310/253-5779	

What:	**GENERAL DESIGN REVIEW COMMITTEE**	7/1/11 - 6/30/12	**7/1/12-6/30/13**
When:	First and third Wednesdays of the month at 4:30 p.m., *or as needed*		
Where:	A conference room in City Hall		
Members:	Selected by Commission		
Other committee members include representatives from the following:	Redevelopment Agency (2)?????		
Staff Contact:	Planning Manager	Thomas Gorham	
Telephone:	Planning Division	310/253-5710	
FAX:	Planning Division	310/253-5721	

Attachment No. 2

PLANNING COMMISSION COMMITTEE MEMBERSHIP MATRIX

Planning Commissioner	Bd. Of Zoning Adjustment Member	CD Block Grant Committee Member	CD Block Grant Committee Alternate	General Design Review Committee Member	Year
				X	2007-2008
Kuechle, John		X		X	2008-2009
				X	2009-2010
			X	X	2010-2011
					2011-2012
Pleskow, Anthony	X			X	2008-2009
	X	X		X	2009-2010
		X		X	2010-2011
					2011-2012
Frost, Linda	X	X			2007-2008
	X		X		2008-2009
			X		2009-2010
					2010-2011
					2011-2012
Tiggs, Marcus					2007-2008
		X			2008-2009
					2009-2010
	X				2010-2011
					2011-2012
Wyant, Scott	X				2009-2010
	X				2010-2011
					2011-2012
					2012-2013

Attachment No. 3

PLANNING COMMISSION
DESCRIPTION OF COMMITTEES
2012-2013

The following is a brief description of the committees to which Planning Commissioners are appointed. As noted in the descriptions, some meet on a regular basis and others only as needed.

STANDING COMMITTEES

Board of Zoning Adjustment (BZA)

Established under Section 3.03.235 of the Culver City Municipal Code, the Planning Commission appoints two of its members to hear appeals involving interpretation of the Zoning Ordinance; CCMC Title 17. Decisions of the BZA are appealable to the Planning Commission. The BZA meets as needed.

Community Development Block Grant (CDBG) Advisory Committee

The CDBG Advisory Committee convenes to broaden the base for decision-making regarding allocation of the City's limited CDBG funds. The first meeting is an orientation; the second meeting is to conduct the first CDBG public hearing and make funding recommendations to City Council. The City Council then holds the second hearing. The public hearing date is set by the CDBG Advisory Committee members at their first meeting.

The committee generally meets two times between November and January of each year.

General Design Review Committee (GDRC)

The committee includes two Planning Commissioners and two Redevelopment Agency members who provide the opinion of four of the ten members of the two bodies they represent. GDRC convenes as needed.

The purpose of GDRC is to provide a forum for the informal exchange of ideas during the formative stages of plan preparation. It is an advisory review process offered to the applicant to get an early reading from representatives of the two bodies the applicant goes before. No formal actions are taken, and the recommendations are not binding. However, historically the comments and suggestions made by GDRC members have proven valuable to applicants in developing their final plans, and do help in facilitating the review process.

City of Culver City, California

Planning Commission Agenda Item Report

Meeting Date: July 11, 2012 (Continued from June 13, 2012)	Item Number: PH-1
AGENDA ITEM: PUBLIC HEARING – 1) Zoning Code Amendment to amend Section 17.230.015, Table 2-8 of the Culver City Municipal Code, to allow for the expansion of existing private schools located in the Industrial General (IG) Zone, subject to approval of a Modification to an existing Conditional Use Permit; and 2) Modification to the existing Conditional Use Permit for the Willows Community School located at 8509 Higuera Street to permit the phased expansion of the school's operations to add 150 students, and expand school operations to abutting properties located at 8476 Warner Drive, 8510 Warner Drive, and 8525 Higuera Street.	
Contact Person/Dept.: Joshua Williams, Associate Planner	Phone Number: (310) 253-5706
Public Hearing: [X]	Action Item: [] Attachments: [X]
Public Notification: On May 24, 2012, a notice was mailed to all the property owners and occupants within a 500-foot radius of the site, all property owners and occupants within the Hayden Tract, and emailed to the Master Notification List.	
Planning Approval: Thomas Gorham, Planning Manager	Department Approval: Sol Blumenfeld, Community Development Director

RECOMMENDATION:

That the Planning Commission:

Adopt proposed Resolution No. 2012-P006 (Attachment No. 1): 1) adopting a Mitigated Negative Declaration (Attachment No. 2) finding the project will not have a significant adverse impact on the environment; 2) Conditionally approving Conditional Use Permit Modification (CUP/M P-2011156); and 3) Recommending approval to the City Council of Zoning Code Amendment (ZCA P-2011154).

PROCEDURES:

1. Chair calls on staff for a staff report and Commission poses questions to staff as desired.
2. Chair opens the public hearing, providing the applicant the first opportunity to speak, followed by the general public.
3. Chair seeks a motion to close the public hearing after all testimony has been presented.
4. Commission discusses the matter and arrives at its decision.

BACKGROUND:

The Willows Community School (the "School") has submitted the proposed Zoning Code Amendment (ZCA) application to amend Section 17.230.015, Table 2-8 of the Culver City Municipal Code to allow for an existing private school located within the Industrial General (IG) Zone to apply for a modification to their existing Conditional Use Permit (CUP). Concurrently, the School is requesting a Modification to its existing Conditional Use Permit to permit the phased expansion of the School to add 150 students, and expand school operations to abutting properties located at 8476 Warner Drive, 8510 Warner Drive, and 8525 Higuera Street. The expansion of the School will take place in three phases and result in the potential acquisition of two abutting properties, the demolition and removal of existing School facilities, and the construction of new buildings, recreation areas, and parking areas to accommodate the anticipated enrollment increase. Details of the proposed expansion are discussed in further detail below.

Private schools are currently not a permitted use in the IG zone and any existing private school that has a valid Conditional Use Permit (CUP) is considered legal non-conforming and is allowed to continue its operations pursuant to its CUP. However, an existing private school is prohibited from expanding its operations, including both physical expansion and student body expansion.

The School previously brought a Zoning Code Amendment (ZCA P-2009069) request to the Planning Commission on December 9, 2009. The ZCA would have allowed existing private schools located within the IG Zone to apply for a modification to their existing CUPs. The request was for the ZCA only, and would have allowed for the School to submit an application for a CUP Modification at a later date. The Planning Commission voted 3 to 1 to deny the application, finding that the ZCA would, among other concerns, allow an expansion of private school uses that "could result in increased traffic around the school sites, increased usage of the City's public park facilities, and a decrease in tax revenue generated by industrial zoned land."

Brief History of Private Schools in the Industrial General Zone

Zoning Code Update

During the preparation of the Zoning Code update in 2005, the issue of permitting private schools in the City's industrial zoning districts was discussed. The Code at the time permitted private schools in the industrial zones with the approval of a CUP. Concern was raised due to a recent influx in the number of private schools wishing to locate in the City's industrial zones, in particular recent

applications for the expansion of Turning Point School and a proposal for a new private school called Park Century. Staff noted that the influx was due to the high commercial rents and land costs on the Westside of Los Angeles, which made the less expensive industrial areas in Culver City more attractive to private schools. However, by allowing private school uses in industrial areas, concerns had been raised about the potential for impacts on the City's existing industrial use and economic base. Staff noted that by permitting private schools in industrial zones, land use conflicts and adjacency issues may be created. Schools are considered sensitive receptors and as such, industrial or commercial development adjacent to schools may be affected due to environmental issues related to noise, vibration, odors, and air quality. Furthermore, schools and certain industrial or commercial uses may conflict in terms of traffic and circulation. In addition, private schools as non-profit entities would have an economic impact on the City due to the loss of property tax, business tax, and sales tax revenue that would otherwise be generated by a commercial or industrial use.

In response to the issues outlined above, staff proposed that private schools remain a conditionally permitted use in the Light Industrial (IL) zone, but prohibited in the IG zone. With the changes to "clean industrial" and creative office uses in the IL zone, there may be situations where a private school can be compatible with adjacent industrial and commercial uses. Through the CUP process, issues related to traffic, circulation, and land use compatibility can be addressed and a proposed school expansion can be evaluated on a case by case basis. Private school uses were subsequently prohibited in the IG zone in the adopted Culver City Zoning Code, and permitted with a Conditional Use Permit in the IL zone. The new Zoning Code was adopted by the City Council on October 24, 2005 and became effective on November 25, 2005. As outlined above, upon the effective date of the Zoning Code, existing private schools in the IG zone became legal non-conforming uses.

Willows Community School

The Willows Community School is a private, non-profit, educational institution (Grades K-8) located in the Hayden Tract. The school is located on the east side of Higuera Street between Hayden Avenue and Eastham Drive, with frontage on both Warner Drive and Higuera Street. The school was originally approved on July 11, 1994, through an Administrative Site Plan Review (ASPR No. 94-02) to operate at 8509 Higuera Street with a maximum student enrollment of 180. At that time a private school was a permitted use in the M1 zone and a CUP was not required.

Following the original approval the school has had three expansions. A Phase 2 expansion of the school, was approved by the Planning Commission on March 26, 1997 (CUP No. 96-04), to allow the expansion of school operations onto the property located at 8490 Warner Drive with a maximum student enrollment of 261. On January 12, 2000, the Planning Commission approved an application to modify CUP No. 96-04 to permit the Phase 3 expansion of the school into the property at 8479 Higuera Street and to increase the maximum enrollment of the school to 425 students. On September 12, 2002 the Planning Commission approved modification to CUP No. 96-04 to allow a Phase 4 expansion of the school into the property at 8520 Warner Drive for a gymnasium/multi-purpose use. This modification did not authorize an increase in student enrollment.

Turning Point School

Turning Point School is a private school for pre-school (age 2) through eighth grade, located at 8780 and 8794 National Boulevard, south of Washington Boulevard. A CUP was approved on December 8, 1999, allowing the school to operate at 8780 National Boulevard (the "East Campus") with a maximum of 480 students. A CUP modification was approved on March 8, 2006 to allow the school to expand onto the property located at 8794 National Boulevard (the "West Campus"). The expansion included new classrooms, studios, office space, flexible artistic spaces, playground area, and additional parking and a second drop-off and pick-up queuing area. The modification request did not seek to increase the maximum number of students enrolled at the school.

Park Century School

Park Century School is a private school for children with learning disabilities, ages seven through 14, located at 3939 Landmark Street, south of Washington Boulevard. A CUP was approved on November 14, 2005 allowing the conversion of a 37,000 GSF industrial building into a private school use. The school was limited to a maximum enrollment of 120 students and 47 staff. As part of the CUP modification approval, Park Century School voluntarily agreed to reimburse the City on an annual basis for lost property tax revenue as a result of the change of use in the industrial building to a non-profit school use.

If the ZCA is approved, the three private schools located in the IG Zone – The Willows Community School, Turning Point School and Park Century School – will be allowed to submit an application for a Modification to their existing Conditional Use Permit with a Master Plan document, which thoroughly outlines the extent of the future physical expansion and any proposed student and staff increases, and an economic impact study to determine the fiscal impacts of the proposed

expansion on the City, should they wish to expand beyond their current floor area and operational limitations. The ZCA alone would not permit an expansion of a private school, but would allow for an application to modify an existing CUP to be submitted and reviewed for consideration. The proposed text amendment language will not permit new private school uses in the IG Zone.

Project Description

The proposed zoning text changes outlined in Exhibit A (Attachment No. 1), amends Zoning Code Section 17.230.015 Table 2-8 by allowing modifications and/or expansions of existing private school facilities in the IG zone previously approved by a CUP subject to a modification to the existing Conditional Use Permit and with submittal of a Master Plan document and economic study providing a mechanism for the City to determine potential impacts now and in the future as part of the its review of the CUP Modification.

As noted previously, existing private schools in the IG zone are considered legal non-conforming uses and are prohibited from expanding their operations. The School is pursuing the proposed ZCA concurrently with a Modification to its existing Conditional Use Permit to allow it the opportunity to increase enrollment and expand its school operations. The School currently operates with a maximum student enrollment of 425 out of four buildings in the Hayden Tract as described above and identified as Willows I, II, III and IV in the Master Plan (Attachment No. 5) submitted by the School as part of its application. The School currently owns Willows I and II and leases Willows III and IV. The School owns an additional structure, the former Santa Monica Gymnastics Center located at 8476 Warner Drive, abutting the existing school campus to the west and identified as Willows V.

Phase 1

As part of the School's Master Plan, Phase 1, the School will initiate an increase in enrollment by 50 students and an expansion of campus operations to include the Willows V property.

The School is requesting an immediate increase in student enrollment of 25 students (from 425 to 450 students), referred to in the Master Plan document as Phase 1A, following approval of the ZCA and CUP Modification. As part of Phase 1B, the School will proceed to remove the Willows V building and in its place construct a surface parking lot. The lot will consist of 21 dedicated parking spaces, with 18 in a tandem configuration, located on the northern half of the lot. An additional 34 parking spaces, identified as event parking, will be provided on the southern half of the lot. During regular school hours when events are not

taking place, the southern half of the lot will be gated and used as a hard-court play area for the school. Phase 1B will also result in the addition of the 25 new students, bringing total enrollment at the end of Phase 1 from 425 to 475 students.

In order to ensure that commencement of the School's proposed expansion is pursued in a timely fashion, the proposed conditions of approval require demolition and/or construction work permitted under Phase 1 of the Master Plan to commence within two years of the effective date of the approval of the application. Commencement of demolition and/or construction work under Phase 1 of the Master Plan shall deem the CUP Modification exercised and will require that Phase 1 be completed within two years of commencement and allow for implementation of Phases 2 and 3 as described below.

Phase 2

The Master Plan document provides a development scenario for Phase 2 of the School's development. Phase 2 will result in the addition of 75 students to the school's enrollment, resulting in a total enrollment at its completion of 550 students. Phase 2 of the Master Plan includes the reconfiguration of the east side of the property, which entails the demolition and removal of the Willows III building and the construction of a new approximately 18,000 square foot building. The existing parking area along the Higuera Street frontage will be removed to accommodate the placement of the new building. To replace the lost parking, a new parking area will be built along the eastern side of the campus, connecting with the Willows V lot, thereby creating a continuous parking lot between the School's Higuera Street and Warner Drive street frontages. The new, combined parking lot will provide 53 dedicated parking spaces and 30 spaces for on-site queuing during morning and afternoon pick-up and drop-off periods.

Pursuant to the proposed conditions of approval, prior to the commencement of demolition and/or construction work under Phase 2 of the Master Plan, the Planning Commission shall conduct a Conformance Review of the Phase 2 plans. The Commission shall approve the plans provided it finds that they are in substantial conformance with the Master Plan and all applicable conditions of approval of the land use permit.

Phase 3

The Master Plan document provides a development scenario for Phase 3 of the School's development. Phase 3 will result in the addition of 25 additional students to the school's enrollment, resulting in a total enrollment at its completion of 575 students. Phase 3 of the Master Plan includes the demolition

and removal of the Willows I building, to be replaced by a new approximately 13,000 square foot building. Phase 3 also includes the proposed acquisition of two properties – the California Stay property (8525 Higuera Street) and the WorldPac property (8510 Warner Drive), and the demolition and removal of both buildings. A new approximately 10,000 square-foot building will be constructed on the California Stay property for new classroom space. The WorldPac property will also be redeveloped with a new 10,000 square-foot building. The conceptual plan for the building, envisions a theater and play yard located on the property.

As outlined in the Master Plan and as described above, the School plans on a phased expansion of school operations over a number of years which includes the potential acquisition of abutting properties. In order to allow the school a reasonable time period to acquire the additional properties and complete the phased expansion, the draft conditions of approval outline specific time frames for acquisition of the additional properties and to begin construction of Phase 3 of the Master Plan. As proposed, the School will have four years from the effective date of the approval of the application to acquire a fee or leasehold interest in the WorldPac Property (8510 Warner Drive; also referred to as “Property B” in the Master Plan document and conditions of approval). Once an interest has been acquired in the WorldPac property, the School will have five years from the date of acquisition to begin demolition and/or construction work, as permitted under Phase 3 of the Master Plan.

The School will have eight years from the effective date of the approval of the application to acquire a fee or leasehold interest in the California Stay (8525 Higuera Street; also referred to as “Property C” in the Master Plan document and conditions of approval). Once an interest has been acquired in the California Stay property, the School has five years from the date of acquisition to commence demolition and/or construction work, as permitted under Phase 3 of the Master Plan.

Pursuant to the proposed conditions of approval, prior to the commencement of demolition and/or construction work under Phase 3 of the Master Plan, the Planning Commission shall conduct a Conformance Review of the Phase 3 plans. The Commission shall approve the plans provided it finds that they are in substantial conformance with the Master Plan and all applicable conditions of approval of the land use permit.

In addition, the draft conditions of approval require any changes to the Master Plan be subject to review and approval by the Planning Commission.

ANALYSIS:

Architectural Design

Phase 1 of the Master Plan will involve the removal of the Willows V building, construction of a surface parking lot, and modest changes to the exterior architecture of the School's other buildings. The project will primarily involve interior demolition and improvements related to work to expand classroom space and to relocate the School's library from the Willows III building to the Willows II building.

Other proposed changes to the School's exterior include the addition of green walls to Willows I, Willows II, Willows III, and Willows IV; new awnings on the exterior of several buildings; and the inclusion of new fencing along both the Higuera Street and Warner Drive frontage in front of the parking lot areas.

Phases 2 and 3 will incorporate "green" design elements, including green wall systems, natural lighting strategies, photovoltaic panels, post-consumer materials and high fly-ash concrete. The design and development of replacement structures will be guided by Leadership in Energy and Environmental Design (LEED) principles and the City green building program.

Traffic & Circulation

A traffic impact analysis prepared for the proposed project, dated September 2011, by Overland Traffic Consultants, Inc., was reviewed and accepted by the City's Traffic Engineer (Attachment No. 3). The traffic analysis evaluated the proposed expansion for all three phases as outlined in the Master Plan. Estimates of the traffic generation by the proposed project were calculated using the industry standard traffic generation rates developed by the Institute of Transportation Engineers (ITE) for private schools. A morning trip generation survey was conducted on June 7, 2010 to test the validity of the ITE private school rates. The results show that the School generated 0.849 vehicle trips per student during the morning peak hour which occurred between 7:40 and 8:40 AM. Because the ITE's trip morning rate is slightly higher, at 0.900 vehicle trips per students, the higher, more conservative ITE rate was utilized.

The traffic analysis estimated that the project (i.e., the proposed addition of 150 new students and 12 staff over the three phases) would generate 372 new vehicle trips per weekday with 135 trips during the AM peak hour, 90 trips during the PM peak hour, and 26 afternoon street-peak hour trips.

Using criteria adopted by the City of Culver City, it has been determined that the change in traffic flow generated by the proposed enrollment increase of 150 students and 12 staff over the three phases will not significantly impact any of the studied nine intersections or street segments during the three study periods. The traffic study determined that the flow of traffic will actually be improved during Phases 2 and 3 with the proposed reconfiguration of the parking area creating a link between Higuera Street and Warner Drive through an internal driveway.

The City's Traffic Engineer has recommended several measures to further improve traffic flow around the project site, including the following:

1) An all-way stop-control at the intersection of Hayden Avenue and Warner Drive shall be considered by the City, if warranted by traffic demand. The School will be responsible for the study and implementation of the all-way stop-control.

2) The City may impose, if it determines it necessary, parking restrictions for two or three parking spaces (40 to 60 feet) on the north side of Higuera Street from the project driveway easterly to accommodate vehicle queuing for vehicles entering the site during the afternoon pick-up time, between 2:00 PM and 4:00 PM.

3) The traffic demand management (TDM) and parking circulation management plan for the project shall periodically be reviewed following implementation of the plan. As a condition of approval, follow-up reviews will be assigned to the project so that corrective actions can be assigned to the project if needed. The applicant shall provide two follow-up reports, one after six months and the other after one year of full operation. If the goals of the TDM plan are not achieved, the City may impose additional requirements. Because the application is for a Conditional Use Permit, the City can impose additional requirements if it is determined they are needed.

The School has also volunteered to contribute $25,000 toward the cost of converting Higuera Street to one-way traffic towards Lucerne Avenue in order to significantly reduce the amount of traffic on Higuera Street as part of a future Neighborhood Traffic Management Plan (NTMP) the City may implement.

Student Drop-off and Pick-up

As part of the on-site circulation plan, the School will continue to stagger start and end times for various grade levels in order to minimize congestion around the School. Presently, the school has four staggered school schedules, with the

earliest schedule beginning at 8:00 AM and latest schedule concluding at 3:20 PM.

The Phase 1 development will result in the construction of a new surface parking lot on the site, with access off of Warner Drive. The existing Higuera Street parking lot will be used for adult assisted drop-off and pick-up activity as part of a continuously moving queue. Between 7:30 AM and 8:30 AM and from 2:30 PM to 3:00 PM, the Higuera lot will not permit short-term parking. During these peak loading and unloading periods, ten spaces on the new Warner Drive parking lot will be utilized for short-term parking (typically for parents of Developmental Kindergarten and Kindergarten students who walk their children into or out of the school). The Higuera Street parking lot will provide up to a 17-vehicle queue for on-site pick-up and drop-off.

In Phases 2 and 3, the School will utilize the new combined parking area along the east side of the property (as shown in the conceptual plan for Phase 2 development in the Master Plan document) for on-site queuing of vehicles for drop-off and pick-up. The combined parking lot between Higuera Street and Warner Drive will provide up to 30 vehicles stacking on-site. In addition to the additional queuing area, the continued use of a staggered schedule for students will assist with efficiency of the operation of the drop-off and pick-up plan.

Parking

Following completion of Phase 1, the School will be required to provide 90 off-street parking spaces.

Required Parking (at completion of Phase 1)

Use	No. of Rooms/ Sq. Footage	Parking Requirement	Total Spaces Required
Classrooms	33	1.5 spaces per classroom	50
Assembly Space	8,064 sq. ft.	1 space per 200 sq.ft.	40
		Total Required	**90**

Presently the School provides 83 on-site and off-site parking spaces. The School supplements the 33 on-site parking spaces with 50 leased parking spaces in the surface parking lot located at 8511 Warner Drive (directly north of the School).

The Phase 1 development will create two additional spaces in the Higuera Lot, resulting in 35 spaces. The new parking area, to be located on the current site of the Willows V building, will provide 21 dedicated parking spaces (18 of these spaces will be provided in a tandem configuration). On the southern half of the lot, an additional 34 parking spaces will be available for event parking to meet the parking requirements for the assembly space. During regular school hours, the event parking will be gated and used as play area. The School will also continue to lease 50 parking spaces across the street, at the 8511 Warner Drive lot.

Parking Provided (at completion of Phase 1)

Onsite Parking	Higuera Lot	35 spaces	
	Willows V Lot	21 spaces	
		Subtotal	56 spaces
Offsite Parking		50 spaces	
		Subtotal	50 spaces
Onsite Event Parking		34 spaces	
		Subtotal	34 spaces
		Total Provided	**140 spaces**

Parking for Phases 2 and 3 shall be recalculated as part of the conformance review process, based upon the number of classrooms removed and added as part of the development of the site. The parking for Phases 2 and 3 of development shall be calculated at the current ratio for school serving Kindergarten through Grade 9, of 1.5 spaces for each classroom. In addition, 1 space shall be required for each 200 square feet of indoor assembly.

Offsite/Streetscape Improvements

Public Works/Engineering will require the School to remove and reconstruct 15 feet of sidewalk in front of the Willows I building (8509 and 8478 Higuera Street), and to construct a new drive approach for the new parking lot proposed on the site of the Willows V building.

In addition, as noted above, if determined necessary by traffic demand the School will be responsible for the study and implementation of an all-way stop control at the intersection of Hayden Avenue and Warner Drive. The immediate improvement would require stop signs at this intersection. Future traffic demand, based on estimates for the year 2020, may require a new traffic signal.

Parks Usage

At the December 2009 Planning Commission hearing regarding the proposed Zoning Code Amendment to permit the expansion of existing private school with Conditional Use Permits in the IG Zone, the Commission requested additional data regarding parks usage by the school.

The School currently rents park space at Syd Kronenthal Park from 3:00 PM to 5:00 PM during the school week and from 10:30 AM to 2:30 PM during the summer week days. The School's usage of the park is proposed to continue under the proposed Master Plan. The increase in 50 students as part of Phase 1 of the project, and subsequently the addition of 100 more students in Phases 2 and 3, does not mean that 150 additional students will use the City's parks at any one time. The park facilities are used for after-school sports programs for Grades 5-8. The School estimates that between 25 and 50 students use the park facilities for their sport team based on the season.

During the summer, the School holds day camps that utilize the park facilities, as noted above. The day camps are open to the students of the school and the general public, including residents of Culver City.

Staff spoke with the City's Parks and Recreation Department regarding the usage of the park to determine potential conflicts with other users. Parks and Recreation staff stated that the usage of the parkland does not and would not preclude the use of other portions of the park or other parks in the area by others. The school's usage of the park facilities is done in off-peak hours, before the evening usage by adult leagues.

In addition, the School must apply and be approved, and pay a fee for usage of the park facilities. The "reservation" process is the same for all groups requesting to use the park.

As part of its Master Plan, the School has identified areas on-site for new soft- and hardscape play areas, in addition to the maintenance of the School's on-site gym and theater. The school continues to provide its gym facilities to the City's adult leagues throughout the year at no cost.

Economic and Tax Revenue Opportunity Cost Analysis

The Willows school recognized the issue of lost tax revenues to the City at the outset of the discretionary approval process and retained HR&A to assess the financial impacts to the City. As part of the submittal requirements for the School's application HR&A conducted an economic and tax revenue analysis

(the "Analysis"), reviewed by the City's staff and financial consultants. This detailed analysis has been entirely funded by the School and required several months to get agreement on the method of analysis. The Analysis, further explained in a summary letter from the HR&A (Attachment No. 4), identified the opportunity cost to the City of implementing the School's proposed Master Plan. The opportunity cost is defined as the annual City tax revenues from The Willows project versus the next best alternative. The annual tax revenue from the alternative use which exceeds revenues from the Willows project represents the opportunity cost to the City. The analysis relied on the following definitions and scenarios:

- Tax revenues to the City include direct property tax, sales tax, utility tax, business tax, and property tax increment.
- The opportunity cost for Phase 1 is the difference between annual tax revenues from existing conditions (the existing Willows campus plus the existing California Stay and WorldPac operations) versus the proposed Phase 1 improvements of the Willows School.
- The opportunity cost of the full build-out (the completion of the Phased development of the school, per the Master Plan document) is the difference between the annual tax revenue for the existing Willows campus, plus an intensified use of the California Stay and WorldPac properties versus the Willows project at full build-out.
- The intensified use of the California Stay and WorldPac properties includes the rehab of the buildings into multi-tenant professional office uses, typical of The Hayden Tract.

The School has agreed to voluntarily contribute the opportunity cost of lost tax revenues to the City in order to make the City whole. Based on the analysis of HR&A, as reviewed and approved by the City's staff and financial consultants, the School will contribute $61,100 annually to the City as part of the Phase 1 development. Subsequent annual payments to the City will include $21,413 as part of Phase 2 and $21,413 as part of Phase 3. Therefore, at the completion of the phased development of the School's expansion, the School shall contribute approximately $104,000 annually to the City's General Fund.

PUBLIC COMMENTS

A number of public comment letters (Attachment No. 6) have been received for the application including 24 letters of support from local businesses, 13 letters of support from local residents, and 304 letters of support from School parents. The letters from the parents are on a form document and only 1 has been included in the attachments.

ENVIRONMENTAL DETERMINATION:

Pursuant to the California Environmental Quality Act (CEQA) guidelines, a Mitigated Negative Declaration (MND) (Attachment No. 2) has been prepared; the project, as mitigated, has been determined to have less than significant impacts on the environment.

CONCLUSION:

The proposed request is for a Zoning Code Amendment to amend Section 17.230.015, Table 2-8 of the Culver City Municipal Code to allow for an existing private school located within the Industrial General (IG) Zone to apply for a modification to their existing Conditional Use Permit (CUP). Zoning Code Section 17.620.020 provides that the Commission shall make a written recommendation to the City Council whether to approve, approve in modified form, or disapprove a proposed Zoning Code Amendment based of the findings contained in Section 17.620.030. In addition, approval of a Modification to an existing Conditional Use Permit (CUP/Mod) to permit the addition of 150 students and expansion of school facilities and operations for The Willows Community School. The approval of the CUP/Mod will be conditional, subject to the approval by the City Council of the Zoning Code Amendment to allow for the expansion of private schools, with an existing CUP, in the Industrial General zone.

City staff has worked closely over the past two years on the subject application to address issues related to the phased development of the school expansion and its related impacts on traffic and parking which resulted in a requirement for the applicant to submit a Master Plan outlining the future phased expansion of the school. In addition, the School, being cognizant of the issues related to the economic impact of the School's proposed expansion, including acquisition of existing commercial and industrial properties and conversion to school uses, offered to make a financial contribution to the City over the life of the project to make the City whole. This financial contribution is based on an economic analysis prepared by the School's consultant at the School's cost and reviewed by the City's financial consultant.

The proposed Zoning Code Amendment is very specific in its allowance for only schools with existing CUP's to apply for a modification and only with submittal of a Master Plan and Economic Study. This allowance will only apply to the three existing schools in the IG zone and will require any such modification application to be subject to review and approval by the Planning Commission.

Based on the analysis contained herein staff recommends that the Planning Commission recommend approval of Zoning Code Amendment (ZCA P-2011154) to the City Council and conditionally approve Conditional Use Permit Modification (CUP/M P-2011156) as outlined in draft Resolution No. 2012-P006 (Attachment No. 1), subject to the City Council's approval of Zoning Code Amendment (ZCA P-2011154).

ALTERNATIVE OPTIONS:

The following alternative actions may be considered by the Planning Commission:

1. Approve the application with the recommended conditions of approval if the application is deemed to meet the required findings.

2. Approve the application with additional or different conditions of approval, if deemed necessary to meet the required findings and mitigate any new project impacts identified at the meeting.

3. Disapprove the application if it does not meet the required findings.

ATTACHMENTS:

1. Draft Resolution No. 2012-P006 and
   Exhibit A - Zoning Code Section 17.230.015 Table 2-8 Text Changes; and
   Exhibit B - CUP/M P-2011156 Conditions of Approval
2. Initial Study/Negative Declaration
3. Traffic Study
4. Economic Study – HR&A Letter dated July 3, 2012
5. Willows School Master Plan dated June 27, 2012
6. Public Comment Letters

RESOLUTION NO. 2012-P006

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CULVER CITY, CALIFORNIA, RECOMMENDING TO THE CITY COUNCIL APPROVAL OF ZONING CODE AMENDMENT, ZCA P-2011154, AMENDING TITLE 17, ZONING, OF THE CULVER CITY MUNICIPAL CODE (CCMC), SECTION 17.230.015, TABLE 2-8, TO ALLOW FOR THE EXPANSION OF EXISTING PRIVATE SCHOOLS LOCATED IN THE INDUSTRIAL GENERAL (IG) ZONE AS SET FORTH IN EXHIBIT "A" ATTACHED HERETO; AND APPROVING CONDITIONAL USE PERMIT MODIFICATION (MODIFICATION NO. 3), CUP/M P-2011156, TO ALLOW FOR THE EXPANSION OF FACILITIES AND OPERATIONS OF A PRIVATE SCHOOL LOCATED AT 8509 HIGUERA STREET IN THE INDUSTRIAL GENERAL (IG) ZONE AS SET FORTH IN EXHIBIT "B" ATTACHED HERETO.

(Zoning Code Amendment P-2011154)
(Conditional Use Permit Modification P-2011156)

WHEREAS, on October 26, 2011, The Willows Community School (the "School") filed an application for a Zoning Code Text Amendment to amend Section 17.230.015, Table 2-8 of the Culver City Municipal Code, to allow for the expansion of existing private schools located in the Industrial General (IG) Zone, subject to approval of a Modification to an existing Conditional Use Permit (CUP); and an application for a Conditional Use Permit Modification to allow for the phased expansion of School facilities and operations, increasing enrollment from 425 students to 575 students; and

WHEREAS, on July 11, 2012, the Planning Commission conducted a duly noticed public hearing on Zoning Code Amendment, ZCA P-2011154 and Conditional Use Permit Modification, CUP/M P 2011156, fully considering all reports, studies, testimony, and environmental information presented; and

WHEREAS, following conclusion of the public discussion and thorough deliberation of the subject matter, the Planning Commission (i) by a vote of __ to __, adopted a Mitigated Negative Declaration, in accordance with the California Environmental Quality Act (CEQA),

finding the Project will not result in significant adverse environmental impacts with mitigations; (ii) by a vote of __ to __ conditionally approved Conditional Use Permit Modification, CUP/M P-2011156; and (iii) by a vote of __ to __, recommended to the City Council approval of Zoning Code Amendment, ZCA P-2011154, as set forth herein below.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF CULVER CITY, CALIFORNIA, RESOLVES AS FOLLOWS:

SECTION 1. Pursuant to the foregoing recitations and the provisions of Culver City Municipal Code (CCMC), the following findings are hereby made:

Zoning Code Amendment:

As outlined in CCMC Title 17, Section 17.520.030, the following required findings for a Zoning Code (Text) Amendment are hereby made:

1. The proposed amendment ensures and maintains internal consistency with the goals, policies, and strategies of all elements of the General Plan and will not create any inconsistencies with this title, in the case of a Zoning Code amendment.

Zoning Code Amendment, ZCA P-2011154 ensures and maintains internal consistency with the goals, policies, and strategies of all elements of the General Plan and will not create any inconsistencies with the Zoning Code. The amendment requires any proposed expansion of existing private schools located in the Industrial General (IG) Zone be subject to approval of a modification to an existing Conditional Use Permit (CUP). The CUP Modification will be reviewed for consistency with the General Plan and with the Zoning Code; therefore ensuring said consistencies are maintained. Further, an economic analysis and Master Plan document shall be required as part of any CUP Modification request which will be used as the basis for determining whether the expansion can meet the required CUP finding that the use is consistent with the General Plan.

2. The proposed amendment would not be detrimental to the public interest, health, safety, convenience or welfare of the City.

The amendment will not be detrimental to the public interest, health, safety, convenience or welfare of the City because any proposal to allow for the expansion of existing private schools located in the Industrial General (IG) Zone, will be subject to approval of a Modification to an existing Conditional Use Permit (CUP). Such a discretionary action requires that the City conduct a California Environmental Quality Act (CEQA) analysis, make findings for a CUP Modification, and impose conditions and mitigation measures to lessen impacts to surrounding areas. This review process is meant to address impacts that may be detrimental to the public interest, health, safety, convenience or welfare of the City.

3. The proposed amendment is in compliance with the provisions of the California Environmental Quality Act (CEQA).

Pursuant to CEQA, an Initial Study prepared for the proposed Zoning Code Amendment (ZCA) determined that the ZCA would have less than significant impacts on the environment and that a Mitigated Negative Declaration finding was appropriate. Any potential environmental impacts from future school expansion will be evaluated through an Initial Study as part of the required CUP Modification and will identify any mitigation measures necessary to reduce identified impacts to a level of insignificance.

Conditional Use Permit Modification:

As outlined in CCMC Title 17, Section 17.530.020, the following required findings for a Conditional Use Permit Modification are hereby made:

A. The proposed use is allowed within the subject zoning district with the approval of an Administrative Use Permit or Conditional Use Permit and complies with all applicable provision of this Title and CCMC.

The Willows Community School, a private school, was permitted in the Industrial General (IG) zoning designation pursuant to the approval of an Administrative Site Plan Review in 1994. Subsequent expansions to the school's campus and enrollment increases have required a Conditional Use Permit (CUP) and modifications to that CUP (CUP/M). As part of the City of Culver City's Zoning Code update in 2005, private school uses were removed as a permitted use in the IG Zone, thereby making the three existing private schools in the IG Zone – Willows, Park Century and Turning Point – legal non-conforming uses. Approval of the Applicant's request for a Modification to an existing Conditional Use Permit for a private school shall be conditioned upon the approval of a Zoning Code Text Amendment to allow for the expansion of existing private schools in the IG Zone. The request to add 150 students to the existing 425 student private school and the expansion of school facilities onto

abutting properties located at 8476 Warner Drive, 8510 Warner Drive, and 8525 Higuera Street, as part of a phased development described more fully in the attached School's Master Plan document will comply with all applicable provisions of the Zoning Code the CCMC.

B. The proposed use is consistent with the General Plan and any applicable Specific Plan.

The General Plan land use designation for the subject property and abutting properties in the Hayden Tract district is Industrial. The Land Use Element of the General Plan sets out a goal of creating economic vitality that serves the community and protects the quality of life. Objective 5, Policy C of the Element encourages the "development of cultural, educational and entertainment uses that will provide leisure activities for Culver City's residents and enhance the image of the City." Within the Industrial General Plan land use designation, the Land Use Element notes that "commercial uses, particularly those that support or service daytime industrial employees, also would be allowed. This designation is designed and intended to support and encourage industrial businesses as a valuable component of the City's economic base." By limiting the scope of the School's expansion through the Master Plan document and future conformance reviews, and by requiring a condition of approval that the Applicant "shall not officially or unofficially object to any future proposed uses adjacent to the Property or any part thereof that are otherwise legally permitted or conditionally permitted under the City's zoning regulations," the City intends to protect existing and future industrial or otherwise permitted uses in the Hayden Tract. The project site is not subject to any specific plan.

C. The design, location, size and operating characteristics of the proposed use are compatible with the existing and future land use in the vicinity of the subject site.

The design, location, size and operating characteristics of the existing private school use and the proposed Phased development and addition of 150 students to the existing 425 student private school, subject to the conditions of approval, will not have a negative impact on adjacent uses and is therefore found to be compatible with the existing and future industrial land uses in the vicinity of the subject site. The school has operated within the Hayden Tract since 1994. Over time as the school has expanded pursuant to an approved Conditional Use Permit in 1999 and subsequent modifications, the school has adhered to conditions of approval imposed by the City and intended to reduce potential impacts on adjacent properties. The increase in parking on-site and the increase in on-site circulation area for drop-off and pick-up of students, as proposed in the Phased development of the site, will serve to mitigate potential congestion issues around the property. In addition, the development proposed in Phases 2 and 3 will reduce potential impacts associated with noise from the campus by concentrating the play areas toward the center of the property, shielded

by surrounding building on the campus. Lastly, the project will be subject to conditions of approval in order to enforce compatibility with adjacent uses.

D. The subject site is physically suitable for the type and intensity of use being proposed, including access, compatibility with adjoining land uses, shape, size, provision of utilities and the absence of physical constraints.

The proposed growth of the campus, in terms of student enrollment and facilities, can be accommodated as proposed in the Master Plan document, through the phased development of the property. This growth will include the acquisition of two abutting properties to house the anticipated growth in enrollment and need for upgraded facilities (Phase 3).The proposed use of the Willows V property for a new surface parking lot (Phase 1) will further reduce impacts on surrounding streets and on- and off-site parking areas during school events. As part of the Phase 2 development of the school, the parking area will be expanded to connect with Higuera Street, creating a through parking area. The new parking area will provide additional parking and queuing space for daily school needs and for events.

E. The establishment, maintenance or operation of the proposed use will not be detrimental to the public interest, health, safety or general welfare or injurious to persons, property or improvements in the vicinity and zoning district in which the property is located.

The addition of 150 students to the existing 425 student private school resulting in a total of a 575 students through this approval subject to the approval of the Zoning Code Text Amendment, will not be detrimental to the public interest, health, safety or general welfare or injurious to persons, property or improvements in the surrounding commercial zoning district or vicinity.

SECTION 2. Pursuant to the foregoing recitations and findings, the Planning Commission of the City of Culver City, California, hereby recommends to the City Council approval of Zoning Code Amendment ZCA P-2011154 as set forth in Exhibit A attached hereto and made a part thereof; and pursuant to the foregoing recitations and findings, the Planning Commission of the City of Culver City, California, hereby approves Conditional Use Permit Modification CUP/M P-2011156, subject to the conditions of approval set forth in Exhibit B attached hereto and incorporated in herein by this reference, and conditioned on the City Council's approval of Zoning Code Amendment ZCA P-2011154.

APPROVED and ADOPTED this 11th day of July 2012.

_____

_____- CHAIRPERSON
PLANNING COMMISSION
CITY OF CULVER CITY, CALIFORNIA

Attested by:

_____
Yvonne Hunt
Administrative Secretary

TABLE 2-8 **Allowed Uses and Permit Requirements** **for Industrial and Special Purpose Zoning Districts**	P CUP AUP -	Permitted Use Conditional Use Permit Required Administrative Use Permit Required Use not allowed	
LAND USE (1)	**PERMIT REQUIREMENTS BY DISTRICT**		**See specific use regulations**
	IL	**IG**	
INDUSTRY, MANUFACTURING & PROCESSING			
Chemical product manufacturing	-	P	
Concrete, gypsum, and plaster products	-	P	
Electronics and equipment manufacturing	P	P	
Fabric products manufacturing	P	P	
Food and beverage manufacturing	-	P	
Furniture/fixtures manufacturing	P	P	
Glass, metal and plastics product manufacturing	-	P	
Handcraft industries	P	P	
Laundries and dry cleaning plants	-	P	
Lumber and wood product manufacturing	-	P	
Machinery manufacturing	-	P	
Media production - Backlots/outdoor facilities	-	P	
Media production - Indoor support facilities	P	P	
Media production - Soundstages	P	P	
Metal products fabrication, machine/welding shops	-	P	
Motor vehicle/transportation equipment manufacturing	-	P	
Paper product manufacturing	-	P	
Paving and roofing material manufacturing	-	P	
Printing and publishing	P	P	
Recycling facility - Processing	-	P	17.400.090
Recycling facility - Large collection	-	P	17.400.090
Recycling facility - Small collection	AUP	P	17.400.090
Recycling facility - Incidental small collection	P	P	17.400.090
Research and development (R&D)	P	P	
Small-scale product manufacturing	P	P	
Stone and cut stone product manufacturing	-	P	
Stone, clay and pottery product manufacturing	-	P	
Warehousing and distribution facilities	P	P	
Wholesaling and distribution facilities	P	P	
RECREATION, EDUCATION , PUBLIC ASSEMBLY			
Arcade	P	P	
Health/fitness facilities	P	P	
Indoor amusement/entertainment facilities	CUP	CUP	
Outdoor Commercial Recreation	CUP	CUP	
Private Schools	CUP	CUP (2)	
Public recreational and cultural facilities	CUP	CUP	
Public Schools	P	P	
Studios - Art, dance, music, photography, etc.	P	P	
Theaters	P	P	

Notes: (1) See Article 7 for definitions of the land uses listed.

(2) Modification and/or expansion of existing facilities and uses, previously approved by a CUP only, with submittal of a master plan document which thoroughly outlines the extent of the future physical expansion and any proposed student and staff increases, and an economic study to determine the fiscal impacts of any modification and/or expansion on the City, as determined by the Director

EXHIBIT B
RESOLUTION NO. 2012-P006
Zoning Code Amendment P-2011154
Conditional Use Permit Modification P-2011156

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
1.	These Conditions of Approval are being imposed on the three-phase rehabilitation and expansion project of the Willows Community School (the "Applicant") and are necessary to accommodate an increase in a) the student population from 425 students to a maximum of 575 students and b) the number of full-time and part-time teachers and administrative and support staff from 83 teachers and staff persons to a maximum of 95 teachers and staff persons (the "Project"), as more fully described in The Willows Community School Master Plan dated June 27, 2012 (the "Master Plan"), for the properties located at 8487 and 8509 Higuera Street, 8490 Warner Drive, 8479 Higuera Street, 8520 Warner Drive and 8476 Warner Drive (collectively, "Property A"); 8510 Warner Drive ("Property B"); and 8525 Higuera Street ("Property C"), in the City of Culver City. Properties A, B, and C, collectively, shall be referred to as "the Property".	All	Standard	
2.	**Conditional Use Permit Modification P-2011156 shall not become effective until the effective date of the Zoning Code Amendment.**	**Planning**	**Special**	
3.	A copy of the Resolution approving the Project, and a copy of these Conditions of Approval, shall be printed on the plans submitted as part of any building permit application for the Project.	Planning	Standard	
4.	All building permit applications for the Project shall include sufficient information and detail to clearly reflect compliance with all applicable requirements of the Culver City Municipal Code (the “CCMC”) and with these Conditions of Approval.	Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
5.	**The land use permit to which these Conditions of Approval apply (the "Land Use Permit') shall be subject to the following time limits:** **A. Within two years of the effective date of the approval of this Land Use Permit, demolition and/or construction work on Property A, permitted under Phase I of the Master Plan, must commence or the rights and privileges authorized by this Land Use Permit shall terminate and become void. Once Phase I demolition and/or construction has commenced, all such work must be completed within two years.** **B. The Land Use Permit shall be deemed exercised upon commencement of demolition and/or construction work under Phase I of the Master Plan and Phases II and III of the Master Plan shall be exercised, subject to the limitations set forth below:** **i. Prior to commencement of demolition and/or construction work under each of Phase II and Phase III of the Master Plan, the Planning Commission shall conduct a conformance review of the plans for such Phase and shall approve said plans provided it finds the plans in Substantial Conformance with the Master Plan and all applicable Conditions of Approval of this Land Use Permit. The Planning Commission must find that the plans for such Phase are in Substantial Conformance provided the Applicant satisfies the following criteria: (1) the Applicant does not propose increasing the number of students, faculty and/or administrative staff beyond the number specified in the Master Plan and authorized by the Land Use Permit; (2) the proposed**	**Planning**	**Special**	

	development footprint does not extend beyond the properties identified in the Master Plan and the Land Use Permit, and (3) the proposed development does not substantially exceed the amount of square footage proposed for such Phase in the Master Plan. **ii. The Applicant shall have four years from the effective date of the approval of this Land Use Permit to acquire a fee or leasehold interest in Property B or Property C. Once an interest has been acquired in such Property, the Applicant shall have five years from the date of acquisition to commence demolition and/or construction work at such Property, as permitted under the Master Plan.** **iii. The Applicant shall have eight years from the effective date of the approval of this Land Use Permit to acquire a fee or leasehold interest in the Property not previously acquired pursuant to Section 2.B.ii, above. Once an interest has been acquired in such Property, the Applicant shall have five years from the date of acquisition to commence demolition and/or construction work at such Property, as permitted under the Master Plan.** **C. As provided in CCMC Section 17.595.030 –"Time Limits and Extensions", upon written request by the Applicant, the City may administratively extend any of the termination dates described in Section 2.B, above, for a period of one year.**			
6.	The Project shall be developed pursuant to CCMC Chapter 17.300 – "General Property Development and Use Standards".	Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
7.	All planted areas on the Property shall be landscaped and irrigated pursuant to CCMC Chapter 17.310 - "Landscaping".	Planning	Standard	
8.	All parking areas on the Property shall be developed pursuant to CCMC Chapter 17.320 - "Off-Street Parking and Loading".	Planning	Standard	
9.	Signs proposed for the Project shall meet all applicable requirements of CCMC Chapter 17.330 - "Signs". All signs require a separate permit and approval.	Planning	Standard	
10.	All permits and licenses required in connection with the development or use of the Project shall be applied for and obtained separately.	All	Standard	
11.	All work within the public right-of-way (including but not limited to curb, gutter, sidewalk, and driveways) shall be designed and completed to the satisfaction of the City Engineer.	Public Works	Standard	
12.	Street trees shall be installed, to the satisfaction of the City Engineer, in conformity with the City's approved Street Tree Master Plan including tree wells and irrigation. All new (and existing) street trees shall be supplied with irrigation water from the overall site irrigation system which shall include a timer and a rain sensor. All new (and existing) street trees, landscaping, and irrigation shall be indicated on the overall site landscaping/ irrigation plan.	Public Works	Standard	
13.	Drainage devices, concrete curbs and gutters, sidewalks, drive approaches, and roadway pavement shall be designed in conformity with all provisions of the latest edition of the American Public Works Association Standard Plans ("APWA Standards").	Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
14.	At the sole cost and expense of the Property Owner, any broken or damaged curbs, gutters, sidewalks, and street pavement resulting from construction of the Project shall be repaired and reconstructed in conformity with APWA Standards.	Public Works	Standard	
15.	Trash enclosures shall be provided and shall each have a minimum inside dimension of 10 feet x 12 feet, a gated opening that is at least 8 feet wide, and a 6 inch high by 6 inch wide concrete curb along the inside perimeter wall. Each enclosure shall also have at least a 6 inch thick concrete slab that drains at a one percent gradient out of the enclosure. Final approval for the size, location, and type of equipment needed for the adequate storage and disposal of all solid and recyclable waste generated by the Project shall be obtained from the City's Environmental Programs and Operations Manager. A fire suppression sprinkler system shall be provided within any covered trash enclosure area as required by the Fire Marshal. All refuse containers assigned to or otherwise used by the Project shall be stored on-site in the trash enclosures.	Public Works/ Fire/ Planning	Standard	
16.	All Project related solid and recyclable waste material handling shall be in accordance with CCMC Section 5.01.010 – "Solid Waste Management", which outlines the Sanitation Division's exclusive franchise for this service.	Public Works	Standard	
17.	The Project shall meet all provisions of CCMC Section 7.05.015 -"Transportation Demand and Trip Reduction Measures".	Trans.	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
18.	All buildings and structures to be constructed as part of the Project shall be designed and constructed in accordance with all applicable regulations and standards of the City's Building Code, Fire Code and any related codes as determined by the Building Official and Fire Marshal; and all other applicable provisions of the CCMC which are adopted and in effect at the time of issuance of a building permit.	Building/ Fire	Standard	
19.	Any new utilities shall be placed underground or enclosed within the building construction; no new overhead utilities shall be permitted.	Building/ Planning	Standard	
20.	The Project shall comply with all applicable requirement of the Culver City Green Building Program as set forth in CCMC Section 15.02.1100, et.seq.	Building	Standard	
21.	The Project shall comply with the all applicable requirements relating to solar photovoltaic requirements as set forth in CCMC Section 15.02.100, et. seq.	Building	Standard	
22.	Changes to the Project or use approved as part of the Land Use Permit may only be made in accordance with the provisions of CCMC Section 17.595.035 – "Changes to an Approved Project".	Planning	Standard	
23.	**Any proposed changes to the Master Plan shall be subject to review and approval of a Modification to the Conditional Use Permit by the Planning Commission.**	**Planning**	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
24.	**Parking for Phases 2 and 3 shall be recalculated as part of the conformance review process, based upon the number of classrooms removed and added as part of the development of the Property. The parking for Phases 2 and 3 of development shall be calculated at the ratio for schools serving Kindergarten through Grade 9, of 1.5 spaces for each classroom. In addition, 1 space shall be required for each 200 square feet of indoor assembly.**	**Planning**	**Special**	
25.	**Secure short-term bicycle parking shall be provided to accommodate eight (8) bicycles in "Phase 1A". All short-term spaces shall be provided on-site using four (4) City approved "Inverted - U" Bicycle Racks. Bicycle Parking shall meet the minimum standards specified in the City's Bicycle and Pedestrian Master Plan Design Guide, Section 1.8. Additional secure short-term bicycle parking shall be provided to accommodate two (2) bicycles in "Phase 2", on-site using one (1) City approved "Inverted - U" Bicycle Rack.** **The compliance with these requirements and the final bicycle parking layout shall be approved by Public Works Administration staff, prior to issuance of any Public Works Department/Engineering Division permit for the Project.**	**Public Works**	**Special**	
26.	**Fifteen feet of sidewalk in front of the Willows I building along Higuera Street shall be removed and reconstructed as determined by the Public Works Department/Engineering Division.**	**Public Works**	**Special**	
27.	**A new drive approach for the Willows V parking lot shall be constructed per the City's "high speed" standard and be ADA compliant as determined by the Public Works Department/Engineering Division.**	**Public Works**	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
28.	**Traffic Improvement Contribution Payment. The Applicant shall pay to the City a "Traffic Improvement Contribution Payment" in the total amount of TWENTY FIVE THOUSAND DOLLARS ($25,000) as a contribution payment toward improvements to the intersection of Higuera Street and Hayden Avenue, which payment shall be made no later than thirty (30) calendar days after the effective date of the approval of this Land Use Permit.**			

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
29.	A covenant and agreement, on a form provided by the Planning Division and in form and substance acceptable to the City Attorney, acknowledging and agreeing to comply with all terms and conditions established herein, shall be signed by the Property Owner and recorded in the County Recorder's Office. The covenant and agreement shall run with the land and shall be binding on any subsequent owners, and tenants or occupants of the Property. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Planning Division.	Planning/ City Attorney	Standard	
30.	The Applicant and Property Owner shall indemnify and agree to defend (at the Applicant's and Property Owner's sole expense, with legal counsel approved by the City) and hold harmless the City, and its elected and appointed officials, officers, employees, agents, contractors and consultants from and against any and all loss, damages, injuries, costs, expenses, liabilities, claims, demands, lawsuits, attorneys' fees and judgments, arising from or in any manner connected to any third party challenge to the City's approval of the Project. The obligations required by this Condition shall be set forth in a written instrument in form and substance acceptable to the City Attorney and signed by the Applicant and the Property Owner.	City Attorney	Standard	
31.	A minimum of three sets of final landscaping and irrigation plans (separate from the plans submitted for the building permit) shall be submitted to the Planning Division for review and approval.	Planning/ Parks & Rec.	Standard	
32.	Payment of New Development Impact Fees pursuant to CCMC Section 15.06.005 et. seq. shall be submitted.	Planning/ Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
33.	A Construction Management Plan prepared by the construction contractor, which identifies the areas of construction staging, temporary power, portable toilet, and trash and material storage locations, shall be submitted to and approved by the Building Official. Prior to commencement of work the construction contractor shall advise the Public Works Inspector and the Building Inspector ('Inspectors") of the construction schedule and shall meet with the Inspectors.	Building/ Public Works	Standard	
34.	A Pedestrian Protection Plan shall be submitted to and approved by the Building Official. Such plan shall identify all areas of pedestrian protection and indicate the method of pedestrian protection or pedestrian diversion when required. When pedestrian diversion is required, the Pedestrian Protection Plan must also be approved by the Public Works Director.	Building/ Public Works	Standard	
35.	Plans submitted as part of the building permit application shall include a schedule of the special inspections anticipated, the firm proposed for the special inspections, and the resumes of all proposed special inspectors. The Building Official reserves the right to reject any special inspector at any time for the duration of the Project. All special inspection reports shall be made available to the Building Official and to any Culver City Building Safety inspector as required by the Building Official No work shall be covered without a Culver City Building Safety inspection, whether or not a special inspection was performed on such work.	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
36.	A Construction Traffic Management Plan shall be prepared by a traffic or civil engineer registered in the State of California. The Construction Traffic Management Plan shall be submitted to the City Engineer and Planning Manager for review and approval prior to the issuance of any Project demolition, grading, or excavation permit. The Construction Traffic Management Plan shall also be reviewed and approved by the City's Fire and Police Departments. The City Engineer and Planning Manager reserve the right to reject any engineer at any time and to require that the Plan be prepared by a different engineer. The Construction Traffic Management Plan shall contain, but not be limited to, the following: A. The name and telephone number of a contact person who can be reached 24 hours a day regarding construction traffic complaints or emergency situations. B. An up-to-date list of local police, fire, and emergency response organizations and procedures for the continuous coordination of construction activity, potential delays, and any alerts related to unanticipated road conditions or delays, with local police, fire, and emergency response agencies. Coordination shall include the assessment of any alternative access routes that might be required through the Property, and maps showing access to and within the Property and to adjacent properties. C. Procedures for the training and certification of the flag persons used in implementation of the Construction Traffic Management Plan. D. The location, times, and estimated duration of any roadway closures, traffic detours, use of protective devices, warning signs, and staging or queuing areas. E. The location and travel routes of off-site staging and parking locations.	Planning/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO BUILDING PERMIT ISSUANCE				
37.	Reasonable efforts shall be used to reuse and recycle construction and demolition debris, to use environmentally friendly materials, and to provide energy efficient buildings, equipment and systems. A Demolition Debris Recycling Plan that indicates where select demolition debris is to be sent shall be provided to the Building Official prior to the issuance of a demolition permit. The Plan shall list the material to be recycled and the name, address, and phone number of the facility of organization accepting the materials.	Building	Standard	
38.	A vector/pest control abatement plan prepared by a pest control specialist licensed or certified by the State of California shall be submitted for review and approval by the Planning Manager and the Building Official. Said plan shall outline all steps to be taken prior to the commencement of any demolition or construction activity in order to ensure that any and all pests (including, but not limited to, rodents, bees, ants and mosquitoes) that may populate the Property do not relocate to or impact adjoining properties.	Building/ Planning	Standard	
39.	Prior to issuance of a building permit, notice of the Project construction schedule shall be provided to all abutting property owners and occupants. Evidence of such notification shall be provided to the Building Division. The notice shall identify the commencement date and proposed timing for all construction phases (demolition, grading, excavation/shoring, foundation, rough frame, plumbing, roofing, mechanical and electrical, and exterior finish).	Building	Standard	
40.	**Prior to issuance of a grading permit, a comprehensive geotechnical investigation, including additional soil borings shall be submitted to the City for review and approval. The design and construction of the project shall occur in accordance with recommendations identified in the comprehensive geotechnical investigation.**	**Building**	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
41.	During all phases of construction, a "Construction Rules Sign" that includes contact names and telephone numbers of the Applicant, Property Owner, construction contractor(s), and the City, shall be posted on the Property in a location that is visible to the public. These names and telephone numbers shall also be made available to adjacent property owners and occupants to the satisfaction of the Planning Manager and Building Official.	Building/ Planning	Standard	
42.	The Property shall be maintained daily so that it is free of trash and litter.	Building	Standard	
43.	During construction, dust shall be controlled by regular watering or other methods as determined by the Building inspector.	Building	Standard	
44.	The Building Division may apply administrative assessments and/ or post general stop work notices for any violations of the Conditions of Approval for the Project, and any violations of the CCMC.	Building	Standard	
45.	During all phases of construction, best efforts shall be used to ensure that all construction workers, contractors and others involved with the Project park on the Property or at designated offsite locations approved by the City, and not in the surrounding neighborhood.	Building	Standard	
46.	When foundation shoring and/or foundation piles will be part of the Project, the engineer of record shall use noise dampening measures such as the drilling of shoring supports and piles as determined by the Building Official and Planning Manager.	Building/ Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
47.	Prior to the commencement of any excavation, a temporary construction fence shall be installed around the site. The height and fence material is subject to approval by the City Engineer and the Planning Manager.	Building/ Planning/ Public Works	Standard	
48.	Hours of construction shall be limited to the following: 8:00 AM to 8:00 PM Monday through Friday; 9:00 AM to 7:00 PM Saturday; and 10:00 AM to 7:00 PM Sunday and National holidays. Dirt hauling and construction material deliveries or removal are prohibited during the morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) peak traffic periods. All construction workers shall be respectful of the surrounding neighborhood and keep non-construction related noise to a minimum prior to, during, and after permissible construction hours.	Building/ Public Works	Standard	
49.	All staging and storage of construction equipment and materials, including the construction dumpster, shall be on-site only. The Property Owner must obtain written permission from adjacent property owners for any construction staging occurring on adjacent property.	Building/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
50.	Compliance with the following noise standards shall be required with at all times: A. No construction equipment shall be operated without an exhaust muffler, and all such equipment shall have mufflers and sound control devices (i.e., intake silencers and noise shrouds) that are no less effective than those provided on the original equipment; B. All construction equipment shall be properly maintained to minimize noise emissions; C. If any construction vehicles are serviced at a location onsite, the vehicle(s) shall be setback from any street and other property lines so as to maintain the greatest distance from the public right-of-way and from Noise Sensitive Receptors; D. Noise impacts from stationary sources (i.e., mechanical equipment, ventilators, and air conditioning units) shall be minimized by proper selection of equipment and the installation of acoustical shielding as approved by the Planning Manager and the Building Official in order to comply with the City's Noise Regulations and Standards as set forth in CCMC Chapter 9.07; and E. Stationary source equipment (i.e., compressors) shall be located so as to maintain the greatest distance from the public right-of-way and from Noise Sensitive Receptors.	Building/ Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
51.	In the event three citations are issued in connection with the Project for violations of these Conditions of Approval or for other violations of the CCMC, Project construction shall be stopped until such time that it is determined to the satisfaction of the Community Development Director, that causes of such violations have been eliminated or corrected and that the Project will be able to proceed in full compliance with these Conditions of Approval and the CCMC.	Building/ Planning	Standard	
52.	Flag persons with certified training shall be provided for work site traffic control to minimize impacts to traffic flow and to ensure the safe movement of vehicles into and out of the Property.	Building/ Public Works	Standard	
53.	During construction, trucks and other vehicles in loading and unloading queues must be parked with their engines off to reduce vehicle emissions. Construction deliveries shall be phased and scheduled to avoid emissions peaks as determined by the Building Official and discontinued during second-stage smog alerts.	Building	Standard	
54.	Construction vehicles shall not be permitted to stage or queue where they would interfere with vehicular and pedestrian traffic or block access to adjacent properties. Off-site staging shall be at locations approved by the City Engineer and shall be of sufficient length to accommodate large trucks without being unduly disruptive to traffic operations. The drivers of these trucks shall be in radio or phone communication with on-site personnel who shall advise the drivers when to proceed from the staging location to the Property. Construction-related vehicles shall not be permitted to park on public streets.	Building/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
55.	**If any archaeological materials, paleontological materials, or human remains are encountered during the course of the project development, work in that area must be halted and the City of Culver City must be notified. Prior to resumption of work, a Phase 1 Archaeological and Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor all phases of excavation for the project site. Work will be halted in that area of the detected resource until the City of Culver City's archaeologist and paleontologist have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City. If the human remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains.**	**Planning /Building & Safety**	Special	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION				
56.	All provisions, and requirements set forth in these Conditions of Approval, in the Resolution approving the project, in the CCMC, or in any applicable written comments as provided by City representatives on **November 17, 2011** at the Project Review Committee meeting on the Land Use Permit application, shall be fulfilled and satisfied to the satisfaction of all City departments before the use may be established or the Project occupied.	All	Standard	
57.	All requirements of the City's Art in Public Places Program, as set forth in CCMC Section 15.06.100, et. seq., shall be fully satisfied prior to the issuance of a certificate of occupancy; provided, that if such requirements will be satisfied by the payment of the public art in-lieu fee, the same shall be paid prior to the issuance of a building permit.	Cultural Affairs	Standard	
58.	All onsite and offsite improvements and all conditions of approval except those which are deferred pursuant to a bond or letter of credit as determined and approved by the Building Official, Fire Marshal, Planning Manager, and/or City Engineer shall be completed prior to issuance of any certificate of occupancy. Prior to issuance of any certificate of occupancy the following shall be provided to and approved by the City: A. Five full sets of as-built plans that shall include at a minimum the site plan, grading and utility plan, landscape and irrigation plan, floor plan for each level of the Project, parking structure plan, roof plan with all mechanical equipment identified as to purpose and source and all offsite improvements; and B. One set of as-built plans as described above in a digital format compatible with the City's computer system.	All	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
59.	The use and development of the Property shall be in substantial conformance with the plans and materials submitted with the application for the Land Use Permit as reviewed by the Planning Commission at its meeting on **July 11, 2012**, excepted as modified by these Conditions of Approval.	Planning	Standard	
60.	Pursuant to CCMC Section 17.650.020 - "Inspection", the Property Owner and Applicant shall allow authorized City officials, or their designees, access to the Property where there is reasonable cause to believe the Property is not in compliance with these Conditions of Approval or other requirements of the CCMC.	All	Standard	
61.	The use and development of the Property shall comply with these Conditions of Approval and all applicable local, special district or authority, county, state and federal statutes, codes, standards, and regulations including, but not limited to, Building Division, Fire Department, Planning Division and Public Works Department requirements, and shall comply with all applicable CCMC requirements and all comments made during the City's building permit plan check review process. Failure to comply with said Conditions, statutes, codes, standards, and regulations may result in reconstruction work, demolition, stop work orders, withholding of certificate of occupancy, revocation of land use permit approval and/or any other lawful action the City might deem reasonable and appropriate to bring about compliance.	All	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
62.	All graffiti shall be removed from the Property within 48 hours of its application.	Building/ Planning/ PW	Standard	
63.	The Property Owner shall maintain all street trees along the property frontage at his/her sole cost and expense.	Public Works	Standard	
64.	All mitigation measures set forth in any environmental document relating to the Project (including any reports of the type contemplated by the California Environmental Quality Act) shall be completed as specified therein.	Planning	Standard	
65.	**The Applicant covenants and agrees for itself, its successors, its assigns and every successor in interest to the Property or any part thereof that, for so long as the Property or any part thereof is used for the operation of The Willows Community School or other school use as defined in CCMC Section 17.700.010.S ("School Use"), the Developer and its successors and assigns (i) shall not officially or unofficially object to any future proposed uses adjacent to the Property or any part thereof that are otherwise legally permitted or conditionally permitted under the City's zoning regulations, including any future amendments and revisions thereto, but for the proximity of such proposed uses to The Willows Community School or such other School Use, and (ii) shall not officially or unofficially assert, use or rely as a basis for rejection of any future proposed uses adjacent to the Property or any part thereof that are otherwise legally permitted or conditionally permitted under the City's zoning regulations, including any future amendments and revisions thereto, on a finding regarding the presence and proximity of such proposed uses to The Willows Community School or such other School Use.**	**Planning City Attorney**	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
66.	**Public Benefit Contribution. The Applicant agrees to make the following payments to the City (the "Public Benefit Contribution") during the time for which there is a School Use upon the Property, in the amounts and at the times set forth as follows:** **A. The total amount of SIXTY ONE THOUSAND ONE HUNDRED DOLLARS ($61,100) not later than thirty (30) calendar days after the date on which the City issues to the Applicant a demolition permit in connection with Property A, as outlined in the Master Plan, and annually thereafter on or before September 15 of each successive year; and** **B. The total amount of TWENTY ONE THOUSAND FOUR HUNDRED THIRTEEN DOLLARS ($21,413) which amount shall be payable not later than thirty (30) Days after the later of (a) the Applicant acquiring a fee or leasehold interest in Property B or (b) the date as permitted in Section 7.D, and annually thereafter on or before September 15 of each successive year; and** **C. The total amount of TWENTY ONE THOUSAND FOUR HUNDRED THIRTEEN DOLLARS ($21,413) which amount shall be payable not later than thirty (30) Days after the later of (i) the Applicant acquiring a fee or leasehold interest in Property C or (ii) the date as permitted in Section 7.D, and annually thereafter on or before September 15 of each successive year.** **D. During the first two (2) years following the Applicant acquiring a fee or leasehold interest in Property B or Property C, and provided that the City continues to receive annual tax revenue generated from the acquired property in an amount at least equivalent to the immediate prior five (5) year average of tax revenue received by the City, then the Applicant shall not be required**	**CDD**	**Special**	

	to make the Public Benefit Contribution to the City for such property during such two (2) year period. However, if, at any time during the two (2) year period following the Applicant acquiring a fee or leasehold interest in Property B or Property C, the City issues a demolition or construction permit in connection with the Property B and/or Property C, then from and after the date of issuance of the permit, the Applicant shall pay the full amount of the Public Benefit Contribution for such property without any waiver referenced in this condition and notwithstanding the existence of any lease of such property. **E. If the Applicant acquires a fee or leasehold interest in the Property B and/or Property C but fails to obtain a property tax exemption for such property and is required to pay property taxes for such property, then the Public Benefit Contribution shall be due and payable to the City; provided, however that the amount of the Public Benefit Contribution due for such property in any year shall be reduced by an amount equal to the taxes received by the City, applicable to such property for the immediate prior year. However, in no event shall the amount of the Public Benefit Contribution payments be reduced to an amount below zero.** **F. The initial annual payment of the Public Benefit Contribution calculated and payable to the City shall be subject to an annual increase based on the cumulative percentage change in the All Items Consumer Price Index for All Urban Consumers for Los Angeles County the Los Angeles-Riverside-Orange County, California metropolitan area (1982-84 =100), as published by the U.S. Bureau of Labor Statistics (hereinafter "CPI"), between the month of the effective date of this Land Use Permit and the month immediately preceding the month in which each initial annual payment set forth in (A), (B) and (C) above is due. Each subsequent annual payment shall be subject to an increase in the percentage change in the CPI between August of the preceding year and August of the year in which the subsequent annual payment is due. In the event that the All Items Consumer Price Index**			

	for All Urban Consumers ceases to exist, City and Applicant shall mutually agree on a substitute annual inflation index covering the Los Angeles metropolitan area. In no event shall any Public Benefit Contribution to be paid annually be in an amount that is less than the immediate prior Public Benefit Contribution made to the City. **G. In the event Applicant obtains a demolition permit in connection with Property A as outlined in the Master Plan on a date that is three (3) calendar years or more from the Effective Date of this Land Use Permit, or upon any event during the term of this Land Use Permit that effects the uses on the Property or the taxes generated by the Property, including without limitation changes in the tenants of Property B and/or Property C after the Effective Date of this Land Use Permit but prior to the Applicant's purchase, lease or acquisition of any property interest in said properties, as reasonably determined in the sole discretion of the City, the City shall have the right, but not the obligation, to recalculate the amount of the Public Benefit Contribution required to be made to the City as set forth in (A), (B) and (C) above and such new amount shall become the amount of the Public Benefit Contribution to be paid to the City annually subject to the annual increases as set forth in (F) above, but in no event shall the new amount of the Public Benefit Contribution to be paid annually be less than the immediate prior Public Benefit Contribution made to the City.**			

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
67.	**The obligation of Applicant to make the Traffic Improvement Contribution Payment and the Public Benefit Contributions shall run with the land and shall be effective with respect to the Property until the cessation of operations of The Willows Community School or any successor School Use on the Property.**	**CDD**	**Special**	
68.	**In the event the Applicant, its successors and assigns, or all persons claiming under or through them, fails to pay the Traffic Improvement Contribution Payment as required by Condition No. 28 and/or the Public Benefit Contributions or any portion thereof to the City when due as required by Condition No. 66, the delinquent amount shall bear interest, compounded, at the rate of ten percent (10%) per annum or the highest non-usurious rate of interest permitted under applicable law calculated from the date that the corresponding Traffic Improvement Contribution Payment and/or Public Benefit Contributions were due and payable, until the delinquent amount of the Traffic Improvement Contribution Payment and/or Public Contribution Payments are paid, and the City shall have a lien on the Applicant's, or its successors' and assigns', interests in the Property then owned or leased by the Applicant, or its successors and assigns, for the full amount of the delinquent amount of the Traffic Improvement Contribution Payment and/or Public Benefit Contributions that are due and payable, plus interest, until paid in full.**	**CDD**	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
69.	**As security for payment of the Public Benefit Contribution and the Traffic Improvement Contribution Payment, the Applicant shall post an unconditional and irrevocable Letter(s) of Credit for the benefit of the City. The initial amount of the Letter of Credit shall be set at twice the Public Benefit Contribution amount due for Property A as identified in Condition No. 66 ($61,100 X 2 = $122,200). The Letter of Credit shall be a term of one (1) year, subject to automatic annual renewals for so long as the Property is operated as a School Use. At the time of each annual renewal, the Letter of Credit amount shall be adjusted to reflect twice the amount of the Public Benefit Contribution owed to the City at the time of such renewal, as determined by the payment schedule and inflationary rates set forth in Condition No. 66. Under the Letter of Credit, the City shall have the unconditional right to draw down funds i) to reimburse itself for any Public Benefit Contribution payments or the Traffic Improvement Contribution Payment accrued but unpaid by the Developer; and ii) as a penalty in the event the Property is transferred without first obtaining the City's reasonable approval. Funds may only be drawn down from the Letter of Credit after notice and a reasonable opportunity to cure the failure to timely pay or unpermitted transfer has passed.**	**CDD**	**Special**	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
70.	**Applicant's transfer of title of the Property shall be subject to the City's reasonable approval, provided the purchaser intends to continue to utilize the Property for School Use consistent with this Land Use Permit. City's reasonable approval of such transfer shall be conditioned on i) the Public Benefit Contribution payments being current; ii) the successor owner's agreement to all Conditions of Approval set forth in this Land Use Permit by execution of a covenant agreeing to these Conditions of Approval as set forth in Condition No. 29; and iii) the successor owner's submission of a letter of credit in accordance with Condition No. 69.**	**CDD**	**Special**	

Culver CITY

(310) 253-5710
FAX (310) 253-5721

PLANNING DIVISION

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

PROPOSED MITIGATED NEGATIVE DECLARATION

Project Title and File No.: Willows Community School (Zoning Code Amendment, ZCA P-2011154; Conditional Use Permit Modification, CUP/M P-2011156; and Mitigated Negative Declaration, MND P-2011155)

Project Location: 8479, 8509 Higuera Street; 8476, 8490, 8520 Warner Drive; and 8510 Warner Drive and 8525 Higuera Street

Project Sponsor: The Willows Community School

Project Description: Proposal for a Zoning Code Amendment to amend Section 17.230.015, Table 2-8 of the Culver City Municipal Code, to allow for the expansion of existing private schools located in the Industrial General (IG) Zone. Concurrently, a request for Modification to an existing Conditional Use Permit to permit the expansion of The Willows Community School onto the property at 8476 Warner Drive and an increase in student enrollment from 425 to 475; and a Development Agreement.

Environmental Determination:

This is to advise that the City of Culver City, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environment and is proposing this MITIGATED NEGATIVE DECLARATION based on the following finding:

☐ The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

☒ The Initial Study identified potentially significant effects, but:

1. Revisions in the project plans or proposals made by, or agreed to by the applicant before this proposed MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY was released for public review would avoid the effects or mitigate the effects or mitigate the effects to a point where clearly no significant effects would occur, and

2. There is no substantial evidence before the agency that the project as revised may have a significant effect on the environment.

A copy of the Initial Study, and any applicable mitigation measure, and any other material which constitute the record of proceedings upon which the City based its decision to adopt this MITIGATED NEGATIVE DECLARATION may be obtained at:

City of Culver City, Planning Division
9770 Culver Boulevard, Culver City, CA 90232

The public is invited to comment on the proposed MITIGATED NEGATIVE DECLARATION during the review period, which ends **Wednesday, June 13, 2012.**

Joshua Williams, Associate Planner

5/24/2012
Date

Culver CITY

(310) 253-5710
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PLANNING DIVISION

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

INITIAL STUDY

ENVIRONMENTAL CHECKLIST FORM AND ENVIRONMENTAL DETERMINATION

Project Title:	The Willows Community School		
Lead Agency Name & Address:	City of Culver City 9770 Culver Blvd., Culver City, CA 90232		
Contact Person & Phone No.:	Joshua Williams, Associate Planner (310) 253-5706		
Project Location/Address:	*The Willows Community School*: 8509 Higuera Street, 8479 Higuera Street, 8520 Warner Drive, 8490 Warner Drive and 8476 Warner Drive; *World Pac*: 8510 Warner Drive; and *California Stay*: 8525 Higuera Street.		
Nearest Cross Street:	Hayden Avenue and Higuera Street; Hayden Avenue and Warner Drive	**APN:**	4205-024-018, 4205-024-014, 4205-024-002, 4205-024-021, 4205-024-005; 4205-024-020; 4205-024-011.
Project Sponsor's Name & Address:	The Willows Community School 8509 Higuera Street Culver City, CA 90232 Attn: Lisa Rosenstein (Phone: 310-815-0411)		
General Plan Designation:	Industrial Park	**Zoning:**	Industrial General (IG)
Redevelopment Project Area:	Redevelopment Project Area No. 3		
Overlay Zone/Special District:	None		

Project Description and Requested Action: *(Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary)*

The Willows Community School (the "Applicant") is requesting a Zoning Code Text Amendment, a Development Agreement, and a Modification to a Conditional Use Permit to allow for the expansion and phased development of the private school.

This Mitigated Negative Declaration was previously issued on June 7, 2011 by the City of Culver City Redevelopment Agency, acting as lead agency under the California Environmental Quality Act (CEQA). With the changes to State Redevelopment law, the Redevelopment Agency was dissolved effective February 1, 2012. As a result, this MND is being reissued by the City of Culver City, acting as lead agency, with respect to the project described in the prior MND. Modifications from the previously approved MND consist of the following:

1. City as Lead Agency. The City is the lead agency for purposes of this Mitigated Negative Declaration. Comments related to the MND should be directed to Joshua Williams, Associate Planner at the address specified above.

2. Deletion of the Owner Participation Agreement (OPA). As the Redevelopment Agency has ceased to exist, an OPA will not be prepared. Matters previously addressed by the OPA will, at the discretion of the City, be included in a Development Agreement.

3. Change of Comprehensive Plan to Master Plan. The City has determined that a Comprehensive Plan is not required for this project. Instead, the City has requested that the Applicant prepare a Master Plan document providing details on the Phase I development and conceptual plans for Phases II and III, as contemplated for the school's future development. The Master Plan will supplement the request for the Modification to the Conditional Use Permit.

None of the changes described above affect or modify the environmental analysis described in the prior MND or result in any changes in the extent of environmental impacts related to the project.

The Zoning Code Amendment (the "ZCA") to Section 17.230.015 of the Culver City Municipal Code pertains to Private Schools in the Industrial General (IG) zone. Presently, private schools are not a permitted use in the IG zone. Existing private schools are considered legal non-conforming uses and are not permitted to expand. The proposed ZCA will add a footnote to the Table 2-8-Land Use to allow an existing private school in the IG Zone, operating under a previously approved Conditional Use Permit (CUP), to modify its physical facilities and operations subject to the approval of a Modification to their CUP. Concurrently, the request will include a Modification to the Applicant's existing CUP to allow for the removal of one building, the construction of a surface parking lot to serve the school, and the addition of 50 students (25 students immediately after approval of the entitlements and 25 additional students after completion of tenant improvements and construction of the surface parking lot). In addition, the Applicant is requesting to enter into a Development Agreement with the City for the proposed phased development of the Willows Community School site, which at completion will encompass seven parcels, totaling approximately 109,000 square feet of lot area.

The Modification to the Conditional Use Permit includes a Master Plan document that identifies a development plan for Phase 1, which includes the removal of an existing building located at 8476 Warner Drive and the construction of a surface parking lot to accommodate additional on-site parking for the School. Phase 1 also proposes to add 50 students to the school's current enrollment of 425 students, for a total of 475 students.

Conceptual development scenarios for Phases 2 and 3, occurring over a 20 year period, include the acquisition of two abutting parcels, the demolition of existing outdated structures and the construction of new school buildings, and the addition of new landscaping and play areas. Phase 2 and 3 will also include the addition of 100 additional students bringing the school's maximum enrollment to 575 students.

Existing Conditions of the Project Site:

The Willows Community School is comprised of five parcels with the addresses 8479 and 8509 Higuera Street; and 8476, 8490 and 8520 Warner Drive. Presently, all parcels are developed with school uses except for 8476 Warner Drive, which is presently developed with a single story, 6,332 square foot building that has remained empty since it was vacated by a gymnastics school.

The School site is improved with five buildings, four of which are used for school operations (as noted above, the fifth building located at 8476 Warner Drive is owned by the School but is not currently occupied). The School site also includes a 33-space surface parking lot accessible off of Higuera Street and limited landscaped and play areas which are located in an internal courtyard area surrounded by school buildings to the east, west, and north, and the surface parking area to the south. The building located at 8509 Higuera Street includes approximately 10,984 square feet of floor area and is occupied by kindergarten through second grade classrooms, offices and mechanical space. The property at 8479 Higuera Street is developed with an 8,819 square foot building which contains classrooms for third through fifth grades, offices and a library. The building located at 8490 Warner Drive includes 13,270 square feet of floor area and contains the school's sixth through eighth grade classrooms. The building also includes a large multi-purpose room and a rooftop playground and eating area. The property located at 8520 Warner Drive is developed with a 19,264 square foot building housing the school's gymnasium, a theater, music rooms, and office and storage space.

The two buildings located at 8525 Higuera Street and 8510 Warner Drive, occupied by California Stay and World Pac, respectively, have been identified for potential purchase and redevelopment by the Willows Community School as part of the conceptual development plan for Phase 3 of the Master Plan. Both buildings are currently occupied by light industrial and office uses.

Surrounding Land Uses and Setting: *(Briefly describe the project's surrounding)*

The project site is located in the Hayden Tract, within the Industrial General (IG) Zoning District. Abutting properties to the west and east are primarily developed with single story buildings occupied by light industrial, warehouse and office uses. The property to the north of the project site at 8511 Warner Drive is developed with a large surface parking lot known as the Warner Lot. The Warner Lot presently serves as off-street parking for a number of surrounding businesses in the Hayden Tract. It has been entitled for development with a multi-level parking structure and commercial retail center. To the south of the subject property across Higuera Street, the properties are developed with light industrial and warehouse uses surrounded by surface parking lots. The property located at 8550 Higuera Street was occupied by Discus Dental, and is now proposed for use as offices and the construction of a parking garage.

Other public agencies whose approval is required: *(e.g., permits, financing approval, or participation agreement)*
None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- ☐ Aesthetics
- ☐ Agriculture Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Geology /Soils
- ☐ Hazards & Hazardous Materials
- ☐ Hydrology / Water Quality
- ☐ Land Use / Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population / Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation/Traffic
- ☐ Utilities / Service Systems
- ☐ Mandatory Findings of Significance

ENVIRONMENTAL DETERMINATION:

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. 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 'potentially significant impact' or 'potentially significant unless mitigated' impact 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 the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Joshua Williams, Associate Planner Date

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Responses:

a) - c) *Less Than Significant Impact.* There are no scenic vistas or resources in the vicinity of the Willows Community School. No significant adverse impacts relative to scenic vistas and resources will occur because of the proposed project. The Zoning Code Amendment (ZCA) will allow a previously existing private school, operating under a Conditional Use Permit (CUP), to request a modification to its CUP in order to expand its operations. The project site is presently developed with multiple buildings and surface parking lots occupied by the school and commercial/industrial uses. The approval of the ZCA and Modification to the Conditional Use Permit will result in the removal of the building at 8476 Warner Drive, and the redevelopment of the site as a surface parking lot to service the school (Phase I). The project will also result in the addition of 50 additional students, increasing the student enrollment to 475 students. The Master Plan document includes conceptual development and enrollment plans for Phases II and III, which are intended to provide a path for development over the next 20 years. The Master Plan document identifies scenarios for expansion and development of the School property, requested through future Modifications to the Conditional Use Permit. The heights, massing, setbacks, and architecture of new buildings will be similar to existing structures and will conform to Zoning Code regulations. Therefore, the project impacts will be less than significant.

d) *Less than significant impact.* During Phase 1 of the school's proposed development, no additional lighting would be provided on the Willows School site except for security lighting in the new parking lot along Warner Drive (the former Willows V building). As envisioned in the Master Plan document, during Phase 2 the Willows III building (8479 Higuera Street) would be removed and additional parking would be located on a portion of the cleared site. A new building would occupy the remainder of the cleared Willows III site. The envisioned scenario for Phase 3 includes the removal of the Willows I building (8509 Higuera Street), and the acquisition and removal of the WorldPac Building (8510 Warner Drive) and the California Stay Building (8525 Higuera Street), and the construction of new school buildings in their place. All lighting associated with the new buildings and parking area will be required to comply with Section 17.300.040 of the Zoning Code (Outdoor Lighting), which requires that exterior lighting be directed downward and away from adjoining properties and public rights-of-way.

In addition, the types of materials used in the architectural design of the new buildings will be similar to those already found on the school site. The project will not, as proposed, introduce substantial sources of light and glare onto abutting properties or the surrounding neighborhood. Therefore, the project impacts will be less than significant.

Mitigation Measure(s): None Required

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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 Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

Responses:

a) - e) *No Impact.* The project area, comprised of those areas located in the Industrial General zone and developed with a private school and industrial uses, is predominantly urbanized and is surrounded by existing disturbed land and development. The Culver City General Plan Land Use Element Map identifies no agricultural land or uses within the city boundaries. The project area is not identified, utilized, or zoned for agricultural purposes, and there is no known Williamson Act contract in effect on the project site. In addition, the project will not result in the loss or conversion of farmland or forest land into another use, as the project site is located in a fully-developed urbanized area. Therefore, no impact would occur.

Mitigation Measure(s): None Required.

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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 which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Responses:

a) *Less Than Significant Impact*. The entire South Coast Air Basin (which includes Culver City) does not meet National Ambient Air Quality Standards. Future new development (or redevelopment) in any portion of Culver City will contribute, both at the project level and cumulatively, to pollutant emissions over this existing non-attainment area (at both construction and operation phases). For projects proposed within Culver City or elsewhere in the South Coast Air Basin, the applicable plan is the 2007 Air Quality Management Plan (AQMP), which is prepared by the South Coast Air Management District (SCAQMD). The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary. Projects that do not exceed or are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG) are considered consistent with AQMP growth projections, since the Growth Management Chapter forms the basis of the land use and transportation control portion of the AQMP. Since SCAG's regional growth forecasts are based upon, among other things, land uses specified in city general plans, a project that is consistent with the land-use designated in a city's general plan would also be consistent with the SCAG's regional forecast projections. Subsequently, a project that is consistent with SCAG's regional forecast projections would then also be consistent with the AQMP growth projections.

The project does not include the development of housing or new infrastructure. The project would add 150 students and 12 staff members over a 20 year period, as envisioned in the school's Master Plan document. The project under consideration in this instance will result in the removal of one structure (8476 Warner Drive, also known as Willows V) and an increase of the student enrollment from 425 students to 475 students. The increase in student population would serve the existing need for school services and employment in the project region. Thus, the project will not induce substantial growth. The project will not result in population, housing, or employment growth in excess of what was considered for the project site and the City in the AQMP. Therefore, the project will be consistent with the AQMP, and no significant impact related to the project will occur.

b) *Less Than Significant Impact*. A project may have significant impacts where project-related emissions would exceed federal, state, or regional standards or thresholds, or where project-related emissions would substantially contribute to an existing or projected air quality violation. Analysis of daily construction and operational emissions was prepared by CAJA Environmental Services (2011) using the California Emissions Estimator Model (CalEEMod) recommended by SCAQMD.

Construction Emissions. The proposed project will generate pollutant emissions from the following construction activities: 1) demolition, grading and excavation; 2) travel to and from the project site by construction workers; 3) delivery and hauling of construction supplies and debris to and from the Project site; 4) the fuel combustion by onsite construction equipment; and 5) building construction, including the application of architectural coatings. It is anticipated that the above construction activities will result in temporary emissions of dust, fumes, exhaust and other air contaminants. Construction activities involving site preparation and grading would primarily generate PM_{10} emissions. Mobile source emissions (use of diesel-fueled equipment onsite, and traveling to and from the project site) would primarily generate nitrogen oxide (NO_x) emissions. The amount of emissions generated on a daily basis would vary, depending on the amount and types of construction activities occurring at the same time. As part of the project, appropriate dust control measures will be implemented during each phase of development, as required by SCAQMD Rule 403 – Fugitive Dust. Rule 403 requires that water is sufficiently added to the construction site to prevent the generation of visible dust plumes; that soil binders are applied to uncovered areas; and that ground cover is reestablished as quickly as possible. In addition, a wheel and undercarriage washing system are required to remove bulk material from vehicles leaving the construction site. The amount of emissions generated by construction activities on-site are not expected to exceed current SCAQMD thresholds, based on the CalEEMod analysis of peak construction days for each of the construction activities. Therefore, project impacts will be less than significant.

Operational Emissions. Operational emissions generated by both stationary and mobile sources will result

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

from normal day-to-day activities on the project site after occupation. Stationary emission sources would be generated from school operations (primarily natural gas consumption) and landscape maintenance. Mobile emissions will be generated by vehicles travelling to and from the project site. Based on the analysis using CalEEMod software, the amount of emissions generated by operational activities will not exceed SCAQMD thresholds for any phase of development. Therefore, impacts associated with operational emissions from the project will be less than significant.

c) *Less Than Significant Impact*. SCAQMD states that if an individual development project generates less than significant construction or operational emissions, then the development project would not generate a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

As discussed in the response to III.b (above), the proposed project will not generate emissions from construction or operational activities in excess of SCAQMD thresholds (SCAQMD CEQA Handbook, 1993; Revised March 2011). Therefore, the project will not result in a cumulatively considerable increase in emissions. Cumulative impacts will be less than significant with the implementation of recommended measures per SCAQMD – Rule 403.

d) *Less Than Significant Impact*. A sensitive receptor, as defined by AQMD, is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant. The following are land uses (sensitive sites) where sensitive receptors are typically located: schools, playgrounds and child care centers; long-term healthcare facilities; rehabilitation facilities; convalescent centers; hospitals; retirement homes; and residences.

The average peak daily emissions generated within the project site during the construction phases would not exceed the applicable construction localized significant thresholds (LSTs). The SCAQMD defines a localized significance threshold as "the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor, taking into consideration ambient concentrations in each source report area (SRA), project, size, distance to the sensitive receptor, etc." LSTs are provided for each of SCAQMD's 38 source receptor areas at various distances from the source of emissions. The project site is located within SRA 2, which covers the Northwest Coastal Los Angeles County Area.

To determine the significance of operational emissions generated by the project, the net operational emissions of the Project were compared to SCAQMD's operational LSTs. The use of operational LSTs is limited because they only consider stationary or on-site operational activities associated with the project site. Trips to and from the project site are not included in the SCAQMD analysis. Analysis of operational emissions generated by the project (see III.b, above) shows that the project will not exceed the established SCAQMD localized thresholds for NO_x, CO, PM_{10}, and $PM_{2.5}$.

A separate analysis looked at localized emissions associated with motor vehicle trips generated by the project. The analysis prepared by CAJA Environmental Services used the CALINE4 (http://www.dot.ca.gov/hq/env/air/pages/calinesw.htm) screening procedure to analyze four intersections in the immediate vicinity of the project site: National and Washington; Jefferson and Washington; Robertson and Washington; and Jefferson and Rodeo. Based on anticipated trips generated by the project in addition to traffic growth associated with cumulative development, the future 1-hour and 8-hour CO concentrations near the four intersections will not exceed federal or state ambient air qualities. Therefore, project impacts related to CO concentrations from vehicle trips will be less than significant.

e) *Less Than Significant Impact*. The project is not anticipated to result in the generation of any objectionable odors. During the construction phase, building materials, including paint and adhesives, may produce discernible odors typical of most construction sites. These odors would be temporary in nature and will not result in a significant environmental impact. Therefore, the impact of objectionable odors in the project vicinity will be less than significant.

Mitigation Measure(s): None Required.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
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 U.S. Fish and Wildlife Service?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Responses:

a) - f) *Less Than Significant Impact.* The project area is located in an urbanized area that is developed with commercial, light industrial and parking land uses. The site does not include any habitat that would support sensitive plant or animal species. There is no riparian habitat or other sensitive natural community on the site. The project site supports no federally-protected wetlands or waters of the United States as defined by Section 404 of the Clean Water Act. The project site is completely surrounded by development and within an urbanized area and has not been identified as part of a resident migratory wildlife corridor or wildlife nursery site. The expansion of school operations will not result in a substantial effect on habitat for any protected species and will not impact any wetland areas, therefore development of the project site will result in less than significant impacts.

Mitigation Measure(s): None Required.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Responses:

a) *Less Than Significant Impact.* The analysis of project impacts related to historical resources is based on the *Willows Community School Historical Report*, prepared by Galvin Preservation Associates (March 2011).

The historical report analyzed the five existing buildings owned or leased by the Willows Community School and the two buildings abutting the site (8510 Warner Drive and 8525 Higuera Street) identified for future expansion. The report identified that the buildings located at 8479 and 8509 Higuera Street and 8490 and 8510 Warner Drive have been substantially altered and lack sufficient integrity for individual landmark designation at the national, state, and local levels. Therefore they do not merit further evaluation. The buildings located at 8525 Higuera Street and 8476 and 8520 Warner Drive remain substantially intact. However, based on the Historical Report, none of the buildings appear to be historically, culturally, or architecturally significant.

None of the five buildings located on the existing school site, nor the two buildings proposed for future expansion are listed as landmarks at the national, state, or local levels, nor have they been identified as being potentially significant in any historic resource survey for the area. None of the buildings are historic buildings subject to CEQA. Therefore, the proposed project will not cause substantial adverse change in the significance of a historical resource.

b) - d) *Less Than Significant Impact with Mitigation.* While the project will result in the removal of existing buildings and the disturbance of land, it is unlikely that archaeological, paleontological or human remains will be discovered. During the original construction and development of the area, resources of this nature were likely to have been encountered and removed. However, in order to ensure that project impacts will be less than significant the project will be subject to Mitigation Measure CR-1 in the event that unknown resources are encountered during construction.

Mitigation Measure(s): Because the project could result in potentially significant impacts related to cultural resources, the City requires implementation of following Standard Mitigation Measure to ensure that no significant impacts would occur:

CR-1: If any archaeological materials, paleontological materials, or human remains are encountered during the course of the project development, work in that area must be halted and the City of Culver City must be notified. Prior to resumption of work, a Phase 1 Archaeological/Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

all phases of excavation for the project site. Work will be halted in that area of the detected resource until the City of Culver City's archaeologist and paleontologist have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City. If the human remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains.

VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures 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? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic 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?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Responses:

a)

i) *No Impact*. The Willows Community School is not located within a state designated Alquist-Priolo Zone. Therefore, no impacts will result.

ii) *Less Than Significant Impact.* Development of the project site with new buildings would expose future users/tenants to seismic ground shaking. However, conformance with the City's Municipal Code and the International Building Code (IBC) will minimize potential impacts to buildings and the building occupants from seismic ground shaking. Therefore, project impacts will be less than significant.

iii) *Less Than Significant Impact with Mitigation.* The analysis of seismic-related ground failure, including liquefaction is based on the *Report of Preliminary Geotechnical Evaluation*, prepared by Mactec, for the proposed project. The report assessed the potential for liquefaction at the project site. Based on testing of soils taken from borings at the project site, the potential for liquefaction at the project site is low. However Mactec recommends the following actions: 1) provide further testing for liquefaction by preparing additional borings prior to the final design and construction of buildings on-site; and 2) implement Mitigation Measures GS-1 and GS-2, in order to reduce potential impacts related to liquefaction to less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

iv) *No impact*. The project site and surrounding area are relatively flat and are not subject to landslides. Therefore, no impacts will result.

b) *Less Than Significant Impact.* During construction, grading would expose minimal amounts of soil for a limited time, allowing for possible erosion. Although the project development has the potential to result in minor erosion of soils during site preparation and construction activities, erosion would be reduced by implementation of erosion controls imposed during grading and construction. Runoff associated with the project would be directed to landscape areas and/or pre-manufactured stormwater quality best management practices (BMPs) for infiltration and water quality purposes or directed to an impervious drainage system. While the construction and related ground disturbance will alter the existing drainage patterns on the site, the standard erosion control measures identified will reduce the project impacts to less than significant.

c) *Less Than Significant Impact with Mitigation*. Analysis by Mactec of sample borings has indicated that the potential for liquefaction on the project site is low. However, Mactec recommends addition borings be tested prior to final design and construction of the proposed structures. With the implementation of Mitigation Measures GS-1 and GS-2, impacts related to geology and soils will be less than significant.

d) *Less Than Significant Impact with Mitigation*. Based on the analysis by Mactec, the upper soils located on the project site are not considered to be expansive and would not cause damage to at-grade buildings. Mitigation Measures GS-1 and GS-2 require additional borings be tested to determine if soils at a lower level and located in other areas on the project site may be subject to expansion. With the implementation of the two mitigation measures, impacts related to expansive soils will be less than significant.

e) *No Impact.* The project will not utilize septic tanks or alternative wastewater disposal systems. It will be served by City of Culver City wastewater services. Therefore, there will be no impacts.

Mitigation Measure(s): With implementation of the following mitigation measures, Project impacts related to geology and soils will be less than significant:

GS-1: Prior to issuance of a grading permit by the City, the Applicant shall submit to the City, for review and approval, a comprehensive geotechnical investigation for the project, including additional soil borings.

GS-2: The design and construction of the project shall occur in accordance with the applicable recommendations identified in the comprehensive geotechnical investigation.

VII. GREENHOUSE GAS EMISSIONS –Would the project:

a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Responses:

a) – b) *Less Than Significant Impact.* The *Greenhouse Gas Inventory and Analysis* prepared by CAJA Environmental Services identifies that the greenhouse gas emissions associated with the proposed project construction and operation will be less than significant. In addition, the project will not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing emissions of greenhouse gases.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

The emissions generated by the project (and any project) are too small to influence global climate change individually. Even if an individual project's greenhouse gas (GHG) emissions were large enough to influence global climate change, the significance of the impact of a single project on the global climate cannot be determined at this time. First, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant impact on the global climate. Second, global climate change models are not sensitive enough to be able to predict the effect of a single project on global temperatures and the resultant effect on climate; therefore they cannot be used to evaluate the significance of a project's impact. In addition, there are currently no adopted thresholds or guidance adopted by the SCAQMD or other agencies in California to assess the significance of potential impacts associated with greenhouse gases. In the absence of established GHG thresholds, the Governor's Office of Planning and Research (OPR) recommends in its 2008 technical advisory that lead agencies should make a good faith effort to calculate, model, or estimate the amount of CO_2 and other GHG emissions from a project. In response to the Governor's Executive Order (S-3-05) to reduce statewide GHG emissions to targeted levels (specifically to reduce GHG emissions to 80 percent below 1990 levels by 2050), the Secretary of Cal/EPA created the Climate Action Team (CAT), which in March 2006, published the Climate Action Team Report to Governor Schwarzenegger and the Legislature (the "2006 CAT Report"). The 2006 CAT Report identifies a recommended list of strategies that the State could pursue to reduce climate change GHGs. These are strategies that could be implemented by various State agencies to ensure that the Governor's targets are met and can be met with existing authority of the State agencies.

In analyzing potential impacts related to the construction and operation of the project, the report notes that in the absence of regulatory guidance, evaluation of the project's impacts associated with GHG emissions is done qualitatively by determining consistency of the project to any of the emission reduction strategies identified by the CAT Report and by the California Air Resources Board (ARB). If the project is consistent with the guidelines established by the CAT Report and by the ARB, project specific impacts related to GHG emissions would be less than significant, and the project's contribution to any potential cumulative impact related to GHG emissions would not be considerable.

Project construction will result in the following CO_2e emissions (metric tons/annual):

- Phase 1: 5,155.5
- Phase 2:
  - 2018 – 2,123.20
  - 2019 – 1,613.35
- Phase 3:
  - 2028 – 4,420.74
  - 2029 – 3,160.38

Project operations will result in the following CO_2e emissions (metric tons/annual):

- Phase 1: Mobile emissions – 1,024.49
- Phase 2: Energy emissions – 72.44
  Mobile emissions – 1,331.77
- Phase 3: Energy emissions – 132.80
  Mobile emissions – 403.89

The project's impacts from GHG emissions will be less than significant due to the improved sustainability of modern construction and design compared to the existing buildings on-site. It is anticipated that greenhouse gas emissions would be reduced by the following sustainable design and construction features integrated into the project:

Zero Waste – High Recycling: Efforts to exceed the 50 percent goal of recycling would allow for additional reductions in climate change emissions. The project will be subject to the requirements of AB 939 (The Integrated Waste Management Act), which required cities to divert at least 50 percent of solid waste away from the landfills through a variety of measures. The City is currently exceeding the State-mandated 50 percent and has set a target of 70 percent diversion by 2015. The project will be subject to all applicable State and City requirements for solid waste reduction.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use will reduce greenhouse gas emissions. The project will be designed with water saving and energy efficient features.

Building Energy Efficiency Standards in Place and in Progress: The project will be required to be constructed in compliance with the standards of Title 24 (The Energy Efficiency Standards for Residential and Non-Residential Buildings) that are in effect at the time of development.

Smart Land Use and Intelligent Transportation Systems (ITS): The project includes the development of parcels that have already been developed and are served by existing roadway infrastructure and transit. The project will provide school services and employment for people living in the project area/region, thereby encouraging a jobs/housing balance for the City.

Green Building Initiative/ Green Building Strategy: The Green Building Executive Order, S-20-04 sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. In order to achieve the 20 percent reduction target, the project will be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development. In addition, development under all phases will be guided by Leadership in Energy and Environmental Design (LEED) principles and could incorporate design elements such as: green wall systems, natural lighting strategies, photovoltaic panels, post-consumer materials, and high fly-ash concrete. New landscaping will be designed to incorporate low-water native plants, with a water-saving irrigation system.

California Solar Initiative: Although solar roofs are not proposed as part of the project, the design of the new school structures will not preclude the installation and use of solar equipment in the future.

Energy Efficiency: The ARB recommends that projects maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy implementation mechanisms. In order to meet energy efficiency standards, the project will be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development.

Mitigation Measure(s): None Required.

VIII. HAZARDS AND HAZARDOUS MATERIALS –Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school??	☐	☐	☐	☒
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 it create a significant hazard to the public or the environment?	☐	☐	☐	☒

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact.* The project will utilize potentially hazardous materials as part of its construction and operation, including solvents, paints, petroleum products and pesticides. All potentially hazardous materials will be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. The transport of these materials, typically sold as consumer goods, would not pose a significant hazard to the public or the environment. Therefore project impacts related to the routine transport, use or disposal of hazardous materials will be less than significant.

b) *Less Than Significant Impact.* According to the California Department of Toxic Substances Control (DTSC), the school site was vacant or used for agricultural purposes until the mid-1940s. Between that time and the early/mid-1990s, the school site was used for light industrial purposes, including a plastics factory until the 1970s. An environmental investigation and some remediation work were performed at the school site in 1995 and 1996. The investigation identified chlorinated solvent contamination at the southerly portion of the site in both shallow soil and groundwater (at approximately 25 feet below ground surface). A soil vapor extraction system was installed to address the contamination in shallow soil, and that system operated off and on over an approximately six-month period between 1995 and 1996.

A completion report was submitted to the Los Angeles Regional Water Quality Control Board (RWQCB) in March 1996. The RWQCB then requested additional confirmation sampling, and a limited amount of soil vapor sampling was performed. In a June 1996 letter, the RWQCB noted that residual concentrations were below then available interim screening values and no further action was required in connection with the soil contamination, but no closure was provided in regards to groundwater since the remediation system had not been designed to address the groundwater aspect of the site.

During the spring and summer of 2007, the school engaged Geomatrix to perform additional site investigation work as part of the school's pre-purchase due diligence. That work included soil, groundwater, and soil gas sampling; indoor and ambient air sampling; and preliminary feasibility analysis on various remedial options. Geomatrix's data confirmed significant residual levels of chlorinated solvents in soil gas samples 5 to 15 below grade; limited soil contamination; and limited VOC impacts in perched groundwater.

RWQCB recommended installation of a soil vapor extraction system, which was installed at the school site and is currently in operation. On-going operation and maintenance reports are prepared and submitted to DTSC on a quarterly basis. Through continued use of the existing soil vapor extraction system and reporting, the project will not result in any substantial hazards. The project will not create a significant hazard to the public through new or ongoing operations and therefore impacts will be less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

c) *No Impact.* The types of potentially hazardous materials associated with the project include solvents, paints, petroleum products and pesticides that would be used in the construction and operation of the project. All potentially hazardous materials will be contained, stored and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Therefore, the project will not result in any impacts.

d) *No Impact.* The school is not located on a site which is included on a list of hazardous materials sites pursuant to Government Code Section 65962.5. Therefore, there is no impact.

e) *No Impact.* The project site is not located within an airport land use plan or within two miles of any airport. Therefore, there is no impact.

f) *No Impact.* The project site is not located within the vicinity of a private airstrip. Therefore, there is no impact.

g) *Less Than Significant Impact.* The project will not inhibit access to hospitals, emergency response centers, school locations, communication facilities, highways and bridges, or airports. The project will comply with all applicable City policies related to disaster preparedness and emergency response. Therefore, the project will not impair implementation of or physically interfere with an adopted emergency response or evacuation plan, and no impact will occur.

h) *No Impact.* The project is located in a highly urbanized area of the City where the possibility of wild land fires is remote. Implementation of the project will not result in any increase in exposure of people or structures to wildfire dangers, therefore there is no impact.

Mitigation Measure(s): None Required.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
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 table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, 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?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, 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 which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Responses:

a) *Less Than Significant Impact.* The project does not include any point-source discharge. The project development will conform to all requirements of the Regional Water Quality Control Board (RWQCB) and Municipal Code and will not result in unpermitted discharges into the sanitary sewer and storm water systems. Therefore, implementation of the project will result in less than significant impacts related to this issue.

b) *Less Than Significant Impact.* The project site is fully developed and covered almost entirely by impervious surfaces in the form of building and parking lot areas. Presently, stormwater does not infiltrate into the ground, but sheetflows across the site to the local stormdrain system. The site is not a significant source or area for groundwater recharge. In addition, water usage for the project will not be supplied through the depletion of groundwater supplies. Therefore, the project will result in less than significant impacts.

c) – e) *Less Than Significant Impact.* The project includes the removal of an existing structure in Phase 1 with the potential removal and construction of structures in Phases 2 and 3. The project will not increase the amount of impervious surfaces on the site, and as proposed, may result in additional landscaped areas that will allow greater ground infiltration, thereby reducing run-off. As proposed, the run-off associated with the project will be either directed to landscaped areas and/or pre-manufactured storm water quality BMPs for infiltration and water quality purposes or directed to the stormdrain system. As such, the alteration of the existing drainage pattern would not result in substantial erosion or siltation on- or off-site. The project will also not result in any increase in runoff to local stormdrains. Therefore, project impacts related to altering drainage patterns will be less than significant.

f) *Less Than Significant Impact.* For each project construction phase, the applicant will be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP), which details the construction activities, materials, and wastes and lists the best management practices (BMPs) to control pollutant discharge during construction. For construction activities disturbing more than one acre (proposed Phases 2 and 3), the project applicant will be required to prepare and implement a Standard Urban Stormwater Management Plan (SUSMP), in accordance with the National Pollution Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with construction activity. The SUSMP would detail the treatment measures and BMPs to control pollutants and would include an erosion plan that outlines erosion and sediment control measures that would be implemented during the construction and post-construction phases of the project development. The SUSMP would also describe the post-construction BMPs used to reduce pollutant loading in runoff and percolate once the site is occupied and would set forth the BMP monitoring and maintenance schedule. It will also identify responsible entities during the construction and post construction phases. Preparation of the SWPPP and SUSMP and compliance with the City's Minimum Storm Water Protection Requirements would ensure that the project will not violate any water quality standards. Therefore, the project impacts related to water quality will be less than significant.

g) - h) *No Impact.* The project site does not include any housing nor is it located within a 100 year flood hazard area. Therefore, there will be no impacts.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

i) *Less Than Significant Impact.* The project site is located within the Mulholland Dam Inundation Zone. The project will not impede escape routes or access of emergency vehicles in the event of a major flood incident. The project will adhere to all emergency procedures to minimize impacts to building occupants

j) *Less Than Significant Impact.* The project site is located at a significant distance to the nearest coastal area subject to tsunami and seismic sea waves, and has not been identified as being within range of potentially damaging waves. In addition, the project site is not located downslope of any large bodies of water that could adversely affect the site in the event of earthquake-induced failures or seiches or wave oscillations in an enclosed or semi-enclosed body of water. Therefore, impacts are less than significant.

Mitigation Measure(s): None Required

X. LAND USE AND PLANNING -- Would the project:

a)	Physically divide an established community?	☐	☐	☐	☒
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Responses:

a) and c) *No Impact.* The project site is currently developed with the Willows Community School and two commercial industrial businesses. The project (specifically, the phased development of the Willows School and its entitlements) will not physically divide an established community. The project site, located within the Industrial General zone, is not subject to a habitat conservation plan or natural community conservation plan.

b) *Less Than Significant Impact.* The project will include the phased development of the Willows Community School. The applicant is requesting approval of a Zoning Code Amendment, a Modification to a Conditional Use Permit Modification, which will allow the existing private school the opportunity to modify and expand the schools' facilities and operations, and a Development Agreement. Because of the industrial nature of the area, the presence of sensitive receptors (i.e., school children) may limit the opportunities for new industrial uses to locate within the immediate vicinity of any school site. In addition, the conversion of the industrial zoned land into a school use will remove the opportunity for new industrial manufacturers and similar businesses that work with hazardous materials to locate in the area. However, the number of pollutant emitting industrial uses within a 1,000-foot radius of the project site and the other two private school uses is relatively low – between four and seven uses. These uses were varied, and included small manufacturers, automotive and auto-body repair, and a dry cleaning operation facility. A further review of businesses adjacent to the private school sites identified several manufacturing operations, but primarily entertainment production, creative offices, warehousing, and import/export businesses. These businesses could be characterized as "clean industries". The presence of these clean industries will not impact the operation of the school.

Furthermore, the project will be consistent with the City of Culver City's General Plan. The General Plan's Land Use Element, Policy 23.H, proposes an appropriate range of uses and standards for the Hayden Tract (the location of the Willows Community School) that will "encourage viable and creative development and minimize environmental hazards". Policy 5.C encourages development of cultural, educational, and entertainment uses that will provide leisure activities for Culver City's residents and enhance the image of

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

the City. Policy 8.B seeks to ensure that development impact fees mitigate all resultant costs burdened on City infrastructure and services. Lastly, Policy 6.B seeks to reduce pressure on on-street parking through private and public off-street parking facilities.

As part of the application, the applicant is requesting a Zoning Code Text Amendment to permit existing private schools within the Industrial General zone the opportunity to request a modification to their existing conditional use permits (CUPs). The Applicant is also requesting a modification to the existing CUP to allow for an increase of 150 students and 12 employees over the 20 year phased development of the school, as proposed in the Master Plan. The proposed phased development will be consistent with all height, massing, setback, and parking requirements of the Zoning Code. Impacts related to the phased development of the project site will be less than significant. Overall, environmental impacts due to the presence of the private school within the IG Zone will be minimal.

Mitigation Measure(s): None Required.

XI. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) 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?	☐	☐	☒	☐

Responses:

a) - b) *Less Than Significant Impact*. The Project will not result in any disturbance to known mineral resources in the immediate vicinity. The project area is predominantly urbanized and is surrounded by existing disturbed land and development. The area adjacent to the Willows Community School is located in the Industrial General zone and is presently developed with other uses.

Mitigation Measure(s): None Required.

XII. NOISE --Would the project 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?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact*. Impacts related to the generation of noise levels in excess of community standards are analyzed separately, as part of construction and school operation activities. The Culver City Noise Ordinance (Chapter 9, Section 9.07.035 "Construction") exempts noise sources associated with construction when performed between the hours of 8:00 AM and 8:00 PM on weekdays, 9:00 AM and 7:00 PM on Saturdays, and 10:00 AM and 7:00 PM on Sundays. The phased construction of the project will require the use of heavy equipment for demolition, grading and excavation as part of activities related to the construction of the foundation and building fabrication. During construction, activities will not be constant. A different mix of equipment operating and noise levels will vary based on the amount of equipment in operation and the location of each activity.

Land uses on the properties surrounding the project site are primarily developed with light industrial, office and warehouse uses, which are not considered noise sensitive. Due to the use of construction equipment during the construction phase, the project will expose students and staff associated with the school to increased ambient exterior noise levels. The project applicant will also notify surrounding residential communities in advance of construction activities, and both the Applicant's and City's contact information will be posted on the project site to direct residents wishing to report noise and other construction activity complaints. Through compliance with the City's Noise Ordinance, temporary noise levels associated with construction activities will be less than significant.

During the ongoing operation of the project, on-site operational noise will typically be generated by heating, ventilation, and air conditioning (HVAC) equipment. However, the noise levels generated by this equipment will not be substantially greater than those generated by existing HVAC equipment serving the school site. Additionally, the design and construction of the new school structures will have to comply with Title 24 of the California Code of Regulations, which requires interior noise levels not to exceed 45 dBA. Through compliance with Title 24, occupants (i.e., students, faculty and staff) will not be exposed to excessive interior noise levels. Therefore, project impacts related to on-site noise will be less than significant.

Lastly, the Applicant submitted data related to noise arising from traffic generated by the project. The Traffic Noise Model lookup tables developed by the Federal Highway Administration (FHWA) were used to estimate existing (2010) and future (2015 and 2020) traffic noise levels during the morning peak hour, school peak hour, and afternoon peak hour along the roadways associated with the study intersections both with and without the project's anticipated traffic. The results of the modeling show that traffic associated with the project will not result in a noticeable increase in noise levels at any of the studied intersections. Therefore, project impacts related to traffic noise will be less than significant.

b) *Less Than Significant Impact.* During construction of the project, the use of machinery including bulldozers, trucks, drills, etc. will be typical. The amount of groundborne vibration that is created by the use of equipment during the construction of the project, although noticeable, is not excessive. Additionally, construction of the project will occur intermittently over several months and over several phases, lessening the impact of prolonged vibration or noise. In regards to the operation of the school, uses of this type, specifically educational facilities, do not generate strong ground vibrations or noise. Thus, the project will not result in impacts related to groundborne vibration or noise and will therefore be less than significant.

c) *Less Than Significant Impact.* The project site is presently developed with the Willows Community School. The project includes the phased development of the school, with the immediate consideration for the addition

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

of 50 students and the removal of the Willows V building (8476 Warner Drive) and construction of a surface parking lot and play area. . Future phases may also include an increase in enrollment to 575 students and the expansion of school operations onto sites with existing light industrial uses, as envisioned in the school's Master Plan for development over the next 20 years. While the addition of students may result in an increase in the use of the playground facilities where noise is typically generated, the staggered scheduling of play area usage will maintain noise at current levels. In addition, conceptual plans for future site development as part of Phases 2 and 3 envision a central playground area surrounded by school structures on all four sides, which would help to muffle noise, thereby reducing potential noise impacts on abutting properties. The ambient noise level is not expected to substantially increase from the usage on a permanent or temporary basis. Therefore, impacts will be less than significant.

d) *Less Than Significant Impact.* The project will result in periodic increases in ambient noise levels during construction and demolition activities related to the phased development of the project. As noted previously, all construction activities will comply with the Municipal Code regarding hours of construction. In addition, notice will be placed at the construction site providing contact information for the Applicant and the City should there be concerns or complaints regarding ongoing noise issues at the project site.

e) *No Impact.* The project site is not located within an adopted airport land use plan or within two miles of an airport. The project will not expose people in the project area to excessive noise levels, therefore there is no impact.

f) *No impact.* The project is not located within the vicinity of a private airstrip, therefore there is no impact.

Mitigation Measure(s): None Required

XIII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact.* The project includes the phased development of the Willows Community School with an expansion of school operations and facilities to accommodate 150 additional students over a 20 year period, increasing the school enrollment to 575 students. While the project does not involve the addition or removal of housing, the addition of school facilities may induce population growth in the areas near the school site. However, as this is a private school, attendance is not limited by geographic boundary. Students attending the school may live outside of Culver City in a neighboring jurisdiction. Therefore, impacts on population growth in the area are anticipated to be less than significant.

b) & c) *No Impact.* The project will not result in the displacement of any housing units or people. Therefore, there will be no impact.

Mitigation Measure(s): None Required.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

XIV. PUBLIC SERVICES --

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for 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 public services:

Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Responses:

a) *Less Than Significant Impact*. Fire and Police Protection. The project potentially could increase the need for fire protection services at the project site by increasing the number of students and staff, however according to the Culver City Fire Department (CCFD), the existing CCFD staffing and equipment could accommodate the project's need for fire protection services.

The Culver City Police Department, like the CCFD, could potentially be impacted when the school increases the number of students and staff. However, based on existing staffing and equipment, the City's police resources will be able to adequately serve the project. Neither the Fire Department nor the Police Department during the internal review of the project identified impacts to their response times as noted above; further they did not identify impacts to their ability to provide adequate services. Therefore, impacts related to fire and police protection will be less than significant.

Schools. The project will result in the expansion of facilities and operations at the Willows Community School, a private school facility serving students from Culver City and the region. The increase in student enrollment and expansion of facilities will not result in impacts on existing school services in the community.

Parks. The Willows Community school currently rents parkland at Syd Kronenthal Park from 3:00 PM to 5:00 PM during the school week and from 10:30 AM to 2:30 PM during the summer week days. The school's usage of the parkland will continue under the project. According to the City's Parks and Recreation Department, the school's usage of the parkland does not and would not preclude the use of other portions of the park or other parks in the area by other people/parties, especially since the school uses the parkland during non-peak hours. Additionally, the project includes recreational amenities, such as play areas, a play court, a multi-purpose room, a theater, etc. Thus, the project will not create the need for new or expanded parks and recreation facilities. Therefore, the project will have less than significant impacts on park facilities.

Other Public Facilities. No other facilities will be impacted by the project.

Mitigation Measure(s): None Required

XV. RECREATION --

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
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?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Responses:

a) & b) *Less Than Significant Impact*. As identified previously, the school currently and will in the future, use local public recreational facilities, specifically Syd Kronenthal Park from 3:00 PM to 5:00 PM during the school week and from 10:30 AM to 2:30 PM during the summer weekdays. While an increase in the size of operations may result in more students utilizing the school facilities during school hours and use of public recreation facilities both during and after school, such use is not anticipated to result in overuse of existing facilities that would cause substantial physical deterioration of the facilities. The City's Parks and Recreation Department provides usage of the parks on a reservation basis. The Willows School must apply and be approved, and pay a fee for usage of the parkland (i.e. the ball fields) just as all other users seeking to utilize that space. The Parks and Recreation Department has stated that the usage of the parks by the school is typically done during non-peak hours. The project will not include the development of off-site recreation facilities; however the phased development of the school conceptualized in the Master Plan identifies new soft- and hard-scape play areas built on the project site which is not expected to result in negative impacts on the environment.

Mitigation Measure(s): None Required

XVI. TRANSPORTATION/TRAFFIC – Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) 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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact*. This analysis is based on the following report:

- *Traffic Impact Analysis for the Willows Community School*, Overland Traffic Consultants, Inc. April 2011.

As part of its analysis for the project, the Applicant's consultant in concert with City staff selected nine intersections:

1. National boulevard and Washington Boulevard
2. National Boulevard and Hayden Avenue
3. National Boulevard and Eastham Drive
4. National Boulevard and Jefferson Boulevard
5. Robertson Boulevard/Higuera Street and Washington Boulevard

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

6. Warner Drive and Hayden Avenue
7. Higuera Street and Hayden Avenue
8. Higuera Street and Eastham Drive
9. Higuera Street and Rodeo Road

Future traffic volume projections at each intersection are typically analyzed under several scenarios, including existing traffic with ambient growth (1 percent per year), traffic with the project and related growth, traffic with related growth but without the project, and traffic with mitigations (if necessary).

As part of the analysis, the Applicant's consultant obtained development lists from the City of Culver City and the City of Los Angeles Department of Transportation. These lists were reviewed to identify those projects that could produce additional traffic at the study intersections by the future study year. It should also be noted that the future impact analysis does consider the current Exposition light rail project modifications to National Boulevard from Jefferson Boulevard to Washington Boulevard. These modifications include changes to intersection configurations and traffic controls.

The cumulative traffic impact of future traffic growth has been calculated by adding the existing traffic volume, the ambient growth factor and traffic from other development projects. Based on the three-phased development scenario for the Willows Community School identified in the Master Plan, the following analysis is provided:

Project Phase 1 (2015). Traffic generated at the completion of Phase 1 would not result in significant impacts at any of the study intersections.

Project Build-out (2020). Traffic associated with the build-out of the project would not result in significant impacts at any of the study intersections.

The study also included an analysis of the potential impacts of project traffic on the residential streets located to the northwest of the project site. The study segments include the following:

1. Schaefer Street between Higuera Street and National Boulevard
2. Helms Avenue between Higuera Street and National Boulevard
3. Wesley Street between Higuera Street and National Boulevard
4. Lucerne Avenue between Higuera Street and Ince Boulevard
5. Higuera Street between Lucerne Avenue and Wesley Street

The method for determining neighborhood impacts is based on the daily traffic on each street. A comparison of the future-without-project and future-with-project conditions was then conducted by the percent increase in daily traffic. As shown in the traffic study, traffic generated by the project would not exceed any significance threshold along any study area residential street segments. Therefore, project impacts related to neighborhood streets would also be less than significant.

b) *Less Than Significant Impact.* The CMP is a State-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the Regional Transportation Improvement Program (RTIP) and State Transportation Improvement Program (STIP) processes. The CMP requires that a Traffic Impact Analysis be performed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either morning or afternoon weekday peak hour and all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours.

The following CMP intersection monitoring locations are in the project vicinity:

- La Cienega Boulevard and Jefferson Boulevard
- Venice Boulevard and Overland Avenue

The project will not add more than 50 trips to either CMP monitoring intersections. Therefore, because the project will not add 50 or more trips during the morning or afternoon peak hours at CMP monitoring

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

intersections, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

The closest CMP freeway monitoring location to the project site is Santa Monica Freeway east of Overland Avenue. The CMP TIA guidelines require that freeway monitoring locations must be examined if a project will add 150 or more trips (in either direction) during either the morning or afternoon weekday peak periods. The project will not add 150 or more trips (in either direction) during either the morning or afternoon weekday peak hours to the CMP freeway monitoring location. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

c) *No Impact*. The project site is not located near any airports, nor will it include any characteristics that might result in the alteration of air traffic patterns. Therefore, there are no impacts.

d) *No Impact*. The projects will not alter the street configuration in the area. In addition, as part of the project development, alterations to on-site parking and stacking configurations during drop-off and pick-up periods will alleviate issues related to traffic congestion near the entrance to the school. The project will not increase any hazards, and therefore there will be no impacts.

e) *Less Than Significant Impact*. The design and construction of the project will be required to incorporate all applicable City standards related to emergency access to ensure that emergency access would be adequate. Therefore, implementation of the project will result in less than significant impacts related to this issue.

f) *No impact*. The project site is located in an urbanized portion of the City. As proposed, the project will not conflict with any public transit, bicycle or pedestrian facilities. In addition, the project will not affect the performance or safety of any alternative modes of transportation. No impacts will result.

Mitigation Measure(s): None Required

XVII. UTILITIES AND SERVICE SYSTEMS –Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
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?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Responses:

a) *No Impact*. The project will not exceed any point-source discharge, and thus, no cumulative impacts related to wastewater treatment requirements will occur.

b) *Less Than Significant Impact*. Water treatment needs of the City are accommodated by the Metropolitan Water District's (MWD) Joseph Jensen Treatment Plant in the City of Los Angeles. The treatment plant has a design capacity of 750 million gallons per day (MGD). The project will result in a net water consumption increase of approximately 1,200 gallons of water per day, for an approximate total school water consumption of 4,600 gallons of water per day. According to Rich Yates, the Interim Operations Compliance Team Manager of the Water Quality Section with MWD, the treatment plant has sufficient capacity to accommodate the project's demand for water treatment.

Wastewater generated within the western portion of Los Angeles County is treated at the Hyperion Treatment Plant (HTP), which has the capacity to treat approximately 450 MGD of wastewater to full secondary treatment level and currently treats 340 MGD.

The existing school use generates approximately 3,600 gallons of wastewater per day. The project (the addition of 150 students and 12 staff members) will generate a net increase of approximately 1,200 gallons of wastewater per day, for a total generation of approximately 4,800 gallons of wastewater per day. The wastewater generated by the project will be accommodated by the HTP with minimal impact. Additionally, according to the City's Public Works Department, the project site is served by 8-inch sewer lines in Higuera Street and Warner Drive. The sewer lines are adequate to service the project. Therefore, project impacts related to wastewater treatment will be less than significant.

c) *Less Than Significant Impact*. The project will not increase the amount of impervious surfaces at the project site, and in fact, could decrease the amount of impervious surfaces by adding landscaped areas and other water quality stormwater best management practices for infiltration and water quality purposes, thereby slightly reducing the overall amount of runoff from the site. The project will not result in any increase in runoff to the local storm drains. Implementation of the project will not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, therefore impacts will be less than significant.

d) *Less Than Significant Impact*. Water service for this project site is provided by the Golden State Water Company (GSWC) which contracts with the Metropolitan Water District for its supply. GSWC was contacted by the City during the preliminary project review stage to determine potential impacts related to water service at this location. At that time, GSWC did not identify any impacts to water service. Therefore, the proposed project will have less than significant impacts to the water system.

e) *Less Than Significant Impact.* The wastewater treatment provider will have adequate capacity to accommodate the project. Refer to response to Checklist Question 17(b).

f) *Less Than Significant Impact*. The City of Culver City operates a transfer station at 9255 Jefferson Boulevard. The transfer station receives a maximum of 500 tons of solid waste per day, with an average of 250 tons of solid waste per day. Solid waste from the transfer station is sent to Puente Hills Landfill, Chiquita Canyon Landfill, or the Southeast Resource Recovery Facility (SERRF). Existing uses at the project site generate approximately 0.09 tons of solid waste per day.

The project will generate solid waste from construction activities and ongoing operations. The primary types of demolition and construction debris that would be removed from the project site include cement, scrap lumber, metal, masonry materials, and soil/dirt. The projects demolition and construction phase will generate approximately 5,745 tons of debris. The demolition and construction debris would be primarily classified as inert waste and would be recycled to the extent possible, and any remaining debris would be disposed of at Peck Road gravel pit or Azusa Land Reclamation, which have a combined remaining capacity of 56 million tons. Conservatively assuming that none of the construction debris will be recycled, these facilities will have adequate capacity to accommodate the project's demolition and construction debris. Therefore, the project's construction related impacts to solid waste will be less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

The project will generate approximately 0.04 tons of solid waste per day (not accounting for the effectiveness of recycling efforts), resulting in an estimated generation for the whole school of 0.14 tons of solid waste per day. Both Chiquita Canyon Landfill and Puente Hills Landfill have adequate capacity to accommodate short-term (Phase 1) and long-term (Phase 2 and 3) disposal needs of the project. Therefore, project impacts related to solid waste service will be less than significant.

g) *Less Than Significant Impact.* The project will comply with all federal, state, and local statutes and regulations related to solid waste. Therefore, implementation of the project will result in less than significant impacts related to this issue.

Mitigation Measure(s): None Required

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE –

a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b)	Does the project have 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 past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Responses:

a) *Less Than Significant Impact with Mitigation*. With implementation of the mitigation measures identified in this initial study, the project will protect against the potential degradation of the quality of the environment and the potential of substantially reducing the habitat of wildlife. No rare or endangered plants or animals have been identified on the project site. In addition, no examples of the major periods of California history or prehistory have been identified; however mitigation measures are in place in the event that discovery is made during construction activities on the project site.

b) *Less Than Significant Impact.* The project will not result in any impacts that are cumulatively considerable. As noted, traffic impacts from the project when considered in light of other developments in the vicinity remain below the threshold of significance. Any potential cumulative impacts will be substantially reduced to less than significant due to standard City code requirements and conditions of approval.

c) *Less Than Significant Impact with Mitigation*. For the reasons stated in this Initial Study, with mitigation, project impacts related to adverse effects on human beings, either directly or indirectly (refer to the discussion of Geology and Soils) will be less than significant.

Mitigation Measure(s): None Required

XVIII. EARLIER ANALYSES:

None.

References Utilized:

1. Culver City Natural Hazards Map (Faults, Fire, Flooding), created on June 1, 1999
2. South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993, pages 5-1
3. South Coast Air Quality Management District, Facility Information Detail (FIND). URL: www.aqmd.gov/webappl/fim/default.htm; accessed September 22, 2009.
4. Willows Community School Historic Report, Galvin Preservation Associates, March 2011
5. Report of Preliminary Geotechnical Evaluation, Mactec, 2011
6. Culver City Address Master List, June-July 2009. Excel Database; accessed September 24, 2009.
7. FHWA Traffic noise Model, Version 2.5 Look-Up Table, User's Guide, U.S. Department of Transportation, Federal Highway Administration, Final Report, December 2004.
8. Traffic Impact Analysis for the Willows Community School, Overland Traffic Consultants, Inc., April 2011
9. County of Los Angeles Countywide Integrated Waste Management Plan, County of Los Angeles Department of Public Works, February 2011
10. CalRecycle, Estimated Solid Waste Generation Rates for Institutions, http://www.calrecycle.ca.gov/wastechar/wastegenrates/Institution.htm, March 2011
11. City of Culver City General Plan

MITIGATION MONITORING PROGRAM

The following environmental mitigation measures shall be incorporated into the project development as conditions of approval. The project applicant shall secure a signed verification for each of the mitigation measures which indicate that mitigation measures have been complied with and implemented, and fulfills the City environmental and other requirements (Public Resources Code Section 21081.6.). Final clearance shall require all applicable verification as included in the following table. The City of Culver City will have primary responsibility for monitoring and reporting the implementation of the mitigation measures unless otherwise indicated. The mitigation measures have been identified by impact category and numbered for ease of reference.

MITIGATION MONITORING PROGRAM
Willows Community School
May 23, 2012

MITIGATION MEASURE	Implementing Action, Condition or Mechanism	Method of Verification	Timing of Verification	Responsible Persons
Cultural Resources **CR-1**: If any archaeological materials, paleontological materials, or human remains are encountered during the course of the project development, work in that area must be halted and the City of Culver City must be notified. Prior to resumption of work, a Phase 1 Archaeological/Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor all phases of excavation for the project site. Work will be halted in that area of the detected resource until the City of Culver City's archaeologist and paleontologist have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City. If the human remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains.	Condition of Approval	Plan Check note and Field Inspection	Prior to Issuance of a Building Permit and On-Going during Construction	Building Safety Division and Building Safety Inspector
Geology and Soils **GS-1:** Prior to issuance of a grading permit by the City, the Applicant shall submit to the City, for review and approval, a comprehensive geotechnical investigation for the project, including additional soil borings.	Condition of Approval	Field Inspection	Prior to Issuance of Grading Permit	Building Safety Division and Building Safety Inspector

MITIGATION MONITORING PROGRAM

Willows Community School
May 23, 2012

MITIGATION MEASURE	Implementing Action, Condition or Mechanism	Method of Verification	Timing of Verification	Responsible Persons
GS-2: The design and construction of the project shall occur in accordance with the applicable recommendations identified in the comprehensive geotechnical investigation.	Condition of Approval	Plan Check Note and Field Inspection	Prior to Issuance of Building Permit	Building Safety Division and Building Safety Inspector

Overland Traffic Consultants, Inc.

TRAFFIC IMPACT ANALYSIS FOR THE WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN DEVELOPMENT

Located at 8509 Higuera Street
in the City of Culver City



Prepared for:
THE WILLOWS COMMUNITY SCHOOL

Prepared by:
Overland Traffic Consultants, Inc.
24325 Main Street #202
Santa Clarita, California 91321
(661) 799-8423

Revised July 2012

TRAFFIC IMPACT ANALYSIS FOR THE WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN

Located at 8509 Higuera Street
In the City of Culver City

Prepared by:

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Revised July 2012

EXECUTIVE SUMMARY

This report documents the potential traffic impacts created by the proposed development of the Willows Community School Comprehensive Plan. The Willows Community School (WCS) is located in the Hayden Tract at 8509 Higuera Street in the City of Culver City, as shown in the following aerial photograph. The WCS Comprehensive Plan redesigns the existing campus space to addresses the current short term demands of the school and provides flexibility to incorporate future expansion opportunities for the campus. The traffic impacts identified in this study have been evaluated based on the projected student enrollment increase associated with the WCS Comprehensive Plan.

Project Description

Phase 1 of the WCS Comprehensive Plan consists of increasing the outdoor play area and classroom size, increasing available on-site parking with a new parking lot off Warner Drive and adding 50 new students across all grade levels. Excess capacity within the existing campus space requirements would allow up to 25 of the 50 new students to be added immediately upon approval of the WCS Comprehensive Plan.

Phases 2 and 3 (Buildout) of the WCS Comprehensive Plan consists of new construction along Higuera Street and Warner Drive with the removal of the Higuera Street and Warner Drive parking lots, reconfiguration of the outdoor play area, adding an additional 100 new students across all grade levels, and construction of a new parking lot along the east side of the campus with vehicle ingress from Higuera Street and egress to Warner Drive. Buildout of the WCS Comprehensive Plan will bring the total enrollment up from 425 to 575 students from DK to 8th grade.

Project Parking and Access

Phase 1 - On-site parking will be provided in two separate parking lots. The existing Higuera Street parking lot will be increased slightly and provide approximately 35 parking spaces for employees/visitors. A second parking lot will be constructed with access from Warner Drive. The northerly portion of the new Warner Drive parking lot would accommodate 21 daily-use parking spaces that would also be used to unload/load students from parked vehicles. During school events, the Warner Drive parking lot's

southerly play area would be used to park approximately 34 additional vehicles. Therefore, the new Warner Drive parking lot will provide for 55 parking spaces (21 spaces for daily-use and 34 additional parking spaces for school event parking).

City code for schools K-9th grade requires 1.5 parking spaces per classroom and 1 parking space per 200 s.f. of assembly space (Zoning Code 17.320.020 Section H, Table 3-3c). The WCS will have 33 classrooms and 8,064 s.f. of assembly space after completion of Phase 1 which will require 90 parking spaces per code. A total of 90 on-site parking spaces will be provided (35 + 55 parking spaces) to satisfy the City Code parking requirements for Phase 1 development.

Vehicular access to and from the Higuera Street parking lot will remain as a one-way counterclockwise flow (i.e., inbound from the easterly Higuera Street driveway and outbound from the westerly Higuera Street driveway). Increased enforcement of the drop-off and pick-up times will be implemented by WCS by the issuance of vehicle placards with access time assignment. No entrance prior to assigned times will be allowed without prior clearance.

It is proposed that the new Warner Drive parking lot be served via one two-way driveway on Warner Drive.

In addition, off-site parking for full-time and part-time employees will continue through Phase 1 on the nearby parking lot located at 8511 Warner Drive. The off-site employee parking shall be secured through a lease agreement or other legal instrument acceptable to the City. Currently, the off-site lot at 8511 Warner Drive provides WCS 20 parking spaces via covenant and 30 additional parking spaces via a lease agreement.

Phase 2 and 3 (Buildout) - The Higuera Street and Warner Drive parking lots would be removed in Phase 2 development and replaced by a new Higuera/Warner drive-thru parking lot along the east side of the campus. The new parking lot will provide one-way vehicle flow (enter from Higuera Street and exit to Warner Drive). The new lot will provide 53 on-site parking spaces and provide for a drop-off / pick-up queue of approximately 30 vehicles.

Buildout of the WCS Comprehensive Plan will have 56 classrooms and approximately 8,064 s.f. of indoor assembly space which will require 124 parking spaces per code. The WCS will therefore need to provide additional parking above the 53 parking spaces planned in the new parking lot to satisfy city code parking. Prior to the issuance of permits for development beyond Phase 1, WCS will need to provide the required code parking for those permits either by expanding the on-site parking or assuring the City that off-site parking is available for use by WCS.

Student Drop-off and Pick-up

The Willows Community School will continue to stagger the start and end times for various grade levels to minimize localize traffic congestion at the school.

Four staggered school days are conducted between 8:00 am to 3:20 pm with student drop-off starting at 7:45 am. A 20-minute separation between grade levels facilitates the spreading of vehicle arrivals and departures for student drop-off and pick-up activity.

- School instruction for 5th - 8th grades begins at 8:00 am and ends at 2:50 pm;
- Classes for 3rd & 4th grades begins at 8:20 am and ends at 3:05 pm;
- Classes for 1st & 2nd grades begins at 8:40 am and ends at 3:20 pm, and
- DK & K instruction starts at 9:00 am and ends at 2:30 pm.

Phase 1 - The Higuera Street parking lot will be used for adult assisted drop-off and pick-up activity. Parking solely for the purposes of loading and unloading of students will not be allowed in the Higuera Street parking lot from 7:30 am to 8:30 am and from 2:30 pm to 3:00 pm on school days. During these peak loading and unloading hours, the Warner Drive parking lot will be utilized for those vehicles needing to park and walk

students to and from the classrooms (typically for DK-K grade level students). Initially ten (10) parking spaces within the Warner Drive parking lot will be reserved for visitors and parent/student walk-in arrivals and departures.

The Higuera Street parking lot will provide up to a 17-vehicle queue on-site. As shown in Appendix E, Exhibit E6, a 3-line queue will form with the front 3 vehicle positions assigned for assisted unloading and loading of students with parents remaining in the vehicles. All loading and unloading will be supervised during the peak morning arrival and afternoon departure periods.

Phases 2 and 3 (Buildout) – All student drop-off and pick-up will occur in the new Higuera / Warner drive-thru parking lot on the north end near Warner Drive. The Higuera/Warner drive-thru parking lot will provide up to 30-vehicle stacking on-site, as shown in Appendix E, Exhibit E7. The staggered class schedule will continue to assist in the management of the peak vehicle arrivals and departures.

It has been observed that afternoon pick-up periods have the greatest traffic impact on traffic flow. WCS should continue to notify parents not to arrive earlier than ten minutes before their designated pick-up times to lessen the on-street queuing. Additional information and recommendations for the loading and unloading of students for each Phase and for each parking lot is provided in Appendix I.

Estimated Traffic Generation

Estimates of the traffic generated by the proposed project were calculated using the industry standard traffic generation rates developed by the Institute of Transportation Engineers (ITE) for private schools. Using the ITE trip rates, the 50 new students in Phase 1 of the WCS Comprehensive Plan could be expected to generate an average of 124 new vehicle trips per weekday with 45 morning peak hour trips, 30 afternoon school-peak hour and 9 afternoon street-peak hour trips.

Buildout of the Comprehensive Plan will allow a cumulative total of 150 new students. The 150 new students could be expected to generate an average of 372 new vehicle trips per weekday with 135 morning peak hour trips, 90 afternoon school-peak and 26 afternoon street-peak hour trips.

A morning trip generation survey was conducted on June 7, 2010 to test the validity of the ITE private school rates. The results show that the Willows Community School generated 0.849 vehicle trips per student during the morning peak hour which occurred between 7:40 - 8:40 am (see Appendix J for data). As shown by the IITE trip generation studies, the ITE trip morning trip rate is slightly higher at 0.900 vehicle trips per student. The higher ITE rates have been used in this evaluation.

Project's Potential Traffic Impacts

The focus of this traffic study is to evaluate the potential traffic impact created by the WCS Comprehensive Plan. Using criteria adopted by the City of Culver City, it has been determined that the change in traffic flow generated by the proposed enrollment increases (all phases) will not significantly impact any of the nine study intersections or street segments during the three study periods. In fact, the reconfiguration of the campus access by redirecting traffic off Higuera Street to and from Warner Drive provides an overall benefit to the area traffic flow. Traffic volume reductions for some traffic movements will occur as a result of the new access planned for the WCS campus.

Project's Traffic Mitigation

It is recommended that WCS implement the following measures to further improve traffic flow near and around the WCS campus;

1. Relocated Vehicle Access (Phase 1) - The Willows Community School Phase 1 will construction the Warner Drive parking lot and provide a new access to the campus for the DK-K student arrivals and departures. This rerouting of the arriving and departing vehicles to this parking lot improves the traffic flow in the area surrounding the school. Not only does the Warner Drive parking lot provide more on-site parking but it allows for a separate parking area to assist drop-off and pick–up services for the younger students by allowing parents/guardians the ability to park and walk the students into the classrooms.

The effectiveness of relocating the lower grade traffic to the Warner Drive lot offsets the increased Phase 1 traffic expected for the upper grade arrival and departure traffic assigned to the Higuera Street parking lot.

The DK-K student enrollment represents approximately 15% of the total school enrollment. The Phase 1 student enrollment increase is 50 students added to an existing enrollment of 425 students.

Left turns from Warner Drive will be permitted as long as the left turning traffic does not interfere with westbound through traffic on Warner Drive. If the left-turn movements in Phase 1 cause a potential conflict with the traffic flow, the left turns entering the Warner Drive could be prohibited.

2. All Way /Stop sign - The City of Culver City will consider the installation of all-way stop control at the Hayden/Warner intersection when warranted. The applicant shall be responsible for all the traffic counts and other costs associated with the installation of all-way stop control.

3. On-street Parking Removal - If City staff determines it necessary, the City would impose parking restriction for two or three parking spaces (40 to 60 feet) on the north side of Higuera Street from the project driveway easterly to accommodate queued up vehicles entering the site. The parking restrictions would be in effect school days during the pick-up times, between 2:00PM and 4:00PM.

4. Relocate All Vehicle Access (Phase 2 & 3) - Buildout of the WCS Comprehensive Plan further improves traffic flow by redirecting all exiting school traffic flow off Higuera Street. The new Higuera/Warner drive-thru parking lot simplifies access and provides a more efficient and safer egress to Warner Drive where traffic volume and speeds are significantly lower.

5. New Traffic Signal - The Hayden Avenue and Warner Drive traffic signal warrant for the 2020 morning peak hour is estimated to reach the threshold value for a new traffic signal control, as shown in the Exhibit H3, Appendix H. It is recommended that WCS write a letter of credit for the cost of the design, project management and

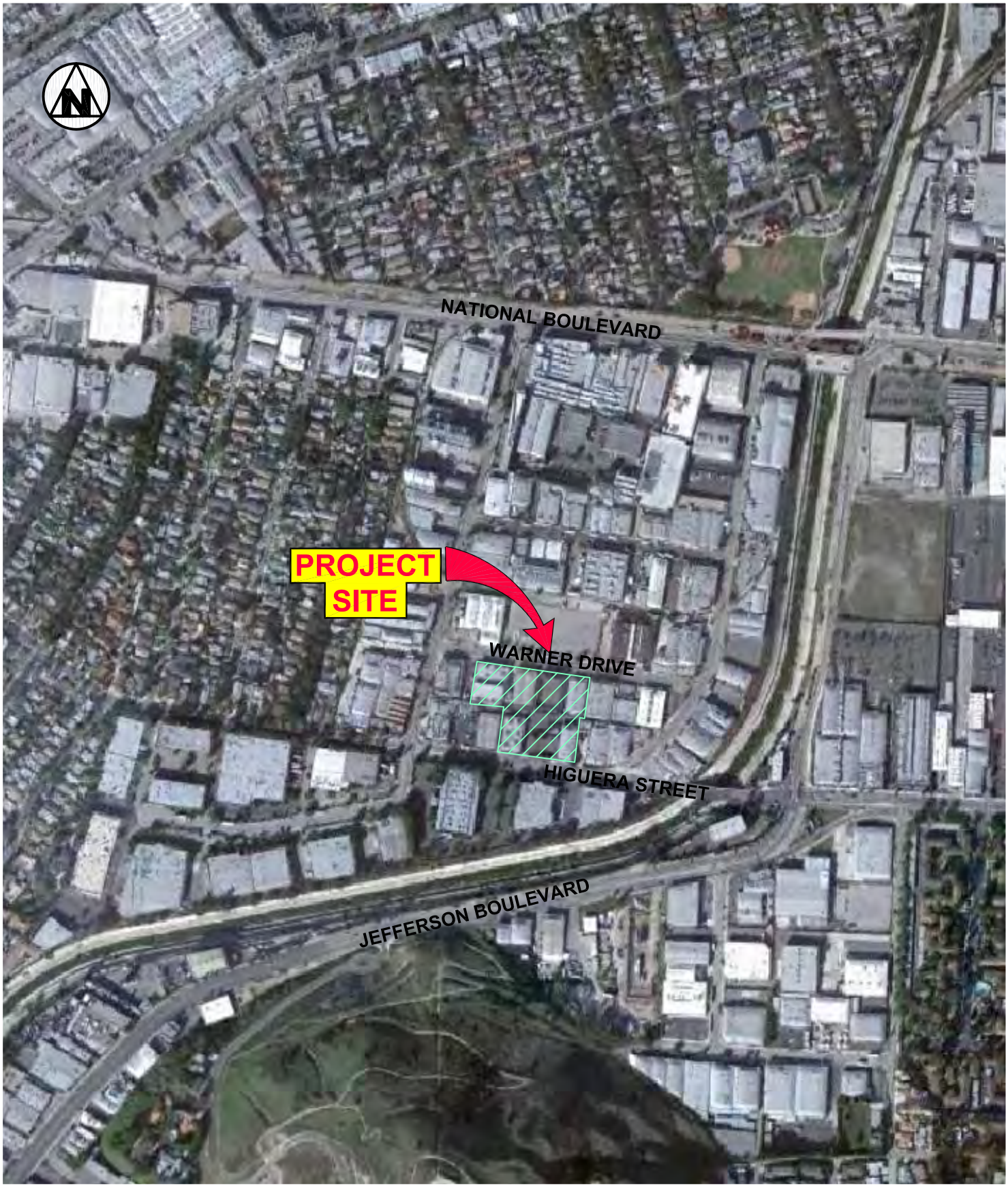
construction of the traffic signal installation prior to the start of Phase 3 of the Comprehensive Development Plan. After completion of the WCS Comprehensive Development Plan, the applicant shall be responsible to take traffic counts of the intersection and conduct a traffic signal warrant signal study. If the City determines that the traffic signal is not warranted, the letter of credit will be returned to WCS. If the traffic signal is warranted, WCS will be responsible for the design, project management and construction of the traffic signal.

6. Increase On-site Vehicle Storage Capacity – Egress to Warner Drive will increase the capacity of the drop-off and pick-up operation as the vehicle delays to Warner Drive will be less than the delay turning onto Higuera Street. The Higuera / Warner parking lot nearly doubles the on-site vehicle queuing storage area from 17 to approximately 30 vehicles.

   It should be noted that reversing the traffic flow from Warner Drive to Higuera Street was evaluated but it was determined that exiting traffic onto Higuera Street is much more difficult than exiting onto Warner Drive. The delays exiting the parking lot onto Higuera Street would reduce the capacity of the student drop-off and pickup operation. For these reasons, entering from Higuera Street and exiting at Warner Drive was selected as the preferred access route through the new easterly parking lot.

7. Transportation Demand Management Program (TDM) - A TDM should be prepared for dissemination to all new school families upon entry. The TDM plan will be updated on an annual basis and disseminated to all new and returning school families at the beginning of each new school calendar year. The plan will include a traffic/parking circulation plan which explains vehicular ingress and egress access locations, provides vehicle queuing instructions, provides student drop off and pick up instructions and explains the school's traffic circulation requirements. A draft plan is provided in Appendix

8. Neighborhood Traffic Calming Program - It should be noted that although the project should not have a significant traffic impact on any residential street, the project will add to the cumulative traffic on the nearby residential streets. Traffic generated by the Willows School project along with the proposed project at 8511 Warner Drive and the project at 8665 Hayden Place, would have a cumulative effect on Lucerne Avenue and on Higuera Street. The applicants of the other two projects agreed to make voluntary contributions of $25,000 each towards the cost to convert Higuera Street to one-way traffic towards Lucerne Avenue in order to significantly reduce the amount of traffic on Higuera Street. The City has developed several preliminary concepts for the conversion of Higuera Street. The City will move ahead with the conversion pending the various development projects moving ahead and after receiving the approval of the affected community. Considering that the WCS project will also add traffic to Higuera Street, it is recommended that WCS make a similar voluntary contribution to be available upon request for a 5 year period after the completion of the project Buildout.



4/2011

SETTING

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CHAPTER 1 INTRODUCTION

The focus of this traffic study is to evaluate the potential traffic impact created by the development of the Willows Community School Comprehensive Plan project. Meetings were held with City staff and the City's traffic consultant, Barry Kurtz prior to the development of the study to determine the parameters to be used in this evaluation. This traffic study follows the City of Culver City traffic study guidelines and is consistent with other recent traffic studies prepared for this area.

As part of the environmental review for the proposed school project, the potential traffic impact of the development has been evaluated using the Intersection Capacity Utilization (ICU) method for signalized intersections and Highway Capacity Manual (HCM) delay methodologies for un-signalized intersections.

The ICU analysis method quantifies the operating conditions of an intersection using a ratio of peak hour traffic volume to intersection capacity. Two un-signalized intersections were also evaluated using the Highway Capacity Manual (HCM) delay method for stop sign controlled intersections. Any change to the intersection's peak hour operating condition caused by an increase / decrease in traffic volume (i.e., traffic impact) can be quantified using these analysis methods.

Potential traffic impacts caused by a development project that exceed limits established by the City of Culver City or the City of Los Angeles; some study locations are within the City of Los Angeles' jurisdiction, are deemed significant traffic impacts. All significantly impacted intersections are then evaluated for possible traffic mitigation measures. Pursuant to the City of Culver City traffic impact guidelines, the following steps have been taken to evaluate the project's traffic impact.

(a) Evaluate existing traffic volumes

(b) Base year 2010 traffic volume were increased by an additional ambient growth factor using the 1 % per year growth rate to the future 2015 and 2020 study years (years anticipated for Phase 1 and Buildout, respectively);

(c) Traffic in (b) was added to traffic generated by other projects in the area.

(d) Traffic in (c) was added to the proposed project traffic (future "with project" scenario);

(e) Traffic in (d) plus recommended traffic mitigation, if necessary.

An intersection capacity analysis of the existing baseline and future traffic conditions has been completed at those locations expected to have the highest potential for significant traffic impacts. Weekday morning and afternoon peak hour conditions along with the afternoon mid-day school dismissal period have been evaluated at nine key intersections selected for review. Low volume intersections or intersections with minimal project traffic are not included in this analysis. The study intersections are:

1. National Boulevard and Washington Boulevard (Culver City traffic signal);
2. National Boulevard and Hayden Avenue(Culver City traffic signal);
3. National Boulevard and Eastham Drive (future Culver City traffic signal);
4. National Boulevard and Jefferson Boulevard (City of Los Angeles traffic signal);
5. Robertson Boulevard / Higuera Street and Washington Boulevard(Culver City traffic signal);
6. Warner Drive and Hayden Avenue (Culver City stop sign controlled);
7. Higuera Street and Hayden Avenue (Culver City stop sign controlled);
8. Higuera Street and Eastham Drive(Culver City traffic signal); and,
9. Higuera Street and Rodeo Road (City of Los Angeles traffic signal).

In addition, the study evaluated the potential for neighborhood traffic impacts on 5 street segments selected by City staff. The five local residential street segments analyzed are:

1. Schaefer Street between Higuera Street and National Boulevard
2. Helms Avenue between Higuera Street and National Boulevard
3. Wesley Street between Higuera Street and National Boulevard
4. Lucerne Avenue between Higuera Street and Ince Boulevard
5. Higuera Street between Lucerne Avenue and Wesley Street

CHAPTER 2 PROJECT DESCRIPTION

The project being analyzed in this traffic impact study is the WCS Comprehensive Plan being developed for the Willows Community School.

Phase 1 of the WCS Comprehensive Plan consists of increasing the outdoor play area and classroom size, increasing available on-site parking with a new parking lot off Warner Drive and adding 50 new students across all grade levels. A total of 90 on-site parking spaces will be provided for Phase 1 development. City Code parking requirements for the WCS Phase 1 will require 90 parking spaces based on 33 classrooms and approximately 8,064 square feet of indoor assembly use. Excess capacity within the existing campus space requirements would allow up to 25 of the 50 new students to be added immediately upon approval of the WCS Comprehensive Plan.

Phases 2 and 3 (Buildout) of the WCS Comprehensive Plan consists of new construction along Higuera Street and Warner Drive with the removal of the Higuera Street and Warner Drive parking lots, reconfiguration of the outdoor play area, construction of a new parking lot along the east side of the campus with vehicle ingress from Higuera Street and egress to Warner Drive. The new parking lot will contain 53 parking spaces and provide for a drop-off / pick-up queue for approximately 30 vehicles. City Code parking requirements for the Buildout of the WCS Comprehensive Plan will require 124 parking spaces based on 56 classrooms and approximately 8,064 square feet of indoor assembly use. Prior to the issuance of any building permits for Phases 2 or 3, WCS will need to provide the required by code parking for those permits either by expanding the on-site parking or assuring the City that off-site parking is available for use by WCS.

WCS Phase 2 and 3 will add 100 additional students bringing the cumulative total WCS Comprehensive Plan enrollment increase to 150 students from DK to 8th grade. Upon completion of the WCS Comprehensive Plan, the WCS school will have 575 students from DK to 8th grade.

Figure 1 illustrates the location of the Willows Community School in the City of Culver City. Figures 2a-c illustrates the concept site plans for the WCS Comprehensive Plan.

Project Parking and Access

Phase 1 - On-site parking will be provided in two separate parking lots. The existing Higuera Street parking lot will be increased slightly and provide approximately 35 parking spaces. The northerly portion of the new Warner Drive parking lot would accommodate 21 daily use parking spaces that would also be used to unload / load students from parked vehicles. During school events, the new Warner Drive parking lot's southerly play area would be used to park approximately 34 additional vehicles. Therefore, the proposed Warner Drive parking lot will provide for 55 parking spaces (21 spaces for daily use and 34 additional parking spaces for school event parking). The total parking provided for Phase 1 is 90 on-site parking spaces (35 + 55 parking spaces).

City code for schools K-9th grade requires 1.5 parking spaces per classroom and 1 parking space per 200 s.f. of assembly space (Zoning Code 17.320.020 Section H, Table 3-3c). The WCS will have 33 classrooms and 8,064 s.f. of assembly space after completion of Phase 1 which will require 90 parking spaces per code. The WCS will therefore provide code parking for the Phase 1 development.

Vehicular access to and from the Higuera Street parking lot will remain as a one-way counterclockwise flow (i.e., inbound from the easterly Higuera Street driveway and outbound from the westerly Higuera Street driveway). It is proposed that the new Warner Drive parking lot be served via one two-way driveway on Warner Drive.

Phase 2 and 3 (Buildout) - The Higuera Street and Warner Drive parking lots would be removed in Phase 2 development and replaced by a new parking lot along the east side of the campus. The new parking lot will provide one-way vehicle flow (enter from Higuera Street and exit to Warner Drive). The new parking lot will provide 53 on-site parking spaces and provide for a drop-off / pick-up queue of 30 vehicles. Buildout of the WCS Comprehensive Plan will have 56 classrooms and approximately 8,064 s.f. of

indoor assembly space which will require 124 parking spaces per code. The WCS will therefore need to provide additional parking above the 53 parking spaces planned in the new parking lot to satisfy city code parking. Prior to the issuance of permits for development beyond Phase 1, WCS will need to guarantee to the City that code parking will be provided either on-site or off-site through secured parking agreements acceptable to the City.

In addition, off-site parking for full-time and part-time employees will continue through Phase 1 on the adjacent parking lot located at 8511 Warner Drive. The off-site employee parking shall be secured through a lease agreement or other legal instrument acceptable to the City. Currently WCS provides 20 parking spaces via covenant and leases 30 additional parking spaces. Arrangements for off-site parking for development beyond Phase 1 will be determine prior to Phase 2 construction.

Student Drop-off and Pick-up

The Willows Community School will continue to stagger the start and end times for various grade levels to minimize localize traffic congestion at the school. Four staggered school days are conducted between 8:00 am to 3:20 pm with drop-off starting at 7:45 am. School instruction for 5th - 8th grades begins at 8:00 am and ends at 2:50 pm; classes for 3rd & 4th grades begins at 8:20 am and ends at 3:05 pm; classes for 1st & 2nd grades begins at 8:40 am and ends at 3:20 pm, lastly, DK & K instruction starts at 9:00 am and ends at 2:30 pm. The 20-minute separation between grade levels allows for all student drop-off and pick-up activity to occur on school property.

Phase 1 - The Higuera Street parking lot will be for assisted drop-off and pick-up utilizing a moving vehicle queue line up. Parking for the purposes of loading and unloading students will not be allowed in the Higuera Street parking lot from 7:30 am to 8:30 am and from 2:30 pm to 3:00 pm. During these peak loading and unloading hours, the Warner Drive parking lot will be utilized for those vehicles needing to parking and walk students to and from the classrooms (typically for DK-K grade level students).

Initially ten (10) parking spaces within the Warner Drive parking lot will be reserved for visitors and parent/student walk-in arrivals and departures.

The Higuera Street parking lot will provide up to a 17-vehicle queue on-site. As shown in Appendix E, Exhibit E6, a 3-line queue will form with the front 3 vehicle positions assigned for assisted unloading and loading of students with parents remaining in the vehicles. All loading and unloading will be supervised during the peak morning arrival and afternoon departure periods.

Buildout – All student drop-off and pick-up will occur in the new Higuera/Warner drive-thru lot on the north end near Warner Drive. The Higuera/Warner drive-thru parking lot will provide up to 30-vehicle stacking on-site, as shown in Appendix E, Exhibit E7. The staggered class schedule will continue to assist in the management of the peak vehicle arrivals and departures. Additional information on the on-site circulation plan and recommendations for student loading and unloading is provided in Appendix I.

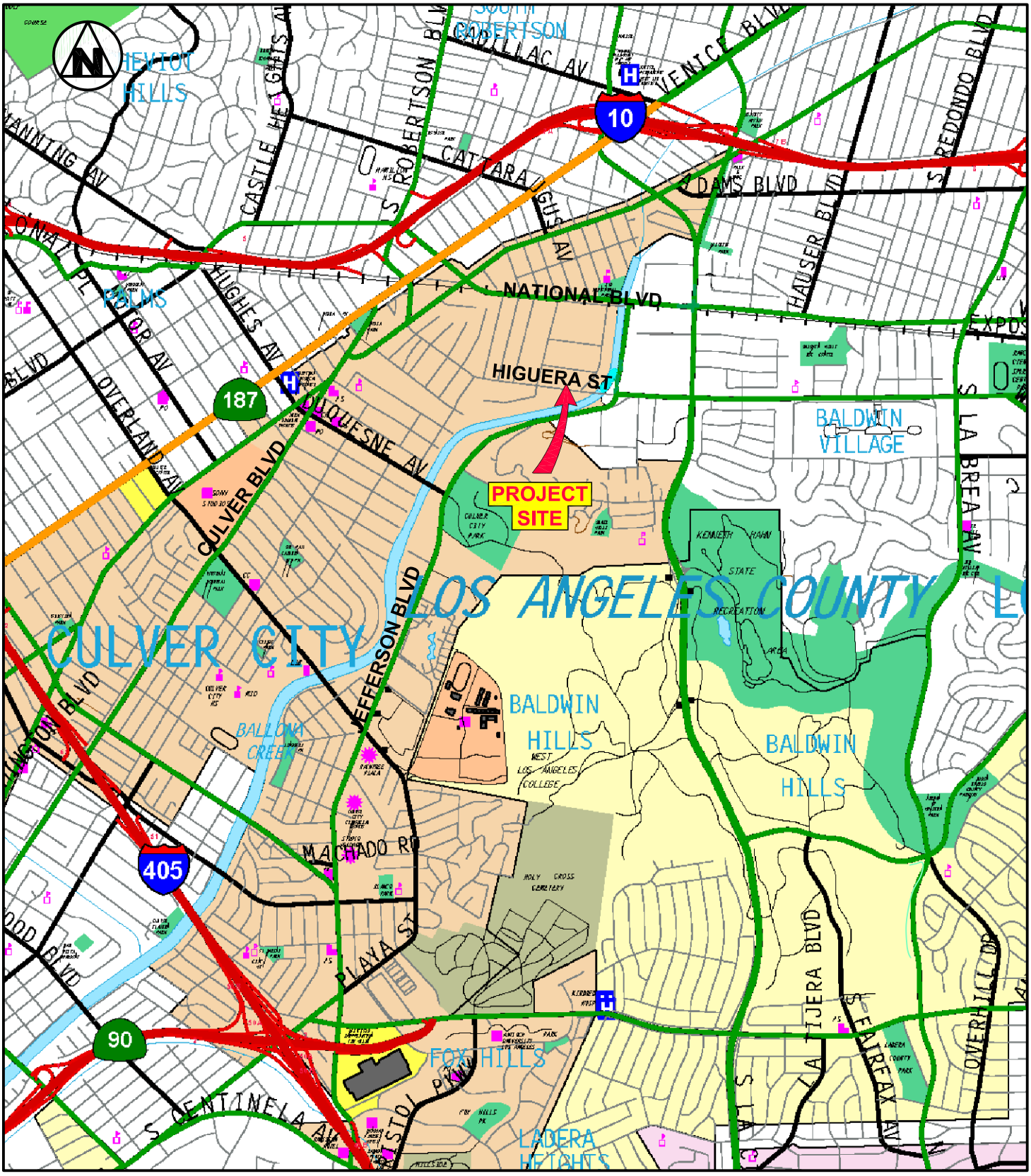


FIGURE 1

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PROJECT LOCATION

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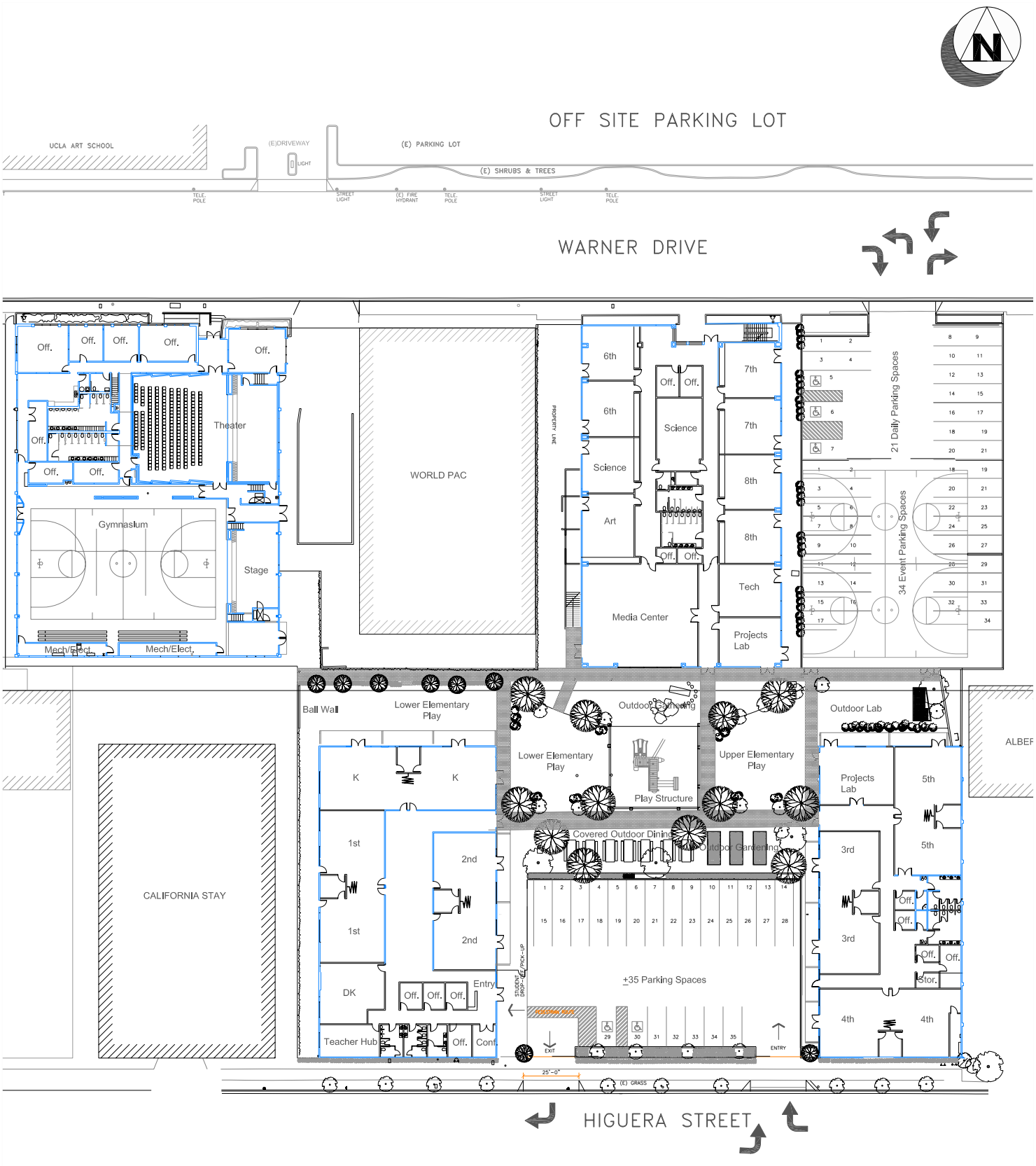


FIGURE 2a

4/2011

THE WILLOWS COMMUNITY SCHOOL
CONCEPT SITE PLAN (PHASE 1)

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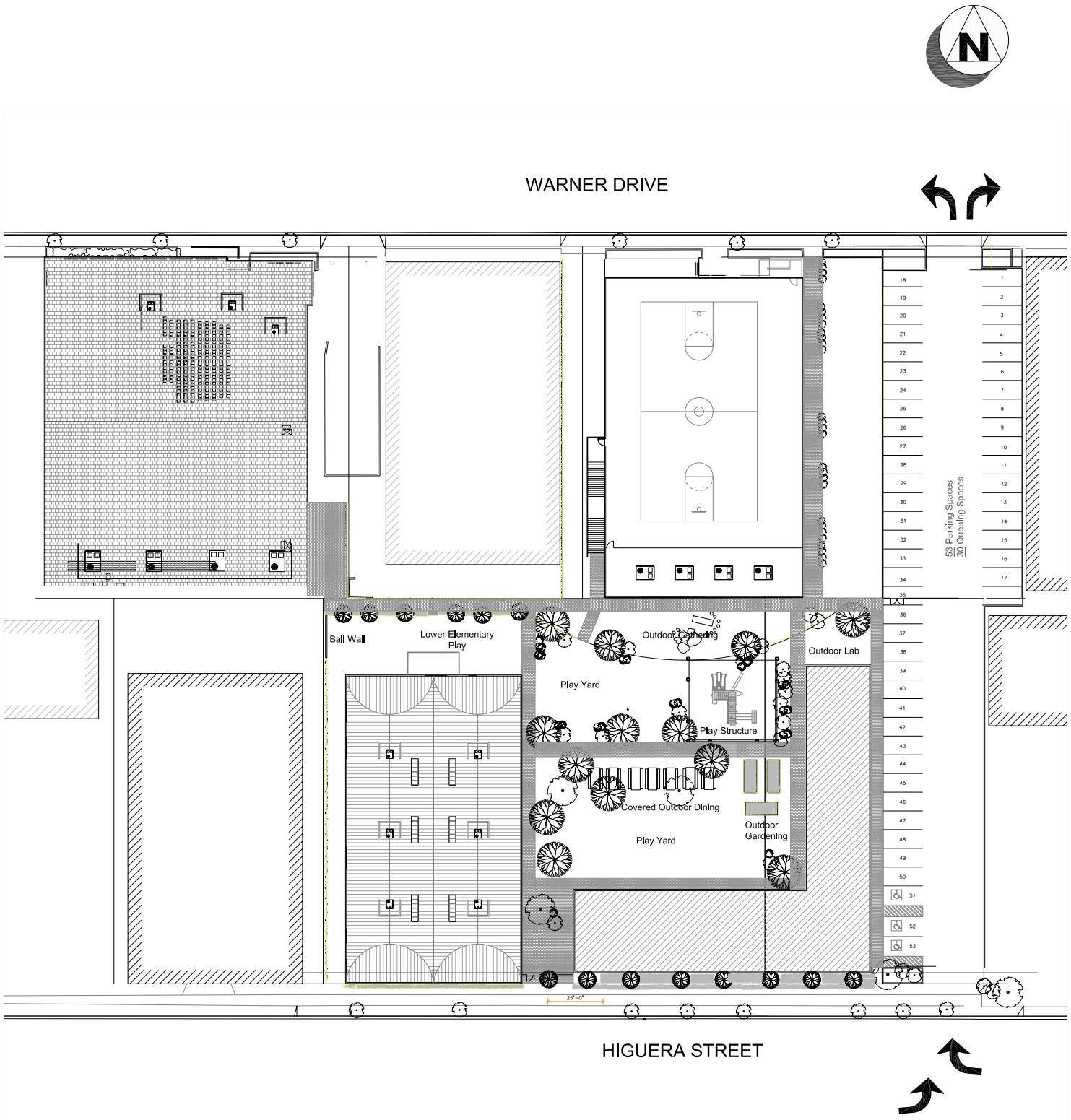


FIGURE 2b

9/2010

THE WILLOWS COMMUNITY SCHOOL
CONCEPT SITE PLAN (PHASE II)

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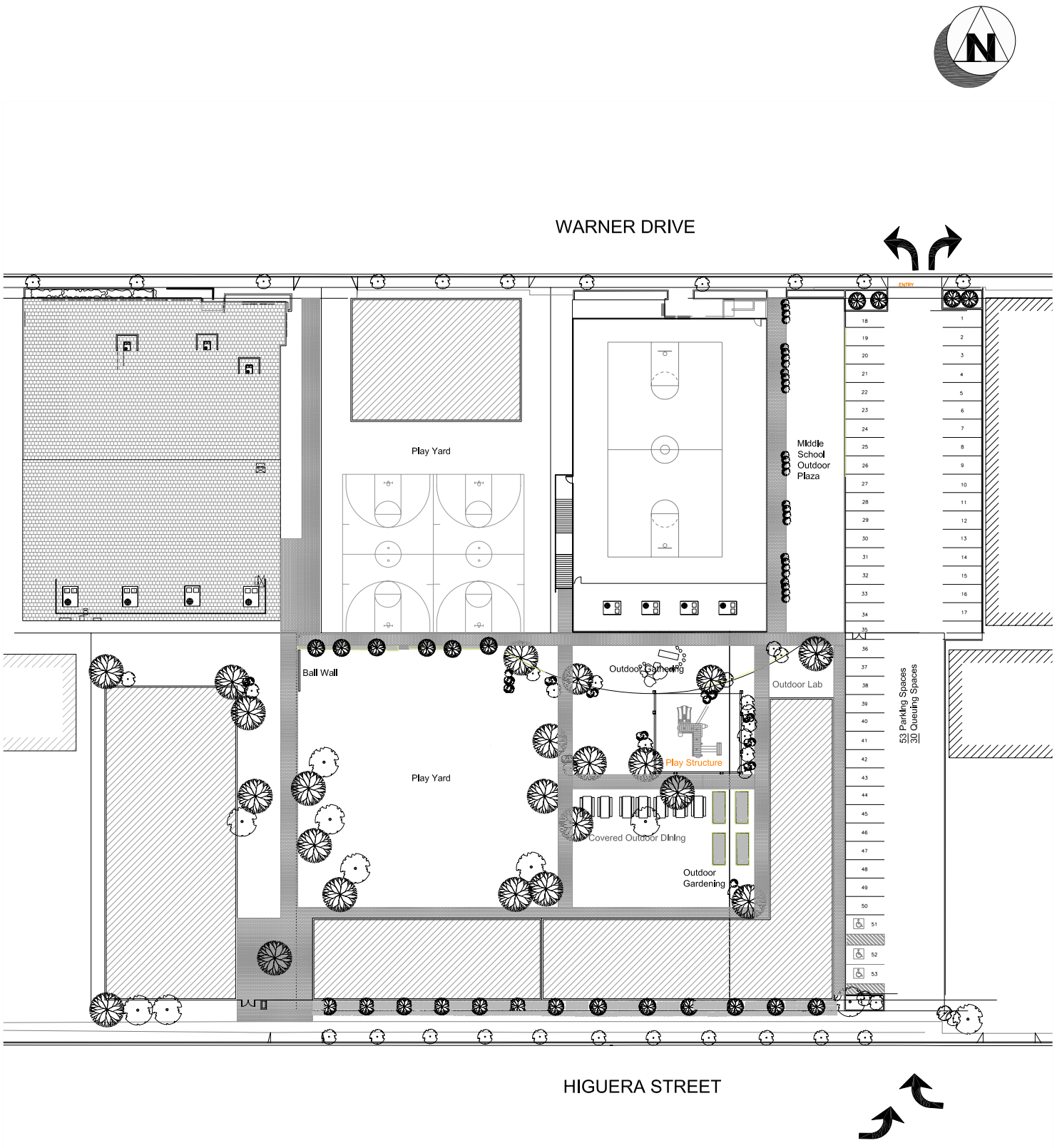


FIGURE 2c

9/2010

THE WILLOWS COMMUNITY SCHOOL
CONCEPT SITE PLAN (PHASE III)

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CHAPTER 3 ENVIRONMENTAL SETTING

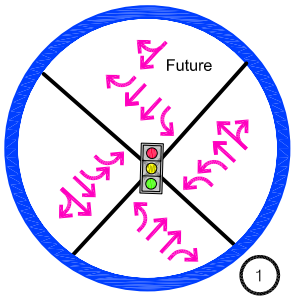
Land Use

The project is located in the Hayden tract on the east side of the City of Culver City near the City of Los Angeles. The predominant land uses in the area is a mix of media, advertising, industrial, technology and entertainment businesses. Located to the north is the Exposition Light Rail Transit line currently under construction long National Boulevard. The first phase of the Expo Light-rail line will run from downtown Los Angeles to Washington Boulevard and National Boulevard in Culver City. The light-rail line is scheduled to open later this year (2011). Transit stations are under construction at the intersections of La Cienega and Jefferson Boulevards and near the intersection of Washington Boulevard and National Boulevard. The Culver City General Plan Land Use Element and adjacent City of Los Angeles Community Plan land use map are included in Appendix A of this report for general reference.

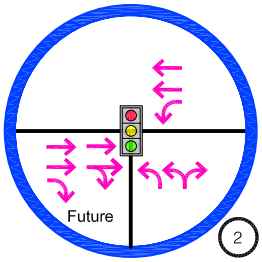
Transportation Network

In addition to collecting traffic volume data, field surveys were conducted to determine the roadway and intersection geometry and traffic signal operations. Figure 3 illustrates the study intersections, type of traffic control and lane configurations. Aerial photographs of the study intersections and future National Boulevard intersections between Jefferson Boulevard and Washington Boulevard are contained in Appendix B. A brief description of the nearby freeway and roadways is provided below.

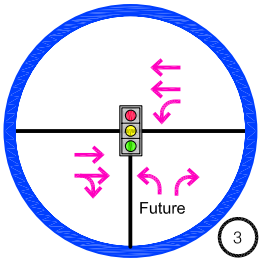
Santa Monica Freeway (Interstate 10) is located approximately 1mile northwest of the project site. This east -west freeway provides four mixed-flow lanes plus auxiliary lanes between ramp connections in each direction in the vicinity of study area. Freeway access is provided from National Boulevard, Robertson Boulevard, Washington Boulevard, Fairfax Avenue, Venice Boulevard and La Cienega Boulevard.



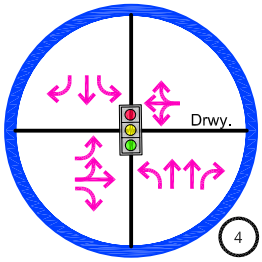
NATIONAL BLVD. &
WASHINGTON BLVD.



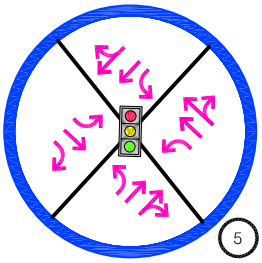
NATIONAL BLVD. &
HAYDEN AVE.



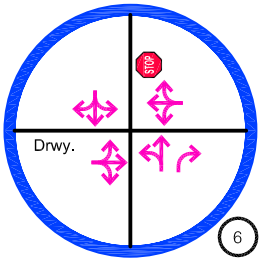
NATIONAL BLVD. &
EASTHAM DR.



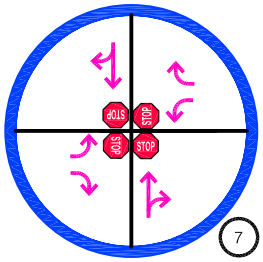
NATIONAL BLVD. &
JEFFERSON BLVD.



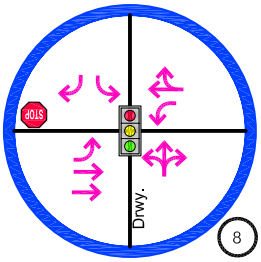
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



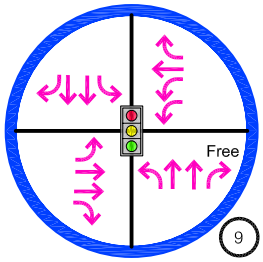
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

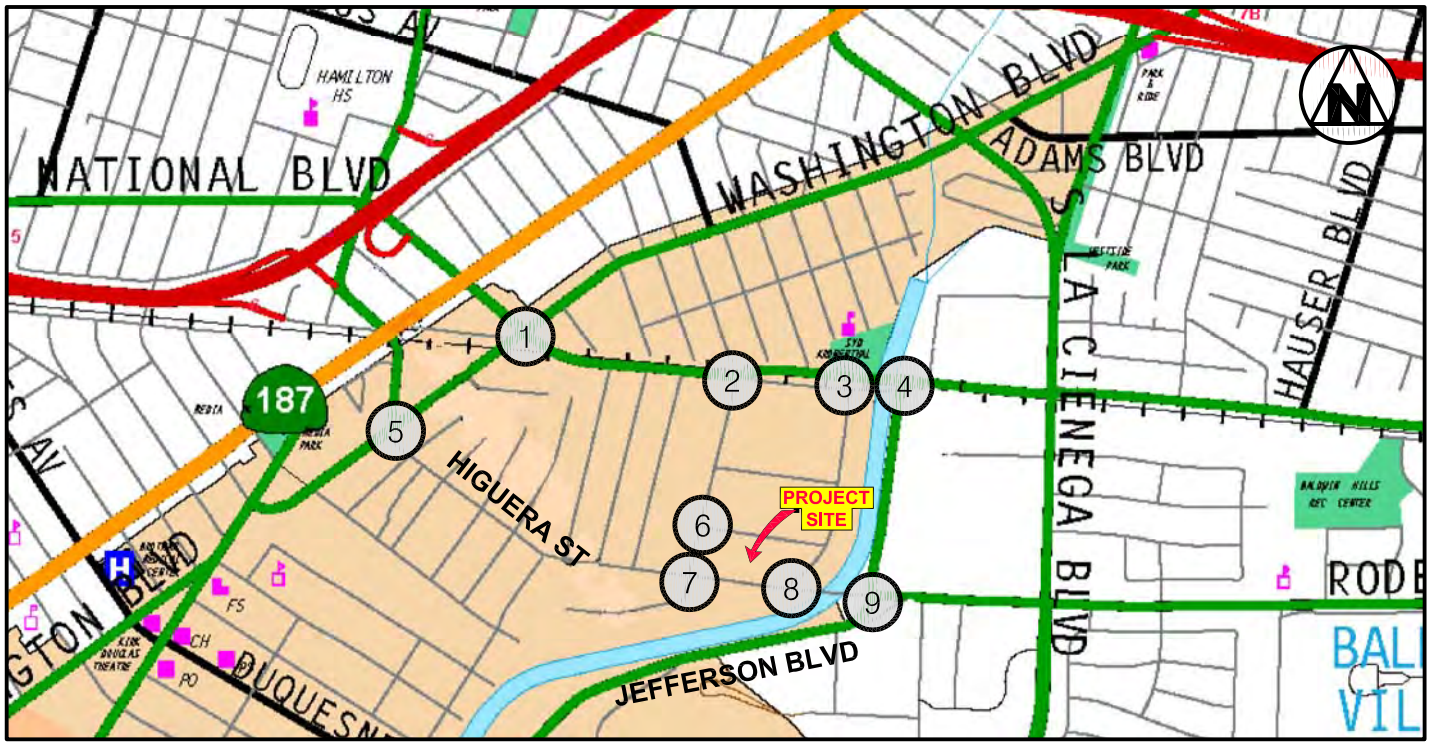


FIGURE 3

7/2011

STUDY INTERSECTION LANE CONFIGURATION AND TRAFFIC CONTROL

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Robertson Boulevard is a primary north-south arterial roadway that traverses the cities of Culver City, Los Angeles and Beverly Hills. Robertson Boulevard provides for 2 lanes in each direction, access to the Santa Monica Freeway and on-street parking. Robertson Boulevard turns into Higuera Street south of Washington Boulevard.

Washington Boulevard is a primary east-west arterial roadway that traverses the cities of Culver City and Los Angeles. Two lanes in each direction are provided in the project vicinity with additional turn lanes at major intersections and on-street parking.

National Boulevard is a secondary east-west arterial between Jefferson Boulevard and Bundy Drive. Two lanes in each direction are provided with left-turn channelization at intersecting streets.

Jefferson Boulevard is a north-south secondary highway in the vicinity of the project site. Jefferson Boulevard provides two lanes in the each direction plus a median left-turn lane.

Rodeo Road is an east-west class II major highway between the Jefferson Boulevard and Martin Luther King Jr. Boulevard. Three lane in each direction plus left-turn lanes are provided.

Eastham Drive is a local north-south roadway east of the Willows School. The roadway provides one lane in each direction with angle parking along the west side and parallel parking along the west side. North of Steller Drive, Eastham Drive is a private roadway connecting to National Boulevard.

Warner Drive is an east-west local street between Hayden Avenue and Eastham Drive. The road provides one lane in each direction with on-street angle and parallel parking. Warner Drive provides direct access to The Willow Community School on the north side of the campus.

Higuera Street is an east-west neighborhood feeder street between Washington Boulevard and Hayden Avenue and a secondary arterial between Hayden Avenue and Jefferson Boulevard. The road provides one lane in each direction south of Washington Boulevard

and 2 lanes in each direction east of Hayden Avenue to Jefferson Boulevard. Traffic calming measures have been implemented along Higuera Street to discourage through traffic between Jefferson Boulevard and Washington Boulevard. East-west through traffic is prohibited at its intersection with Hayden Avenue. Higuera Street provides direct access to The Willows Community School and on-street parking along the north side of the roadway.

Transit Information

Public transportation near the project site is provided by the City of Culver City. The Culver City Bus operates routes 5 along Higuera Street and Warner Drive, with an eastbound stop at the intersection of Hayden Street and Warner Drive and a westbound stop at the intersection of Warner Drive and Eastham Drive. The transit line information is provided in Appendix C.

CHAPTER 4 PROJECT TRAFFIC CHARACTERISTICS

Project Traffic Generation

Traffic-generating characteristics of private school uses have been studied by the Institute of Transportation Engineers (ITE). The results of the traffic generation studies have been published in Trip Generation, 8th Edition handbook. This publication of traffic generation data has become the industry standard for estimating traffic generation for different land uses. Private School (k-8) rates for the daily and afternoon street peak hour, however, have not been surveyed by ITE. Therefore, the ITE trip rates for code 536 (private schools k-12) daily trip rates and pm street peak hour rates have been used in this study, as approved by the City of Culver City.

The ITE trip generation data indicates that the uses associated with the proposed project generally exhibits the trip-making characteristics per student as shown by the trip rates presented in Table 1. On the basis of these traffic generation rates, estimates of the project's traffic volume were calculated for the morning student arrivals, the afternoon student dismissals and during the peak hour of the adjacent street traffic flow.

Table 1
Project Trip Generation Rates
(Per Student)

			AM Peak Hour			PM School Peak Hour		
Land Use	ITE Code	Daily	Total	In	Out	Total	In	Out
Private School (K-8)	534	N/A	0.900	0.495	0.405	0.600	0.282	0.318

			PM Street Peak Hour		
Land Use	ITE Code		Total	In	Out
Private School (K-12)	536	2.48	0.17	0.073	0.097

The ITE traffic survey data indicates that a school use generates approximately 1 car trip per student during the peak one hour morning time period. School uses typically generate the highest traffic volume during the morning time period spread over a 1.5 hour time period.

Considering student absentees, vehicle occupancy rates, staggered arrival times factor in to the 1 car/student hourly trip rate.

To validate the ITE morning trip rate, a morning trip generation survey was conducted at the Willows Community School on June 7, 2010 to test the validity of the ITE private school rates (see Appendix J for data). The results show that the Willows Community School generated 0.849 vehicle trips per student during the morning peak hour which occurred between 7:40 - 8:40 am. As shown in Table 1 above, the ITE trip morning trip rate is slightly higher at 0.900 vehicle trips per student. The higher ITE rates have been used in this evaluation.

As shown in Table 2, the 50 new students in Phase 1 of the WCS Comprehensive Plan could be expected to generate an average of 124 new vehicle trips per weekday with 45 morning peak hour trips, 30 afternoon school-peak and 9 afternoon street-peak hour trips. Buildout of the WCS Comprehensive Plan with 150 new students could be expected to generate an average of 372 new vehicle trips per weekday with 135 morning peak hour trips, 90 afternoon school-peak and 26 afternoon street-peak hour trips.

Table 2
Project Trip Generation

			AM Peak Hour			PM School Peak Hour		
Land Use	Size	Daily	Total	In	Out	Total	In	Out
Private School	50 students	124	45	25	20	30	14	16

PM Street Peak Hour		
Total	In	Out
9	4	5

			AM Peak Hour			PM School Peak Hour		
Land Use	Size	Daily	Total	In	Out	Total	In	Out
Private School	150 students	372	135	75	60	90	42	48

PM Street Peak Hour		
Total	In	Out
26	11	15

Trip Distribution and Assignment of Project Traffic

A primary factor affecting trip direction is the distribution of the student population which would generate project trip origins and destinations. A review of the zip code locations of the current student population were reviewed to assist in the development of the trip distribution (see Appendix F). The estimated project directional traffic distribution is also based on the roadway network, existing traffic flow patterns and site access. Figure 4 illustrates the estimated traffic distribution percentages.

Separate traffic distributions were developed for the existing condition and each subsequent WCS phase because of the proposed changes to the WCS driveway locations. The traffic distribution with the existing Higuera Street parking and access is depicted in Figure 5a. Note that at intersection 7, Higuera Street and Hayden Avenue, some school related traffic was assigned to go around the intersection traffic diverter to measure a worst case traffic flow on Higuera Street and Lucerne Street. Figure 5b illustrates the traffic distribution for Phase 1 development with vehicle access from both Higuera Street and Warner Drive. Lastly, Figure 5c illustrates the traffic distribution assumed for Higuera Street ingress and Warner Drive egress.

The net change in traffic volume has been calculated by adding the traffic generated by the additional student enrollment and the rerouting of school traffic caused by the relocation of the school driveways. The net change in the traffic volumes at each intersection are illustrated in Figures 6a and b for Phase 1 and the Buildout development scenarios, respectively. In some cases the change will be a net reduction in traffic volume (i.e., the negative values shown in Figures 6a and 6b). Appendix E contains the worksheets for traffic volume calculations and traffic flow maps for each distribution pattern.

This assignment of site generated traffic provides the level of detail necessary to analyze the potential traffic impacts created by the project at all the study locations.

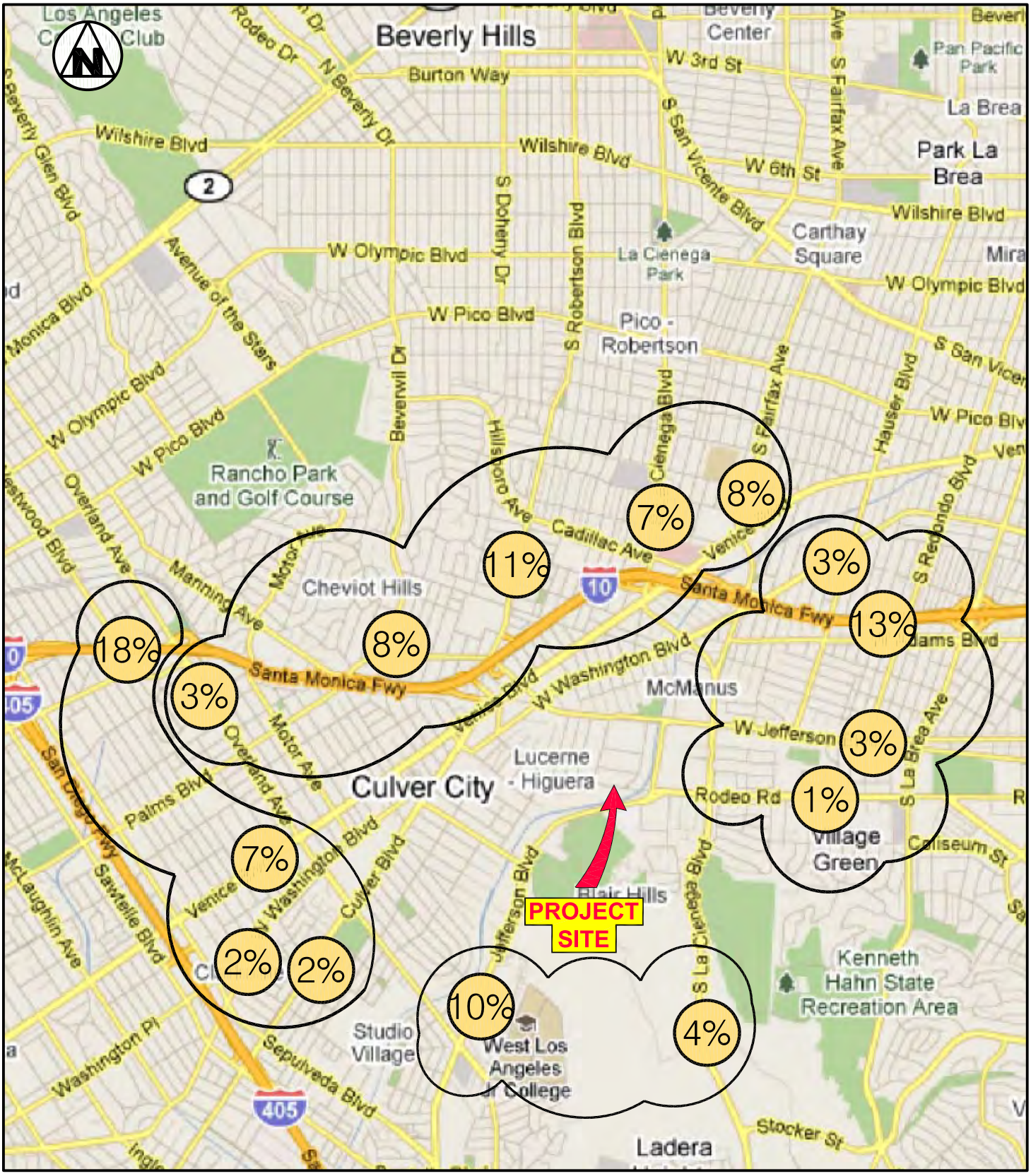
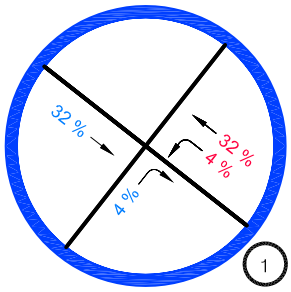


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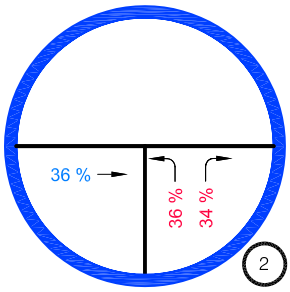
9/2010

PROJECT TRAFFIC DISTRIBUTION

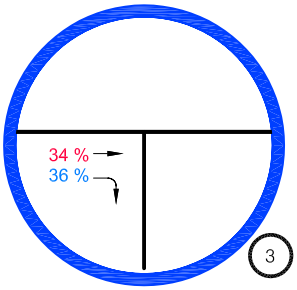
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(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com



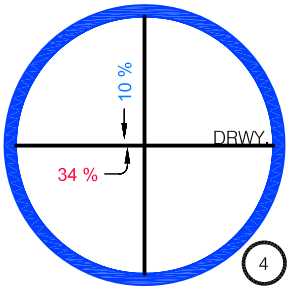
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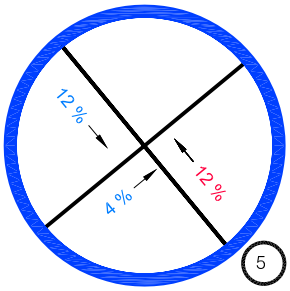
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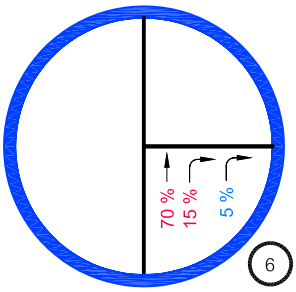
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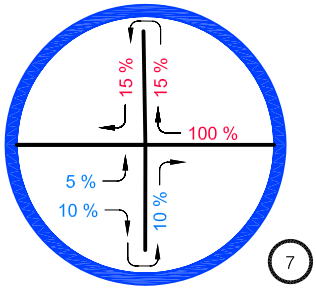
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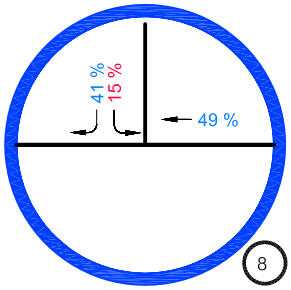
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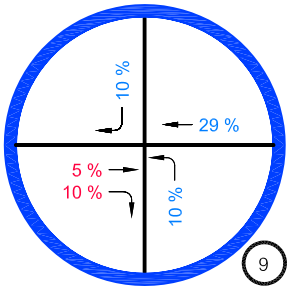
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HIGUERA ST. &
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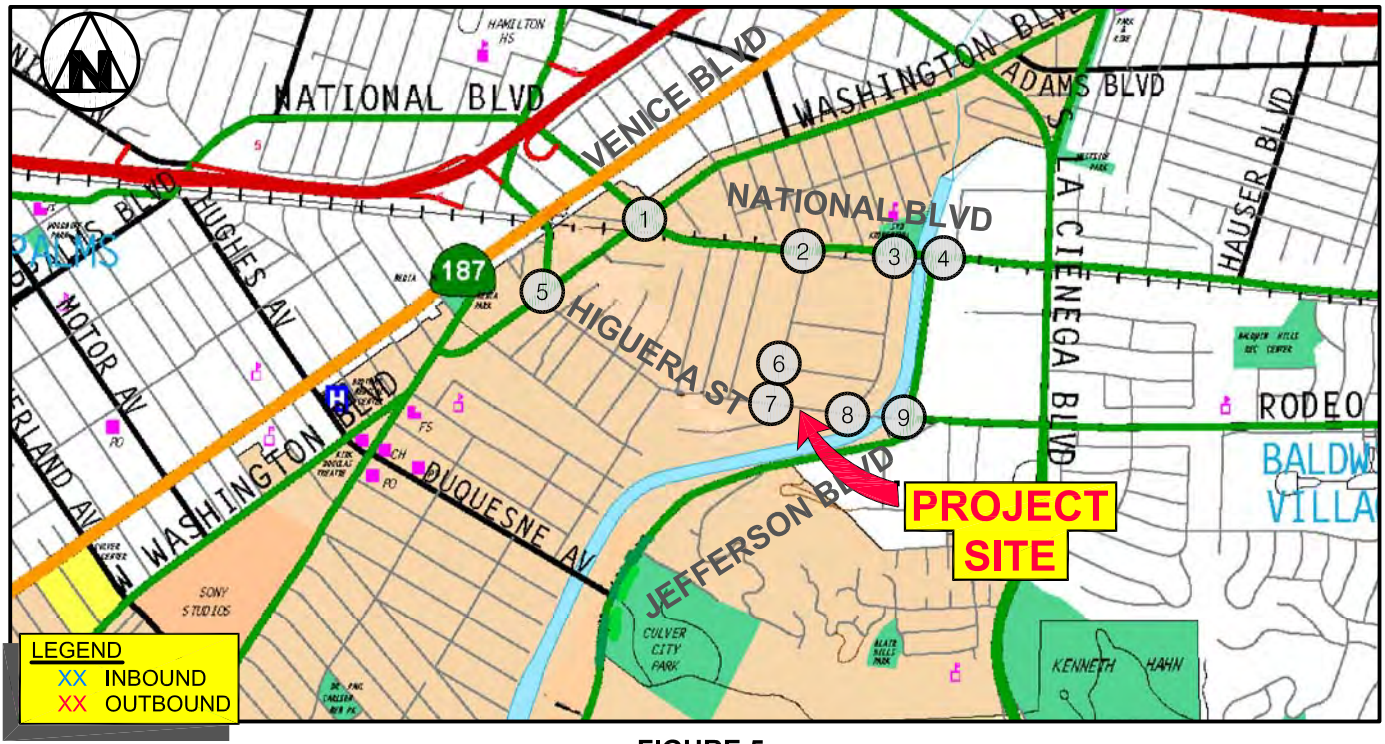
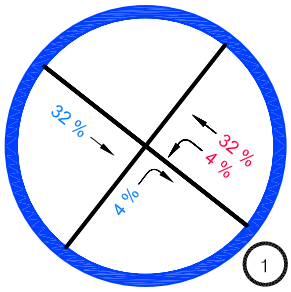


FIGURE 5a

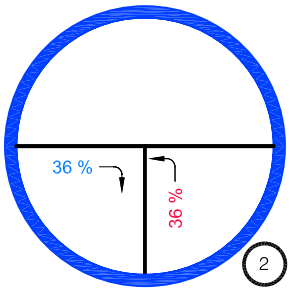
10/2010

THE WILLOWS COMMUNITY SCHOOL
TRAFFIC DISTRIBUTION
HIGUERA STREET LOT

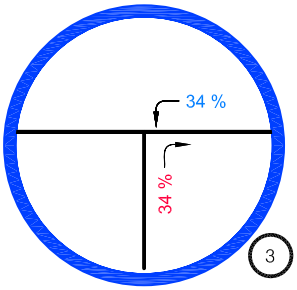
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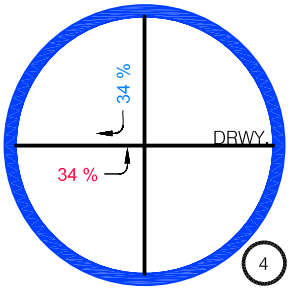
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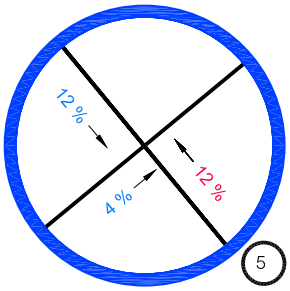
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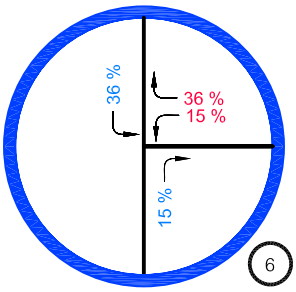
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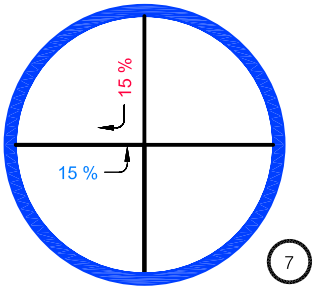
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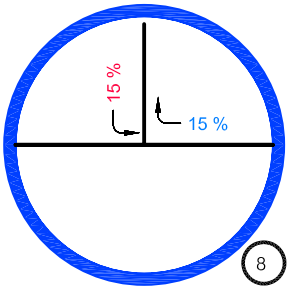
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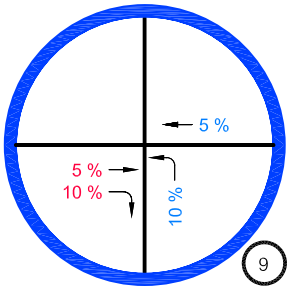
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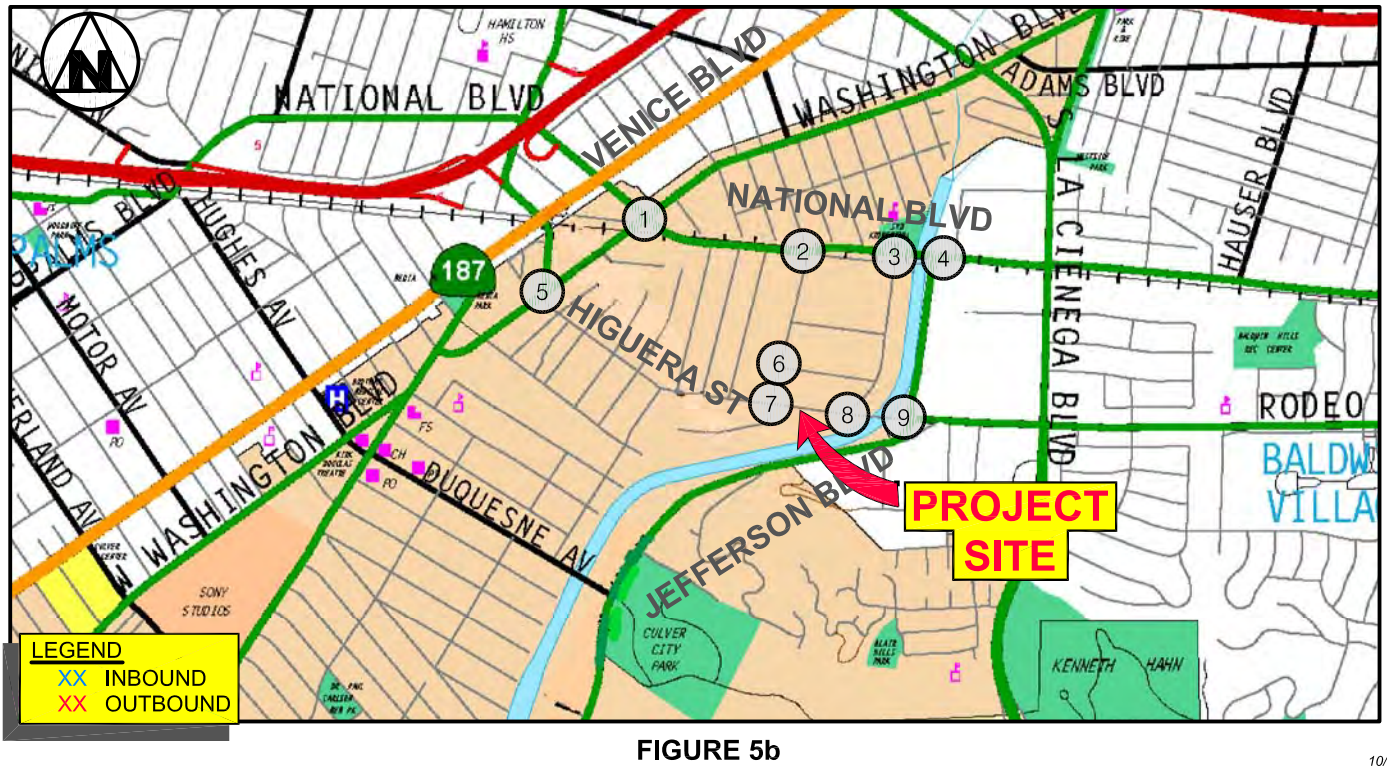
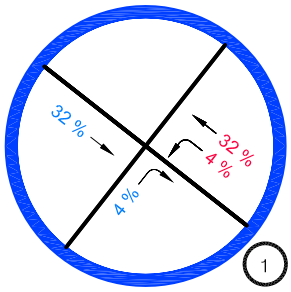


FIGURE 5b

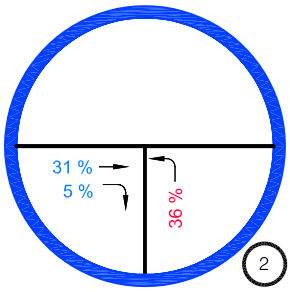
10/2010

THE WILLOWS COMMUNITY SCHOOL
PHASE I TRAFFIC DISTRIBUTION
WARNER DRIVE LOT

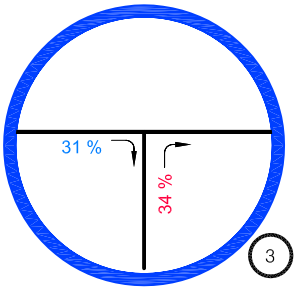
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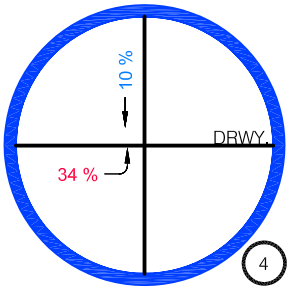
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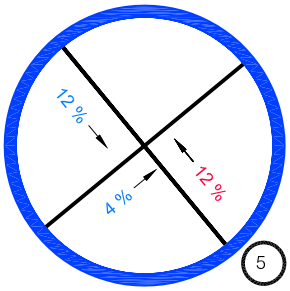
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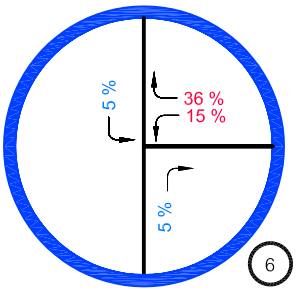
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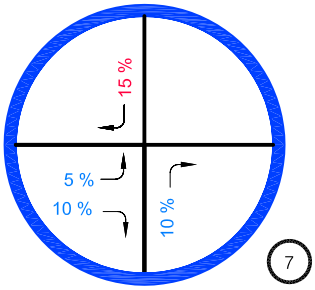
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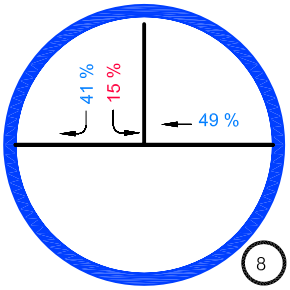
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WASHINGTON BLVD.



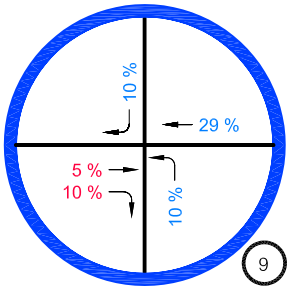
WARNER DR. &
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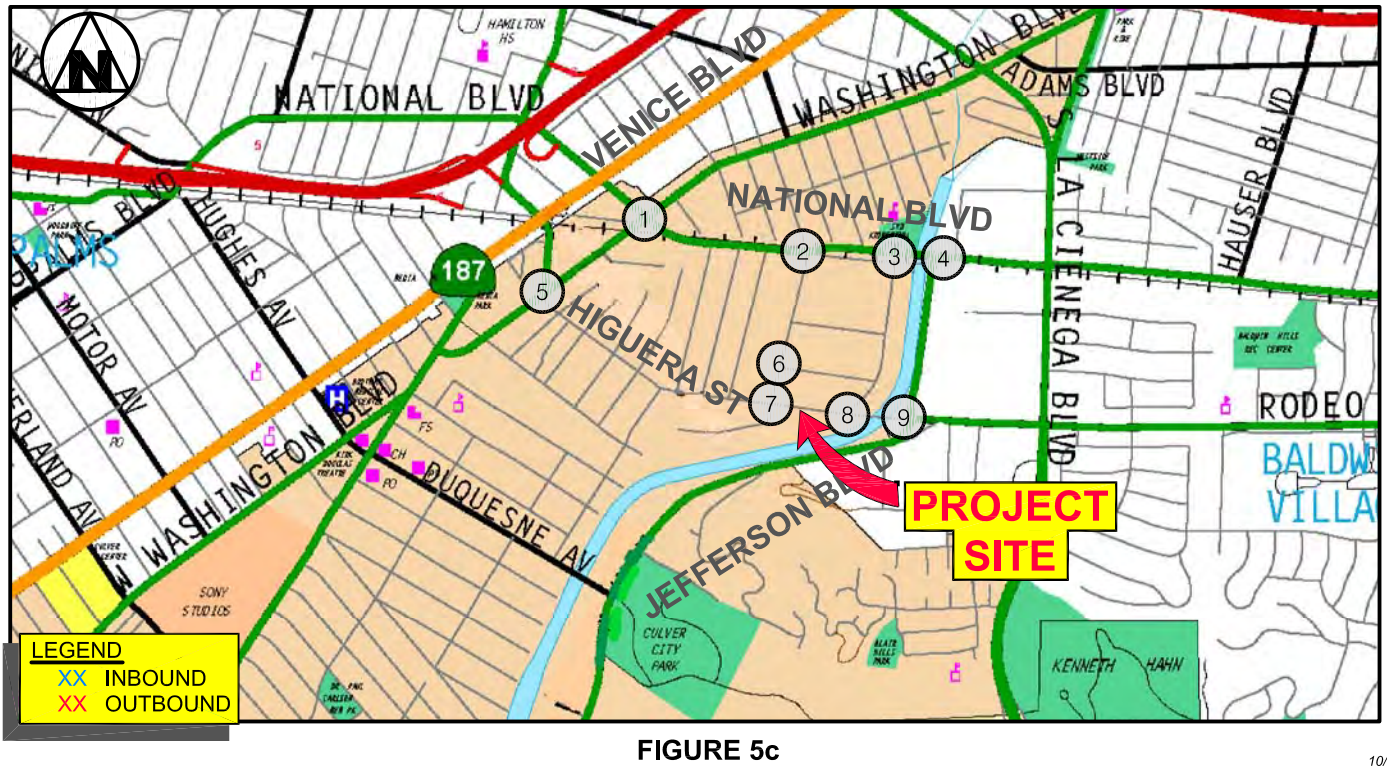
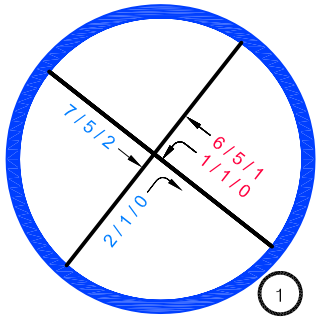


FIGURE 5c

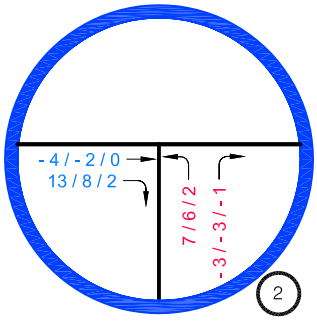
10/2010

THE WILLOWS COMMUNITY SCHOOL
BUILDOUT TRAFFIC DISTRIBUTION
HIGUERA STREET & WARNER DRIVE THRU

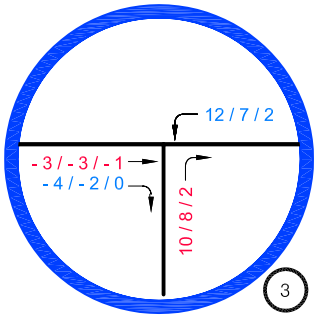
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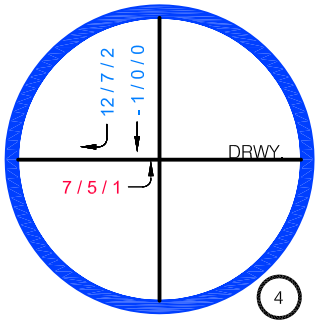
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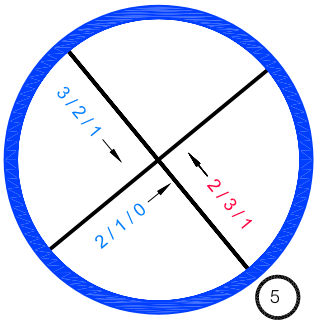
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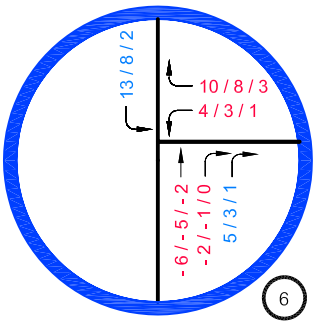
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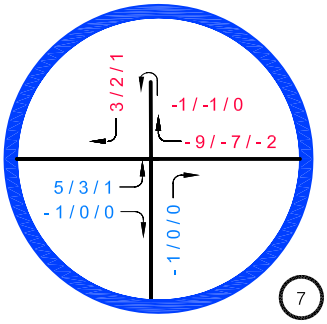
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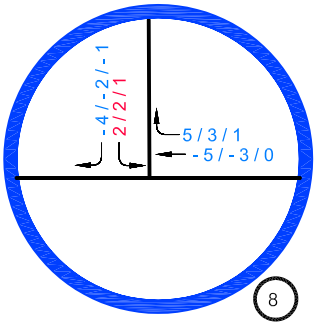
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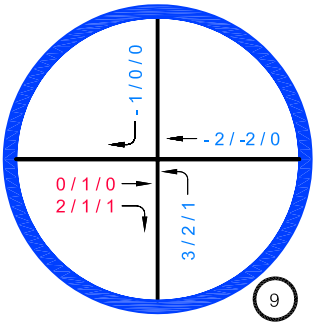
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HAYDEN AVE.



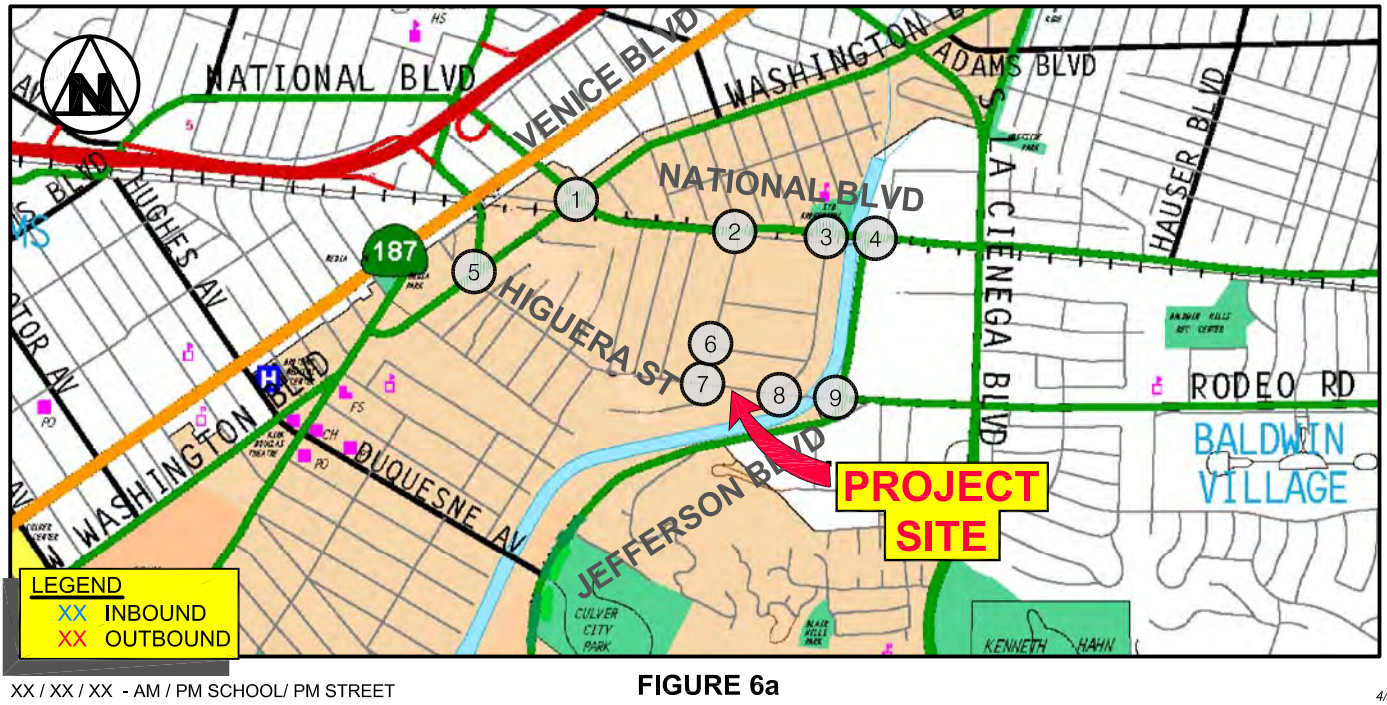
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HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
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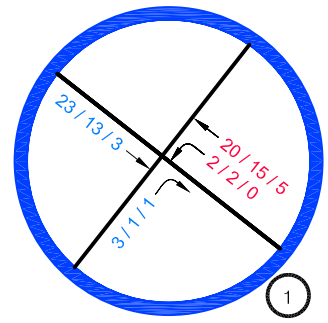
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FIGURE 6a

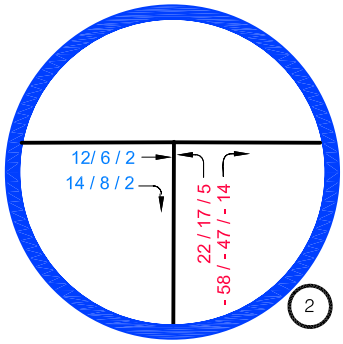
4/2011

THE WILLOWS COMMUNITY SCHOOL
FUTURE PHASE I NET CHANGE IN TRAFFIC FLOW
AM STREET / PM SCHOOL / PM STREET PEAK HOURS

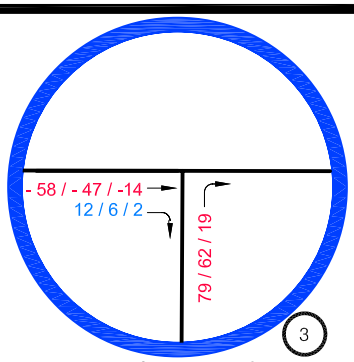
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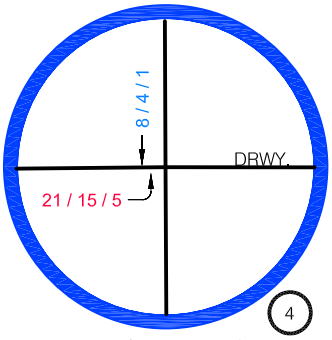
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WASHINGTON BLVD.



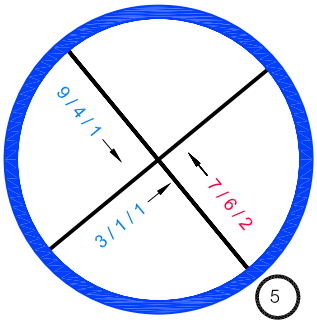
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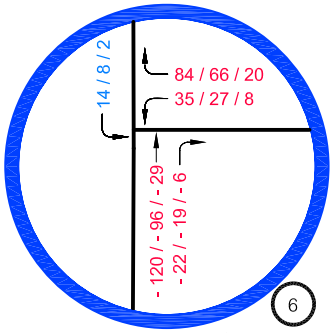
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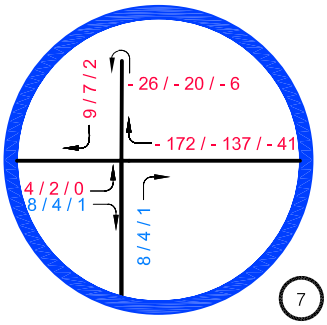
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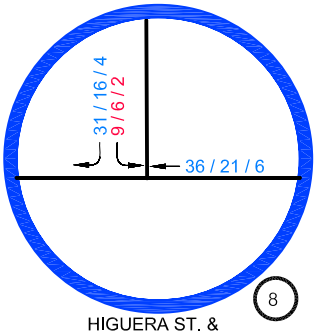
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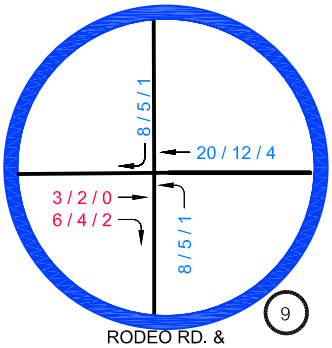
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HAYDEN AVE.



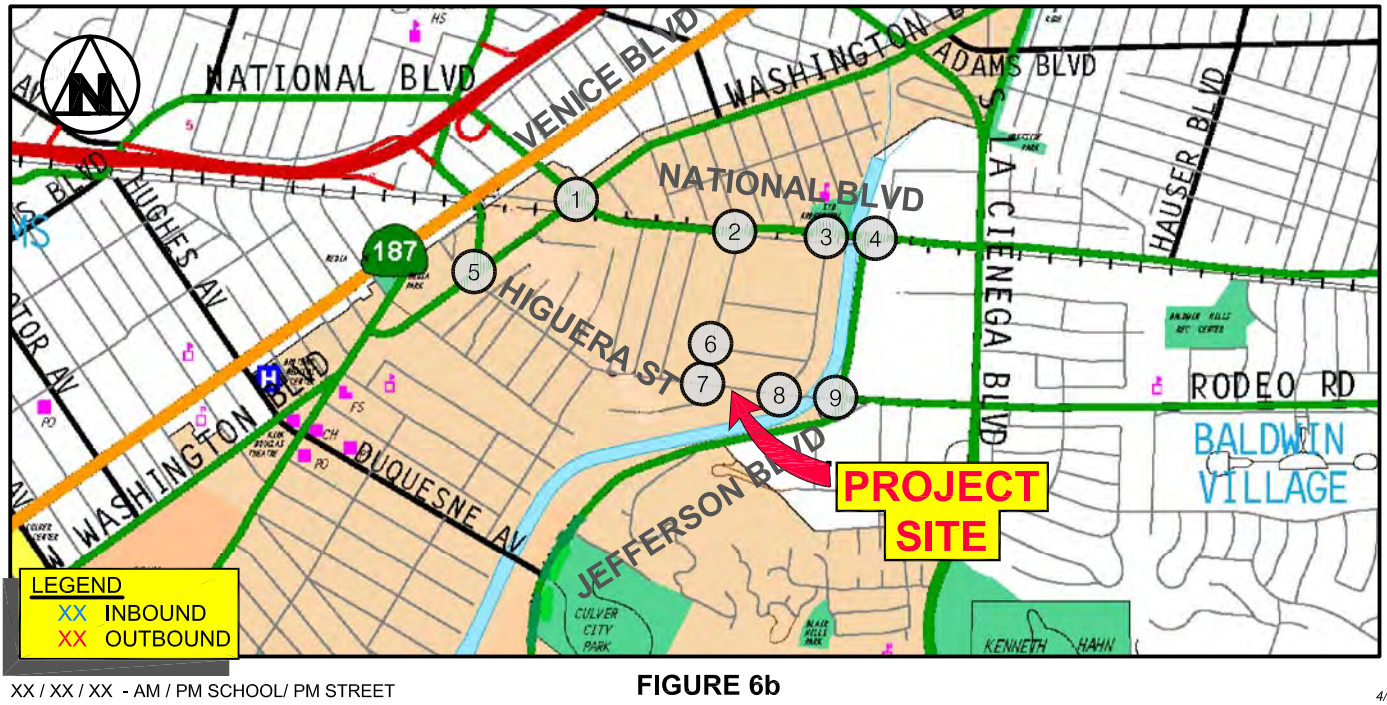
HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.



XX / XX / XX - AM / PM SCHOOL/ PM STREET

FIGURE 6b

4/2011

THE WILLOWS COMMUNITY SCHOOL
FUTURE BUILDOUT NET CHANGE IN TRAFFIC FLOW
AM STREET / PM SCHOOL / PM STREET PEAK HOURS

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Driveway and Queuing Review

The objective of the driveway review and queuing analysis is to assist in the development of the school arrival / pick-up program to serve the needs of the school, to minimize on-street queuing and at the same time provide sufficient capacity for a safe and efficient student loading / unloading procedure.

The morning school trips do not typically present as large of a concern as the afternoon pick-up event. The afternoon pick-up event attracts parents trying to "get in line first" in order to leave the queue as soon as possible upon the release of the students from school. It has been observed that early arrivals for pick-up have had a negative effect on the WCS staggered start/end program with spill over onto Higuera Street. Therefore, WCS parents should not arrive earlier than ten minutes before their designated pick-up times. A placard identification system assigning arrival times to vehicles should be implemented to enforce the arrival times. Penalties for non-compliance should be implemented by the WCS. More information on the recommended pick – up procedures is provided in Appendix I.

Driveway volume estimates were developed to review the access and on-site circulation capacity. The estimated driveway volumes are provided in Figures 7a, b and c and show the total estimated driveway peak hour traffic volumes after the completion of each development phase. It is important to note that the driveway volumes are not the same as the net change in site generated traffic volume used to analyze the project's traffic impact at the study intersections. The driveway volumes are estimates of all school related traffic (existing and future).

As indicated by studies conducted by the State of North Carolina Department of Transportation, the rule-of-thumb often used to calculate the vehicle queuing and stacking length for schools is 6% of the student population for the AM demand and 10% for the afternoon demand. Using these rule-of-thumb numbers, the existing enrollment of 425

students at WCS would create a 26 vehicle am queue and a 43 vehicle pm queue without a staggered start/end program. Observations during the afternoon pickup period validate these queuing numbers. This also indicates that parents are arriving early for pick-up which decreases benefits of the WCS staggered start/end program.

Assuming adherence to the staggered program, below are the estimated vehicle queues for the four arrival periods at the Willows Community School for each parking lot in Phase 1 and for the drive thru Higuera/Warner parking lot in Phases 2 and 3.

As shown in Table 3, assuming full compliance, the staggered start/end program would be very effective in minimizing the vehicle queues and spill over onto the street. The maximum afternoon vehicle queue for Phase 1 would be 17 vehicles in the Higuera Street parking lot and 3 vehicles in the Warner Drive parking lot. At Buildout, the estimated vehicle queue for the drive-thru lot is 24 vehicles. Appendix E illustrates the vehicle stacking areas for the Higuera Street lot in Phase 1 (17 vehicles) and in the drive-thru lot (30 vehicles). See Exhibits E6 and E7 for the vehicle stacking plan for the Higuera Street lot and drive-thru lot, respectively.

Table 3
Queuing Estimates
Vehicle Queue at Phase 1
(full compliance with staggered program)

		AM Drop Off			PM Pick Up		
Phase 1 +50	Size	Warner Lot (15%)	Higuera Lot (85%)	Total Queue	Warner Lot (15%)	Higuera Lot (85%)	Total Queue
8:00 - 2:50	200	2	10	12	3	17	20
8:20 - 3:05	101	1	5	6	2	9	10
8:40 - 3:20	101	1	5	6	2	9	10
9:00 - 2:30	73	1	4	4	1	6	7
	475						

AM queue factor = 6% of students
PM queue factor = 10% of students

Table 3 (con't)
Queuing Estimates
Vehicle Queue at Buildout

Buildout +150	Size	AM Drop Off Total Queue	PM Pick Up Total Queue
8:00 - 2:50	236	14	24
8:20 - 3:05	118	7	12
8:40 - 3:20	118	7	12
9:00 - 2:30	103	6	10
	575		

AM queue factor = 6% of students
PM queue factor = 10% of students

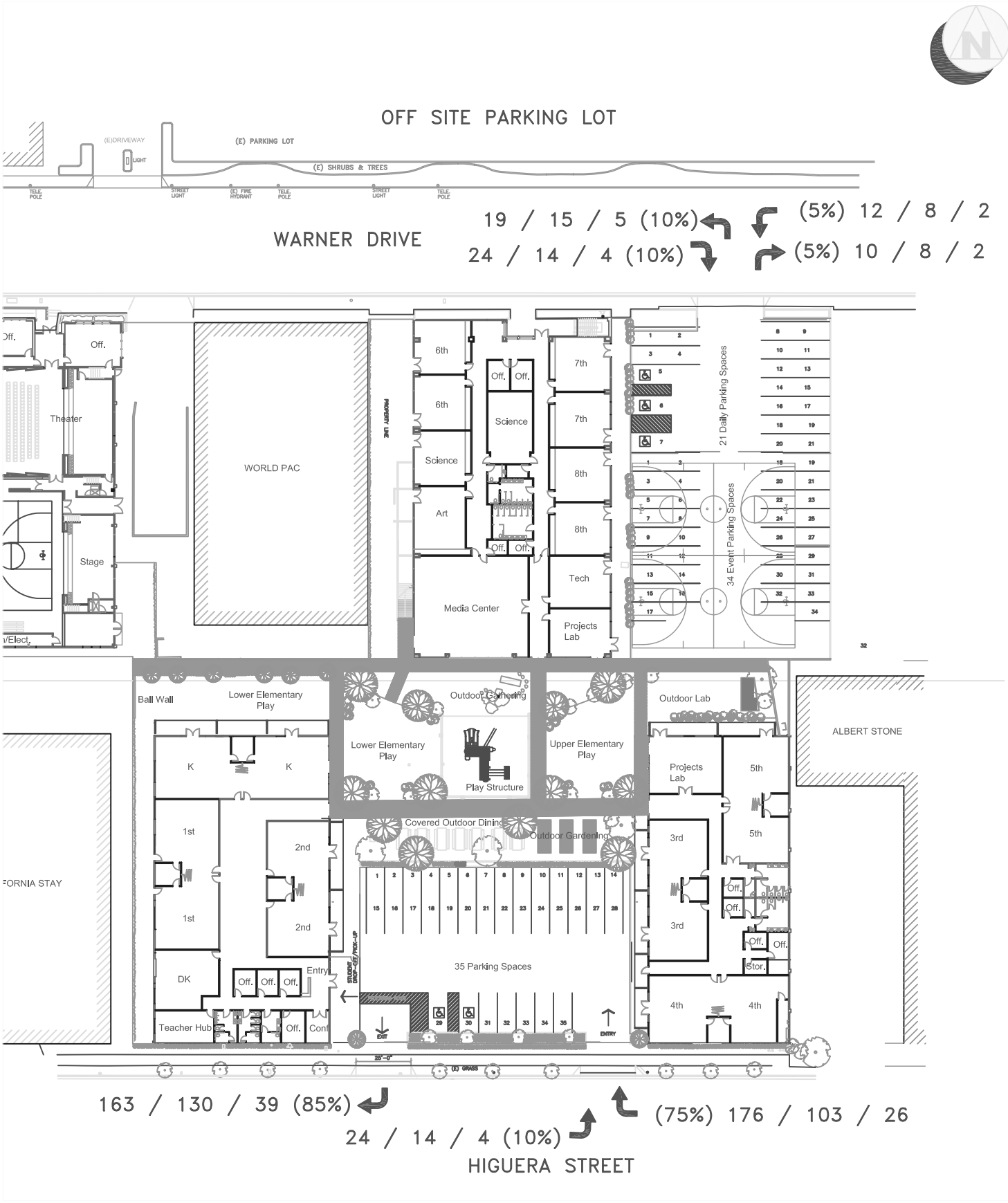


FIGURE 7a

4/2011

THE WILLOWS COMMUNITY SCHOOL
PHASE I DRIVEWAY VOLUMES
AM PEAK / PM SCHOOL PEAK / PM STREET PEAK

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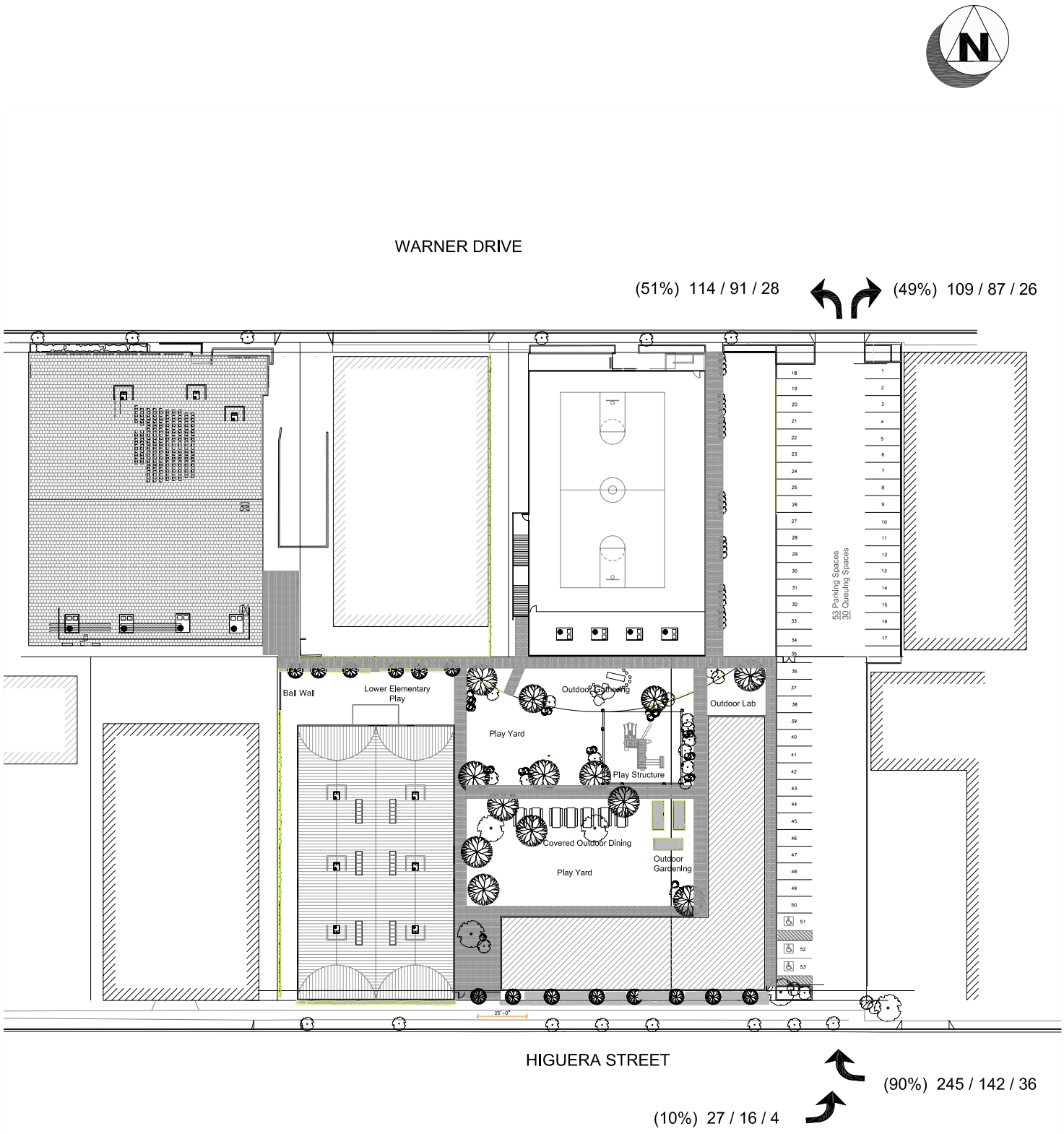


FIGURE 7b

9/2010

THE WILLOWS COMMUNITY SCHOOL
PHASE II DRIVEWAY VOLUMES
AM PEAK / PM SCHOOL PEAK / PM STREET PEAK

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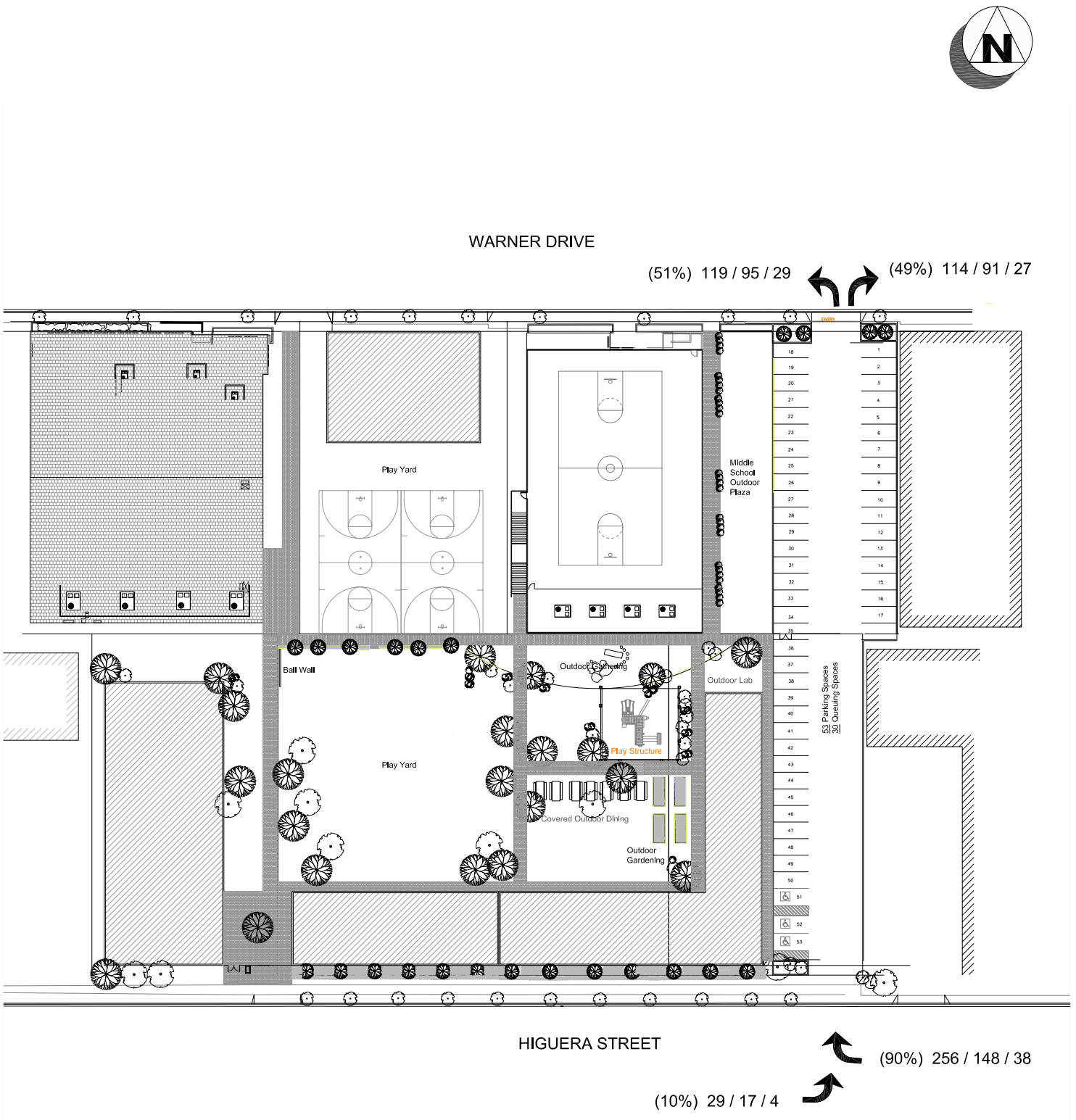


FIGURE 7c

10/2010

THE WILLOWS COMMUNITY SCHOOL
PHASE III DRIVEWAY VOLUMES
AM PEAK / PM SCHOOL PEAK / PM STREET PEAK

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Analysis of Existing Traffic Conditions

New peak hour traffic counts were collected along with current intersection geometrics and traffic controls to determine the intersection's typical weekday peak hour operating conditions. Traffic volume data used in the following peak hour intersectional analysis were based on traffic counts collected by an independent traffic data collection company.

Traffic counts were collected in May 2010 for the morning street peak period from 7 am – 9 am and for the afternoon school and street peak flows between 2:30 pm to 6:00 pm. Traffic counts were conducted by counting the number of vehicles at each of the nine study intersections making each movement. The peak hour volume for each intersection was then determined by finding the four highest consecutive 15-minute volumes for all movements (see Appendix D for the traffic count data). Nearby roadways were counted during a 24-hour period to monitor hourly fluctuations in traffic. The street segment counts were conducted by utilizing automated counting machines.

The traffic conditions analysis was conducted using the Intersection Capacity Utilization (ICU) method for the study intersections. The ICU procedure uses a ratio of the traffic volume to the intersection capacity to define the proportion of an hour necessary to accommodate all the traffic moving through the intersection assuming all approaches were operating at full capacity. For example, if an intersection has a V/C value of 0.70, the intersection is operating at 70% capacity with 30% unused capacity. The V/C ratios provide an appropriate means for quantifying intersection operating characteristics for planning purposes.

The ICU procedure adds the highest combination of conflicting traffic volume (V) at an intersection and divides the sum by the intersection capacity value for a V/C ratio. Intersection capacity (C) represents the maximum volume of vehicles which has a reasonable expectation of passing through an intersection in one hour under typical traffic flow conditions.

Once the volume-to-capacity ratio has been calculated, operating characteristics are assigned a level of service grade (A through F) to estimate the level of congestion and stability of the traffic flow. The term "Level of Service" (LOS) is used by traffic engineers to estimate the level of congestion generally accepted by drivers and to describe and grade the stability of traffic flow. Level of Service standard D is generally considered the design capacity of arterial intersections and is thereby often set as the performance standard. Definitions of the LOS grades are shown in Table 4.

Table 4
V/C Level of Service Definitions – Signalized Intersections

Level of Service	Definition	Equivalent V/C
A	EXCELLENT - Free flow conditions with low traffic density.	0.000 - 0.600
B	VERY GOOD - A stable flow of traffic.	0.601 - 0.700
C	GOOD - Light congestion but stable, occasional backups behind left-turning vehicles.	0.701 - 0.800
D	FAIR - Approaching instability, drivers are restricted in freely changing lanes. Vehicles may be required to wait through more than one cycle.	0.801 - 0.900
E	POOR - At or near capacity with some long lines for left-turning vehicles. Blockage of intersection may occur if traffic signal does not provide for protected turning movements.	0.901 - 1.000
F	FAILURE - Jammed conditions with stoppages of long duration and long queues.	> 1.000

The LOS thresholds for stop sign controlled intersections differ from signalized intersections to reflect different driver expectations. The expectation is that a signalized intersection is designed to carry higher traffic volumes than a stop controlled intersection. For the un-signalized intersections, a delay based analysis has been conducted using procedures based on the Highway Capacity Manual, (HCM). This procedure calculates the control delay as the total elapsed time from the time a vehicle stops at the end of the queue to the time the vehicle depart from the intersection. Using this procedure the LOS is evaluated on the basis of the total delay per vehicle for selected movements (in seconds per vehicle).

The HCM procedures estimate the average number of seconds of delay experienced by motorists traveling through the intersections. Definitions of the LOS grades for stop controlled intersections as defined by the Transportation Research Board are shown in Table 5.

Table 5
Level of Service Definitions – Stop Controlled Intersections

Level of Service	Average Control Delay (sec)
A	Less than or equal to 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

By applying the CMA and HCM procedures, the V/C ratios, delay values and the corresponding LOS for existing traffic conditions were determined for each intersection. The existing V/C ratios, delay values and the corresponding LOS values are summarized in Table 6. Supporting capacity worksheets are contained in Appendix G of this report.

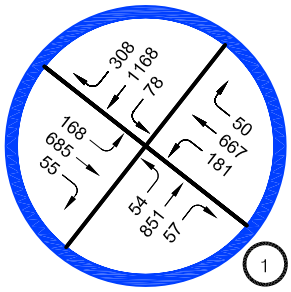
Existing peak hour traffic volume at each study intersection are illustrated in Figure 8 for the morning street peak hour, Figure 9 for the afternoon school peak hour and Figure 10 for the afternoon street peak hour.

An expanded traffic impact analysis has been conducted pursuant to recent California Environmental Quality Act court rulings. The potential traffic impact of the project's traffic volume on existing traffic conditions has been analyzed as a supplemental scenario. Therefore, traffic volume projections have been developed to analyze the existing traffic conditions after completion of the proposed project. The only changes to the existing conditions are those associated with the Expo Transit line along National Boulevard.

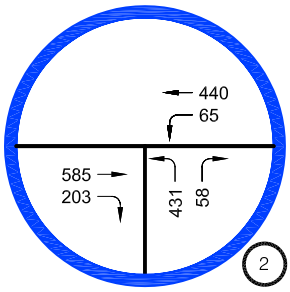
No additional project generated traffic impacts were identified in the "existing + project" traffic impact analysis. Appendix K contains the results of the "existing + project" impact analysis.

Table 6
Level of Service for Existing Conditions

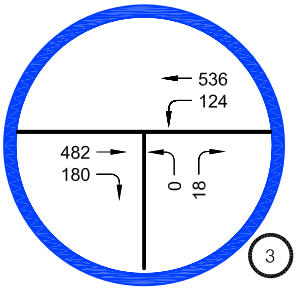
		AM Peak		PM School Peak		PM Street Peak	
No.	Intersection	ICU / Delay	LOS	ICU / Delay	LOS	ICU / Delay	LOS
1.	National Bd. & Washington Bd.	0.723	C	0.556	A	0.678	B
2.	National Bd. & Hayden Ave.	0.586	A	0.565	A	0.655	B
3.	National Bd. & Eastham Dr.	0.380	A	0.381	A	0.409	A
4.	National Bd. & Jefferson Bd. (LA)	0.559	A	0.428	A	0.485	A
5.	Washington Bd. & Robertson/Higuera	0.714	C	0.492	A	0.565	A
6.	Warner Dr. & Hayden Ave.	0.639 / 27.5 “	B D	0.518 / 15.9 ”	A C	0.517 / 15.9 ”	A C
7.	Higuera St. & Hayden Ave.	0.690 / 15.62 ”	B C	0.619 / 11.20 ”	B B	0.482 / 10.44 ”	A B
8.	Higuera St. & Eastham Dr.	0.409	A	0.434	A	0.455	A
9.	Higuera St. & Jefferson Bd. (LA)	0.655	B	0.532	A	0.630	B



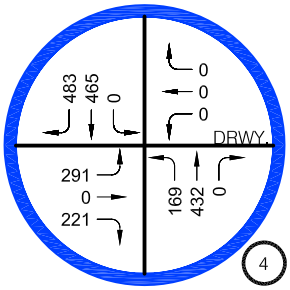
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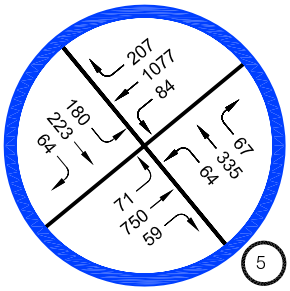
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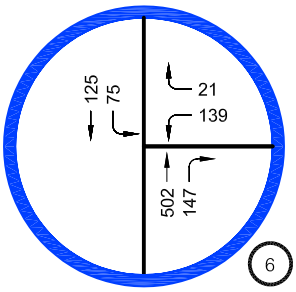
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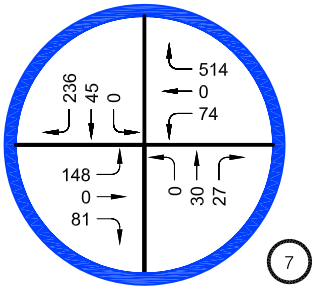
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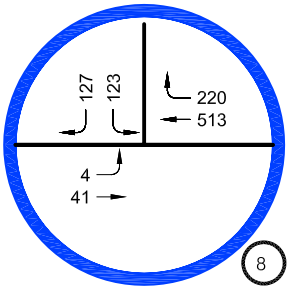
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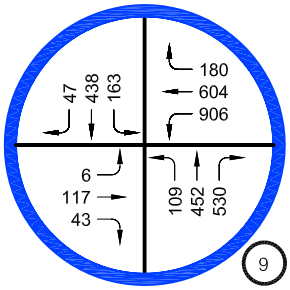
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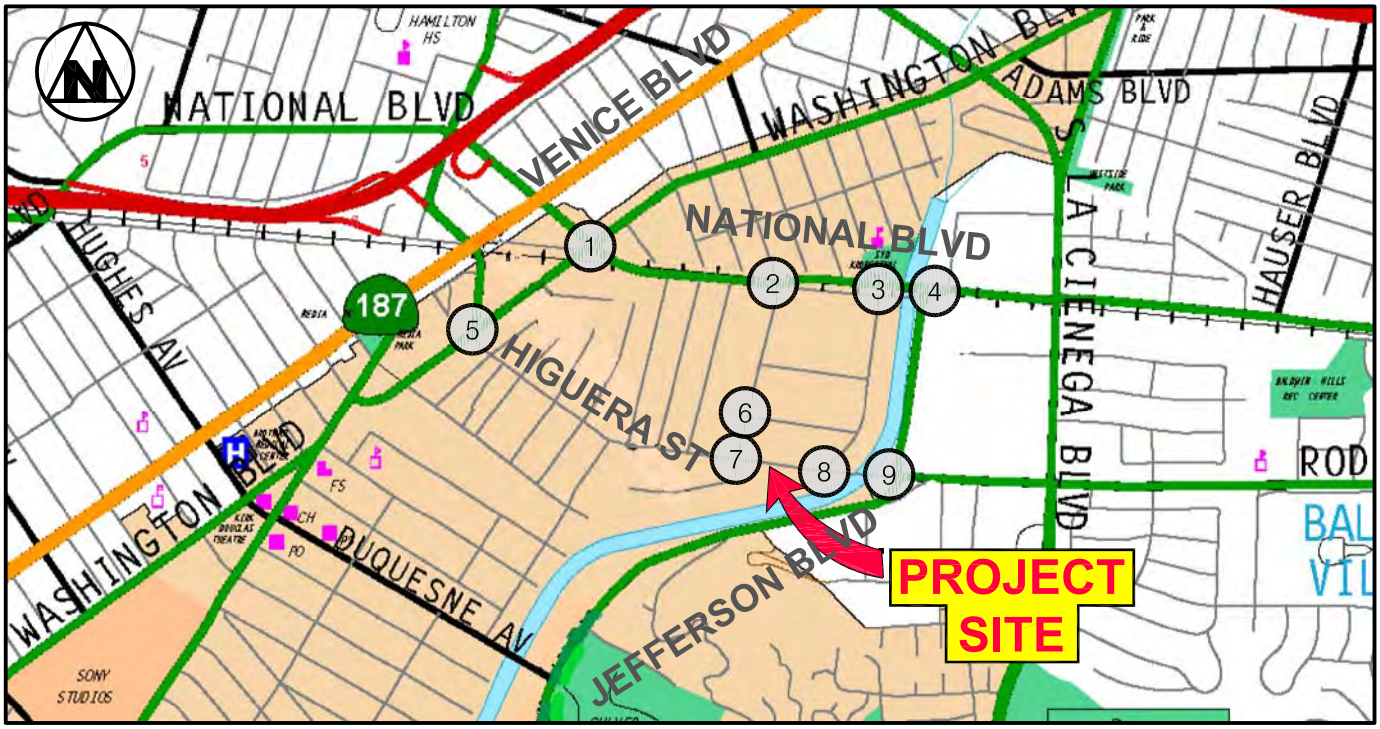
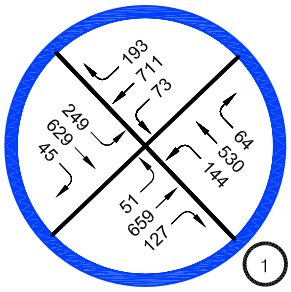


FIGURE 8

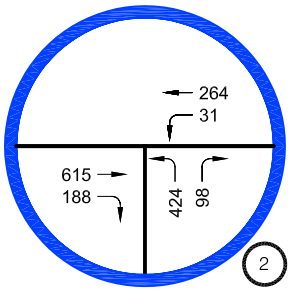
5/2010

EXISTING (2010) TRAFFIC VOLUMES
AM PEAK HOUR

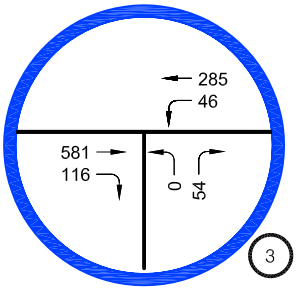
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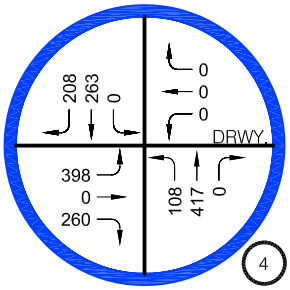
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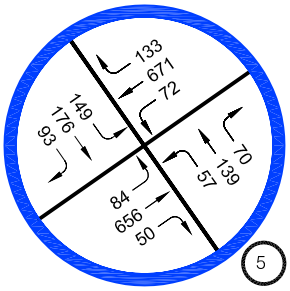
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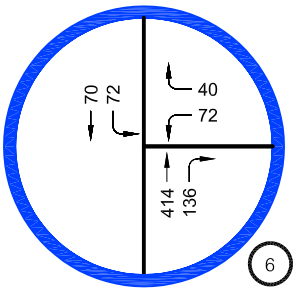
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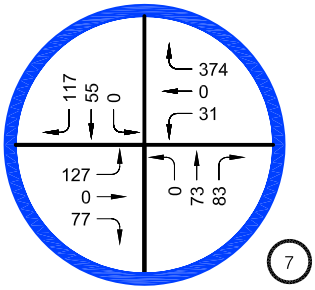
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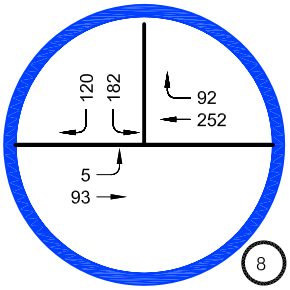
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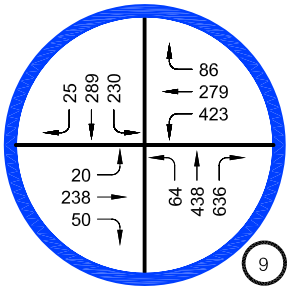
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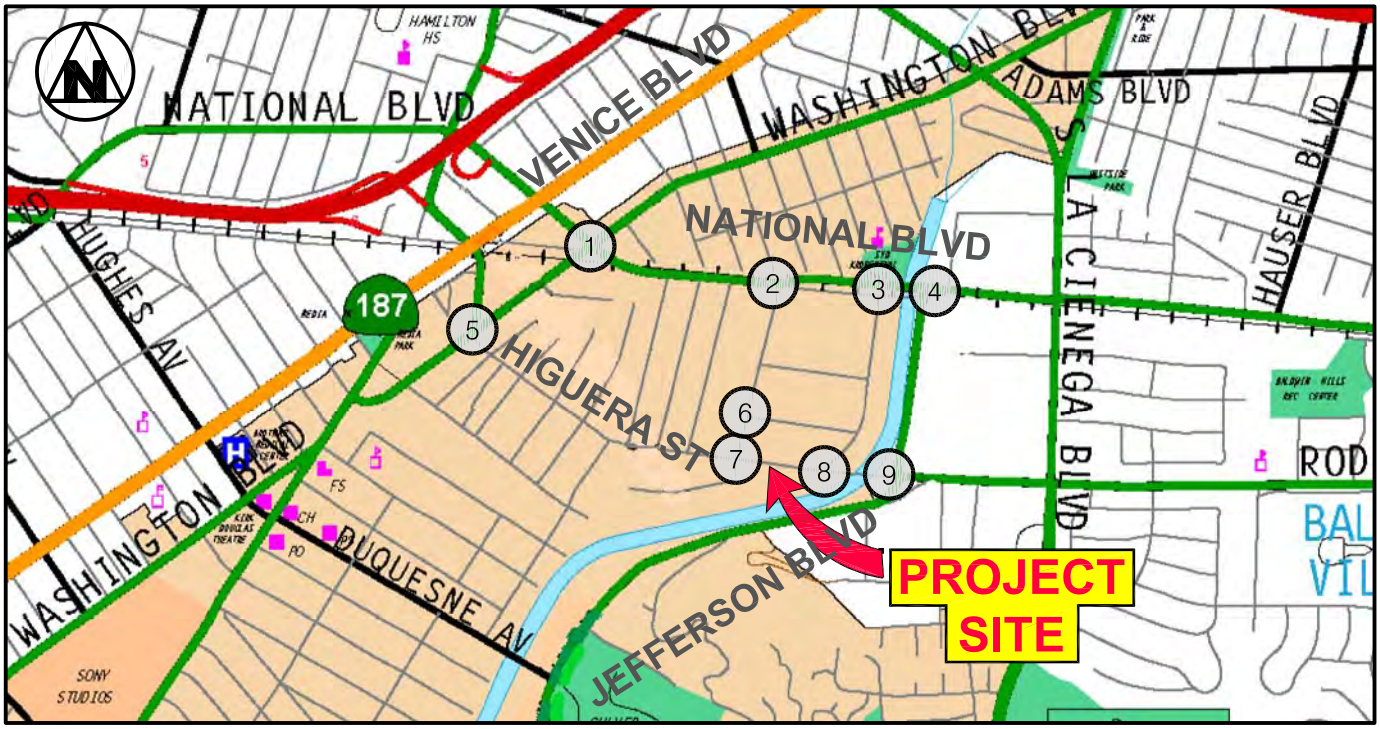
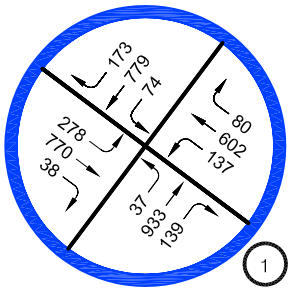


FIGURE 9

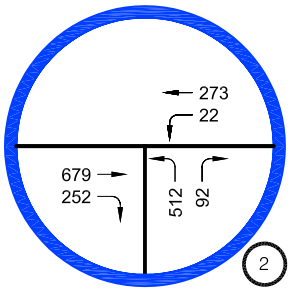
5/2010

EXISTING (2010) TRAFFIC VOLUMES
PM SCHOOL PEAK HOUR

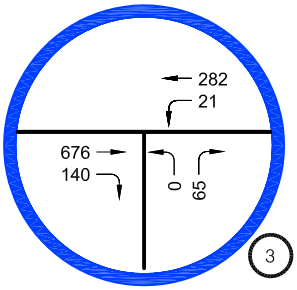
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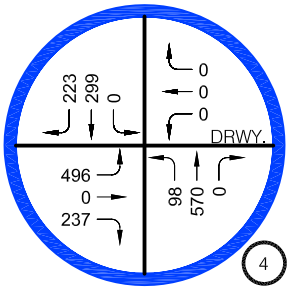
NATIONAL BLVD. &
WASHINGTON BLVD.



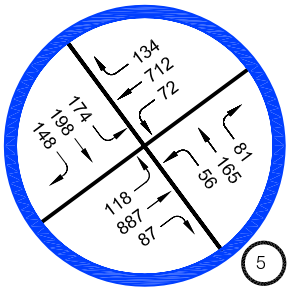
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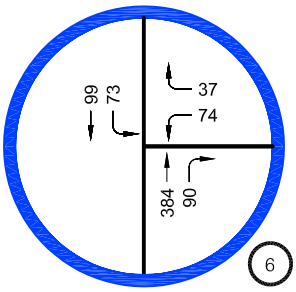
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EASTHAM DR.



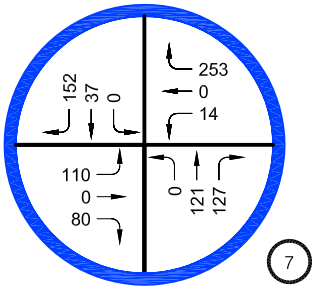
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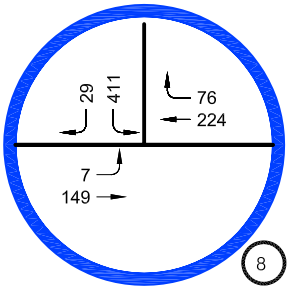
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



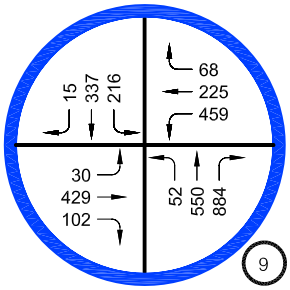
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

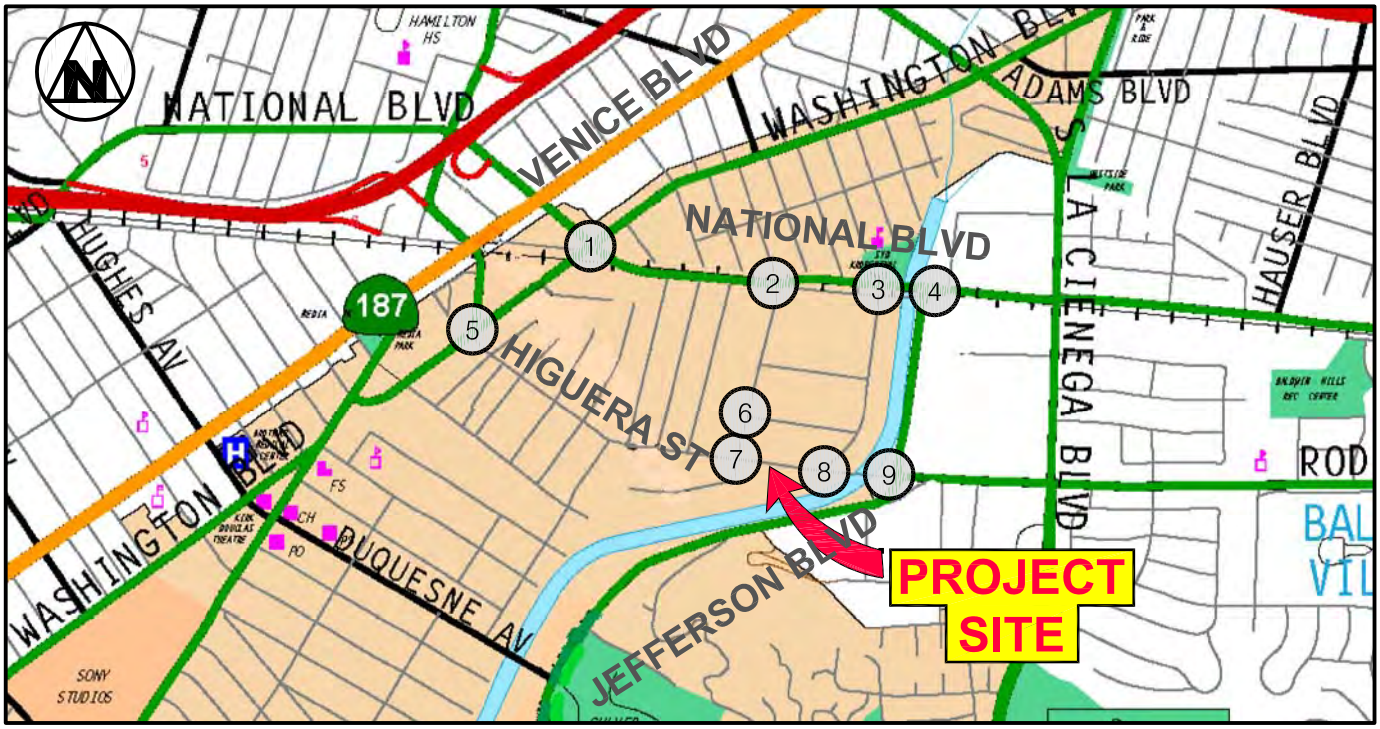


FIGURE 10

5/2010

EXISTING (2010) TRAFFIC VOLUMES
PM STREET PEAK HOUR

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Analysis of Future Traffic Conditions

Future traffic volume projections have been developed to analyze the traffic conditions after completion of other planned land developments including the proposed project. The following steps have been taken to develop the future "without project" traffic volume estimate:

(a) Existing traffic + ambient growth (1% per year);

(b) Traffic in (a) + related projects (without project scenario);

Traffic conditions after completion of the proposed project have been calculated by adding the project volume to the "without project" traffic volume estimates.

(c) Traffic in (b) with the proposed project traffic (with project scenario);

(d) Traffic in (c) + the proposed traffic mitigation, if necessary.

Comparing the changes in the traffic conditions (i.e., V/C ratio) between the without and with project traffic volume scenarios provides the data to determine if the project traffic creates a significant traffic impact which would require traffic mitigation at any of the study intersections. The LOS value used in the significance test was the CMA LOS method for the signalized intersections and the HCM LOS method for the non-signalized intersections. The ICU method was used to calculate the difference in the V/C with and without the project to determine the significance of the project's traffic impact.

If a project adds a significant amount of traffic to a non-signalized intersection or creates a traffic impact, a traffic signal warrant study will be conducted for the intersection. These procedures were applied to the study intersection of Warner Drive and Hayden Avenue (see Appendix H). A traffic signal warrant study was not conducted for the intersection of Higuera Street and Hayden Avenue since a traffic signal would not be consistent with the City of Culver City's traffic management programs for Higuera Street.

Although the project is entirely within the City of Culver City, several of the intersections evaluated are within the jurisdiction of Los Angeles. Therefore, the significant impact criteria for Los Angeles have been applied to those intersections. According to the standards adopted by Culver City and Los Angeles, a traffic impact is considered significant if the related increase in the V/C or delay value equals or exceeds the thresholds as shown in Tables 7a and b below:

Table 7a
Culver City Significant Impact Criteria

LOS	Final V/C Value	Increase in V/C Value
D	0.80 - 0.89	+ 0.04
E - F	≥ 0.90	+ 0.02 or more

Table 7b
Los Angeles Significant Impact Criteria

LOS	Final V/C Value	Increase in V/C Value
C	0.701 - 0.800	+ 0.040
D	0.801 - 0.900	+ 0.020
E & F	> 0.901	+ 0.010 or more

The future cumulative analysis includes other development projects located within the study area that are either under construction or planned. As part of this analysis, development lists were obtained from the City of Culver City and the City of Los Angeles Department of Transportation. These lists were reviewed to identify those projects that could produce additional traffic at the study intersections by the future study year. It should be noted that this proposed project, or any actions taken by the City regarding this project, does not have a direct bearing on these other proposed related projects. The descriptions of the 47 related projects are listed in Table 8 with its location illustrated on Figure 11.

To evaluate future traffic conditions with the related projects, estimates of the peak hour trips generated by the other developments are shown in Table 9. Note that the afternoon traffic estimates for the related projects were used for both the school and street peaks. The cumulative traffic impact of future traffic growth has been calculated by adding the existing traffic volume, the ambient growth factor and traffic from these other development projects.

Table 8
Listing of Related Projects

No.	Project	Size		Location
1	Office	57,050	sf	5800 Uplander Way
2	Fire Station	12,156	sf	6030 Bristol Parkway
3	Office	240,612	sf	700 Corporate Pointe
	Retail	4,242	sf	
4	Oil Field Expansion	ɔer traffic study		Baldwin Hlls Oil fields
5	Students (2015)	4,812	students	West LA Community College
6	Auto Repair	2	bays	11167 Washington Boulevard
7	Hampton Inn	77	rooms	3954 Sepulveda Boulevard
8	Condominiums	4	units	3972 Tilden Avenue
9	Condominium	4	units	3846 Bentley Avenue
10	Condominium	5	units	3862 Huron Avenue
11	Gas Station\w Mart\Wash	2,500	sf	10638 Culver Boulevard
12	Apartments	126	units	10601 Washington Boulevard (LA)
	Office	23,000	sf	
	Retail	9,000	sf	
	Restaurant	9,000	sf	
	Less office	10,100	sf	
13	Condominium	4	units	3718 Glendon Avenue
14	Condominium	40	units	3706 Overland Avenue
15	Condominium	49	units	10329 Palms Boulevard
16	Condominium	15	units	3665 Jasmine Avenue
17	Condominium	12	units	3672 Jasmine Avenue
18	Condominium	7	units	3742 Clarington Avenue
19	Condominium	131	units	9901 Washington Boulevard
	Retail	12,178	sf	
20	Assisted Living	232	units	9832 Venice Boulevard
21	Office	5,500	sf	9900 Culver Boulevard
	Condominiums	18	units	
22	Condominiums	4	units	4058 Madison Avenue
23	Condominiums	2	units	4228 Madison Avenue
24	Office	3,200	sf	4043 Irving Place
	Condominium	28	units	

Table 8 (cont'd)
Listing of Related Projects

No.	Project	Size		Location
25	Mix use	118,000	sf	9300 Culver Boulevard
26	Retail	2,359	sf	11501 Washington Boulevard
	Office	937	sf	
	Apartments	2	units	
27	Office	5,708	sf	9355 Culver Boulevard
28	Studio	110,968		9336 Washington Boulevard
29	Condominiums	4	units	4014 Van Buren Place
30	Condominium	6	units	4227 Ince Boulevard
31	Condominium	200	units	Triangle Site Washington/National
	Retail	51,500	sf	
	Office	200,000	sf	
	Hotel	149	rooms	
	Restaurant	20,000	sf	
32	Condominium	133	units	8810 -8850 Washington Boulevard
	Retail	20,295	sf	
33	Condominium	115	units	8770 Washington Boulevard
	Office	13,800	sf	
	Convenience Market	18,000	sf	
	Drug Store	11,500	sf	
	Retail	2,630	sf	
34	Distribution & Warehouse	10,500	sf	3434 Wesley Street
35	Office	12,000	sf	3440 Wesley Street
36	School	9,000	sf	8794 National Boulevard
37	Office	63,679	sf	8665 Hayden Place
	less industrial	18,000	sf	
38	Quality Restaurant	10,000	sf	8511 Warner Drive
	Retail	41,520	sf	
39	Office	113,467	sf	9919 Jefferson Boulevard
40	Office	300,000	sf	5860 Jefferson Boulevard (LA)
41	Restaurant	2,345	sf	5854 Blackwelder Street
42	Car Wash	1	unit	5884 Washington Boulevard
43	Charter School	1,100	students	5061 Rodeo Road
	Less office	72,216	sf	
44	industrial	30,400	sf	8461 Warner Drive
45	Expo Station	845	spaces	Venice Robertson station
46	Expo Station	530	spaces	La Cienega Jefferson Station
47	Office	3,385	sf	11012-14 Washington Boulevard

Table 9
Estimated Traffic Generation for Other Projects

		Daily	AM Peak Hour			Afternoon Peak Hours		
		Traffic	In	Out	Total	In	Out	Total
No.	Project	628	77	11	88	14	71	85
1	Office	100	10	2	12	2	10	12
2	Fire Station	2,831	330	48	378	68	306	374
3	Office							
	Retail	372	3	35	38	36	2	38
4	Oil Field Expansion	6,785	436	45	4,881	300	133	433
5	Students (2015)	80	4	2	6	6	5	10
6	Auto Repair	629	26	17	43	24	22	46
7	Hampton Inn	23	0	1	1	1	1	2
8	Condominiums	23	0	1	1	1	1	2
9	Condominium	29	0	2	2	2	1	3
10	Condominium	2,445	87	83	170	107	104	211
11	Gas Station\w Mart\Wash	1,802	51	72	123	96	83	182
12	Apartments							
	Office							
	Retail							
	Restaurant							
	Less office	23	0	2	2	1	1	2
13	Condominium	234	3	15	18	14	7	21
14	Condominium	287	3	18	21	17	8	25
15	Condominium	88	1	6	7	5	3	8
16	Condominium	70	1	4	5	4	2	6
17	Condominium	105	1	7	8	6	3	9
18	Condominium	761	10	48	58	46	22	68
19	Condominium	523	8	5	13	22	23	45
	Retail	617	21	11	32	22	29	51
20	Assisted Living	61	8	1	9	1	7	8
21	Office	105	1	7	8	6	3	9
	Condominiums	23	0	1	1	1	1	2
22	Condominiums	12	0	1	1	1	0	1
23	Condominiums	35	4	1	5	1	4	5

Table 9
Estimated Traffic Generation for Other Projects

				Daily	AM Peak Hour			Afternoon Peak Hours		
				Traffic	In	Out	Total	In	Out	Total
No.	Project	Size	Location	628	77	11	88	14	71	85
24	Office	3,200 sf	4043 Irving Place	163	2	10	12	10	5	15
	Condominium	28 units		1,267	157	21	178	29	143	172
25	Mix use	118,000 sf	9300 Culver Boulevard	154	2	2	4	7	7	14
26	Retail	2,359 sf	11501 Washington Boulevard							
	Office	937 sf								
	Apartments	2 units								
27	Office	5,708 sf	9355 Culver Boulevard	63	8	1	9	2	7	9
28	Studio	110,968	9336 Washington Boulevard	1,222	151	21	172	28	137	165
29	Condominiums	4 units	4014 Van Buren Place	23	0	1	1	1	1	2
30	Condominium	6 units	4227 Ince Boulevard	35	1	2	3	2	1	3
31	Condominium	200 units	Triangle Site Washington/National	1,162	15	73	88	70	34	104
	Retail	51,500 sf		2,211	32	21	53	94	98	192
	Office	200,000 sf		2,202	273	37	310	51	247	298
	Hotel	149 rooms		1,217	51	32	83	47	41	88
	Restaurant	20,000 sf		2,543	120	110	230	132	91	223
32	Condominium	133 units	8810 -8850 Washington Boulevard	773	10	49	59	46	23	69
	Retail	20,295 sf		871	13	8	21	37	39	76
33	Condominium	115 units	8770 Washington Boulevard	674	9	42	51	40	20	60
	Office	13,800 sf		152	18	3	21	4	17	21
	Convenience Market	18,000 sf		0	280	279	559	306	317	623
	Drug Store	11,500 sf		1,036	22	15	37	49	48	97
	Retail	2,630 sf		117	0	0	0	4	4	8
34	Distribution & Warehouse	10,500 sf	3434 Wesley Street	52	4	1	5	1	4	5
35	Office	12,000 sf	3440 Wesley Street	132	17	2	19	3	15	18
36	School	9,000 sf	8794 National Boulevard	130	23	19	42	12	16	28
37	Office	63,679 sf	8665 Hayden Place	700	87	12	99	16	79	95
	less industrial	18,000 sf		-125	-15	-2	-17	-2	-16	-18
38	Quality Restaurant	10,000 sf	8511 Warner Drive	810	6	1	7	46	22	68
	Retail	41,520 sf		1,196	22	14	36	32	40	72
39	Office	113,467 sf	9919 Jefferson B\oulevard	1,249	155	21	176	29	140	169
40	Office	300,000 sf	5860 Jefferson Boulevard (LA)	3,303	409	56	465	76	371	447
41	Restaurant	2,345 sf	5854 Blackwelder Street	298	14	13	27	15	11	26
42	Car Wash	1 unit	5884 Washington Boulevard	0	12	9	21	4	1	5
43	Charter School	1,100 students	5061 Rodeo Road	353	6	6	12	-48	-48	-96
	Less office	72,216 sf								
44	industrial	30,400 sf	8461 Warner Drive	neg.	neg.	neg.	neg.	neg.	neg.	neg.
45	Expo Station	845 spaces	Venice Robertson station	N/A	370	62	432	50	296	346
46	Expo Station	530 spaces	LaCienega Jefferson Station	N/A	223	41	264	33	179	212
47	Office	3,385 sf	11012-14 Washington Boulevard	37	5	0	5	0	5	5

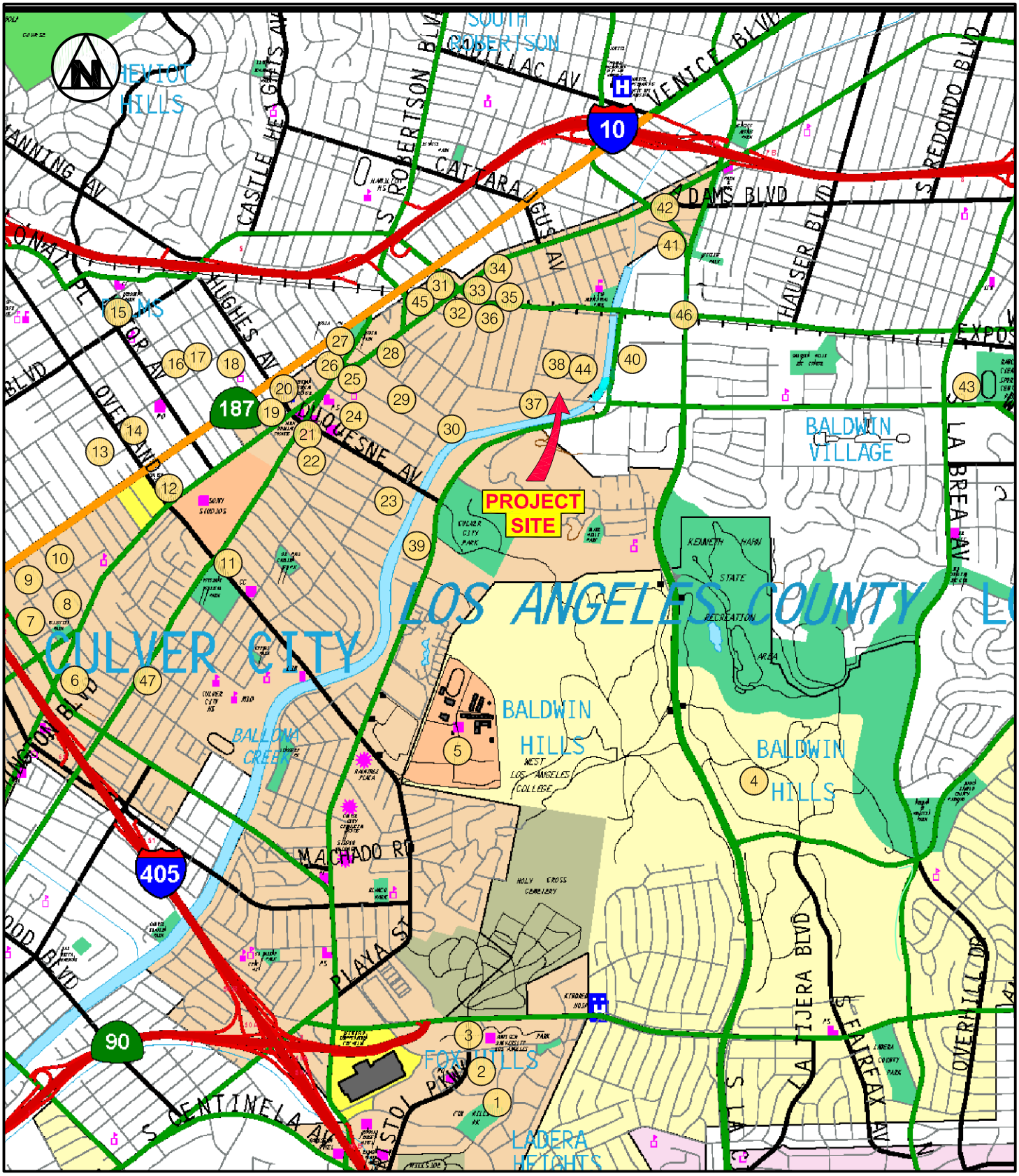


FIGURE 11

10/2010

RELATED PROJECT LOCATIONS

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It should also be noted that the future impact analysis does consider the current Exposition Light Rail project modifications to National Boulevard from Jefferson Boulevard to Washington Boulevard. Several changes to the intersection configurations and traffic controls have been applied to the future traffic conditions analysis. Those changes include: adding a third westbound lane on Washington Boulevard at National Boulevard, a new traffic signal at the intersection of National Boulevard and Eastham Drive which will allow a northbound left-turns, and the intersection improvements to National Boulevard and Jefferson Boulevard which will also include a northbound left-turn lane.

The engineering plans for the National Boulevard corridor are provide in Appendix B. Note that future traffic volumes in the Hayden Tract have been adjusted to account for the new traffic signal and left-turn at the intersection of National Boulevard and Eastham Boulevard (30% of the northbound left-turns at Hayden Avenue have been reassigned to Eastham Drive). These changes improve traffic conditions at several intersections which show a negative growth impact in the future.

Phase 1 Traffic Conditions

Future traffic conditions for the 2015 base condition without the project have been created by the ambient traffic growth plus other development projects. The results of the baseline calculations are shown in Table 10. The traffic impact of the WCS Phase 1 project at the study intersections is shown in Table 11 using the “without project” 2015 baseline.

As shown, none of the study intersections would be significantly impacted by Phase 1 traffic. Future (2015) traffic volume estimates for the peak hours “without the project” are illustrated in Figures 12, 13 and 14 for the morning, afternoon school and afternoon street peak hour, respectively. Future traffic volume estimated for the peak hours “with the project” are illustrated in Figures 15, 16 and 17 for the morning and afternoon school and afternoon street peak hours, respectively.

Phase 1 - Hayden Avenue and Warner Drive Review

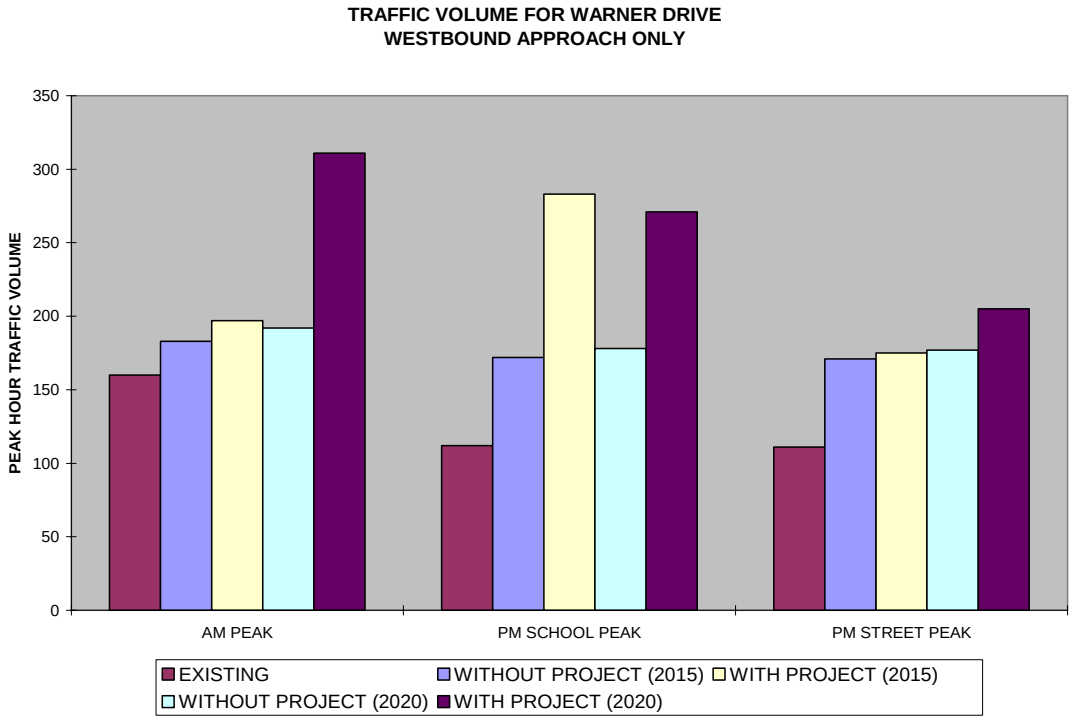
Traffic conditions at the intersection of Hayden Avenue and Warner Drive have been reviewed for added traffic controls, i.e., a traffic signal and the installation of all-way stop signs.

The criterion for installing a traffic signal is partially dependent on the capacity of the roadway/intersection (i.e., one-lane approaches or two-lane approaches). The one-lane approach criterion has been used for the existing condition, and as such the existing condition does not satisfy the minimum peak hour traffic volume warrant for the installation of a traffic signal (see exhibit H1).

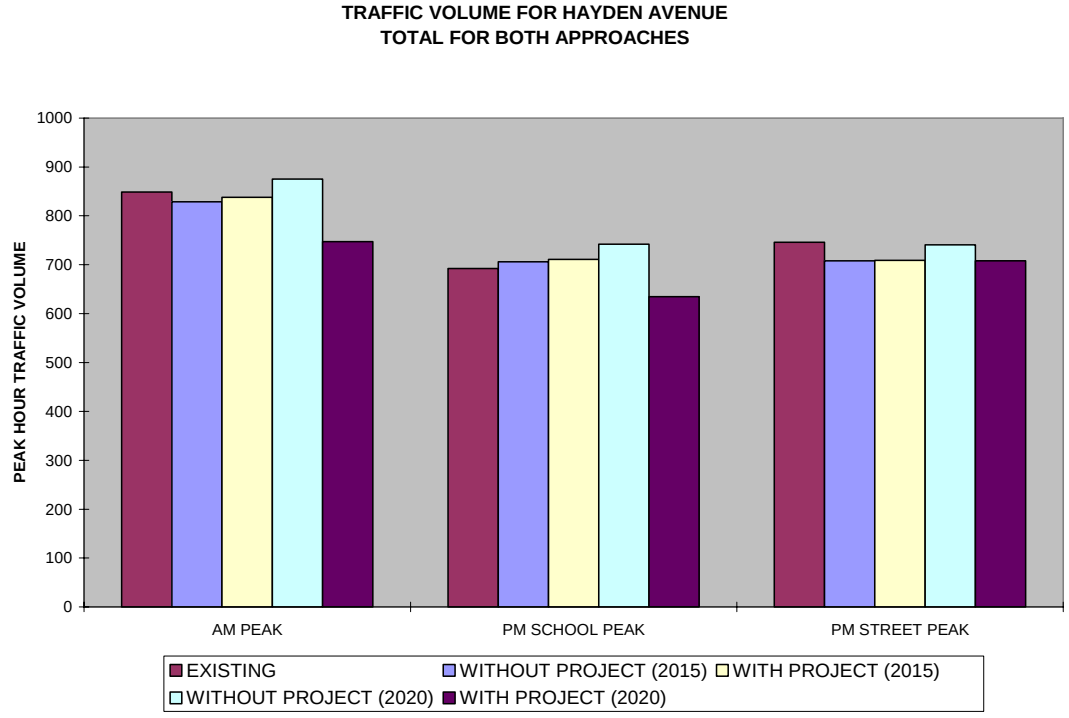
The AM peak hour is the peak hour of traffic during the day with 838 vehicles per hour on Hayden Avenue and 197 vehicles per hour on Warner Drive. Peak hour traffic volumes remain very similar to the existing conditions; considering the new traffic signal at National Boulevard and Eastham Drive, other nearby projects and the 26 vehicles added by WCS project in the am peak hour.

Pursuant to the California Department of Transportation (Caltrans) guidelines for the installation of traffic signals, it has been determined that the 2015 traffic volume at the intersection of Hayden Avenue and Warner Drive does not satisfy the minimum requirements necessary for a new traffic signal. The Caltrans peak hour traffic volume requirements and the estimated 2015 traffic volumes are shown in Exhibit H2 for 2015 conditions in Appendix H. As shown in Exhibit H2, the traffic volume at this intersection is below the minimum requirements for a traffic signal.

A second analysis has been conducted for an all-way stop sign analysis for the intersection of Hayden Avenue and Warner Drive. Reference to the Caltrans MUTCD suggests that an all-way-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal. Caltrans also recommends a minimum of 300 vehicles per hour on the major street with a minimum of 200 vehicles per hour on the minor street for 8 hours per day (see all-way stop sign warrants Appendix H). As shown in the charts below, the minor street Warner Drive falls just short of the 200 vehicles per hour in 2015.



However the volume on Hayden Avenue, the major street, far exceeds the minimum 300 vehicles per hour warrant, as shown in the chart below.



The all-way stop sign warrant suggests a maximum delay of 30 seconds per vehicle for the minor street of delay. It is estimated that with the existing condition: Warner Drive stop and no stop for Hayden Avenue, Warner Drive traffic will have be a delay of 32.7 seconds per vehicle in the 2015 morning peak hour with the Phase 1 project (see intersection #6, Table 11). These vehicle delays increase to 38.6 seconds in morning peak hour in 2020 with the Buildout of the project (intersection # 6 per Table 12).

To assist in the evaluation of the intersection operation with an all-way stop control, the vehicle delays have been recalculated with an all-way stop. The vehicle delays for the all-way stop condition for the 2015 morning condition with the project traffic volume added shows an average delay of 12.73 seconds per vehicle, LOS B for the entire intersection. It is recommended that the City of Culver City consider the installation of all-way stop control at the Hayden/Warner intersection when warranted. The applicant shall be responsible for all the traffic counts and other costs associated with the installation of all-way stop control.

Buildout Traffic Conditions

Future traffic conditions for the 2020 Buildout development scenario have been created by adding an additional 5 years of ambient traffic growth to the 2015 conditions. The traffic impact of the cumulative WCS traffic (as measured from current WCS enrollment) from the Buildout of the WCS Comprehensive Plan is then added. Traffic conditions for the Buildout of the WCS Comprehensive Plan in year 2020 are shown in Table 12.

As shown, none of the study intersections would be significantly impacted by Phase 1 traffic. Future (2020) traffic volume estimates for the peak hours “without the project” are illustrated in Figures 18, 19 and 20 for the morning, afternoon school and afternoon street peak hour, respectively. Future traffic volume estimated for the peak hours “with the project” are illustrated in Figures 21, 22 and 23 for the morning and afternoon school and afternoon street peak hours, respectively.

The Hayden Avenue and Warner Drive traffic signal warrant for the 2020 morning peak hour is at the threshold value as shown in the Exhibit H3 for 2020 conditions in Appendix H. Therefore, it is recommended that the applicant write a letter of credit for the cost of

the design, project management and construction of the traffic signal installation prior to the start of Phase 3 of the Comprehensive development plan. After completion of the WCS Comprehensive plan, the applicant shall be responsible to take traffic counts of the intersection and conduct a traffic signal warrant signal study. If the City determines that the traffic signal is not warranted, the letter of credit will be returned to the applicant. If the traffic signal is warranted, the applicant will be responsible for the design, project management and construction of the traffic signal.

Table 10

Future (2015) Traffic Conditions Without Project

No.	Intersection	Peak Hour	Existing ICU-Delay	LOS	Future Without Project ICU-Delay	LOS	Growth
1.	National Bd. &	AM	0.723	C	0.886	D	+ 0.163
	Washington Bd.	PM School	0.556	A	0.841	D	+ 0.285
		PM Street	0.678	B	0.894	D	+ 0.216
2.	National Bd. &	AM	0.586	A	0.657	B	+ 0.071
	Hayden Ave.	PM School	0.565	A	0.654	B	+ 0.089
		PM Street	0.655	B	0.717	C	+ 0.062
3.	National Bd. &	AM	0.380	A	0.502	A	+ 0.122
	Eastham Dr.	PM School	0.381	A	0.469	A	+ 0.088
		PM Street	0.409	A	0.523	A	+ 0.114
4.	National Bd. &	AM	0.559	A	0.861	D	+ 0.302
	Jefferson Bd. (City of LA)	PM School	0.428	A	0.734	C	+ 0.306
		PM Street	0.485	A	0.794	C	+ 0.309
5.	Washington Bd. &	AM	0.714	C	0.904	E	+ 0.190
	Robertson / Higuera	PM School	0.492	A	0.715	C	+ 0.223
		PM Street	0.565	A	0.811	D	+ 0.246
6.	Warner Dr. &	AM	0.639 / 27.5"	B D	0.499 / 25.8 "	A D	- 0.140 - 1.7 "
	Hayden Ave.	PM School	0.518 / 15.9 "	A C	0.448 / 15.1 "	A C	- 0.070 - 0.8 "
		PM Street	0.517 / 15.9 "	A C	0.459 / 16.2 "	A C	- 0.058 - 0.3 "
7.	Higuera St. &	AM	0.690 / 15.62 "	B C	0.666 / 14.1 "	B B	- 0.024 + 2.36 "
	Hayden Ave.	PM School	0.619 / 11.20 "	B B	0.619 / 10.86 "	B B	+ 0.000 - 0.34 "
		PM Street	0.482 / 10.44 "	A B	0.494 / 11.17 "	A B	+ 0.012 - 0.73 "
8.	Higuera St. &	AM	0.409	A	0.680	B	+ 0.271
	Eastham Dr.	PM School	0.434	A	0.469	A	+ 0.035
		PM Street	0.455	A	0.589	A	+ 0.134
9.	Higuera St. &	AM	0.655	B	0.783	C	+ 0.128
	Jefferson Bd. (City of LA)	PM School	0.532	A	0.657	B	+ 0.125
		PM Street	0.630	B	0.760	C	+0.130

Note: Negative values show effect of rerouting of traffic volume due to new traffic signals and lane additions associated with the Expo Light Rail project.

Table 11
Future (2015) Traffic Conditions With Phase 1 WCS Comprehensive Plan

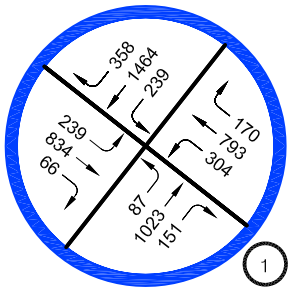
No.	Intersection	Peak Hour	Future Without ICU-Delay	LOS	Future With Project ICU-Delay	LOS	Impact
1.	National Bd. &	AM	0.886	D	0.888	D	+ 0.002
	Washington Bd.	PM School	0.841	D	0.842	D	+ 0.001
		PM Street	0.894	D	0.895	D	+ 0.001
2.	National Bd. &	AM	0.657	B	0.665	B	+ 0.008
	Hayden Ave.	PM School	0.654	B	0.659	B	+ 0.005
		PM Street	0.717	C	0.718	C	+ 0.001
3.	National Bd. &	AM	0.502	A	0.508	A	+ 0.006
	Eastham Dr.	PM School	0.469	A	0.473	A	+ 0.004
		PM Street	0.523	A	0.524	A	+ 0.001
4.	National Bd. &	AM	0.861	D	0.860	D	- 0.001
	Jefferson Bd. (City of LA)	PM School	0.734	C	0.736	C	+ 0.002
		PM Street	0.794	C	0.794	C	+ 0.000
5.	Washington Bd. &	AM	0.904	E	0.904	E	+ 0.000
	Robertson / Higuera	PM School	0.715	C	0.716	C	+ 0.001
		PM Street	0.811	D	0.811	D	+ 0.000
6.	Warner Dr. &	AM	0.633 / 29.6 “	B D	0.647 / 32.7 “	A D	+ 0.014 + 3.1 “
	Hayden Ave.	PM School	0.551 / 17.8 “	A C	0.560 / 18.4 “	A C	+ 0.009 + 0.6 “
		PM Street	0.583 / 19.4 “	A C	0.585 / 19.5 “	A C	+ 0.002 + 0.2 “
7.	Higuera St. &	AM	0.666 / 14.1 “	B B	0.666 / 13.92 “	B B	+ 0.000 - 0.18 “
	Hayden Ave.	PM School	0.619 / 10.86 “	B B	0.618 / 10.84 “	B B	- 0.001 - 0.02 “
		PM Street	0.494 / 11.17 “	A B	0.493 / 11.17 “	A B	- 0.001 + 0.000 “
8.	Higuera St. &	AM	0.680	B	0.433	A	- 0.247
	Eastham Dr.	PM School	0.469	A	0.470	A	+ 0.001
		PM Street	0.589	A	0.485	A	- 0.104
9.	Higuera St. &	AM	0.783	C	0.784	C	+ 0.001
	Jefferson Bd. (City of LA)	PM School	0.657	B	0.657	B	+ 0.000
		PM Street	0.760	C	0.760	C	+0.000

Note: Negative values show effect of rerouting of traffic volume due to new Warner Drive parking lot and access associated with the WCS Phase 1 development.

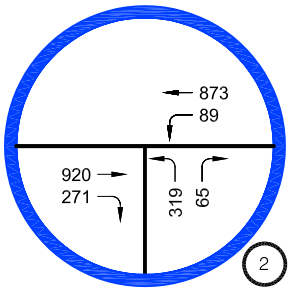
Table 12
Future (2020) Traffic Conditions With Buildout WCS Comprehensive Plan

No.	Intersection	Peak Hour	Future Without ICU / Delay	LOS	Future With Buildout ICU / Delay	LOS	Impact
1.	National Bd. &	AM	0.919	E	0.927	E	+ 0.008
	Washington Bd.	PM School	0.868	D	0.872	D	+ 0.004
		PM Street	0.926	E	0.927	E	+ 0.001
2.	National Bd. &	AM	0.687	B	0.710	C	+ 0.023
	Hayden Ave.	PM School	0.682	B	0.697	B	+ 0.015
		PM Street	0.750	C	0.754	C	+ 0.004
3.	National Bd. &	AM	0.518	A	0.503	A	- 0.015
	Eastham Dr.	PM School	0.483	A	0.470	A	- 0.013
		PM Street	0.537	A	0.533	A	- 0.004
4.	National Bd. &	AM	0.886	D	0.895	D	+ 0.009
	Jefferson Bd. (City of LA)	PM School	0.755	C	0.763	C	+ 0.008
		PM Street	0.818	D	0.820	D	+ 0.002
5.	Washington Bd. &	AM	0.940	E	0.942	E	+ 0.002
	Robertson / Higuera	PM School	0.740	C	0.742	C	+ 0.002
		PM Street	0.839	D	0.839	D	+ 0.000
6.	Warner Dr. & Hayden Ave.	AM	0.663 / 35.6 “	B E	0.670 / 38.6 “	B E	+ 0.007 + 3.0”
		PM School	0.484 / 19.3 “	A C	0.482 / 19.6 “	A C	- 0.002 + 0.3 “
		PM Street	0.605 / 21.1 “	B C	0.606 / 21.2 “	B C	+ 0.001 + 0.1 “
7.	Higuera St. &	AM	0.697 / 15.55 “	B C	0.598 / 12.58 “	A B	- 0.099 - 2.97 “
	Hayden Ave.	PM School	0.647 / 11.37 “	B B	0.569 / 10.32 “	B B	- 0.078 - 1.05 “
		PM Street	0.513 / 11.70 “	A C	0.489 / 11.32 “	A B	- 0.024 - 0.38 “
8.	Higuera St. &	AM	0.709	C	0.466	A	- 0.243
	Eastham Dr.	PM School	0.487	A	0.503	A	+ 0.014
		PM Street	0.614	B	0.507	A	- 0.107
9.	Higuera St. &	AM	0.814	D	0.818	D	+ 0.004
	Jefferson Bd. (City of LA)	PM School	0.684	B	0.684	B	+ 0.000
		PM Street	0.793	C	0.793	D	+0.000

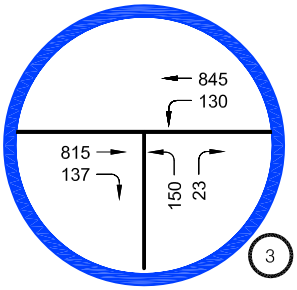
Note: Negative values show effect of rerouting of traffic volume due to new parking lot and access associated with the WCS Buildout development.



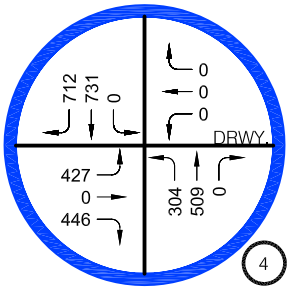
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WASHINGTON BLVD.



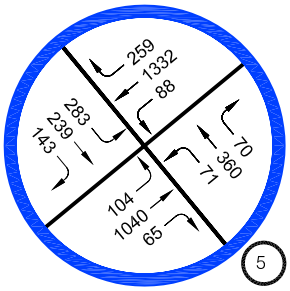
NATIONAL BLVD. &
HAYDEN AVE.



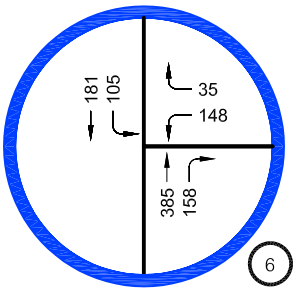
NATIONAL BLVD. &
EASTHAM DR.



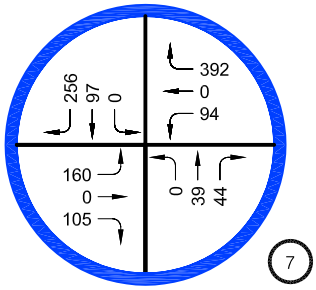
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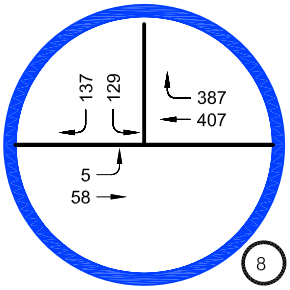
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WASHINGTON BLVD.



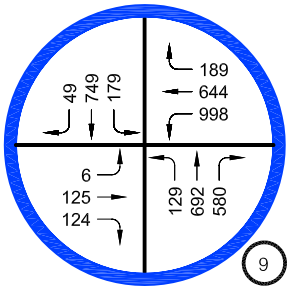
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

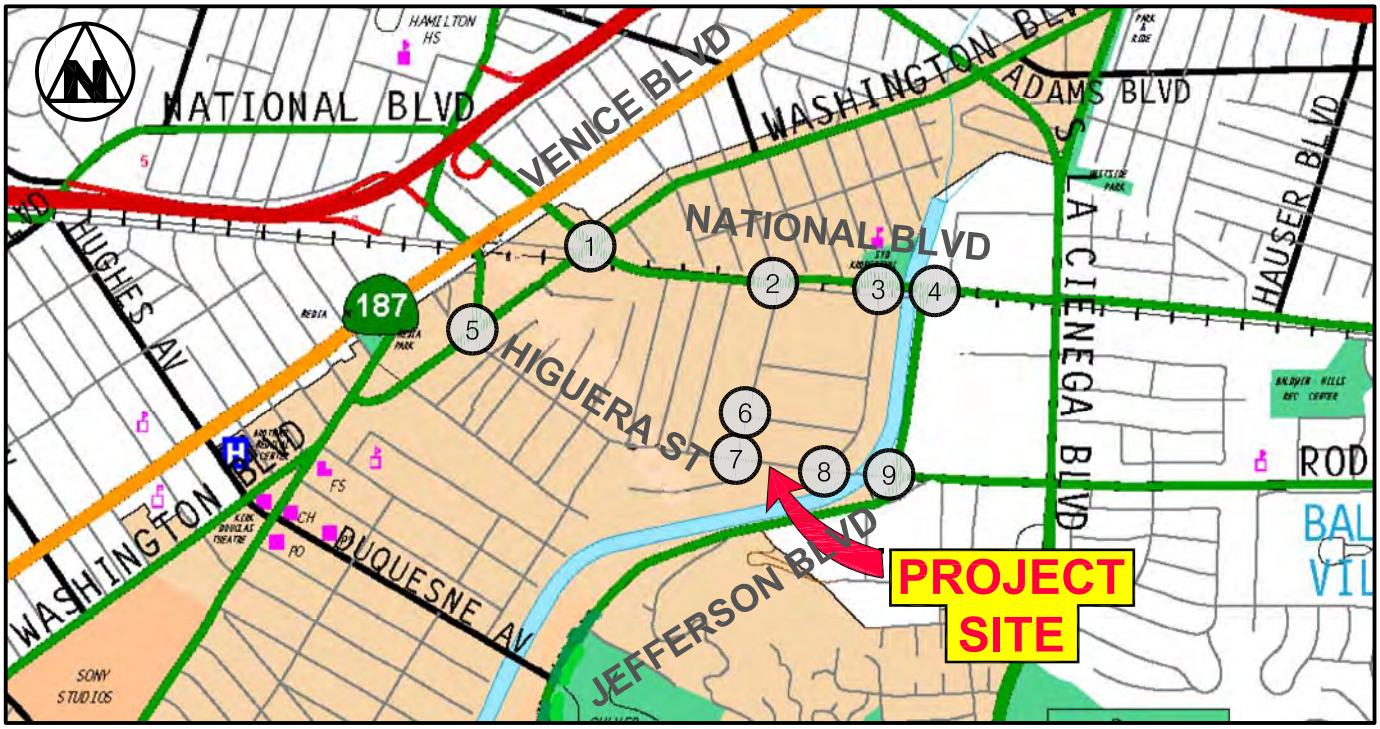
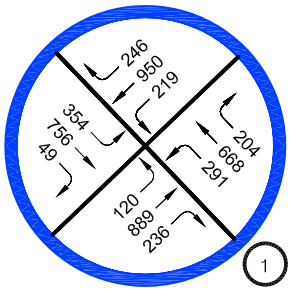


FIGURE 12

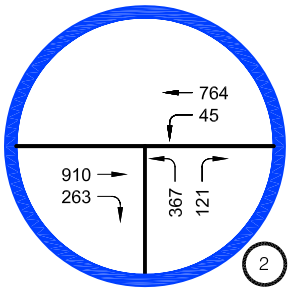
5/2010

FUTURE (2015) TRAFFIC VOLUMES
WITHOUT PROJECT
AM PEAK HOUR

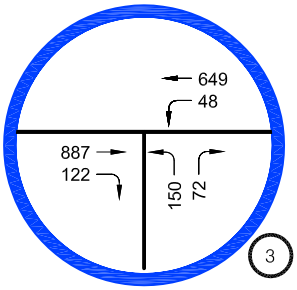
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27201 Tourney Road #206, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com



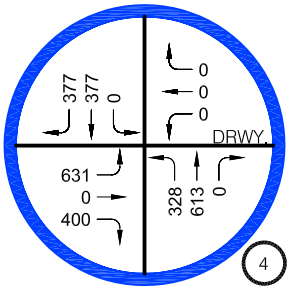
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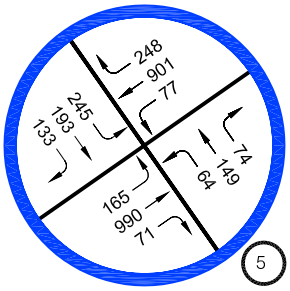
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HAYDEN AVE.



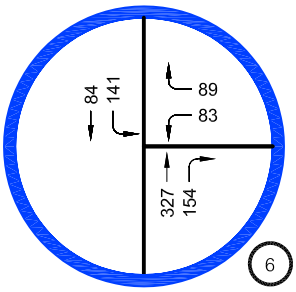
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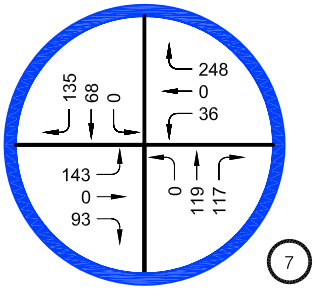
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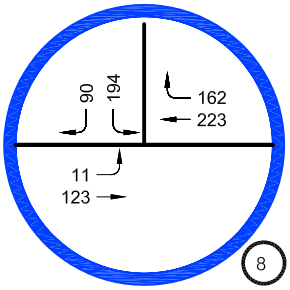
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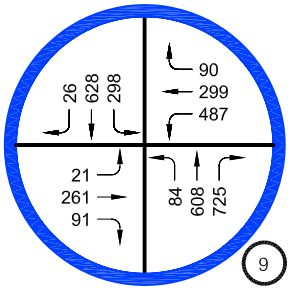
WARNER DR. &
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HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

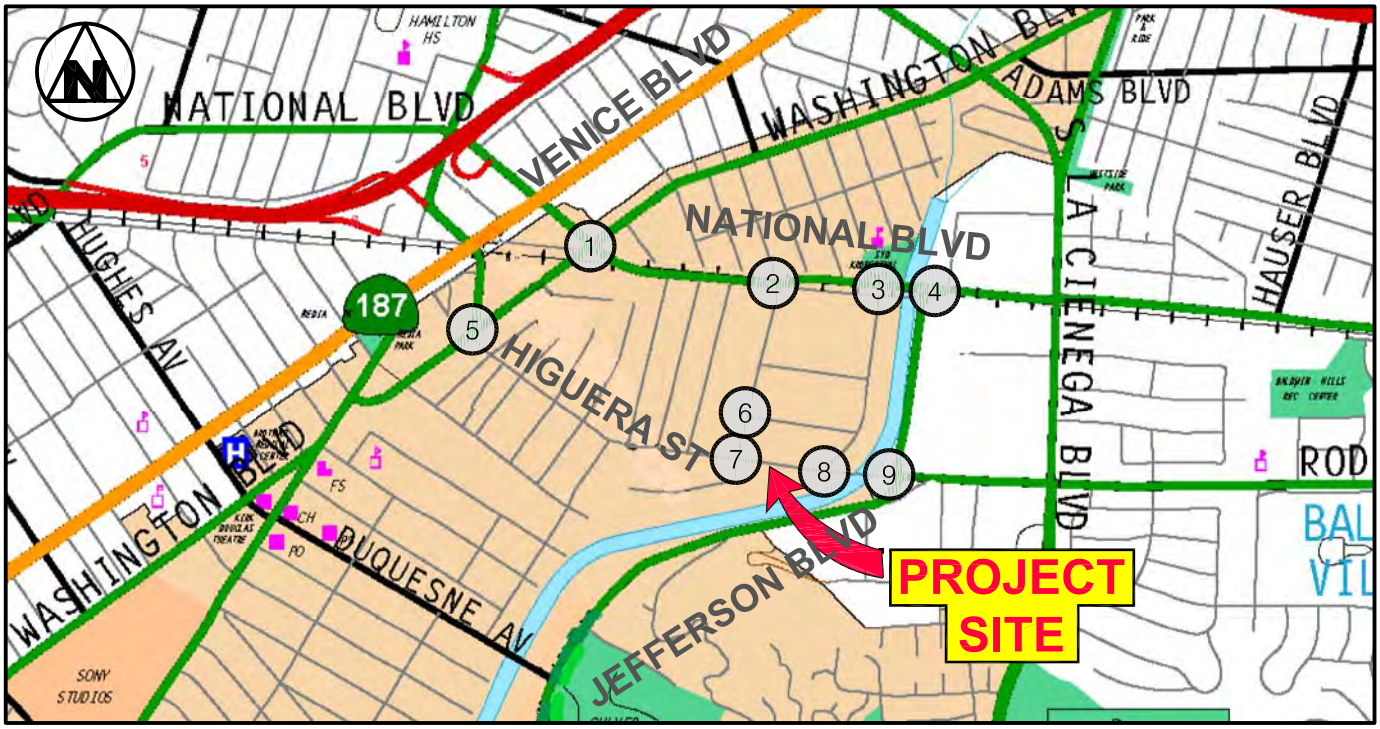
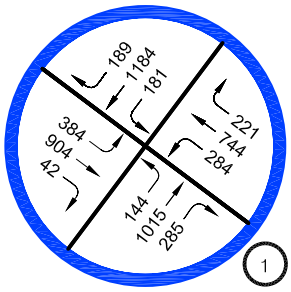


FIGURE 13

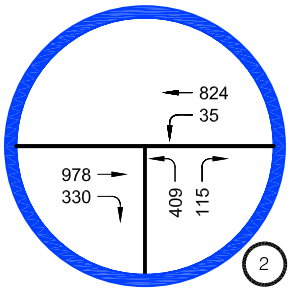
5/2010

FUTURE (2015) TRAFFIC VOLUMES
WITHOUT PROJECT
PM SCHOOL PEAK HOUR

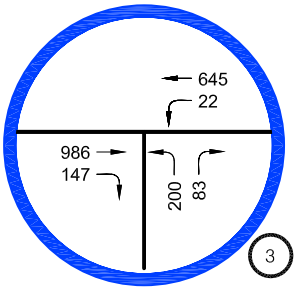
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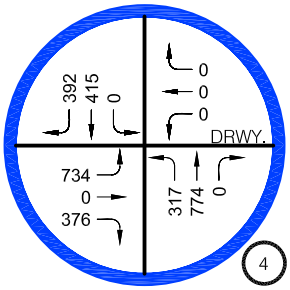
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WASHINGTON BLVD.



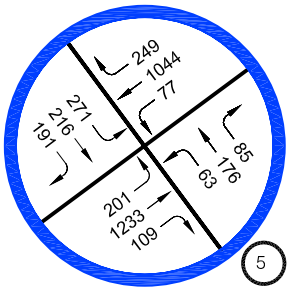
NATIONAL BLVD. &
HAYDEN AVE.



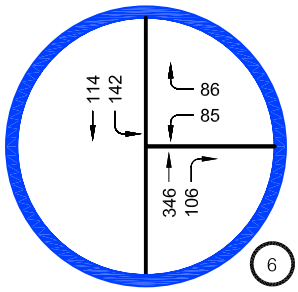
NATIONAL BLVD. &
EASTHAM DR.



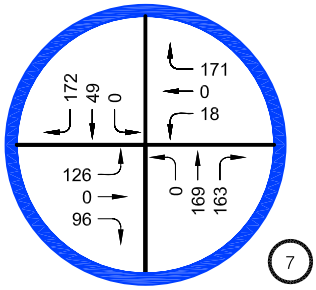
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JEFFERSON BLVD.



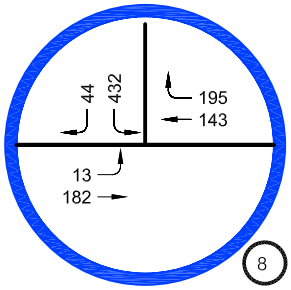
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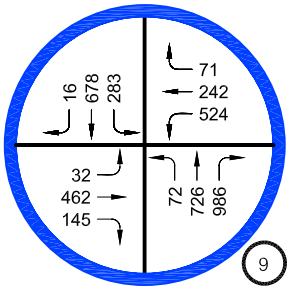
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

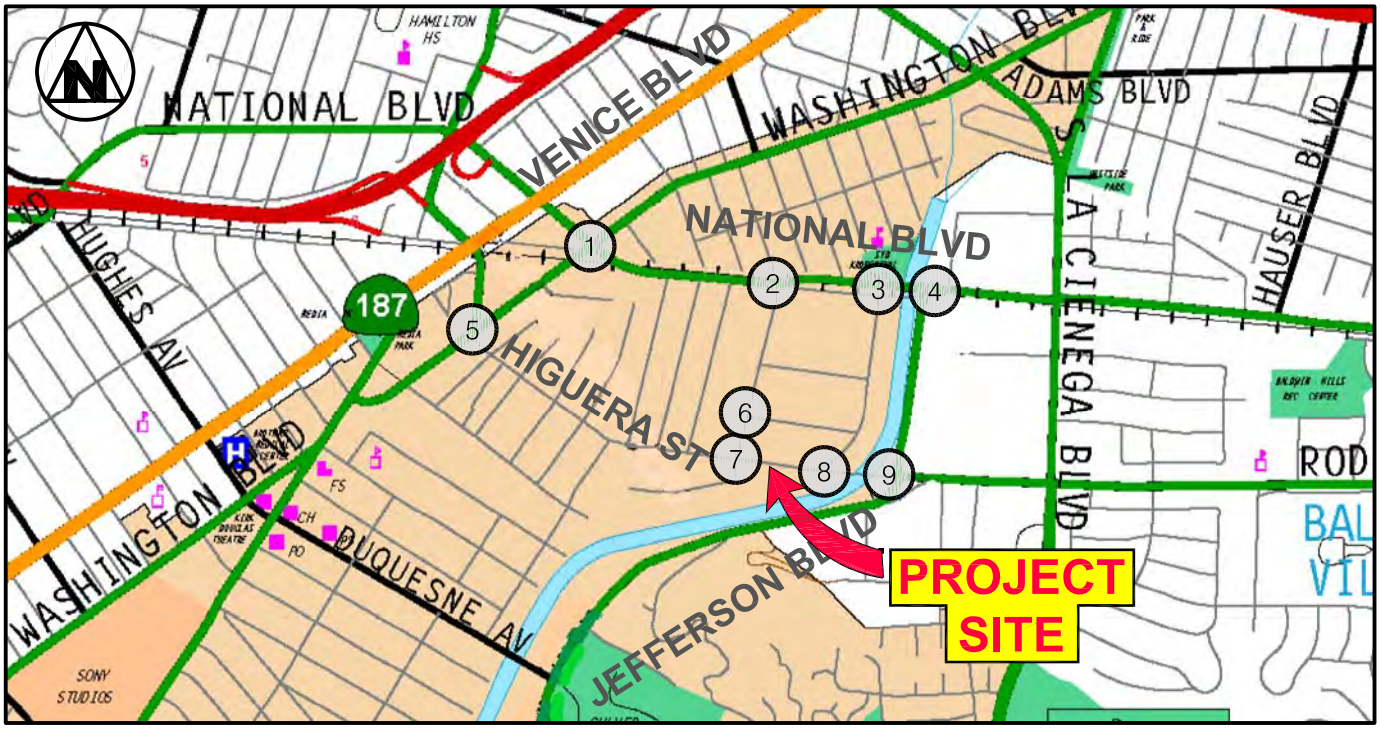
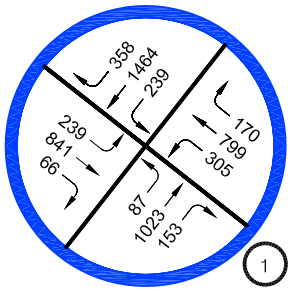


FIGURE 14

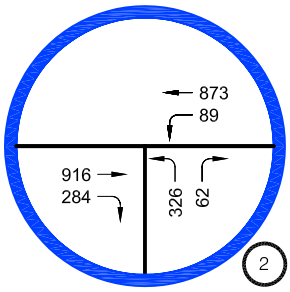
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FUTURE (2015) TRAFFIC VOLUMES
WITHOUT PROJECT
PM STREET PEAK HOUR

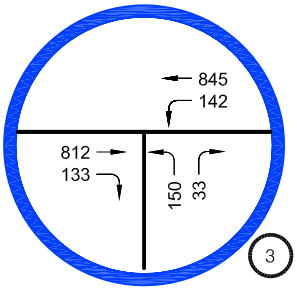
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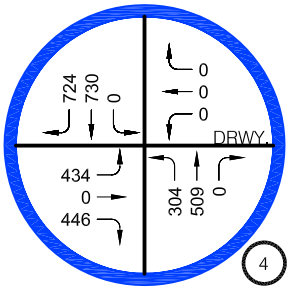
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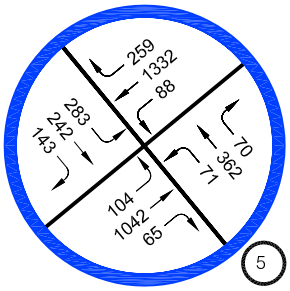
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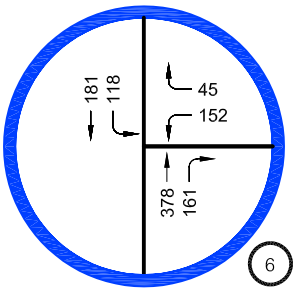
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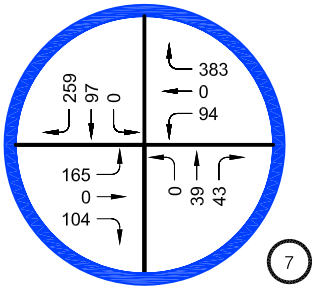
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JEFFERSON BLVD.



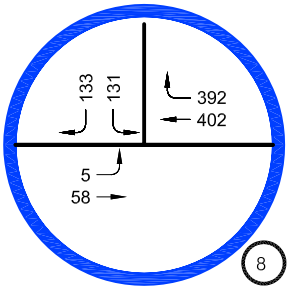
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



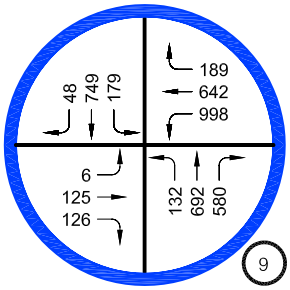
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

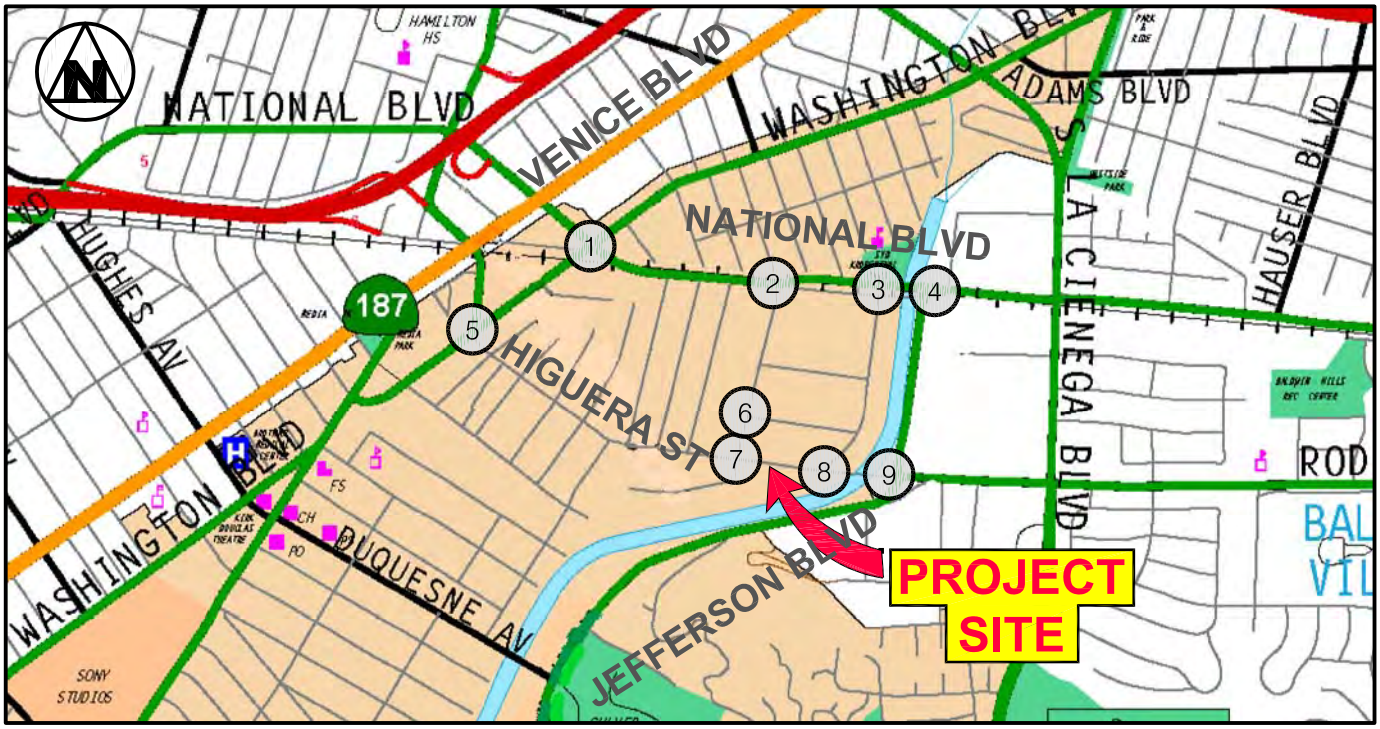
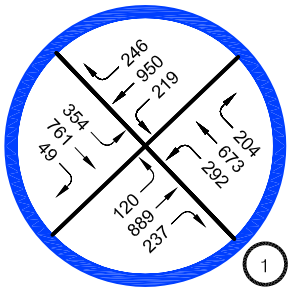


FIGURE 15

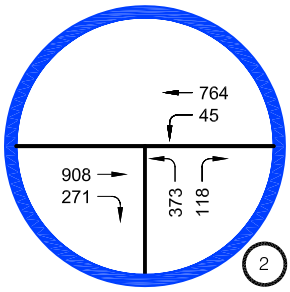
4/2011

FUTURE (2015) TRAFFIC VOLUMES
WITH PROJECT
AM PEAK HOUR

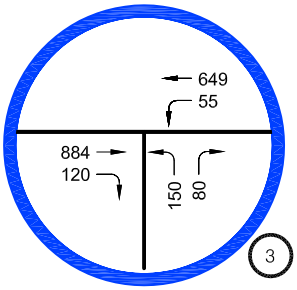
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(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com



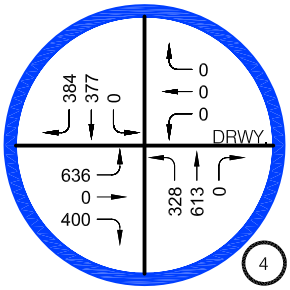
NATIONAL BLVD. &
WASHINGTON BLVD.



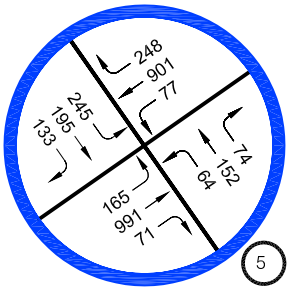
NATIONAL BLVD. &
HAYDEN AVE.



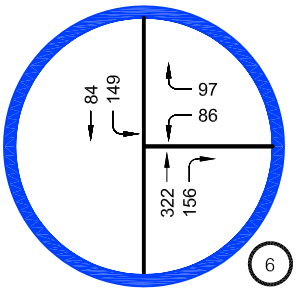
NATIONAL BLVD. &
EASTHAM DR.



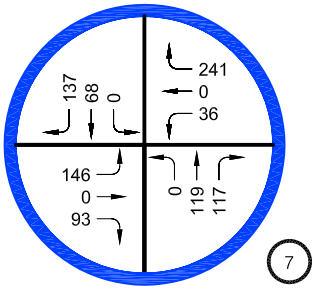
NATIONAL BLVD. &
JEFFERSON BLVD.



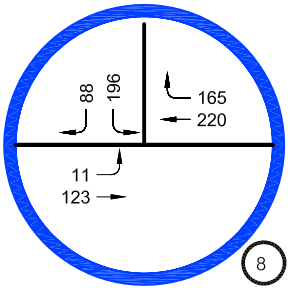
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



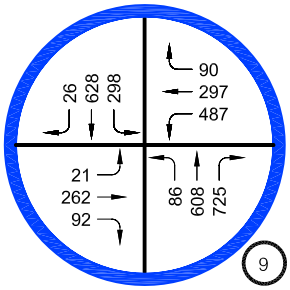
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

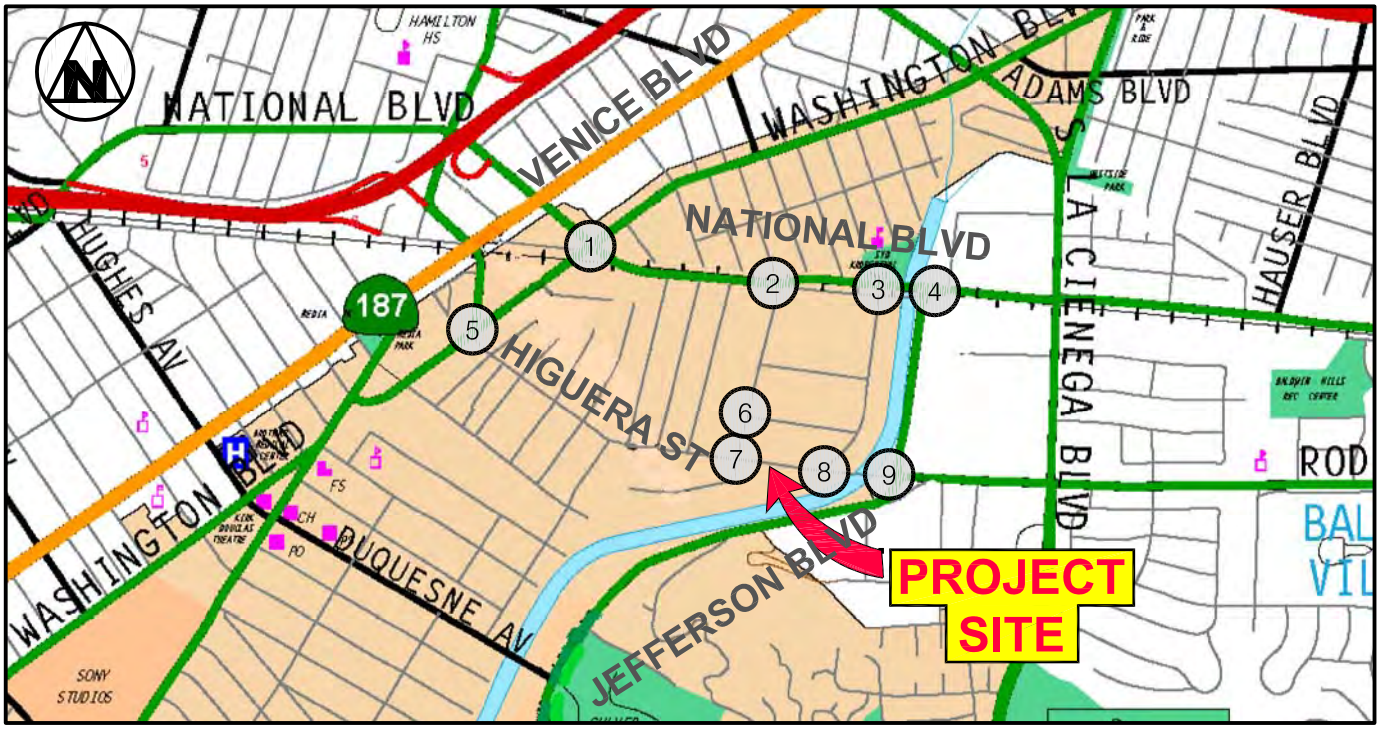
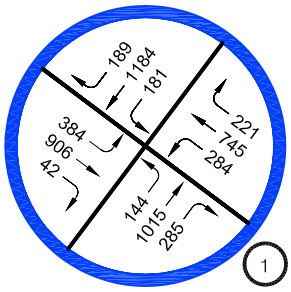


FIGURE 16

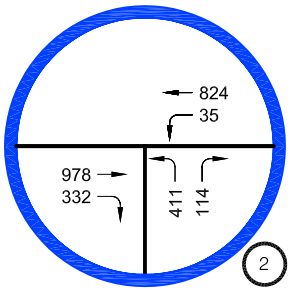
4/2011

FUTURE (2015) TRAFFIC VOLUMES
WITH PROJECT
PM SCHOOL PEAK HOUR

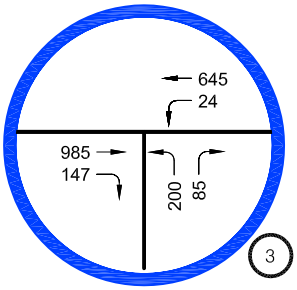
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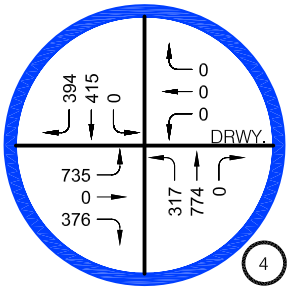
NATIONAL BLVD. &
WASHINGTON BLVD.



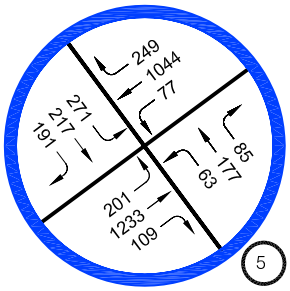
NATIONAL BLVD. &
HAYDEN AVE.



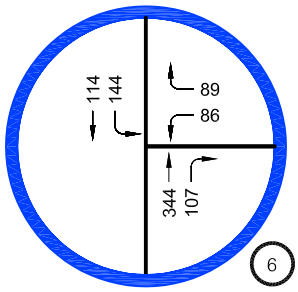
NATIONAL BLVD. &
EASTHAM DR.



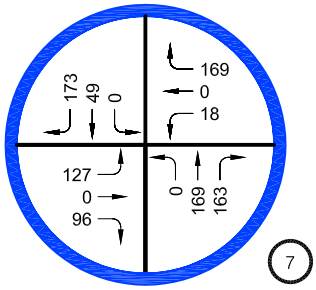
NATIONAL BLVD. &
JEFFERSON BLVD.



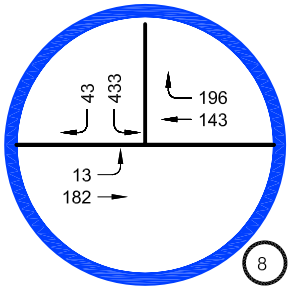
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



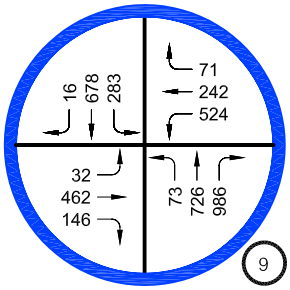
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

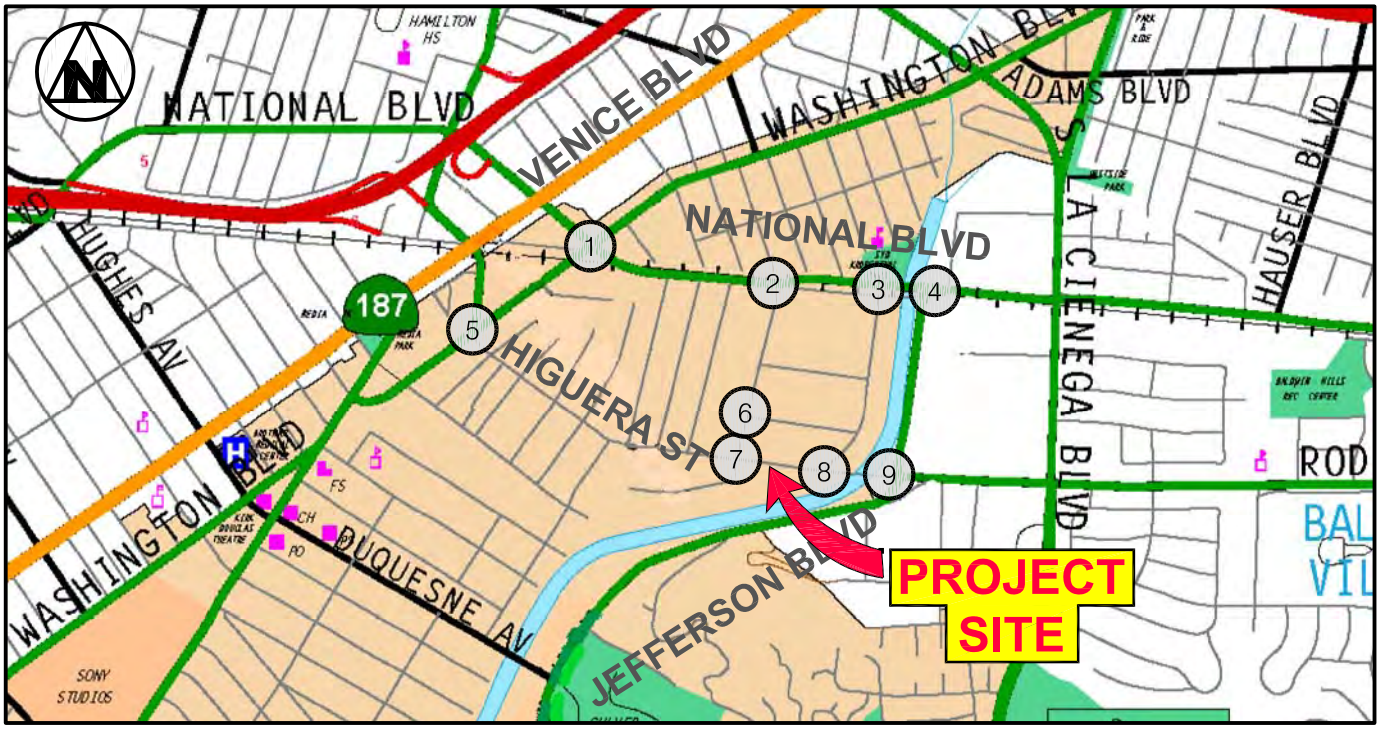
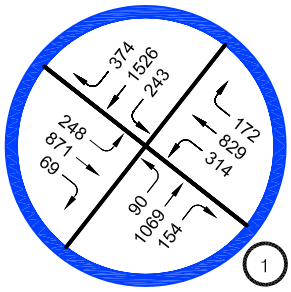


FIGURE 17

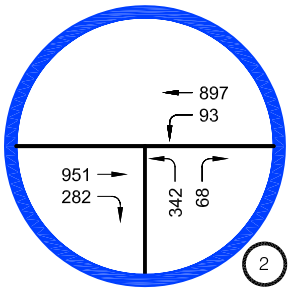
4/2011

FUTURE (2015) TRAFFIC VOLUMES
WITH PROJECT
PM STREET PEAK HOUR

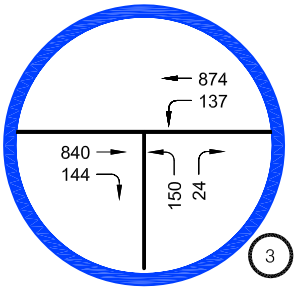
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(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com



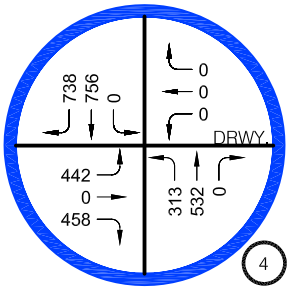
NATIONAL BLVD. &
WASHINGTON BLVD.



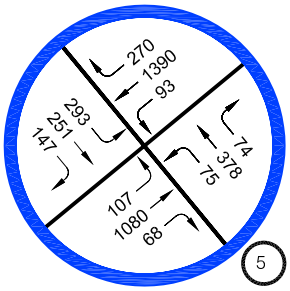
NATIONAL BLVD. &
HAYDEN AVE.



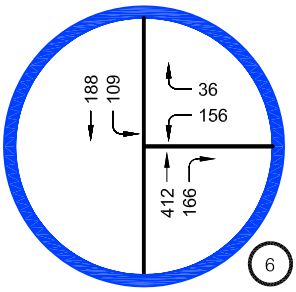
NATIONAL BLVD. &
EASTHAM DR.



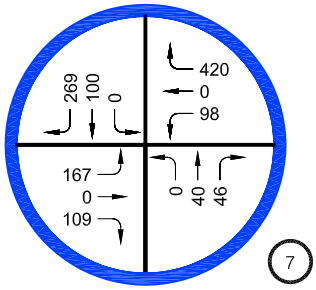
NATIONAL BLVD. &
JEFFERSON BLVD.



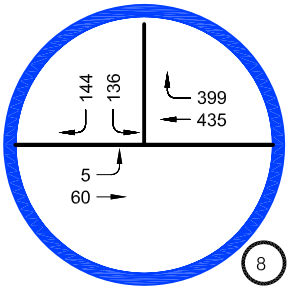
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



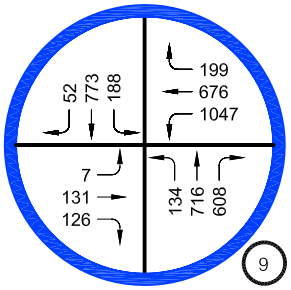
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

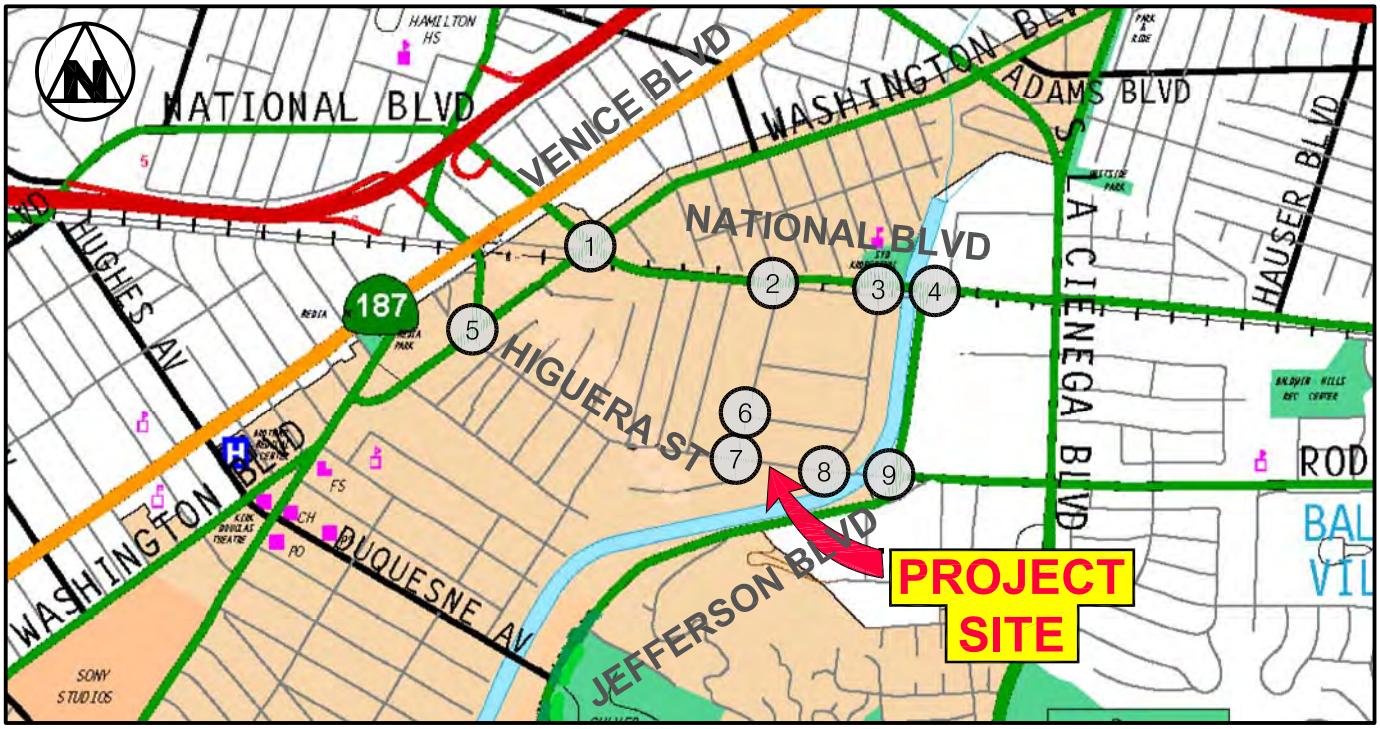
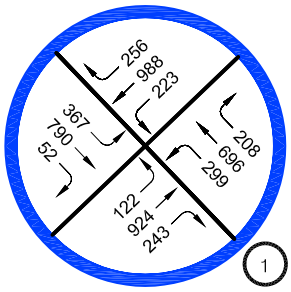


FIGURE 18

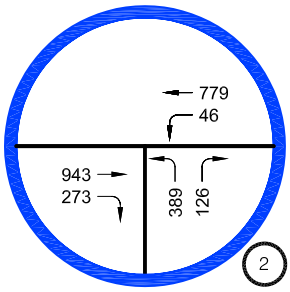
5/2010

FUTURE (2020) TRAFFIC VOLUMES
WITHOUT PROJECT
AM PEAK HOUR

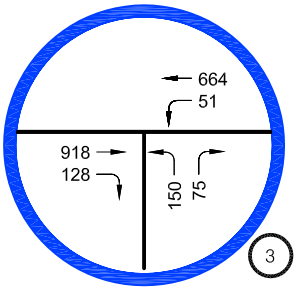
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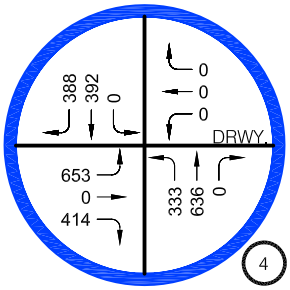
NATIONAL BLVD. &
WASHINGTON BLVD.



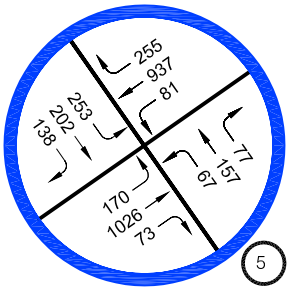
NATIONAL BLVD. &
HAYDEN AVE.



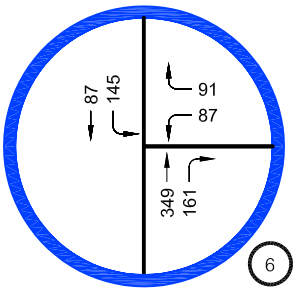
NATIONAL BLVD. &
EASTHAM DR.



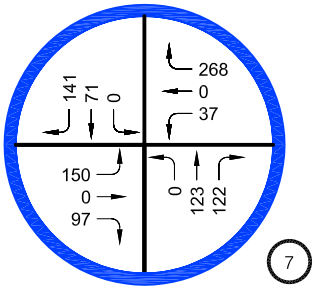
NATIONAL BLVD. &
JEFFERSON BLVD.



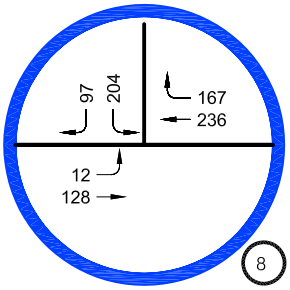
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



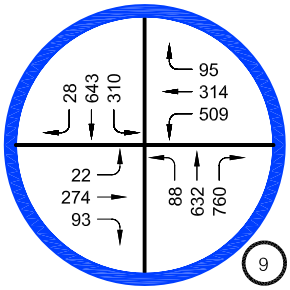
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

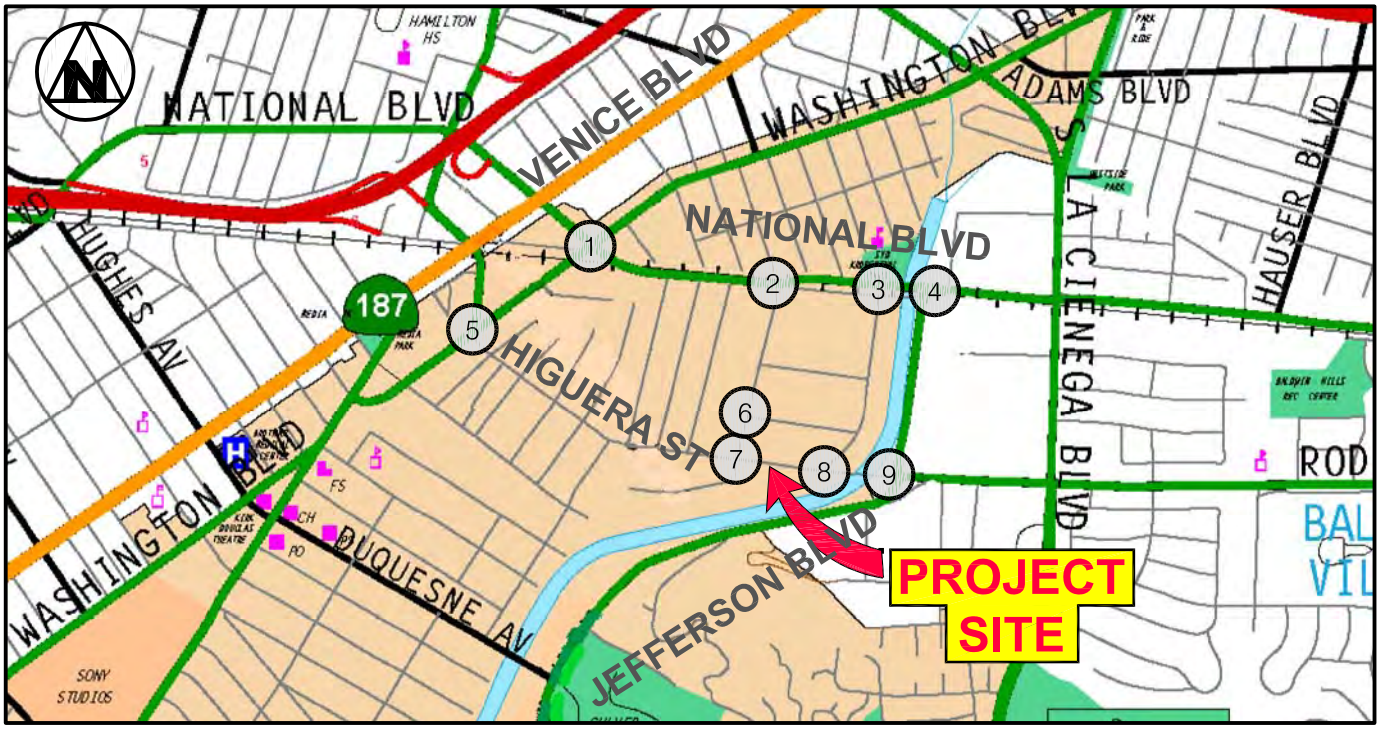
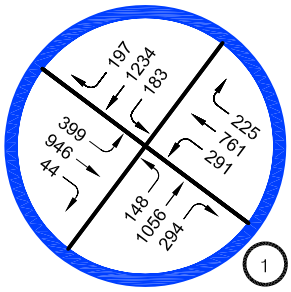


FIGURE 19

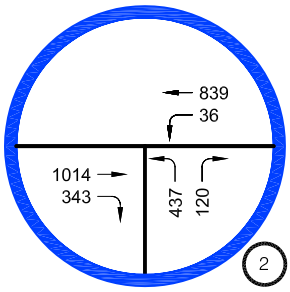
5/2010

FUTURE (2020) TRAFFIC VOLUMES
WITHOUT PROJECT
PM SCHOOL PEAK HOUR

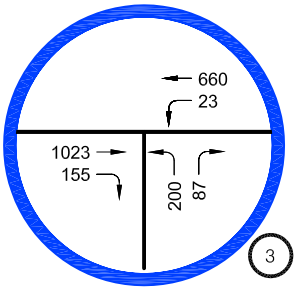
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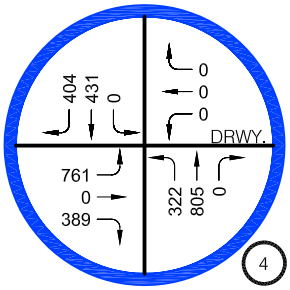
NATIONAL BLVD. &
WASHINGTON BLVD.



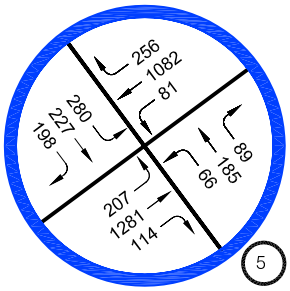
NATIONAL BLVD. &
HAYDEN AVE.



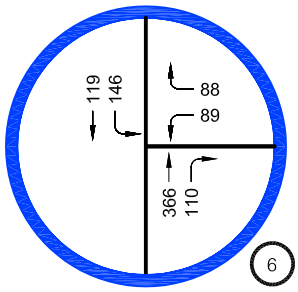
NATIONAL BLVD. &
EASTHAM DR.



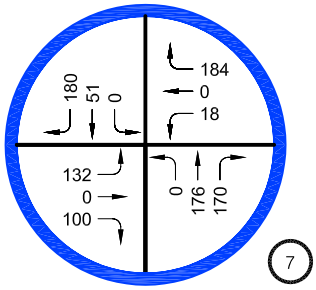
NATIONAL BLVD. &
JEFFERSON BLVD.



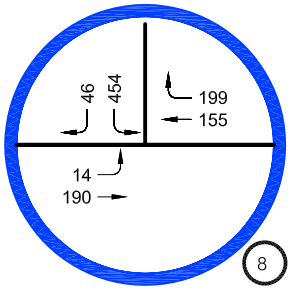
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



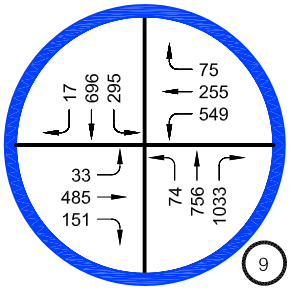
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.

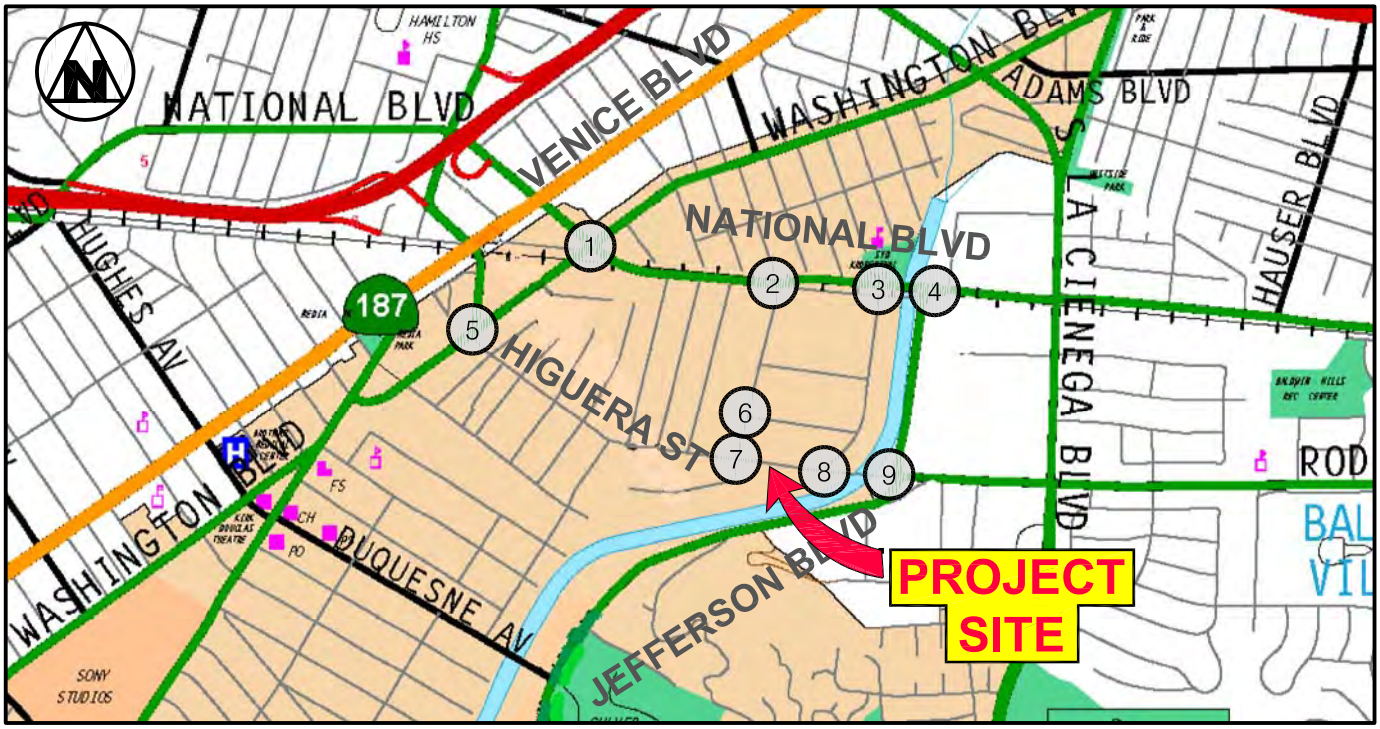
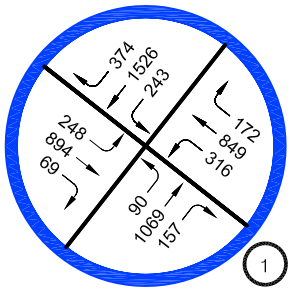


FIGURE 20

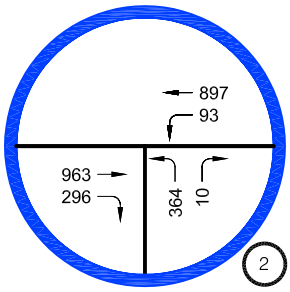
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FUTURE (2020) TRAFFIC VOLUMES
WITHOUT PROJECT
PM STREET PEAK HOUR

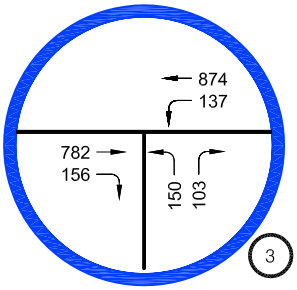
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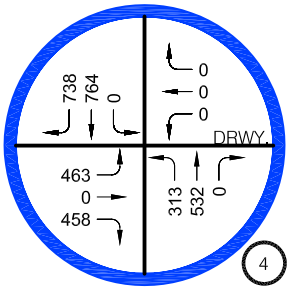
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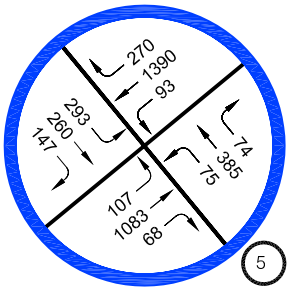
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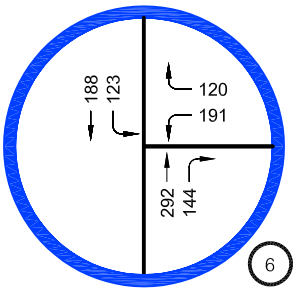
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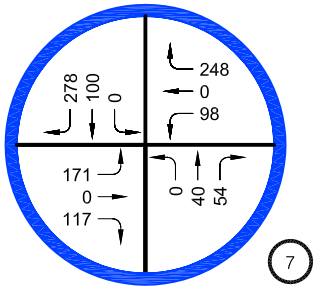
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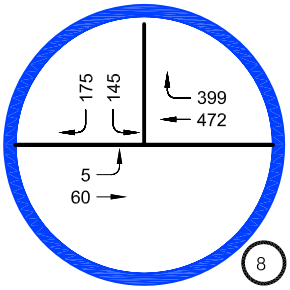
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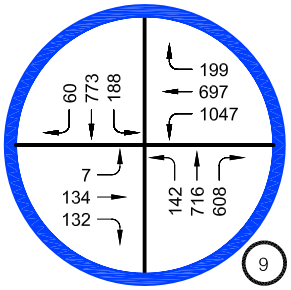
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HIGUERA ST. &
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HIGUERA ST. &
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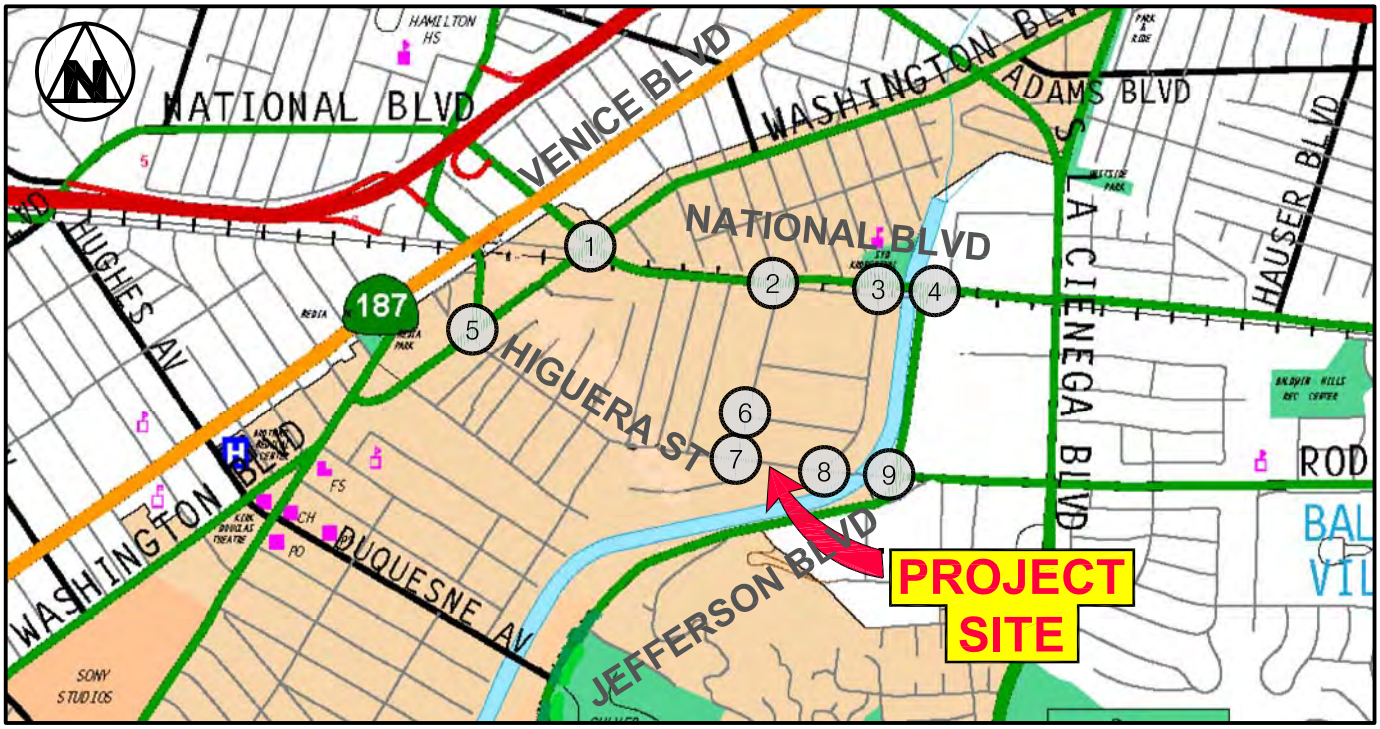
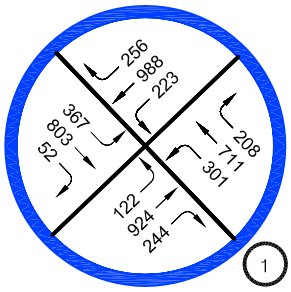


FIGURE 21

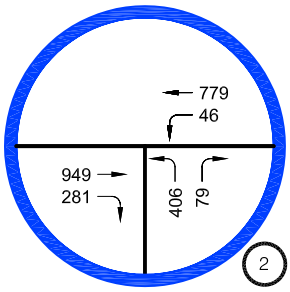
4/2011

FUTURE (2020) TRAFFIC VOLUMES
WITH PROJECT
AM PEAK HOUR

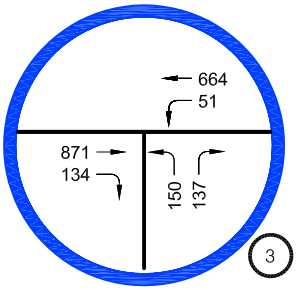
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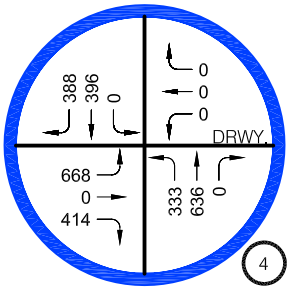
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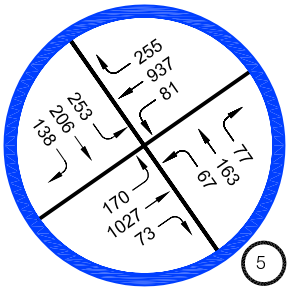
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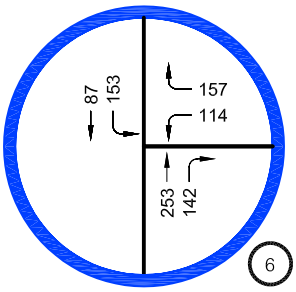
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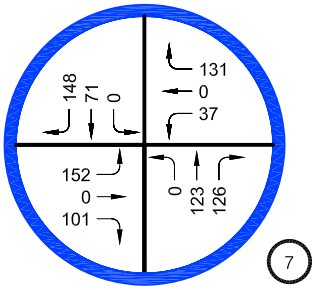
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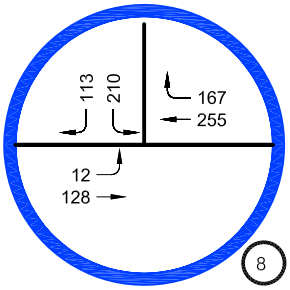
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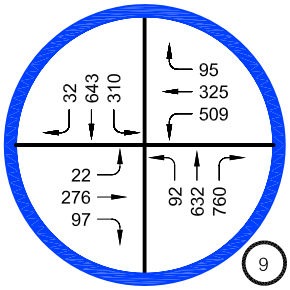
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HAYDEN AVE.



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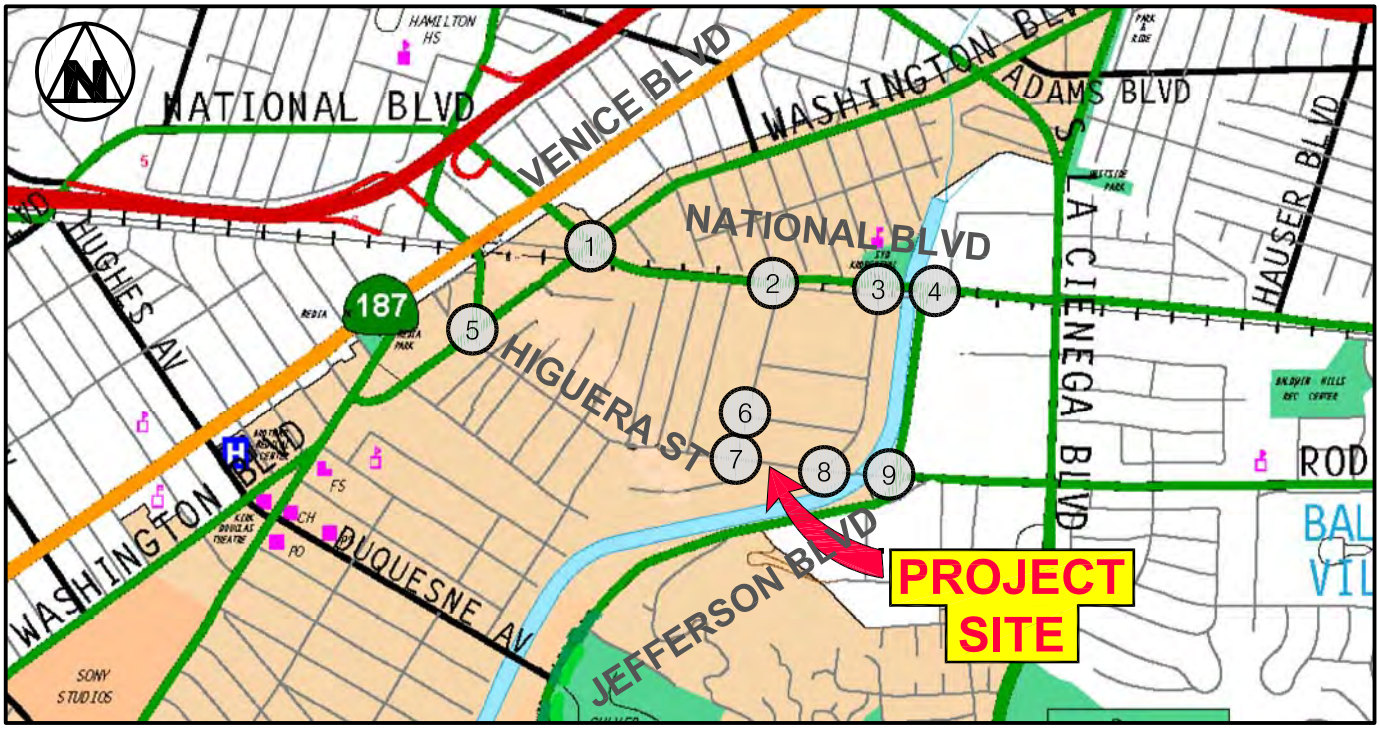
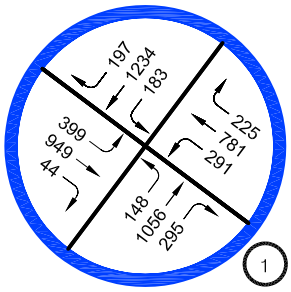


FIGURE 22

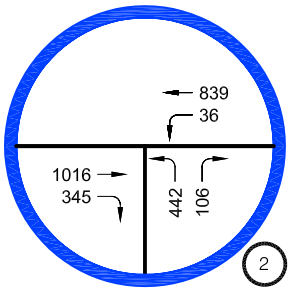
4/2011

FUTURE (2020) TRAFFIC VOLUMES
WITH PROJECT
PM SCHOOL PEAK HOUR

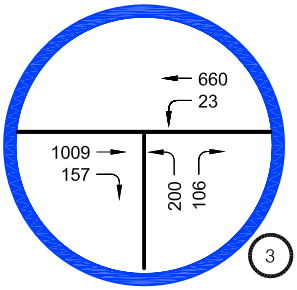
Overland Traffic Consultants, Inc.
27201 Tourney Road #206, Santa Clarita, CA 91355
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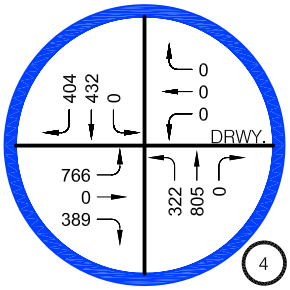
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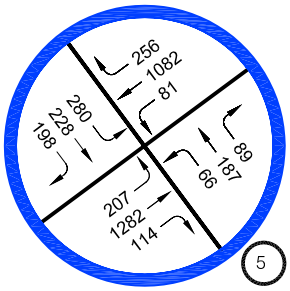
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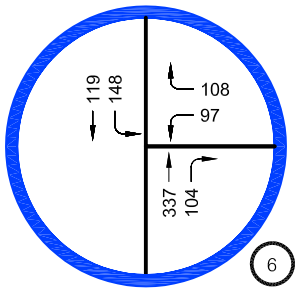
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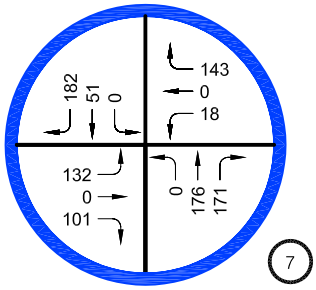
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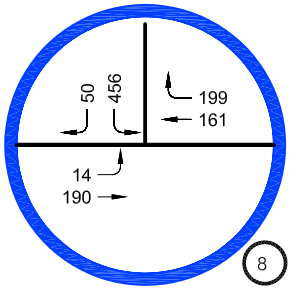
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



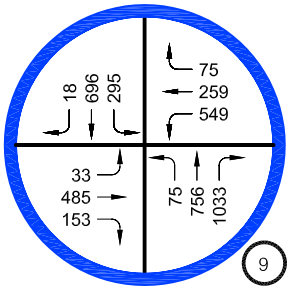
WARNER DR. &
HAYDEN AVE.



HIGUERA ST. &
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EASTHAM DR.



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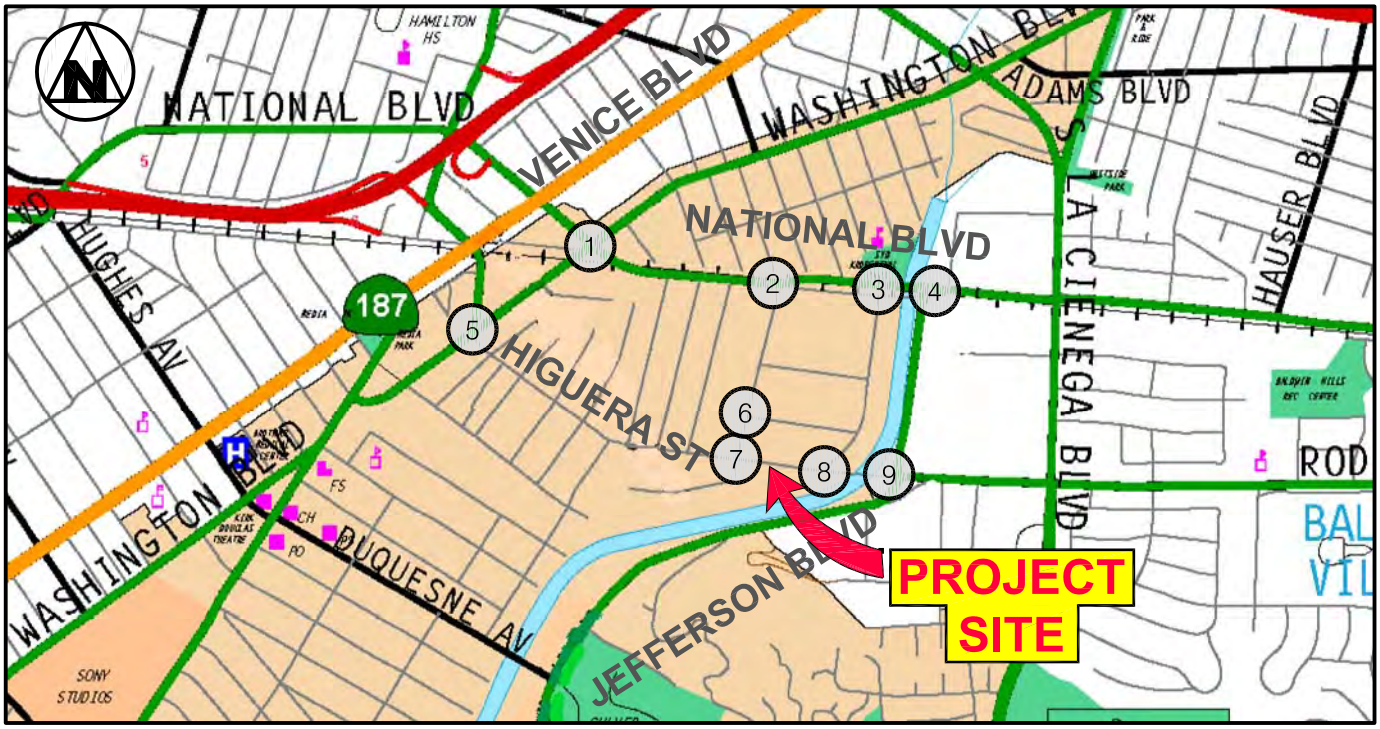


FIGURE 23

4/2011

FUTURE (2020) TRAFFIC VOLUMES
WITH PROJECT
PM STREET PEAK HOUR

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Impacts on Residential Neighborhood Streets

This study also analyzed the potential impacts of traffic on the residential streets located to the northwest of the project site, as shown in Figure 24. The segments analyzed include: Schaefer Street between Higuera Street and National Boulevard, Helms Avenue between Higuera Street and National Boulevard, Wesley Street between Higuera Street and National Boulevard, Lucerne Avenue between Higuera Street and Ince Boulevard, and Higuera Street between Lucerne Avenue and Wesley Street. Figure 24 illustrates the location of the neighborhood street analyzed for this project.

The methodology for determining neighborhood impacts is based on a comparison of the future without and future with project conditions. The percent increase in daily traffic is used as the measurement for the impact evaluation. A significant traffic impact for a residential street occurs if the following thresholds are satisfied as shown in Table 13 below:

Table 13
Future Average Daily Traffic (ADT)

Volume	% Increase in Final ADT
0 to 999 VPD	120 or more
1,000 to 1,999 VPD	12% or more
2,000 to 2,999 VPD	10% or more
3,000 or more VPD	8% or more

VPD – Vehicles Per Day

Recent 24-hour traffic counts on the study street segments were conducted (Wednesday, May 26, 2010) to determine the amount of existing traffic currently utilizing the roadways. The 2010 traffic volumes were factored up by 5% to reflect potential traffic growth by study year 2015 and 10% to 2020. Using a conservative 15% of the project's trip generation as the assignment of daily trips to the Higuera/Lucerne route, the amount of daily project-related trips along the residential streets was estimated. Note, however, existing observations indicate that less than 15% of the project's traffic currently use the neighborhood streets such as Higuera Street and Lucerne Avenue but recognizing that in the future more traffic may chose to use the route, the higher percentage has been used to test the potential significance of the neighborhood traffic impact.

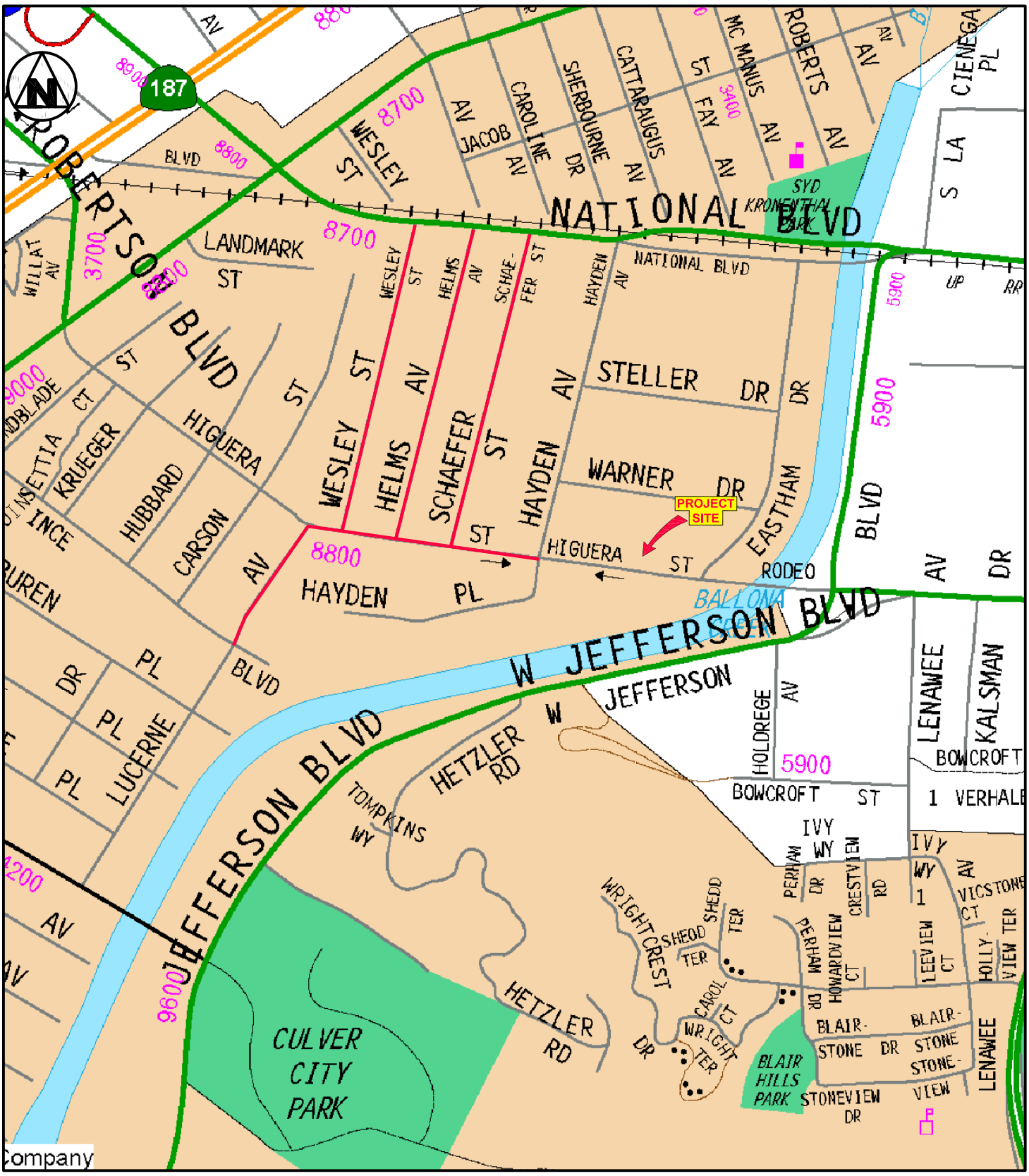


FIGURE 24

7/2011

NEIGHBORHOOD STREET LOCATIONS

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As shown in Table 14, the new traffic generated by the proposed project would not exceed Neighborhood Traffic Impact Analysis significance thresholds at any study area residential street segments. It should be noted that although the project may not have a significant traffic impact on any residential street, the project will add to the cumulative traffic on the nearby residential streets.

Traffic generated by the Willows School project along with the proposed project at 8511 Warner Drive and the project at 8665 Hayden Place, would have a cumulative effect on Lucerne Avenue and on Higuera Street. The applicants of the other two projects agreed to make voluntary contributions of $25,000 each towards the cost to convert Higuera Street to one-way traffic towards Lucerne Avenue in order to significantly reduce the amount of traffic on Higuera Street. The City has developed several preliminary concepts for the conversion of Higuera Street. The City will move ahead with the conversion pending the various development projects moving ahead and after receiving the approval of the affected community. Considering that the WCS project will also add traffic to Higuera Street, it is recommended that WCS make a similar voluntary contribution to be available upon request for a 5 year period after the completion of the project Buildout.

Daily traffic counts are contained in Appendix D.

Table 14
Phase 1 Neighborhood Traffic Intrusion Analysis
Average Daily Traffic Volumes

Location	Existing Daily Traffic	Future (2015) Without Project	Future Daily Project Traffic	Future (2015) With Project	Significance Threshold	Project Impact
Schaefer St. btwn. Higuera St. & National Bd.	594	624	0	624	120	0
Helms Ave. btwn. Higuera St. & National Bd.	492	517	0	517	120	0
Wesley St. btwn. Higuera St. & National Bd.	514	540	0	540	120	0
Lucerne Ave. btwn. Ince Bd. & Higuera St.	3,917	4,663	4	4,667	8 %	0.09 %
Higuera St. btwn. Lucerne Ave. & Wesley St.	6,693	7,578	15	7,593	8 %	0.2 %

Buildout Neighborhood Traffic Intrusion Analysis
Average Daily Traffic Volumes

Location	Existing Daily Traffic	Future (2020) Without Project	Future Daily Project Traffic	Future (2020) With Project	Significance Threshold	Project Impact
Schaefer St. btwn. Higuera St. & National Bd.	594	654	0	654	120	0
Helms Ave. btwn. Higuera St. & National Bd.	492	542	0	542	120	0
Wesley St. btwn. Higuera St. & National Bd.	514	566	0	566	120	0
Lucerne Ave. btwn. Ince Bd. & Higuera St.	3,917	4,859	11	4,870	8 %	0.2 %
Higuera St. btwn. Lucerne Ave. & Wesley St.	6,693	7,913	45	7,958	8 %	0.6 %

Impacts on Regional Transportation System

The Congestion Management program (CMP) was adopted to track regional traffic growth, building permits and transportation improvements. The CMP designated a transportation network including all state highways and some arterials within the County to be monitored by local jurisdictions. If the LOS standard deteriorates on the CMP network, then local jurisdictions must prepare a deficiency plan to be in conformance with the CMP program. Local jurisdictions found to be in nonconformance with the CMP risk the loss of state gas tax funding. Current changes to the CMP program being considered by local officials include adding a countywide trip fee to mitigate regional cumulative impacts.

For purposes of the CMP LOS analysis is required when the project will add 50 or more trips during either the am or pm weekday peak hour. A substantial change in freeway conditions is defined as an increase or decrease of 0.10 in the demand to capacity ratio and a change in LOS. A CMP traffic impact analysis is required if a project will add 150 or more trips to a freeway segment in either direction during either the AM or PM weekday peak hour. While some of the patrons and residents of the project may use the freeway fewer than 150 trips are generated by the project after credits for the existing use.

The nearest CMP monitoring locations are at the City of Los Angeles intersections of La Cienega Boulevard and Jefferson Boulevard and Venice Boulevard and Overland Avenue Avenue. Figures 6a-c illustrate that the project will not generate over 50 peak hour trips through these intersections. In fact, significantly less than the 50 peak hour trip threshold used for CMP monitoring intersections. Therefore, traffic generated by the proposed project would not significantly affect any CMP intersections. No additional CMP analysis is necessary.

Using criteria adopted by the City of Culver City, it has been determined that the change in traffic flow after completion of the Willows Comprehensive Plan will not significantly impact any of the nine study intersections or street segments during the three study periods.

It is recommended that WCS implement the following measures to further improve traffic flow near and around the WCS campus;

1. Relocated Vehicle Access (Phase 1) - The Willows Community School Phase 1 will construction the Warner Drive parking lot and provide a new access to the campus for the DK-K student arrivals and departures. This rerouting of the arriving and departing vehicles to this parking lot improves the traffic flow in the area surrounding the school. Not only does the Warner Drive parking lot provide more on-site parking but it allows for a separate parking area to assist drop-off and pick–up services for the younger students by allowing parents/guardians the ability to park and walk the students into the classrooms.

   The effectiveness of relocating the lower grade traffic to the Warner Drive lot off-sets the increased Phase 1 traffic expected for the upper grade arrival and departure traffic assigned to the Higuera Street parking lot.

   The DK-K student enrollment represents approximately 15% of the total school enrollment. The Phase 1 student enrollment increase is 50 students added to an existing enrollment of 425 students.

   Left turns from Warner Drive will be permitted as long as the left turning traffic does not interfere with westbound through traffic on Warner Drive. If the left-turn movements in Phase 1 cause a potential conflict with the traffic flow, the left turns entering the Warner Drive could be prohibited.

2. All Way /Stop sign - The City of Culver City will consider the installation of all-way stop control at the Hayden/Warner intersection when warranted. The applicant

shall be responsible for all the traffic counts and other costs associated with the installation of all-way stop control.

3. On-street Parking Removal - If City staff determines it necessary, the City would impose parking restriction for two or three parking spaces (40 to 60 feet) on the north side of Higuera Street from the project driveway easterly to accommodate queued up vehicles entering the site. The parking restrictions would be in effect school days during the pick-up times, between 2:00PM and 4:00PM.

4. Relocate All Vehicle Access (Phase 2 & 3) - Buildout of the WCS Comprehensive Plan further improves traffic flow by redirecting all exiting school traffic flow onto Warner Drive. The new Higuera/Warner drive-thru parking lot simplifies access and provides a more efficient and safer egress to Warner Drive where traffic volume and speeds are significantly lower than those on Higuera Street.

5. New Traffic Signal - The Hayden Avenue and Warner Drive traffic signal warrant for the 2020 morning peak hour is estimated to reach the threshold value for a new traffic signal control, as shown in the Exhibit H3, Appendix H. It is recommended that WCS write a letter of credit for the cost of the design, project management and construction of the traffic signal installation prior to the start of Phase 3 of the Comprehensive development plan. After completion of the WCS Comprehensive development plan, the applicant shall be responsible to take traffic counts of the intersection and conduct a traffic signal warrant signal study. If the City determines that the traffic signal is not warranted, the letter of credit will be returned to WCS. If the traffic signal is warranted, WCS will be responsible for the design, project management and construction of the traffic signal.

6. Increase On-site Vehicle Storage Capacity – Egress to Warner Drive will increase the capacity of the drop-off and pick-up operation as the vehicle delays to Warner Drive will be less than the delay turning onto Higuera Street. The Higuera / Warner parking lot nearly doubles the on-site vehicle queuing storage area from 17 to approximately 30 vehicles.

   It should be noted that reversing the traffic flow from Warner Drive to Higuera Street was evaluated but it was determined that exiting traffic onto Higuera Street

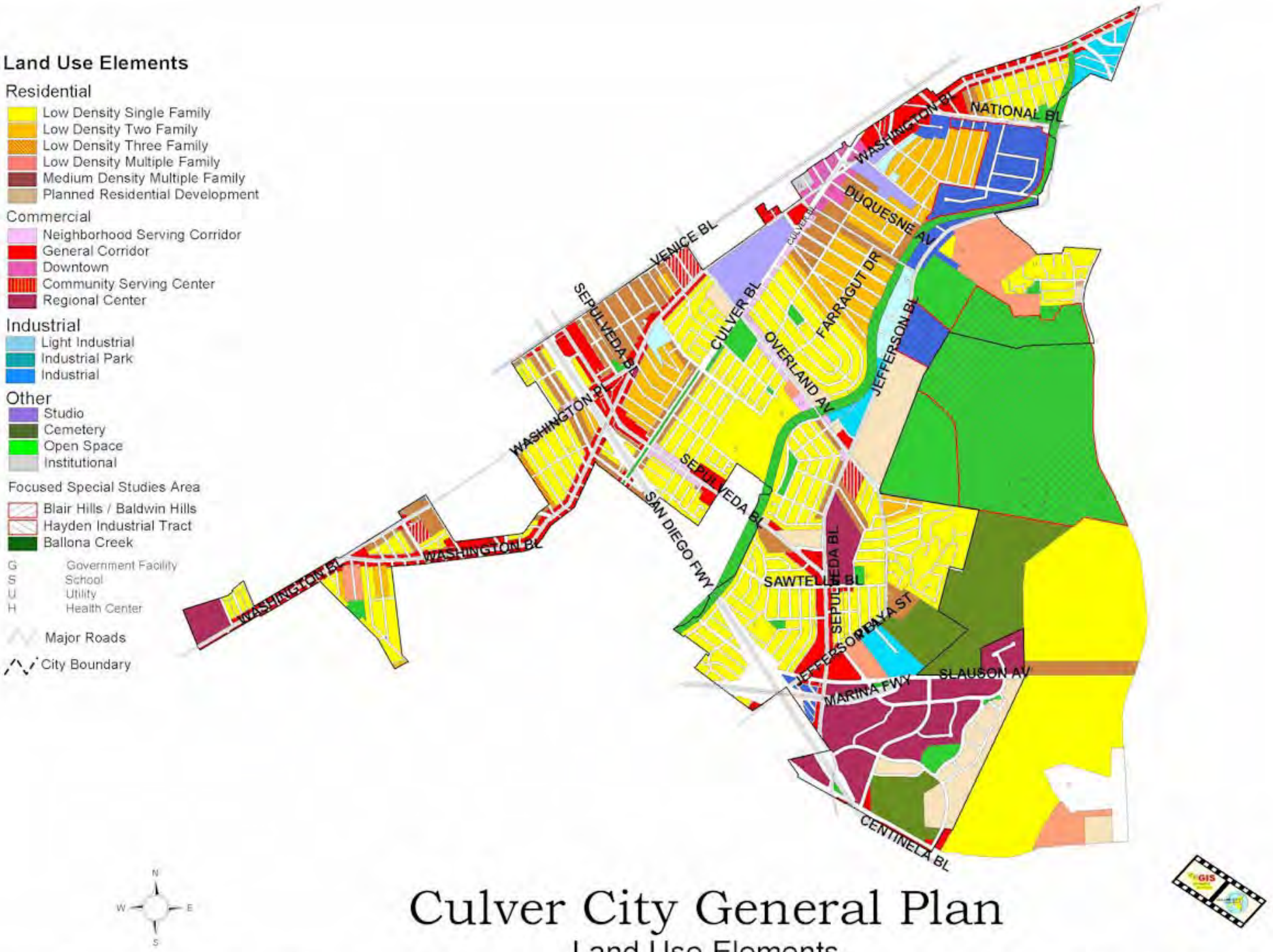
is much more difficult than exiting onto Warner Drive. The delays exiting the parking lot onto Higuera Street would reduce the capacity of the student drop-off and pickup operation. For these reasons, entering from Higuera Street and exiting at Warner Drive was selected as the preferred access route through the new easterly parking lot.

7. Transportation Demand Management Program (TDM) - A TDM should be prepared for dissemination to all new school families upon entry. The TDM plan will be updated on an annual basis and disseminated to all new and returning school families at the beginning of each new school calendar year. The plan will include a traffic/parking circulation plan which explains vehicular ingress and egress access locations, provides vehicle queuing instructions, provides student drop off and pick up instructions and explains the school's traffic circulation requirements. A draft plan is provided in Appendix

8. Neighborhood Traffic Calming Program - It should be noted that although the project should not have a significant traffic impact on any residential street, the project will add to the cumulative traffic on the nearby residential streets. Traffic generated by the Willows School project along with the proposed project at 8511 Warner Drive and the project at 8665 Hayden Place, would have a cumulative effect on Lucerne Avenue and on Higuera Street. The applicants of the other two projects agreed to make voluntary contributions of $25,000 each towards the cost to convert Higuera Street to one-way traffic towards Lucerne Avenue in order to significantly reduce the amount of traffic on Higuera Street. The City has developed several preliminary concepts for the conversion of Higuera Street. The City will move ahead with the conversion pending the various development projects moving ahead and after receiving the approval of the affected community. Considering that the WCS project will also add traffic to Higuera Street, it is recommended that WCS make a similar voluntary contribution to be available upon request for a 5 year period after the completion of the project Buildout.

APPENDIX A

COMMUNITY PLAN LAND USE INFORMATION

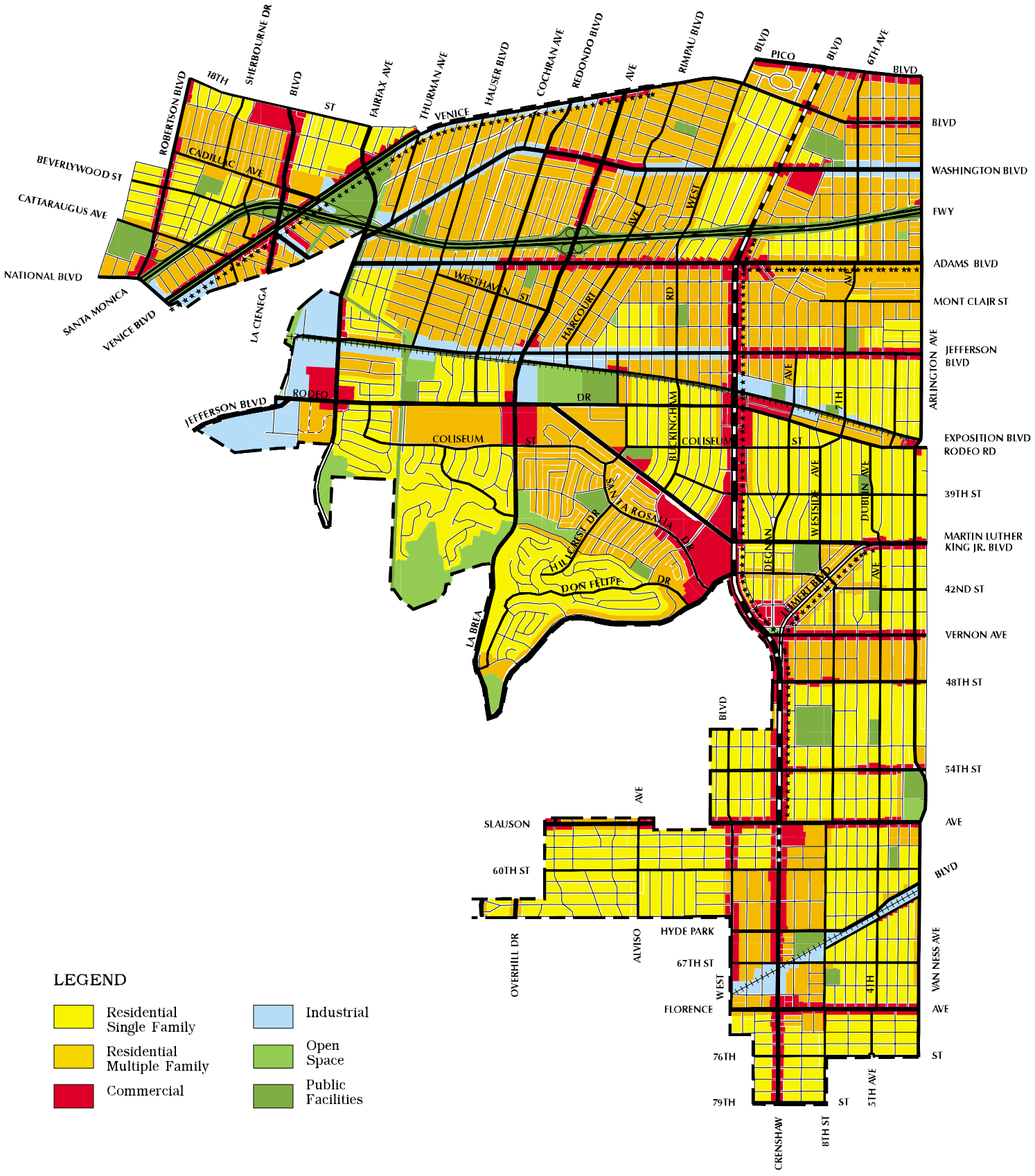


Culver City General Plan

Land Use Elements

Information Technology Department, Geographic Information Systems August 29, 2001

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GENERALIZED LAND USE

WEST ADAMS - BALDWIN HILLS - LEIMERT

APPENDIX B

AERIAL STUDY INTERSECTION PHOTOS AND EXPOSITION LIGHT RAIL NATIONAL BOULEVARD IMPROVEMENT PLANS

THE WILLOWS COMMUNITY SCHOOL



SCALE 1 : 1,035

100 0 100 200 300

FEET

N

HIGUERA ST & EASTHAM DR



SCALE 1 : 599

50 0 50 100 150

FEET

N

HIGUERA ST & HAYDEN AV



SCALE 1 : 586

50 0 50 100 150

FEET

N

HAYDEN AV & WARNER DR



SCALE 1 : 415

20 0 20 40 60

FEET

N

WASHINGTON BD & ROBERTSON BD/HIGUERA ST

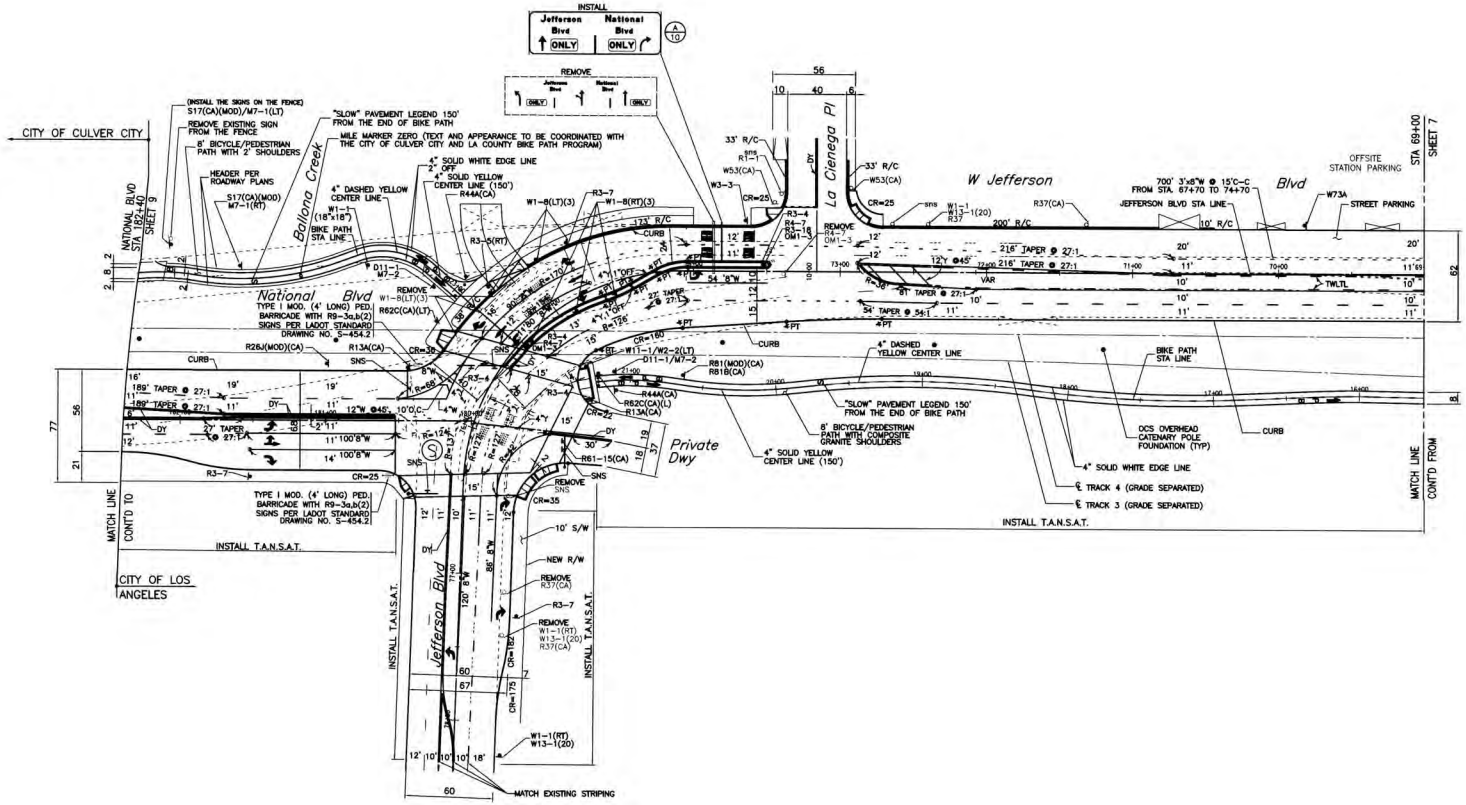


SCALE 1 : 639

50 0 50 100 150

FEET

N



NOTES:

1. INSTALL 6" WIDE WHITE DIAGONAL STRIPES AT 45° AND 4' ON CENTER STARTING 10' BEFORE THE NARROWEST POINT OF THE FLARES OF THE BIKE PATH ENTRANCES.

D11-1 BIKE ROUTE | OM1-3 | M7-1(LT) | M7-1(RT) | M7-2 | R1-1 STOP | R3-4 | R3-5(RT) ONLY | R3-7 RIGHT LANE MUST TURN RIGHT | R3-18 | R4-7 | R5-2 | R9-3a | R9-3b USE CROSSWALK | R10-5 LEFT ON GREEN ARROW ONLY | R13A(CA) ON RED | R26J(MOD)(CA) TOW-AWAY NO STOPPING ANY TIME | R37(CA) TOW-AWAY NO STOPPING X = AM X = PM | R44A(CA) NO PARKING IN HOV LANES OR MOTORCYCLES EXCEPTED | R61-15 ONLY ONLY | R62C(CA)(LT) PUSH BUTTON FOR GREEN LIGHT | R81(MOD)(CA) BIKE PATH | R81A(CA) BEGIN | R81B(CA) END | S17(CA)(MOD) (24" X 12") BALLONA CREEK BIKE PATH | W1-1 | W1-8(LT) | W1-8(RT) | W2-2(LT) | W3-3 | W11-1 | W13-1 20 MPH | W53(CA) NOT A THROUGH STREET | W73A(CA) RIGHT LANE TURNING RIGHT AHEAD

REVIEWED	RECOMMENDED	ACCEPTED
Transportation Engineer, 20 10	Senior Transportation Engineer, 20	For Principal Transportation Engineer, June 23, 20 10

INSTALLATION DATES	
MARKOUT BEGAN:	
MARKOUT COMPLETED:	
STRIPING COMPLETED:	
References:	
Thomas Guide	District

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION
RITA L. ROBINSON, GENERAL MANAGER

JEFFERSON BLVD
Sta 69+00 to National Blvd Sta 182+40
West of La Cienega Blvd to East of Eastham Dr

PROJECT NO. 74721 | DRAWING NO. A-5073

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
0	05/20/10						ISSUED FOR CONSTRUCTION

DESIGNED BY S. ABRAHAM
DRAWN BY S. ABRAHAM
CHECKED BY E. PEREZ
IN CHARGE B. KNOETGEN
DATE 05/20/10

EXPOSITION METRO LINE CONSTRUCTION AUTHORITY

FCI/FLUOR/PARSONS
A JOINT VENTURE
707 WILSHIRE BLVD. SUITE #3400
LOS ANGELES, CALIFORNIA 90017

MID-CITY/EXPOSITION LRT PROJECT
SIGNING AND STRIPING PLAN
SEGMENT C
SHEET 8 OF 13

CONTRACT NO 1-06
DRAWING NO SS-C-308 | REV 0
SCALE AS NOTED
SHEET NO

BY	DATE	REVISION DESCRIPTION	NO.
BASE / CHECK / DESIGN	05/20/10	ISSUED FOR CONSTRUCTION	0

T.E./SR. T.E. PRINCIPAL T.E. | SUPERVISOR DISTRICT SIGNALS

1"=20' ORIGINAL MAP SCALE 1"=40' — 20 10 0 20 40 60 80 100 FEET; 40 20 0 40 80 120 160 200 FEET

SCALES | HORIZ. 1"= 40' | VERT. N/A | SHEET | INDEX NUMBER

REV. 6/03/08

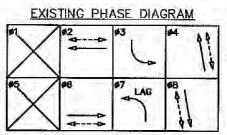
GENERAL NOTES:

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CALIFORNIA MUTCD) DATED SEPTEMBER 26, 2006, STANDARD PLANS AND STANDARD SPECIFICATIONS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION DATED MAY 2006, FHWA STANDARD HIGHWAY SIGNS 2004 EDITION, CALIFORNIA SIGN SPECIFICATION DATED SEPTEMBER 28, 2006, AND THE SPECIAL PROVISIONS.
2. LUMINAIRES SHALL BE HIGH PRESSURE SODIUM, CUT-OFF TYPE AND SHALL HAVE BOTH INTERGRAL BALLASTS AND INTERGRAL PHOTO ELECTRIC CONTROLS.
3. DETECTOR LOOPS SHALL BE TYPE "E" AND CENTERED IN EACH EFFECTIVE LANE EXCEPT AS SHOWN. STOP BAR LOOPS SHALL BE PLACED 1-FOOT INTO THE LIMIT LINE UNLESS OTHERWISE NOTED. (SEE CULVER CITY LOOP SPECS)
4. NEW TRAFFIC SIGNAL INDICATIONS SHALL BE 12" LED TYPE AND PEDESTRIAN INDICATIONS SHALL BE LED COUNTDOWN TYPE.
5. NEW TRAFFIC SIGNAL VISORS SHALL BE OPENED-AT-BOTTOM TYPE (TUNNEL VISOR).
6. ALL LOOPS SHALL BE PROPERLY LABELED IN THE PULL BOXES.
7. ALL MULTI-CONDUCTOR CABLES MUST BE LABELED PER PHASE IN EACH PULL BOX IF THE COLOR INDICATION CHANGES.
8. NEW PULL BOXES SHALL BE No. 5 AND 2" CONDUITS RIGID GALVANIZED METAL UNLESS OTHERWISE NOTED.
9. ALL SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE RETURNED TO CITY YARD AT 9505 JEFFERSON BLVD. CONTACT SANTOS MARQUEZ, FACILITIES MAINTENANCE SUPERVISOR AT (310)253-6433.
10. ALL PROPOSED STRIPING, PAVEMENT MARKINGS, AND SIGNING SHOWN HEREON ARE FOR REFERENCE ONLY. CONTRACTOR SHALL FOLLOW SIGNING AND STRIPING PLAN FOR EXACT DETAIL AND LOCATION.

CONSTRUCTION NOTES:

1. EXISTING 332 CABINET WITH TYPE 170E CONTROLLER ASSEMBLY (COMPATIBLE WITH LADOT ATSAC SYSTEM), INSTALL SWITCH PACKS, I.L.D. SENSOR UNITS, OPTICOM DISCRIMINATOR AND OTHER AUXILIARY EQUIPMENT REQUIRED TO PROVIDE A COMPLETE FUNCTIONING CONTROLLER FOR THE OPERATION AS SHOWN.

EXISTING PHASE DIAGRAM



POLE SCHEDULE

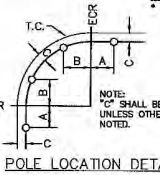
ALL EQUIPMENT IS EXISTING UNLESS OTHERWISE NOTED (N) = NEW

No.	POLE DATA TYPE	HEIGHT	SIGNAL M.A.	LUMINAIRE M.A.	LUMINAIRE HPS	SIGNAL MOUNTING M.A.	SIGNAL MOUNTING VEH.	SIGNAL MOUNTING PED.	PED PUSH BUTTON PHASE	PED PUSH BUTTON ARROW	POLE LOCATION A	POLE LOCATION B	POLE LOCATION C	REMARK	STREET NAME SIGN
①	19-4-100(N)	30'	30'	12'	400W(N)	2 MAS(N)	SV-1-T(N)	SP-1-T(N)	8	(N)	–	9'	3'	–	National (R.R)(N)
②	C-1-100(N)	45'	–	12'	400W(N)	–	SV-2-TA(N)	SP-1-T(N)	2	(N)	–	9'	3'	OCTV	–
③	26-4-70	30'	40'	12'	400W(N)	2 MAS	SV-1-T	SP-1-T(N)	2	—	EXISTING			–	Washington(LI)
④	PPB Post	3'-10"	–	–	–	–	–	–	4	—	EXISTING			–	–
⑤	1-A	10'	–	–	–	–	TV-1-T	SP-1-T(N)	–	—	EXISTING			–	–
⑥	19-3-70	30'	25'	12'	400W(N)	MAS	SV-1-T(N)	SP-1-T(N)	–	—	EXISTING			–	National(LI)
⑦	PPB POST(N)	3'-10"	–	–	–	–	–	–	4	(N)	–	14.5'	3'	–	–
⑧	TYPE 15TS(N)	30'	–	12'	400W(N)	–	SV-2-TA(N)	SP-1-T(N)	6	(N)	–	14.5'	3'	–	–
⑨	24-4-70	30'	35'	12'	400W(N)	2 MAS	SV-1-T	SP-1-T(N)	6	—	EXISTING			–	Washington(LI)
⑩	TYPE 15TS(N)	30'	–	12'	400W(N)	–	SV-2-TA(N)	SP-1-T(N)	8	(N)	–	2'	3'	–	–

* SIGNAL POLE AND FOUNDATION PER LADOT STANDARD DWG. NO. S-52.1.4B

(LI)=INTORNALLYILLUMINATED STREET NAME SIGN
(R.R)=RETROREFELCTORIZED STREET NAME SIGN

POLE LOCATION DETAIL



CONSTRUCTION NOTES (CONT'D):

2. REMOVE EXISTING TYPE III-BF SERVICE EQUIPMENT ENCLOSURE AND FOUNDATION COMPLETE. INTERCEPT EXISTING SERVICE FEED CONDUIT AND INSTALL NEW TYPE III-CF SERVICE EQUIPMENT ENCLOSURE AND NEW FOUNDATION WITH TWO 120/240V SERVICE METERS (SERVICE No. 1 & 2) AND TWO 100 AMP-2P MAIN CIRCUIT BREAKS WITH:
   SERVICE No. 1
   50A-120V-1P CIRCUIT BREAKER FOR TRAFFIC SIGNAL
   30A-240V-2P CIRCUIT BREAKER FOR SAFETY LIGHTING
   15A-120V-1P CIRCUIT BREAKER FOR STREET NAME SIGN
   SERVICE No. 2
   TWO 30A-240V-2P CIRCUIT BREAKERS FOR STREET LIGHTING (SEE STREET LIGHTING PLAN)
   FACTORY TO PROVIDE TEST BYPASS FACILITIES INSIDE THE CABINET. CONTACT S.C.E. SERVICE PLANNER, Ms. BEATRICE COLEMAN AT (310) 315-3215 TO ARRANGE FOR SERVICE CHANGEOVER.
3. REMOVE AND SALVAGE EXISTING TYPE 1 STANDARD WITH ATTACHED SIGNAL EQUIPMENT. REMOVE FOUNDATION AND ABANDON CONDUIT.
4. REMOVE AND SALVAGE EXISTING TYPE 19 STANDARD WITH ATTACHED SIGNAL EQUIPMENT. REMOVE FOUNDATION AND ABANDON CONDUIT.
5. REMOVE AND SALVAGE EXISTING TYPE CCTV35 STANDARD WITH ATTACHED SIGNAL EQUIPMENT. RELOCATE EXISTING CAMERA EQUIPMENT TO LOCATION 2. REMOVE FOUNDATION AND ABANDON CONDUIT.
6. REMOVE AND SALVAGE EXISTING PEDESTRIAN PUSH BUTTON. SEAL HOLES WITH POLE PLATE, BOLTS, NUTS, AND WASHERS AS REQUIRED.
7. REMOVE EXISTING LUMINAIRE, LAMP AND INTEGRAL BALLAST. INSTALL 250W HPS LAMP WITH INTEGRAL BALLAST AND PHOTO ELECTRIC CONTROL.
8. INSTALL OPTICOM MODEL 721 DETECTOR (OR APPROVED EQUAL). INSTALL M138 DETECTOR CABLE TO OPTICOM DISCRIMINATOR INSIDE CONTROLLER CABINET. OPTICOM CABLE TO BE UNSPLICED FROM CABINET TO DETECTOR.
9. INSTALL 3" C. WITH 1-12PR. #19 SIC TO WESLEY AVENUE (APPROX. 725') WITH A #6 PULL BOX AT 250'± SPACING. SEE TS-C-115.
10. CONTRACTOR TO PULL OUT EXISTING 50-PAIR INTERCONNECT CABLE FROM THE CONTROLLER CABINET TO THIS PULLBOX. REINSTALL AND MAKE PROPER CONNECTION AT THE CONTROLLER AFTER CONSTRUCTION IS COMPLETE. CONTRACTOR MAY RE-ROUTE EXISTING CABLE TO THE PROPOSED CONDUIT ON THIS PLAN BY USING THE COILED SLACK IN THE CONTROLLER CABINET AND INTERMEDIATE PULLBOXES. IN THE EVENT THAT THE SLACK IN THE CABLE IS NOT SUFFICIENT TO ACCOMPLISH THE PROPOSED INSTALLATION AS SHOWN ON THIS PLAN (AS DETERMINED BY THE TRAFFIC SIGNAL INSPECTOR), THE CONTRACTOR SHALL INSTALL A NEW 50-PAIR INTERCONNECT CABLE FROM THE EXISTING CONTROLLER LOCATION AT THIS INTERSECTION TO THE CONTROLLER AT ROBERSON BLVD. (APPROX. 1350 FEET SOUTH OF NATIONAL BLVD.).
11. CONTRACTOR TO PULL OUT EXISTING 48 STRAND SM FIBER OPTIC CABLE FROM FIBER OPTIC SPLICE BOX TO THIS PULL BOX. REINSTALL AND MAKE PROPER CONNECTION AT THE FIBER OPTIC SPLICE BOX AFTER CONSTRUCTION IS COMPLETE. CONTRACTOR MAY RE-ROUTE EXISTING CABLE TO THE PROPOSED CONDUIT ON THIS PLAN BY USING THE COILED SLACK IN THE FIBER OPTIC SPLICE BOX AND PULL BOXES.
12. EXISTING 337 CABINET WITH CCTV AUXILIARY EQUPEMTN TO REMAINAND PROTECT IN PLACE.

CONDUCTOR SCHEDULE

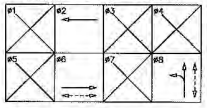
AWG SIZE OR CABLE TYPE	POLE OR CIRCUIT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
3 CONDUCTOR	POLE - ①		

REV. 6/03/08

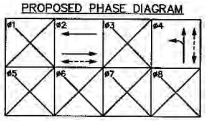
GENERAL NOTES:

1. All material and work shall conform to the California Manual on Uniform Traffic Control Devices (MUTCD) dated September 26, 2006, Standard Plans and Standard Specifications of the California Department of Transportation dated May 2006, FHWA Standard Highway Signs 2004 Edition, California Sign Specification dated September 28, 2006, and the Special Provisions.
2. Luminaires shall be high pressure sodium, cut-off type and shall have both intergral ballasts and intergral photo electric controls.
3. Detector loops shall be type "E" and centered in each effective lane except as shown. Stop bar loops shall be placed 1-foot into the limit line unless otherwise noted.
4. New traffic signal indications shall be 12" LED type and pedestrian indications shall be LED countdown type.
5. New traffic signal visors shall be opened-at-bottom type (tunnel visor).
6. All loops shall be properly labeled in the pull boxes.
7. All multi-conductor cables must be labeled per phase in each pull box if the color indication changes.
8. New pull boxes shall be No. 5 and conduits 2" rigid galvanized metal unless otherwise noted.

EXISTING PHASE DIAGRAM



PROPOSED PHASE DIAGRAM

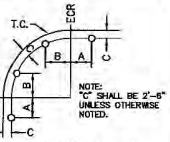


GENERAL NOTES (CONT'D):

9. All proposed striping, pavement markings and signs shown hereon are for reference only. Contractor shall follow signing and striping plan for exact detail and location.
10. All removed traffic signal equipment shall be returned to the City of Culver City. Contact Santos Marquez, Facilities Maintenance Supervisor at (310) 253-6433.

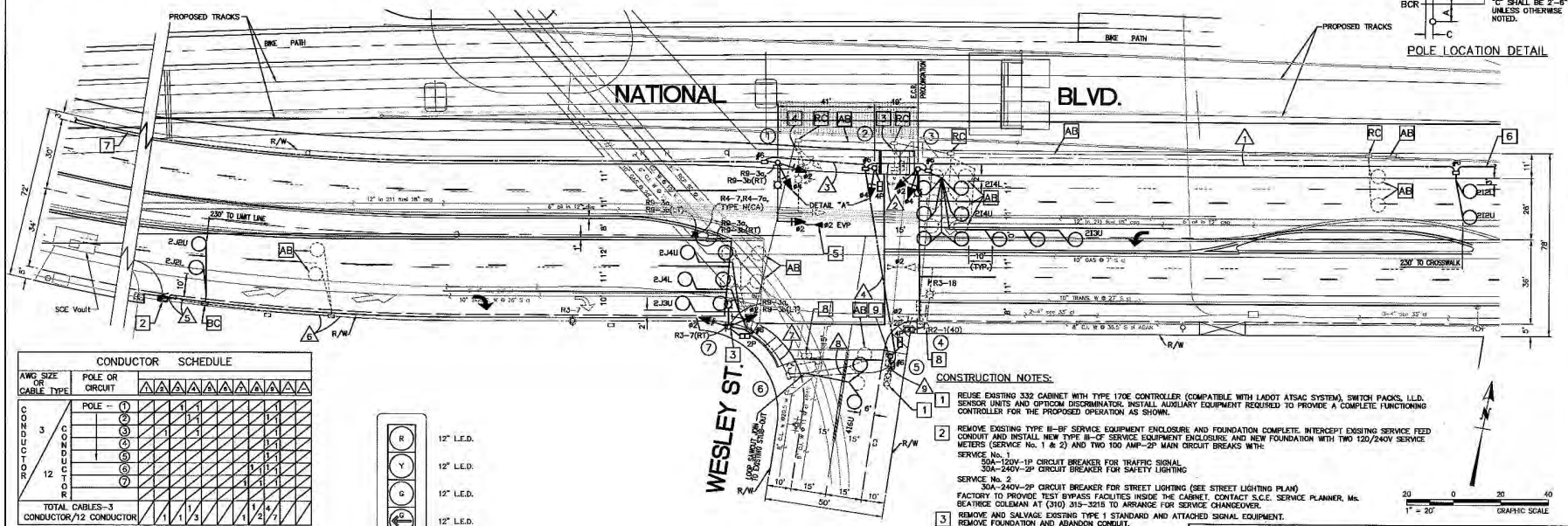
POLE SCHEDULE — ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED (E) = EXISTING

No.	POLE DATA TYPE	HEIGHT	SIGNAL M.A.	LUMINAIRE M.A.	LUMINAIRE HPS	SIGNAL MOUNTING M.A.	VEH.	PED.	PED PUSH BUTTON PHASE	ARROW	POLE LOCATION A	B	C	REMARK	R.S.N.S.
①	19-4-100	30'	20'	8'	250W	MAS	SV-2-TA	–	–	–	AS SHOWN	–	–	–	Wesley St
②	1-A	10'	–	–	–	–	TV-1-T	SP-1-T	4	–	AS SHOWN	–	–	–	–
③	15TS	30'	–	8'	250W	–	SV-2-T	–	–	–	AS SHOWN	–	–	REMOVED IN FEB	National Blvd
④	19-3-113(E)	30'(E)	25'(E)	12'(E)	250W(E)	MAS(E)	SV-1-T(E)	SP-1-T	4	(E)	EXISTING	–	–	–	Wesley St (E)
⑤	1-A	7'	–	–	–	–	–	TP-1-T	2	–	2'	–	–	–	–
⑥	15(E)	30'(E)	–	12'(E)	250W(E)	–	–	–	2	(E)	EXISTING	–	–	–	–
⑦	15TS	30'	–	–	–	–	SV-2-TA	SP-1-T	–	–	1.5'	4.5'	–	–	–



NOTE: "C" SHALL BE 2'-6" UNLESS OTHERWISE NOTED.

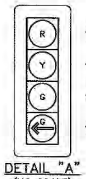
POLE LOCATION DETAIL



CONDUCTOR SCHEDULE

AWG SIZE OR CABLE TYPE	POLE OR CIRCUIT	①	②	③	④	⑤	⑥	⑦
3 CONDUCTOR 12 CONDUCTOR	POLE ← ①	1						1
	②	1						1
	③	1						1
	④	1						1
	⑤	1						1
	⑥	1						1
	⑦	1						1
TOTAL CABLES-3 CONDUCTOR/12 CONDUCTOR		1/1	1/1	1/3			1/2	1/4/7
#8 LUMINAIRE			2	2	2	2	2	
#6 SIGNAL SERVICE					2	2	2	2
DLC #16 #2 DETECTOR (1-2PR)		1	3		3		1	2
DLC #16 #6 DETECTOR (1-2PR)							1	1
DLC #16 TOTAL DLC		1	3		3		1	2
EVP CABLE				1	1			2
#19 I/C CABLE (12PR.)		1	1	1	2			2
CONDUIT SIZE		3"	3"	3"	3"	2"(E)	2"(E)	2"(E)

ALL CONDUCTORS AND CONDUITS ARE NEW UNLESS OTHERWISE NOTED.
(E) = EXISTING



DETAIL "A" (NO SCALE)

DIGALERT
CALL TOLL FREE
1-800-227-2600
2 Working Days Before You Dig

CONSTRUCTION NOTES:

1. REUSE EXISTING 332 CABINET WITH TYPE 170E CONTROLLER (COMPATIBLE WITH LADOT ATSAC SYSTEM), SWITCH PACKS, I.L.D. SENSOR UNITS AND OPTICOM DISCRIMINATOR. INSTALL AUXILIARY EQUIPMENT REQUIRED TO PROVIDE A COMPLETE FUNCTIONING CONTROLLER FOR THE PROPOSED OPERATION AS SHOWN.
2. REMOVE EXISTING TYPE III-BF SERVICE EQUIPMENT ENCLOSURE AND FOUNDATION COMPLETE. INTERCEPT EXISTING SERVICE FEED CONDUIT AND INSTALL NEW TYPE III-CF SERVICE EQUIPMENT ENCLOSURE AND NEW FOUNDATION WITH TWO 120/240V SERVICE METERS (SERVICE No. 1 & 2) AND TWO 100 AMP-2P MAIN CIRCUIT BREAKS WITH:
   SERVICE No. 1
   50A-120V-1P CIRCUIT BREAKER FOR TRAFFIC SIGNAL
   30A-240V-2P CIRCUIT BREAKER FOR SAFETY LIGHTING
   SERVICE No. 2
   30A-240V-2P CIRCUIT BREAKER FOR STREET LIGHTING (SEE STREET LIGHTING PLAN)
   FACTORY TO PROVIDE TEST BYPASS FACILITIES INSIDE THE CABINET. CONTACT S.C.E. SERVICE PLANNER, Ms. BEATRICE COLEMAN AT (310) 315-3215 TO ARRANGE FOR SERVICE CHANGEOVER.
3. REMOVE AND SALVAGE EXISTING TYPE 1 STANDARD AND ATTACHED SIGNAL EQUIPMENT. REMOVE FOUNDATION AND ABANDON CONDUIT.
4. REMOVE AND SALVAGE EXISTING TYPE 19 STANDARD AND ATTACHED SIGNAL EQUIPMENT. REMOVE FOUNDATION AND ABANDON CONDUIT.
5. INSTALL OPTICOM MODEL 721 DETECTOR (OR APPROVED EQUAL). INSTALL M138 DETECTOR CABLE TO OPTICOM DISCRIMINATOR INSIDE CONTROLLER CABINET. OPTICOM CABLE TO BE UNSPLICED FROM CABINET TO DETECTOR.
6. INSTALL 3" C. WITH 1-12PR. #19 SIC TO HAYDEN AVENUE (APPROX. 800') WITH A #6 PULL BOX AT 250'±. SPACING. SEE TS-C-114.
7. INSTALL 3" C. WITH 1-12PR. #19 SIC TO WASHINGTON BOULEVARD (APPROX. 725') WITH A #6 PULL BOX AT 250'±. SPACING. SEE TS-C-116.
8. REMOVE PEDESTRIAN HEAD(S), SEAL HOLES WITH POLE PLATE, BOLTS, NUTS, AND WASHERS AS REQUIRED.
9. REMOVE AND SALVAGE EXISTING PEDESTRIAN PUSH BUTTON POST AND ATTACHED SIGNAL EQUIPMENT. REMOVE FOUNDATION AND ABANDON CONDUIT.

CITY OF CULVER CITY
PUBLIC WORKS DEPARTMENT

APPROVED BY _____ DATE _____
CHARLES D. HERBERTSON, P.E., L.S.
PUBLIC WORKS DIRECTOR/CITY ENGINEER

NO.	REVISIONS	DATE	BY

WORK ACCEPTED _____ SERIAL NO. _____
SHEET 1 OF 1 SHEETS PLAN NO. TS-C-115

100% SUBMITTAL – NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER FRANCISCO D. BENAVIDEZ No. C65061 Exp. 06/30/09 CIVIL STATE OF CALIFORNIA

REV	DATE	BY	APP	REG NO.	EXPRESS	SIGNAL RELIEVER	DESCRIPTION

ORIGINAL MAP SCALE: 1"=20' (20 10 0 20 40 60 80 100 FEET) 1"=40' (40 20 0 40 80 120 160 200 FEET)

DESIGNED BY E. YANG
DRAWN BY A. KAM
CHECKED BY F. BENAVIDEZ
IN CHARGE D. YEH
DATE 9/4/2008

REGISTERED PROFESSIONAL ENGINEER RONG K. YEH No. TR900 Exp. 06/30/09 TRAFFIC STATE OF CALIFORNIA

EXPOSITION METRO LINE CONSTRUCTION AUTHORITY

FCI/FLUOR/PARSONS
A JOINT VENTURE
707 WILSHIRE BLVD., SUITE #3400
LOS ANGELES, CALIFORNIA 90017

KOA CORPORATION
PLANNING & ENGINEERING
1625 Corporate Centre Drive, Suite 200
Monterey Park, California 91754-7698
Tel: (323) 260-4703 Fax: (323) 260-4705

MID-CITY/EXPOSITION LRT PROJECT
TRAFFIC SIGNAL
NATIONAL BLVD. & WESLEY ST.

CONTRACT NO 1-06
DRAWING NO TS-C-115
REV
SCALE 1"=20'
SHEET NO 1

SCALES | HORIZ. 1"= 20' VERT. | SHEET | INDEX NUMBER

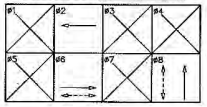
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REV. 6/03/08

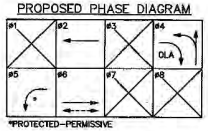
GENERAL NOTES:

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) DATED SEPTEMBER 26, 2006, STANDARD PLANS AND STANDARD SPECIFICATIONS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION DATED MAY 2006, FHWA STANDARD HIGHWAY SIGNS 2004 EDITION, CALIFORNIA SIGN SPECIFICATION DATED SEPTEMBER 28, 2006, AND THE SPECIAL PROVISIONS.
2. LUMINAIRES SHALL BE HIGH PRESSURE SODIUM, CUT-OFF TYPE AND SHALL HAVE BOTH INTERGRAL BALLASTS AND INTERGRAL PHOTO ELECTRIC CONTROLS.
3. DETECTOR LOOPS SHALL BE TYPE "E" AND CENTERED IN EACH EFFECTIVE LANE EXCEPT AS SHOWN. STOP BAR LOOPS SHALL BE PLACED 1'-FOOT INTO THE LIMIT LINE UNLESS OTHERWISE NOTED.
4. NEW TRAFFIC SIGNAL INDICATIONS SHALL BE 12" LED TYPE AND PEDESTRIAN INDICATIONS SHALL BE LED COUNTDOWN TYPE.
5. NEW TRAFFIC SIGNAL VISORS SHALL BE OPENED-AT-BOTTOM TYPE (TUNNEL VISOR).
6. ALL LOOPS SHALL BE PROPERLY LABELED IN THE PULL BOXES.
7. ALL MULTI-CONDUCTOR CABLES MUST BE LABELED PER PHASE IN EACH PULL BOX IF THE COLOR INDICATION CHANGES.
8. NEW PULL BOXES SHALL BE No. 5 AND 2" CONDUITS RIGID GALVANIZED METAL UNLESS OTHERWISE NOTED.
9. ALL PROPOSED STRIPING, PAVEMENT MARKINGS, AND SIGNING SHOWN HEREON ARE FOR REFERENCE ONLY. CONTRACTOR SHALL FOLLOW SIGNING AND STRIPING PLAN FOR EXACT DETAIL AND LOCATION.

EXISTING PHASE DIAGRAM



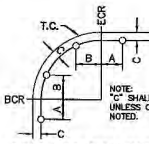
PROPOSED PHASE DIAGRAM



*PROTECTED-PERMISSIVE

GENERAL NOTES (CONT'D):

10. ALL REMOVED TRAFFIC SIGNAL EQUIPMENT SHALL BE RETURNED TO THE CITY OF CULVER CITY. CONTACT SANTOS MARQUEZ, FACILITIES MAINTENANCE SUPERVISOR AT (310) 253-6433.
11. COORDINATE SIGNAL INSTALLATION WITH REDLIGHT PHOTO ENFORCEMENT PLAN.



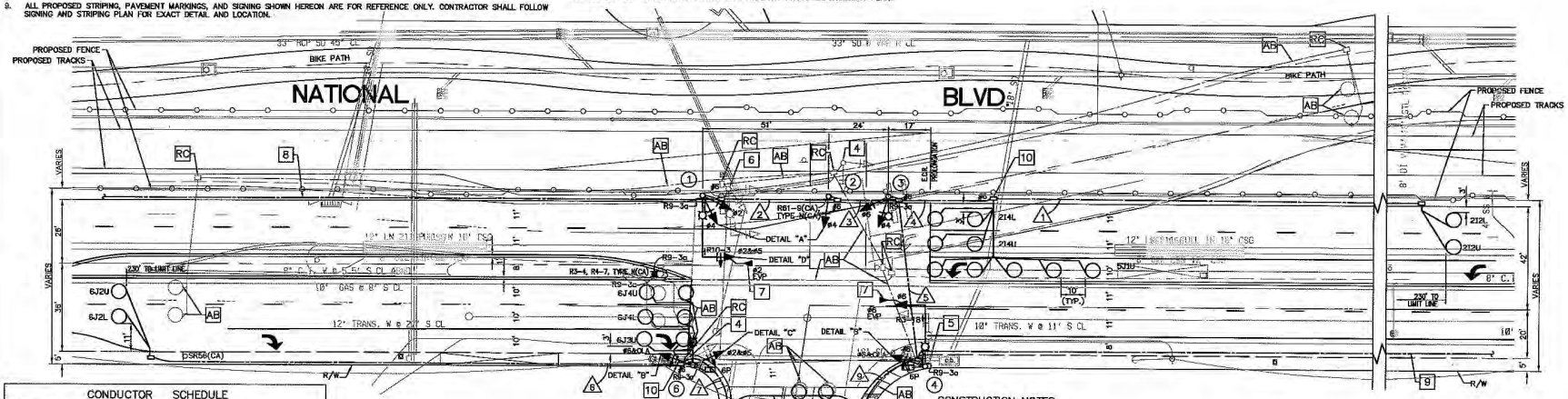
POLE LOCATION DETAIL

POLE SCHEDULE

ALL EQUIPMENT IS NEW UNLESS NOTED OTHERWISE; (E)=EXISTING

No.	POLE DATA TYPE	HEIGHT	SIGNAL M.A.	LUMINAIRE M.A.	LUMINAIRE HPS	SIGNAL MOUNTING M.A.	SIGNAL MOUNTING VEH.	SIGNAL MOUNTING PED.	PED PUSH BUTTON PHASE/ARROW	POLE LOCATION A	POLE LOCATION B	POLE LOCATION C	REMARK	R.S.N.S.
①	19-4-100	30'	25'	8'	250W	MAS-5A	SV-2-TA	–	–	–	–	AS SHOWN	–	–
②	1-A	10'	–	–	–	–	TV-1-T	–	–	–	–	AS SHOWN	–	–
③	15TS	30'	–	8'	250W	–	SV-2-TA	–	–	–	–	AS SHOWN	–	National Blvd
④	19-4-100	30'	25'	8'	250W	MAS	* SV-1-T	*SP-1-T	6	—	2'	3.5'	SEE DETAIL "A"	Hayden Ave
⑤	15TS	30'	–	8'	250W	–	–	–	–	–	0.5'	3.5'	SEE DETAIL "B"	–
⑥	15TS	30'	–	8'	250W	–	*SV-2-TA	*SP-1-T	6	—	1'	3.5'	SEE DETAIL "E"	–

* - TERMINAL COMPARTMENT AND SIGNAL HEAD MOUNTING SHALL BE LOCATED ON THE STREET SIDE.



CONDUCTOR SCHEDULE

AWG SIZE OR CABLE TYPE	POLE OR CIRCUIT	①	②	③	④	⑤	⑥
CONDUCTOR 3	POLE — ①	2	2	2		2	2
CONDUCTOR 3	②	1		1		1	1
CONDUCTOR 3	③		1	1		1	1
CONDUCTOR 3	④				1	1	
CONDUCTOR 12	⑤				1/2	1/2	1/2
CONDUCTOR 12	⑥						1/2
TOTAL CABLES-3 CONDUCTOR/12 CONDUCTOR		2/3	1/1	2/4	1/2	1/6	2/7
#8 LUMINAIRE		2	2	2	2	2	2
#6 SIGNAL SERVICE						2	2
DLC #16 #2 DETECTOR (1-2PR)		1		2	2		2
DLC #16 #4 DETECTOR (1-2PR)							1
DLC #16 #5 DETECTOR (1-2PR)				1	1	1	1
DLC #16 #6 DETECTOR (1-2PR)					1 2 2		2
DLC #16 TOTAL DLC		1		3	3 1 2 2	3	6
EVP CABLE		1	1	1	1	2	2
#19 II/C CABLE (12PR.)		1	1	1	1	2	2
CONDUIT SIZE		2"	3"	3"	2" 3"	2" 3"	3" 3"

(E)=EXISTING CONDUIT.
ALL CONDUCTORS ARE EXISTING EXCEPT WHERE SHOWN.

CONSTRUCTION NOTES:

1. REMOVE AND SALVAGE EXISTING TYPE 170 CONTROLLER AND CABINET TO THE CITY YARD. EXISTING FOUNDATION AND CONDUIT TO REMAIN.
2. INSTALL NEW 332 CABINET WITH TYPE 170E CONTROLLER ASSEMBLY (COMPATIBLE WITH LADOT ATSAC SYSTEM) ON EXISTING FOUNDATION. INSTALL SWITCH PACKS, I.L.D. SENSOR UNITS, OPTICOM DISCRIMINATOR AND OTHER AUXILIARY EQUIPMENT REQUIRED TO PROVIDE A COMPLETE FUNCTIONING CONTROLLER FOR THE OPERATION AS SHOWN. CONTROLLER CABINET SHALL BE ANTI-GRAFFITI COATED AND MUST BE SEALED AT THE BASE.
3. REMOVE EXISTING TYPE III-BF SERVICE EQUIPMENT ENCLOSURE AND FOUNDATION COMPLETE. INTERCEPT EXISTING SERVICE FEED CONDUIT AND INSTALL NEW TYPE III-CF SERVICE EQUIPMENT ENCLOSURE AND NEW FOUNDATION WITH TWO 120/240V SERVICE METERS (SERVICE No. 1 & 2) AND TWO 100 AMP-2P MAIN CIRCUIT BREAKS WITH:
   SERVICE No. 1
   60A-120V-1P CIRCUIT BREAKER FOR TRAFFIC SIGNAL
   30A-240V-2P CIRCUIT BREAKER FOR SAFETY LIGHTING
   40A-120V-1P CIRCUIT BREAKER FOR REDLIGHT PHOTO ENFORCEMENT
   SERVICE No. 2
   30A-240V-2P CIRCUIT BREAKER FOR STREET LIGHTING (SEE STREET LIGHTING PLAN)
   FACTORY TO PROVIDE TEST BYPASS FACILITIES INSIDE THE CABINET. CONTACT S.C.E. SERVICE PLANNER, Ms. BEATRICE COLEMAN AT (310) 315-3215 TO ARRANGE FOR SERVICE CHANGEOVER.
4. REMOVE AND SALVAGE EXISTING TYPE 1 STANDARD AND ATTACHED SIGNAL EQUIPMENT. REMOVE FOUNDATION AND ABANDON CONDUIT.
5. REMOVE AND SALVAGE EXISTING TYPE III STANDARD AND ATTACHED SIGNAL EQUIPMENT. REMOVE FOUNDATION AND ABANDON CONDUIT.
6. REMOVE AND SALVAGE EXISTING TYPE 17 STANDARD AND ATTACHED SIGNAL EQUIPMENT. REMOVE FOUNDATION AND ABANDON CONDUIT.
7. INSTALL OPTICOM MODEL 721 DETECTOR (OR APPROVED EQUAL). INSTALL M138 DETECTOR CABLE TO OPTICOM DISCRIMINATOR INSIDE CONTROLLER CABINET. OPTICOM CABLE TO BE UNSPLICED FROM CABINET TO DETECTOR.
8. INSTALL 3" C. WITH 1-12PR. #19 SIC TO WESLEY ST. (APPROX. 880') WITH A #5 PULL BOX AT 250'± SPACING. SEE TS-C-115.
9. INSTALL 3" C. WITH 1-12PR. #19 SIC TO EASTHAM DR. (APPROX 650') WITH A #6 PULL BOX AT 250'± SPACING. SEE TS-C-113.
10. COORDINATE LOOP PLACEMENT WITH REDLIGHT PHOTO ENFORCEMENT LOOPS. SEE PHOTO ENFORCEMENT PLAN.

CITY OF CULVER CITY
PUBLIC WORKS DEPARTMENT

APPROVED BY _____ DATE _____
CHARLES D. HERBERTSON, P.E., L.S.
PUBLIC WORKS DIRECTOR/CITY ENGINEER

NO.	REVISIONS	DATE	BY
0	ISSUED FOR CONSTRUCTION.	08-13-08	G. YEH

WORK ACCEPTED _____ SERIAL NO. _____

SHEET 1 OF 1 SHEETS | PLAN NO. TS-C-114

REGISTERED PROFESSIONAL ENGINEER FRANCISCO D. BENAVIDEZ No. 055061 Exp. 06/30/09 CIVIL STATE OF CALIFORNIA

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
0	8/13/08						ISSUED FOR CONSTRUCTION.

DESIGNED BY E. YANG
DRAWN BY G.S.CANZONIERI
CHECKED BY F. BENAVIDEZ
IN CHARGE D. YEH
DATE 9/4/2006

REGISTERED PROFESSIONAL ENGINEER DOUG K. YEH No. TR1900 Exp. 06/30/09 TRAFFIC STATE OF CALIFORNIA

EXPOSITION METRO LINE CONSTRUCTION AUTHORITY

FCI/FLUOR/PARSONS
A JOINT VENTURE
707 WILSHIRE BLVD. SUITE #3400
LOS ANGELES, CALIFORNIA 90017

KOA CORPORATION
PLANNING & ENGINEERING
1055 Corporate Center Drive, Suite 200
Monterey Park, California 91754-7662
Tel: (323) 260-4703 Fax: (323) 260-4705

MID-CITY/EXPOSITION LRT PROJECT
TRAFFIC SIGNAL
NATIONAL BLVD. & HAYDEN AVE.

CONTRACT NO 1-06
DRAWING NO TS-C-114
REV 0
SCALE 1"=20'
SHEET NO 1

1"=20' ORIGINAL MAP SCALE 1"=40'
20 10 0 20 40 60 80 100 FEET
40 20 0 40 80 120 160 200 FEET

SCALES | HORIZ. 1"= 20' VERT. | SHEET | INDEX NUMBER

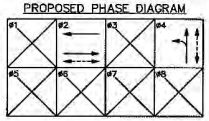
TS-C-114.DWG JAB1146 9/5/2008 XXX

REV. 8/03/05

GENERAL NOTES:

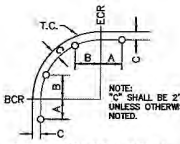
1. ALL MATERIAL AND WORK SHALL CONFORM TO THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CALIFORNIA MUTCD) DATED SEPTEMBER 26, 2006, STANDARD PLANS AND STANDARD SPECIFICATIONS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION DATED MAY 2006, FHWA STANDARD HIGHWAY SIGNS 2004 EDITION, CALIFORNIA SIGN SPECIFICATION DATED SEPTEMBER 26, 2006, AND THE SPECIAL PROVISIONS.
2. LUMINAIRES SHALL BE HIGH PRESSURE SODIUM, CUT-OFF TYPE AND SHALL HAVE BOTH INTERGRAL BALLASTS AND INTERGRAL PHOTO ELECTRIC CONTROLS.
3. DETECTOR LOOPS SHALL BE TYPE "E" AND CENTERED IN EACH EFFECTIVE LANE EXCEPT AS SHOWN. STOP BAR LOOPS SHALL BE PLACED 1-FOOT INTO THE LIMIT LINE UNLESS OTHERWISE NOTED.
4. NEW TRAFFIC SIGNAL INDICATIONS SHALL BE 12" LED TYPE AND PEDESTRIAN INDICATIONS SHALL BE LED COUNTDOWN TYPE.
5. NEW TRAFFIC SIGNAL VISORS SHALL BE OPENED-AT-BOTTOM TYPE (TUNNEL VISOR).
6. ALL LOOPS SHALL BE PROPERLY LABELED IN THE PULL BOXES.
7. ALL MULTI-CONDUCTOR CABLES MUST BE LABELED PER PHASE IN EACH PULL BOX IF THE COLOR INDICATION CHANGES.
8. NEW PULL BOXES SHALL BE No. 5 AND 2" CONDUITS RIGID GALVANIZED METAL UNLESS OTHERWISE NOTED.

PROPOSED PHASE DIAGRAM



GENERAL NOTES (CONT'D):

9. ALL PROPOSED STRIPING, PAVEMENT MARKINGS AND SIGNS SHOWN HEREON ARE FOR REFERENCE ONLY. CONTRACTOR SHALL FOLLOW SIGNING AND STRIPING PLAN FOR EXACT DETAIL AND LOCATION.
10. ALL REMOVED TRAFFIC SIGNAL EQUIPMENT SHALL BE RETURNED TO THE CITY OF CULVER CITY. CONTACT SANTOS MARQUEZ, FACILITIES MAINTENANCE SUPERVISOR AT (310) 253-8433.



NOTE: "C" SHALL BE 2'-6" UNLESS OTHERWISE NOTED.

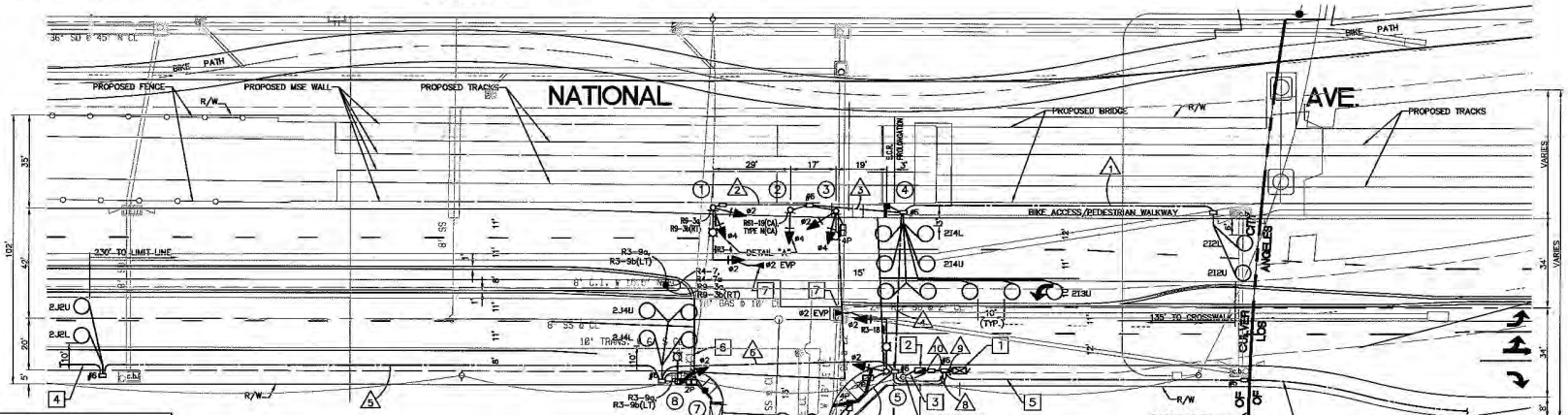
POLE LOCATION DETAIL

POLE SCHEDULE

ALL EQUIPMENT IS NEW

No.	POLE DATA TYPE	HEIGHT	SIGNAL M.A.	LUMINAIRE M.A.	LUMINAIRE HPS	SIGNAL MOUNTING M.A.	SIGNAL MOUNTING VEH.	SIGNAL MOUNTING PED.	PED PUSH BUTTON PHASE	PED PUSH BUTTON ARROW	POLE LOCATION A	POLE LOCATION B	POLE LOCATION C	REMARK	R.S.N.S.
①	17-3-100	30'	20'	8'	250W	MAS	SV-2-TA	–	–	–	AS SHOWN	–	–	–	Eastham Dr
②	1-A	10'	–	–	–	–	TV-1-T	–	–	–	AS SHOWN	–	–	–	–
③	15TS	30'	–	8'	250W	–	SV-2-TA	SP-1-T	–	–	AS SHOWN	–	SEE MOUNTED ON POLE	–	National Blvd
④	PPB POST	3'-4"	–	–	–	–	–	–	4	–	AS SHOWN	4.0'	–	–	–
⑤	17-3-100	30'	20'	8'	250W	MAS	SV-1-T	SP-1-T	4	–	–	3.0'	–	–	Eastham Dr
⑥	15TS	30'	–	8'	250W	–	–	SP-1-T	2	–	–	3.0'	6.0'	–	–
⑦	PPB POST	3'-4"	–	–	–	–	–	–	2	–	AS SHOWN	5.0'	–	–	–
⑧	15TS	30'	–	8'	250W	–	* SV-1-T	*SP-1-T	–	–	5.0'	–	3.5'	SEE DETAIL "B"	–

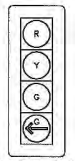
* – TERMINAL COMPARTMENT AND SIGNAL HEAD MOUNTING SHALL BE LOCATED ON THE STREET SIDE.



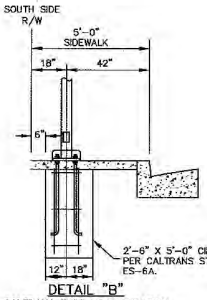
CONDUCTOR SCHEDULE

AWG SIZE OR CABLE TYPE	POLE OR CIRCUIT	①	②	③	④	⑤	⑥	⑦	⑧
CONDUCTOR 3 CONDUCTOR	POLE – ①		1	1	1			1	1
	②			1	1			1	1
	③				1			1	1
	④					1	1	1	1
	⑤						1	1	1
	⑥							1	1
	⑦								1
12 CONDUCTOR	⑧								
TOTAL CABLES-3 CONDUCTOR/12 CONDUCTOR		1	1/3	1/3	1	1	1	1/6	1/6
#8 LUMINAIRE		2	2	2		2	2	2	2
#8 SIGNAL SERVICE								2	2
DLC #16 #2 DETECTOR (1-2PR)		1		3	1	2		5	5
DLC #16 #4 DETECTOR (1-2PR)							1	1	1
DLC #16 TOTAL DLC		1		3	1	2	1	6	6
EVP CABLE		1	1	1	1			2	2
#19 I/C CABLE (12PR.)						1	1	1	2
CONDUIT SIZE		2"	2"	3"	3"	3"	3"	2"	2-3"

ALL CONDUCTORS AND CONDUITS ARE NEW

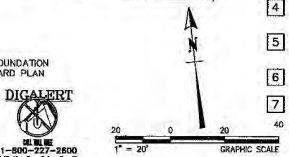


DETAIL "A" (NO SCALE)



DETAIL "B" CALTRANS TYPE 15 FOUNDATION (NO SCALE)

DIGALERT
811
DIAL 811 OR
1-800-227-2600
2 Working Days Before You Dig



CONSTRUCTION NOTES:

1. INSTALL NEW 332 CABINET WITH TYPE 170E CONTROLLER ASSEMBLY (COMPATIBLE WITH LADOT ATSAC SYSTEM), COMPLETE WITH SWITCH PACKS, LLD. SENSOR UNITS, OPTICOM DISCRIMINATOR AND OTHER AUXILIARY EQUIPMENT REQUIRED TO PROVIDE A COMPLETE FUNCTIONING CONTROLLER FOR THE OPERATION AS SHOWN. CONTROLLER CABINET SHALL BE ANTI-GRAFFITI COATED AND MUST BE SEALED AT THE BASE.
2. INSTALL NEW TYPE III-CF SERVICE EQUIPMENT ENCLOSURE ON NEW FOUNDATION WITH TWO 120/240V SERVICE METERS (SERVICE No. 1 & 2) AND TWO 100 AMP-2P MAIN CIRCUIT BREAKERS WITH:
   SERVICE No. 1
   50A-120V-1P CIRCUIT BREAKER FOR TRAFFIC SIGNAL
   30A-240V-2P CIRCUIT BREAKER FOR SAFETY LIGHTING
   SERVICE No. 2
   30A-240V-2P CIRCUIT BREAKER FOR STREET LIGHTING (SEE STREET LIGHTING PLAN)
   FACTORY TO PROVIDE TEST BYPASS FACILITIES INSIDE THE CABINET. CONTACT S.C.E. SERVICE PLANNER, Ms. BEATRICE COLEMAN AT (310) 315-3215 TO ARRANGE FOR SERVICE CONNECTION.
3. INSTALL A 3" TYPE "H" SERVICE RISER AND FEED CONDUIT PER S.C.E. REQUIREMENT. S.C.E. TO INSTALL SERVICE WIRES, CONTACT S.C.E. SERVICE PLANNER, Ms. BEATRICE COLEMAN AT (310) 315-3215 PRIOR TO START OF WORK.
4. INSTALL 3" C. WITH 1-12PR. #19 SIC TO HAYDEN AVENUE (APPROX. 650') WITH A #6 PULL BOX AT 250'± SPACING. SEE TS-C-114.
5. INSTALL 2" C. WITH 1-12PR. #19 SIC TO JEFFERSON BLVD. WITH A #8 PULL BOX AT 250'± SPACING (EXCEPT BRIDGE SECTION). SEE TS-C-111
6. REMOVE EXISTING STREET LIGHTING POLE AND FOUNDATION (SEE STREET LIGHTING PLAN).
7. INSTALL OPTICOM MODEL 721 DETECTOR (OR APPROVED EQUAL). INSTALL M138 DETECTOR CABLE TO OPTICOM DISCRIMINATOR INSIDE CONTROLLER CABINET. OPTICOM CABLE TO BE UNSPLICED FROM CABINET TO DETECTOR.

CITY OF CULVER CITY
PUBLIC WORKS DEPARTMENT

APPROVED BY: _____ DATE: _____

CHARLES D. HERRINGTON, P.E., L.S.
PUBLIC WORKS DIRECTOR/CITY ENGINEER

NO.	REVISIONS	DATE:	BY:
0	ISSUED FOR CONSTRUCTION.	08-8-08	D. YEH

WORK ACCEPTED _____ SERIAL NO.: _____

SHEET 1 OF 1 SHEETS | PLAN NO. TS-C-113

REGISTERED PROFESSIONAL ENGINEER
FRANCISCO D. BENAVIDEZ
No. C65061
Exp. 06/30/09
CIVIL
STATE OF CALIFORNIA

NO	DATE	BY	APP.	REQ NO.	EXPIRES	SEAL HOLDER	DESCRIPTION
0	8/13/08						ISSUED FOR CONSTRUCTION.

DESIGNED BY: E. YANG
DRAWN BY: A. KAM
CHECKED BY: F. BENAVIDEZ
IN CHARGE: D. YEH
DATE: 9/4/2008

REGISTERED PROFESSIONAL ENGINEER
DOUG K. YEH
No. TR1990
Exp. 06/30/09
TRAFFIC
STATE OF CALIFORNIA

EXPOSITION METRO LINE CONSTRUCTION AUTHORITY

FCI/FLUOR/PARSONS
A JOINT VENTURE
707 WILSHIRE BLVD., SUITE #3400
LOS ANGELES, CALIFORNIA 90017

KOA CORPORATION
PLANNING & ENGINEERING
1055 Corporate Center Drive, Suite 330
Monterey Park, California 91754-7668
Tel: (323) 260-4703 Fax: (323) 260-4705

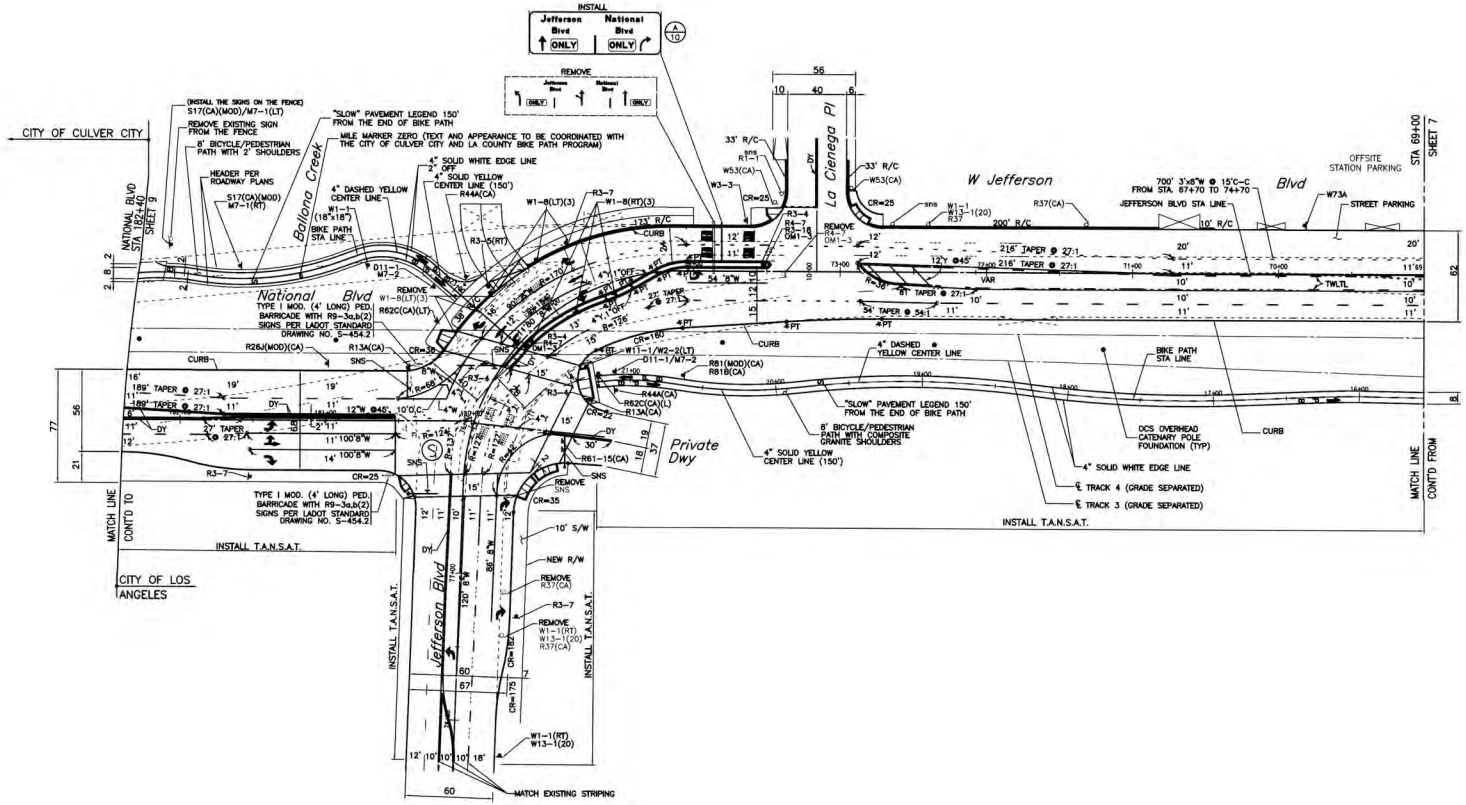
MID-CITY/EXPOSITION LRT PROJECT
TRAFFIC SIGNAL
NATIONAL BLVD. & EASTHAM DR.

CONTRACT NO: 1-06
DRAWING NO: TS-C-113
REV: 0
SCALE: 1"=20'
SHEET NO: 1

ORIGINAL MAP SCALE: 1"=40' (1"=20' HORIZ.)
20 10 0 20 40 60 80 100 FEET
40 20 0 40 80 120 160 200 FEET

SCALES | HORIZ. 1"= 20' VERT. | SHEET | INDEX NUMBER

XXX 9/5/2008 JAB1146 TS-C-113.dwg



NOTES:

1. INSTALL 6" WIDE WHITE DIAGONAL STRIPES AT 45° AND 4' ON CENTER STARTING 10' BEFORE THE NARROWEST POINT OF THE FLARES OF THE BIKE PATH ENTRANCES.

D11-1 BIKE ROUTE | OM1-3 | M7-1(LT) | M7-1(RT) | M7-2 | R1-1 STOP | R3-4 | R3-5(RT) ONLY | R3-7 RIGHT LANE MUST TURN RIGHT | R3-18 | R4-7 | R5-2 | R9-3a | R9-3b USE CROSSWALK | R10-5 LEFT ON GREEN ARROW ONLY | R13A(CA) ON RED | R26J(MOD)(CA) TOW-AWAY NO STOPPING ANY TIME | R37(CA) TOW-AWAY NO STOPPING X = AM X = PM | R44A(CA) NO PARKING IN HOV LANES OR MOTORCYCLES EXCEPTED | R61-15 ONLY ONLY | R62C(CA)(LT) PUSH BUTTON FOR GREEN LIGHT | R81(MOD)(CA) BIKE PATH | R81A(CA) BEGIN | R81B(CA) END | S17(CA)(MOD) (24" X 12") BALLONA CREEK BIKE PATH | W1-1 | W1-8(LT) | W1-8(RT) | W2-2(LT) | W3-3 | W11-1 | W13-1 20 MPH | W53(CA) NOT A THROUGH STREET | W73A(CA) RIGHT LANE TURNING RIGHT AHEAD

REVIEWED	RECOMMENDED	ACCEPTED
Transportation Engineer, 20 10	Senior Transportation Engineer, 20	For Principal Transportation Engineer, June 23, 20 10

INSTALLATION DATES	
MARKOUT BEGAN:	
MARKOUT COMPLETED:	
STRIPING COMPLETED:	
References:	
Thomas Guide	District

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION
RITA L. ROBINSON, GENERAL MANAGER

JEFFERSON BLVD
Sta 69+00 to National Blvd Sta 182+40
West of La Cienega Blvd to East of Eastham Dr

PROJECT NO. 74721 | DRAWING NO. A-5073

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
0	05/20/10						ISSUED FOR CONSTRUCTION

DESIGNED BY S. ABRAHAM
DRAWN BY S. ABRAHAM
CHECKED BY E. PEREZ
IN CHARGE B. KNOETGEN
DATE 05/20/10

EXPOSITION METRO LINE CONSTRUCTION AUTHORITY

FCI/FLUOR/PARSONS
A JOINT VENTURE
707 WILSHIRE BLVD. SUITE #3400
LOS ANGELES, CALIFORNIA 90017

MID-CITY/EXPOSITION LRT PROJECT
SIGNING AND STRIPING PLAN
SEGMENT C
SHEET 8 OF 13

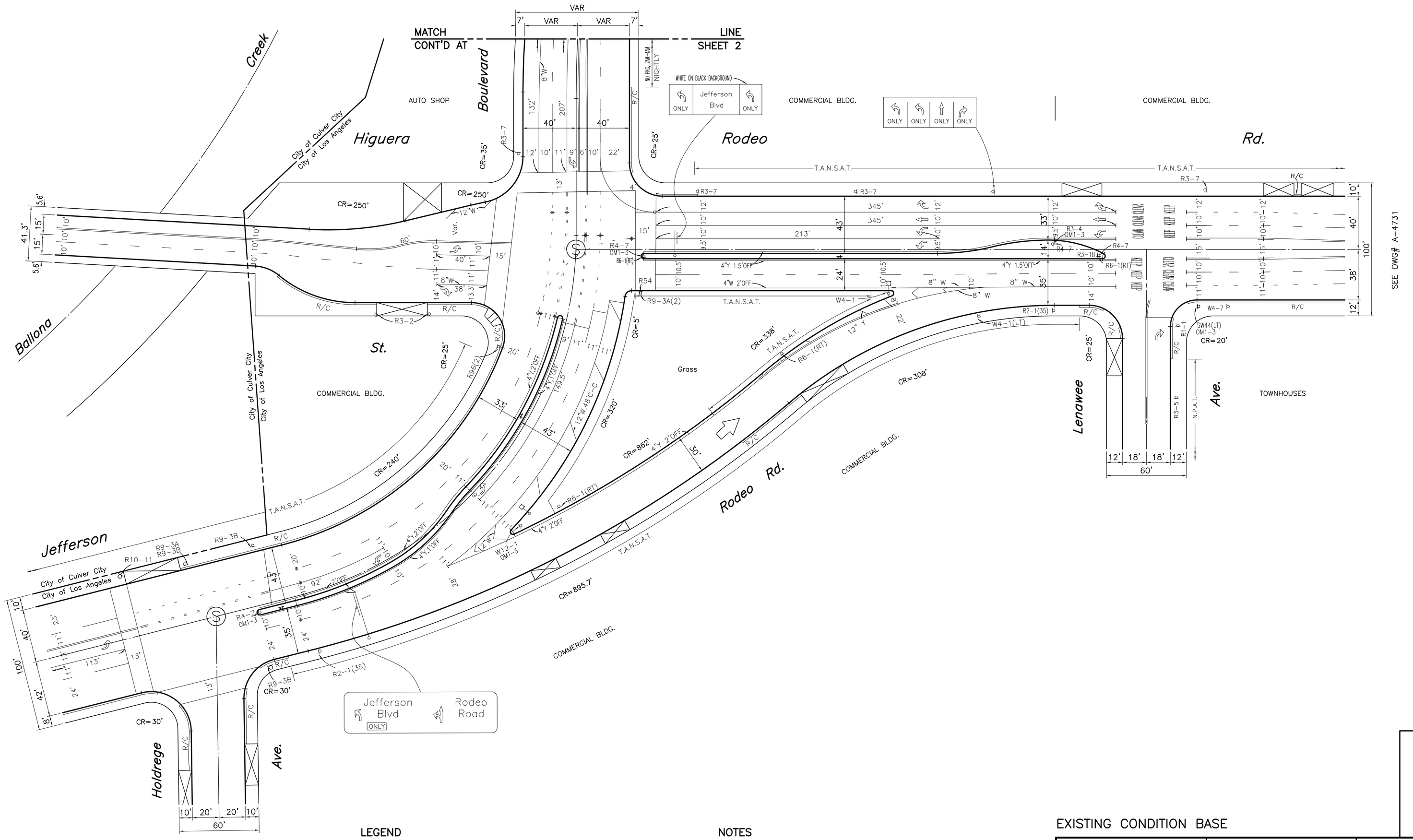
CONTRACT NO 1-06
DRAWING NO SS-C-308 | REV 0
SCALE AS NOTED
SHEET NO

BY	DATE	REVISION DESCRIPTION	NO.
BASE / CHECK / DESIGN	05/20/10	ISSUED FOR CONSTRUCTION	0

T.E./SR. T.E. PRINCIPAL T.E. | SUPERVISOR DISTRICT SIGNALS

1"=20' ORIGINAL MAP SCALE 1"=40' — 20 10 0 20 40 60 80 100 FEET; 40 20 0 40 80 120 160 200 FEET

SCALES | HORIZ. 1"= 40' | VERT. N/A | SHEET | INDEX NUMBER



LEGEND

1. EXISTING STRIPING & MARKINGS TO REMAIN
   EXISTING STRIPING & MARKINGS TO BE REMOVED
   PROPOSED STRIPING & MARKINGS
2. EXISTING SIGNS ▸ PROPOSED SIGNS
3. SIGNALIZED INTERSECTION
4. R/C EXISTING RED CURB
   R/C PROPOSED RED CURB

NOTES

1. LENGTH OF DESIGN : _____ ±

SCALE: 1"=40'

EXISTING CONDITION BASE

SUBMITTED	RECOMMENDED	APPROVED
FEBRUARY 8 20 07	_____ 20 ____	_____ 20 ____
TIM CONGER		
Transportation Engineer	Senior Transportation Engineer	Principal Transportation Engineer

INSTALLATION DATES

MARKOUT BEGAN: _____

MARKOUT COMPLETED: _____

STRIPING COMPLETED: _____

References:
A-0738
A-2137
010.014
P-23114
FIELD CHECK

Thomas Guide | District

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION
GLORIA JEFF, GENERAL MANAGER

JEFFERSON BOULEVARD
RODEO RD. TO NATIONAL BLVD.

PROJECT NO.

DRAWING NO. A-3480 1/2

NO.	REVISION DESCRIPTION	DATE	BY

PRINCIPAL T.E. | T.E./SR. T.E. | SUPERVISOR | DISTRICT SIGNALS | DESIGN | CHECK | BASE

1"=20' ORIGINAL MAP SCALE 1"=40'
20 10 0 20 40 60 80 100 FEET
40 20 0 40 80 120 160 200 FEET

SCALES | HORIZ. 1"= | VERT. 1"=

SHEET

INDEX NUMBER

WASHINGTON BD & NATIONAL BD



SCALE 1 : 462

20 0 20 40 60

FEET

N

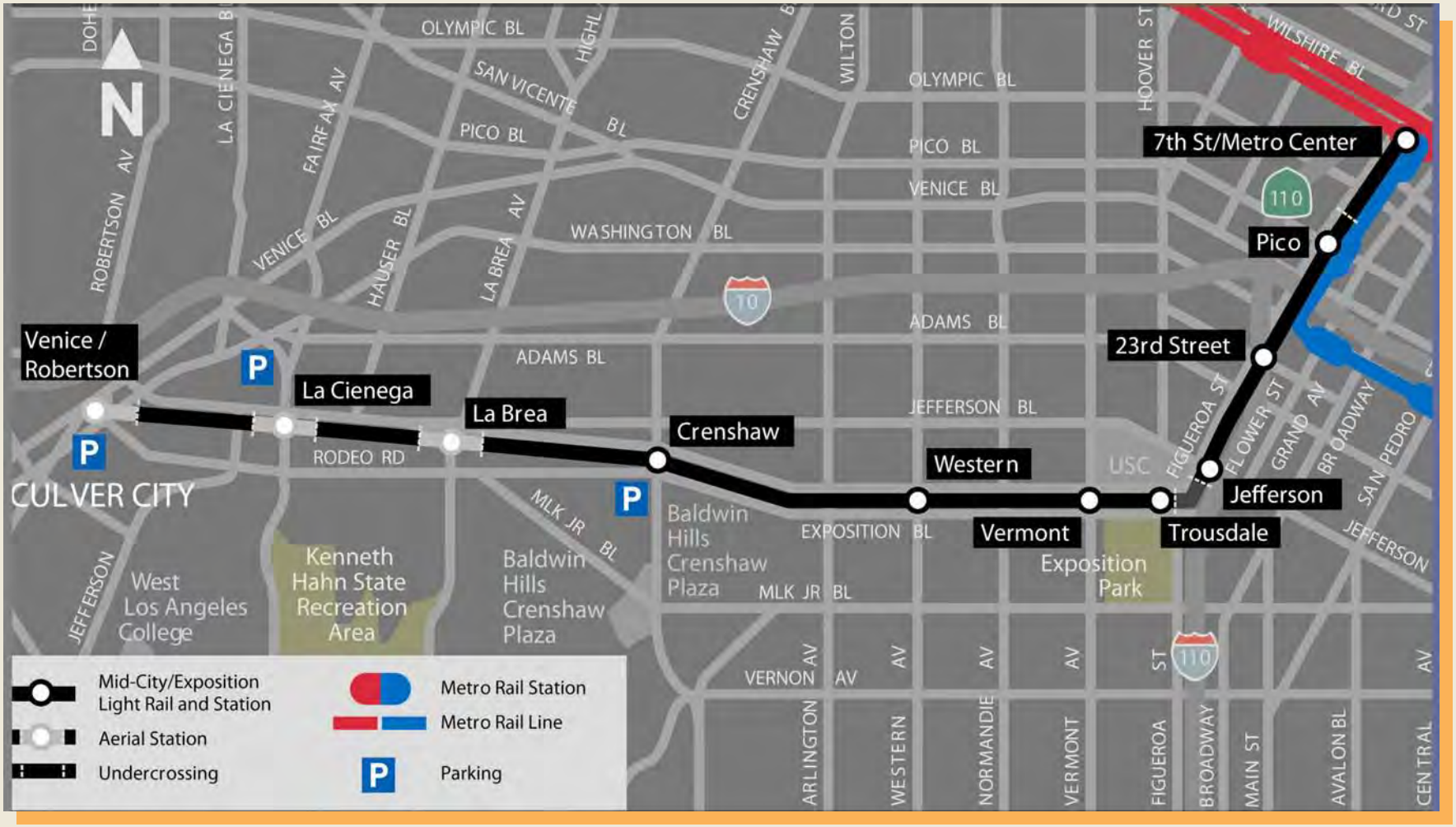
APPENDIX C

TRANSIT INFORMATION


SYSTEM MAP
LEGEND
Bus Service
Direction of Travel
Transit Center
Library
High School
Hospital
College/University
Point of Interest
Airport
Movie Studio
MAP NOT TO SCALE
Line 3
Monday–Friday
Saturday, Sunday and Holidays
(No Service to WLA College on Sundays and Holidays)
Line 5
Line 5 service is limited to school days only.
Line 5 runs eastbound only.
Line 5 terminates at Culver City Schools.
Westwood
West Los Angeles
Rancho Park
Century City
Cheviot Hills
Palms
Santa Monica
Mar Vista
Culver City
Blair Hills
Baldwin Hills
Venice
Ladera Heights
Marina Del Rey
Playa Vista
Playa Del Rey
Westchester
Inglewood
Pacific Ocean
Ackerman Turn Around
UCLA
UCLA Medical Center
Hammer Museum
Federal Building
VA Medical Center
Beverly Hills High School
Century City Hospital
Century City Shopping Ctr
20th Century Fox Studios
Westside Pavilion
Hamilton
Kaiser Permanente
West LA
Brotman Med Ctr
City Hall
Police Dept
Post Office
Culver Studios
Sony Studios
Senior Center
Vets Auditorium
Culver CityBus
Culver City Library
West LA College
Santa Monica Airport
Venice
Windward Circle
Venice Canals
Venice Beach
Venice Pier
Daniel Freeman Marina Hospital
Fisherman's Village
Loyola Marymount University
Otis College of Art & Design
Pepperdine University
Corporate Pointe
Fox Hills Mall
Howard Hughes Center
LAX
Los Angeles International Airport
Metro Green Line
Ackerman Turn Around
Strathmore Pl
Charles E. Young Dr. S
Le Conte Ave
Wilshire Blvd
Westwood Blvd
Santa Monica Blvd
Olympic Blvd
Pico Blvd
Sepulveda Blvd
Overland Ave
Century Park West
Century Park East
Constellation Blvd
Avenue of the Stars
Beverly Glen Blvd
Motor Ave
National Blvd
Westwood Pl
Bundy Dr
Barrington Ave
Centinela Ave
Lincoln Blvd
Abbot Kinney Blvd
Main St
Grand Blvd
Post Office
Pacific Ave
Admiralty Way
Via Marina
Mindanao Wy
Marquesas Way
Bali Wy
Fiji Wy
Mentone Ave
Alla Rd
Culver Blvd
Inglewood Blvd
Jefferson Blvd
Venice Blvd
Beethoven St
Kaiser Permanente
Washington Blvd
Washington Pl
Hughes Pkwy
Motor Ave
Duquesne Ave
Jefferson Blvd
Overland Ave
Elenda
Culver City
RT. 5 SERVICE EAST OF ELENA IS ON SCHOOL DAYS ONLY
Bascomb Dr
Fitzgerald Dr
F St
Albert Vera St
Post Office
Playa St
Slauson Ave
Hannum Ave
Green Valley Cir
Bristol Pkwy
Buckingham Pkwy
Fox Hills Mall
Howard Hughes Center
Center Dr
Park Terrace
Teale St
Westchester Pkwy
Manchester Ave
Florence Ave
Hyde Park Blvd
Centinela Ave
La Tijera Blvd
Stocker St
Hillcrest Blvd
Market St
La Brea Ave
Inglewood Ave
Aviation Blvd
Airport Blvd
Century Blvd
Imperial Hwy
96th St
111th St
Jenny Ave
Adams Blvd
Exposition Blvd
Venice Blvd
Washington Blvd
National Blvd
Rodeo Rd
Wrightcrest Dr
Stoneview Dr
Bowcroft St
Hayden Ave
Warner Ave
Easthaven Blvd
Jefferson Blvd
Lo Cienega Blvd
Fairfax Ave
Hauser Blvd
La Brea Ave
Wilshire Blvd
Santa Monica Blvd
Bundy Dr
96th St
Olympic Blvd
Pico Blvd
Ocean Park Blvd
Centinela Ave
Wellgrove Ave
Lincoln Blvd
Venice Blvd
Abbot Kinney Blvd
Windward Ave
Main St
Grand Blvd
Post Office
Pacific Ave
Admiralty Way
Via Marina
Venice Canals
Venice Beach
Venice Pier
Bali Wy
Fiji Wy
Marquesas Way
Mindanao Wy
Alla Rd
Mentone Ave
Culver Blvd
Inglewood Blvd
Jefferson Blvd
Lincoln Blvd
Centinela Ave
Sepulveda Blvd
Overland Ave
Hughes Pkwy
Motor Ave
Duquesne Ave
Jefferson Blvd
Overland Ave
Elenda
Culver City
RT. 5 SERVICE EAST OF ELENA IS ON SCHOOL DAYS ONLY
Bascomb Dr
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Post Office
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Slauson Ave
Hannum Ave
Green Valley Cir
Bristol Pkwy
Buckingham Pkwy
Fox Hills Mall
Howard Hughes Center
Center Dr
Park Terrace
Teale St
Westchester Pkwy
Manchester Ave
Florence Ave
Hyde Park Blvd
Centinela Ave
La Tijera Blvd
Stocker St
Hillcrest Blvd
Market St
La Brea Ave
Inglewood Ave
Aviation Blvd
Airport Blvd
Century Blvd
Imperial Hwy
96th St
111th St
Jenny Ave
Adams Blvd
Exposition Blvd
Venice Blvd
Washington Blvd
National Blvd
Rodeo Rd
Wrightcrest Dr
Stoneview Dr
Bowcroft St
Hayden Ave
Warner Ave
Easthaven Blvd
Jefferson Blvd
Lo Cienega Blvd
Fairfax Ave
Hauser Blvd
La Brea Ave
SANTA MONICA FWY
SAN DIEGO FWY
MARINA FWY
CENTURY FWY
405
10
90
105
N
S
E
W
© 1/07 CITY OF CULVER CITY
DESIGN: TRANSIT PRODUCTS/WEBB INC (877) 878-9322

Expo Line Transit Project

Expo Line Alignment Map



Expo Line Transit Project

Venice/Robertson Station



AT-GRADE ALIGNMENT

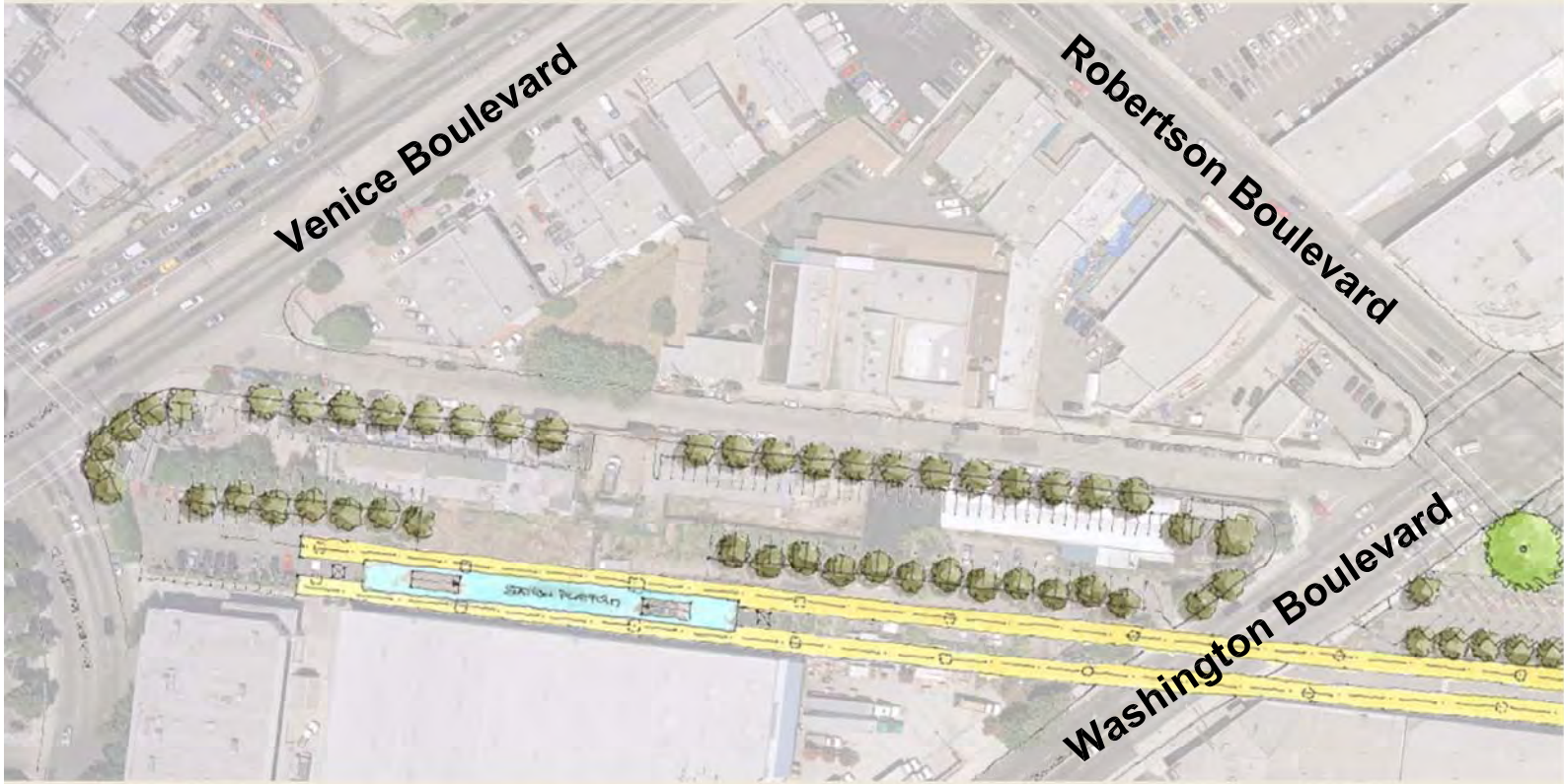
STATION AREA

AERIAL STRUCTURE

Expo

Expo Line Transit Project

Venice/Robertson Station
Site Plan



Expo

APPENDIX D

TRAFFIC VOLUME DATA

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
LOCATION: HIGUERA STREET BTWN LUCERNE AVENUE & WESLEY STREET
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-5

DIRECTION:	WESTBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	3	2	3	2	10
01:00	0	3	3	0	6
02:00	0	2	0	0	2
03:00	1	1	1	2	5
04:00	0	2	1	5	8
05:00	1	4	4	6	15
06:00	5	11	20	28	64
07:00	54	81	112	123	370
08:00	106	126	68	79	379
09:00	44	38	42	43	167
10:00	35	31	31	38	135
11:00	31	41	31	48	151
12:00	66	47	57	55	225
13:00	59	55	33	40	187
14:00	53	46	48	41	188
15:00	53	34	33	44	164
16:00	40	42	41	40	163
17:00	74	54	67	63	258
18:00	78	46	33	43	200
19:00	44	21	18	23	106
20:00	28	12	18	12	70
21:00	20	16	8	4	48
22:00	15	8	8	4	35
23:00	4	2	3	2	11
				TOTAL	2967

AM PEAK HOUR	07:30-08:30
VOLUME	467
PM PEAK HOUR	17:15-18:15
VOLUME	262

DIRECTION:	EASTBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	2	5	4	1	12
01:00	0	1	1	1	3
02:00	2	1	1	1	5
03:00	2	1	0	4	7
04:00	4	1	6	4	15
05:00	5	5	20	23	53
06:00	9	18	22	24	73
07:00	25	23	45	103	196
08:00	78	68	81	104	331
09:00	107	78	71	60	316
10:00	63	33	48	44	188
11:00	45	45	34	46	170
12:00	62	59	58	67	246
13:00	82	93	79	90	344
14:00	79	76	54	73	282
15:00	81	58	62	64	265
16:00	70	69	59	73	271
17:00	65	65	57	73	260
18:00	75	77	62	63	277
19:00	37	51	33	23	144
20:00	24	33	29	40	126
21:00	20	18	20	8	66
22:00	11	14	14	9	48
23:00	10	10	7	1	28
				TOTAL	3726

AM PEAK HOUR	08:15-09:15
VOLUME	360
PM PEAK HOUR	13:00-14:00
VOLUME	344

TOTAL BI-DIRECTIONAL VOLUME	6693

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
LOCATION: SCHAEFER STREET BTWN HIGUERA STREET & NATIONAL BOULEVARD
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-1

DIRECTION:	NORTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	1	1
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	1	0	1
04:00	0	0	1	0	1
05:00	0	0	0	3	3
06:00	0	1	0	1	2
07:00	2	2	2	4	10
08:00	9	4	6	2	21
09:00	4	6	7	5	22
10:00	3	3	5	9	20
11:00	2	4	8	4	18
12:00	5	8	7	3	23
13:00	1	2	4	7	14
14:00	5	1	6	6	18
15:00	3	3	5	7	18
16:00	4	6	5	3	18
17:00	7	5	3	7	22
18:00	2	4	5	6	17
19:00	3	3	1	2	9
20:00	2	4	2	2	10
21:00	2	0	0	3	5
22:00	2	1	1	0	4
23:00	2	2	0	0	4
				TOTAL	261

AM PEAK HOUR	07:45-08:45
VOLUME	23
PM PEAK HOUR	12:00-13:00
VOLUME	23

DIRECTION:	SOUTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	2	2
01:00	0	0	0	0	0
02:00	0	0	1	0	1
03:00	0	0	1	0	1
04:00	0	0	0	0	0
05:00	0	0	0	1	1
06:00	1	1	1	2	5
07:00	4	6	5	11	26
08:00	10	12	4	8	34
09:00	9	3	6	4	22
10:00	4	3	9	3	19
11:00	6	7	7	4	24
12:00	4	9	5	6	24
13:00	6	4	8	5	23
14:00	7	5	6	4	22
15:00	6	13	10	7	36
16:00	3	4	8	5	20
17:00	10	8	7	4	29
18:00	7	2	2	2	13
19:00	5	0	3	2	10
20:00	4	1	1	2	8
21:00	2	0	3	3	8
22:00	0	2	0	2	4
23:00	0	0	0	1	1
				TOTAL	333

AM PEAK HOUR	07:30-08:30
VOLUME	38
PM PEAK HOUR	15:00-16:00
VOLUME	36

TOTAL BI-DIRECTIONAL VOLUME	594

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
LOCATION: HELMS AVENUE BTWN HIGUERA STREET & NATIONAL BOULEVARD
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-2

DIRECTION:	NORTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	1	0	1
04:00	0	0	0	0	0
05:00	0	0	0	2	2
06:00	0	2	0	2	4
07:00	2	2	2	7	13
08:00	6	6	3	2	17
09:00	0	0	2	3	5
10:00	1	1	1	5	8
11:00	4	2	3	4	13
12:00	5	4	4	3	16
13:00	7	3	6	7	23
14:00	1	6	1	2	10
15:00	6	3	3	6	18
16:00	9	3	2	3	17
17:00	3	1	2	2	8
18:00	4	5	6	7	22
19:00	3	1	5	1	10
20:00	2	2	1	2	7
21:00	2	1	2	1	6
22:00	0	0	0	0	0
23:00	1	1	0	1	3
				TOTAL	203

AM PEAK HOUR	07:45-08:45
VOLUME	22
PM PEAK HOUR	13:00-14:00
VOLUME	23

DIRECTION:	SOUTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	2	0	2
01:00	0	0	0	1	1
02:00	0	0	0	0	0
03:00	0	0	2	0	2
04:00	0	0	0	0	0
05:00	0	0	0	1	1
06:00	0	0	0	2	2
07:00	1	5	3	9	18
08:00	10	18	7	10	45
09:00	4	8	4	2	18
10:00	1	3	3	2	9
11:00	5	5	4	5	19
12:00	6	5	7	2	20
13:00	6	5	5	6	22
14:00	2	9	11	7	29
15:00	2	9	1	4	16
16:00	7	2	4	4	17
17:00	9	6	6	3	24
18:00	3	4	3	4	14
19:00	3	3	0	2	8
20:00	2	5	3	1	11
21:00	5	0	2	1	8
22:00	0	1	0	0	1
23:00	0	1	0	1	2
				TOTAL	289

AM PEAK HOUR	08:00-09:00
VOLUME	45
PM PEAK HOUR	14:00-15:00
VOLUME	29

TOTAL BI-DIRECTIONAL VOLUME	492

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
LOCATION: WESLEY STREET BTWN HIGUERA STREET & NATIONAL BOULEVARD
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-3

DIRECTION:	NORTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	1	1	0	2
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	2	0	2
04:00	0	1	0	1	2
05:00	0	0	0	0	0
06:00	0	0	0	1	1
07:00	7	5	7	8	27
08:00	4	10	8	4	26
09:00	4	3	4	1	12
10:00	2	1	2	0	5
11:00	8	3	5	3	19
12:00	4	3	1	1	9
13:00	4	5	1	5	15
14:00	4	6	4	5	19
15:00	2	3	3	2	10
16:00	8	2	6	4	20
17:00	7	7	7	5	26
18:00	4	4	2	3	13
19:00	6	7	2	3	18
20:00	3	4	0	5	12
21:00	2	3	2	0	7
22:00	1	1	1	5	8
23:00	1	0	0	0	1
				TOTAL	254

AM PEAK HOUR	07:45-08:45
VOLUME	30
PM PEAK HOUR	17:00-18:00
VOLUME	26

DIRECTION:	SOUTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	0	0
02:00	0	1	0	0	1
03:00	0	0	1	0	1
04:00	0	0	0	1	1
05:00	0	2	0	0	2
06:00	0	0	2	4	6
07:00	5	10	8	9	32
08:00	3	3	4	7	17
09:00	1	2	5	4	12
10:00	4	3	3	5	15
11:00	4	5	5	5	19
12:00	4	5	5	4	18
13:00	7	3	3	4	17
14:00	6	2	5	1	14
15:00	2	2	4	4	12
16:00	5	8	5	5	23
17:00	6	9	6	4	25
18:00	6	2	7	3	18
19:00	2	3	1	4	10
20:00	2	1	2	1	6
21:00	0	3	2	0	5
22:00	0	3	0	0	3
23:00	1	1	0	1	3
				TOTAL	260

AM PEAK HOUR	07:00-08:00
VOLUME	32
PM PEAK HOUR	17:00-18:00
VOLUME	25

TOTAL BI-DIRECTIONAL VOLUME	514

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
LOCATION: LUCERNE AVENUE BTWN INCE BOULEVARD & HIGUERA STREET
DATE: WEDNESDAY, MAY 26, 2010
FILE NO: A-4

DIRECTION:	NORTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	2	2	2	6
01:00	0	0	1	0	1
02:00	2	1	0	0	3
03:00	2	0	0	2	4
04:00	0	1	0	2	3
05:00	2	2	1	3	8
06:00	4	10	9	17	40
07:00	11	23	40	54	128
08:00	55	51	58	62	226
09:00	47	44	38	26	155
10:00	32	23	19	19	93
11:00	25	14	31	24	94
12:00	25	25	34	35	119
13:00	34	46	35	44	159
14:00	35	34	34	30	133
15:00	25	31	38	39	133
16:00	37	34	29	59	159
17:00	46	38	44	44	172
18:00	53	46	42	33	174
19:00	26	27	18	23	94
20:00	21	24	18	18	81
21:00	17	14	9	10	50
22:00	7	8	6	7	28
23:00	6	3	3	4	16
				TOTAL	2079

AM PEAK HOUR	08:00-09:00
VOLUME	226
PM PEAK HOUR	17:30-18:30
VOLUME	187

DIRECTION:	SOUTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	4	2	1	2	9
01:00	2	2	1	2	7
02:00	1	1	1	0	3
03:00	0	0	1	2	3
04:00	0	1	1	1	3
05:00	3	0	2	8	13
06:00	2	4	5	10	21
07:00	20	23	39	63	145
08:00	59	62	40	44	205
09:00	23	22	24	26	95
10:00	20	14	21	22	77
11:00	22	21	21	29	93
12:00	27	27	26	22	102
13:00	32	34	39	14	119
14:00	25	25	26	33	109
15:00	26	28	22	34	110
16:00	33	22	32	30	117
17:00	37	48	54	42	181
18:00	55	42	45	33	175
19:00	36	18	17	11	82
20:00	27	21	11	10	69
21:00	8	14	26	12	60
22:00	7	7	7	6	27
23:00	1	7	1	4	13
				TOTAL	1838

AM PEAK HOUR	07:45-08:45
VOLUME	224
PM PEAK HOUR	17:15-18:15
VOLUME	199

TOTAL BI-DIRECTIONAL VOLUME	3917

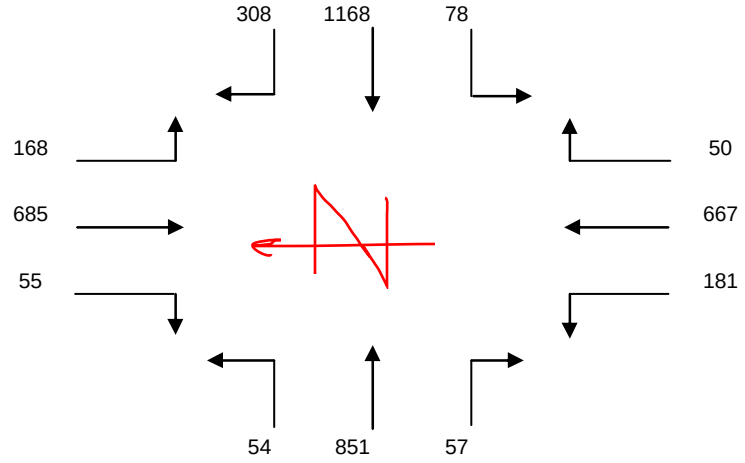
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S WASHINGTON BOULEVARD
E/W NATIONAL BOULEVARD
FILE NUMBER: 1-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	69	207	6	7	177	34	16	73	5	4	62	14
715-730	83	248	10	7	185	44	11	91	8	7	84	22
730-745	85	295	14	6	190	50	15	120	10	10	122	25
745-800	87	296	13	10	186	53	13	178	14	13	167	38
800-815	70	301	23	14	158	47	10	231	10	19	170	43
815-830	80	283	22	16	162	49	15	228	15	13	167	46
830-845	71	288	20	10	161	32	19	214	15	10	181	41
845-900	84	268	21	15	186	30	15	206	13	17	152	42

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	324	1046	43	30	738	181	55	462	37	34	435	99	3484
715-815	325	1140	60	37	719	194	49	620	42	49	543	128	3906
730-830	322	1175	72	46	696	199	53	757	49	55	626	152	4202
745-845	308	1168	78	50	667	181	57	851	54	55	685	168	4322
800-900	305	1140	86	55	667	158	59	879	53	59	670	172	4303

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

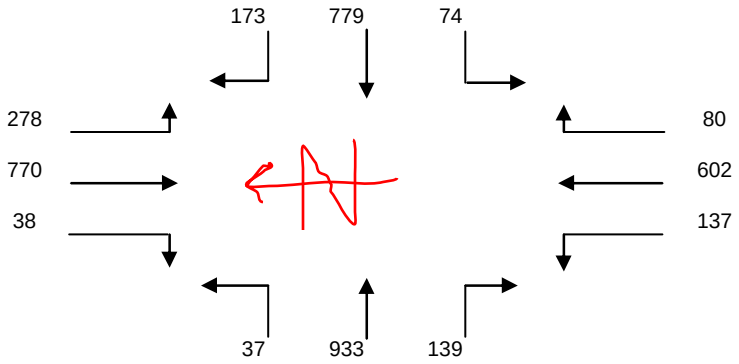
CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S WASHINGTON BOULEVARD
E/W NATIONAL BOULEVARD
FILE NUMBER: 1-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	33	151	13	9	90	24	28	140	5	8	149	42
0215-0230	30	135	16	10	105	21	31	159	8	12	123	54
0230-0245	39	150	15	11	120	30	32	154	11	10	127	48
0245-0300	45	167	23	18	124	44	31	148	11	12	137	59
0300-0315	51	187	19	16	135	33	28	159	16	10	169	77
0315-0330	58	207	16	19	151	37	36	198	13	13	196	65
0330-0345	36	171	13	14	131	34	24	168	15	10	205	54
0345-0400	36	188	17	17	139	31	38	190	12	16	229	73
0400-0415	46	179	14	16	120	25	25	211	11	10	189	56
0415-0430	49	174	12	18	126	22	29	228	15	9	163	74
0430-0445	40	213	17	13	141	32	31	196	10	12	176	62
0445-0500	40	179	11	20	133	44	33	205	5	8	217	71
0500-0515	56	180	22	24	162	39	49	240	9	10	180	72
0515-0530	41	194	18	18	137	31	30	236	9	13	203	78
0530-0545	41	208	16	21	155	29	29	231	12	7	184	57
0545-0600	35	197	18	17	148	38	31	226	7	8	203	71

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	147	603	67	48	439	119	122	601	35	42	536	203	2962
0215-0315	165	639	73	55	484	128	122	620	46	44	556	238	3170
0230-0330	193	711	73	64	530	144	127	659	51	45	629	249	3475
0245-0345	190	732	71	67	541	148	119	673	55	45	707	255	3603
0300-0400	181	753	65	66	556	135	126	715	56	49	799	269	3770
0315-0415	176	745	60	66	541	127	123	767	51	49	819	248	3772
0330-0430	167	712	56	65	516	112	116	797	53	45	786	257	3682
0345-0445	171	754	60	64	526	110	123	825	48	47	757	265	3750
0400-0500	175	745	54	67	520	123	118	840	41	39	745	263	3730
0415-0515	185	746	62	75	562	137	142	869	39	39	736	279	3871
0430-0530	177	766	68	75	573	146	143	877	33	43	776	283	3960
0445-0545	178	761	67	83	587	143	141	912	35	38	784	278	4007
0500-0600	173	779	74	80	602	137	139	933	37	38	770	278	4040

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

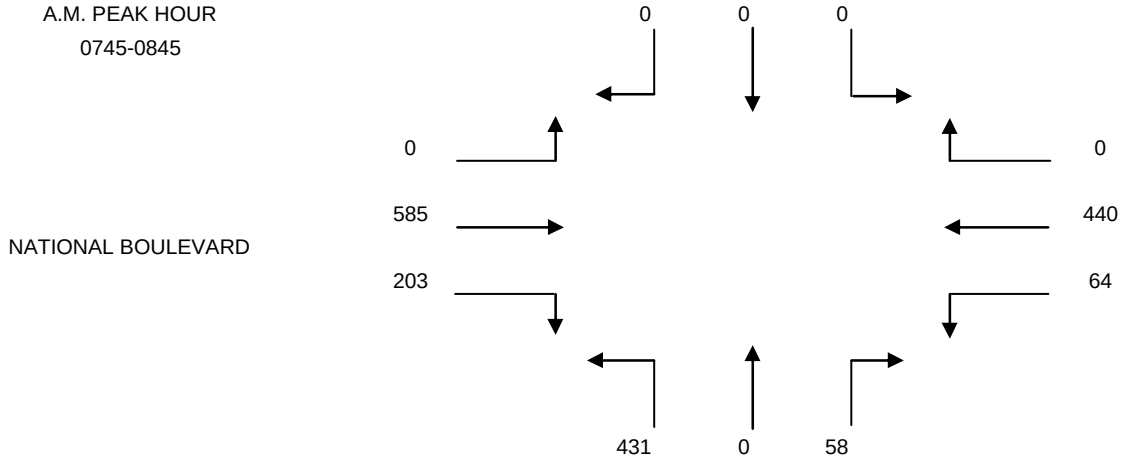
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S HAYDEN AVENUE
E/W NATIONAL BOULEVARD
FILE NUMBER: 2-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	0	0	0	141	13	3	0	77	22	55	0
715-730	0	0	0	0	157	16	5	0	112	23	66	0
730-745	0	0	0	0	143	14	9	0	124	30	109	0
745-800	0	0	0	0	114	18	16	0	108	44	148	0
800-815	0	0	0	0	100	19	18	0	124	53	160	0
815-830	0	0	0	0	105	12	12	0	89	56	129	0
830-845	0	0	0	0	121	15	12	0	110	50	148	0
845-900	0	0	0	0	94	23	12	0	106	53	132	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	0	0	0	555	61	33	0	421	119	378	0	1567
715-815	0	0	0	0	514	67	48	0	468	150	483	0	1730
730-830	0	0	0	0	462	63	55	0	445	183	546	0	1754
745-845	0	0	0	0	440	64	58	0	431	203	585	0	1781
800-900	0	0	0	0	420	69	54	0	429	212	569	0	1753

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

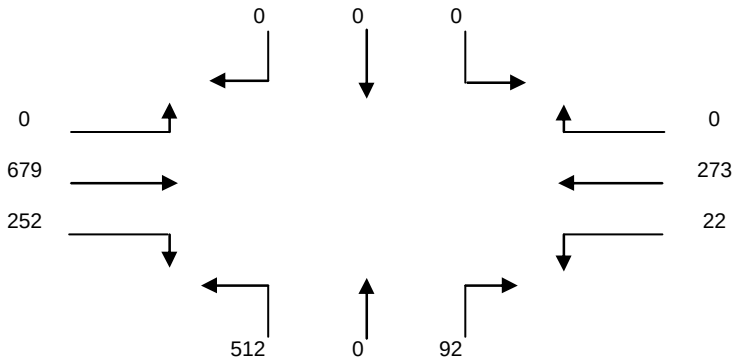
CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S HAYDEN AVENUE
E/W NATIONAL BOULEVARD
FILE NUMBER: 2-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	0	0	0	0	61	8	13	0	83	49	118	0
0215-0230	0	0	0	0	69	11	21	0	77	44	120	0
0230-0245	0	0	0	0	51	9	20	0	90	45	138	0
0245-0300	0	0	0	0	72	7	21	0	90	52	124	0
0300-0315	0	0	0	0	77	9	21	0	105	40	150	0
0315-0330	0	0	0	0	64	6	36	0	139	51	203	0
0330-0345	0	0	0	0	68	5	22	0	114	52	200	0
0345-0400	0	0	0	0	66	9	20	0	111	63	197	0
0400-0415	0	0	0	0	54	4	21	0	84	50	165	0
0415-0430	0	0	0	0	68	8	20	0	98	47	145	0
0430-0445	0	0	0	0	72	6	20	0	105	57	181	0
0445-0500	0	0	0	0	65	5	22	0	131	59	179	0
0500-0515	0	0	0	0	66	6	27	0	136	58	161	0
0515-0530	0	0	0	0	67	6	21	0	116	63	176	0
0530-0545	0	0	0	0	70	4	24	0	132	60	175	0
0545-0600	0	0	0	0	70	6	20	0	128	71	167	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	0	0	0	0	253	35	75	0	340	190	500	0	1393
0215-0315	0	0	0	0	269	36	83	0	362	181	532	0	1463
0230-0330	0	0	0	0	264	31	98	0	424	188	615	0	1620
0245-0345	0	0	0	0	281	27	100	0	448	195	677	0	1728
0300-0400	0	0	0	0	275	29	99	0	469	206	750	0	1828
0315-0415	0	0	0	0	252	24	99	0	448	216	765	0	1804
0330-0430	0	0	0	0	256	26	83	0	407	212	707	0	1691
0345-0445	0	0	0	0	260	27	81	0	398	217	688	0	1671
0400-0500	0	0	0	0	259	23	83	0	418	213	670	0	1666
0415-0515	0	0	0	0	271	25	89	0	470	221	666	0	1742
0430-0530	0	0	0	0	270	23	90	0	488	237	697	0	1805
0445-0545	0	0	0	0	268	21	94	0	515	240	691	0	1829
0500-0600	0	0	0	0	273	22	92	0	512	252	679	0	1830

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

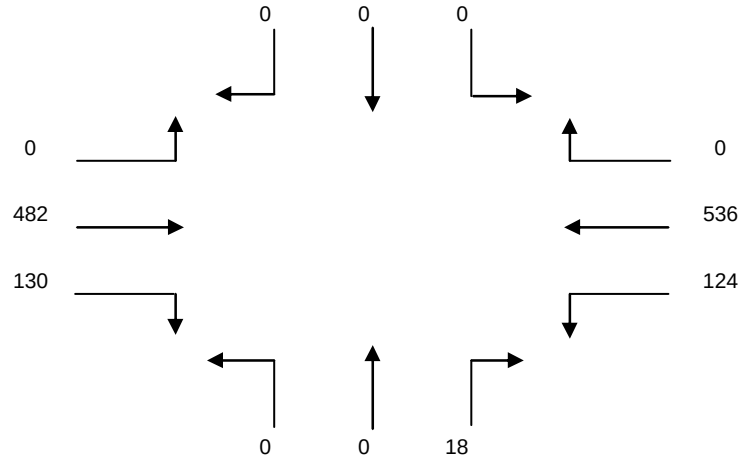
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S EASTHAM DRIVE
E/W NATIONAL BOULEVARD
FILE NUMBER: 3-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	0	0	0	0	151	13	2	0	0	9	52	0
715-730	0	0	0	0	173	20	4	0	0	11	55	0
730-745	0	0	0	0	165	29	3	0	0	20	96	0
745-800	0	0	0	0	139	34	4	0	0	53	135	0
800-815	0	0	0	0	126	26	4	0	0	30	139	0
815-830	0	0	0	0	106	35	7	0	0	27	112	0
830-845	0	0	0	0	110	23	10	0	0	23	125	0
845-900	0	0	0	0	118	25	9	0	0	23	121	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
700-800	0	0	0	0	628	96	13	0	0	93	338	0	1168
715-815	0	0	0	0	603	109	15	0	0	114	425	0	1266
730-830	0	0	0	0	536	124	18	0	0	130	482	0	1290
745-845	0	0	0	0	481	118	25	0	0	133	511	0	1268
800-900	0	0	0	0	460	109	30	0	0	103	497	0	1199

A.M. PEAK HOUR
0730-0830



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

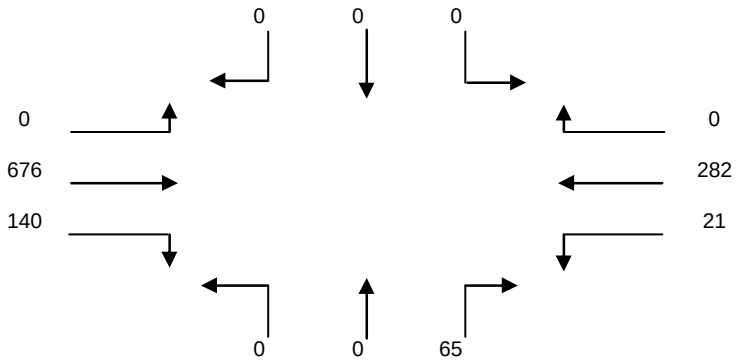
CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S EASTHAM DRIVE
E/W NATIONAL BOULEVARD
FILE NUMBER: 3-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	0	0	0	0	70	6	5	0	0	11	110	0
0215-0230	0	0	0	0	67	8	8	0	0	17	121	0
0230-0245	0	0	0	0	57	11	18	0	0	26	136	0
0245-0300	0	0	0	0	76	15	15	0	0	24	140	0
0300-0315	0	0	0	0	80	10	10	0	0	31	144	0
0315-0330	0	0	0	0	72	10	11	0	0	35	161	0
0330-0345	0	0	0	0	69	5	13	0	0	37	171	0
0345-0400	0	0	0	0	67	7	16	0	0	32	190	0
0400-0415	0	0	0	0	73	5	15	0	0	31	147	0
0415-0430	0	0	0	0	68	7	10	0	0	32	186	0
0430-0445	0	0	0	0	67	5	18	0	0	32	150	0
0445-0500	0	0	0	0	68	4	14	0	0	33	171	0
0500-0515	0	0	0	0	78	5	19	0	0	38	151	0
0515-0530	0	0	0	0	57	5	15	0	0	34	191	0
0530-0545	0	0	0	0	79	7	17	0	0	35	163	0
0545-0600	0	0	0	0	68	4	17	0	0	35	155	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	0	0	0	0	270	40	46	0	0	78	507	0	941
0215-0315	0	0	0	0	280	44	51	0	0	98	541	0	1014
0230-0330	0	0	0	0	285	46	54	0	0	116	581	0	1082
0245-0345	0	0	0	0	297	40	49	0	0	127	616	0	1129
0300-0400	0	0	0	0	288	32	50	0	0	135	666	0	1171
0315-0415	0	0	0	0	281	27	55	0	0	135	669	0	1167
0330-0430	0	0	0	0	277	24	54	0	0	132	694	0	1181
0345-0445	0	0	0	0	275	24	59	0	0	127	673	0	1158
0400-0500	0	0	0	0	276	21	57	0	0	128	654	0	1136
0415-0515	0	0	0	0	281	21	61	0	0	135	658	0	1156
0430-0530	0	0	0	0	270	19	66	0	0	137	663	0	1155
0445-0545	0	0	0	0	282	21	65	0	0	140	676	0	1184
0500-0600	0	0	0	0	282	21	68	0	0	142	660	0	1173

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

P.M. PEAK HOUR
0445-0545



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

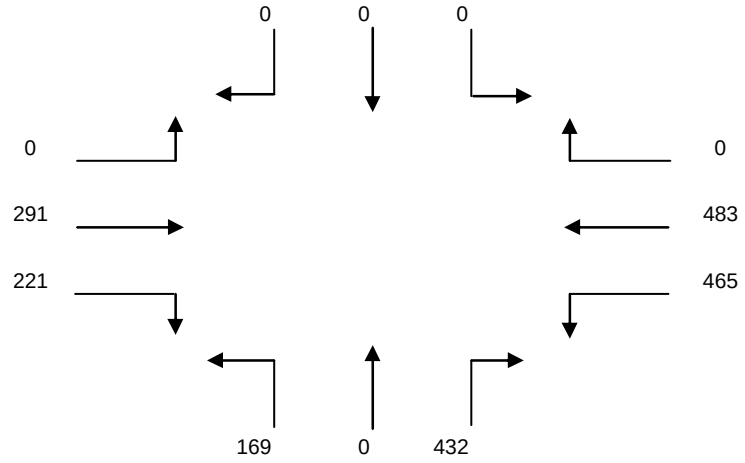
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S JEFFERSON BOULEVARD
E/W NATIONAL BOULEVARD
FILE NUMBER: 4-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	0	0	0	121	77	58	0	52	22	25	0
715-730	0	0	0	0	157	98	90	0	49	31	36	0
730-745	0	0	0	0	149	129	122	0	31	44	55	0
745-800	0	0	0	0	124	126	81	0	55	58	89	0
800-815	0	0	0	0	110	115	116	0	53	61	77	0
815-830	0	0	0	0	100	95	113	0	30	58	70	0
830-845	0	0	0	0	95	112	107	0	45	49	63	0
845-900	0	0	0	0	105	96	93	0	42	60	71	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	0	0	0	551	430	351	0	187	155	205	0	1879
715-815	0	0	0	0	540	468	409	0	188	194	257	0	2056
730-830	0	0	0	0	483	465	432	0	169	221	291	0	2061
745-845	0	0	0	0	429	448	417	0	183	226	299	0	2002
800-900	0	0	0	0	410	418	429	0	170	228	281	0	1936

A.M. PEAK HOUR
0730-0830



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

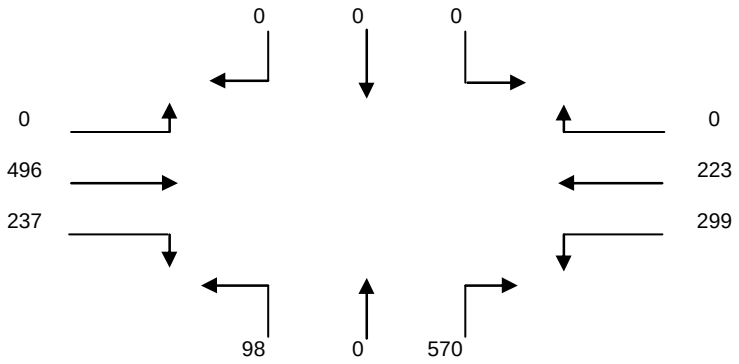
CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S JEFFERSON BOULEVARD
E/W NATIONAL BOULEVARD
FILE NUMBER: 4-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	0	0	0	0	69	50	88	0	30	58	57	0
0215-0230	0	0	0	0	57	52	106	0	22	56	64	0
0230-0245	0	0	0	0	54	55	83	0	20	74	86	0
0245-0300	0	0	0	0	44	65	93	0	38	69	102	0
0300-0315	0	0	0	0	53	72	122	0	22	68	100	0
0315-0330	0	0	0	0	57	71	119	0	28	49	110	0
0330-0345	0	0	0	0	54	64	127	0	28	61	127	0
0345-0400	0	0	0	0	41	75	102	0	24	60	122	0
0400-0415	0	0	0	0	64	89	131	0	25	54	118	0
0415-0430	0	0	0	0	60	61	140	0	27	78	141	0
0430-0445	0	0	0	0	43	66	131	0	26	55	120	0
0445-0500	0	0	0	0	56	83	168	0	20	50	117	0
0500-0515	0	0	0	0	50	76	127	0	20	51	122	0
0515-0530	0	0	0	0	40	103	141	0	25	59	141	0
0530-0545	0	0	0	0	58	70	118	0	19	60	136	0
0545-0600	0	0	0	0	51	73	126	0	18	53	128	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	0	0	0	0	224	222	370	0	110	257	309	0	1492
0215-0315	0	0	0	0	208	244	404	0	102	267	352	0	1577
0230-0330	0	0	0	0	208	263	417	0	108	260	398	0	1654
0245-0345	0	0	0	0	208	272	461	0	116	247	439	0	1743
0300-0400	0	0	0	0	205	282	470	0	102	238	459	0	1756
0315-0415	0	0	0	0	216	299	479	0	105	224	477	0	1800
0330-0430	0	0	0	0	219	289	500	0	104	253	508	0	1873
0345-0445	0	0	0	0	208	291	504	0	102	247	501	0	1853
0400-0500	0	0	0	0	223	299	570	0	98	237	496	0	1923
0415-0515	0	0	0	0	209	286	566	0	93	234	500	0	1888
0430-0530	0	0	0	0	189	328	567	0	91	215	500	0	1890
0445-0545	0	0	0	0	204	332	554	0	84	220	516	0	1910
0500-0600	0	0	0	0	199	322	512	0	82	223	527	0	1865

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

P.M. PEAK HOUR
0400-0500



NATIONAL BOULEVARD

JEFFERSON BOULEVARD

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

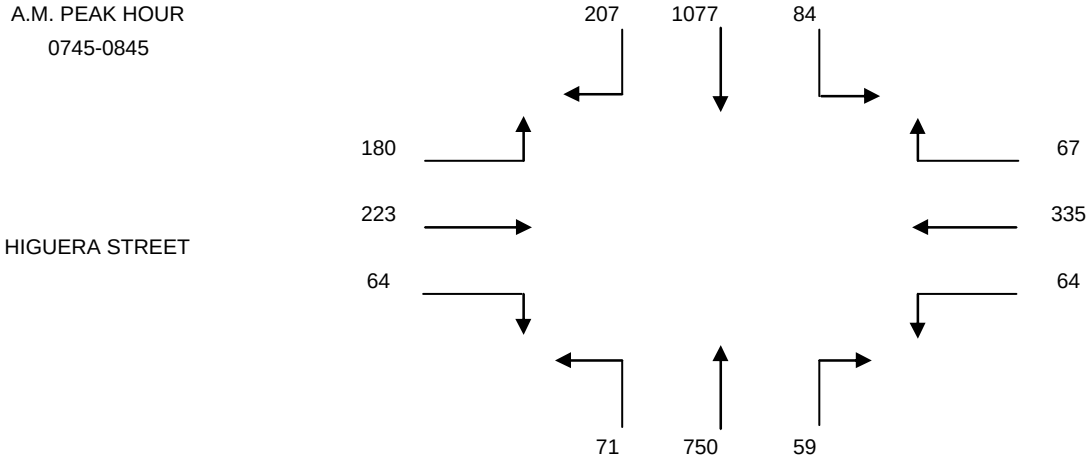
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S WASHINGTON BOULEVARD
E/W HIGUERA STREET
FILE NUMBER: 5-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	42	170	9	6	40	4	9	70	11	5	27	7
715-730	47	221	13	13	53	10	10	91	11	8	26	10
730-745	50	271	19	15	93	16	13	131	14	6	39	20
745-800	49	299	16	14	88	19	15	175	14	10	59	29
800-815	59	256	20	21	87	16	15	198	16	16	51	40
815-830	57	269	22	16	84	15	14	190	21	19	50	59
830-845	42	253	26	16	76	14	15	187	20	19	63	52
845-900	39	232	21	14	72	10	16	189	17	17	60	40

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	188	961	57	48	274	49	47	467	50	29	151	66	2387
715-815	205	1047	68	63	321	61	53	595	55	40	175	99	2782
730-830	215	1095	77	66	352	66	57	694	65	51	199	148	3085
745-845	207	1077	84	67	335	64	59	750	71	64	223	180	3181
800-900	197	1010	89	67	319	55	60	764	74	71	224	191	3121

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

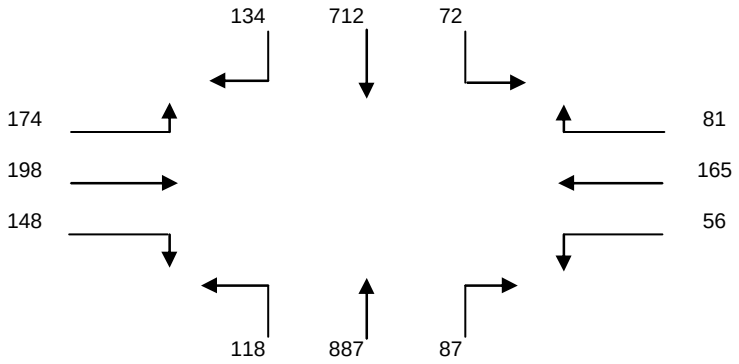
CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: WEDNESDAY, MAY 26, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S WASHINGTON BOULEVARD
E/W HIGUERA STREET
FILE NUMBER: 5-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	25	135	17	16	28	11	9	147	15	17	39	38
0215-0230	25	152	23	13	30	13	13	155	13	19	45	30
0230-0245	30	160	21	16	33	15	12	143	21	24	42	35
0245-0300	35	153	19	18	35	12	15	161	19	18	33	33
0300-0315	34	169	18	22	37	13	12	156	20	25	49	41
0315-0330	34	189	14	14	34	17	11	196	24	26	52	40
0330-0345	36	169	21	13	42	12	11	182	18	31	42	43
0345-0400	31	169	15	15	42	13	11	191	20	20	44	54
0400-0415	29	166	16	13	41	14	10	170	21	25	54	55
0415-0430	33	153	15	17	39	11	15	199	20	17	55	59
0430-0445	28	186	14	18	39	11	20	204	25	21	51	36
0445-0500	31	194	15	19	41	11	21	203	20	36	55	43
0500-0515	33	180	19	17	42	15	19	211	25	33	51	51
0515-0530	36	177	17	19	39	12	24	226	31	37	46	39
0530-0545	31	165	17	20	46	12	23	231	32	39	50	42
0545-0600	34	190	19	25	38	17	21	219	30	39	51	42

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	115	600	80	63	126	51	49	606	68	78	159	136	2131
0215-0315	124	634	81	69	135	53	52	615	73	86	169	139	2230
0230-0330	133	671	72	70	139	57	50	656	84	93	176	149	2350
0245-0345	139	680	72	67	148	54	49	695	81	100	176	157	2418
0300-0400	135	696	68	64	155	55	45	725	82	102	187	178	2492
0315-0415	130	693	66	55	159	56	43	739	83	102	192	192	2510
0330-0430	129	657	67	58	164	50	47	742	79	93	195	211	2492
0345-0445	121	674	60	63	161	49	56	764	86	83	204	204	2525
0400-0500	121	699	60	67	160	47	66	776	86	99	215	193	2589
0415-0515	125	713	63	71	161	48	75	817	90	107	212	189	2671
0430-0530	128	737	65	73	161	49	84	844	101	127	203	169	2741
0445-0545	131	716	68	75	168	50	87	871	108	145	202	175	2796
0500-0600	134	712	72	81	165	56	87	887	118	148	198	174	2832

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

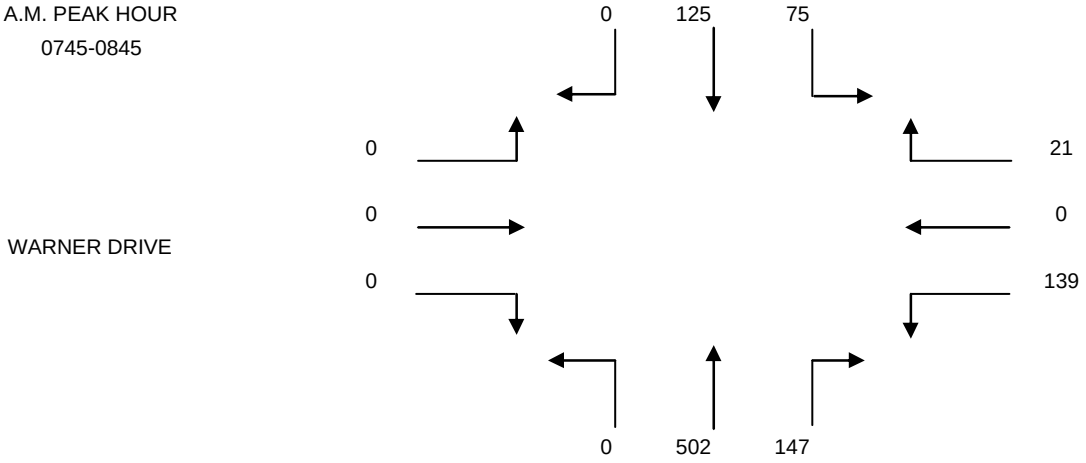
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: THURSDAY, MAY 27, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S HAYDEN AVENUE
E/W WARNER DRIVE
FILE NUMBER: 6-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	0	10	4	2	0	18	10	89	0	0	0	0
715-730	0	17	4	3	0	29	8	109	0	0	0	0
730-745	0	19	10	5	0	40	13	122	0	0	0	0
745-800	0	21	17	4	0	38	43	141	0	0	0	0
800-815	0	36	22	5	0	34	52	142	0	0	0	0
815-830	0	30	20	7	0	39	22	103	0	0	0	0
830-845	0	38	16	5	0	28	30	116	0	0	0	0
845-900	0	24	22	7	0	20	33	129	0	0	0	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
700-800	0	67	35	14	0	125	74	461	0	0	0	0	776
715-815	0	93	53	17	0	141	116	514	0	0	0	0	934
730-830	0	106	69	21	0	151	130	508	0	0	0	0	985
745-845	0	125	75	21	0	139	147	502	0	0	0	0	1009
800-900	0	128	80	24	0	121	137	490	0	0	0	0	980

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

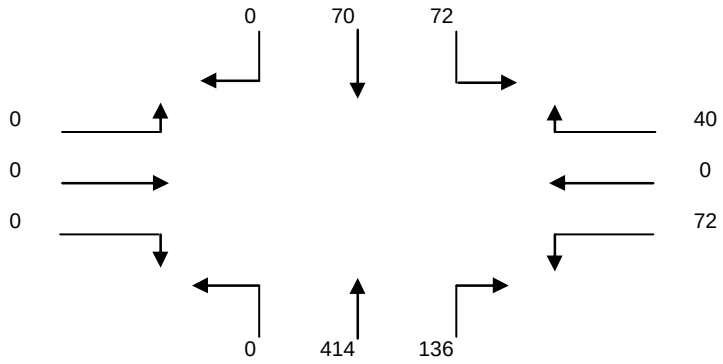
CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: THURSDAY, MAY 27, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S HAYDEN AVENUE
E/W WARNER DRIVE
FILE NUMBER: 6-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	0	21	10	11	0	16	19	54	0	0	0	0
0215-0230	0	22	12	7	0	10	15	79	0	0	0	0
0230-0245	0	17	16	6	0	11	20	87	0	0	0	0
0245-0300	0	19	18	13	0	15	38	89	0	0	0	0
0300-0315	0	18	18	11	0	20	33	106	0	0	0	0
0315-0330	0	14	17	7	0	16	37	118	0	0	0	0
0330-0345	0	19	19	9	0	21	28	101	0	0	0	0
0345-0400	0	21	13	10	0	15	24	79	0	0	0	0
0400-0415	0	26	21	12	0	19	22	75	0	0	0	0
0415-0430	0	22	18	10	0	11	20	80	0	0	0	0
0430-0445	0	17	19	10	0	16	22	80	0	0	0	0
0445-0500	0	18	14	14	0	16	24	97	0	0	0	0
0500-0515	0	21	20	19	0	20	29	93	0	0	0	0
0515-0530	0	25	19	7	0	22	22	80	0	0	0	0
0530-0545	0	23	15	5	0	17	20	102	0	0	0	0
0545-0600	0	30	19	6	0	15	19	109	0	0	0	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	0	79	56	37	0	52	92	309	0	0	0	0	625
0215-0315	0	76	64	37	0	56	106	361	0	0	0	0	700
0230-0330	0	68	69	37	0	62	128	400	0	0	0	0	764
0245-0345	0	70	72	40	0	72	136	414	0	0	0	0	804
0300-0400	0	72	67	37	0	72	122	404	0	0	0	0	774
0315-0415	0	80	70	38	0	71	111	373	0	0	0	0	743
0330-0430	0	88	71	41	0	66	94	335	0	0	0	0	695
0345-0445	0	86	71	42	0	61	88	314	0	0	0	0	662
0400-0500	0	83	72	46	0	62	88	332	0	0	0	0	683
0415-0515	0	78	71	53	0	63	95	350	0	0	0	0	710
0430-0530	0	81	72	50	0	74	97	350	0	0	0	0	724
0445-0545	0	87	68	45	0	75	95	372	0	0	0	0	742
0500-0600	0	99	73	37	0	74	90	384	0	0	0	0	757

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

P.M. PEAK HOUR
0245-0345



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

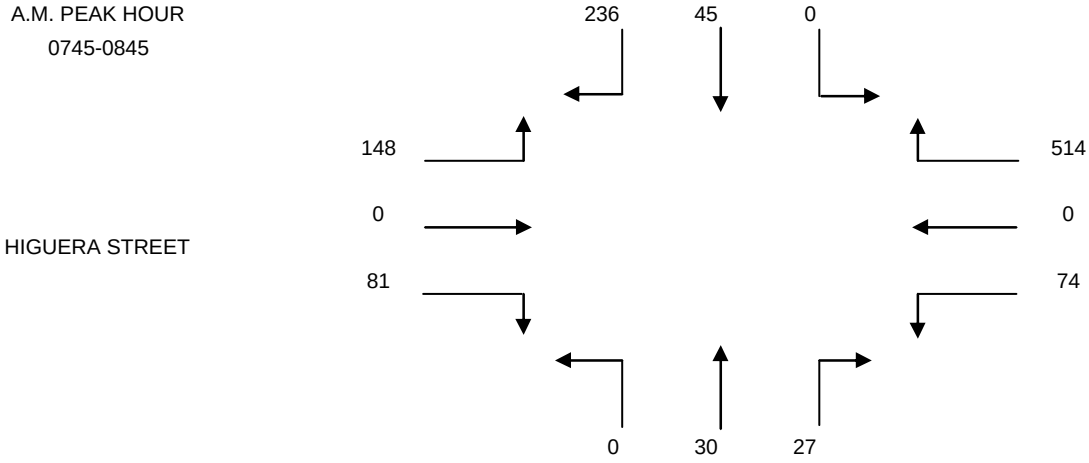
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: THURSDAY, MAY 27, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S HAYDEN AVENUE
E/W HIGUERA STREET
FILE NUMBER: 7-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	21	3	0	88	0	12	1	2	0	6	0	13
715-730	44	7	0	114	0	10	3	3	0	9	0	12
730-745	64	8	0	130	0	12	7	4	0	8	0	20
745-800	71	10	0	140	0	19	5	5	0	13	0	30
800-815	64	14	0	138	0	21	9	7	0	23	0	45
815-830	57	10	0	120	0	18	7	8	0	26	0	39
830-845	44	11	0	116	0	16	6	10	0	19	0	34
845-900	47	11	0	88	0	10	3	9	0	15	0	44

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	200	28	0	472	0	53	16	14	0	36	0	75	894
715-815	243	39	0	522	0	62	24	19	0	53	0	107	1069
730-830	256	42	0	528	0	70	28	24	0	70	0	134	1152
745-845	236	45	0	514	0	74	27	30	0	81	0	148	1155
800-900	212	46	0	462	0	65	25	34	0	83	0	162	1089

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

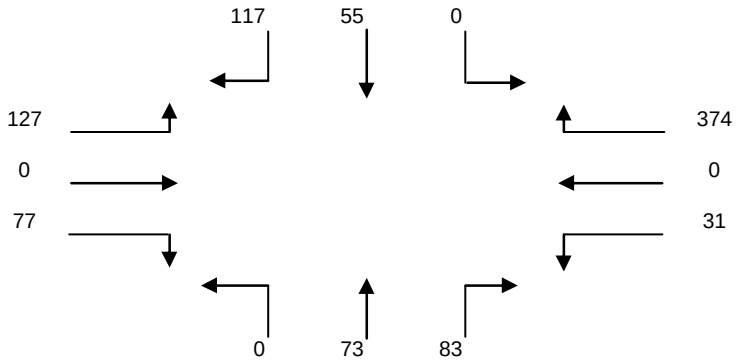
CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: THURSDAY, MAY 27, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S HAYDEN AVENUE
E/W HIGUERA STREET
FILE NUMBER: 7-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0200-0215	26	10	0	48	0	5	18	20	0	28	0	24
0215-0230	24	10	0	51	0	7	17	21	0	20	0	25
0230-0245	36	9	0	65	0	9	15	18	0	17	0	35
0245-0300	28	11	0	88	0	10	18	14	0	15	0	23
0300-0315	30	18	0	119	0	10	18	18	0	20	0	33
0315-0330	26	15	0	89	0	7	20	20	0	19	0	34
0330-0345	33	11	0	78	0	4	27	21	0	23	0	37
0345-0400	27	11	0	68	0	3	21	20	0	23	0	24
0400-0415	25	10	0	51	0	3	21	24	0	19	0	24
0415-0430	24	8	0	58	0	4	20	21	0	12	0	21
0430-0445	23	10	0	81	0	2	31	23	0	16	0	24
0445-0500	30	14	0	70	0	4	30	19	0	22	0	35
0500-0515	40	12	0	61	0	2	42	30	0	20	0	29
0515-0530	40	10	0	50	0	2	25	22	0	20	0	22
0530-0545	33	9	0	66	0	4	37	39	0	22	0	29
0545-0600	39	6	0	76	0	6	23	30	0	18	0	30

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0200-0300	114	40	0	252	0	31	68	73	0	80	0	107	765
0215-0315	118	48	0	323	0	36	68	71	0	72	0	116	852
0230-0330	120	53	0	361	0	36	71	70	0	71	0	125	907
0245-0345	117	55	0	374	0	31	83	73	0	77	0	127	937
0300-0400	116	55	0	354	0	24	86	79	0	85	0	128	927
0315-0415	111	47	0	286	0	17	89	85	0	84	0	119	838
0330-0430	109	40	0	255	0	14	89	86	0	77	0	106	776
0345-0445	99	39	0	258	0	12	93	88	0	70	0	93	752
0400-0500	102	42	0	260	0	13	102	87	0	69	0	104	779
0415-0515	117	44	0	270	0	12	123	93	0	70	0	109	838
0430-0530	133	46	0	262	0	10	128	94	0	78	0	110	861
0445-0545	143	45	0	247	0	12	134	110	0	84	0	115	890
0500-0600	152	37	0	253	0	14	127	121	0	80	0	110	894

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

P.M. PEAK HOUR
0245-0345



HIGUERA STREET

HAYDEN AVENUE

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

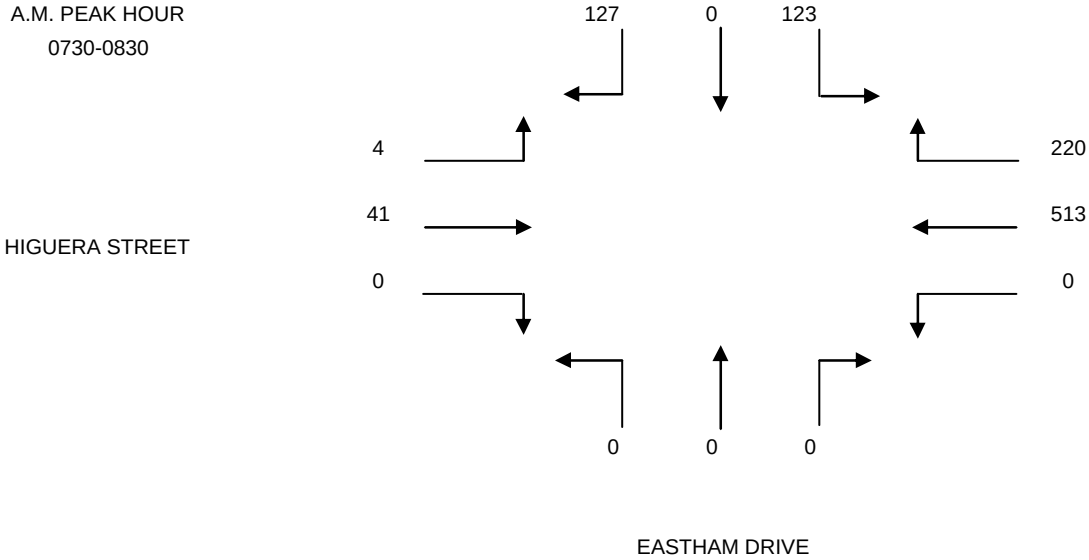
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: THURSDAY, MAY 27, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S EASTHAM DRIVE
E/W HIGUERA STREET
FILE NUMBER: 8-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	2	0	14	32	100	0	0	0	0	0	0	1
715-730	4	0	12	48	128	0	0	0	0	0	3	0
730-745	9	0	16	58	138	0	0	0	0	0	10	0
745-800	53	0	30	57	129	0	0	0	0	0	11	2
800-815	42	0	46	56	125	0	0	0	0	0	10	1
815-830	23	0	31	49	121	0	0	0	0	0	10	1
830-845	29	0	25	33	113	0	0	0	0	0	10	0
845-900	21	0	24	52	102	0	0	0	0	0	8	1

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
700-800	68	0	72	195	495	0	0	0	0	0	24	3	857
715-815	108	0	104	219	520	0	0	0	0	0	34	3	988
730-830	127	0	123	220	513	0	0	0	0	0	41	4	1028
745-845	147	0	132	195	488	0	0	0	0	0	41	4	1007
800-900	115	0	126	190	461	0	0	0	0	0	38	3	933

A.M. PEAK HOUR
0730-0830



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

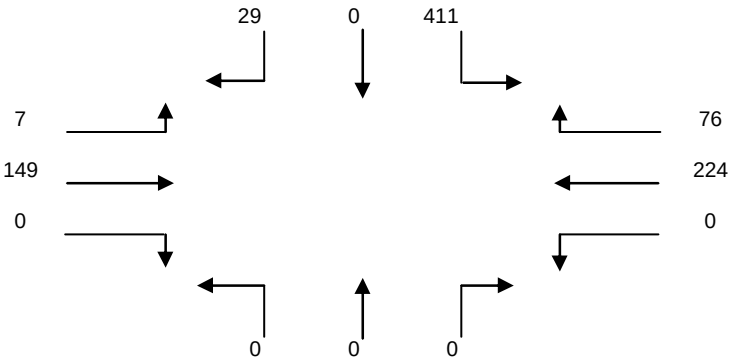
CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: THURSDAY, MAY 27, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S EASTHAM DRIVE
E/W HIGUERA STREET
FILE NUMBER: 8-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0200-0215	4	0	20	28	58	0	0	0	0	0	13	2
0215-0230	8	0	29	20	55	0	0	0	0	0	20	3
0230-0245	13	0	30	20	58	0	0	0	0	0	21	0
0245-0300	20	0	43	33	57	0	0	0	0	0	22	3
0300-0315	42	0	45	21	62	0	0	0	0	0	22	2
0315-0330	45	0	64	18	75	0	0	0	0	0	28	0
0330-0345	35	0	64	22	68	0	0	0	0	0	24	1
0345-0400	21	0	85	25	58	0	0	0	0	0	30	2
0400-0415	11	0	62	17	61	0	0	0	0	0	24	3
0415-0430	10	0	73	15	50	0	0	0	0	0	33	2
0430-0445	12	0	74	16	56	0	0	0	0	0	30	0
0445-0500	10	0	101	16	57	0	0	0	0	0	35	0
0500-0515	7	0	85	20	76	0	0	0	0	0	34	1
0515-0530	6	0	118	21	58	0	0	0	0	0	41	1
0530-0545	7	0	95	16	43	0	0	0	0	0	38	2
0545-0600	9	0	113	19	47	0	0	0	0	0	36	3

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0200-0300	45	0	122	101	228	0	0	0	0	0	76	8	580
0215-0315	83	0	147	94	232	0	0	0	0	0	85	8	649
0230-0330	120	0	182	92	252	0	0	0	0	0	93	5	744
0245-0345	142	0	216	94	262	0	0	0	0	0	96	6	816
0300-0400	143	0	258	86	263	0	0	0	0	0	104	5	859
0315-0415	112	0	275	82	262	0	0	0	0	0	106	6	843
0330-0430	77	0	284	79	237	0	0	0	0	0	111	8	796
0345-0445	54	0	294	73	225	0	0	0	0	0	117	7	770
0400-0500	43	0	310	64	224	0	0	0	0	0	122	5	768
0415-0515	39	0	333	67	239	0	0	0	0	0	132	3	813
0430-0530	35	0	378	73	247	0	0	0	0	0	140	2	875
0445-0545	30	0	399	73	234	0	0	0	0	0	148	4	888
0500-0600	29	0	411	76	224	0	0	0	0	0	149	7	896

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

P.M. PEAK HOUR
0500-0600



HIGUERA STREET

EASTHAM DRIVE

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

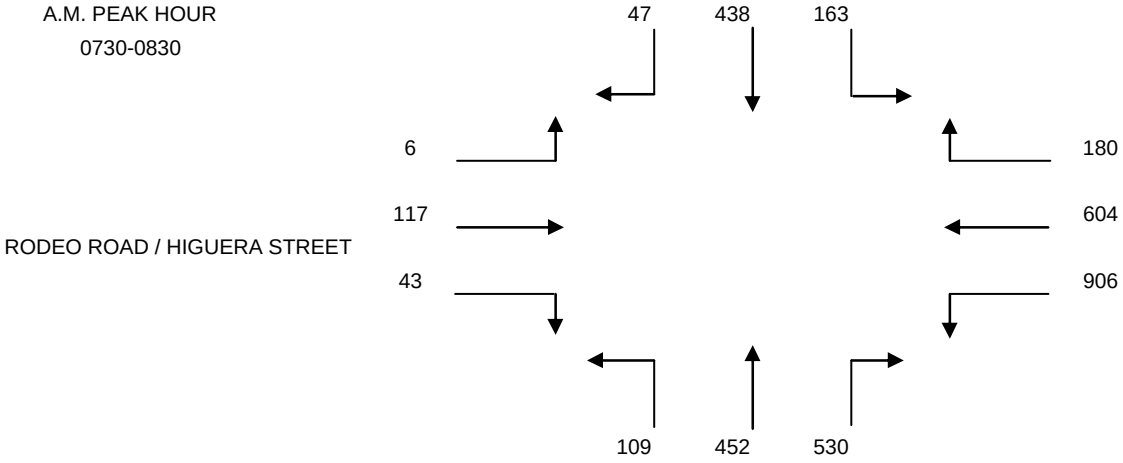
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: THURSDAY, MAY 27, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S JEFFERSON BOULEVARD
E/W RODEO ROAD / HIGUERA STREET
FILE NUMBER: 9-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	4	83	22	42	134	166	79	71	6	4	13	0
715-730	5	98	22	44	163	214	71	85	8	3	13	1
730-745	9	102	26	47	170	253	96	112	13	5	20	2
745-800	15	133	40	47	159	235	149	112	27	9	29	1
800-815	13	103	42	45	142	201	144	113	39	17	35	1
815-830	10	100	55	41	133	217	141	115	30	12	33	2
830-845	12	99	35	42	118	190	129	114	22	11	35	1
845-900	7	113	44	43	120	172	120	102	25	7	20	3

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	33	416	110	180	626	868	395	380	54	21	75	4	3162
715-815	42	436	130	183	634	903	460	422	87	34	97	5	3433
730-830	47	438	163	180	604	906	530	452	109	43	117	6	3595
745-845	50	435	172	175	552	843	563	454	118	49	132	5	3548
800-900	42	415	176	171	513	780	534	444	116	47	123	7	3368

A.M. PEAK HOUR
0730-0830



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

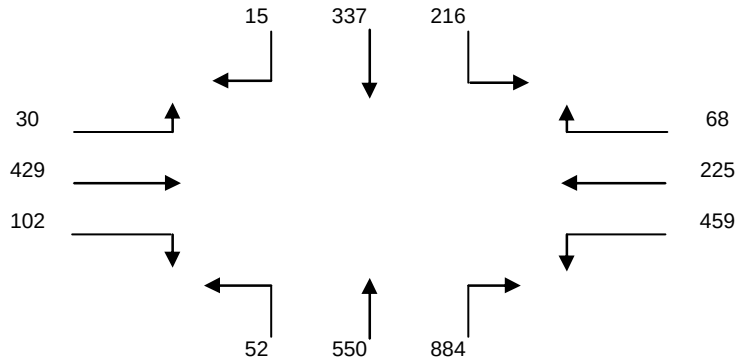
CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: CULVER CITY
DATE: THURSDAY, MAY 27, 2010
PERIOD: 02:00 PM TO 06:00 PM
INTERSECTION: N/S JEFFERSON BOULEVARD
E/W RODEO ROAD / HIGUERA STREET
FILE NUMBER: 9-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0200-0215	6	46	41	23	55	82	113	73	11	7	37	4
0215-0230	6	53	36	19	54	104	158	96	19	10	32	3
0230-0245	5	72	46	18	70	97	157	108	22	16	45	5
0245-0300	6	74	69	28	74	119	142	105	18	11	50	7
0300-0315	7	75	55	20	60	100	153	106	11	12	73	5
0315-0330	7	68	60	20	75	107	184	119	13	11	70	3
0330-0345	5	61	52	20	77	98	212	118	11	14	81	4
0345-0400	4	87	62	23	56	95	201	113	19	22	80	2
0400-0415	5	74	59	17	50	105	180	108	19	23	90	5
0415-0430	4	71	52	24	65	100	191	158	13	20	77	2
0430-0445	3	80	53	22	60	105	211	132	17	19	91	5
0445-0500	4	76	53	15	55	111	235	160	15	20	103	9
0500-0515	6	103	48	19	63	116	213	125	18	28	112	7
0515-0530	3	80	57	18	50	122	227	132	10	29	105	9
0530-0545	2	78	58	16	57	110	209	133	9	25	109	5
0545-0600	5	73	54	20	62	104	212	120	9	22	117	3

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0200-0300	23	245	192	88	253	402	570	382	70	44	164	19	2452
0215-0315	24	274	206	85	258	420	610	415	70	49	200	20	2631
0230-0330	25	289	230	86	279	423	636	438	64	50	238	20	2778
0245-0345	25	278	236	88	286	424	691	448	53	48	274	19	2870
0300-0400	23	291	229	83	268	400	750	456	54	59	304	14	2931
0315-0415	21	290	233	80	258	405	777	458	62	70	321	14	2989
0330-0430	18	293	225	84	248	398	784	497	62	79	328	13	3029
0345-0445	16	312	226	86	231	405	783	511	68	84	338	14	3074
0400-0500	16	301	217	78	230	421	817	558	64	82	361	21	3166
0415-0515	17	330	206	80	243	432	850	575	63	87	383	23	3289
0430-0530	16	339	211	74	228	454	886	549	60	96	411	30	3354
0445-0545	15	337	216	68	225	459	884	550	52	102	429	30	3367
0500-0600	16	334	217	73	232	452	861	510	46	104	443	24	3312

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

P.M. PEAK HOUR
0445-0545



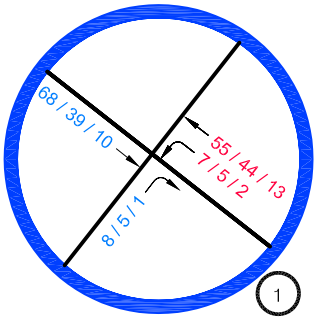
RODEO ROAD / HIGUERA STREET

JEFFERSON BOULEVARD

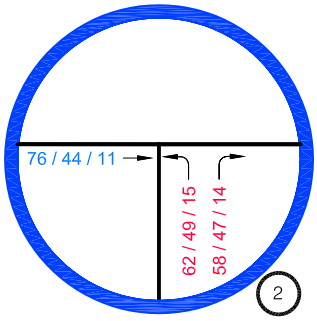
THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

APPENDIX E

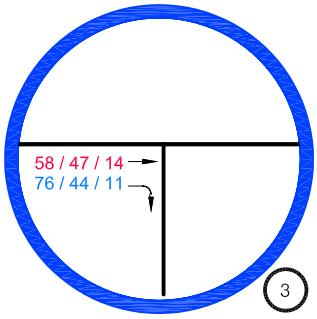
PROJECT TRAFFIC FLOW DATA



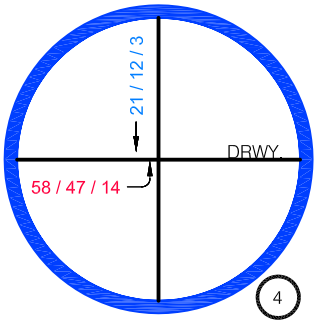
NATIONAL BLVD. &
WASHINGTON BLVD.



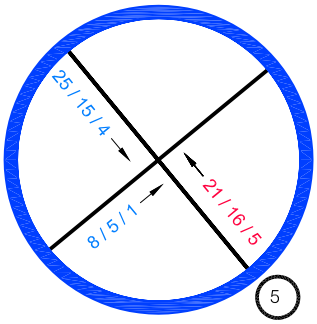
NATIONAL BLVD. &
HAYDEN AVE.



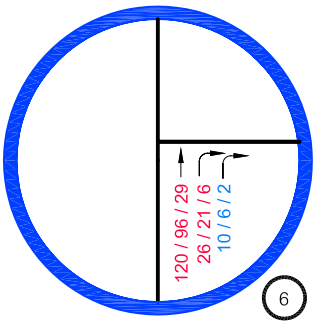
NATIONAL BLVD. &
EASTHAM DR.



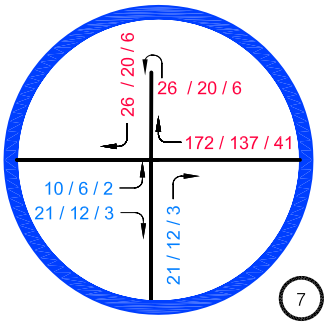
NATIONAL BLVD. &
JEFFERSON BLVD.



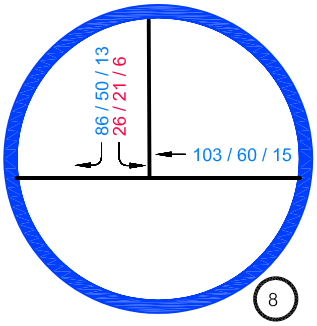
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



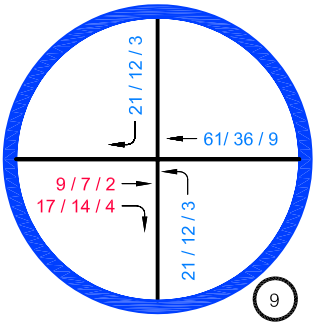
WARNER DR. &
HAYDEN AVE.



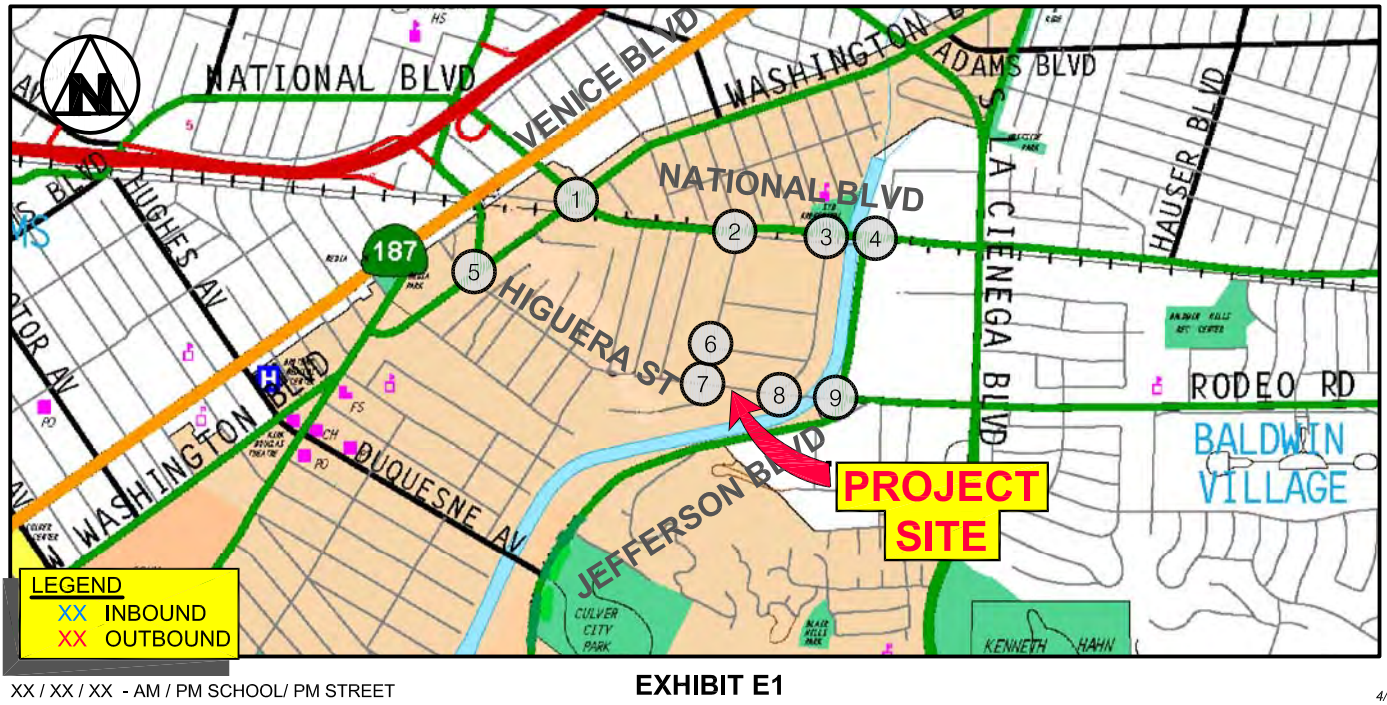
HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.



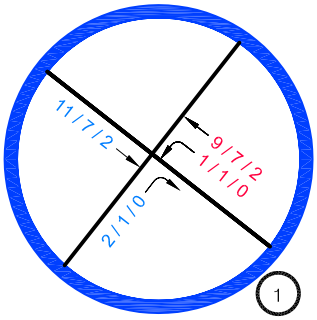
XX / XX / XX - AM / PM SCHOOL/ PM STREET

EXHIBIT E1

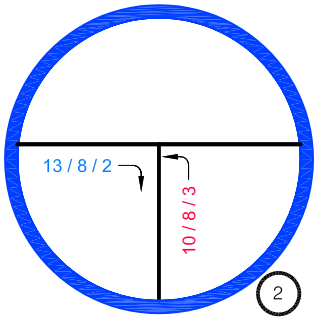
4/2011

THE WILLOWS COMMUNITY SCHOOL
EXISTING TRAFFIC FLOW
AM / PM SCHOOL / PM STREET PEAK HOURS

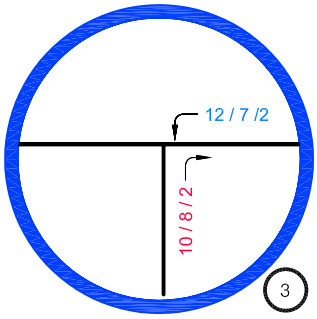
Overland Traffic Consultants, Inc.
27201 Tourney Road #206, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com



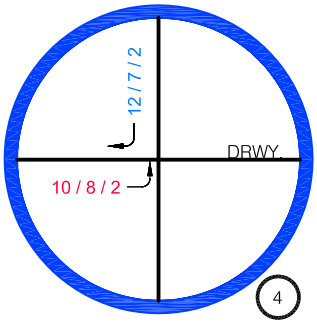
NATIONAL BLVD. &
WASHINGTON BLVD.



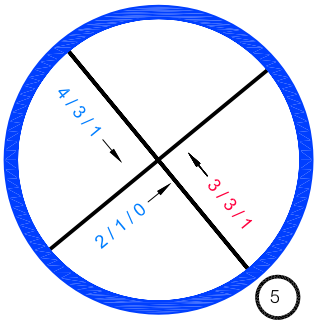
NATIONAL BLVD. &
HAYDEN AVE.



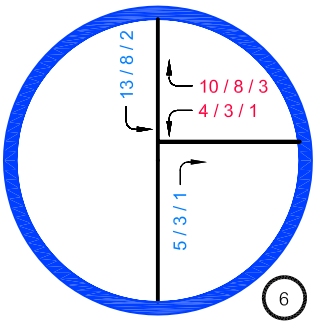
NATIONAL BLVD. &
EASTHAM DR.



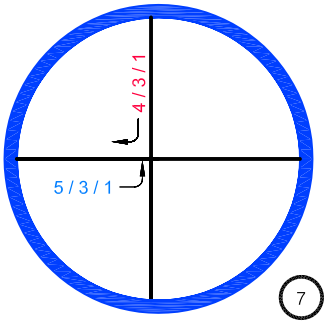
NATIONAL BLVD. &
JEFFERSON BLVD.



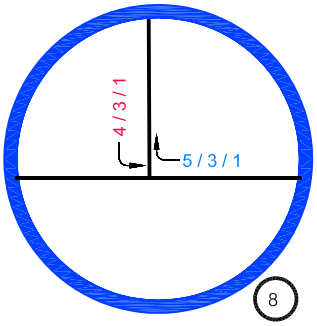
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



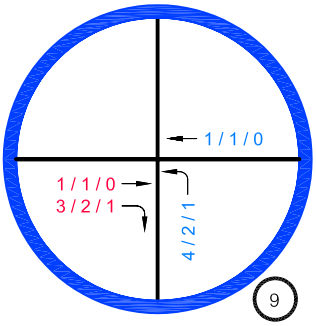
WARNER DR. &
HAYDEN AVE.



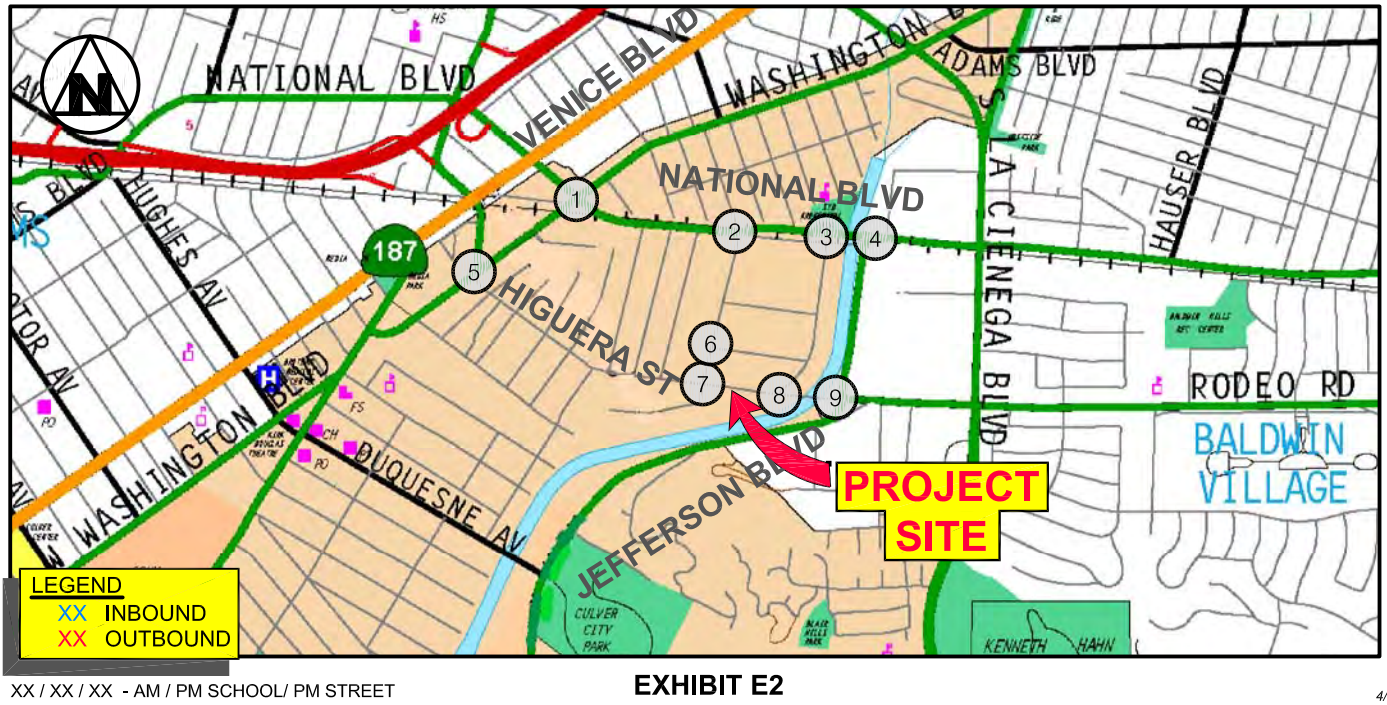
HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.



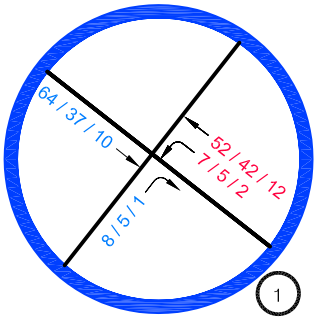
XX / XX / XX - AM / PM SCHOOL/ PM STREET

EXHIBIT E2

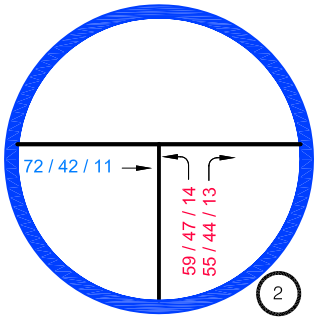
4/2011

THE WILLOWS COMMUNITY SCHOOL
FUTURE PHASE I WARNER LOT TRAFFIC FLOW
AM / PM SCHOOL / PM STREET PEAK HOURS

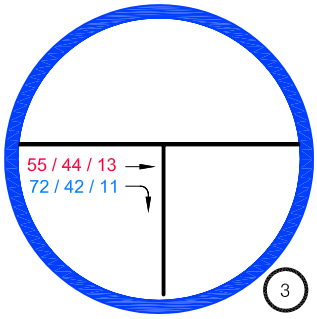
Overland Traffic Consultants, Inc.
27201 Tourney Road #206, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com



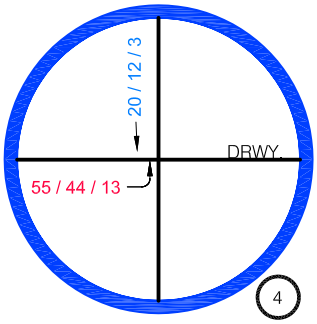
NATIONAL BLVD. &
WASHINGTON BLVD.



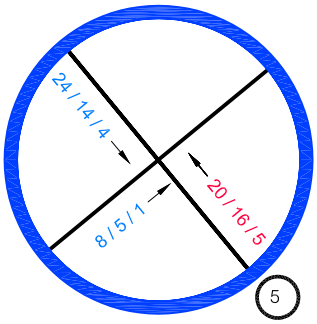
NATIONAL BLVD. &
HAYDEN AVE.



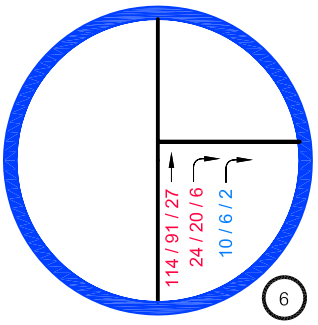
NATIONAL BLVD. &
EASTHAM DR.



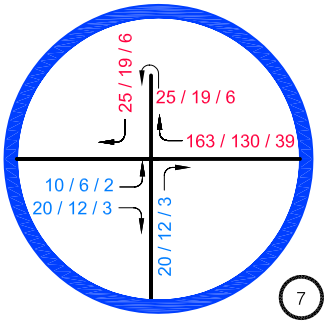
NATIONAL BLVD. &
JEFFERSON BLVD.



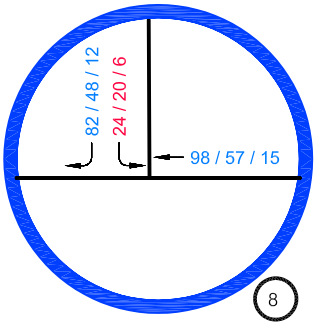
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



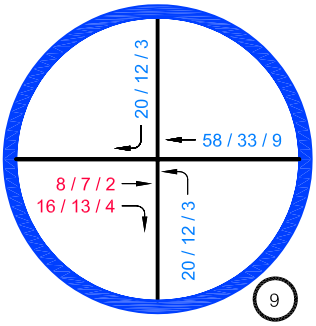
WARNER DR. &
HAYDEN AVE.



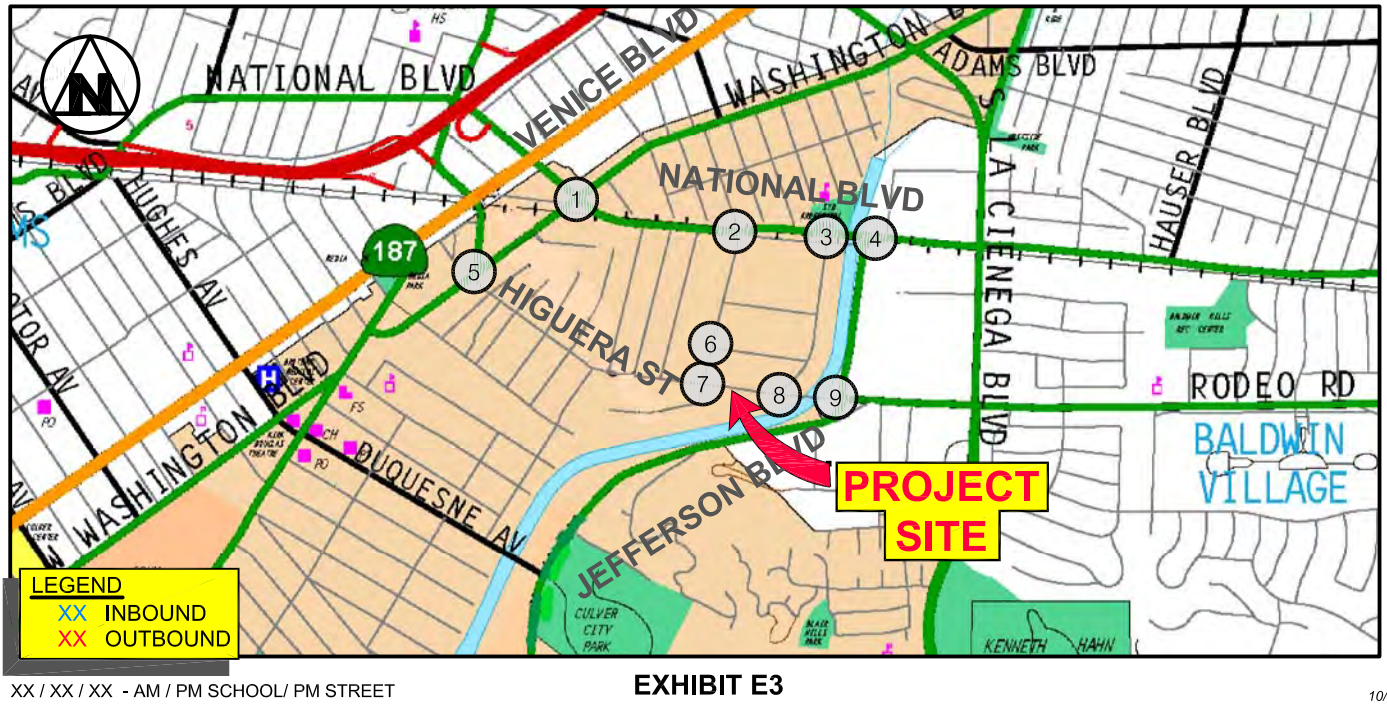
HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.



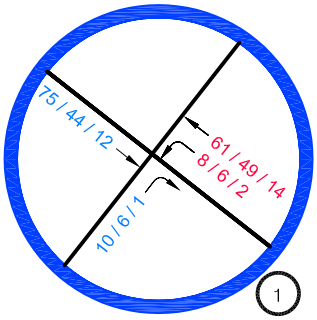
XX / XX / XX - AM / PM SCHOOL/ PM STREET

EXHIBIT E3

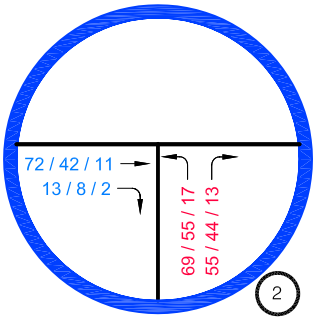
10/2010

THE WILLOWS COMMUNITY SCHOOL
FUTURE PHASE I HIGUERA LOT TRAFFIC FLOW
AM / PM SCHOOL / PM STREET PEAK HOURS

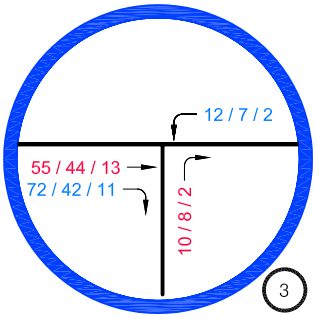
Overland Traffic Consultants, Inc.
27201 Tourney Road #206, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com



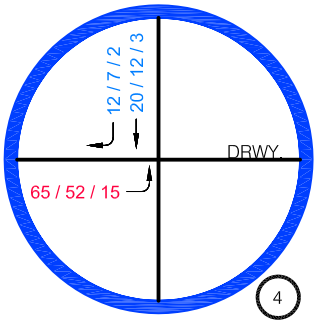
NATIONAL BLVD. &
WASHINGTON BLVD.



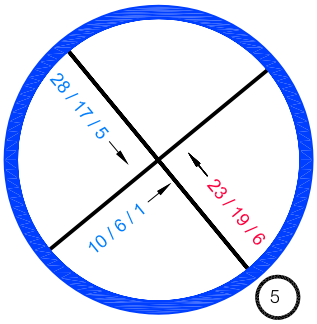
NATIONAL BLVD. &
HAYDEN AVE.



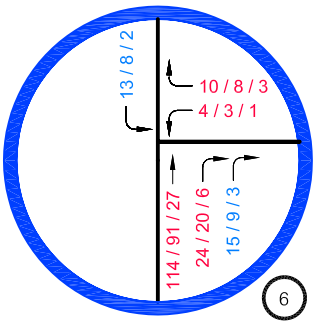
NATIONAL BLVD. &
EASTHAM DR.



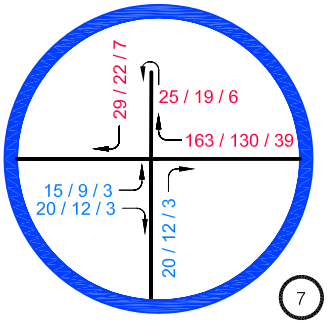
NATIONAL BLVD. &
JEFFERSON BLVD.



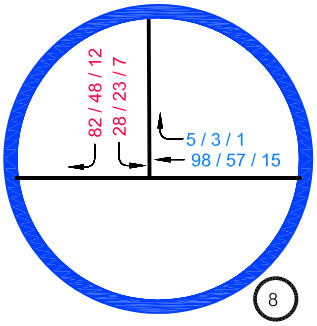
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



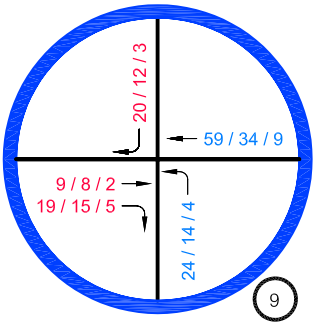
WARNER DR. &
HAYDEN AVE.



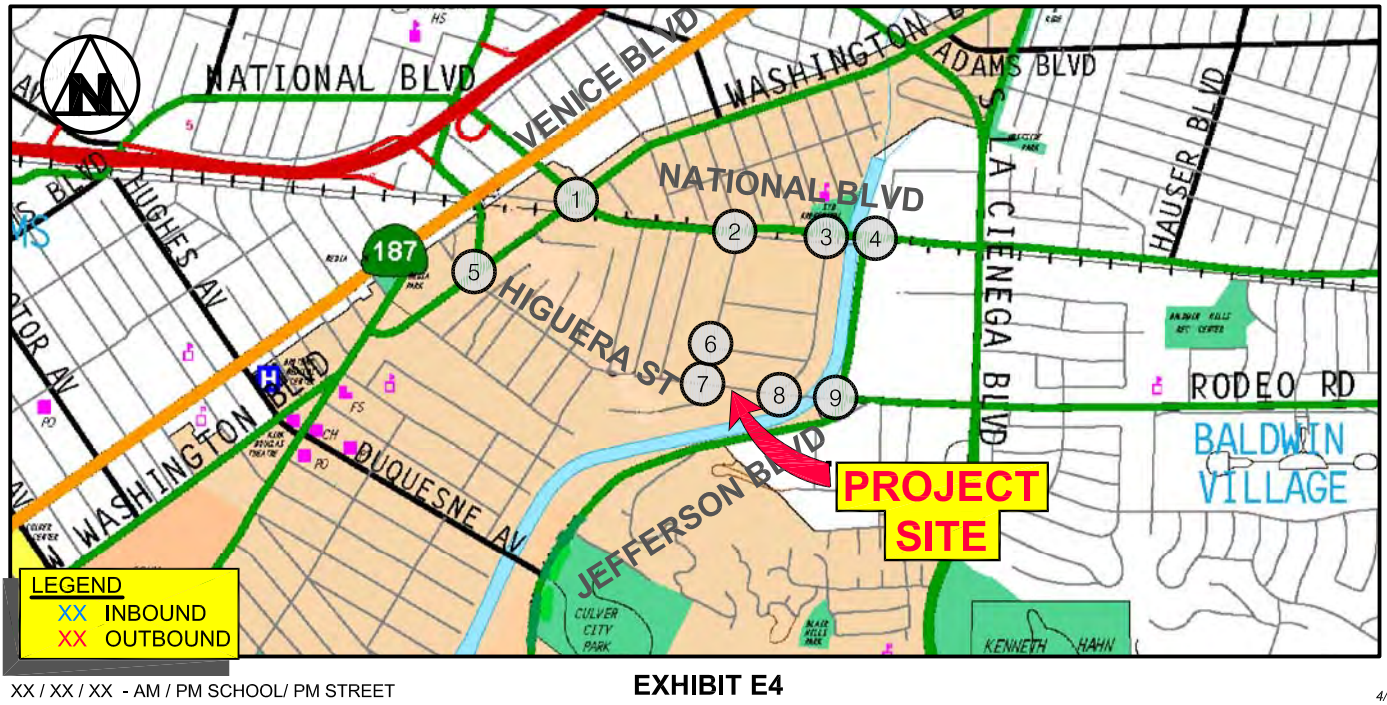
HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.



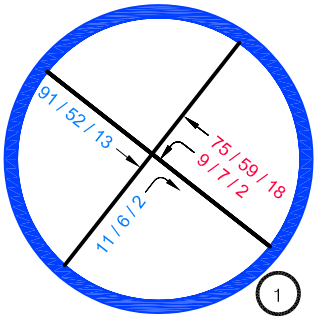
XX / XX / XX - AM / PM SCHOOL/ PM STREET

EXHIBIT E4

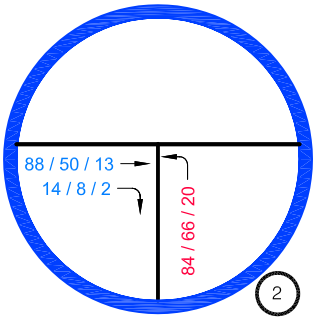
4/2011

THE WILLOWS COMMUNITY SCHOOL
FUTURE PHASE I TRAFFIC FLOW
AM STREET / PM SCHOOL / PM STREET PEAK HOURS

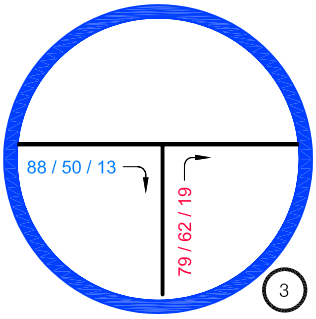
Overland Traffic Consultants, Inc.
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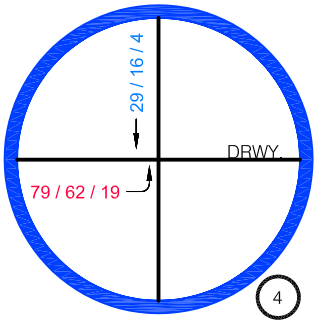
NATIONAL BLVD. &
WASHINGTON BLVD.



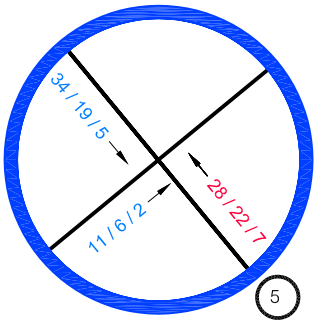
NATIONAL BLVD. &
HAYDEN AVE.



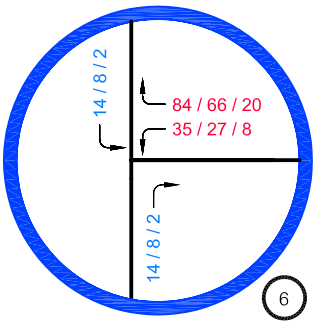
NATIONAL BLVD. &
EASTHAM DR.



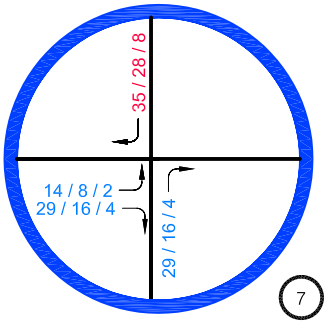
NATIONAL BLVD. &
JEFFERSON BLVD.



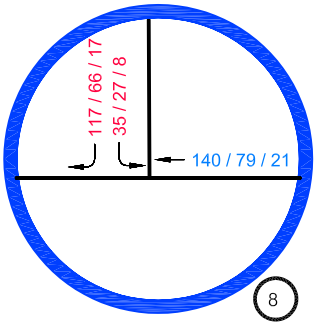
ROBERTSON BLVD. / HIGUERA ST. &
WASHINGTON BLVD.



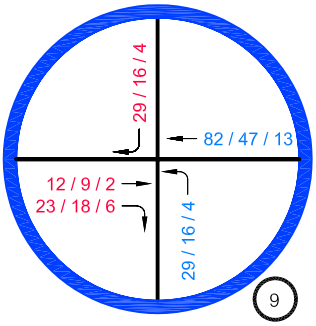
WARNER DR. &
HAYDEN AVE.



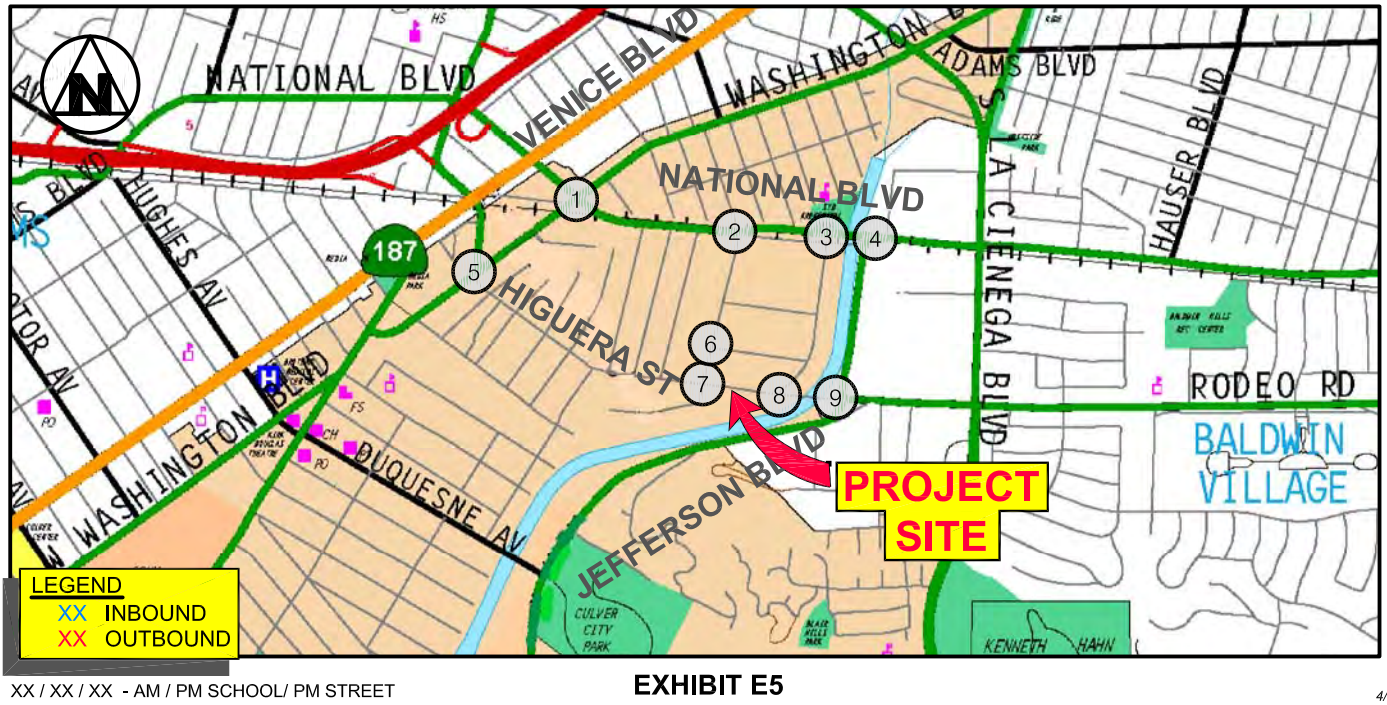
HIGUERA ST. &
HAYDEN AVE.



HIGUERA ST. &
EASTHAM DR.



RODEO RD. &
JEFFERSON BLVD.



XX / XX / XX - AM / PM SCHOOL/ PM STREET

EXHIBIT E5

4/2011

THE WILLOWS COMMUNITY SCHOOL
FUTURE BUILDOUT TRAFFIC FLOW
AM STREET / PM SCHOOL / PM STREET PEAK HOURS

Overland Traffic Consultants, Inc.
27201 Tourney Road #206, Santa Clarita, CA 91355
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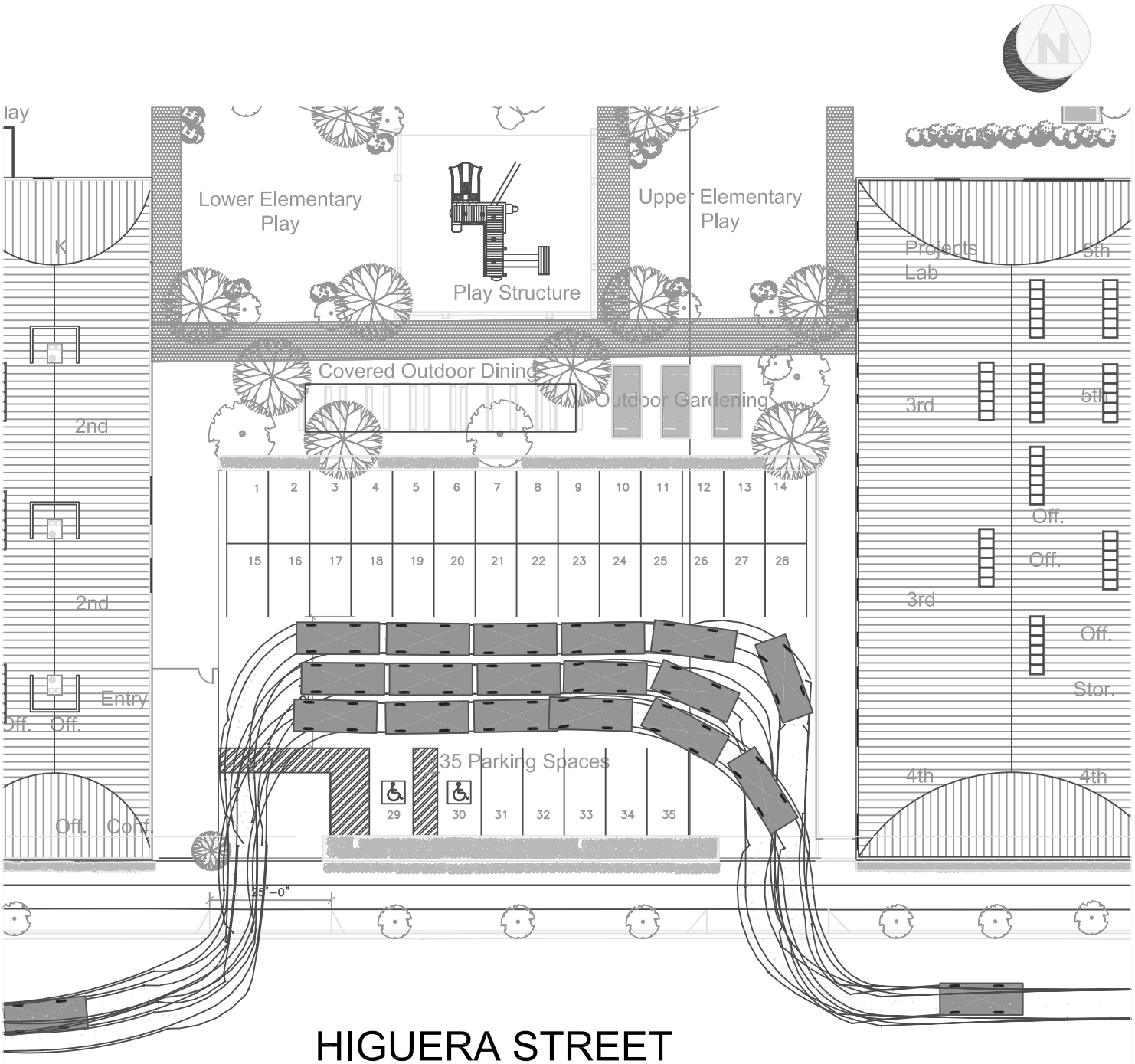


EXHIBIT E6

4/2011

THE WILLOWS COMMUNITY SCHOOL
PHASE I VEHICLE STACKING

Overland Traffic Consultants, Inc.
27201 Tourney Road, #206, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com

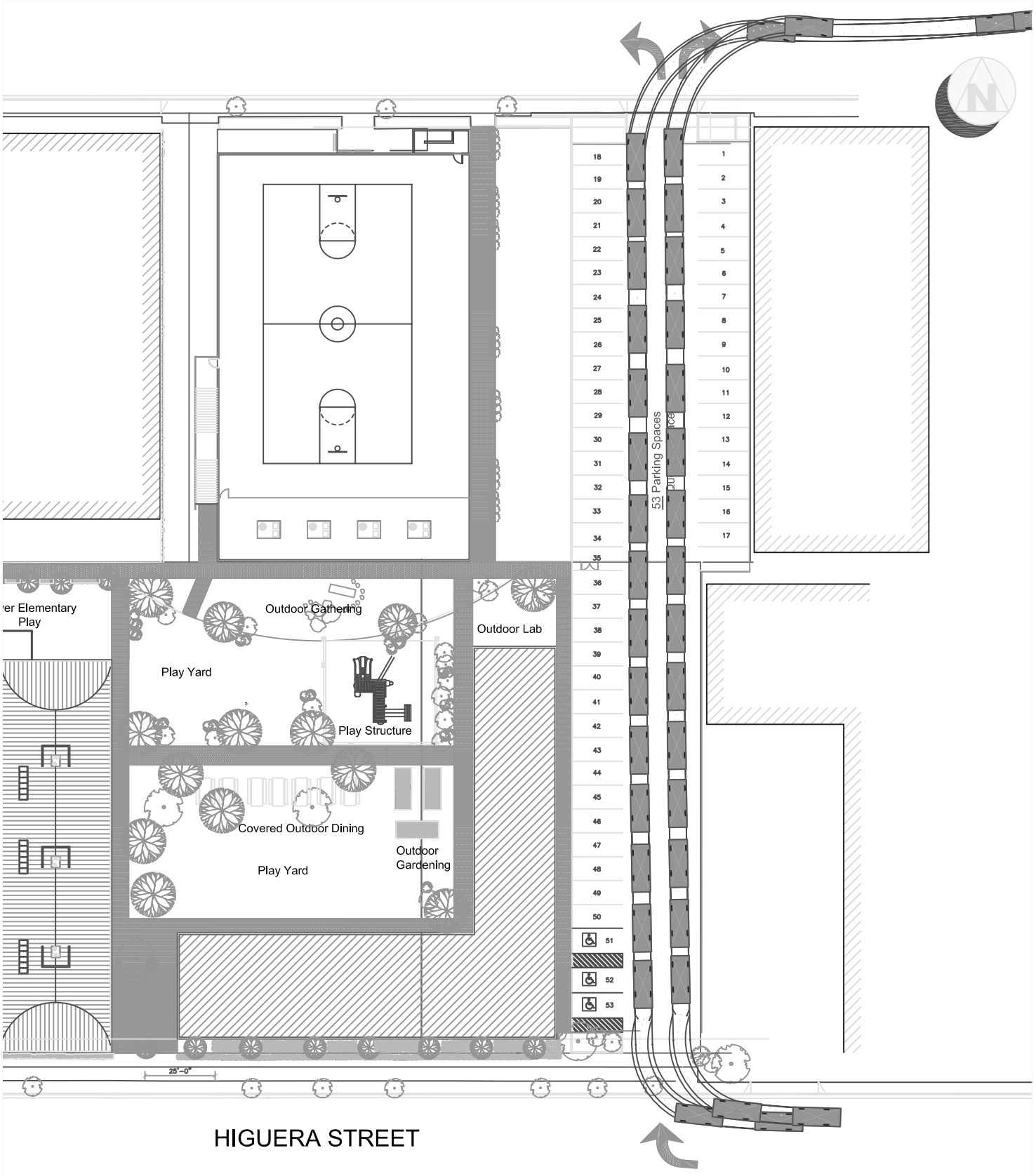


EXHIBIT E7

4/2011

THE WILLOWS COMMUNITY SCHOOL
PHASE II & III VEHICLE STACKING

Overland Traffic Consultants, Inc.
27201 Tourney Road, #206, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com

Willows Community School
AM Traffic Volume

2010 **counts**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	181	667	50	168	685	55	54	851	57	78	1,168	308
2	National Blvd & Hayden Ave	431	0	58	0	0	0	0	585	203	65	440	0
3	National Blvd & Eastham Dr	0	0	18	0	0	0	0	482	130	124	536	0
4	National Blvd & Jefferson Blvd	169	432	0	0	465	483	291	0	221	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	64	335	67	180	223	64	71	750	59	84	1,077	207
6	Warner Dr & Hayden Ave	0	502	147	75	125	0	0	0	0	139	0	21
7	Higuera St & Hayden Ave	0	30	27	0	45	236	148	0	81	74	0	514
8	Higuera St & Eastham Dr	0	0	0	123	0	127	4	41	0	0	513	220
9	Rodeo Rd & Jefferson Blvd	109	452	530	163	438	47	6	117	43	906	604	180

2015
1.051 **ambient**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	190	701	53	177	720	58	57	894	60	82	1,228	324
2	National Blvd & Hayden Ave	453	0	61	0	0	0	0	615	213	68	462	0
3	National Blvd & Eastham Dr	0	0	19	0	0	0	0	507	137	130	563	0
4	National Blvd & Jefferson Blvd	178	454	0	0	489	508	306	0	232	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	67	352	70	189	234	67	75	788	62	88	1,132	218
6	Warner Dr & Hayden Ave	0	528	154	79	131	0	0	0	0	146	0	22
7	Higuera St & Hayden Ave	0	32	28	0	47	248	156	0	85	78	0	540
8	Higuera St & Eastham Dr	0	0	0	129	0	133	4	43	0	0	539	231
9	Rodeo Rd & Jefferson Blvd	115	475	557	171	460	49	6	123	45	952	635	189

Willows Community School
AM Traffic Volume

related

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	114	92	117	62	114	8	30	129	91	157	236	34
2	National Blvd & Hayden Ave	-134	0	4	0	0	0	0	305	58	21	411	0
3	National Blvd & Eastham Dr	150	0	4	0	0	0	0	308	0	0	282	0
4	National Blvd & Jefferson Blvd	126	55	0	0	242	204	121	0	214	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	4	8	0	94	5	76	29	252	3	0	200	41
6	Warner Dr & Hayden Ave	0	-143	4	26	50	0	0	0	0	2	0	13
7	Higuera St & Hayden Ave	0	7	16	0	50	8	4	0	20	16	0	-148
8	Higuera St & Eastham Dr	0	0	0	0	0	4	1	15	0	0	-132	156
9	Rodeo Rd & Jefferson Blvd	14	217	23	8	289	0	0	2	79	46	9	0

Total without Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	304	793	170	239	834	66	87	1,023	151	239	1,464	358
2	National Blvd & Hayden Ave	319	0	65	0	0	0	0	920	271	89	873	0
3	National Blvd & Eastham Dr	150	0	23	0	0	0	0	815	137	130	845	0
4	National Blvd & Jefferson Blvd	304	509	0	0	731	712	427	0	446	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	71	360	70	283	239	143	104	1,040	65	88	1,332	259
6	Warner Dr & Hayden Ave	0	385	158	105	181	0	0	0	0	148	0	35
7	Higuera St & Hayden Ave	0	39	44	0	97	256	160	0	105	94	0	392
8	Higuera St & Eastham Dr	0	0	0	129	0	137	5	58	0	0	407	387
9	Rodeo Rd & Jefferson Blvd	129	692	580	179	749	49	6	125	124	998	644	189

Willows Community School
AM Traffic Volume

E2 **new Willows Community School Warner Lot**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	1	9	0	0	11	0	0	0	2	0	0	0
2	National Blvd & Hayden Ave	10	0	0	0	0	0	0	0	13	0	0	0
3	National Blvd & Eastham Dr	0	0	10	0	0	0	0	0	0	12	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	0	12	10	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	3	0	0	4	0	0	2	0	0	0	0
6	Warner Dr & Hayden Ave	0	0	5	13	0	0	0	0	0	4	0	10
7	Higuera St & Hayden Ave	0	0	0	0	0	4	5	0	0	0	0	0
8	Higuera St & Eastham Dr	0	0	0	4	0	0	0	0	0	0	0	5
9	Rodeo Rd & Jefferson Blvd	4	0	0	0	0	0	0	1	3	0	1	0

E3 **new Willows Community School Higuera Lot**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	7	52	0	0	64	0	0	0	8	0	0	0
2	National Blvd & Hayden Ave	59	0	55	0	0	0	0	72	0	0	0	0
3	National Blvd & Eastham Dr	0	0	0	0	0	0	0	55	72	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	20	0	55	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	20	0	0	24	0	0	8	0	0	0	0
6	Warner Dr & Hayden Ave	0	114	34	0	0	0	0	0	0	0	0	0
7	Higuera St & Hayden Ave	0	0	20	0	0	25	10	0	20	0	0	163
8	Higuera St & Eastham Dr	0	0	0	24	0	82	0	0	0	0	98	0
9	Rodeo Rd & Jefferson Blvd	20	0	0	0	0	20	0	8	16	0	58	0

Willows Community School
AM Traffic Volume

E4 **New Project Traffic Flow**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	8	61	0	0	75	0	0	0	10	0	0	0
2	National Blvd & Hayden Ave	69	0	55	0	0	0	0	72	13	0	0	0
3	National Blvd & Eastham Dr	0	0	10	0	0	0	0	55	72	12	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	20	12	65	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	23	0	0	28	0	0	10	0	0	0	0
6	Warner Dr & Hayden Ave	0	114	39	13	0	0	0	0	0	4	0	10
7	Higuera St & Hayden Ave	0	0	20	0	0	29	15	0	20	0	0	163
8	Higuera St & Eastham Dr	0	0	0	28	0	82	0	0	0	0	98	5
9	Rodeo Rd & Jefferson Blvd	24	0	0	0	0	20	0	9	19	0	59	0

E1 **Existing Willows Community School**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	7	55	0	0	68	0	0	0	8	0	0	0
2	National Blvd & Hayden Ave	62	0	58	0	0	0	0	76	0	0	0	0
3	National Blvd & Eastham Dr	0	0	0	0	0	0	0	58	76	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	21	0	58	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	21	0	0	25	0	0	8	0	0	0	0
6	Warner Dr & Hayden Ave	0	120	36	0	0	0	0	0	0	0	0	0
7	Higuera St & Hayden Ave	0	0	21	0	0	26	10	0	21	0	0	172
8	Higuera St & Eastham Dr	0	0	0	26	0	86	0	0	0	0	103	0
9	Rodeo Rd & Jefferson Blvd	21	0	0	0	0	21	0	9	17	0	61	0

Willows Community School
AM Traffic Volume

NET Willows Community School

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	1	6	0	0	7	0	0	0	2	0	0	0
2	National Blvd & Hayden Ave	7	0	-3	0	0	0	0	-4	13	0	0	0
3	National Blvd & Eastham Dr	0	0	10	0	0	0	0	-3	-4	12	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	-1	12	7	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	2	0	0	3	0	0	2	0	0	0	0
6	Warner Dr & Hayden Ave	0	-6	3	13	0	0	0	0	0	4	0	10
7	Higuera St & Hayden Ave	0	0	-1	0	0	3	5	0	-1	0	0	-9
8	Higuera St & Eastham Dr	0	0	0	2	0	-4	0	0	0	0	-5	5
9	Rodeo Rd & Jefferson Blvd	3	0	0	0	0	-1	0	0	2	0	-2	0

Total with Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	305	799	170	239	841	66	87	1,023	153	239	1,464	358
2	National Blvd & Hayden Ave	326	0	62	0	0	0	0	916	284	89	873	0
3	National Blvd & Eastham Dr	150	0	33	0	0	0	0	812	133	142	845	0
4	National Blvd & Jefferson Blvd	304	509	0	0	730	724	434	0	446	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	71	362	70	283	242	143	104	1,042	65	88	1,332	259
6	Warner Dr & Hayden Ave	0	379	161	118	181	0	0	0	0	152	0	45
7	Higuera St & Hayden Ave	0	39	43	0	97	259	165	0	104	94	0	383
8	Higuera St & Eastham Dr	0	0	0	131	0	133	5	58	0	0	402	392
9	Rodeo Rd & Jefferson Blvd	132	692	580	179	749	48	6	125	126	998	642	189

Willows Community School
Mid Day Traffic volumes

2010 counts

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	144	530	64	249	629	45	51	659	127	73	711	193
2	National Blvd & Hayden Ave	424	0	98	0	0	0	0	615	188	31	264	0
3	National Blvd & Eastham Dr	0	0	54	0	0	0	0	581	116	46	285	0
4	National Blvd & Jefferson Blvd	108	417	0	0	263	208	398	0	260	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	57	139	70	149	176	93	84	656	50	72	671	133
6	Warner Dr & Hayden Ave	0	414	136	72	70	0	0	0	0	72	0	40
7	Higuera St & Hayden Ave	0	73	83	0	55	117	127	0	77	31	0	374
8	Higuera St & Eastham Dr	0	0	0	185	0	120	5	93	0	0	252	92
9	Rodeo Rd & Jefferson Blvd	64	438	636	230	289	25	20	238	50	423	279	86

2015
1.051 **ambient**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	151	557	67	262	661	47	54	693	133	77	747	203
2	National Blvd & Hayden Ave	446	0	103	0	0	0	0	646	198	33	277	0
3	National Blvd & Eastham Dr	0	0	57	0	0	0	0	611	122	48	300	0
4	National Blvd & Jefferson Blvd	114	438	0	0	276	219	418	0	273	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	60	146	74	157	185	98	88	689	53	76	705	140
6	Warner Dr & Hayden Ave	0	435	143	76	74	0	0	0	0	76	0	42
7	Higuera St & Hayden Ave	0	77	87	0	58	123	133	0	81	33	0	393
8	Higuera St & Eastham Dr	0	0	0	194	0	126	5	98	0	0	265	97
9	Rodeo Rd & Jefferson Blvd	67	460	668	242	304	26	21	250	53	445	293	90

Willows Community School
Mid Day Traffic volumes

related

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	140	111	137	92	95	2	66	196	103	142	203	43
2	National Blvd & Hayden Ave	-79	0	18	0	0	0	0	264	65	12	487	0
3	National Blvd & Eastham Dr	150	0	15	0	0	0	0	276	0	0	349	0
4	National Blvd & Jefferson Blvd	214	175	0	0	101	158	213	0	127	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	4	3	0	88	8	35	77	301	18	1	196	108
6	Warner Dr & Hayden Ave	0	-108	11	65	10	0	0	0	0	7	0	47
7	Higuera St & Hayden Ave	0	42	30	0	10	12	10	0	12	3	0	-145
8	Higuera St & Eastham Dr	0	0	0	0	0	-36	6	25	0	0	-42	65
9	Rodeo Rd & Jefferson Blvd	17	148	57	56	324	0	0	11	38	42	6	0

Total without Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	291	668	204	354	756	49	120	889	236	219	950	246
2	National Blvd & Hayden Ave	367	0	121	0	0	0	0	910	263	45	764	0
3	National Blvd & Eastham Dr	150	0	72	0	0	0	0	887	122	48	649	0
4	National Blvd & Jefferson Blvd	328	613	0	0	377	377	631	0	400	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	64	149	74	245	193	133	165	990	71	77	901	248
6	Warner Dr & Hayden Ave	0	327	154	141	84	0	0	0	0	83	0	89
7	Higuera St & Hayden Ave	0	119	117	0	68	135	143	0	93	36	0	248
8	Higuera St & Eastham Dr	0	0	0	194	0	90	11	123	0	0	223	162
9	Rodeo Rd & Jefferson Blvd	84	608	725	298	628	26	21	261	91	487	299	90

Willows Community School
Mid Day Traffic volumes

new Willows Community School Warner Lot

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	1	7	0	0	7	0	0	0	1	0	0	0
2	National Blvd & Hayden Ave	8	0	0	0	0	0	0	0	8	0	0	0
3	National Blvd & Eastham Dr	0	0	8	0	0	0	0	0	0	7	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	0	7	8	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	3	0	0	3	0	0	1	0	0	0	0
6	Warner Dr & Hayden Ave	0	0	3	8	0	0	0	0	0	3	0	8
7	Higuera St & Hayden Ave	0	0	0	0	0	3	3	0	0	0	0	0
8	Higuera St & Eastham Dr	0	0	0	3	0	0	0	0	0	0	0	3
9	Rodeo Rd & Jefferson Blvd	2	0	0	0	0	0	0	1	2	0	1	0

E3 **new Willows Community School Higuera Lot**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	5	42	0	0	37	0	0	0	5	0	0	0
2	National Blvd & Hayden Ave	47	0	44	0	0	0	0	42	0	0	0	0
3	National Blvd & Eastham Dr	0	0	0	0	0	0	0	44	42	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	12	0	44	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	16	0	0	14	0	0	5	0	0	0	0
6	Warner Dr & Hayden Ave	0	91	26	0	0	0	0	0	0	0	0	0
7	Higuera St & Hayden Ave	0	0	12	0	0	19	6	0	12	0	0	130
8	Higuera St & Eastham Dr	0	0	0	20	0	48	0	0	0	0	57	0
9	Rodeo Rd & Jefferson Blvd	12	0	0	0	0	12	0	7	13	0	33	0

Willows Community School
Mid Day Traffic volumes

E4 **New Project Traffic Flow**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	6	49	0	0	44	0	0	0	6	0	0	0
2	National Blvd & Hayden Ave	55	0	44	0	0	0	0	42	8	0	0	0
3	National Blvd & Eastham Dr	0	0	8	0	0	0	0	44	42	7	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	12	7	52	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	19	0	0	17	0	0	6	0	0	0	0
6	Warner Dr & Hayden Ave	0	91	29	8	0	0	0	0	0	3	0	8
7	Higuera St & Hayden Ave	0	0	12	0	0	22	9	0	12	0	0	130
8	Higuera St & Eastham Dr	0	0	0	23	0	48	0	0	0	0	57	3
9	Rodeo Rd & Jefferson Blvd	14	0	0	0	0	12	0	8	15	0	34	0

E1 **Existing Willows Community School**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	5	44	0	0	39	0	0	0	5	0	0	0
2	National Blvd & Hayden Ave	49	0	47	0	0	0	0	44	0	0	0	0
3	National Blvd & Eastham Dr	0	0	0	0	0	0	0	47	44	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	12	0	47	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	16	0	0	15	0	0	5	0	0	0	0
6	Warner Dr & Hayden Ave	0	96	27	0	0	0	0	0	0	0	0	0
7	Higuera St & Hayden Ave	0	0	12	0	0	20	6	0	12	0	0	137
8	Higuera St & Eastham Dr	0	0	0	21	0	50	0	0	0	0	60	0
9	Rodeo Rd & Jefferson Blvd	12	0	0	0	0	12	0	7	14	0	36	0

Willows Community School
Mid Day Traffic volumes

NET Willows Community School

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	1	5	0	0	5	0	0	0	1	0	0	0
2	National Blvd & Hayden Ave	6	0	-3	0	0	0	0	-2	8	0	0	0
3	National Blvd & Eastham Dr	0	0	8	0	0	0	0	-3	-2	7	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	0	7	5	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	3	0	0	2	0	0	1	0	0	0	0
6	Warner Dr & Hayden Ave	0	-5	2	8	0	0	0	0	0	3	0	8
7	Higuera St & Hayden Ave	0	0	0	0	0	2	3	0	0	0	0	-7
8	Higuera St & Eastham Dr	0	0	0	2	0	-2	0	0	0	0	-3	3
9	Rodeo Rd & Jefferson Blvd	2	0	0	0	0	0	0	1	1	0	-2	0

Total with Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	292	673	204	354	761	49	120	889	237	219	950	246
2	National Blvd & Hayden Ave	373	0	118	0	0	0	0	908	271	45	764	0
3	National Blvd & Eastham Dr	150	0	80	0	0	0	0	884	120	55	649	0
4	National Blvd & Jefferson Blvd	328	613	0	0	377	384	636	0	400	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	64	152	74	245	195	133	165	991	71	77	901	248
6	Warner Dr & Hayden Ave	0	322	156	149	84	0	0	0	0	86	0	97
7	Higuera St & Hayden Ave	0	119	117	0	68	137	146	0	93	36	0	241
8	Higuera St & Eastham Dr	0	0	0	196	0	88	11	123	0	0	220	165
9	Rodeo Rd & Jefferson Blvd	86	608	725	298	628	26	21	262	92	487	297	90

Willows Community School
PM Traffic Volume

2010 counts

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	137	602	80	278	770	38	74	779	173	37	933	139
2	National Blvd & Hayden Ave	512	0	92	0	0	0	0	679	252	22	273	0
3	National Blvd & Eastham Dr	0	0	65	0	0	0	0	676	140	21	282	0
4	National Blvd & Jefferson Blvd	98	570	0	0	299	223	496	0	237	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	56	165	81	174	198	148	118	887	87	72	712	134
6	Warner Dr & Hayden Ave	0	384	90	73	99	0	0	0	0	74	0	37
7	Higuera St & Hayden Ave	0	121	127	0	37	152	110	0	80	14	0	253
8	Higuera St & Eastham Dr	0	0	0	411	0	29	7	149	0	0	224	76
9	Rodeo Rd & Jefferson Blvd	52	550	884	216	337	15	30	429	102	459	225	68

2015
1.051 **ambient**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	144	633	84	292	809	40	78	819	182	39	981	146
2	National Blvd & Hayden Ave	538	0	97	0	0	0	0	714	265	23	287	0
3	National Blvd & Eastham Dr	0	0	68	0	0	0	0	710	147	22	296	0
4	National Blvd & Jefferson Blvd	103	599	0	0	314	234	521	0	249	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	59	173	85	183	208	156	124	932	91	76	748	141
6	Warner Dr & Hayden Ave	0	404	95	77	104	0	0	0	0	78	0	39
7	Higuera St & Hayden Ave	0	127	133	0	39	160	116	0	84	15	0	266
8	Higuera St & Eastham Dr	0	0	0	432	0	30	7	157	0	0	235	80
9	Rodeo Rd & Jefferson Blvd	55	578	929	227	354	16	32	451	107	482	236	71

Willows Community School
PM Traffic Volume

related

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	140	111	137	92	95	2	66	196	103	142	203	43
2	National Blvd & Hayden Ave	-129	0	18	0	0	0	0	264	65	12	537	0
3	National Blvd & Eastham Dr	200	0	15	0	0	0	0	276	0	0	349	0
4	National Blvd & Jefferson Blvd	214	175	0	0	101	158	213	0	127	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	4	3	0	88	8	35	77	301	18	1	296	108
6	Warner Dr & Hayden Ave	0	-58	11	65	10	0	0	0	0	7	0	47
7	Higuera St & Hayden Ave	0	42	30	0	10	12	10	0	12	3	0	-95
8	Higuera St & Eastham Dr	0	0	0	0	0	14	6	25	0	0	-92	115
9	Rodeo Rd & Jefferson Blvd	17	148	57	56	324	0	0	11	38	42	6	0

Total without Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	284	744	221	384	904	42	144	1,015	285	181	1,184	189
2	National Blvd & Hayden Ave	409	0	115	0	0	0	0	978	330	35	824	0
3	National Blvd & Eastham Dr	200	0	83	0	0	0	0	986	147	22	645	0
4	National Blvd & Jefferson Blvd	317	774	0	0	415	392	734	0	376	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	63	176	85	271	216	191	201	1,233	109	77	1,044	249
6	Warner Dr & Hayden Ave	0	346	106	142	114	0	0	0	0	85	0	86
7	Higuera St & Hayden Ave	0	169	163	0	49	172	126	0	96	18	0	171
8	Higuera St & Eastham Dr	0	0	0	432	0	44	13	182	0	0	143	195
9	Rodeo Rd & Jefferson Blvd	72	726	986	283	678	16	32	462	145	524	242	71

Willows Community School
PM Traffic Volume

new Willows Community School Warner Lot

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	0	2	0	0	2	0	0	0	0	0	0	0
2	National Blvd & Hayden Ave	3	0	0	0	0	0	0	0	2	0	0	0
3	National Blvd & Eastham Dr	0	0	2	0	0	0	0	0	0	2	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	0	2	2	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	1	0	0	1	0	0	0	0	0	0	0
6	Warner Dr & Hayden Ave	0	0	1	2	0	0	0	0	0	1	0	3
7	Higuera St & Hayden Ave	0	0	0	0	0	1	1	0	0	0	0	0
8	Higuera St & Eastham Dr	0	0	0	1	0	0	0	0	0	0	0	1
9	Rodeo Rd & Jefferson Blvd	1	0	0	0	0	0	0	0	1	0	0	0

E3 **new Willows Community School Higuera Lot**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	2	12	0	0	10	0	0	0	1	0	0	0
2	National Blvd & Hayden Ave	14	0	13	0	0	0	0	11	0	0	0	0
3	National Blvd & Eastham Dr	0	0	0	0	0	0	0	13	11	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	3	0	13	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	5	0	0	4	0	0	1	0	0	0	0
6	Warner Dr & Hayden Ave	0	27	8	0	0	0	0	0	0	0	0	0
7	Higuera St & Hayden Ave	0	0	3	0	0	6	2	0	3	0	0	39
8	Higuera St & Eastham Dr	0	0	0	6	0	12	0	0	0	0	15	0
9	Rodeo Rd & Jefferson Blvd	3	0	0	0	0	3	0	2	4	0	9	0

Willows Community School
PM Traffic Volume

E4 **New Project Traffic Flow**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	2	14	0	0	12	0	0	0	1	0	0	0
2	National Blvd & Hayden Ave	17	0	13	0	0	0	0	11	2	0	0	0
3	National Blvd & Eastham Dr	0	0	2	0	0	0	0	13	11	2	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	3	2	15	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	6	0	0	5	0	0	1	0	0	0	0
6	Warner Dr & Hayden Ave	0	27	9	2	0	0	0	0	0	1	0	3
7	Higuera St & Hayden Ave	0	0	3	0	0	7	3	0	3	0	0	39
8	Higuera St & Eastham Dr	0	0	0	7	0	12	0	0	0	0	15	1
9	Rodeo Rd & Jefferson Blvd	4	0	0	0	0	3	0	2	5	0	9	0

E1 **Existing Willows Community School**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	2	13	0	0	10	0	0	0	1	0	0	0
2	National Blvd & Hayden Ave	15	0	14	0	0	0	0	11	0	0	0	0
3	National Blvd & Eastham Dr	0	0	0	0	0	0	0	14	11	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	3	0	14	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	5	0	0	4	0	0	1	0	0	0	0
6	Warner Dr & Hayden Ave	0	29	8	0	0	0	0	0	0	0	0	0
7	Higuera St & Hayden Ave	0	0	3	0	0	6	2	0	3	0	0	41
8	Higuera St & Eastham Dr	0	0	0	6	0	13	0	0	0	0	15	0
9	Rodeo Rd & Jefferson Blvd	3	0	0	0	0	3	0	2	4	0	9	0

Willows Community School
PM Traffic Volume

NET Willows Community School

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	0	1	0	0	2	0	0	0	0	0	0	0
2	National Blvd & Hayden Ave	2	0	-1	0	0	0	0	0	2	0	0	0
3	National Blvd & Eastham Dr	0	0	2	0	0	0	0	-1	0	2	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	0	2	1	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	1	0	0	1	0	0	0	0	0	0	0
6	Warner Dr & Hayden Ave	0	-2	1	2	0	0	0	0	0	1	0	3
7	Higuera St & Hayden Ave	0	0	0	0	0	1	1	0	0	0	0	-2
8	Higuera St & Eastham Dr	0	0	0	1	0	-1	0	0	0	0	0	1
9	Rodeo Rd & Jefferson Blvd	1	0	0	0	0	0	0	0	1	0	0	0

Total with Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	284	745	221	384	906	42	144	1,015	285	181	1,184	189
2	National Blvd & Hayden Ave	411	0	114	0	0	0	0	978	332	35	824	0
3	National Blvd & Eastham Dr	200	0	85	0	0	0	0	985	147	24	645	0
4	National Blvd & Jefferson Blvd	317	774	0	0	415	394	735	0	376	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	63	177	85	271	217	191	201	1,233	109	77	1,044	249
6	Warner Dr & Hayden Ave	0	344	107	144	114	0	0	0	0	86	0	89
7	Higuera St & Hayden Ave	0	169	163	0	49	173	127	0	96	18	0	169
8	Higuera St & Eastham Dr	0	0	0	433	0	43	13	182	0	0	143	196
9	Rodeo Rd & Jefferson Blvd	73	726	986	283	678	16	32	462	146	524	242	71

Willows Community School
AM Buildout Traffic Volumes

2010 **counts**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	181	667	50	168	685	55	54	851	57	78	1,168	308
2	National Blvd & Hayden Ave	431	0	58	0	0	0	0	585	203	65	440	0
3	National Blvd & Eastham Dr	0	0	18	0	0	0	0	482	130	124	536	0
4	National Blvd & Jefferson Blvd	169	432	0	0	465	483	291	0	221	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	64	335	67	180	223	64	71	750	59	84	1,077	207
6	Warner Dr & Hayden Ave	0	502	147	75	125	0	0	0	0	139	0	21
7	Higuera St & Hayden Ave	0	30	27	0	45	236	148	0	81	74	0	514
8	Higuera St & Eastham Dr	0	0	0	123	0	127	4	41	0	0	513	220
9	Rodeo Rd & Jefferson Blvd	109	452	530	163	438	47	6	117	43	906	604	180

2020
1.105 **ambient**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	200	737	55	186	757	61	60	940	63	86	1,290	340
2	National Blvd & Hayden Ave	476	0	64	0	0	0	0	646	224	72	486	0
3	National Blvd & Eastham Dr	0	0	20	0	0	0	0	532	144	137	592	0
4	National Blvd & Jefferson Blvd	187	477	0	0	514	534	321	0	244	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	71	370	74	199	246	71	78	828	65	93	1,190	229
6	Warner Dr & Hayden Ave	0	555	162	83	138	0	0	0	0	154	0	23
7	Higuera St & Hayden Ave	0	33	30	0	50	261	163	0	89	82	0	568
8	Higuera St & Eastham Dr	0	0	0	136	0	140	4	45	0	0	567	243
9	Rodeo Rd & Jefferson Blvd	120	499	585	180	484	52	7	129	47	1,001	667	199

Willows Community School
AM Buildout Traffic Volumes

related

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	114	92	117	62	114	8	30	129	91	157	236	34
2	National Blvd & Hayden Ave	-134	0	4	0	0	0	0	305	58	21	411	0
3	National Blvd & Eastham Dr	150	0	4	0	0	0	0	308	0	0	282	0
4	National Blvd & Jefferson Blvd	126	55	0	0	242	204	121	0	214	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	4	8	0	94	5	76	29	252	3	0	200	41
6	Warner Dr & Hayden Ave	0	-143	4	26	50	0	0	0	0	2	0	13
7	Higuera St & Hayden Ave	0	7	16	0	50	8	4	0	20	16	0	-148
8	Higuera St & Eastham Dr	0	0	0	0	0	4	1	15	0	0	-132	156
9	Rodeo Rd & Jefferson Blvd	14	217	23	8	289	0	0	2	79	46	9	0

Total without Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	314	829	172	248	871	69	90	1,069	154	243	1,526	374
2	National Blvd & Hayden Ave	342	0	68	0	0	0	0	951	282	93	897	0
3	National Blvd & Eastham Dr	150	0	24	0	0	0	0	840	144	137	874	0
4	National Blvd & Jefferson Blvd	313	532	0	0	756	738	442	0	458	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	75	378	74	293	251	147	107	1,080	68	93	1,390	270
6	Warner Dr & Hayden Ave	0	412	166	109	188	0	0	0	0	156	0	36
7	Higuera St & Hayden Ave	0	40	46	0	100	269	167	0	109	98	0	420
8	Higuera St & Eastham Dr	0	0	0	136	0	144	5	60	0	0	435	399
9	Rodeo Rd & Jefferson Blvd	134	716	608	188	773	52	7	131	126	1,047	676	199

Willows Community School
AM Buildout Traffic Volumes

e5 **New Project Traffic Flow**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	9	75	0	0	91	0	0	0	11	0	0	0
2	National Blvd & Hayden Ave	84	0	0	0	0	0	0	88	14	0	0	0
3	National Blvd & Eastham Dr	0	0	79	0	0	0	0	0	88	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	29	0	79	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	28	0	0	34	0	0	11	0	0	0	0
6	Warner Dr & Hayden Ave	0	0	14	14	0	0	0	0	0	35	0	84
7	Higuera St & Hayden Ave	0	0	29	0	0	35	14	0	29	0	0	0
8	Higuera St & Eastham Dr	0	0	0	35	0	117	0	0	0	0	140	0
9	Rodeo Rd & Jefferson Blvd	29	0	0	0	0	29	0	12	23	0	82	0

E1 **Existing Willows Community School**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	7	55	0	0	68	0	0	0	8	0	0	0
2	National Blvd & Hayden Ave	62	0	58	0	0	0	0	76	0	0	0	0
3	National Blvd & Eastham Dr	0	0	0	0	0	0	0	58	76	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	21	0	58	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	21	0	0	25	0	0	8	0	0	0	0
6	Warner Dr & Hayden Ave	0	120	36	0	0	0	0	0	0	0	0	0
7	Higuera St & Hayden Ave	0	0	21	0	0	26	10	0	21	0	0	172
8	Higuera St & Eastham Dr	0	0	0	26	0	86	0	0	0	0	103	0
9	Rodeo Rd & Jefferson Blvd	21	0	0	0	0	21	0	9	17	0	61	0

Willows Community School
AM Buildout Traffic Volumes

6B **NET Willows Community School**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	2	20	0	0	23	0	0	0	3	0	0	0
2	National Blvd & Hayden Ave	22	0	-58	0	0	0	0	12	14	0	0	0
3	National Blvd & Eastham Dr	0	0	79	0	0	0	0	-58	12	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	8	0	21	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	7	0	0	9	0	0	3	0	0	0	0
6	Warner Dr & Hayden Ave	0	-120	-22	14	0	0	0	0	0	35	0	84
7	Higuera St & Hayden Ave	0	0	8	0	0	9	4	0	8	0	0	-172
8	Higuera St & Eastham Dr	0	0	0	9	0	31	0	0	0	0	37	0
9	Rodeo Rd & Jefferson Blvd	8	0	0	0	0	8	0	3	6	0	21	0

Total with Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	316	849	172	248	894	69	90	1,069	157	243	1,526	374
2	National Blvd & Hayden Ave	364	0	10	0	0	0	0	963	296	93	897	0
3	National Blvd & Eastham Dr	150	0	103	0	0	0	0	782	156	137	874	0
4	National Blvd & Jefferson Blvd	313	532	0	0	764	738	463	0	458	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	75	385	74	293	260	147	107	1,083	68	93	1,390	270
6	Warner Dr & Hayden Ave	0	292	144	123	188	0	0	0	0	191	0	120
7	Higuera St & Hayden Ave	0	40	54	0	100	278	171	0	117	98	0	248
8	Higuera St & Eastham Dr	0	0	0	145	0	175	5	60	0	0	472	399
9	Rodeo Rd & Jefferson Blvd	142	716	608	188	773	60	7	134	132	1,047	697	199

Willows Community School
MidDay Buildout Traffic Volume

2010 counts

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	144	530	64	249	629	45	51	659	127	73	711	193
2	National Blvd & Hayden Ave	424	0	98	0	0	0	0	615	188	31	264	0
3	National Blvd & Eastham Dr	0	0	54	0	0	0	0	581	116	46	285	0
4	National Blvd & Jefferson Blvd	108	417	0	0	263	208	398	0	260	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	57	139	70	149	176	93	84	656	50	72	671	133
6	Warner Dr & Hayden Ave	0	414	136	72	70	0	0	0	0	72	0	40
7	Higuera St & Hayden Ave	0	73	83	0	55	117	127	0	77	31	0	374
8	Higuera St & Eastham Dr	0	0	0	185	0	120	5	93	0	0	252	92
9	Rodeo Rd & Jefferson Blvd	64	438	636	230	289	25	20	238	50	423	279	86

2020
1.105 **ambient**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	159	585	71	275	695	50	56	728	140	81	785	213
2	National Blvd & Hayden Ave	468	0	108	0	0	0	0	679	208	34	292	0
3	National Blvd & Eastham Dr	0	0	60	0	0	0	0	642	128	51	315	0
4	National Blvd & Jefferson Blvd	119	461	0	0	291	230	440	0	287	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	63	154	77	165	194	103	93	725	55	80	741	147
6	Warner Dr & Hayden Ave	0	457	150	80	77	0	0	0	0	80	0	44
7	Higuera St & Hayden Ave	0	81	92	0	61	129	140	0	85	34	0	413
8	Higuera St & Eastham Dr	0	0	0	204	0	133	6	103	0	0	278	102
9	Rodeo Rd & Jefferson Blvd	71	484	703	254	319	28	22	263	55	467	308	95

Willows Community School
MidDay Buildout Traffic Volume

related

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	140	111	137	92	95	2	66	196	103	142	203	43
2	National Blvd & Hayden Ave	-79	0	18	0	0	0	0	264	65	12	487	0
3	National Blvd & Eastham Dr	150	0	15	0	0	0	0	276	0	0	349	0
4	National Blvd & Jefferson Blvd	214	175	0	0	101	158	213	0	127	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	4	3	0	88	8	35	77	301	18	1	196	108
6	Warner Dr & Hayden Ave	0	-108	11	65	10	0	0	0	0	7	0	47
7	Higuera St & Hayden Ave	0	42	30	0	10	12	10	0	12	3	0	-145
8	Higuera St & Eastham Dr	0	0	0	0	0	-36	6	25	0	0	-42	65
9	Rodeo Rd & Jefferson Blvd	17	148	57	56	324	0	0	11	38	42	6	0

Total without Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	299	696	208	367	790	52	122	924	243	223	988	256
2	National Blvd & Hayden Ave	389	0	126	0	0	0	0	943	273	46	779	0
3	National Blvd & Eastham Dr	150	0	75	0	0	0	0	918	128	51	664	0
4	National Blvd & Jefferson Blvd	333	636	0	0	392	388	653	0	414	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	67	157	77	253	202	138	170	1,026	73	81	937	255
6	Warner Dr & Hayden Ave	0	349	161	145	87	0	0	0	0	87	0	91
7	Higuera St & Hayden Ave	0	123	122	0	71	141	150	0	97	37	0	268
8	Higuera St & Eastham Dr	0	0	0	204	0	97	12	128	0	0	236	167
9	Rodeo Rd & Jefferson Blvd	88	632	760	310	643	28	22	274	93	509	314	95

Willows Community School
MidDay Buildout Traffic Volume

e5 **New Project Traffic Flow**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	7	59	0	0	52	0	0	0	6	0	0	0
2	National Blvd & Hayden Ave	66	0	0	0	0	0	0	50	8	0	0	0
3	National Blvd & Eastham Dr	0	0	62	0	0	0	0	0	50	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	16	0	62	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	22	0	0	19	0	0	6	0	0	0	0
6	Warner Dr & Hayden Ave	0	0	8	8	0	0	0	0	0	27	0	66
7	Higuera St & Hayden Ave	0	0	16	0	0	27	8	0	16	0	0	0
8	Higuera St & Eastham Dr	0	0	0	27	0	66	0	0	0	0	79	0
9	Rodeo Rd & Jefferson Blvd	16	0	0	0	0	16	0	9	18	0	47	0

E1 **Existing Willows Community School**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	5	44	0	0	39	0	0	0	5	0	0	0
2	National Blvd & Hayden Ave	49	0	47	0	0	0	0	44	0	0	0	0
3	National Blvd & Eastham Dr	0	0	0	0	0	0	0	47	44	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	12	0	47	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	16	0	0	15	0	0	5	0	0	0	0
6	Warner Dr & Hayden Ave	0	96	27	0	0	0	0	0	0	0	0	0
7	Higuera St & Hayden Ave	0	0	12	0	0	20	6	0	12	0	0	137
8	Higuera St & Eastham Dr	0	0	0	21	0	50	0	0	0	0	60	0
9	Rodeo Rd & Jefferson Blvd	12	0	0	0	0	12	0	7	14	0	36	0

Willows Community School
MidDay Buildout Traffic Volume

NET Willows Community School

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	2	15	0	0	13	0	0	0	1	0	0	0
2	National Blvd & Hayden Ave	17	0	-47	0	0	0	0	6	8	0	0	0
3	National Blvd & Eastham Dr	0	0	62	0	0	0	0	-47	6	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	4	0	15	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	6	0	0	4	0	0	1	0	0	0	0
6	Warner Dr & Hayden Ave	0	-96	-19	8	0	0	0	0	0	27	0	66
7	Higuera St & Hayden Ave	0	0	4	0	0	7	2	0	4	0	0	-137
8	Higuera St & Eastham Dr	0	0	0	6	0	16	0	0	0	0	19	0
9	Rodeo Rd & Jefferson Blvd	4	0	0	0	0	4	0	2	4	0	11	0

Total with Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	301	711	208	367	803	52	122	924	244	223	988	256
2	National Blvd & Hayden Ave	406	0	79	0	0	0	0	949	281	46	779	0
3	National Blvd & Eastham Dr	150	0	137	0	0	0	0	871	134	51	664	0
4	National Blvd & Jefferson Blvd	333	636	0	0	396	388	668	0	414	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	67	163	77	253	206	138	170	1,027	73	81	937	255
6	Warner Dr & Hayden Ave	0	253	142	153	87	0	0	0	0	114	0	157
7	Higuera St & Hayden Ave	0	123	126	0	71	148	152	0	101	37	0	131
8	Higuera St & Eastham Dr	0	0	0	210	0	113	12	128	0	0	255	167
9	Rodeo Rd & Jefferson Blvd	92	632	760	310	643	32	22	276	97	509	325	95

Willows Community School
PM Buildout Traffic Volumes

2010 counts

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	137	602	80	278	770	38	74	779	173	37	933	139
2	National Blvd & Hayden Ave	512	0	92	0	0	0	0	679	252	22	273	0
3	National Blvd & Eastham Dr	0	0	65	0	0	0	0	676	140	21	282	0
4	National Blvd & Jefferson Blvd	98	570	0	0	299	223	496	0	237	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	56	165	81	174	198	148	118	887	87	72	712	134
6	Warner Dr & Hayden Ave	0	384	90	73	99	0	0	0	0	74	0	37
7	Higuera St & Hayden Ave	0	121	127	0	37	152	110	0	80	14	0	253
8	Higuera St & Eastham Dr	0	0	0	411	0	29	7	149	0	0	224	76
9	Rodeo Rd & Jefferson Blvd	52	550	884	216	337	15	30	429	102	459	225	68

2020
1.105 **ambient**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	151	665	88	307	851	42	82	860	191	41	1,031	154
2	National Blvd & Hayden Ave	566	0	102	0	0	0	0	750	278	24	302	0
3	National Blvd & Eastham Dr	0	0	72	0	0	0	0	747	155	23	311	0
4	National Blvd & Jefferson Blvd	108	630	0	0	330	246	548	0	262	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	62	182	89	192	219	163	130	980	96	80	786	148
6	Warner Dr & Hayden Ave	0	424	99	81	109	0	0	0	0	82	0	41
7	Higuera St & Hayden Ave	0	134	140	0	41	168	122	0	88	15	0	279
8	Higuera St & Eastham Dr	0	0	0	454	0	32	8	165	0	0	247	84
9	Rodeo Rd & Jefferson Blvd	57	608	976	239	372	17	33	474	113	507	249	75

Willows Community School
PM Buildout Traffic Volumes

related

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	140	111	137	92	95	2	66	196	103	142	203	43
2	National Blvd & Hayden Ave	-129	0	18	0	0	0	0	264	65	12	537	0
3	National Blvd & Eastham Dr	200	0	15	0	0	0	0	276	0	0	349	0
4	National Blvd & Jefferson Blvd	214	175	0	0	101	158	213	0	127	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	4	3	0	88	8	35	77	301	18	1	296	108
6	Warner Dr & Hayden Ave	0	-58	11	65	10	0	0	0	0	7	0	47
7	Higuera St & Hayden Ave	0	42	30	0	10	12	10	0	12	3	0	-95
8	Higuera St & Eastham Dr	0	0	0	0	0	14	6	25	0	0	-92	115
9	Rodeo Rd & Jefferson Blvd	17	148	57	56	324	0	0	11	38	42	6	0

Total without Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	291	776	225	399	946	44	148	1,056	294	183	1,234	197
2	National Blvd & Hayden Ave	437	0	120	0	0	0	0	1,014	343	36	839	0
3	National Blvd & Eastham Dr	200	0	87	0	0	0	0	1,023	155	23	660	0
4	National Blvd & Jefferson Blvd	322	805	0	0	431	404	761	0	389	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	66	185	89	280	227	198	207	1,281	114	81	1,082	256
6	Warner Dr & Hayden Ave	0	366	110	146	119	0	0	0	0	89	0	88
7	Higuera St & Hayden Ave	0	176	170	0	51	180	132	0	100	18	0	184
8	Higuera St & Eastham Dr	0	0	0	454	0	46	14	190	0	0	155	199
9	Rodeo Rd & Jefferson Blvd	74	756	1,033	295	696	17	33	485	151	549	255	75

Willows Community School
PM Buildout Traffic Volumes

E4 **New Project Traffic Flow**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	2	18	0	0	13	0	0	0	2	0	0	0
2	National Blvd & Hayden Ave	20	0	0	0	0	0	0	13	2	0	0	0
3	National Blvd & Eastham Dr	0	0	19	0	0	0	0	0	13	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	4	0	19	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	7	0	0	5	0	0	2	0	0	0	0
6	Warner Dr & Hayden Ave	0	0	2	2	0	0	0	0	0	8	0	20
7	Higuera St & Hayden Ave	0	0	4	0	0	8	2	0	4	0	0	0
8	Higuera St & Eastham Dr	0	0	0	8	0	17	0	0	0	0	21	0
9	Rodeo Rd & Jefferson Blvd	4	0	0	0	0	4	0	2	6	0	13	0

E1 **Existing Willows Community School**

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	2	13	0	0	10	0	0	0	1	0	0	0
2	National Blvd & Hayden Ave	15	0	14	0	0	0	0	11	0	0	0	0
3	National Blvd & Eastham Dr	0	0	0	0	0	0	0	14	11	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	3	0	14	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	5	0	0	4	0	0	1	0	0	0	0
6	Warner Dr & Hayden Ave	0	29	8	0	0	0	0	0	0	0	0	0
7	Higuera St & Hayden Ave	0	0	3	0	0	6	2	0	3	0	0	41
8	Higuera St & Eastham Dr	0	0	0	6	0	13	0	0	0	0	15	0
9	Rodeo Rd & Jefferson Blvd	3	0	0	0	0	3	0	2	4	0	9	0

Willows Community School
PM Buildout Traffic Volumes

NET Willows Community School

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	0	5	0	0	3	0	0	0	1	0	0	0
2	National Blvd & Hayden Ave	5	0	-14	0	0	0	0	2	2	0	0	0
3	National Blvd & Eastham Dr	0	0	19	0	0	0	0	-14	2	0	0	0
4	National Blvd & Jefferson Blvd	0	0	0	0	1	0	5	0	0	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	0	2	0	0	1	0	0	1	0	0	0	0
6	Warner Dr & Hayden Ave	0	-29	-6	2	0	0	0	0	0	8	0	20
7	Higuera St & Hayden Ave	0	0	1	0	0	2	0	0	1	0	0	-41
8	Higuera St & Eastham Dr	0	0	0	2	0	4	0	0	0	0	6	0
9	Rodeo Rd & Jefferson Blvd	1	0	0	0	0	1	0	0	2	0	4	0

Total with Project Traffic Volume

No.	Intersection	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
1	National Blvd & Washington Blvd	291	781	225	399	949	44	148	1,056	295	183	1,234	197
2	National Blvd & Hayden Ave	442	0	106	0	0	0	0	1,016	345	36	839	0
3	National Blvd & Eastham Dr	200	0	106	0	0	0	0	1,009	157	23	660	0
4	National Blvd & Jefferson Blvd	322	805	0	0	432	404	766	0	389	0	0	0
5	Robertson Blvd/Higuera St & Washington Blvd	66	187	89	280	228	198	207	1,282	114	81	1,082	256
6	Warner Dr & Hayden Ave	0	337	104	148	119	0	0	0	0	97	0	108
7	Higuera St & Hayden Ave	0	176	171	0	51	182	132	0	101	18	0	143
8	Higuera St & Eastham Dr	0	0	0	456	0	50	14	190	0	0	161	199
9	Rodeo Rd & Jefferson Blvd	75	756	1,033	295	696	18	33	485	153	549	259	75

APPENDIX F

STUDENT ZIP CODE INFORMATION

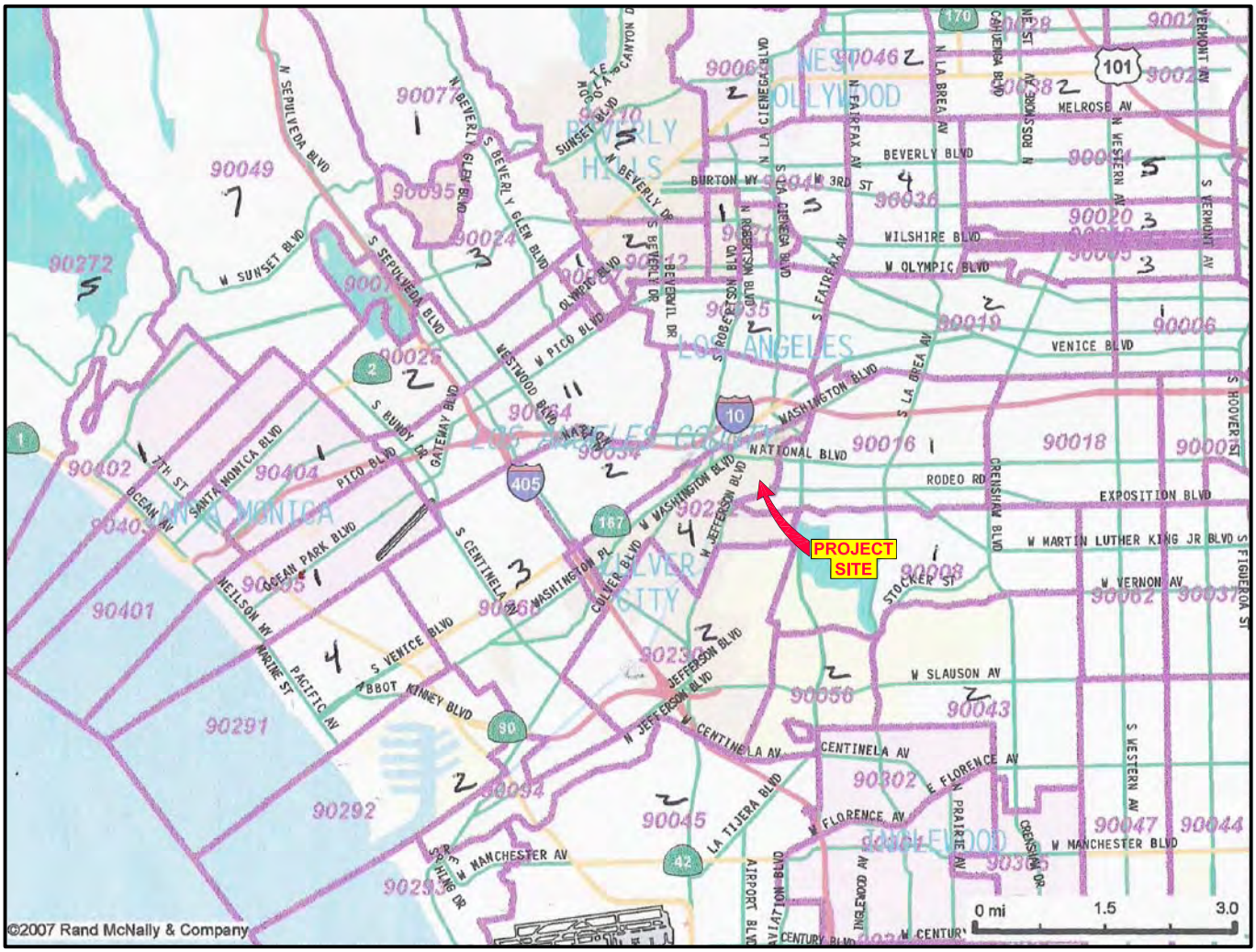


FIGURE 1

7/2010

STUDENT LOCATION BY ZIP CODE PERCENTAGE

Overland Traffic Consultants, Inc.
27201 Tourney Road #206, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com

The Willows School Student Enrollment 2010							
Direction	Zip Code	# Families	Percent	Direction	Zip Code	# Families	Percent
North	90004	18	5.3%	West	90066	10	3.0%
North	90005	9	2.7%	West	90067	2	0.6%
North	90006	2	0.6%	North	90068	5	1.5%
East	90008	3	0.9%	North	90069	7	2.1%
North	90012	1	0.3%	North	90077	4	1.2%
East	90016	2	0.6%	North	90210	18	5.3%
North	90019	7	2.1%	North	90211	3	0.9%
North	90020	10	3.0%	North	90212	5	1.5%
North	90024	9	2.7%	North	90230	7	2.1%
North	90025	6	1.8%	West	90232	12	3.6%
North	90027	1	0.3%	South	90250	2	0.6%
North	90028	1	0.3%	South	90266	2	0.6%
North	90034	6	1.8%	West	90272	16	4.7%
North	90035	8	2.4%	West	90291	12	3.6%
North	90036	13	3.9%	South	90292	5	1.5%
North	90038	2	0.6%	South	90293	2	0.6%
North	90039	1	0.3%	South	90302	3	0.9%
East	90043	8	2.4%	South	90303	1	0.3%
East	90044	1	0.3%	South	90305	1	0.3%
South	90045	8	2.4%	West	90402	4	1.2%
North	90046	7	2.1%	West	90403	1	0.3%
North	90048	15	4.5%	West	90404	2	0.6%
North	90049	24	7.1%	West	90405	2	0.6%
East	90056	6	1.8%	South	90731	1	0.3%
East	90058	2	0.6%	South	91105	1	0.3%
West	90063	1	0.3%	South	91403	1	0.3%
West	90064	36	10.7%	South	91607	1	0.3%
		207				130	337
	Note: 425 student / 337 families = 1.26 students per family						

	The Willows School Student Enrollment 2010						
Direction	Zip Code	# Families	Percent	Direction	Zip Code	# Families	Percent
North	90004	18	5.3%	South	90045	8	2.4%
North	90005	9	2.7%	South	90250	2	0.6%
North	90006	2	0.6%	South	90266	2	0.6%
North	90012	1	0.3%	South	90292	5	1.5%
North	90019	7	2.1%	South	90293	2	0.6%
North	90020	10	3.0%	South	90302	3	0.9%
North	90024	9	2.7%	South	90303	1	0.3%
North	90025	6	1.8%	South	90305	1	0.3%
North	90027	1	0.3%	South	90731	1	0.3%
North	90028	1	0.3%	South	91105	1	0.3%
North	90034	6	1.8%	South	91403	1	0.3%
North	90035	8	2.4%	South	91607	1	0.3%
North	90036	13	3.9%		**South**	**28**	**8.3%**
North	90038	2	0.6%	West	90063	1	0.3%
North	90039	1	0.3%	West	90064	36	10.7%
North	90046	7	2.1%	West	90066	10	3.0%
North	90048	15	4.5%	West	90067	2	0.6%
North	90049	24	7.1%	West	90232	12	3.6%
North	90068	5	1.5%	West	90272	16	4.7%
North	90069	7	2.1%	West	90291	12	3.6%
North	90077	4	1.2%	West	90402	4	1.2%
North	90210	18	5.3%	West	90403	1	0.3%
North	90211	3	0.9%	West	90404	2	0.6%
North	90212	5	1.5%	West	90405	2	0.6%
North	90230	7	2.1%		**West**	**98**	**29.1%**
	North	**189**	**56.1%**				
East	90008	3	0.9%		**Summary**		
East	90016	2	0.6%		North	56.1%	
East	90043	8	2.4%		South	8.3%	
East	90044	1	0.3%		East	6.5%	
East	90056	6	1.8%		West	29.1%	
East	**90058**	**2**	**0.6%**			100.0%	
	East	**22**	**6.5%**				

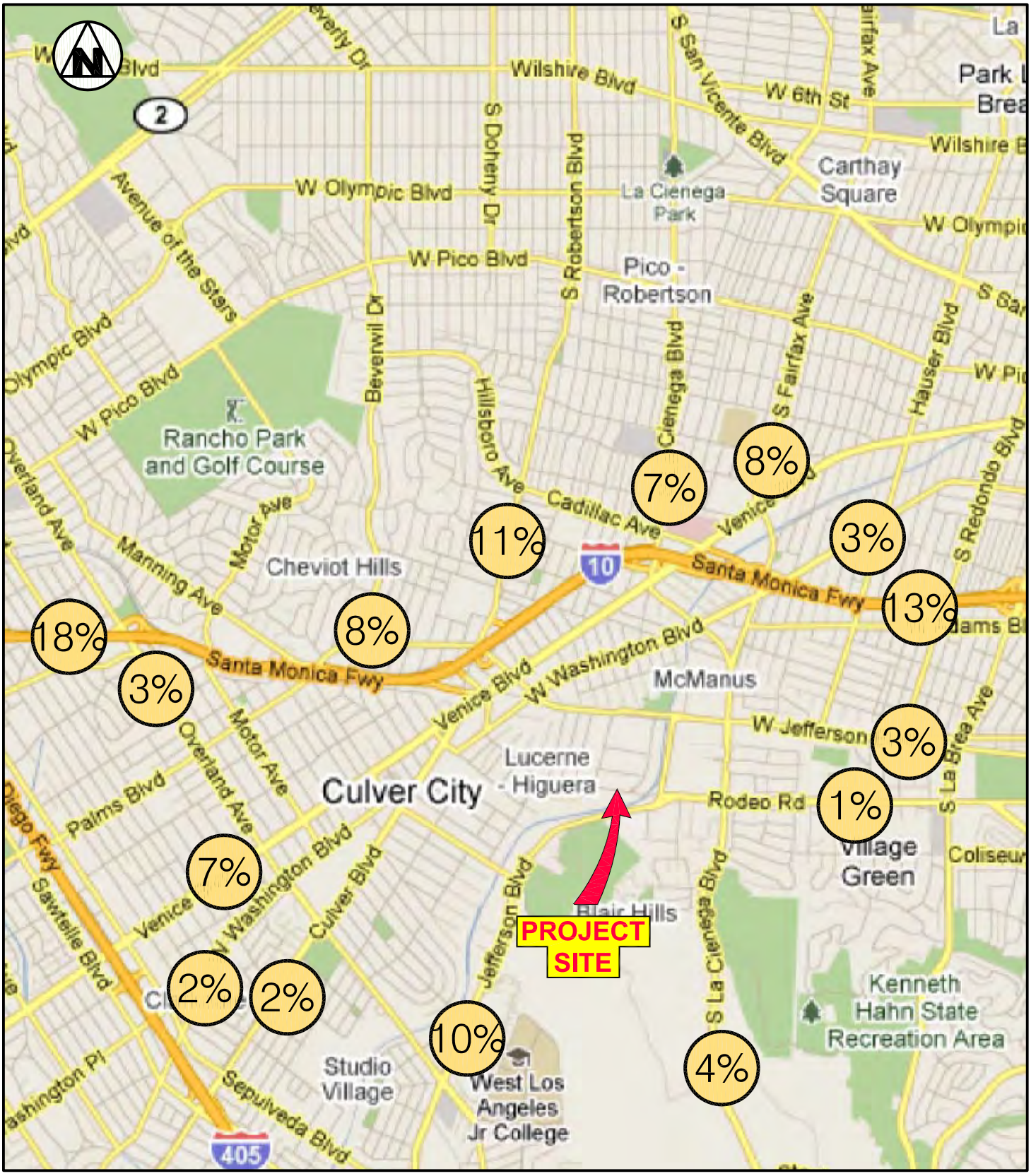


FIGURE 2

7/2010

STREET ASSIGNMENT OF ZIP CODES

Overland Traffic Consultants, Inc.
27201 Tourney Road #206, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com

Date	Time Period	IN	OUT	TOTAL			
6/7/2010	7:20 - 7:25	0	0	0			
	7:25 - 7:30	4	0	4			
	7:30 - 7:35	1	2	3			
	7:35 - 7:40	5	6	11			
	7:40 - 7:45	15	11	26			
	7:45 - 7:50	36	31	67			
	7:50 - 7:55	15	12	27			
	7:55 - 8:00	26	23	49			
	8:00 - 8:05	18	15	33			
	8:05 - 8:10	21	18	39			
	8:10 - 8:15	14	14	28			
	8:15 - 8:20	10	15	25			
	8:20 - 8:25	7	7	14			
	8:25 - 8:30	12	8	20			
	8:30 - 8:35	3	4	7			
	8:35 - 8:40	12	14	26			
	8:40 - 8:45	7	6	13			
	8:45 - 8:50	6	10	16			
	8:50 - 8:55	6	3	9			
	8:55 - 9:00	9	11	20			
PEAK HOUR TRIP RATE							
	7:00 - 8:00	102	85	187	0.240	0.200	0.440
	7:05 - 8:05	120	100	220	0.282	0.235	0.518
	7:10 - 8:10	137	118	255	0.322	0.278	0.600
	7:15 - 8:15	150	130	280	0.353	0.306	0.659
	7:20 - 8:20	165	147	312	0.388	0.346	0.734
	7:25 - 8:25	172	154	326	0.405	0.362	0.767
	7:30 - 8:30	180	162	342	0.424	0.381	0.805
	7:35 - 8:35	182	164	346	0.428	0.386	0.814
	7:40 - 8:40	189	172	361	0.445	0.405	0.849
	7:45 - 8:45	181	167	348	0.426	0.393	0.819
	7:50 - 8:50	151	146	297	0.355	0.344	0.699
	7:55 - 8:55	142	137	279	0.334	0.322	0.656
	8:00 - 9:00	125	125	250	0.294	0.294	0.588
			ITE TRIP RATE		0.495	0.405	0.900

APPENDIX G
LEVEL OF SERVICE WORKSHEETS

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	2	2,880	181	0.063	*		137	0.048		
NB THRU	2	3,200	667	0.224			602	0.213	*	
NB RIGHT	0	0	50	0.000			80	0.000		
						0.294				0.310
SB LEFT	2	2,880	168	0.058			278	0.097	*	
SB THRU	2	3,200	685	0.231	*		770	0.253		
SB RIGHT	0	0	55	0.000			38	0.000		
EB LEFT	1	1,600	54	0.034	*		74	0.046	*	
EB THRU	2	3,200	851	0.266			779	0.243		
EB RIGHT	1	1,600	57	0.036			173	0.108		
						0.399				0.338
WB LEFT	1	1,600	78	0.049			37	0.023		
WB THRU	2	3,200	1168	0.365	*		933	0.292	*	
WB RIGHT	1	1,600	308	0.193			139	0.087		

NORTH/SOUTH CRITICAL SUM	0.294	NORTH/SOUTH CRITICAL SUM	0.310
EAST/WEST CRITICAL SUM	0.399	EAST/WEST CRITICAL SUM	0.338
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.793	INTERSECTION ICU VALUE	0.748
LESS 0.07 FOR ATSAC	0.723		0.678
AM INTERSECTION LOS	C	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	2	2,880	181	9	114	304	0.106	*	137	7	140	284	0.099	
NB THRU	2	3,200	667	34	92	793	0.301		602	31	111	744	0.301	*
NB RIGHT	0	0	50	3	117	170	0.000		80	4	137	221	0.000	
								0.387						0.434
SB LEFT	2	2,880	168	9	62	239	0.083		278	14	92	384	0.133	*
SB THRU	2	3,200	685	35	114	834	0.281	*	770	39	95	904	0.296	
SB RIGHT	0	0	55	3	8	66	0.000		38	2	2	42	0.000	
EB LEFT	1	1,600	54	3	30	87	0.054		74	4	66	144	0.090	
EB THRU	2	3,200	851	43	129	1023	0.320	*	779	40	196	1015	0.317	*
EB RIGHT	1	1,600	57	3	91	151	0.094		173	9	103	285	0.178	
								0.469						0.430
WB LEFT	1	1,600	78	4	157	239	0.149	*	37	2	142	181	0.113	*
WB THRU	3	4800	1168	60	236	1464	0.379		933	48	203	1184	0.286	
WB RIGHT	0	0	308	16	34	358	0.000		139	7	43	189	0.000	

NORTH/SOUTH CRITICAL SUM	0.387	NORTH/SOUTH CRITICAL SUM	0.434
EAST/WEST CRITICAL SUM	0.469	EAST/WEST CRITICAL SUM	0.430
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.956	INTERSECTION ICU VALUE	0.964
LESS 0.07 FOR ATSAC	0.886	LESS 0.07 FOR ATSAC	0.894
AM INTERSECTION LOS	D	PM INTERSECTION LOS	D
AM IMPACT	0.163	PM IMPACT	0.216

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	2	2,880	181	9	114	1	305	0.106	*	137	7	140	0	284	0.099	
NB THRU	2	3,200	667	34	92	6	799	0.303		602	31	111	1	745	0.302	*
NB RIGHT	0	0	50	3	117	0	170	0.000		80	4	137	0	221	0.000	
									0.389							0.435
SB LEFT	2	2,880	168	9	62	0	239	0.083		278	14	92	0	384	0.133	*
SB THRU	2	3,200	685	35	114	7	841	0.283	*	770	39	95	2	906	0.296	
SB RIGHT	0	0	55	3	8	0	66	0.000		38	2	2	0	42	0.000	
EB LEFT	1	1,600	54	3	30	0	87	0.054		74	4	66	0	144	0.09	
EB THRU	2	3,200	851	43	129	0	1023	0.320	*	779	40	196	0	1015	0.317	*
EB RIGHT	1	1,600	57	3	91	2	153	0.096		173	9	103	0	285	0.178	
									0.469							0.430
WB LEFT	1	1,600	78	4	157	0	239	0.149	*	37	2	142	0	181	0.113	*
WB THRU	3	4800	1168	60	236	0	1464	0.379		933	48	203	0	1184	0.286	
WB RIGHT	0	0	308	16	34	0	358	0.000		139	7	43	0	189	0.000	

NORTH/SOUTH CRITICAL SUM	0.389	NORTH/SOUTH CRITICAL SUM	0.435
EAST/WEST CRITICAL SUM	0.469	EAST/WEST CRITICAL SUM	0.430
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.958	INTERSECTION ICU VALUE	0.965
LESS 0.07 FOR ATSAC	0.888	LESS 0.07 FOR ATSAC	0.895
AM INTERSECTION LOS	D	PM INTERSECTION LOS	D
AM IMPACT	0.002	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	431	0.269	*		512	0.320	*	
NB THRU	0	0	0	0.000			0	0.000		
NB RIGHT	1	1600	58	0.036			92	0.058		
						0.269				0.320
SB LEFT	0	0	0	0.000			0	0.000		
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	2	3,200	585	0.246	*		679	0.291	*	
EB RIGHT	0	0	203	0.000			252	0.000		
						0.287				0.305
WB LEFT	1	1,600	65	0.041	*		22	0.014	*	
WB THRU	2	3,200	440	0.138			273	0.085		
WB RIGHT	0	0	0	0.000			0	0.000		

NORTH/SOUTH CRITICAL SUM	0.269	NORTH/SOUTH CRITICAL SUM	0.320
EAST/WEST CRITICAL SUM	0.287	EAST/WEST CRITICAL SUM	0.305
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.656	INTERSECTION ICU VALUE	0.725
LESS 0.07 FOR ATSAC	0.586		0.655
AM INTERSECTION LOS	A	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	431	22	-134	319	0.199 *		512	26	-129	409	0.256 *	
NB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
NB RIGHT	1	1600	58	3	4	65	0.041		92	5	18	115	0.072	
								0.199						0.256
SB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
EB THRU	2	3,200	585	30	305	920	0.372 *		679	35	264	978	0.409 *	
EB RIGHT	0	0	203	10	58	271	0.000		252	13	65	330	0.000	
								0.428						0.431
WB LEFT	1	1,600	65	3	21	89	0.056 *		22	1	12	35	0.022 *	
WB THRU	2	3,200	440	22	411	873	0.273		273	14	537	824	0.257	
WB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.199	NORTH/SOUTH CRITICAL SUM	0.256
EAST/WEST CRITICAL SUM	0.428	EAST/WEST CRITICAL SUM	0.431
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.727	INTERSECTION ICU VALUE	0.787
LESS 0.07 FOR ATSAC	0.657	LESS 0.07 FOR ATSAC	0.717
AM INTERSECTION LOS	B	PM INTERSECTION LOS	C
AM IMPACT	0.071	PM IMPACT	0.062

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	431	22	-134	7	326	0.204 *		512	26	-129	2	411	0.257 *	
NB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	1	1600	58	3	4	-3	62	0.039		92	5	18	-1	114	0.071	
									0.204							0.257
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	2	3,200	585	30	305	-4	916	0.375 *		679	35	264	0	978	0.409 *	
EB RIGHT	0	0	203	10	58	13	284	0.000		252	13	65	2	332	0.000	
									0.431							0.431
WB LEFT	1	1,600	65	3	21	0	89	0.056 *		22	1	12	0	35	0.022 *	
WB THRU	2	3,200	440	22	411	0	873	0.273		273	14	537	0	824	0.257	
WB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.204	NORTH/SOUTH CRITICAL SUM	0.257
EAST/WEST CRITICAL SUM	0.431	EAST/WEST CRITICAL SUM	0.431
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.735	INTERSECTION ICU VALUE	0.788
LESS 0.07 FOR ATSAC	0.665	LESS 0.07 FOR ATSAC	0.718
AM INTERSECTION LOS	B	PM INTERSECTION LOS	C
AM IMPACT	0.008	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	0	0.000			0	0		
NB THRU	0	0	0	0.000			0	0.000		
NB RIGHT	1	1600	18	0.011	*		65	0.041	*	
						0.011				0.041
SB LEFT	0	0	0	0.000	*		0	0.000	*	
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	2	3,200	482	0.191	*		676	0.255	*	
EB RIGHT	0	0	130	0.000			140	0.000		
						0.269				0.268
WB LEFT	1	1,600	124	0.078	*		21	0.013	*	
WB THRU	2	3,200	536	0.168			282	0.088		
WB RIGHT	0	0	0	0.000			0	0.000		

NORTH/SOUTH CRITICAL SUM	0.011	NORTH/SOUTH CRITICAL SUM	0.041
EAST/WEST CRITICAL SUM	0.269	EAST/WEST CRITICAL SUM	0.268
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.380	INTERSECTION ICU VALUE	0.409
	0.380		0.409
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	0	0	150	150	0.094 *		0	0	200	200	0.125 *	
NB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
NB RIGHT	1	1600	18	1	4	23	0.014		65	3	15	83	0.052	
								0.094						0.125
SB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
EB THRU	2	3,200	482	25	308	815	0.297 *		676	34	276	986	0.354 *	
EB RIGHT	0	0	130	7	0	137	0.000		140	7	0	147	0.000	
								0.378						0.368
WB LEFT	1	1,600	124	6	0	130	0.081 *		21	1	0	22	0.014 *	
WB THRU	2	3,200	536	27	282	845	0.264		282	14	349	645	0.202	
WB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.094	NORTH/SOUTH CRITICAL SUM	0.125
EAST/WEST CRITICAL SUM	0.378	EAST/WEST CRITICAL SUM	0.368
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.572	INTERSECTION ICU VALUE	0.593
LESS 0.07 FOR ATSAC	0.502	LESS 0.07 FOR ATSAC	0.523
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.122	PM IMPACT	0.114

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	0	0	150	0	150	0.094 *		0	0	200	0	200	0.125 *	
NB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	1	1600	18	1	4	10	33	0.021		65	3	15	2	85	0.053	
									0.094							0.125
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	2	3,200	482	25	308	-3	812	0.295 *		676	34	276	-1	985	0.354 *	
EB RIGHT	0	0	130	7	0	-4	133	0.000		140	7	0	0	147	0.000	
									0.384							0.369
WB LEFT	1	1,600	124	6	0	12	142	0.089 *		21	1	0	2	24	0.015 *	
WB THRU	2	3,200	536	27	282	0	845	0.264		282	14	349	0	645	0.202	
WB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.094	NORTH/SOUTH CRITICAL SUM	0.125
EAST/WEST CRITICAL SUM	0.384	EAST/WEST CRITICAL SUM	0.369
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.578	INTERSECTION ICU VALUE	0.594
LESS 0.07 FOR ATSAC	0.508	LESS 0.07 FOR ATSAC	0.524
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.006	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	169	0.106	*		98	0.061	*	
NB THRU	2	3,200	432	0.135			570	0.178		
NB RIGHT	1	1600	0	0.000			0	0		
						0.408				0.248
SB LEFT	1	1,600	0	0.000			0	0.000		
SB THRU	1	1,600	465	0.291			299	0.187	*	
SB RIGHT	1	1,600	483	0.302	*		223	0.139		
EB LEFT	1.5	2,400	291	0.121	*		496	0.207	*	
EB THRU	0.5	800	0	0.000			0	0.000		
EB RIGHT	1	1,600	221	0.085			237	0.118		
						0.121				0.207
WB LEFT	0	0	0	0.000			0	0.000		
WB THRU	1	1,600	0	0.000	*		0	0.000		
WB RIGHT	0	0	0	0.000	*		0	0.000		

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.408	NORTH/SOUTH CRITICAL SUM	0.248
EAST/WEST CRITICAL SUM	0.121	EAST/WEST CRITICAL SUM	0.207
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.629	INTERSECTION ICU VALUE	0.555
LESS 0.07 FOR ATSAC	0.559		0.485
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	169	9	126	304	0.190 *		98	5	214	317	0.198 *	
NB THRU	2	3,200	432	22	55	509	0.159		570	29	175	774	0.242	
NB RIGHT	1	1600	0	0	0	0	0.000		0	0	0	0	0	
								0.647						0.458
SB LEFT	1	1,600	0	0	0	0	0.000		0	0	0	0	0	
SB THRU	1	1,600	465	24	242	731	0.457 *		299	15	101	415	0.260 *	
SB RIGHT	1	1,600	483	25	204	712	0.445		223	11	158	392	0.245	
EB LEFT	1.5	2,400	291	15	121	427	0.178		496	25	213	734	0.306 *	
EB THRU	0.5	800	0	0	0	0	0.000		0	0	0	0	0.000	
EB RIGHT	1	1,600	221	11	214	446	0.184 *		237	12	127	376	0.136	
								0.184						0.306
WB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
WB THRU	1	1600	0	0	0	0	0.000		0	0	0	0	0.000	
WB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.647	NORTH/SOUTH CRITICAL SUM	0.458
EAST/WEST CRITICAL SUM	0.184	EAST/WEST CRITICAL SUM	0.306
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.931	INTERSECTION ICU VALUE	0.864
LESS 0.07 FOR ATSAC	0.861	LESS 0.07 FOR ATSAC	0.794
AM INTERSECTION LOS	D	PM INTERSECTION LOS	C
AM IMPACT	0.302	PM IMPACT	0.309

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

			AM PEAK HOUR								PM PEAK HOUR							
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	169	9	126	0	304	0.190	*		98	5	214	0	317	0.198	*	
NB THRU	2	3,200	432	22	55	0	509	0.159			570	29	175	0	774	0.242		
NB RIGHT	1	1600	0	0	0	0	0	0.000			0	0	0	0	0	0		
										0.646								0.458
SB LEFT	1	1,600	0	0	0	0	0	0.000			0	0	0	0	0	0		
SB THRU	1	1,600	465	24	242	-1	730	0.456	*		299	15	101	0	415	0.260	*	
SB RIGHT	1	1,600	483	25	204	12	724	0.452			223	11	158	2	394	0.246		
EB LEFT	1.5	2,400	291	15	121	7	434	0.181			496	25	213	1	735	0.306	*	
EB THRU	0.5	800	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
EB RIGHT	1	1,600	221	11	214	0	446	0.184	*		237	12	127	0	376	0.136		
										0.184								0.306
WB LEFT	0	0	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
WB THRU	1	1600	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
WB RIGHT	0	0	0	0	0	0	0	0.000			0	0	0	0	0	0.000		

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.646	NORTH/SOUTH CRITICAL SUM	0.458
EAST/WEST CRITICAL SUM	0.184	EAST/WEST CRITICAL SUM	0.306
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.930	INTERSECTION ICU VALUE	0.864
LESS 0.07 FOR ATSAC	0.860	LESS 0.07 FOR ATSAC	0.794
AM INTERSECTION LOS	D	PM INTERSECTION LOS	C
AM IMPACT	-0.001	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0.040			56	0.035		
NB THRU	2	3,200	335	0.126	*		165	0.077	*	
NB RIGHT	0	0	67	0.000			81	0.000		
						0.239				0.186
SB LEFT	1	1,600	180	0.113	*		174	0.109	*	
SB THRU	1	1,600	223	0.139			198	0.124		
SB RIGHT	1	1,600	64	0.040			148	0.093		
EB LEFT	1	1,600	71	0.044			118	0.074		
EB THRU	2	3,200	750	0.253	*		887	0.304	*	
EB RIGHT	0	0	59	0.000			87	0.000		
						0.306				0.349
WB LEFT	1	1,600	84	0.053	*		72	0.045	*	
WB THRU	2	3,200	1077	0.401			712	0.264		
WB RIGHT	0	0	207	0.000			134	0.000		

NORTH/SOUTH CRITICAL SUM	0.239	NORTH/SOUTH CRITICAL SUM	0.186
EAST/WEST CRITICAL SUM	0.306	EAST/WEST CRITICAL SUM	0.349
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.645	INTERSECTION ICU VALUE	0.635
LESS 0.07 FOR ATSAC	0.575		0.565
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	64	3	4	71	0.045		56	3	4	63	0.039	
NB THRU	2	3,200	335	17	8	360	0.135	*	165	8	3	176	0.082	*
NB RIGHT	0	0	67	3	0	70	0.000		81	4	0	85	0.000	
								0.312						0.251
SB LEFT	1	1,600	180	9	94	283	0.177	*	174	9	88	271	0.169	*
SB THRU	1	1,600	223	11	5	239	0.150		198	10	8	216	0.135	
SB RIGHT	1	1,600	64	3	76	143	0.090		148	8	35	191	0.119	
EB LEFT	1	1,600	71	4	29	104	0.065	*	118	6	77	201	0.126	*
EB THRU	2	3,200	750	38	252	1040	0.345		887	45	301	1233	0.420	
EB RIGHT	0	0	59	3	3	65	0.000		87	4	18	109	0.000	
								0.562						0.530
WB LEFT	1	1,600	84	4	0	88	0.055		72	4	1	77	0.048	
WB THRU	2	3,200	1077	55	200	1332	0.497	*	712	36	296	1044	0.404	*
WB RIGHT	0	0	207	11	41	259	0.000		134	7	108	249	0.000	

NORTH/SOUTH CRITICAL SUM	0.312	NORTH/SOUTH CRITICAL SUM	0.251
EAST/WEST CRITICAL SUM	0.562	EAST/WEST CRITICAL SUM	0.530
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.974	INTERSECTION ICU VALUE	0.881
LESS 0.07 FOR ATSAC	0.904	LESS 0.07 FOR ATSAC	0.811
AM INTERSECTION LOS	E	PM INTERSECTION LOS	D
AM IMPACT	0.329	PM IMPACT	0.246

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	64	3	4	0	71	0.045		56	3	4	0	63	0.039	
NB THRU	2	3,200	335	17	8	2	362	0.135	*	165	8	3	1	177	0.082	*
NB RIGHT	0	0	67	3	0	0	70	0.000		81	4	0	0	85	0.000	
									0.312							0.251
SB LEFT	1	1,600	180	9	94	0	283	0.177	*	174	9	88	0	271	0.169	*
SB THRU	1	1,600	223	11	5	3	242	0.151		198	10	8	1	217	0.136	
SB RIGHT	1	1,600	64	3	76	0	143	0.090		148	8	35	0	191	0.119	
EB LEFT	1	1,600	71	4	29	0	104	0.065	*	118	6	77	0	201	0.126	*
EB THRU	2	3,200	750	38	252	2	1042	0.346		887	45	301	0	1233	0.420	
EB RIGHT	0	0	59	3	3	0	65	0.000		87	4	18	0	109	0.000	
									0.562							0.530
WB LEFT	1	1,600	84	4	0	0	88	0.055		72	4	1	0	77	0.048	
WB THRU	2	3,200	1077	55	200	0	1332	0.497	*	712	36	296	0	1044	0.404	*
WB RIGHT	0	0	207	11	41	0	259	0.000		134	7	108	0	249	0.000	

NORTH/SOUTH CRITICAL SUM	0.312	NORTH/SOUTH CRITICAL SUM	0.251
EAST/WEST CRITICAL SUM	0.562	EAST/WEST CRITICAL SUM	0.530
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.974	INTERSECTION ICU VALUE	0.881
LESS 0.07 FOR ATSAC	0.904	LESS 0.07 FOR ATSAC	0.811
AM INTERSECTION LOS	E	PM INTERSECTION LOS	D
AM IMPACT	0.000	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1600	502	0.314	*		384	0.240	*	
NB RIGHT	1	1600	147	0.092			90	0.056		
						0.439				0.348
SB LEFT	0	0	75	0.000			73	0.000		
SB THRU	1	1,600	125	0.125	*		99	0.108	*	
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	1	1,600	0	0.000			0	0.000		
EB RIGHT	0	0	0	0.000			0	0.000		
						0.100				0.069
WB LEFT	0	0	139	0.000			74	0.000		
WB THRU	1	1,600	0	0.100	*		0	0.069	*	
WB RIGHT	0	0	21	0.000			37	0.000		

NORTH/SOUTH CRITICAL SUM	0.439	NORTH/SOUTH CRITICAL SUM	0.348
EAST/WEST CRITICAL SUM	0.100	EAST/WEST CRITICAL SUM	0.069
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.639	INTERSECTION ICU VALUE	0.517
	0.639		0.517
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

							AM PEAK HOUR							PM PEAK HOUR		
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
NB THRU	1	1600	502	26	-143	385	0.240	*		384	20	-58	346	0.216	*	
NB RIGHT	1	1600	147	7	4	158	0.099			90	5	11	106	0.066		
									0.419							0.376
SB LEFT	0	0	75	4	26	105	0.000			73	4	65	142	0.000		
SB THRU	1	1,600	125	6	50	181	0.179	*		99	5	10	114	0.160	*	
SB RIGHT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
EB THRU	1	1,600	0	0	0	0	0.000			0	0	0	0	0.000		
EB RIGHT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
									0.114							0.107
WB LEFT	0	0	139	7	2	148	0.000			74	4	7	85	0.000		
WB THRU	1	1600	0	0	0	0	0.114	*		0	0	0	0	0.107	*	
WB RIGHT	0	0	21	1	13	35	0.000			37	2	47	86	0.000		

NORTH/SOUTH CRITICAL SUM	0.419	NORTH/SOUTH CRITICAL SUM	0.376
EAST/WEST CRITICAL SUM	0.114	EAST/WEST CRITICAL SUM	0.107
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.633	INTERSECTION ICU VALUE	0.583
	0.633		0.583
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A
AM IMPACT	-0.006	PM IMPACT	0.066

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) With Project

								AM PEAK HOUR								PM PEAK HOUR							
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
NB THRU	1	1600	502	26	-143	-6	379	0.237	*		384	20	-58	-2	344	0.215	*	
NB RIGHT	1	1600	147	7	4	3	161	0.101			90	5	11	1	107	0.067		
										0.424								0.376
SB LEFT	0	0	75	4	26	13	118	0.000			73	4	65	2	144	0.000		
SB THRU	1	1,600	125	6	50	0	181	0.187	*		99	5	10	0	114	0.161	*	
SB RIGHT	0	0	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
EB THRU	1	1,600	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
EB RIGHT	0	0	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
										0.123								0.109
WB LEFT	0	0	139	7	2	4	152	0.000			74	4	7	1	86	0.000		
WB THRU	1	1600	0	0	0	0	0	0.123	*		0	0	0	0	0	0.109	*	
WB RIGHT	0	0	21	1	13	10	45	0.000			37	2	47	3	89	0.000		

NORTH/SOUTH CRITICAL SUM	0.424	NORTH/SOUTH CRITICAL SUM	0.376
EAST/WEST CRITICAL SUM	0.123	EAST/WEST CRITICAL SUM	0.109
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.647	INTERSECTION ICU VALUE	0.585
	0.647		0.585
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A
AM IMPACT	0.014	PM IMPACT	0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

							AM PEAK HOUR								PM PEAK HOUR	
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000	*		0	0	0	0	0.000		
NB THRU	1	1600	30	2	7	39	0.052			121	6	42	169	0.208	*	
NB RIGHT	0	0	27	1	16	44	0.000			127	6	30	163	0.000		
									0.221							0.208
SB LEFT	0	0	0	0	0	0	0.000			0	0	0	0	0.000	*	
SB THRU	1	1,600	45	2	50	97	0.221	*		37	2	10	49	0.138		
SB RIGHT	0	0	236	12	8	256	0.000			152	8	12	172	0.000		
EB LEFT	1	1,600	148	8	4	160	0.100	*		110	6	10	126	0.079	*	
EB THRU	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
EB RIGHT	1	1,600	81	4	20	105	0.066			80	4	12	96	0.06		
									0.345							0.186
WB LEFT	1	1,600	74	4	16	94	0.059			14	1	3	18	0.011		
WB THRU	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
WB RIGHT	1	1,600	514	26	-148	392	0.245	*		253	13	-95	171	0.107	*	

NORTH/SOUTH CRITICAL SUM	0.221	NORTH/SOUTH CRITICAL SUM	0.208
EAST/WEST CRITICAL SUM	0.345	EAST/WEST CRITICAL SUM	0.186
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.666	INTERSECTION ICU VALUE	0.494
	0.666		0.494
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A
AM IMPACT	-0.024	PM IMPACT	0.012

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000 *		0	0	0	0	0	0.000	
NB THRU	1	1600	30	2	7	0	39	0.051		121	6	42	0	169	0.208 *	
NB RIGHT	0	0	27	1	16	-1	43	0.000		127	6	30	0	163	0.000	
									0.223							0.208
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000 *	
SB THRU	1	1,600	45	2	50	0	97	0.223 *		37	2	10	0	49	0.139	
SB RIGHT	0	0	236	12	8	3	259	0.000		152	8	12	1	173	0.000	
EB LEFT	1	1,600	148	8	4	5	165	0.103 *		110	6	10	1	127	0.079 *	
EB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB RIGHT	1	1,600	81	4	20	-1	104	0.065		80	4	12	0	96	0.060	
									0.343							0.185
WB LEFT	1	1,600	74	4	16	0	94	0.059		14	1	3	0	18	0.011	
WB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB RIGHT	1	1,600	514	26	-148	-9	383	0.240 *		253	13	-95	-2	169	0.106 *	

NORTH/SOUTH CRITICAL SUM	0.223	NORTH/SOUTH CRITICAL SUM	0.208
EAST/WEST CRITICAL SUM	0.343	EAST/WEST CRITICAL SUM	0.185
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.666	INTERSECTION ICU VALUE	0.493
	0.666		0.493
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A
AM IMPACT	0.000	PM IMPACT	-0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1,600	0	0.000			0	0.000		
NB RIGHT	0	0	0	0.000			0	0.000		
						0.077				0.257
SB LEFT	1	1,600	123	0.077	*		411	0.257	*	
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	1	1,600	127	0.079			29	0.018		
EB LEFT	1	1,600	4	0.003	*		7	0.004	*	
EB THRU	2	3,200	41	0.013			149	0.047		
EB RIGHT	0	0	0	0.000			0	0.000		
						0.232				0.098
WB LEFT	0	0	0	0.000			0	0.000		
WB THRU	2	3,200	513	0.229	*		224	0.094	*	
WB RIGHT	0	0	220	0.000			76	0.000		

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.077	NORTH/SOUTH CRITICAL SUM	0.257
EAST/WEST CRITICAL SUM	0.232	EAST/WEST CRITICAL SUM	0.098
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.409	INTERSECTION ICU VALUE	0.455
	0.409		0.455
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
NB THRU	1	1,600	0	0	0	0	0.000		0	0	0	0	0.000	
NB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
								0.081						0.270
SB LEFT	1	1,600	123	6	0	129	0.081	*	411	21	0	432	0.270	*
SB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
SB RIGHT	1	1,600	127	6	4	137	0.086		29	1	14	44	0.028	
EB LEFT	1	1,600	4	0	1	5	0.003	*	7	0	6	13	0.008	*
EB THRU	2	3,200	41	2	15	58	0.018		149	8	25	182	0.057	
EB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
								0.499						0.219
WB LEFT	1	1,600	0	0	0	0	0.000		0	0	0	0	0.000	
WB THRU	1	1,600	513	26	-132	407	0.496	*	224	11	-92	143	0.211	*
WB RIGHT	0	0	220	11	156	387	0.000		76	4	115	195	0.000	

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.081	NORTH/SOUTH CRITICAL SUM	0.270
EAST/WEST CRITICAL SUM	0.499	EAST/WEST CRITICAL SUM	0.219
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.680	INTERSECTION ICU VALUE	0.589
	0.680		0.589
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A
AM IMPACT	0.271	PM IMPACT	0.134

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB THRU	1	1,600	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.082							0.271
SB LEFT	1	1,600	123	6	0	2	131	0.082	*	411	21	0	1	433	0.271	*
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	1	1,600	127	6	4	-4	133	0.083		29	1	14	-1	43	0.027	
EB LEFT	1	1,600	4	0	1	0	5	0.003	*	7	0	6	0	13	0.008	*
EB THRU	2	3,200	41	2	15	0	58	0.018		149	8	25	0	182	0.057	
EB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.251							0.114
WB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB THRU	2	3,200	513	26	-132	-5	402	0.248	*	224	11	-92	0	143	0.106	*
WB RIGHT	0	0	220	11	156	5	392	0.000		76	4	115	1	196	0.000	

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.082	NORTH/SOUTH CRITICAL SUM	0.271
EAST/WEST CRITICAL SUM	0.251	EAST/WEST CRITICAL SUM	0.114
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.433	INTERSECTION ICU VALUE	0.485
	0.433		0.485
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	-0.247	PM IMPACT	-0.104

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	109	0.068			52	0.033		
NB THRU	2	3,200	452	0.141	*		550	0.172	*	
NB RIGHT free	1	1600	530	0.331			884	0.553		
						0.243				0.307
SB LEFT	1	1,600	163	0.102	*		216	0.135	*	
SB THRU	2	3,200	438	0.137			337	0.105		
SB RIGHT	1	1,600	47	0.029			15	0.009		
EB LEFT	1	1,600	6	0.004	*		30	0.019		
EB THRU	2	3,200	117	0.037			429	0.134	*	
EB RIGHT	1	1,600	43	0.027			102	0.064		
						0.382				0.293
WB LEFT	2	2,880	906	0.315			459	0.159	*	
WB THRU	1	1,600	604	0.378	*		225	0.141		
WB RIGHT	1	1,600	180	0.113			68	0.043		

NORTH/SOUTH CRITICAL SUM	0.243	NORTH/SOUTH CRITICAL SUM	0.307
EAST/WEST CRITICAL SUM	0.382	EAST/WEST CRITICAL SUM	0.293
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.725	INTERSECTION ICU VALUE	0.700
LESS 0.07 FOR ATSAC	0.655		0.630
AM INTERSECTION LOS	B	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	109	6	14	129	0.080		52	3	17	72	0.045	
NB THRU	2	3,200	452	23	217	692	0.216	*	550	28	148	726	0.227	*
NB RIGHT free	1	1600	530	27	23	580	0.363		884	45	57	986	0.616	
								0.328						0.404
SB LEFT	1	1,600	163	8	8	179	0.112	*	216	11	56	283	0.177	*
SB THRU	2	3,200	438	22	289	749	0.234		337	17	324	678	0.212	
SB RIGHT	1	1,600	47	2	0	49	0.031		15	1	0	16	0.01	
EB LEFT	1	1,600	6	0	0	6	0.004		30	2	0	32	0.020	
EB THRU	2	3,200	117	6	2	125	0.039		429	22	11	462	0.144	*
EB RIGHT	1	1,600	43	2	79	124	0.078	*	102	5	38	145	0.091	
								0.425						0.326
WB LEFT	2	2,880	906	46	46	998	0.347	*	459	23	42	524	0.182	*
WB THRU	1	1600	604	31	9	644	0.402		225	11	6	242	0.152	
WB RIGHT	1	1,600	180	9	0	189	0.118		68	3	0	71	0.045	

NORTH/SOUTH CRITICAL SUM	0.328	NORTH/SOUTH CRITICAL SUM	0.404
EAST/WEST CRITICAL SUM	0.425	EAST/WEST CRITICAL SUM	0.326
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.853	INTERSECTION ICU VALUE	0.830
LESS 0.07 FOR ATSAC	0.783	LESS 0.07 FOR ATSAC	0.760
AM INTERSECTION LOS	C	PM INTERSECTION LOS	C
AM IMPACT	0.128	PM IMPACT	0.130

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	109	6	14	3	132	0.082		52	3	17	1	73	0.045	
NB THRU	2	3,200	452	23	217	0	692	0.216	*	550	28	148	0	726	0.227	*
NB RIGHT free	1	1600	530	27	23	0	580	0.363		884	45	57	0	986	0.616	
									0.328							0.404
SB LEFT	1	1,600	163	8	8	0	179	0.112	*	216	11	56	0	283	0.177	*
SB THRU	2	3,200	438	22	289	0	749	0.234		337	17	324	0	678	0.212	
SB RIGHT	1	1,600	47	2	0	-1	48	0.030		15	1	0	0	16	0.01	
EB LEFT	1	1,600	6	0	0	0	6	0.004		30	2	0	0	32	0.02	
EB THRU	2	3,200	117	6	2	0	125	0.039		429	22	11	0	462	0.144	*
EB RIGHT	1	1,600	43	2	79	2	126	0.079	*	102	5	38	1	146	0.091	
									0.426							0.326
WB LEFT	2	2,880	906	46	46	0	998	0.347	*	459	23	42	0	524	0.182	*
WB THRU	1	1600	604	31	9	-2	642	0.401		225	11	6	0	242	0.152	
WB RIGHT	1	1,600	180	9	0	0	189	0.118		68	3	0	0	71	0.045	

NORTH/SOUTH CRITICAL SUM	0.328	NORTH/SOUTH CRITICAL SUM	0.404
EAST/WEST CRITICAL SUM	0.426	EAST/WEST CRITICAL SUM	0.326
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.854	INTERSECTION ICU VALUE	0.830
LESS 0.07 FOR ATSAC	0.784	LESS 0.07 FOR ATSAC	0.760
AM INTERSECTION LOS	C	PM INTERSECTION LOS	C
AM IMPACT	0.001	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	0.05		
NB THRU	2	3,200	530	0.186	*	
NB RIGHT	0	0	64	0.000		
						0.272
SB LEFT	2	2,880	249	0.086	*	
SB THRU	2	3,200	629	0.211		
SB RIGHT	0	0	45	0.000		
EB LEFT	1	1,600	51	0.032	*	
EB THRU	2	3,200	659	0.206		
EB RIGHT	1	1,600	127	0.079		
						0.254
WB LEFT	1	1,600	73	0.046		
WB THRU	2	3,200	711	0.222	*	
WB RIGHT	1	1,600	193	0.121		

NORTH/SOUTH CRITICAL SUM	0.272
EAST/WEST CRITICAL SUM	0.254
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.626
LESS 0.07 FOR ATSAC	0.556
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	7	140	291	0.101		
NB THRU	2	3,200	530	27	111	668	0.273	*	
NB RIGHT	0	0	64	3	137	204	0.000		
									0.396
SB LEFT	2	2,880	249	13	92	354	0.123	*	
SB THRU	2	3,200	629	32	95	756	0.252		
SB RIGHT	0	0	45	2	2	49	0.000		
EB LEFT	1	1,600	51	3	66	120	0.075		
EB THRU	2	3,200	659	34	196	889	0.278	*	
EB RIGHT	1	1,600	127	6	103	236	0.148		
									0.415
WB LEFT	1	1,600	73	4	142	219	0.137	*	
WB THRU	3	4800	711	36	203	950	0.249		
WB RIGHT	0	0	193	10	43	246	0.000		

NORTH/SOUTH CRITICAL SUM	0.396
EAST/WEST CRITICAL SUM	0.415
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.911
LESS 0.07 FOR ATSAC	0.841
PM INTERSECTION LOS	D
PM IMPACT	0.285

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	7	140	1	292	0.102		
NB THRU	2	3,200	530	27	111	5	673	0.274	*	
NB RIGHT	0	0	64	3	137	0	204	0.000		
										0.397
SB LEFT	2	2,880	249	13	92	0	354	0.123	*	
SB THRU	2	3,200	629	32	95	5	761	0.253		
SB RIGHT	0	0	45	2	2	0	49	0.000		
EB LEFT	1	1,600	51	3	66	0	120	0.075		
EB THRU	2	3,200	659	34	196	0	889	0.278	*	
EB RIGHT	1	1,600	127	6	103	1	237	0.148		
										0.415
WB LEFT	1	1,600	73	4	142	0	219	0.137	*	
WB THRU	3	4800	711	36	203	0	950	0.249		
WB RIGHT	0	0	193	10	43	0	246	0.000		

NORTH/SOUTH CRITICAL SUM		0.397
EAST/WEST CRITICAL SUM		0.415
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.912
LESS 0.07 FOR ATSAC		0.842
	PM INTERSECTION LOS	D
	PM IMPACT	0.001

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	424	0.265	*	
NB THRU	0	0	0	0.000		
NB RIGHT	1	1600	98	0.061		
						0.265
SB LEFT	0	0	0	0.000		
SB THRU	0	0	0	0.000		
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	2	3,200	615	0.251	*	
EB RIGHT	0	0	188	0.000		
						0.270
WB LEFT	1	1,600	31	0.019	*	
WB THRU	2	3,200	264	0.083		
WB RIGHT	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.265
EAST/WEST CRITICAL SUM	0.270
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.635
LESS 0.07 FOR ATSAC	0.565
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	424	22	-79	367	0.229	*	
NB THRU	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	98	5	18	121	0.076		
									0.229
SB LEFT	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	615	31	264	910	0.367	*	
EB RIGHT	0	0	188	10	65	263	0.000		
									0.395
WB LEFT	1	1,600	31	2	12	45	0.028	*	
WB THRU	2	3,200	264	13	487	764	0.239		
WB RIGHT	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.229
EAST/WEST CRITICAL SUM	0.395
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.724
LESS 0.07 FOR ATSAC	0.654
PM INTERSECTION LOS	B
PM IMPACT	0.089

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	424	22	-79	6	373	0.233	*	
NB THRU	0	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	98	5	18	-3	118	0.074		
										0.233
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	615	31	264	-2	908	0.368	*	
EB RIGHT	0	0	188	10	65	8	271	0.000		
										0.396
WB LEFT	1	1,600	31	2	12	0	45	0.028	*	
WB THRU	2	3,200	264	13	487	0	764	0.239		
WB RIGHT	0	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM		0.233
EAST/WEST CRITICAL SUM		0.396
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.729
LESS 0.07 FOR ATSAC		0.659
	PM INTERSECTION LOS	B
	PM IMPACT	0.005

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	0	0.000		
NB THRU	0	0	0	0.000		
NB RIGHT	1	1600	54	0.034	*	
						0.034
SB LEFT	0	0	0	0.000		
SB THRU	0	0	0	0.000		
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	2	3,200	581	0.218	*	
EB RIGHT	0	0	116	0.000		
						0.247
WB LEFT	1	1,600	46	0.029	*	
WB THRU	2	3,200	285	0.089		
WB RIGHT	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.034
EAST/WEST CRITICAL SUM	0.247
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.381
	0.381
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	0	0	150	150	0.094	*	
NB THRU	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	54	3	15	72	0.045		
									0.094
SB LEFT	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	581	30	276	887	0.315	*	
EB RIGHT	0	0	116	6	0	122	0.000		
									0.345
WB LEFT	1	1,600	46	2	0	48	0.030	*	
WB THRU	2	3,200	285	15	349	649	0.203		
WB RIGHT	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.094
EAST/WEST CRITICAL SUM	0.345
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.539
LESS 0.07 FOR ATSAC	0.469
PM INTERSECTION LOS	A
PM IMPACT	0.088

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	0	0	150	0	150	0.094	*	
NB THRU	0	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	54	3	15	8	80	0.05		
										0.094
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	581	30	276	-3	884	0.314	*	
EB RIGHT	0	0	116	6	0	-2	120	0.000		
										0.349
WB LEFT	1	1,600	46	2	0	7	55	0.035	*	
WB THRU	2	3,200	285	15	349	0	649	0.203		
WB RIGHT	0	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM		0.094
EAST/WEST CRITICAL SUM		0.349
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.543
LESS 0.07 FOR ATSAC		0.473
	PM INTERSECTION LOS	A
	PM IMPACT	0.004

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	0.068	*	
NB THRU	2	3,200	417	0.130		
NB RIGHT	1	1600	0	0.000		
						0.232
SB LEFT	1	1,600	0	0.000		
SB THRU	1	1,600	263	0.164	*	
SB RIGHT	1	1,600	208	0.130		
EB LEFT	1.5	2,400	398	0.166	*	
EB THRU	0.5	800	0	0.000		
EB RIGHT	1	1,600	260	0.129		
						0.166
WB LEFT	0	0	0	0.000		
WB THRU	1	1,600	0	0.000		
WB RIGHT	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM	0.232
EAST/WEST CRITICAL SUM	0.166
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.498
LESS 0.07 FOR ATSAC	0.428
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	6	214	328	0.205	*	
NB THRU	2	3,200	417	21	175	613	0.192		
NB RIGHT	1	1600	0	0	0	0	0.000		
									0.441
SB LEFT	1	1,600	0	0	0	0	0.000		
SB THRU	1	1,600	263	13	101	377	0.236	*	
SB RIGHT	1	1,600	208	11	158	377	0.235		
EB LEFT	1.5	2,400	398	20	213	631	0.263	*	
EB THRU	0.5	800	0	0	0	0	0.000		
EB RIGHT	1	1,600	260	13	127	400	0.148		
									0.263
WB LEFT	0	0	0	0	0	0	0.000		
WB THRU	1	1600	0	0	0	0	0.000		
WB RIGHT	0	0	0	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM	0.441
EAST/WEST CRITICAL SUM	0.263
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.804
LESS 0.07 FOR ATSAC	0.734
PM INTERSECTION LOS	C
PM IMPACT	0.306

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	6	214	0	328	0.205	*	
NB THRU	2	3,200	417	21	175	0	613	0.192		
NB RIGHT	1	1600	0	0	0	0	0	0.000		
										0.441
SB LEFT	1	1,600	0	0	0	0	0	0.000		
SB THRU	1	1,600	263	13	101	0	377	0.236	*	
SB RIGHT	1	1,600	208	11	158	7	384	0.240		
EB LEFT	1.5	2,400	398	20	213	5	636	0.265	*	
EB THRU	0.5	800	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	260	13	127	0	400	0.148		
										0.265
WB LEFT	0	0	0	0	0	0	0	0.000		
WB THRU	1	1600	0	0	0	0	0	0.000		
WB RIGHT	0	0	0	0	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM		0.441
EAST/WEST CRITICAL SUM		0.265
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.806
LESS 0.07 FOR ATSAC		0.736
	PM INTERSECTION LOS	C
	PM IMPACT	0.002

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	0.036		
NB THRU	2	3,200	139	0.065	*	
NB RIGHT	0	0	70	0.000		
						0.158
SB LEFT	1	1,600	149	0.093	*	
SB THRU	1	1,600	176	0.110		
SB RIGHT	1	1,600	93	0.058		
EB LEFT	1	1,600	84	0.053	*	
EB THRU	2	3,200	656	0.221		
EB RIGHT	0	0	50	0.000		
						0.304
WB LEFT	1	1,600	72	0.045		
WB THRU	2	3,200	671	0.251	*	
WB RIGHT	0	0	133	0.000		

NORTH/SOUTH CRITICAL SUM	0.158
EAST/WEST CRITICAL SUM	0.304
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.562
LESS 0.07 FOR ATSAC	0.492
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	3	4	64	0.04		
NB THRU	2	3,200	139	7	3	149	0.070	*	
NB RIGHT	0	0	70	4	0	74	0.000		
									0.223
SB LEFT	1	1,600	149	8	88	245	0.153	*	
SB THRU	1	1,600	176	9	8	193	0.121		
SB RIGHT	1	1,600	93	5	35	133	0.083		
EB LEFT	1	1,600	84	4	77	165	0.103	*	
EB THRU	2	3,200	656	33	301	990	0.332		
EB RIGHT	0	0	50	3	18	71	0.000		
									0.462
WB LEFT	1	1,600	72	4	1	77	0.048		
WB THRU	2	3,200	671	34	196	901	0.359	*	
WB RIGHT	0	0	133	7	108	248	0.000		

NORTH/SOUTH CRITICAL SUM	0.223
EAST/WEST CRITICAL SUM	0.462
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.785
LESS 0.07 FOR ATSAC	0.715
PM INTERSECTION LOS	C
PM IMPACT	0.223

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	3	4	0	64	0.04		
NB THRU	2	3,200	139	7	3	3	152	0.071	*	
NB RIGHT	0	0	70	4	0	0	74	0.000		
										0.224
SB LEFT	1	1,600	149	8	88	0	245	0.153	*	
SB THRU	1	1,600	176	9	8	2	195	0.122		
SB RIGHT	1	1,600	93	5	35	0	133	0.083		
EB LEFT	1	1,600	84	4	77	0	165	0.103	*	
EB THRU	2	3,200	656	33	301	1	991	0.332		
EB RIGHT	0	0	50	3	18	0	71	0.000		
										0.462
WB LEFT	1	1,600	72	4	1	0	77	0.048		
WB THRU	2	3,200	671	34	196	0	901	0.359	*	
WB RIGHT	0	0	133	7	108	0	248	0.000		

NORTH/SOUTH CRITICAL SUM		0.224
EAST/WEST CRITICAL SUM		0.462
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.786
LESS 0.07 FOR ATSAC		0.716
	PM INTERSECTION LOS	C
	PM IMPACT	0.001

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	414	0.259	*	
NB RIGHT	1	1600	136	0.085		
						0.348
SB LEFT	0	0	72	0.000		
SB THRU	1	1,600	70	0.089	*	
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	1	1,600	0	0.000		
EB RIGHT	0	0	0	0.000		
						0.070
WB LEFT	0	0	72	0.000		
WB THRU	1	1,600	0	0.070		
WB RIGHT	0	0	40	0.000		

NORTH/SOUTH CRITICAL SUM	0.348
EAST/WEST CRITICAL SUM	0.070
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.518
	0.518
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000		
NB THRU	1	1600	414	21	-108	327	0.204	*	
NB RIGHT	1	1600	136	7	11	154	0.096		
									0.344
SB LEFT	0	0	72	4	65	141	0.000		
SB THRU	1	1,600	70	4	10	84	0.140	*	
SB RIGHT	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0.000		
EB THRU	1	1,600	0	0	0	0	0.000		
EB RIGHT	0	0	0	0	0	0	0.000		
									0.107
WB LEFT	0	0	72	4	7	83	0.000		
WB THRU	1	1600	0	0	0	0	0.107	*	
WB RIGHT	0	0	40	2	47	89	0.000		

NORTH/SOUTH CRITICAL SUM	0.344
EAST/WEST CRITICAL SUM	0.107
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.551
	0.551
PM INTERSECTION LOS	A
PM IMPACT	0.033

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	414	21	-108	-5	322	0.201	*	
NB RIGHT	1	1600	136	7	11	2	156	0.097		
										0.346
SB LEFT	0	0	72	4	65	8	149	0.000		
SB THRU	1	1,600	70	4	10	0	84	0.145	*	
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	1	1,600	0	0	0	0	0	0.000		
EB RIGHT	0	0	0	0	0	0	0	0.000		
										0.114
WB LEFT	0	0	72	4	7	3	86	0.000		
WB THRU	1	1600	0	0	0	0	0	0.114	*	
WB RIGHT	0	0	40	2	47	8	97	0.000		

NORTH/SOUTH CRITICAL SUM	0.346
EAST/WEST CRITICAL SUM	0.114
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.560
	0.560
PM INTERSECTION LOS	A
PM IMPACT	0.009

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	73	0.098	*	
NB RIGHT	0	0	83	0.000		
						0.206
SB LEFT	0	0	0	0.000		
SB THRU	1	1,600	55	0.108	*	
SB RIGHT	0	0	117	0.000		
EB LEFT	1	1,600	127	0.079	*	
EB THRU	0	0	0	0.000		
EB RIGHT	1	1,600	77	0.048		
						0.313
WB LEFT	1	1,600	31	0.019		
WB THRU	0	0	0	0.000		
WB RIGHT	1	1,600	374	0.234	*	

NORTH/SOUTH CRITICAL SUM	0.206
EAST/WEST CRITICAL SUM	0.313
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.619
	0.619
PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000		
NB THRU	1	1600	73	4	42	119	0.147	*	
NB RIGHT	0	0	83	4	30	117	0.000		
									0.274
SB LEFT	0	0	0	0	0	0	0.000		
SB THRU	1	1,600	55	3	10	68	0.127	*	
SB RIGHT	0	0	117	6	12	135	0.000		
EB LEFT	1	1,600	127	6	10	143	0.090	*	
EB THRU	0	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	77	4	12	93	0.058		
									0.245
WB LEFT	1	1,600	31	2	3	36	0.022		
WB THRU	0	0	0	0	0	0	0.000		
WB RIGHT	1	1,600	374	19	-145	248	0.155	*	

NORTH/SOUTH CRITICAL SUM	0.274
EAST/WEST CRITICAL SUM	0.245
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.619
	0.619
PM INTERSECTION LOS	B
PM IMPACT	0.000

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	73	4	42	0	119	0.147	*	
NB RIGHT	0	0	83	4	30	0	117	0.000		
										0.275
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	1	1,600	55	3	10	0	68	0.128	*	
SB RIGHT	0	0	117	6	12	2	137	0.000		
EB LEFT	1	1,600	127	6	10	3	146	0.092	*	
EB THRU	0	0	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	77	4	12	0	93	0.058		
										0.243
WB LEFT	1	1,600	31	2	3	0	36	0.022		
WB THRU	0	0	0	0	0	0	0	0.000		
WB RIGHT	1	1,600	374	19	-145	-7	241	0.151	*	

NORTH/SOUTH CRITICAL SUM		0.275
EAST/WEST CRITICAL SUM		0.243
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.618
		0.618
	PM INTERSECTION LOS	B
	PM IMPACT	-0.001

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	0	0.000		
NB RIGHT	0	0	0	0.000		
						0.116
SB LEFT	1	1,600	185	0.116	*	
SB THRU	0	0	0	0.000		
SB RIGHT	1	1,600	120	0.075		
EB LEFT	1	1,600	5	0.003	*	
EB THRU	2	3,200	93	0.029		
EB RIGHT	0	0	0	0.000		
						0.218
WB LEFT	1	1,600	0	0.000		
WB THRU	1	1,600	252	0.215	*	
WB RIGHT	0	0	92	0.000		

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.116
EAST/WEST CRITICAL SUM	0.218
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.434
	0.434
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000		
NB THRU	1	1600	0	0	0	0	0.000		
NB RIGHT	0	0	0	0	0	0	0.000		
									0.122
SB LEFT	1	1,600	185	9	0	194	0.122	*	
SB THRU	0	0	0	0	0	0	0.000		
SB RIGHT	1	1,600	120	6	-36	90	0.056		
EB LEFT	1	1,600	5	0	6	11	0.007	*	
EB THRU	2	3,200	93	5	25	123	0.038		
EB RIGHT	0	0	0	0	0	0	0.000		
									0.247
WB LEFT	1	1,600	0	0	0	0	0.000		
WB THRU	1	1600	252	13	-42	223	0.240	*	
WB RIGHT	0	0	92	5	65	162	0.000		

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.122
EAST/WEST CRITICAL SUM	0.247
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.469
	0.469
PM INTERSECTION LOS	A
PM IMPACT	0.035

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

							SCHOOL PM PEAK HOUR		
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000	
NB THRU	1	1600	0	0	0	0	0	0.000	
NB RIGHT	0	0	0	0	0	0	0	0.000	
									0.123
SB LEFT	1	1,600	185	9	0	2	196	0.123	*
SB THRU	0	0	0	0	0	0	0	0.000	
SB RIGHT	1	1,600	120	6	-36	-2	88	0.055	
EB LEFT	1	1,600	5	0	6	0	11	0.007	*
EB THRU	2	3,200	93	5	25	0	123	0.038	
EB RIGHT	0	0	0	0	0	0	0	0.000	
									0.247
WB LEFT	1	1,600	0	0	0	0	0	0	
WB THRU	1	1600	252	13	-42	-3	220	0.240	*
WB RIGHT	0	0	92	5	65	3	165	0.000	

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.123
EAST/WEST CRITICAL SUM	0.247
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.470
	0.470
PM INTERSECTION LOS	A
PM IMPACT	0.001

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0.04		
NB THRU	2	3,200	438	0.137	*	
NB RIGHT free	1	1600	636	0.398		
						0.281
SB LEFT	1	1,600	230	0.144	*	
SB THRU	2	3,200	289	0.090		
SB RIGHT	1	1,600	25	0.016		
EB LEFT	1	1,600	20	0.013		
EB THRU	2	3,200	238	0.074	*	
EB RIGHT	1	1,600	50	0.031		
						0.221
WB LEFT	2	2,880	423	0.147	*	
WB THRU	1	1,600	279	0.174		
WB RIGHT	1	1,600	86	0.054		

NORTH/SOUTH CRITICAL SUM	0.281
EAST/WEST CRITICAL SUM	0.221
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.602
LESS 0.07 FOR ATSAC	0.532
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2015) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	3	17	84	0.053		
NB THRU	2	3,200	438	22	148	608	0.190	*	
NB RIGHT free	1	1600	636	32	57	725	0.453		
									0.376
SB LEFT	1	1,600	230	12	56	298	0.186	*	
SB THRU	2	3,200	289	15	324	628	0.196		
SB RIGHT	1	1,600	25	1	0	26	0.016		
EB LEFT	1	1,600	20	1	0	21	0.013		
EB THRU	2	3,200	238	12	11	261	0.082	*	
EB RIGHT	1	1,600	50	3	38	91	0.057		
									0.251
WB LEFT	2	2,880	423	22	42	487	0.169	*	
WB THRU	1	1600	279	14	6	299	0.187		
WB RIGHT	1	1,600	86	4	0	90	0.056		

NORTH/SOUTH CRITICAL SUM	0.376
EAST/WEST CRITICAL SUM	0.251
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.727
LESS 0.07 FOR ATSAC	0.657
PM INTERSECTION LOS	B
PM IMPACT	0.125

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2015) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	3	17	2	86	0.054		
NB THRU	2	3,200	438	22	148	0	608	0.190	*	
NB RIGHT free	1	1600	636	32	57	0	725	0.453		
										0.376
SB LEFT	1	1,600	230	12	56	0	298	0.186	*	
SB THRU	2	3,200	289	15	324	0	628	0.196		
SB RIGHT	1	1,600	25	1	0	0	26	0.016		
EB LEFT	1	1,600	20	1	0	0	21	0.013		
EB THRU	2	3,200	238	12	11	1	262	0.082	*	
EB RIGHT	1	1,600	50	3	38	1	92	0.057		
										0.251
WB LEFT	2	2,880	423	22	42	0	487	0.169	*	
WB THRU	1	1600	279	14	6	-2	297	0.186		
WB RIGHT	1	1,600	86	4	0	0	90	0.056		

NORTH/SOUTH CRITICAL SUM		0.376
EAST/WEST CRITICAL SUM		0.251
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.727
LESS 0.07 FOR ATSAC		0.657
	PM INTERSECTION LOS	B
	PM IMPACT	0.000

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	2	2,880	181	0.063	*		137	0.048		
NB THRU	2	3,200	667	0.224			602	0.213	*	
NB RIGHT	0	0	50	0.000			80	0.000		
						0.294				0.310
SB LEFT	2	2,880	168	0.058			278	0.097	*	
SB THRU	2	3,200	685	0.231	*		770	0.253		
SB RIGHT	0	0	55	0.000			38	0.000		
EB LEFT	1	1,600	54	0.034	*		74	0.046	*	
EB THRU	2	3,200	851	0.266			779	0.243		
EB RIGHT	1	1,600	57	0.036			173	0.108		
						0.399				0.338
WB LEFT	1	1,600	78	0.049			37	0.023		
WB THRU	2	3,200	1168	0.365	*		933	0.292	*	
WB RIGHT	1	1,600	308	0.193			139	0.087		

NORTH/SOUTH CRITICAL SUM	0.294	NORTH/SOUTH CRITICAL SUM	0.310
EAST/WEST CRITICAL SUM	0.399	EAST/WEST CRITICAL SUM	0.338
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.793	INTERSECTION ICU VALUE	0.748
LESS 0.07 FOR ATSAC	0.723		0.678
AM INTERSECTION LOS	C	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	2	2,880	181	19	114	314	0.109	*	137	14	140	291	0.101	
NB THRU	2	3,200	667	70	92	829	0.313		602	63	111	776	0.313	*
NB RIGHT	0	0	50	5	117	172	0.000		80	8	137	225	0.000	
								0.403						0.452
SB LEFT	2	2,880	168	18	62	248	0.086		278	29	92	399	0.139	*
SB THRU	2	3,200	685	72	114	871	0.294	*	770	81	95	946	0.309	
SB RIGHT	0	0	55	6	8	69	0.000		38	4	2	44	0.000	
EB LEFT	1	1,600	54	6	30	90	0.056		74	8	66	148	0.092	
EB THRU	2	3,200	851	89	129	1069	0.334	*	779	81	196	1056	0.330	*
EB RIGHT	1	1,600	57	6	91	154	0.096		173	18	103	294	0.184	
								0.486						0.444
WB LEFT	1	1,600	78	8	157	243	0.152	*	37	4	142	183	0.114	*
WB THRU	3	4800	1168	122	236	1526	0.396		933	98	203	1234	0.298	
WB RIGHT	0	0	308	32	34	374	0.000		139	15	43	197	0.000	

NORTH/SOUTH CRITICAL SUM	0.403	NORTH/SOUTH CRITICAL SUM	0.452
EAST/WEST CRITICAL SUM	0.486	EAST/WEST CRITICAL SUM	0.444
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.989	INTERSECTION ICU VALUE	0.996
LESS 0.07 FOR ATSAC	0.919	LESS 0.07 FOR ATSAC	0.926
AM INTERSECTION LOS	E	PM INTERSECTION LOS	E
AM IMPACT	0.196	PM IMPACT	0.248

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	2	2,880	181	19	114	2	316	0.110	*	137	14	140	0	291	0.101	
NB THRU	2	3,200	667	70	92	20	849	0.319		602	63	111	5	781	0.314	*
NB RIGHT	0	0	50	5	117	0	172	0.000		80	8	137	0	225	0.000	
									0.411							0.453
SB LEFT	2	2,880	168	18	62	0	248	0.086		278	29	92	0	399	0.139	*
SB THRU	2	3,200	685	72	114	23	894	0.301	*	770	81	95	3	949	0.310	
SB RIGHT	0	0	55	6	8	0	69	0.000		38	4	2	0	44	0.000	
EB LEFT	1	1,600	54	6	30	0	90	0.056		74	8	66	0	148	0.092	
EB THRU	2	3,200	851	89	129	0	1069	0.334	*	779	81	196	0	1056	0.330	*
EB RIGHT	1	1,600	57	6	91	3	157	0.098		173	18	103	1	295	0.184	
									0.486							0.444
WB LEFT	1	1,600	78	8	157	0	243	0.152	*	37	4	142	0	183	0.114	*
WB THRU	3	4800	1168	122	236	0	1526	0.396		933	98	203	0	1234	0.298	
WB RIGHT	0	0	308	32	34	0	374	0.000		139	15	43	0	197	0.000	

NORTH/SOUTH CRITICAL SUM	0.411	NORTH/SOUTH CRITICAL SUM	0.453
EAST/WEST CRITICAL SUM	0.486	EAST/WEST CRITICAL SUM	0.444
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.997	INTERSECTION ICU VALUE	0.997
LESS 0.07 FOR ATSAC	0.927	LESS 0.07 FOR ATSAC	0.927
AM INTERSECTION LOS	E	PM INTERSECTION LOS	E
AM IMPACT	0.008	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	431	0.269	*		512	0.320	*	
NB THRU	0	0	0	0.000			0	0.000		
NB RIGHT	1	1600	58	0.036			92	0.058		
						0.269				0.320
SB LEFT	0	0	0	0.000			0	0.000		
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	2	3,200	585	0.246	*		679	0.291	*	
EB RIGHT	0	0	203	0.000			252	0.000		
						0.287				0.305
WB LEFT	1	1,600	65	0.041	*		22	0.014	*	
WB THRU	2	3,200	440	0.138			273	0.085		
WB RIGHT	0	0	0	0.000			0	0.000		

NORTH/SOUTH CRITICAL SUM	0.269	NORTH/SOUTH CRITICAL SUM	0.320
EAST/WEST CRITICAL SUM	0.287	EAST/WEST CRITICAL SUM	0.305
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.656	INTERSECTION ICU VALUE	0.725
LESS 0.07 FOR ATSAC	0.586		0.655
AM INTERSECTION LOS	A	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	431	45	-134	342	0.214 *		512	54	-129	437	0.273 *	
NB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
NB RIGHT	1	1600	58	6	4	68	0.043		92	10	18	120	0.075	
								0.214						0.273
SB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
EB THRU	2	3,200	585	61	305	951	0.385 *		679	71	264	1014	0.424 *	
EB RIGHT	0	0	203	21	58	282	0.000		252	26	65	343	0.000	
								0.443						0.447
WB LEFT	1	1,600	65	7	21	93	0.058 *		22	2	12	36	0.023 *	
WB THRU	2	3,200	440	46	411	897	0.280		273	29	537	839	0.262	
WB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.214	NORTH/SOUTH CRITICAL SUM	0.273
EAST/WEST CRITICAL SUM	0.443	EAST/WEST CRITICAL SUM	0.447
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.757	INTERSECTION ICU VALUE	0.820
LESS 0.07 FOR ATSAC	0.687	LESS 0.07 FOR ATSAC	0.750
AM INTERSECTION LOS	B	PM INTERSECTION LOS	C
AM IMPACT	0.101	PM IMPACT	0.095

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	431	45	-134	22	364	0.228 *		512	54	-129	5	442	0.276 *	
NB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	1	1600	58	6	4	-58	10	0.006		92	10	18	-14	106	0.066	
									0.228							0.276
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	2	3,200	585	61	305	12	963	0.394 *		679	71	264	2	1016	0.425 *	
EB RIGHT	0	0	203	21	58	14	296	0.000		252	26	65	2	345	0.000	
									0.452							0.448
WB LEFT	1	1,600	65	7	21	0	93	0.058 *		22	2	12	0	36	0.023 *	
WB THRU	2	3,200	440	46	411	0	897	0.280		273	29	537	0	839	0.262	
WB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.228	NORTH/SOUTH CRITICAL SUM	0.276
EAST/WEST CRITICAL SUM	0.452	EAST/WEST CRITICAL SUM	0.448
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.780	INTERSECTION ICU VALUE	0.824
LESS 0.07 FOR ATSAC	0.710	LESS 0.07 FOR ATSAC	0.754
AM INTERSECTION LOS	C	PM INTERSECTION LOS	C
AM IMPACT	0.023	PM IMPACT	0.004

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	0	0.000			0	0		
NB THRU	0	0	0	0.000			0	0.000		
NB RIGHT	1	1600	18	0.011	*		65	0.041	*	
						0.011				0.041
SB LEFT	0	0	0	0.000	*		0	0.000	*	
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	2	3,200	482	0.191	*		676	0.255	*	
EB RIGHT	0	0	130	0.000			140	0.000		
						0.269				0.268
WB LEFT	1	1,600	124	0.078	*		21	0.013	*	
WB THRU	2	3,200	536	0.168			282	0.088		
WB RIGHT	0	0	0	0.000			0	0.000		

NORTH/SOUTH CRITICAL SUM	0.011	NORTH/SOUTH CRITICAL SUM	0.041
EAST/WEST CRITICAL SUM	0.269	EAST/WEST CRITICAL SUM	0.268
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.380	INTERSECTION ICU VALUE	0.409
	0.380		0.409
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

							AM PEAK HOUR							PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	0	0	150	150	0.094	*		0	0	200	200	0.125	*	
NB THRU	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
NB RIGHT	1	1600	18	2	4	24	0.015			65	7	15	87	0.054		
									0.094							0.125
SB LEFT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
EB THRU	2	3,200	482	50	308	840	0.308	*		676	71	276	1023	0.368	*	
EB RIGHT	0	0	130	14	0	144	0.000			140	15	0	155	0.000		
									0.394							0.382
WB LEFT	1	1,600	124	13	0	137	0.086	*		21	2	0	23	0.014	*	
WB THRU	2	3,200	536	56	282	874	0.273			282	29	349	660	0.206		
WB RIGHT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.094	NORTH/SOUTH CRITICAL SUM	0.125
EAST/WEST CRITICAL SUM	0.394	EAST/WEST CRITICAL SUM	0.382
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.588	INTERSECTION ICU VALUE	0.607
LESS 0.07 FOR ATSAC	0.518	LESS 0.07 FOR ATSAC	0.537
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.138	PM IMPACT	0.128

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	0	0	150	0	150	0.094 *		0	0	200	0	200	0.125 *	
NB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	1	1600	18	2	4	79	103	0.064		65	7	15	19	106	0.066	
									0.094							0.125
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	2	3,200	482	50	308	-58	782	0.293 *		676	71	276	-14	1009	0.364 *	
EB RIGHT	0	0	130	14	0	12	156	0.000		140	15	0	2	157	0.000	
									0.379							0.378
WB LEFT	1	1,600	124	13	0	0	137	0.086 *		21	2	0	0	23	0.014 *	
WB THRU	2	3,200	536	56	282	0	874	0.273		282	29	349	0	660	0.206	
WB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.094	NORTH/SOUTH CRITICAL SUM	0.125
EAST/WEST CRITICAL SUM	0.379	EAST/WEST CRITICAL SUM	0.378
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.573	INTERSECTION ICU VALUE	0.603
LESS 0.07 FOR ATSAC	0.503	LESS 0.07 FOR ATSAC	0.533
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	-0.015	PM IMPACT	-0.004

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING CONDITION (2010)

			AM PEAK HOUR			PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C	CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		0	0.000		
NB THRU	0	0	0	0.000		0	0.000		
NB RIGHT	1	1600	18	0.011	*	65	0.041	*	
					0.011				0.041
SB LEFT	0	0	0	0.000		0	0.000		
SB THRU	0	0	0	0.000		0	0.000		
SB RIGHT	0	0	0	0.000		0	0.000		
EB LEFT	0	0	0	0.000		0	0.000		
EB THRU	2	3,200	482	0.207		676	0.255	*	
EB RIGHT	0	0	180	0.000		140	0.000		
					0.335				0.268
WB LEFT	1	1,600	124	0.078		21	0.013	*	
WB THRU	1	1,600	536	0.335	*	282	0.176		
WB RIGHT	0	0	0	0.000		0	0.000		

NORTH/SOUTH CRITICAL SUM	0.011	NORTH/SOUTH CRITICAL SUM	0.041
EAST/WEST CRITICAL SUM	0.335	EAST/WEST CRITICAL SUM	0.268
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.446	INTERSECTION ICU VALUE	0.409
	0.446		0.409
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	169	0.106	*		98	0.061	*	
NB THRU	2	3,200	432	0.135			570	0.178		
NB RIGHT	1	1600	0	0.000			0	0		
						0.408				0.248
SB LEFT	1	1,600	0	0.000			0	0.000		
SB THRU	1	1,600	465	0.291			299	0.187	*	
SB RIGHT	1	1,600	483	0.302	*		223	0.139		
EB LEFT	1.5	2,400	291	0.121	*		496	0.207	*	
EB THRU	0.5	800	0	0.000			0	0.000		
EB RIGHT	1	1,600	221	0.085			237	0.118		
						0.121				0.207
WB LEFT	0	0	0	0.000			0	0.000		
WB THRU	1	1,600	0	0.000	*		0	0.000		
WB RIGHT	0	0	0	0.000	*		0	0.000		

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.408	NORTH/SOUTH CRITICAL SUM	0.248
EAST/WEST CRITICAL SUM	0.121	EAST/WEST CRITICAL SUM	0.207
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.629	INTERSECTION ICU VALUE	0.555
LESS 0.07 FOR ATSAC	0.559		0.485
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	169	18	126	313	0.195 *		98	10	214	322	0.201 *	
NB THRU	2	3,200	432	45	55	532	0.166		570	60	175	805	0.251	
NB RIGHT	1	1600	0	0	0	0	0.000		0	0	0	0	0	
								0.667						0.471
SB LEFT	1	1,600	0	0	0	0	0.000		0	0	0	0	0	
SB THRU	1	1,600	465	49	242	756	0.472 *		299	31	101	431	0.270 *	
SB RIGHT	1	1,600	483	51	204	738	0.461		223	23	158	404	0.253	
EB LEFT	1.5	2,400	291	30	121	442	0.184		496	52	213	761	0.317 *	
EB THRU	0.5	800	0	0	0	0	0.000		0	0	0	0	0.000	
EB RIGHT	1	1,600	221	23	214	458	0.189 *		237	25	127	389	0.142	
								0.189						0.317
WB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
WB THRU	1	1600	0	0	0	0	0.000		0	0	0	0	0.000	
WB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.667	NORTH/SOUTH CRITICAL SUM	0.471
EAST/WEST CRITICAL SUM	0.189	EAST/WEST CRITICAL SUM	0.317
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.956	INTERSECTION ICU VALUE	0.888
LESS 0.07 FOR ATSAC	0.886	LESS 0.07 FOR ATSAC	0.818
AM INTERSECTION LOS	D	PM INTERSECTION LOS	D
AM IMPACT	0.327	PM IMPACT	0.333

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

			AM PEAK HOUR								PM PEAK HOUR							
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	169	18	126	0	313	0.195	*		98	10	214	0	322	0.201	*	
NB THRU	2	3,200	432	45	55	0	532	0.166			570	60	175	0	805	0.251		
NB RIGHT	1	1600	0	0	0	0	0	0.000			0	0	0	0	0	0		
										0.672								0.471
SB LEFT	1	1,600	0	0	0	0	0	0.000			0	0	0	0	0	0		
SB THRU	1	1,600	465	49	242	8	764	0.477	*		299	31	101	1	432	0.270	*	
SB RIGHT	1	1,600	483	51	204	0	738	0.461			223	23	158	0	404	0.253		
EB LEFT	1.5	2,400	291	30	121	21	463	0.193	*		496	52	213	5	766	0.319	*	
EB THRU	0.5	800	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
EB RIGHT	1	1,600	221	23	214	0	458	0.189			237	25	127	0	389	0.142		
										0.193								0.319
WB LEFT	0	0	0	0	0	0	0	0.000			0	0	0	0	0	0.000		
WB THRU	1	1600	0	0	0	0	0	0.000	*		0	0	0	0	0	0.000		
WB RIGHT	0	0	0	0	0	0	0	0.000	*		0	0	0	0	0	0.000		

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.672	NORTH/SOUTH CRITICAL SUM	0.471
EAST/WEST CRITICAL SUM	0.193	EAST/WEST CRITICAL SUM	0.319
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.965	INTERSECTION ICU VALUE	0.890
LESS 0.07 FOR ATSAC	0.895	LESS 0.07 FOR ATSAC	0.820
AM INTERSECTION LOS	D	PM INTERSECTION LOS	D
AM IMPACT	0.009	PM IMPACT	0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0.040			56	0.035		
NB THRU	2	3,200	335	0.126	*		165	0.077	*	
NB RIGHT	0	0	67	0.000			81	0.000		
						0.239				0.186
SB LEFT	1	1,600	180	0.113	*		174	0.109	*	
SB THRU	1	1,600	223	0.139			198	0.124		
SB RIGHT	1	1,600	64	0.040			148	0.093		
EB LEFT	1	1,600	71	0.044			118	0.074		
EB THRU	2	3,200	750	0.253	*		887	0.304	*	
EB RIGHT	0	0	59	0.000			87	0.000		
						0.306				0.349
WB LEFT	1	1,600	84	0.053	*		72	0.045	*	
WB THRU	2	3,200	1077	0.401			712	0.264		
WB RIGHT	0	0	207	0.000			134	0.000		

NORTH/SOUTH CRITICAL SUM	0.239	NORTH/SOUTH CRITICAL SUM	0.186
EAST/WEST CRITICAL SUM	0.306	EAST/WEST CRITICAL SUM	0.349
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.645	INTERSECTION ICU VALUE	0.635
LESS 0.07 FOR ATSAC	0.575		0.565
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	64	7	4	75	0.047		56	6	4	66	0.041	
NB THRU	2	3,200	335	35	8	378	0.141	*	165	17	3	185	0.086	*
NB RIGHT	0	0	67	7	0	74	0.000		81	8	0	89	0.000	
								0.324						0.261
SB LEFT	1	1,600	180	19	94	293	0.183	*	174	18	88	280	0.175	*
SB THRU	1	1,600	223	23	5	251	0.157		198	21	8	227	0.142	
SB RIGHT	1	1,600	64	7	76	147	0.092		148	15	35	198	0.124	
EB LEFT	1	1,600	71	7	29	107	0.067	*	118	12	77	207	0.130	*
EB THRU	2	3,200	750	78	252	1080	0.359		887	93	301	1281	0.436	
EB RIGHT	0	0	59	6	3	68	0.000		87	9	18	114	0.000	
								0.586						0.548
WB LEFT	1	1,600	84	9	0	93	0.058		72	8	1	81	0.050	
WB THRU	2	3,200	1077	113	200	1390	0.519	*	712	74	296	1082	0.418	*
WB RIGHT	0	0	207	22	41	270	0.000		134	14	108	256	0.000	

NORTH/SOUTH CRITICAL SUM	0.324	NORTH/SOUTH CRITICAL SUM	0.261
EAST/WEST CRITICAL SUM	0.586	EAST/WEST CRITICAL SUM	0.548
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	1.010	INTERSECTION ICU VALUE	0.909
LESS 0.07 FOR ATSAC	0.940	LESS 0.07 FOR ATSAC	0.839
AM INTERSECTION LOS	E	PM INTERSECTION LOS	D
AM IMPACT	0.365	PM IMPACT	0.274

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

			AM PEAK HOUR								PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	7	4	0	75	0.047			56	6	4	0	66	0.041		
NB THRU	2	3,200	335	35	8	7	385	0.143	*		165	17	3	2	187	0.086	*	
NB RIGHT	0	0	67	7	0	0	74	0.000			81	8	0	0	89	0.000		
										0.326								0.261
SB LEFT	1	1,600	180	19	94	0	293	0.183	*		174	18	88	0	280	0.175	*	
SB THRU	1	1,600	223	23	5	9	260	0.163			198	21	8	1	228	0.142		
SB RIGHT	1	1,600	64	7	76	0	147	0.092			148	15	35	0	198	0.124		
EB LEFT	1	1,600	71	7	29	0	107	0.067	*		118	12	77	0	207	0.13	*	
EB THRU	2	3,200	750	78	252	3	1083	0.360			887	93	301	1	1282	0.436		
EB RIGHT	0	0	59	6	3	0	68	0.000			87	9	18	0	114	0.000		
										0.586								0.548
WB LEFT	1	1,600	84	9	0	0	93	0.058			72	8	1	0	81	0.05		
WB THRU	2	3,200	1077	113	200	0	1390	0.519	*		712	74	296	0	1082	0.418	*	
WB RIGHT	0	0	207	22	41	0	270	0.000			134	14	108	0	256	0.000		

NORTH/SOUTH CRITICAL SUM	0.326	NORTH/SOUTH CRITICAL SUM	0.261
EAST/WEST CRITICAL SUM	0.586	EAST/WEST CRITICAL SUM	0.548
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	1.012	INTERSECTION ICU VALUE	0.909
LESS 0.07 FOR ATSAC	0.942	LESS 0.07 FOR ATSAC	0.839
AM INTERSECTION LOS	E	PM INTERSECTION LOS	D
AM IMPACT	0.002	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1600	502	0.314	*		384	0.240	*	
NB RIGHT	1	1600	147	0.092			90	0.056		
						0.439				0.348
SB LEFT	0	0	75	0.000			73	0.000		
SB THRU	1	1,600	125	0.125	*		99	0.108	*	
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	1	1,600	0	0.000			0	0.000		
EB RIGHT	0	0	0	0.000			0	0.000		
						0.100				0.069
WB LEFT	0	0	139	0.000			74	0.000		
WB THRU	1	1,600	0	0.100	*		0	0.069	*	
WB RIGHT	0	0	21	0.000			37	0.000		

NORTH/SOUTH CRITICAL SUM	0.439	NORTH/SOUTH CRITICAL SUM	0.348
EAST/WEST CRITICAL SUM	0.100	EAST/WEST CRITICAL SUM	0.069
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.639	INTERSECTION ICU VALUE	0.517
	0.639		0.517
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1600	502	0.314	*		384	0.240	*	
NB RIGHT	1	1600	147	0.092			90	0.056		
						0.439				0.348
SB LEFT	0	0	75	0.000			73	0.000		
SB THRU	1	1,600	125	0.125	*		99	0.108	*	
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	1	1,600	0	0.000			0	0.000		
EB RIGHT	0	0	0	0.000			0	0.000		
						0.100				0.069
WB LEFT	0	0	139	0.000			74	0.000		
WB THRU	1	1,600	0	0.100	*		0	0.069	*	
WB RIGHT	0	0	21	0.000			37	0.000		

NORTH/SOUTH CRITICAL SUM	0.439	NORTH/SOUTH CRITICAL SUM	0.348
EAST/WEST CRITICAL SUM	0.100	EAST/WEST CRITICAL SUM	0.069
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.639	INTERSECTION ICU VALUE	0.517
	0.639		0.517
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

							AM PEAK HOUR							PM PEAK HOUR		
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
NB THRU	1	1600	502	53	-143	412	0.257	*		384	40	-58	366	0.229	*	
NB RIGHT	1	1600	147	15	4	166	0.104			90	9	11	110	0.069		
									0.443							0.395
SB LEFT	0	0	75	8	26	109	0.000			73	8	65	146	0.000		
SB THRU	1	1,600	125	13	50	188	0.186	*		99	10	10	119	0.166	*	
SB RIGHT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
EB THRU	1	1,600	0	0	0	0	0.000			0	0	0	0	0.000		
EB RIGHT	0	0	0	0	0	0	0.000			0	0	0	0	0.000		
									0.120							0.110
WB LEFT	0	0	139	15	2	156	0.000			74	8	7	89	0.000		
WB THRU	1	1600	0	0	0	0	0.120	*		0	0	0	0	0.110	*	
WB RIGHT	0	0	21	2	13	36	0.000			37	4	47	88	0.000		

NORTH/SOUTH CRITICAL SUM	0.443	NORTH/SOUTH CRITICAL SUM	0.395
EAST/WEST CRITICAL SUM	0.120	EAST/WEST CRITICAL SUM	0.110
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.663	INTERSECTION ICU VALUE	0.605
	0.663		0.605
AM INTERSECTION LOS	B	PM INTERSECTION LOS	B
AM IMPACT	0.024	PM IMPACT	0.088

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB THRU	1	1600	502	53	-143	-120	292	0.182	*	384	40	-58	-29	337	0.211	*
NB RIGHT	1	1600	147	15	4	-22	144	0.090		90	9	11	-6	104	0.065	
									0.376							0.378
SB LEFT	0	0	75	8	26	14	123	0.000		73	8	65	2	148	0.000	
SB THRU	1	1,600	125	13	50	0	188	0.194	*	99	10	10	0	119	0.167	*
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	1	1,600	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.194							0.128
WB LEFT	0	0	139	15	2	35	191	0.000		74	8	7	8	97	0.000	
WB THRU	1	1600	0	0	0	0	0	0.194	*	0	0	0	0	0	0.128	*
WB RIGHT	0	0	21	2	13	84	120	0.000		37	4	47	20	108	0.000	

NORTH/SOUTH CRITICAL SUM	0.376	NORTH/SOUTH CRITICAL SUM	0.378
EAST/WEST CRITICAL SUM	0.194	EAST/WEST CRITICAL SUM	0.128
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.670	INTERSECTION ICU VALUE	0.606
	0.670		0.606
AM INTERSECTION LOS	B	PM INTERSECTION LOS	B
AM IMPACT	0.007	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1600	30	0.036	*		121	0.155	*	
NB RIGHT	0	0	27	0.000			127	0.000		
						0.176				0.155
SB LEFT	0	0	0	0.000			0	0.000		
SB THRU	1	1,600	45	0.176	*		37	0.118	*	
SB RIGHT	0	0	236	0.000			152	0.000		
EB LEFT	1	1,600	148	0.093	*		110	0.069	*	
EB THRU	0	0	0	0.000			0	0.000		
EB RIGHT	1	1,600	81	0.051			80	0.050		
						0.414				0.227
WB LEFT	1	1,600	74	0.046			14	0.009		
WB THRU	0	0	0	0.000			0	0.000		
WB RIGHT	1	1,600	514	0.321	*		253	0.158	*	

NORTH/SOUTH CRITICAL SUM	0.176	NORTH/SOUTH CRITICAL SUM	0.155
EAST/WEST CRITICAL SUM	0.414	EAST/WEST CRITICAL SUM	0.227
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.690	INTERSECTION ICU VALUE	0.482
	0.690		0.482
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000 *		0	0	0	0	0.000	
NB THRU	1	1600	30	3	7	40	0.054		121	13	42	176	0.216 *	
NB RIGHT	0	0	27	3	16	46	0.000		127	13	30	170	0.000	
								0.230						0.216
SB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000 *	
SB THRU	1	1,600	45	5	50	100	0.230 *		37	4	10	51	0.144	
SB RIGHT	0	0	236	25	8	269	0.000		152	16	12	180	0.000	
EB LEFT	1	1,600	148	15	4	167	0.105 *		110	12	10	132	0.082 *	
EB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
EB RIGHT	1	1,600	81	8	20	109	0.068		80	8	12	100	0.063	
								0.367						0.197
WB LEFT	1	1,600	74	8	16	98	0.061		14	1	3	18	0.012	
WB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
WB RIGHT	1	1,600	514	54	-148	420	0.262 *		253	26	-95	184	0.115 *	

NORTH/SOUTH CRITICAL SUM	0.230	NORTH/SOUTH CRITICAL SUM	0.216
EAST/WEST CRITICAL SUM	0.367	EAST/WEST CRITICAL SUM	0.197
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.697	INTERSECTION ICU VALUE	0.513
	0.697		0.513
AM INTERSECTION LOS	B	PM INTERSECTION LOS	A
AM IMPACT	0.007	PM IMPACT	0.031

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000 *		0	0	0	0	0	0.000	
NB THRU	1	1600	30	3	7	0	40	0.059		121	13	42	0	176	0.217 *	
NB RIGHT	0	0	27	3	16	8	54	0.000		127	13	30	1	171	0.000	
									0.236							0.217
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000 *	
SB THRU	1	1,600	45	5	50	0	100	0.236 *		37	4	10	0	51	0.145	
SB RIGHT	0	0	236	25	8	9	278	0.000		152	16	12	2	182	0.000	
EB LEFT	1	1,600	148	15	4	4	171	0.107 *		110	12	10	0	132	0.082 *	
EB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB RIGHT	1	1,600	81	8	20	8	117	0.073		80	8	12	1	101	0.063	
									0.262							0.172
WB LEFT	1	1,600	74	8	16	0	98	0.061		14	1	3	0	18	0.012	
WB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB RIGHT	1	1,600	514	54	-148	-172	248	0.155 *		253	26	-95	-41	143	0.09 *	

NORTH/SOUTH CRITICAL SUM	0.236	NORTH/SOUTH CRITICAL SUM	0.217
EAST/WEST CRITICAL SUM	0.262	EAST/WEST CRITICAL SUM	0.172
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.598	INTERSECTION ICU VALUE	0.489
	0.598		0.489
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	-0.099	PM IMPACT	-0.024

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1,600	0	0.000			0	0.000		
NB RIGHT	0	0	0	0.000			0	0.000		
						0.077				0.257
SB LEFT	1	1,600	123	0.077	*		411	0.257	*	
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	1	1,600	127	0.079			29	0.018		
EB LEFT	1	1,600	4	0.003	*		7	0.004	*	
EB THRU	2	3,200	41	0.013			149	0.047		
EB RIGHT	0	0	0	0.000			0	0.000		
						0.232				0.098
WB LEFT	0	0	0	0.000			0	0.000		
WB THRU	2	3,200	513	0.229	*		224	0.094	*	
WB RIGHT	0	0	220	0.000			76	0.000		

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.077	NORTH/SOUTH CRITICAL SUM	0.257
EAST/WEST CRITICAL SUM	0.232	EAST/WEST CRITICAL SUM	0.098
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.409	INTERSECTION ICU VALUE	0.455
	0.409		0.455
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
NB THRU	1	1,600	0	0	0	0	0.000		0	0	0	0	0.000	
NB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
								0.085						0.284
SB LEFT	1	1,600	123	13	0	136	0.085	*	411	43	0	454	0.284	*
SB THRU	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
SB RIGHT	1	1,600	127	13	4	144	0.090		29	3	14	46	0.029	
EB LEFT	1	1,600	4	0	1	5	0.003	*	7	1	6	14	0.009	*
EB THRU	2	3,200	41	4	15	60	0.019		149	16	25	190	0.059	
EB RIGHT	0	0	0	0	0	0	0.000		0	0	0	0	0.000	
								0.524						0.230
WB LEFT	1	1,600	0	0	0	0	0.000		0	0	0	0	0.000	
WB THRU	1	1,600	513	54	-132	435	0.521	*	224	23	-92	155	0.221	*
WB RIGHT	0	0	220	23	156	399	0.000		76	8	115	199	0.000	

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.085	NORTH/SOUTH CRITICAL SUM	0.284
EAST/WEST CRITICAL SUM	0.524	EAST/WEST CRITICAL SUM	0.230
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.709	INTERSECTION ICU VALUE	0.614
	0.709		0.614
AM INTERSECTION LOS	C	PM INTERSECTION LOS	B
AM IMPACT	0.300	PM IMPACT	0.159

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB THRU	1	1,600	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.091							0.285
SB LEFT	1	1,600	123	13	0	9	145	0.091	*	411	43	0	2	456	0.285	*
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	1	1,600	127	13	4	31	175	0.110		29	3	14	4	50	0.031	
EB LEFT	1	1,600	4	0	1	0	5	0.003	*	7	1	6	0	14	0.009	*
EB THRU	2	3,200	41	4	15	0	60	0.019		149	16	25	0	190	0.059	
EB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.275							0.122
WB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB THRU	2	3,200	513	54	-132	36	471	0.272	*	224	23	-92	6	161	0.113	*
WB RIGHT	0	0	220	23	156	0	399	0.000		76	8	115	0	199	0.000	

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.091	NORTH/SOUTH CRITICAL SUM	0.285
EAST/WEST CRITICAL SUM	0.275	EAST/WEST CRITICAL SUM	0.122
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.466	INTERSECTION ICU VALUE	0.507
	0.466		0.507
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	-0.243	PM IMPACT	-0.107

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	109	0.068			52	0.033		
NB THRU	2	3,200	452	0.141	*		550	0.172	*	
NB RIGHT free	1	1600	530	0.331			884	0.553		
						0.243				0.307
SB LEFT	1	1,600	163	0.102	*		216	0.135	*	
SB THRU	2	3,200	438	0.137			337	0.105		
SB RIGHT	1	1,600	47	0.029			15	0.009		
EB LEFT	1	1,600	6	0.004	*		30	0.019		
EB THRU	2	3,200	117	0.037			429	0.134	*	
EB RIGHT	1	1,600	43	0.027			102	0.064		
						0.382				0.293
WB LEFT	2	2,880	906	0.315			459	0.159	*	
WB THRU	1	1,600	604	0.378	*		225	0.141		
WB RIGHT	1	1,600	180	0.113			68	0.043		

NORTH/SOUTH CRITICAL SUM	0.243	NORTH/SOUTH CRITICAL SUM	0.307
EAST/WEST CRITICAL SUM	0.382	EAST/WEST CRITICAL SUM	0.293
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.725	INTERSECTION ICU VALUE	0.700
LESS 0.07 FOR ATSAC	0.655		0.630
AM INTERSECTION LOS	B	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

			AM PEAK HOUR						PM PEAK HOUR					
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	109	11	14	134	0.084		52	5	17	74	0.047	
NB THRU	2	3,200	452	47	217	716	0.224	*	550	58	148	756	0.236	*
NB RIGHT free	1	1600	530	55	23	608	0.380		884	92	57	1033	0.646	
								0.342						0.420
SB LEFT	1	1,600	163	17	8	188	0.118	*	216	23	56	295	0.184	*
SB THRU	2	3,200	438	46	289	773	0.242		337	35	324	696	0.218	
SB RIGHT	1	1,600	47	5	0	52	0.032		15	2	0	17	0.01	
EB LEFT	1	1,600	6	1	0	7	0.004		30	3	0	33	0.021	
EB THRU	2	3,200	117	12	2	131	0.041		429	45	11	485	0.152	*
EB RIGHT	1	1,600	43	4	79	126	0.079	*	102	11	38	151	0.094	
								0.442						0.343
WB LEFT	2	2,880	906	95	46	1047	0.363	*	459	48	42	549	0.191	*
WB THRU	1	1600	604	63	9	676	0.423		225	24	6	255	0.159	
WB RIGHT	1	1,600	180	19	0	199	0.124		68	7	0	75	0.047	

	AM		PM
NORTH/SOUTH CRITICAL SUM	0.342		0.420
EAST/WEST CRITICAL SUM	0.442		0.343
CLEARANCE INTERVAL	0.100		0.100
INTERSECTION ICU VALUE	0.884		0.863
LESS 0.07 FOR ATSAC	0.814		0.793
INTERSECTION LOS	D		C
IMPACT	0.159		0.163

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

			AM PEAK HOUR								PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	109	11	14	8	142	0.089			52	5	17	1	75	0.047		
NB THRU	2	3,200	452	47	217	0	716	0.224	*		550	58	148	0	756	0.236	*	
NB RIGHT free	1	1600	530	55	23	0	608	0.380			884	92	57	0	1033	0.646		
										0.342								0.420
SB LEFT	1	1,600	163	17	8	0	188	0.118	*		216	23	56	0	295	0.184	*	
SB THRU	2	3,200	438	46	289	0	773	0.242			337	35	324	0	696	0.218		
SB RIGHT	1	1,600	47	5	0	8	60	0.037			15	2	0	1	18	0.011		
EB LEFT	1	1,600	6	1	0	0	7	0.004			30	3	0	0	33	0.021		
EB THRU	2	3,200	117	12	2	3	134	0.042			429	45	11	0	485	0.152	*	
EB RIGHT	1	1,600	43	4	79	6	132	0.083	*		102	11	38	2	153	0.095		
										0.446								0.343
WB LEFT	2	2,880	906	95	46	0	1047	0.363	*		459	48	42	0	549	0.191	*	
WB THRU	1	1600	604	63	9	20	696	0.435			225	24	6	4	259	0.162		
WB RIGHT	1	1,600	180	19	0	0	199	0.124			68	7	0	0	75	0.047		

NORTH/SOUTH CRITICAL SUM	0.342	NORTH/SOUTH CRITICAL SUM	0.420
EAST/WEST CRITICAL SUM	0.446	EAST/WEST CRITICAL SUM	0.343
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.888	INTERSECTION ICU VALUE	0.863
LESS 0.07 FOR ATSAC	0.818	LESS 0.07 FOR ATSAC	0.793
AM INTERSECTION LOS	D	PM INTERSECTION LOS	C
AM IMPACT	0.004	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	0.05		
NB THRU	2	3,200	530	0.186	*	
NB RIGHT	0	0	64	0.000		
						0.272
SB LEFT	2	2,880	249	0.086	*	
SB THRU	2	3,200	629	0.211		
SB RIGHT	0	0	45	0.000		
EB LEFT	1	1,600	51	0.032	*	
EB THRU	2	3,200	659	0.206		
EB RIGHT	1	1,600	127	0.079		
						0.254
WB LEFT	1	1,600	73	0.046		
WB THRU	2	3,200	711	0.222	*	
WB RIGHT	1	1,600	193	0.121		

NORTH/SOUTH CRITICAL SUM	0.272
EAST/WEST CRITICAL SUM	0.254
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.626
LESS 0.07 FOR ATSAC	0.556
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	15	140	299	0.104		
NB THRU	2	3,200	530	55	111	696	0.283	*	
NB RIGHT	0	0	64	7	137	208	0.000		
									0.410
SB LEFT	2	2,880	249	26	92	367	0.127	*	
SB THRU	2	3,200	629	66	95	790	0.263		
SB RIGHT	0	0	45	5	2	52	0.000		
EB LEFT	1	1,600	51	5	66	122	0.076		
EB THRU	2	3,200	659	69	196	924	0.289	*	
EB RIGHT	1	1,600	127	13	103	243	0.152		
									0.428
WB LEFT	1	1,600	73	8	142	223	0.139	*	
WB THRU	3	4800	711	74	203	988	0.259		
WB RIGHT	0	0	193	20	43	256	0.000		

NORTH/SOUTH CRITICAL SUM	0.410
EAST/WEST CRITICAL SUM	0.428
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.938
LESS 0.07 FOR ATSAC	0.868
PM INTERSECTION LOS	D
PM IMPACT	0.312

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	15	140	2	301	0.105		
NB THRU	2	3,200	530	55	111	15	711	0.287	*	
NB RIGHT	0	0	64	7	137	0	208	0.000		
										0.414
SB LEFT	2	2,880	249	26	92	0	367	0.127	*	
SB THRU	2	3,200	629	66	95	13	803	0.267		
SB RIGHT	0	0	45	5	2	0	52	0.000		
EB LEFT	1	1,600	51	5	66	0	122	0.076		
EB THRU	2	3,200	659	69	196	1	925	0.289	*	
EB RIGHT	1	1,600	127	13	103	0	243	0.152		
										0.428
WB LEFT	1	1,600	73	8	142	0	223	0.139	*	
WB THRU	3	4800	711	74	203	0	988	0.259		
WB RIGHT	0	0	193	20	43	0	256	0.000		

NORTH/SOUTH CRITICAL SUM		0.414
EAST/WEST CRITICAL SUM		0.428
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.942
LESS 0.07 FOR ATSAC		0.872
	PM INTERSECTION LOS	D
	PM IMPACT	0.004

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	424	0.265	*	
NB THRU	0	0	0	0.000		
NB RIGHT	1	1600	98	0.061		
						0.265
SB LEFT	0	0	0	0.000		
SB THRU	0	0	0	0.000		
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	2	3,200	615	0.251	*	
EB RIGHT	0	0	188	0.000		
						0.270
WB LEFT	1	1,600	31	0.019	*	
WB THRU	2	3,200	264	0.083		
WB RIGHT	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.265
EAST/WEST CRITICAL SUM	0.270
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.635
LESS 0.07 FOR ATSAC	0.565
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	424	44	-79	389	0.243	*	
NB THRU	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	98	10	18	126	0.079		
									0.243
SB LEFT	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	615	64	264	943	0.380	*	
EB RIGHT	0	0	188	20	65	273	0.000		
									0.409
WB LEFT	1	1,600	31	3	12	46	0.029	*	
WB THRU	2	3,200	264	28	487	779	0.243		
WB RIGHT	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.243
EAST/WEST CRITICAL SUM	0.409
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.752
LESS 0.07 FOR ATSAC	0.682
PM INTERSECTION LOS	B
PM IMPACT	0.117

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	424	44	-79	17	406	0.254	*	
NB THRU	0	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	98	10	18	-47	79	0.05		
										0.254
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	615	64	264	6	949	0.384	*	
EB RIGHT	0	0	188	20	65	8	281	0.000		
										0.413
WB LEFT	1	1,600	31	3	12	0	46	0.029	*	
WB THRU	2	3,200	264	28	487	0	779	0.243		
WB RIGHT	0	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM		0.254
EAST/WEST CRITICAL SUM		0.413
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.767
LESS 0.07 FOR ATSAC		0.697
	PM INTERSECTION LOS	B
	PM IMPACT	0.015

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	0	0.000		
NB THRU	0	0	0	0.000		
NB RIGHT	1	1600	54	0.034	*	
						0.034
SB LEFT	0	0	0	0.000		
SB THRU	0	0	0	0.000		
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	2	3,200	581	0.218	*	
EB RIGHT	0	0	116	0.000		
						0.247
WB LEFT	1	1,600	46	0.029	*	
WB THRU	2	3,200	285	0.089		
WB RIGHT	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.034
EAST/WEST CRITICAL SUM	0.247
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.381
	0.381
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	0	0	150	150	0.094	*	
NB THRU	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	54	6	15	75	0.047		
									0.094
SB LEFT	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	581	61	276	918	0.327	*	
EB RIGHT	0	0	116	12	0	128	0.000		
									0.359
WB LEFT	1	1,600	46	5	0	51	0.032	*	
WB THRU	2	3,200	285	30	349	664	0.207		
WB RIGHT	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.094
EAST/WEST CRITICAL SUM	0.359
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.553
LESS 0.07 FOR ATSAC	0.483
PM INTERSECTION LOS	A
PM IMPACT	0.102

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	0	0	150	0	150	0.094	*	
NB THRU	0	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	54	6	15	62	137	0.085		
										0.094
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	581	61	276	-47	871	0.314	*	
EB RIGHT	0	0	116	12	0	6	134	0.000		
										0.346
WB LEFT	1	1,600	46	5	0	0	51	0.032	*	
WB THRU	2	3,200	285	30	349	0	664	0.207		
WB RIGHT	0	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM		0.094
EAST/WEST CRITICAL SUM		0.346
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.540
LESS 0.07 FOR ATSAC		0.470
	PM INTERSECTION LOS	A
	PM IMPACT	-0.013

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	0.068	*	
NB THRU	2	3,200	417	0.130		
NB RIGHT	1	1600	0	0.000		
						0.232
SB LEFT	1	1,600	0	0.000		
SB THRU	1	1,600	263	0.164	*	
SB RIGHT	1	1,600	208	0.130		
EB LEFT	1.5	2,400	398	0.166	*	
EB THRU	0.5	800	0	0.000		
EB RIGHT	1	1,600	260	0.129		
						0.166
WB LEFT	0	0	0	0.000		
WB THRU	1	1,600	0	0.000		
WB RIGHT	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM	0.232
EAST/WEST CRITICAL SUM	0.166
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.498
LESS 0.07 FOR ATSAC	0.428
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	11	214	333	0.208	*	
NB THRU	2	3,200	417	44	175	636	0.199		
NB RIGHT	1	1600	0	0	0	0	0.000		
									0.453
SB LEFT	1	1,600	0	0	0	0	0.000		
SB THRU	1	1,600	263	28	101	392	0.245	*	
SB RIGHT	1	1,600	208	22	158	388	0.242		
EB LEFT	1.5	2,400	398	42	213	653	0.272	*	
EB THRU	0.5	800	0	0	0	0	0.000		
EB RIGHT	1	1,600	260	27	127	414	0.155		
									0.272
WB LEFT	0	0	0	0	0	0	0.000		
WB THRU	1	1600	0	0	0	0	0.000		
WB RIGHT	0	0	0	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM	0.453
EAST/WEST CRITICAL SUM	0.272
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.825
LESS 0.07 FOR ATSAC	0.755
PM INTERSECTION LOS	C
PM IMPACT	0.326

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	11	214	0	333	0.208	*	
NB THRU	2	3,200	417	44	175	0	636	0.199		
NB RIGHT	1	1600	0	0	0	0	0	0.000		
										0.455
SB LEFT	1	1,600	0	0	0	0	0	0.000		
SB THRU	1	1,600	263	28	101	4	396	0.247	*	
SB RIGHT	1	1,600	208	22	158	0	388	0.242		
EB LEFT	1.5	2,400	398	42	213	15	668	0.278	*	
EB THRU	0.5	800	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	260	27	127	0	414	0.155		
										0.278
WB LEFT	0	0	0	0	0	0	0	0.000		
WB THRU	1	1600	0	0	0	0	0	0.000		
WB RIGHT	0	0	0	0	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM		0.455
EAST/WEST CRITICAL SUM		0.278
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.833
LESS 0.07 FOR ATSAC		0.763
	PM INTERSECTION LOS	C
	PM IMPACT	0.008

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	0.036		
NB THRU	2	3,200	139	0.065	*	
NB RIGHT	0	0	70	0.000		
						0.158
SB LEFT	1	1,600	149	0.093	*	
SB THRU	1	1,600	176	0.110		
SB RIGHT	1	1,600	93	0.058		
EB LEFT	1	1,600	84	0.053	*	
EB THRU	2	3,200	656	0.221		
EB RIGHT	0	0	50	0.000		
						0.304
WB LEFT	1	1,600	72	0.045		
WB THRU	2	3,200	671	0.251	*	
WB RIGHT	0	0	133	0.000		

NORTH/SOUTH CRITICAL SUM	0.158
EAST/WEST CRITICAL SUM	0.304
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.562
LESS 0.07 FOR ATSAC	0.492
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	6	4	67	0.042		
NB THRU	2	3,200	139	15	3	157	0.073	*	
NB RIGHT	0	0	70	7	0	77	0.000		
									0.231
SB LEFT	1	1,600	149	16	88	253	0.158	*	
SB THRU	1	1,600	176	18	8	202	0.127		
SB RIGHT	1	1,600	93	10	35	138	0.086		
EB LEFT	1	1,600	84	9	77	170	0.106	*	
EB THRU	2	3,200	656	69	301	1026	0.343		
EB RIGHT	0	0	50	5	18	73	0.000		
									0.479
WB LEFT	1	1,600	72	8	1	81	0.050		
WB THRU	2	3,200	671	70	196	937	0.373	*	
WB RIGHT	0	0	133	14	108	255	0.000		

NORTH/SOUTH CRITICAL SUM	0.231
EAST/WEST CRITICAL SUM	0.479
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.810
LESS 0.07 FOR ATSAC	0.740
PM INTERSECTION LOS	C
PM IMPACT	0.248

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	6	4	0	67	0.042		
NB THRU	2	3,200	139	15	3	6	163	0.075	*	
NB RIGHT	0	0	70	7	0	0	77	0.000		
										0.233
SB LEFT	1	1,600	149	16	88	0	253	0.158	*	
SB THRU	1	1,600	176	18	8	4	206	0.129		
SB RIGHT	1	1,600	93	10	35	0	138	0.086		
EB LEFT	1	1,600	84	9	77	0	170	0.106	*	
EB THRU	2	3,200	656	69	301	1	1027	0.344		
EB RIGHT	0	0	50	5	18	0	73	0.000		
										0.479
WB LEFT	1	1,600	72	8	1	0	81	0.05		
WB THRU	2	3,200	671	70	196	0	937	0.373	*	
WB RIGHT	0	0	133	14	108	0	255	0.000		

NORTH/SOUTH CRITICAL SUM		0.233
EAST/WEST CRITICAL SUM		0.479
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.812
LESS 0.07 FOR ATSAC		0.742
	PM INTERSECTION LOS	C
	PM IMPACT	0.002

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	414	0.259	*	
NB RIGHT	1	1600	136	0.085		
						0.348
SB LEFT	0	0	72	0.000		
SB THRU	1	1,600	70	0.089	*	
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	1	1,600	0	0.000		
EB RIGHT	0	0	0	0.000		
						0.070
WB LEFT	0	0	72	0.000		
WB THRU	1	1,600	0	0.070		
WB RIGHT	0	0	40	0.000		

NORTH/SOUTH CRITICAL SUM	0.348
EAST/WEST CRITICAL SUM	0.070
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.518
	0.518
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000		
NB THRU	1	1600	414	43	-108	349	0.218	*	
NB RIGHT	1	1600	136	14	11	161	0.101		
									0.273
SB LEFT	0	0	72	8	65	145	0.000		
SB THRU	1	1,600	70	7	10	87	0.055	*	
SB RIGHT	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0.000		
EB THRU	1	1,600	0	0	0	0	0.000		
EB RIGHT	0	0	0	0	0	0	0.000		
									0.111
WB LEFT	0	0	72	8	7	87	0.000		
WB THRU	1	1600	0	0	0	0	0.111	*	
WB RIGHT	0	0	40	4	47	91	0.000		

NORTH/SOUTH CRITICAL SUM	0.273
EAST/WEST CRITICAL SUM	0.111
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.484
	0.484
PM INTERSECTION LOS	A
PM IMPACT	-0.034

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	414	43	-108	-96	253	0.158	*	
NB RIGHT	1	1600	136	14	11	-19	142	0.089		
										0.213
SB LEFT	0	0	72	8	65	8	153	0.000		
SB THRU	1	1,600	70	7	10	0	87	0.055	*	
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	1	1,600	0	0	0	0	0	0.000		
EB RIGHT	0	0	0	0	0	0	0	0.000		
										0.169
WB LEFT	0	0	72	8	7	27	114	0.000		
WB THRU	1	1600	0	0	0	0	0	0.169	*	
WB RIGHT	0	0	40	4	47	66	157	0.000		

NORTH/SOUTH CRITICAL SUM		0.213
EAST/WEST CRITICAL SUM		0.169
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.482
		0.482
	PM INTERSECTION LOS	A
	PM IMPACT	-0.002

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	73	0.098	*	
NB RIGHT	0	0	83	0.000		
						0.206
SB LEFT	0	0	0	0.000		
SB THRU	1	1,600	55	0.108	*	
SB RIGHT	0	0	117	0.000		
EB LEFT	1	1,600	127	0.079	*	
EB THRU	0	0	0	0.000		
EB RIGHT	1	1,600	77	0.048		
						0.313
WB LEFT	1	1,600	31	0.019		
WB THRU	0	0	0	0.000		
WB RIGHT	1	1,600	374	0.234	*	

NORTH/SOUTH CRITICAL SUM	0.206
EAST/WEST CRITICAL SUM	0.313
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.619
	0.619
PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000		
NB THRU	1	1600	73	8	42	123	0.153	*	
NB RIGHT	0	0	83	9	30	122	0.000		
									0.285
SB LEFT	0	0	0	0	0	0	0.000		
SB THRU	1	1,600	55	6	10	71	0.132	*	
SB RIGHT	0	0	117	12	12	141	0.000		
EB LEFT	1	1,600	127	13	10	150	0.094	*	
EB THRU	0	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	77	8	12	97	0.061		
									0.262
WB LEFT	1	1,600	31	3	3	37	0.023		
WB THRU	0	0	0	0	0	0	0.000		
WB RIGHT	1	1,600	374	39	-145	268	0.168	*	

NORTH/SOUTH CRITICAL SUM	0.285
EAST/WEST CRITICAL SUM	0.262
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.647
	0.647
PM INTERSECTION LOS	B
PM IMPACT	0.028

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	73	8	42	0	123	0.155	*	
NB RIGHT	0	0	83	9	30	4	126	0.000		
										0.292
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	1	1,600	55	6	10	0	71	0.137	*	
SB RIGHT	0	0	117	12	12	7	148	0.000		
EB LEFT	1	1,600	127	13	10	2	152	0.095	*	
EB THRU	0	0	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	77	8	12	4	101	0.063		
										0.177
WB LEFT	1	1,600	31	3	3	0	37	0.023		
WB THRU	0	0	0	0	0	0	0	0.000		
WB RIGHT	1	1,600	374	39	-145	-137	131	0.082	*	

NORTH/SOUTH CRITICAL SUM	0.292
EAST/WEST CRITICAL SUM	0.177
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.569
	0.569
PM INTERSECTION LOS	A
PM IMPACT	-0.078

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	0	0.000		
NB RIGHT	0	0	0	0.000		
						0.116
SB LEFT	1	1,600	185	0.116	*	
SB THRU	0	0	0	0.000		
SB RIGHT	1	1,600	120	0.075		
EB LEFT	1	1,600	5	0.003	*	
EB THRU	2	3,200	93	0.029		
EB RIGHT	0	0	0	0.000		
						0.218
WB LEFT	1	1,600	0	0.000		
WB THRU	1	1,600	252	0.215	*	
WB RIGHT	0	0	92	0.000		

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.116
EAST/WEST CRITICAL SUM	0.218
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.434
	0.434
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0.000		
NB THRU	1	1600	0	0	0	0	0.000		
NB RIGHT	0	0	0	0	0	0	0.000		
									0.128
SB LEFT	1	1,600	185	19	0	204	0.128	*	
SB THRU	0	0	0	0	0	0	0.000		
SB RIGHT	1	1,600	120	13	-36	97	0.060		
EB LEFT	1	1,600	5	1	6	12	0.007	*	
EB THRU	2	3,200	93	10	25	128	0.040		
EB RIGHT	0	0	0	0	0	0	0.000		
									0.259
WB LEFT	1	1,600	0	0	0	0	0.000		
WB THRU	1	1600	252	26	-42	236	0.252	*	
WB RIGHT	0	0	92	10	65	167	0.000		

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.128
EAST/WEST CRITICAL SUM	0.259
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.487
	0.487
PM INTERSECTION LOS	A
PM IMPACT	0.053

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	0	0	0	0	0	0.000		
NB RIGHT	0	0	0	0	0	0	0	0.000		
										0.131
SB LEFT	1	1,600	185	19	0	6	210	0.131	*	
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	1	1,600	120	13	-36	16	113	0.070		
EB LEFT	1	1,600	5	1	6	0	12	0.007	*	
EB THRU	2	3,200	93	10	25	0	128	0.040		
EB RIGHT	0	0	0	0	0	0	0	0.000		
										0.272
WB LEFT	1	1,600	0	0	0	0	0	0		
WB THRU	1	1600	252	26	-42	21	257	0.265	*	
WB RIGHT	0	0	92	10	65	0	167	0.000		

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.131
EAST/WEST CRITICAL SUM	0.272
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.503
	0.503
PM INTERSECTION LOS	A
PM IMPACT	0.016

EXIST + AMB + RELATED + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0.04		
NB THRU	2	3,200	438	0.137	*	
NB RIGHT free	1	1600	636	0.398		
						0.281
SB LEFT	1	1,600	230	0.144	*	
SB THRU	2	3,200	289	0.090		
SB RIGHT	1	1,600	25	0.016		
EB LEFT	1	1,600	20	0.013		
EB THRU	2	3,200	238	0.074	*	
EB RIGHT	1	1,600	50	0.031		
						0.221
WB LEFT	2	2,880	423	0.147	*	
WB THRU	1	1,600	279	0.174		
WB RIGHT	1	1,600	86	0.054		

NORTH/SOUTH CRITICAL SUM	0.281
EAST/WEST CRITICAL SUM	0.221
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.602
LESS 0.07 FOR ATSAC	0.532
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED
Future (2020) Without Project

						SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	7	17	88	0.055		
NB THRU	2	3,200	438	46	148	632	0.197	*	
NB RIGHT free	1	1600	636	67	57	760	0.475		
									0.391
SB LEFT	1	1,600	230	24	56	310	0.194	*	
SB THRU	2	3,200	289	30	324	643	0.201		
SB RIGHT	1	1,600	25	3	0	28	0.017		
EB LEFT	1	1,600	20	2	0	22	0.014		
EB THRU	2	3,200	238	25	11	274	0.086	*	
EB RIGHT	1	1,600	50	5	38	93	0.058		
									0.263
WB LEFT	2	2,880	423	44	42	509	0.177	*	
WB THRU	1	1600	279	29	6	314	0.196		
WB RIGHT	1	1,600	86	9	0	95	0.059		

NORTH/SOUTH CRITICAL SUM	0.391
EAST/WEST CRITICAL SUM	0.263
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.754
LESS 0.07 FOR ATSAC	0.684
PM INTERSECTION LOS	B
PM IMPACT	0.152

EXISTING + AMBIENT + RELATED

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + AMBIENT GROWTH + RELATED + PROJECT
Future (2020) with Project

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	7	17	5	93	0.058		
NB THRU	2	3,200	438	46	148	0	632	0.197	*	
NB RIGHT free	1	1600	636	67	57	0	760	0.475		
										0.391
SB LEFT	1	1,600	230	24	56	0	310	0.194	*	
SB THRU	2	3,200	289	30	324	0	643	0.201		
SB RIGHT	1	1,600	25	3	0	5	33	0.02		
EB LEFT	1	1,600	20	2	0	0	22	0.014		
EB THRU	2	3,200	238	25	11	2	276	0.086	*	
EB RIGHT	1	1,600	50	5	38	4	97	0.061		
										0.263
WB LEFT	2	2,880	423	44	42	0	509	0.177	*	
WB THRU	1	1600	279	29	6	12	326	0.204		
WB RIGHT	1	1,600	86	9	0	0	95	0.059		

NORTH/SOUTH CRITICAL SUM		0.391
EAST/WEST CRITICAL SUM		0.263
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.754
LESS 0.07 FOR ATSAC		0.684
	PM INTERSECTION LOS	B
	PM IMPACT	0.000

EXIST + AMB + RELATED + PROJECT

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*AM PEAK HOUR 2010*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2010*

Project Description *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*502*	*147*	*75*	*125*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*502*	*147*	*75*	*125*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*139*	*0*	*21*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*139*	*0*	*21*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*75*		*160*			*0*	
C (m) (veh/h)	*1474*	*947*		*316*				
v/c	*0.00*	*0.08*		*0.51*				
95% queue length	*0.00*	*0.26*		*2.70*				
Control Delay (s/veh)	*7.4*	*9.1*		*27.5*				
LOS	*A*	*A*		*D*				
Approach Delay (s/veh)	--	--	*27.5*					
Approach LOS	--	--	*D*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM SCHOOL PEAK HOUR 2010*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2010*

Project Description *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*414*	*136*	*72*	*70*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*414*	*136*	*72*	*70*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*72*	*0*	*40*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*72*	*0*	*40*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*72*		*112*			*0*	
C (m) (veh/h)	*1544*	*1030*		*441*				
v/c	*0.00*	*0.07*		*0.25*				
95% queue length	*0.00*	*0.23*		*1.00*				
Control Delay (s/veh)	*7.3*	*8.8*		*15.9*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*15.9*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM STREET PEAK HOUR 2010*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2010*

Project Description *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*384*	*90*	*73*	*99*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*384*	*90*	*73*	*99*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*74*	*0*	*37*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*74*	*0*	*37*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*73*		*111*			*0*	
C (m) (veh/h)	*1507*	*1099*		*441*				
v/c	*0.00*	*0.07*		*0.25*				
95% queue length	*0.00*	*0.21*		*0.99*				
Control Delay (s/veh)	*7.4*	*8.5*		*15.9*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*15.9*					
Approach LOS	--	--	*C*					

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*AM EX PEAK HOUR 2010*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2010*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*148*	*0*	*81*	*74*	*0*	*514*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*30*	*27*	*0*	*45*	*236*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*148*	*81*	*74*	*514*	*57*		*281*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.13*	*0.07*	*0.07*	*0.46*	*0.05*		*0.25*	
hd, final value (s)	*6.78*	*5.56*	*6.37*	*5.16*	*6.20*		*5.46*	
x, final value	*0.28*	*0.13*	*0.13*	*0.74*	*0.10*		*0.43*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.5*	*3.3*	*4.1*	*2.9*	*4.2*		*3.5*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*398*	*331*	*324*	*684*	*307*		*531*	
Delay (s/veh)	*12.08*	*9.06*	*10.03*	*20.84*	*9.88*		*12.46*	
LOS	*B*	*A*	*B*	*C*	*A*		*B*	
Approach: Delay (s/veh)	*11.01*		*19.48*		*9.88*		*12.46*	
LOS	*B*		*C*		*A*		*B*	
Intersection Delay (s/veh)	*15.62*							
Intersection LOS	*C*							

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*AM PEAK HOUR WO*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*385*	*158*	*105*	*181*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*385*	*158*	*105*	*181*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*148*	*0*	*35*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*148*	*0*	*35*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*105*		*183*			*0*	
C (m) (veh/h)	*1407*	*1036*		*324*				
v/c	*0.00*	*0.10*		*0.56*				
95% queue length	*0.00*	*0.34*		*3.28*				
Control Delay (s/veh)	*7.6*	*8.9*		*29.6*				
LOS	*A*	*A*		*D*				
Approach Delay (s/veh)	--	--	*29.6*					
Approach LOS	--	--	*D*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*PM SCHOOL PEAK HOUR WO*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*327*	*154*	*141*	*84*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*327*	*154*	*141*	*84*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*83*	*0*	*89*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*83*	*0*	*89*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*141*		*172*			*0*	
C (m) (veh/h)	*1526*	*1092*		*452*				
v/c	*0.00*	*0.13*		*0.38*				
95% queue length	*0.00*	*0.44*		*1.75*				
Control Delay (s/veh)	*7.4*	*8.8*		*17.8*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*17.8*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*PM STREET PEAK HOUR WO*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*346*	*106*	*142*	*114*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*346*	*106*	*142*	*114*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*85*	*0*	*86*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*85*	*0*	*86*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*142*		*171*			*0*	
C (m) (veh/h)	*1488*	*1119*		*419*				
v/c	*0.00*	*0.13*		*0.41*				
95% queue length	*0.00*	*0.43*		*1.95*				
Control Delay (s/veh)	*7.4*	*8.7*		*19.4*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*19.4*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*AM PEAK HOUR WITH*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project Description *WILLOWS COMMUNITY SCHOOL*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*379*	*161*	*118*	*181*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*379*	*161*	*118*	*181*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*152*	*0*	*45*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*152*	*0*	*45*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*118*		*197*			*0*	
C (m) (veh/h)	*1407*	*1039*		*320*				
v/c	*0.00*	*0.11*		*0.62*				
95% queue length	*0.00*	*0.38*		*3.84*				
Control Delay (s/veh)	*7.6*	*8.9*		*32.7*				
LOS	*A*	*A*		*D*				
Approach Delay (s/veh)	--	--	*32.7*					
Approach LOS	--	--	*D*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*PM SCHOOL PEAK HOUR WITH*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*322*	*156*	*149*	*84*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*322*	*156*	*149*	*84*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*86*	*0*	*97*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*86*	*0*	*97*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*149*		*183*			*0*	
C (m) (veh/h)	*1526*	*1095*		*450*				
v/c	*0.00*	*0.14*		*0.41*				
95% queue length	*0.00*	*0.47*		*1.94*				
Control Delay (s/veh)	*7.4*	*8.8*		*18.4*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*18.4*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*PM STREET PEAK HOUR WITH*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*344*	*107*	*144*	*114*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*344*	*107*	*144*	*114*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*86*	*0*	*89*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*86*	*0*	*89*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*144*		*175*			*0*	
C (m) (veh/h)	*1488*	*1120*		*421*				
v/c	*0.00*	*0.13*		*0.42*				
95% queue length	*0.00*	*0.44*		*2.00*				
Control Delay (s/veh)	*7.4*	*8.7*		*19.5*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*19.5*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*AM PEAK HOUR WO*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*412*	*166*	*109*	*188*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*412*	*166*	*109*	*188*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*156*	*0*	*36*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*156*	*0*	*36*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*109*		*192*			*0*	
C (m) (veh/h)	*1398*	*1006*		*302*				
v/c	*0.00*	*0.11*		*0.64*				
95% queue length	*0.00*	*0.36*		*4.05*				
Control Delay (s/veh)	*7.6*	*9.0*		*35.6*				
LOS	*A*	*A*		*E*				
Approach Delay (s/veh)	--	--	*35.6*					
Approach LOS	--	--	*E*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*PM SCHOOL PEAK HOUR WO*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*349*	*161*	*145*	*87*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*349*	*161*	*145*	*87*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*87*	*0*	*91*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*87*	*0*	*91*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*145*		*178*			*0*	
C (m) (veh/h)	*1522*	*1065*		*428*				
v/c	*0.00*	*0.14*		*0.42*				
95% queue length	*0.00*	*0.47*		*2.01*				
Control Delay (s/veh)	*7.4*	*8.9*		*19.3*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*19.3*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*PM STREET PEAK HOUR WO*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*366*	*110*	*146*	*119*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*366*	*110*	*146*	*119*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*89*	*0*	*88*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*89*	*0*	*88*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*146*		*177*			*0*	
C (m) (veh/h)	*1482*	*1097*		*398*				
v/c	*0.00*	*0.13*		*0.44*				
95% queue length	*0.00*	*0.46*		*2.22*				
Control Delay (s/veh)	*7.4*	*8.8*		*21.1*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*21.1*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*AM PEAK HOUR WITH*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*292*	*144*	*123*	*188*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*292*	*144*	*123*	*188*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*191*	*0*	*120*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*191*	*0*	*120*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*123*		*311*			*0*	
C (m) (veh/h)	*1398*	*1134*		*402*				
v/c	*0.00*	*0.11*		*0.77*				
95% queue length	*0.00*	*0.36*		*6.52*				
Control Delay (s/veh)	*7.6*	*8.6*		*38.6*				
LOS	*A*	*A*		*E*				
Approach Delay (s/veh)	--	--	*38.6*					
Approach LOS	--	--	*E*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*PM SCHOOL PEAK HOUR WITH*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*253*	*142*	*153*	*87*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*253*	*142*	*153*	*87*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*114*	*0*	*157*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*114*	*0*	*157*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*153*		*271*			*0*	
C (m) (veh/h)	*1522*	*1175*		*513*				
v/c	*0.00*	*0.13*		*0.53*				
95% queue length	*0.00*	*0.45*		*3.05*				
Control Delay (s/veh)	*7.4*	*8.5*		*19.6*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*19.6*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*PM STREET PEAK HOUR WITH*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project Description *WILLOWS COMMUNITY SCHOOL COMPREHENSIVE PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*337*	*104*	*148*	*119*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*337*	*104*	*148*	*119*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*97*	*0*	*108*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*97*	*0*	*108*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*148*		*205*			*0*	
C (m) (veh/h)	*1482*	*1130*		*424*				
v/c	*0.00*	*0.13*		*0.48*				
95% queue length	*0.00*	*0.45*		*2.57*				
Control Delay (s/veh)	*7.4*	*8.7*		*21.2*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*21.2*					
Approach LOS	--	--	*C*					

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM EX SCHOOL PEAK HOUR*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2010*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*127*	*0*	*77*	*31*	*0*	*374*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*73*	*83*	*0*	*55*	*117*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*127*	*77*	*31*	*374*	*156*		*172*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.11*	*0.07*	*0.03*	*0.33*	*0.14*		*0.15*	
hd, final value (s)	*6.43*	*5.21*	*6.22*	*5.00*	*5.39*		*5.27*	
x, final value	*0.23*	*0.11*	*0.05*	*0.52*	*0.23*		*0.25*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.1*	*2.9*	*3.9*	*2.7*	*3.4*		*3.3*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*377*	*327*	*281*	*624*	*406*		*422*	
Delay (s/veh)	*11.00*	*8.56*	*9.27*	*12.99*	*10.02*		*10.04*	
LOS	*B*	*A*	*A*	*B*	*B*		*B*	
Approach: Delay (s/veh)	*10.08*		*12.71*		*10.02*		*10.04*	
LOS	*B*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*11.20*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM EX STREET PEAK HOUR*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2010*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*110*	*0*	*80*	*14*	*0*	*253*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*121*	*127*	*0*	*37*	*152*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*110*	*80*	*14*	*253*	*248*		*189*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.10*	*0.07*	*0.01*	*0.22*	*0.22*		*0.17*	
hd, final value (s)	*6.54*	*5.32*	*6.46*	*5.24*	*5.09*		*5.02*	
x, final value	*0.20*	*0.12*	*0.03*	*0.37*	*0.35*		*0.26*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.2*	*3.0*	*4.2*	*2.9*	*3.1*		*3.0*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*360*	*330*	*264*	*503*	*498*		*439*	
Delay (s/veh)	*10.87*	*8.73*	*9.33*	*10.97*	*10.80*		*9.80*	
LOS	*B*	*A*	*A*	*B*	*B*		*A*	
Approach: Delay (s/veh)	*9.97*		*10.88*		*10.80*		*9.80*	
LOS	*A*		*B*		*B*		*A*	
Intersection Delay (s/veh)	*10.44*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*AM PEAK HOUR WO*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*160*	*0*	*105*	*94*	*0*	*392*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*39*	*44*	*0*	*97*	*256*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*160*	*105*	*94*	*392*	*83*		*353*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.14*	*0.09*	*0.08*	*0.35*	*0.07*		*0.31*	
hd, final value (s)	*7.08*	*5.86*	*6.80*	*5.57*	*6.29*		*5.54*	
x, final value	*0.31*	*0.17*	*0.18*	*0.61*	*0.15*		*0.54*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.8*	*3.6*	*4.5*	*3.3*	*4.3*		*3.5*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*410*	*355*	*344*	*623*	*333*		*603*	
Delay (s/veh)	*13.00*	*9.76*	*10.96*	*16.50*	*10.36*		*14.95*	
LOS	*B*	*A*	*B*	*C*	*B*		*B*	
Approach: Delay (s/veh)	*11.72*		*15.42*		*10.36*		*14.95*	
LOS	*B*		*C*		*B*		*B*	
Intersection Delay (s/veh)	*14.10*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM SCHOOL PEAK HOUR WO*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*143*	*0*	*93*	*36*	*0*	*248*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*119*	*117*	*0*	*68*	*135*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*143*	*93*	*36*	*248*	*236*		*203*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.13*	*0.08*	*0.03*	*0.22*	*0.21*		*0.18*	
hd, final value (s)	*6.65*	*5.43*	*6.61*	*5.39*	*5.32*		*5.29*	
x, final value	*0.26*	*0.14*	*0.07*	*0.37*	*0.35*		*0.30*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.3*	*3.1*	*4.3*	*3.1*	*3.3*		*3.3*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*393*	*343*	*286*	*498*	*486*		*453*	
Delay (s/veh)	*11.72*	*9.01*	*9.78*	*11.24*	*11.15*		*10.52*	
LOS	*B*	*A*	*A*	*B*	*B*		*B*	
Approach: Delay (s/veh)	*10.65*		*11.05*		*11.15*		*10.52*	
LOS	*B*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*10.86*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM STREET PEAK HOUR WO*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*126*	*0*	*96*	*18*	*0*	*171*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*169*	*163*	*0*	*49*	*172*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*126*	*96*	*18*	*171*	*332*		*221*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.11*	*0.09*	*0.02*	*0.15*	*0.30*		*0.20*	
hd, final value (s)	*6.79*	*5.57*	*6.87*	*5.64*	*5.09*		*5.11*	
x, final value	*0.24*	*0.15*	*0.03*	*0.27*	*0.47*		*0.31*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.5*	*3.3*	*4.6*	*3.3*	*3.1*		*3.1*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*376*	*346*	*268*	*421*	*582*		*471*	
Delay (s/veh)	*11.59*	*9.23*	*9.81*	*10.40*	*12.52*		*10.42*	
LOS	*B*	*A*	*A*	*B*	*B*		*B*	
Approach: Delay (s/veh)	*10.57*		*10.34*		*12.52*		*10.42*	
LOS	*B*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*11.17*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*AM PEAK HOUR WITH*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*164*	*0*	*104*	*94*	*0*	*383*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*39*	*43*	*0*	*97*	
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*164*	*104*	*94*	*383*	*82*		*353*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.15*	*0.09*	*0.08*	*0.34*	*0.07*		*0.31*	
hd, final value (s)	*7.06*	*5.84*	*6.79*	*5.57*	*6.28*		*5.53*	
x, final value	*0.32*	*0.17*	*0.18*	*0.59*	*0.14*		*0.54*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.8*	*3.5*	*4.5*	*3.3*	*4.3*		*3.5*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*414*	*354*	*344*	*622*	*332*		*603*	
Delay (s/veh)	*13.07*	*9.72*	*10.95*	*16.05*	*10.32*		*14.87*	
LOS	*B*	*A*	*B*	*C*	*B*		*B*	
Approach: Delay (s/veh)	*11.77*		*15.04*		*10.32*		*14.87*	
LOS	*B*		*C*		*B*		*B*	
Intersection Delay (s/veh)	*13.92*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM SCHOOL PEAK HOUR WITH*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*146*	*0*	*93*	*36*	*0*	*241*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*119*	*117*	*0*	*68*	*137*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*146*	*93*	*36*	*241*	*236*		*205*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.13*	*0.08*	*0.03*	*0.21*	*0.21*		*0.18*	
hd, final value (s)	*6.64*	*5.42*	*6.62*	*5.40*	*5.32*		*5.28*	
x, final value	*0.27*	*0.14*	*0.07*	*0.36*	*0.35*		*0.30*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.3*	*3.1*	*4.3*	*3.1*	*3.3*		*3.3*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*396*	*343*	*286*	*491*	*486*		*455*	
Delay (s/veh)	*11.77*	*9.00*	*9.79*	*11.12*	*11.14*		*10.53*	
LOS	*B*	*A*	*A*	*B*	*B*		*B*	
Approach: Delay (s/veh)	*10.70*		*10.95*		*11.14*		*10.53*	
LOS	*B*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*10.84*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM STREET PEAK HOUR WITH*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*127*	*0*	*96*	*18*	*0*	*169*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*169*	*163*	*0*	*49*	*173*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*127*	*96*	*18*	*169*	*332*		*222*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.11*	*0.09*	*0.02*	*0.15*	*0.30*		*0.20*	
hd, final value (s)	*6.79*	*5.57*	*6.87*	*5.65*	*5.09*		*5.10*	
x, final value	*0.24*	*0.15*	*0.03*	*0.27*	*0.47*		*0.31*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.5*	*3.3*	*4.6*	*3.3*	*3.1*		*3.1*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*377*	*346*	*268*	*419*	*582*		*472*	
Delay (s/veh)	*11.61*	*9.23*	*9.82*	*10.37*	*12.52*		*10.43*	
LOS	*B*	*A*	*A*	*B*	*B*		*B*	
Approach: Delay (s/veh)	*10.59*		*10.32*		*12.52*		*10.43*	
LOS	*B*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*11.17*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*AM PEAK HOUR WO*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*167*	*0*	*109*	*98*	*0*	*420*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*40*	*46*	*0*	*100*	*269*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*167*	*109*	*98*	*420*	*86*		*369*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.15*	*0.10*	*0.09*	*0.37*	*0.08*		*0.33*	
hd, final value (s)	*7.26*	*6.04*	*6.94*	*5.71*	*6.51*		*5.69*	
x, final value	*0.34*	*0.18*	*0.19*	*0.67*	*0.16*		*0.58*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*5.0*	*3.7*	*4.6*	*3.4*	*4.5*		*3.7*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*417*	*359*	*348*	*611*	*336*		*599*	
Delay (s/veh)	*13.61*	*10.08*	*11.24*	*19.06*	*10.71*		*16.34*	
LOS	*B*	*B*	*B*	*C*	*B*		*C*	
Approach: Delay (s/veh)	*12.22*		*17.58*		*10.71*		*16.34*	
LOS	*B*		*C*		*B*		*C*	
Intersection Delay (s/veh)	*15.55*							
Intersection LOS	*C*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM SCHOOL PEAK HOUR WO*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*150*	*0*	*97*	*37*	*0*	*268*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*123*	*122*	*0*	*71*	*141*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*150*	*97*	*37*	*268*	*245*		*212*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.13*	*0.09*	*0.03*	*0.24*	*0.22*		*0.19*	
hd, final value (s)	*6.78*	*5.56*	*6.73*	*5.51*	*5.46*		*5.43*	
x, final value	*0.28*	*0.15*	*0.07*	*0.41*	*0.37*		*0.32*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.5*	*3.3*	*4.4*	*3.2*	*3.5*		*3.4*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*400*	*347*	*287*	*518*	*495*		*462*	
Delay (s/veh)	*12.13*	*9.24*	*9.93*	*11.98*	*11.66*		*10.96*	
LOS	*B*	*A*	*A*	*B*	*B*		*B*	
Approach: Delay (s/veh)	*11.00*		*11.73*		*11.66*		*10.96*	
LOS	*B*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*11.37*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM STREET PEAK HOUR WO*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*132*	*0*	*100*	*18*	*0*	*184*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*176*	*170*	*0*	*51*	*180*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*132*	*100*	*18*	*184*	*346*		*231*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.12*	*0.09*	*0.02*	*0.16*	*0.31*		*0.21*	
hd, final value (s)	*6.93*	*5.70*	*7.00*	*5.78*	*5.21*		*5.24*	
x, final value	*0.25*	*0.16*	*0.04*	*0.30*	*0.50*		*0.34*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.6*	*3.4*	*4.7*	*3.5*	*3.2*		*3.2*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*382*	*350*	*268*	*434*	*596*		*481*	
Delay (s/veh)	*11.97*	*9.47*	*9.96*	*10.88*	*13.32*		*10.87*	
LOS	*B*	*A*	*A*	*B*	*B*		*B*	
Approach: Delay (s/veh)	*10.89*		*10.80*		*13.32*		*10.87*	
LOS	*B*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*11.70*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*AM PEAK HOUR WITH*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*171*	*0*	*117*	*98*	*0*	*248*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*40*	*54*	*0*	*100*	*278*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*171*	*117*	*98*	*248*	*94*		*378*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.6*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.15*	*0.10*	*0.09*	*0.22*	*0.08*		*0.34*	
hd, final value (s)	*6.93*	*5.71*	*6.87*	*5.65*	*5.97*		*5.29*	
x, final value	*0.33*	*0.19*	*0.19*	*0.39*	*0.16*		*0.56*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.6*	*3.4*	*4.6*	*3.3*	*4.0*		*3.3*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*421*	*367*	*348*	*498*	*344*		*628*	
Delay (s/veh)	*12.99*	*9.70*	*11.14*	*11.90*	*10.07*		*14.72*	
LOS	*B*	*A*	*B*	*B*	*B*		*B*	
Approach: Delay (s/veh)	*11.65*		*11.68*		*10.07*		*14.72*	
LOS	*B*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*12.58*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM SCHOOL PEAK HOUR WITH*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*152*	*0*	*101*	*37*	*0*	*131*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*123*	*126*	*0*	*71*	*148*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*152*	*101*	*37*	*131*	*249*		*219*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.14*	*0.09*	*0.03*	*0.12*	*0.22*		*0.19*	
hd, final value (s)	*6.49*	*5.27*	*6.64*	*5.42*	*5.06*		*5.01*	
x, final value	*0.27*	*0.15*	*0.07*	*0.20*	*0.35*		*0.30*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.2*	*3.0*	*4.3*	*3.1*	*3.1*		*3.0*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*402*	*351*	*287*	*381*	*499*		*469*	
Delay (s/veh)	*11.63*	*8.89*	*9.83*	*9.45*	*10.75*		*10.18*	
LOS	*B*	*A*	*A*	*A*	*B*		*B*	
Approach: Delay (s/veh)	*10.53*		*9.53*		*10.75*		*10.18*	
LOS	*B*		*A*		*B*		*B*	
Intersection Delay (s/veh)	*10.32*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*10/26/2010*
Analysis Time Period	*PM STREET PEAK HOUR WITH*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*2020*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*132*	*0*	*101*	*18*	*0*	*143*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*176*	*171*	*0*	*51*	*182*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*132*	*101*	*18*	*143*	*347*		*233*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.12*	*0.09*	*0.02*	*0.13*	*0.31*		*0.21*	
hd, final value (s)	*6.81*	*5.59*	*6.96*	*5.73*	*5.07*		*5.08*	
x, final value	*0.25*	*0.16*	*0.03*	*0.23*	*0.49*		*0.33*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.5*	*3.3*	*4.7*	*3.4*	*3.1*		*3.1*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*382*	*351*	*268*	*393*	*597*		*483*	
Delay (s/veh)	*11.76*	*9.32*	*9.91*	*10.12*	*12.82*		*10.56*	
LOS	*B*	*A*	*A*	*B*	*B*		*B*	
Approach: Delay (s/veh)	*10.71*		*10.09*		*12.82*		*10.56*	
LOS	*B*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*11.32*							
Intersection LOS	*B*							

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APPENDIX H
ALL-WAY STOP WARRANT AND
TRAFFIC SIGNAL WARRANT
FOR HAYDEN AVENUE AND WARNER DRIVE

The California Manual on Uniform Traffic Control Devices (MUTCD) is a document published by the State of California, Department of Transportation and issued to adopt uniform standards and specification for all official traffic control devices in California, in accordance with Section 21400 of the California Vehicle Code.

This California MUTCD incorporates Federal Highway Administration's MUTCD (FHWA) of the United States Department of Transportation (USDOT).

All-way Stop Signs

The following criteria should be considered in the engineering study for a multi-way stop sign installation:

- Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.
- A crash problem, as indicated by 5 for more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right- and left-turn collisions as well as right-angle collisions.
- Minimum volumes:
    - The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day, and
    - The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour, but
    - If the 85^{th} - percentile approach speed of the major-street traffic exceeds 65 km/h or exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the above values.

Other criteria that may be considered in an engineering study include:

- The need to control left-turn conflicts;
- The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
- Locations where a road user, after stopping, cannot see conflicting traffic and is not able to reasonably safely negotiate the intersection unless cross traffic is also required to stop; and

When these conditions exist, the multi-way stop control can be an effective safety measure at intersections. However, several studies have indicated that multi-way stops do not necessarily provide other perceived benefits to the area roadway network, such as reduced speeds. In addition, studies have also shown that 'unwarranted' multi-way

stops potentially have detrimental effects to both traffic operational characteristics and safety for vehicles and pedestrians alike.

Traffic Signals

Warrant 3 - Peak Hour

The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor street traffic suffers undue delay when entering or crossing the major street.

Standard:

The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-muinute periods) of an average day:
    1. The total stopped time delay experienced by the traffic on one minor street approach (one direction only) controlled by a stop sign equals or exceeds: 4 vehicle hours for a one lane approach; or 5 vehicles hours for a two lane approach, and
    2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
    3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*7/2011*
Analysis Time Period	*AM PEAK HOUR*

Site Information

Intersection	*HAYDEN AND WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*2015*

Project ID *AM PEAK HOUR WITH PROJECT*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*152*	*0*	*45*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*378*	*161*	*118*	*181*	*0*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*LTR*		*LTR*		*LT*	*R*	*LTR*	
PHF	*1.00*		*1.00*		*1.00*	*1.00*	*1.00*	
Flow Rate (veh/h)	*0*		*197*		*378*	*161*	*299*	
% Heavy Vehicles	*0*		*0*		*0*	*0*	*0*	
No. Lanes	*1*		*1*		*2*		*1*	
Geometry Group	*2*		*2*		*5*		*4a*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*0.0*		*0.8*		*0.0*	*0.0*	*0.4*	
Prop. Right-Turns	*0.0*		*0.2*		*0.0*	*1.0*	*0.0*	
Prop. Heavy Vehicle	*0.0*		*0.0*		*0.0*	*0.0*	*0.0*	
hLT-adj	*0.2*	*0.2*	*0.2*	*0.2*	*0.5*	*0.5*	*0.2*	*0.2*
hRT-adj	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.7*	*-0.7*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.0*		*0.0*		*0.0*	*-0.7*	*0.1*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*		*3.20*		*3.20*	*3.20*	*3.20*	
x, initial	*0.00*		*0.18*		*0.34*	*0.14*	*0.27*	
hd, final value (s)	*6.32*		*5.82*		*5.46*	*4.75*	*5.33*	
x, final value	*0.00*		*0.32*		*0.57*	*0.21*	*0.44*	
Move-up time, m (s)	*2.0*		*2.0*		*2.3*		*2.0*	
Service Time, t_s (s)	*4.3*		*3.8*		*3.2*	*2.5*	*3.3*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*0*		*447*		*628*	*411*	*549*	
Delay (s/veh)	*9.32*		*11.53*		*15.24*	*8.73*	*12.50*	
LOS	*A*		*B*		*C*	*A*	*B*	
Approach: Delay (s/veh)	*9.32*		*11.53*		*13.29*		*12.50*	
LOS	*A*		*B*		*B*		*B*	
Intersection Delay (s/veh)	*12.73*							
Intersection LOS	*B*							

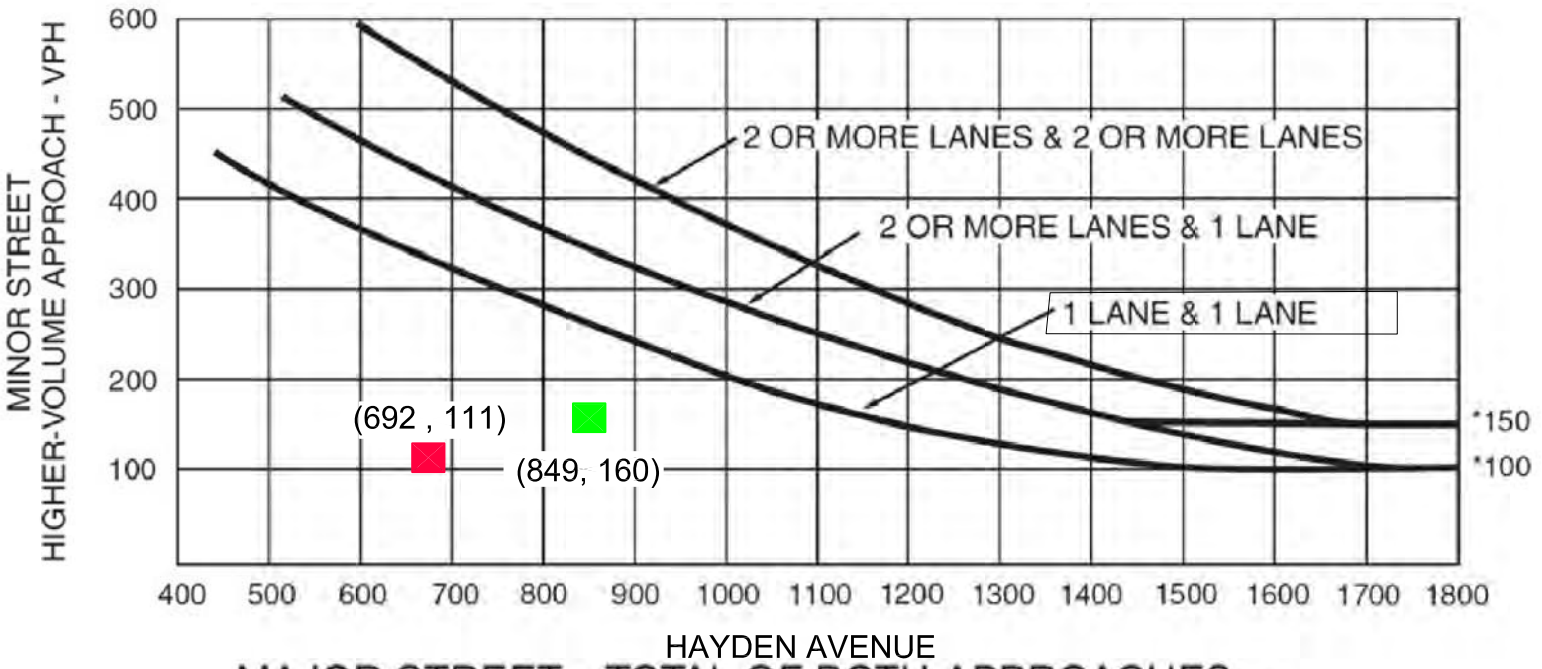
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HAYDEN AVENUE AND WARNER DRIVE
Existing Peak Hour Traffic Signal Warrants

EXHIBIT H1

Figure 4C-3. Warrant 3, Peak Hour

HAYDEN AVENUE AND WARNER DRIVE
EXISTING CONDITION



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

AM PEAK HOUR
PM PEAK HOUR

WARNER DRIVE

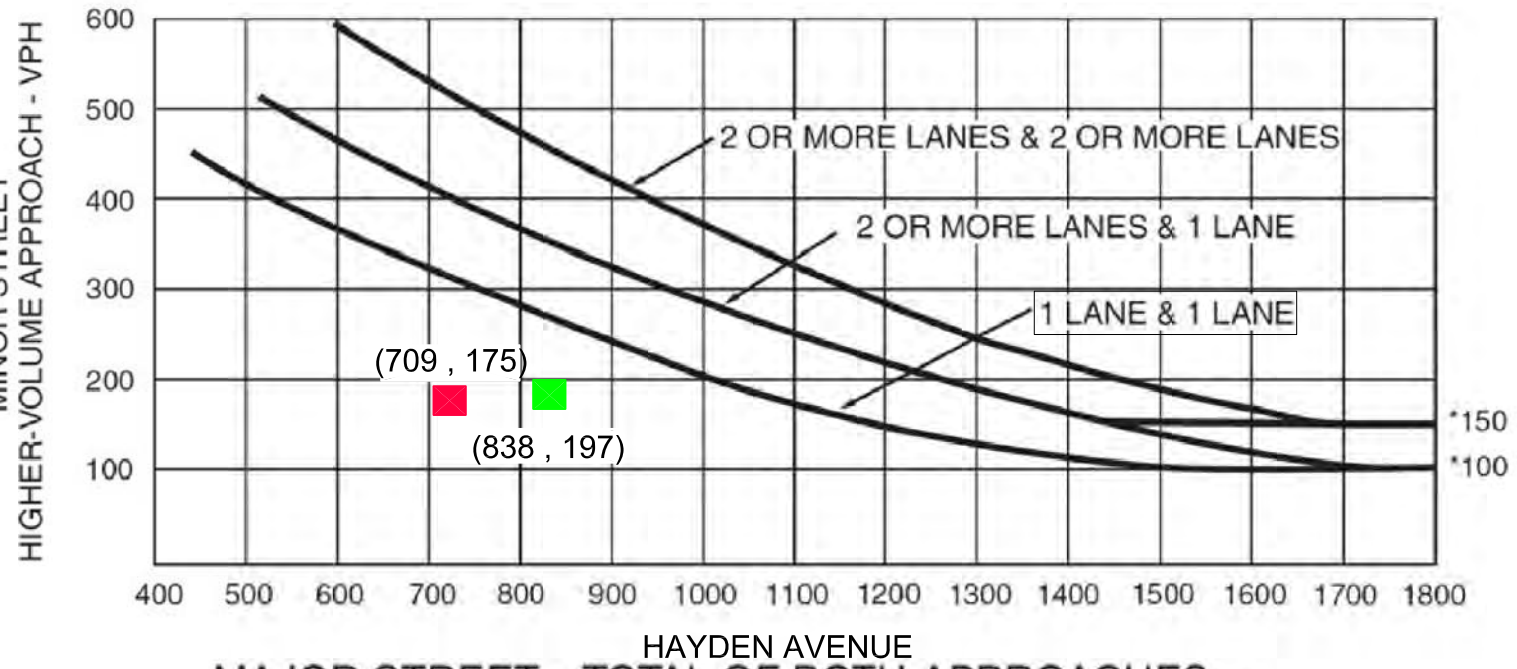
Overland Traffic Consultants, Inc.
27201 Tourney Road, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com

HAYDEN AVENUE AND WARNER DRIVE
2015 Peak Hour Traffic Signal Warrants

EXHIBIT H2

Figure 4C-3. Warrant 3, Peak Hour

HAYDEN AVENUE AND WARNER DRIVE
FUTURE 2015 WITH PHASE 1 WCS DEVELOPMENT



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

WARNER DRIVE

AM PEAK HOUR
PM PEAK HOUR

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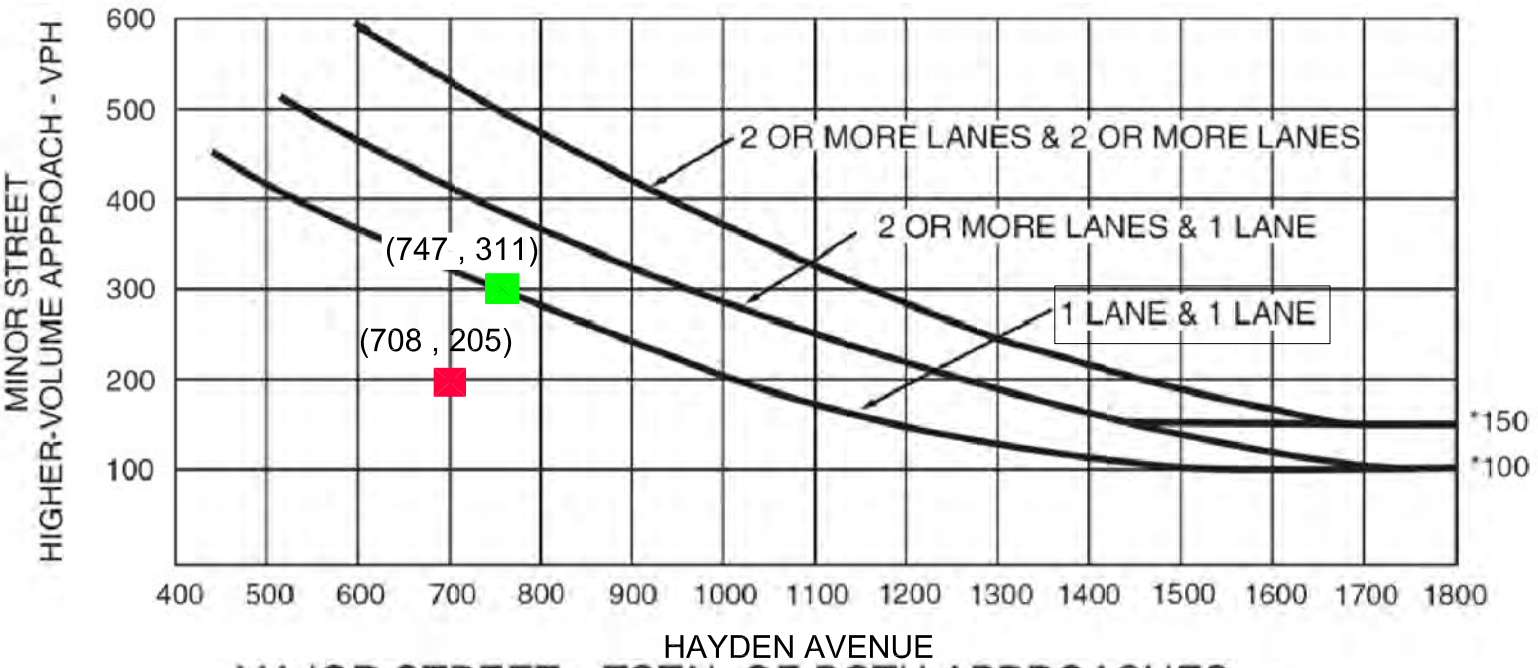
HAYDEN AVENUE AND WARNER DRIVE
2020 Peak Hour Traffic Signal Warrants

EXHIBIT H3

Overland Traffic Consultants, Inc.
27201 Tourney Road, Santa Clarita, CA 91355
(661)799-8423 v, (661)799-8456 f, OTC@overlandtraffic.com

Figure 4C-3. Warrant 3, Peak Hour

HAYDEN AVENUE AND WARNER DRIVE
FUTURE 2020 WITH BUILDOUT WCS DEVELOPMENT



WARNER DRIVE

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

AM PEAK HOUR
PM PEAK HOUR

APPENDIX I

TRANSPORATION DEMAND MANAGEMENT (TDM)

AND

DROP-OFF AND PICK-UP INFORMATION

Transportation Demand Management Measures (TDM), examples:

1. WCS will provide before and after school care for any student to spread the student arrivals and departures time periods.
2. WCS will appointment of a staff member to serve as the school transportation coordinator.
3. WCS will prepare school assisted TDM programs to aide in the formation and coordination of school sponsored carpool programs, such as providing contact lists of school families organized by residential zip code and matching services.
4. The TDM plan will be updated on an annual basis and disseminated to all new and returning school families at the beginning of each new school calendar year.
5. WCS will establish an emergency ride home program for employees that participate in carpools/vanpools or other transit modes.
6. The TDM plan will address the enforcement of adopted drop off and pick up hours
7. The TDM plan will include a Traffic/Parking Circulation Management Plan which explains vehicular ingress and egress access locations, provides vehicle queuing instructions, provides student drop off and pick up instructions and explains the school's traffic circulation requirements.
8. WCS will send out regular reminders of drop-off and pick-up procedure from school officials to students and parents to keep parents informed. Information provided to parents should be clearly stated, provide consistent messages and be delivered regularly throughout the school year. Maps of the drop-off and pick-up area with traffic flow patterns shall be provided. It is often good to begin a new drop-off plan at the start of a new school year or after a break, and after sufficient notice has been given to parents and students about the new plan.
9. WCS will hold traffic safety days to provide students and parents with useful information, instructions and feedback. Drivers are reminded of traffic safety principles and school drop-off and pick-up policies and procedures. At this time children can be recognized and rewarded; giving small rewards, such as stickers or pencils, to students

whose parents follow the proper process may be more beneficial in correcting bad habits than punishing poorly behaved parents.

10. Parents not following the proper process should receive warnings from school personnel.
11. Aid enforcement of drop-off and pick-up times by the issuance of vehicle placards with access time assignment. No entrance to school parking lots should be allowed without prior clearance. No vehicle staging on adjacent or nearby streets prior to assigned arrival times should be allowed.

Recommended Student Drop-off and Pick-up Procedures

Higuera Street Parking Lot (Phase 1)

1. All loading and unloading will be supervised during the peak morning arrival and afternoon departure periods. It has been observed that afternoon pick-up periods have the greatest traffic impact on traffic flow. WCS should continue to notify parents not to arrive earlier than ten minutes before their designated pick-up times to lessen the on-street queuing.
2. The Higuera Street parking lot will be for adult assisted student drop-off and pick-up utilizing a moving vehicle queue line up.
3. The Higuera Street parking lot will provide up to a 17-vehicle queue on-site. As shown in Appendix E, Exhibit E6, a 3-line queue will form with the front 3 vehicle positions assigned for assisted unloading and loading of students with parents remaining in the vehicles.
4. Parents, school personnel, safety patrol can serve as valets and open doors for students to enter and exit motor vehicles and remove bags or other items. This speeds up the drop-off and pick-up process by eliminating the need for the parents to get out of the vehicle and ensures students are directly accessing designated locations. These assistants should wear safety vests or belts, and the loading area should be designated by signs or paint and be located at the far end of the drop off lane to maximize capacity. Provide an adequate number of assistants to help load / unload all vehicles in the drop off zone to speed up the process in a safe manner.

5. Parking for the purposes of loading and unloading students will not be allowed in the Higuera Street parking lot from 7:30 am to 8:30 am and from 2:30 pm to 3:00 pm on school days.

Warner Drive Parking Lot (Phase 1)

6. The Warner Drive parking lot will be utilized for those vehicles needing to parking and walk students to and from the classrooms (typically for DK-K grade level students). Initially ten (10) parking spaces within the Warner Drive parking lot will be reserved for visitors and parent/student walk-in arrivals and departures.

Warner Drive / Higuera Street Drive-Thru Parking Lot (Phases 2 & 3)

With the project site plan as proposed, it is our recommendation that the WCS operate the drive-through loading and unloading zones in the new parking lot as follows:

1. Arriving vehicles would enter from Higuera Street and exit Warner Drive.
2. The parking lot drive aisle would provide a stacking length for approximately 30 vehicles.
3. Parking during pick up and drop-off time periods should be assigned to the parking spaces located near the south end closest to the Higuera Street entrance to reduce the disruption to the moving queue and loading/unloading activities on the north end of the drive near the Warner Drive exit.
4. Pedestrians shall have a designated safe path between the unloading and loading area and the school building.
5. Designate the front 10 vehicles for assisted unloading and loading. Install a clearly marked loading/unloading zone where vehicles are permitted to drop off and pick up their children. Motor vehicles in two lanes progress to the zone, release the children simultaneously and move out when all the children have cleared the zone. The next group of 10 motor vehicles moves into the loading zone and repeats the process. Curb striping delineates the loading zone, signs further explain their proper use, orange cones mark the lanes and school personnel orchestrate the entire process. No unloading / loading shall be permitted outside the designated loading / unloading zone.

6. Provide assistants in the drop-off and pick-up zone to help students exit and enter the vehicles. Parents are instructed to stay in the vehicle and leave when instructed.
7. Unloading of students in an efficiently managed loading area should take less than 10 seconds per vehicle. The complete process of a single vehicle entering the loading area, loading/unloading passengers, then exiting the loading area should be completed in less than 45 seconds.
8. Implement a two-stage pick-up loading process that utilizes hang-tags or placards placed in vehicle windshields to identity students to be picked-up. One school staff member relays the students' names to another staff member further up the queue line to arrange students in order of pick-up vehicle.
9. The school keeps the children in one loading / unloading zone. As the students are called, they leave the zone and load into vehicles in a supervised area.

APPENDIX J

THE WILLOWS COMMUNITY SCHOOL TRIP GENERATION SURVEY

The Willows Community School Trip Generation Survey

Date	Time Period	IN	OUT	TOTAL	%
6/7/2010	7:20 - 7:25	0	0	0	0.0%
	7:25 - 7:30	4	0	4	0.9%
	7:30 - 7:35	1	2	3	0.7%
	7:35 - 7:40	5	6	11	2.5%
	7:40 - 7:45	15	11	26	5.9%
	7:45 - 7:50	36	31	67	15.3%
	7:50 - 7:55	15	12	27	6.2%
	7:55 - 8:00	26	23	49	11.2%
	8:00 - 8:05	18	15	33	7.6%
	8:05 - 8:10	21	18	39	8.9%
	8:10 - 8:15	14	14	28	6.4%
	8:15 - 8:20	10	15	25	5.7%
	8:20 - 8:25	7	7	14	3.2%
	8:25 - 8:30	12	8	20	4.6%
	8:30 - 8:35	3	4	7	1.6%
	8:35 - 8:40	12	14	26	5.9%
	8:40 - 8:45	7	6	13	3.0%
	8:45 - 8:50	6	10	16	3.7%
	8:50 - 8:55	6	3	9	2.1%
	8:55 - 9:00	9	11	20	4.6%
		227	210	437	

					rate at 425 students		
	PEAK HOUR						
	7:00 - 8:00	102	85	187	0.240	0.200	0.440
	7:05 - 8:05	120	100	220	0.282	0.235	0.518
	7:10 - 8:10	137	118	255	0.322	0.278	0.600
	7:15 - 8:15	150	130	280	0.353	0.306	0.659
	7:20 - 8:20	165	147	312	0.388	0.346	0.734
	7:25 - 8:25	172	154	326	0.405	0.362	0.767
	7:30 - 8:30	180	162	342	0.424	0.381	0.805
	7:35 - 8:35	182	164	346	0.428	0.386	0.814
	7:40 - 8:40	189	172	361	0.445	0.405	0.849
	7:45 - 8:45	181	167	348	0.426	0.393	0.819
	7:50 - 8:50	151	146	297	0.355	0.344	0.699
	7:55 - 8:55	142	137	279	0.334	0.322	0.656
	8:00 - 9:00	125	125	250	0.294	0.294	0.588

APPENDIX K

SUPPLEMENTAL ANALYSIS FOR EXISTING + PROJECT CONDITIONS

An expanded traffic impact analysis has been conducted pursuant to recent California Environmental Quality Act court rulings. The potential traffic impact of the project's traffic volume on existing traffic conditions has been analyzed as a supplemental scenario. Therefore, traffic volume projections have been developed to analyze the existing traffic conditions after completion of the proposed project.

No additional project generated traffic impacts were identified in the "existing + project" traffic impact analysis. The LOS value used in the significance test was the CMA LOS method for the signalized intersections and the HCM LOS method for the non-signalized intersections. The ICU method was used to calculate the difference in the V/C with and without the project to determine the significance of the project's traffic impact

It should also be noted that the existing + project impact analysis does consider the current Exposition Light Rail project modifications to National Boulevard from Jefferson Boulevard to Washington Boulevard. The additions include: a new traffic signal at the intersection of National Boulevard and Eastham Drive which will allow a northbound left-turns, and the intersection improvements to National Boulevard and Jefferson Boulevard which will also include a northbound left-turn lane.

The traffic impact of the WCS Phase 1 project at the study intersections is shown in Table 1 using the existing conditions estimates as the baseline. As shown, none of the study intersections would be significantly impacted by Phase 1 traffic.

The traffic impact of the WCS Buildout project at the study intersections is shown in Table 2 using the existing conditions estimates as the baseline. As shown, none of the study intersections would be significantly impacted by Buildout traffic.

Table 1
Existing Traffic Conditions + Phase 1 Project

No.	Intersection	Peak Hour	Existing ICU-Delay	LOS	Existing With Project ICU-Delay	LOS	Impact
1.	National Bd. &	AM	0.723	C	0.725	C	+ 0.002
	Washington Bd.	PM School	0.556	A	0.557	A	+ 0.001
		PM Street	0.678	B	0.678	B	+ 0.000
2.	National Bd. &	AM	0.493	A	0.500	A	+ 0.007
	Hayden Ave.	PM School	0.471	A	0.477	A	+ 0.006
		PM Street	0.530	A	0.532	A	+ 0.002
3.	National Bd. &	AM	0.393	A	0.398	A	+ 0.005
	Eastham Dr.	PM School	0.371	A	0.373	A	+ 0.002
		PM Street	0.423	A	0.424	A	+ 0.001
4.	National Bd. &	AM	0.559	A	0.569	A	+ 0.010
	Jefferson Bd. (City of LA)	PM School	0.428	A	0.430	A	+ 0.002
		PM Street	0.485	A	0.485	A	+ 0.000
5.	Washington Bd. &	AM	0.714	C	0.714	C	+ 0.000
	Robertson / Higuera	PM School	0.492	A	0.493	A	+ 0.001
		PM Street	0.565	A	0.565	A	+ 0.000
6.	Warner Dr. &	AM	0.545 / 19.9"	A C	0.558 / 21.1 "	A C	+ 0.013 + 1.2 "
	Hayden Ave.	PM School	0.424 / 13.2 "	A B	0.433 / 13.3 "	A B	+ 0.009 + 0.1 "
		PM Street	0.455 / 14.0 "	A B	0.457 / 14.0 "	A B	+ 0.002 - 0.0 "
7.	Higuera St. &	AM	0.597 / 11.56 "	A B	0.596 / 11.50 "	A B	- 0.001 - 0.06 "
	Hayden Ave.	PM School	0.525 / 9.53 "	A A	0.524 / 9.52 "	A B	- 0.001 - 0.01 "
		PM Street	0.420 / 9.62 "	A A	0.418 / 9.62 "	A A	- 0.002 - 0.00 "
8.	Higuera St. &	AM	0.409	A	0.410	A	+ 0.001
	Eastham Dr.	PM School	0.434	A	0.435	A	+ 0.001
		PM Street	0.455	A	0.456	A	+ 0.001
9.	Higuera St. &	AM	0.655	B	0.653	C	- 0.002
	Jefferson Bd. (City of LA)	PM School	0.532	A	0.533	A	+ 0.001
		PM Street	0.630	B	0.630	B	+0.000

Table 2
Existing Traffic Conditions + Buildout Project

No.	Intersection	Peak Hour	Existing ICU-Delay	LOS	Existing With Project ICU-Delay	LOS	Impact
1.	National Bd. &	AM	0.723	C	0.731	C	+ 0.008
	Washington Bd.	PM School	0.556	A	0.560	A	+ 0.004
		PM Street	0.678	B	0.680	B	+ 0.002
2.	National Bd. &	AM	0.493	A	0.514	A	+ 0.021
	Hayden Ave.	PM School	0.471	A	0.477	A	+ 0.006
		PM Street	0.530	A	0.534	A	+ 0.004
3.	National Bd. &	AM	0.393	A	0.379	A	- 0.014
	Eastham Dr.	PM School	0.371	A	0.373	A	+ 0.002
		PM Street	0.423	A	0.419	A	- 0.004
4.	National Bd. &	AM	0.559	A	0.568	A	+ 0.009
	Jefferson Bd. (City of LA)	PM School	0.428	A	0.430	A	+ 0.002
		PM Street	0.485	A	0.488	A	+ 0.003
5.	Washington Bd. &	AM	0.714	C	0.716	C	+ 0.002
	Robertson / Higuera	PM School	0.492	A	0.493	A	+ 0.001
		PM Street	0.565	A	0.567	A	+ 0.002
6.	Warner Dr. &	AM	0.545 / 19.9"	A C	0.553 / 19.5 "	A C	+ 0.008 - 0.4 "
	Hayden Ave.	PM School	0.424 / 13.2 "	A B	0.433 / 13.3"	A B	+ 0.009 + 0.1 "
		PM Street	0.455 / 14.0 "	A B	0.455 / 13.7 "	A B	+ 0.000 - 0.3 "
7.	Higuera St. &	AM	0.597 / 11.56 "	A B	0.496 / 10.09 "	A B	- 0.101 - 1.47 "
	Hayden Ave.	PM School	0.525 / 9.53 "	A A	0.524 / 9.52 "	A A	- 0.001 - 0.01"
		PM Street	0.420 / 9.62 "	A A	0.395 / 9.41 "	A A	- 0.025 - 0.21 "
8.	Higuera St. &	AM	0.409	A	0.425	A	+ 0.016
	Eastham Dr.	PM School	0.434	A	0.435	A	+ 0.001
		PM Street	0.455	A	0.458	A	+ 0.003
9.	Higuera St. &	AM	0.655	B	0.668	B	+ 0.013
	Jefferson Bd. (City of LA)	PM School	0.532	A	0.533	A	+ 0.001
		PM Street	0.630	B	0.630	B	+0.000

EXISTING + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	2	2,880	181	0.063	*		137	0.048		
NB THRU	2	3,200	667	0.224			602	0.213	*	
NB RIGHT	0	0	50	0.000			80	0.000		
						0.294				0.310
SB LEFT	2	2,880	168	0.058			278	0.097	*	
SB THRU	2	3,200	685	0.231	*		770	0.253		
SB RIGHT	0	0	55	0.000			38	0.000		
EB LEFT	1	1,600	54	0.034	*		74	0.046	*	
EB THRU	2	3,200	851	0.266			779	0.243		
EB RIGHT	1	1,600	57	0.036			173	0.108		
						0.399				0.338
WB LEFT	1	1,600	78	0.049			37	0.023		
WB THRU	2	3,200	1168	0.365	*		933	0.292	*	
WB RIGHT	1	1,600	308	0.193			139	0.087		

NORTH/SOUTH CRITICAL SUM	0.294	NORTH/SOUTH CRITICAL SUM	0.310
EAST/WEST CRITICAL SUM	0.399	EAST/WEST CRITICAL SUM	0.338
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.793	INTERSECTION ICU VALUE	0.748
LESS 0.07 FOR ATSAC	0.723		0.678
AM INTERSECTION LOS	C	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	2	2,880	181	0	0	1	182	0.063 *		137	0	0	0	137	0.048	
NB THRU	2	3,200	667	0	0	6	673	0.226		602	0	0	1	603	0.213 *	
NB RIGHT	0	0	50	0	0	0	50	0.000		80	0	0	0	80	0.000	
									0.296							0.310
SB LEFT	2	2,880	168	0	0	0	168	0.058		278	0	0	0	278	0.097 *	
SB THRU	2	3,200	685	0	0	7	692	0.233 *		770	0	0	2	772	0.253	
SB RIGHT	0	0	55	0	0	0	55	0.000		38	0	0	0	38	0.000	
EB LEFT	1	1,600	54	0	0	0	54	0.034 *		74	0	0	0	74	0.046 *	
EB THRU	2	3,200	851	0	0	0	851	0.266		779	0	0	0	779	0.243	
EB RIGHT	1	1,600	57	0	0	2	59	0.037		173	0	0	0	173	0.108	
									0.399							0.338
WB LEFT	1	1,600	78	0	0	0	78	0.049		37	0	0	0	37	0.023	
WB THRU	2	3,200	1168	0	0	0	1168	0.365 *		933	0	0	0	933	0.292 *	
WB RIGHT	1	1,600	308	0	0	0	308	0.193		139	0	0	0	139	0.087	

NORTH/SOUTH CRITICAL SUM	0.296	NORTH/SOUTH CRITICAL SUM	0.310
EAST/WEST CRITICAL SUM	0.399	EAST/WEST CRITICAL SUM	0.338
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.795	INTERSECTION ICU VALUE	0.748
LESS 0.07 FOR ATSAC	0.725	LESS 0.07 FOR ATSAC	0.678
AM INTERSECTION LOS	C	PM INTERSECTION LOS	B
AM IMPACT	0.002	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	281	0.176	*		312	0.195	*	
NB THRU	0	0	0	0.000			0	0.000		
NB RIGHT	1	1600	58	0.036			92	0.058		
						0.176				0.195
SB LEFT	0	0	0	0.000			0	0.000		
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	2	3,200	585	0.246	*		679	0.291	*	
EB RIGHT	0	0	203	0.000			252	0.000		
						0.287				0.305
WB LEFT	1	1,600	65	0.041	*		22	0.014	*	
WB THRU	2	3,200	590	0.184			473	0.148		
WB RIGHT	0	0	0	0.000			0	0.000		

NORTH/SOUTH CRITICAL SUM	0.176	NORTH/SOUTH CRITICAL SUM	0.195
EAST/WEST CRITICAL SUM	0.287	EAST/WEST CRITICAL SUM	0.305
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.563	INTERSECTION ICU VALUE	0.600
LESS 0.07 FOR ATSAC	0.493		0.530
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	281	0	0	7	288	0.180 *		312	0	0	2	314	0.196 *	
NB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	1	1600	58	0	0	-3	55	0.034		92	0	0	-1	91	0.057	
									0.180							0.196
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	2	3,200	585	0	0	-4	581	0.249 *		679	0	0	0	679	0.292 *	
EB RIGHT	0	0	203	0	0	13	216	0.000		252	0	0	2	254	0.000	
									0.290							0.306
WB LEFT	1	1,600	65	0	0	0	65	0.041 *		22	0	0	0	22	0.014 *	
WB THRU	2	3,200	590	0	0	0	590	0.184		473	0	0	0	473	0.148	
WB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.180	NORTH/SOUTH CRITICAL SUM	0.196
EAST/WEST CRITICAL SUM	0.290	EAST/WEST CRITICAL SUM	0.306
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.570	INTERSECTION ICU VALUE	0.602
LESS 0.07 FOR ATSAC	0.500	LESS 0.07 FOR ATSAC	0.532
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.007	PM IMPACT	0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	150	0.094	*		200	0.125	*	
NB THRU	0	0	0	0.000			0	0.000		
NB RIGHT	1	1600	18	0.011			65	0.041		
						0.094				0.125
SB LEFT	0	0	0	0.000			0	0.000		
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	2	3,200	482	0.191	*		676	0.255	*	
EB RIGHT	0	0	130	0.000			140	0.000		
						0.269				0.268
WB LEFT	1	1,600	124	0.078	*		21	0.013	*	
WB THRU	2	3,200	536	0.168			282	0.088		
WB RIGHT	0	0	0	0.000			0	0.000		

NORTH/SOUTH CRITICAL SUM	0.094	NORTH/SOUTH CRITICAL SUM	0.125
EAST/WEST CRITICAL SUM	0.269	EAST/WEST CRITICAL SUM	0.268
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.463	INTERSECTION ICU VALUE	0.493
LESS 0.07 FOR ATSAC	0.393	LESS 0.07 FOR ATSAC	0.423
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	150	0	0	0	150	0.094 *		200	0	0	0	200	0.125 *	
NB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	1	1600	18	0	0	10	28	0.018		65	0	0	2	67	0.042	
									0.094							0.125
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	2	3,200	482	0	0	-3	479	0.189 *		676	0	0	-1	675	0.255 *	
EB RIGHT	0	0	130	0	0	-4	126	0.000		140	0	0	0	140	0.000	
									0.274							0.269
WB LEFT	1	1,600	124	0	0	12	136	0.085 *		21	0	0	2	23	0.014 *	
WB THRU	2	3,200	536	0	0	0	536	0.168		282	0	0	0	282	0.088	
WB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.094	NORTH/SOUTH CRITICAL SUM	0.125
EAST/WEST CRITICAL SUM	0.274	EAST/WEST CRITICAL SUM	0.269
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.468	INTERSECTION ICU VALUE	0.494
LESS 0.07 FOR ATSAC	0.398	LESS 0.07 FOR ATSAC	0.424
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.005	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	169	0.106	*		98	0.061	*	
NB THRU	2	3,200	432	0.135			570	0.178		
NB RIGHT	1	1600	0	0.000			0	0		
						0.408				0.248
SB LEFT	1	1,600	0	0.000			0	0.000		
SB THRU	1	1,600	465	0.291			299	0.187	*	
SB RIGHT	1	1,600	483	0.302	*		223	0.139		
EB LEFT	1.5	2,400	291	0.121	*		496	0.207	*	
EB THRU	0.5	800	0	0.000			0	0.000		
EB RIGHT	1	1,600	221	0.085			237	0.118		
						0.121				0.207
WB LEFT	0	0	0	0.000			0	0.000		
WB THRU	1	1,600	0	0.000	*		0	0.000		
WB RIGHT	0	0	0	0.000	*		0	0.000		

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.408	NORTH/SOUTH CRITICAL SUM	0.248
EAST/WEST CRITICAL SUM	0.121	EAST/WEST CRITICAL SUM	0.207
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.629	INTERSECTION ICU VALUE	0.555
LESS 0.07 FOR ATSAC	0.559		0.485
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	169	0	0	0	169	0.106 *		98	0	0	0	98	0.061 *	
NB THRU	2	3,200	432	0	0	0	432	0.135		570	0	0	0	570	0.178	
NB RIGHT	1	1600	0	0	0	0	0	0.000		0	0	0	0	0	0	
									0.415							0.248
SB LEFT	1	1,600	0	0	0	0	0	0.000		0	0	0	0	0	0	
SB THRU	1	1,600	465	0	0	-1	464	0.290		299	0	0	0	299	0.187 *	
SB RIGHT	1	1,600	483	0	0	12	495	0.309 *		223	0	0	2	225	0.141	
EB LEFT	1.5	2,400	291	0	0	7	298	0.124 *		496	0	0	1	497	0.207 *	
EB THRU	0.5	800	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB RIGHT	1	1,600	221	0	0	0	221	0.085		237	0	0	0	237	0.118	
									0.124							0.207
WB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB THRU	1	1600	0	0	0	0	0	0.000 *		0	0	0	0	0	0.000	
WB RIGHT	0	0	0	0	0	0	0	0.000 *		0	0	0	0	0	0.000	

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.415	NORTH/SOUTH CRITICAL SUM	0.248
EAST/WEST CRITICAL SUM	0.124	EAST/WEST CRITICAL SUM	0.207
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.639	INTERSECTION ICU VALUE	0.555
LESS 0.07 FOR ATSAC	0.569	LESS 0.07 FOR ATSAC	0.485
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.010	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0.040			56	0.035		
NB THRU	2	3,200	335	0.126	*		165	0.077	*	
NB RIGHT	0	0	67	0.000			81	0.000		
						0.239				0.186
SB LEFT	1	1,600	180	0.113	*		174	0.109	*	
SB THRU	1	1,600	223	0.139			198	0.124		
SB RIGHT	1	1,600	64	0.040			148	0.093		
EB LEFT	1	1,600	71	0.044	*		118	0.074		
EB THRU	2	3,200	750	0.253			887	0.304	*	
EB RIGHT	0	0	59	0.000			87	0.000		
						0.445				0.349
WB LEFT	1	1,600	84	0.053	*		72	0.045	*	
WB THRU	2	3,200	1077	0.401	*		712	0.264		
WB RIGHT	0	0	207	0.000			134	0.000		

NORTH/SOUTH CRITICAL SUM	0.239	NORTH/SOUTH CRITICAL SUM	0.186
EAST/WEST CRITICAL SUM	0.445	EAST/WEST CRITICAL SUM	0.349
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.784	INTERSECTION ICU VALUE	0.635
LESS 0.07 FOR ATSAC	0.714		0.565
AM INTERSECTION LOS	C	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	64	0	0	0	64	0.040		56	0	0	0	56	0.035	
NB THRU	2	3,200	335	0	0	2	337	0.126	*	165	0	0	1	166	0.077	*
NB RIGHT	0	0	67	0	0	0	67	0.000		81	0	0	0	81	0.000	
									0.239							0.186
SB LEFT	1	1,600	180	0	0	0	180	0.113	*	174	0	0	0	174	0.109	*
SB THRU	1	1,600	223	0	0	3	226	0.141		198	0	0	1	199	0.124	
SB RIGHT	1	1,600	64	0	0	0	64	0.040		148	0	0	0	148	0.093	
EB LEFT	1	1,600	71	0	0	0	71	0.044	*	118	0	0	0	118	0.074	
EB THRU	2	3,200	750	0	0	2	752	0.253		887	0	0	0	887	0.304	*
EB RIGHT	0	0	59	0	0	0	59	0.000		87	0	0	0	87	0.000	
									0.445							0.349
WB LEFT	1	1,600	84	0	0	0	84	0.053		72	0	0	0	72	0.045	
WB THRU	2	3,200	1077	0	0	0	1077	0.401	*	712	0	0	0	712	0.264	
WB RIGHT	0	0	207	0	0	0	207	0.000		134	0	0	0	134	0.000	

NORTH/SOUTH CRITICAL SUM	0.239	NORTH/SOUTH CRITICAL SUM	0.186
EAST/WEST CRITICAL SUM	0.445	EAST/WEST CRITICAL SUM	0.349
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.784	INTERSECTION ICU VALUE	0.635
LESS 0.07 FOR ATSAC	0.714	LESS 0.07 FOR ATSAC	0.565
AM INTERSECTION LOS	C	PM INTERSECTION LOS	A
AM IMPACT	0.000	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1600	352	0.220	*		284	0.178	*	
NB RIGHT	1	1600	147	0.092			90	0.056		
						0.345				0.286
SB LEFT	0	0	75	0.000			73	0.000		
SB THRU	1	1,600	125	0.125	*		99	0.108	*	
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	1	1,600	0	0.000			0	0.000		
EB RIGHT	0	0	0	0.000			0	0.000		
						0.100				0.069
WB LEFT	0	0	139	0.000			74	0.000		
WB THRU	1	1,600	0	0.100	*		0	0.069	*	
WB RIGHT	0	0	21	0.000			37	0.000		

NORTH/SOUTH CRITICAL SUM	0.345	NORTH/SOUTH CRITICAL SUM	0.286
EAST/WEST CRITICAL SUM	0.100	EAST/WEST CRITICAL SUM	0.069
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.545	INTERSECTION ICU VALUE	0.455
	0.545		0.455
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB THRU	1	1600	352	0	0	-6	346	0.216	*	284	0	0	-2	282	0.176	*
NB RIGHT	1	1600	147	0	0	3	150	0.094		90	0	0	1	91	0.057	
									0.349							0.285
SB LEFT	0	0	75	0	0	13	88	0.000		73	0	0	2	75	0.000	
SB THRU	1	1,600	125	0	0	0	125	0.133	*	99	0	0	0	99	0.109	*
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	1	1,600	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.109							0.072
WB LEFT	0	0	139	0	0	4	143	0.000		74	0	0	1	75	0.000	
WB THRU	1	1600	0	0	0	0	0	0.109	*	0	0	0	0	0	0.072	*
WB RIGHT	0	0	21	0	0	10	31	0.000		37	0	0	3	40	0.000	

NORTH/SOUTH CRITICAL SUM	0.349	NORTH/SOUTH CRITICAL SUM	0.285
EAST/WEST CRITICAL SUM	0.109	EAST/WEST CRITICAL SUM	0.072
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.558	INTERSECTION ICU VALUE	0.457
	0.558		0.457
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.013	PM IMPACT	0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1600	30	0.036	*		121	0.155	*	
NB RIGHT	0	0	27	0.000			127	0.000		
						0.176				0.155
SB LEFT	0	0	0	0.000			0	0.000		
SB THRU	1	1,600	45	0.176	*		37	0.118	*	
SB RIGHT	0	0	236	0.000			152	0.000		
EB LEFT	1	1,600	148	0.093	*		110	0.069	*	
EB THRU	0	0	0	0.000			0	0.000		
EB RIGHT	1	1,600	81	0.051			80	0.050		
						0.321				0.165
WB LEFT	1	1,600	74	0.046			14	0.009		
WB THRU	0	0	0	0.000			0	0.000		
WB RIGHT	1	1,600	364	0.228	*		153	0.096	*	

NORTH/SOUTH CRITICAL SUM	0.176	NORTH/SOUTH CRITICAL SUM	0.155
EAST/WEST CRITICAL SUM	0.321	EAST/WEST CRITICAL SUM	0.165
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.597	INTERSECTION ICU VALUE	0.420
	0.597		0.420
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000 *		0	0	0	0	0	0.000	
NB THRU	1	1600	30	0	0	0	30	0.035		121	0	0	0	121	0.155 *	
NB RIGHT	0	0	27	0	0	-1	26	0.000		127	0	0	0	127	0.000	
									0.178							0.155
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000 *	
SB THRU	1	1,600	45	0	0	0	45	0.178 *		37	0	0	0	37	0.119	
SB RIGHT	0	0	236	0	0	3	239	0.000		152	0	0	1	153	0.000	
EB LEFT	1	1,600	148	0	0	5	153	0.096 *		110	0	0	1	111	0.069 *	
EB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB RIGHT	1	1,600	81	0	0	-1	80	0.050		80	0	0	0	80	0.050	
									0.318							0.163
WB LEFT	1	1,600	74	0	0	0	74	0.046		14	0	0	0	14	0.009	
WB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB RIGHT	1	1,600	364	0	0	-9	355	0.222 *		153	0	0	-2	151	0.094 *	

NORTH/SOUTH CRITICAL SUM	0.178	NORTH/SOUTH CRITICAL SUM	0.155
EAST/WEST CRITICAL SUM	0.318	EAST/WEST CRITICAL SUM	0.163
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.596	INTERSECTION ICU VALUE	0.418
	0.596		0.418
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	-0.001	PM IMPACT	-0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1,600	0	0.000			0	0.000		
NB RIGHT	0	0	0	0.000			0	0.000		
						0.077				0.257
SB LEFT	1	1,600	123	0.077	*		411	0.257	*	
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	1	1,600	127	0.079			29	0.018		
EB LEFT	1	1,600	4	0.003	*		7	0.004	*	
EB THRU	2	3,200	41	0.013			149	0.047		
EB RIGHT	0	0	0	0.000			0	0.000		
						0.232				0.098
WB LEFT	0	0	0	0.000			0	0.000		
WB THRU	2	3,200	363	0.229	*		124	0.094	*	
WB RIGHT	0	0	370	0.000			176	0.000		

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.077	NORTH/SOUTH CRITICAL SUM	0.257
EAST/WEST CRITICAL SUM	0.232	EAST/WEST CRITICAL SUM	0.098
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.409	INTERSECTION ICU VALUE	0.455
	0.409		0.455
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB THRU	1	1,600	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.078							0.258
SB LEFT	1	1,600	123	0	0	2	125	0.078	*	411	0	0	1	412	0.258	*
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	1	1,600	127	0	0	-4	123	0.077		29	0	0	-1	28	0.018	
EB LEFT	1	1,600	4	0	0	0	4	0.003	*	7	0	0	0	7	0.004	*
EB THRU	2	3,200	41	0	0	0	41	0.013		149	0	0	0	149	0.047	
EB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.232							0.098
WB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB THRU	2	3,200	363	0	0	-5	358	0.229	*	124	0	0	0	124	0.094	*
WB RIGHT	0	0	370	0	0	5	375	0.000		176	0	0	1	177	0.000	

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.078	NORTH/SOUTH CRITICAL SUM	0.258
EAST/WEST CRITICAL SUM	0.232	EAST/WEST CRITICAL SUM	0.098
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.410	INTERSECTION ICU VALUE	0.456
	0.410		0.456
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.001	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	109	0.068			52	0.033		
NB THRU	2	3,200	452	0.141	*		550	0.172	*	
NB RIGHT free	1	1600	530	0.331			884	0.553		
						0.243				0.307
SB LEFT	1	1,600	163	0.102	*		216	0.135	*	
SB THRU	2	3,200	438	0.137			337	0.105		
SB RIGHT	1	1,600	47	0.029			15	0.009		
EB LEFT	1	1,600	6	0.004	*		30	0.019		
EB THRU	2	3,200	117	0.037			429	0.134	*	
EB RIGHT	1	1,600	43	0.027			102	0.064		
						0.382				0.293
WB LEFT	2	2,880	906	0.315			459	0.159	*	
WB THRU	1	1,600	604	0.378	*		225	0.141		
WB RIGHT	1	1,600	180	0.113			68	0.043		

NORTH/SOUTH CRITICAL SUM	0.243	NORTH/SOUTH CRITICAL SUM	0.307
EAST/WEST CRITICAL SUM	0.382	EAST/WEST CRITICAL SUM	0.293
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.725	INTERSECTION ICU VALUE	0.700
LESS 0.07 FOR ATSAC	0.655		0.630
AM INTERSECTION LOS	B	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	109	0	0	3	112	0.070		52	0	0	1	53	0.033	
NB THRU	2	3,200	452	0	0	0	452	0.141	*	550	0	0	0	550	0.172	*
NB RIGHT free	1	1600	530	0	0	0	530	0.331		884	0	0	0	884	0.553	
									0.243							0.307
SB LEFT	1	1,600	163	0	0	0	163	0.102	*	216	0	0	0	216	0.135	*
SB THRU	2	3,200	438	0	0	0	438	0.137		337	0	0	0	337	0.105	
SB RIGHT	1	1,600	47	0	0	-1	46	0.029		15	0	0	0	15	0.009	
EB LEFT	1	1,600	6	0	0	0	6	0.004	*	30	0	0	0	30	0.019	
EB THRU	2	3,200	117	0	0	0	117	0.037		429	0	0	0	429	0.134	*
EB RIGHT	1	1,600	43	0	0	2	45	0.028		102	0	0	1	103	0.064	
									0.380							0.293
WB LEFT	2	2,880	906	0	0	0	906	0.315		459	0	0	0	459	0.159	*
WB THRU	1	1600	604	0	0	-2	602	0.376	*	225	0	0	0	225	0.141	
WB RIGHT	1	1,600	180	0	0	0	180	0.113		68	0	0	0	68	0.043	

NORTH/SOUTH CRITICAL SUM	0.243	NORTH/SOUTH CRITICAL SUM	0.307
EAST/WEST CRITICAL SUM	0.380	EAST/WEST CRITICAL SUM	0.293
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.723	INTERSECTION ICU VALUE	0.700
LESS 0.07 FOR ATSAC	0.653	LESS 0.07 FOR ATSAC	0.630
AM INTERSECTION LOS	B	PM INTERSECTION LOS	B
AM IMPACT	-0.002	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	0.05		
NB THRU	2	3,200	530	0.186	*	
NB RIGHT	0	0	64	0.000		
						0.272
SB LEFT	2	2,880	249	0.086	*	
SB THRU	2	3,200	629	0.211		
SB RIGHT	0	0	45	0.000		
EB LEFT	1	1,600	51	0.032	*	
EB THRU	2	3,200	659	0.206		
EB RIGHT	1	1,600	127	0.079		
						0.254
WB LEFT	1	1,600	73	0.046		
WB THRU	2	3,200	711	0.222	*	
WB RIGHT	1	1,600	193	0.121		

NORTH/SOUTH CRITICAL SUM	0.272
EAST/WEST CRITICAL SUM	0.254
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.626
LESS 0.07 FOR ATSAC	0.556
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	0	0	1	145	0.05		
NB THRU	2	3,200	530	0	0	5	535	0.187	*	
NB RIGHT	0	0	64	0	0	0	64	0.000		
										0.273
SB LEFT	2	2,880	249	0	0	0	249	0.086	*	
SB THRU	2	3,200	629	0	0	5	634	0.212		
SB RIGHT	0	0	45	0	0	0	45	0.000		
EB LEFT	1	1,600	51	0	0	0	51	0.032	*	
EB THRU	2	3,200	659	0	0	0	659	0.206		
EB RIGHT	1	1,600	127	0	0	1	128	0.08		
										0.254
WB LEFT	1	1,600	73	0	0	0	73	0.046		
WB THRU	2	3,200	711	0	0	0	711	0.222	*	
WB RIGHT	1	1,600	193	0	0	0	193	0.121		

NORTH/SOUTH CRITICAL SUM		0.273
EAST/WEST CRITICAL SUM		0.254
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.627
LESS 0.07 FOR ATSAC		0.557
	PM INTERSECTION LOS	A
	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	274	0.171	*	
NB THRU	0	0	0	0.000		
NB RIGHT	1	1600	98	0.061		
						0.171
SB LEFT	0	0	0	0.000		
SB THRU	0	0	0	0.000		
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	2	3,200	615	0.251	*	
EB RIGHT	0	0	188	0.000		
						0.270
WB LEFT	1	1,600	31	0.019	*	
WB THRU	2	3,200	414	0.129		
WB RIGHT	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.171
EAST/WEST CRITICAL SUM	0.270
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.541
LESS 0.07 FOR ATSAC	0.471
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	274	0	0	6	280	0.175	*	
NB THRU	0	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	98	0	0	-3	95	0.059		
										0.175
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	615	0	0	-2	613	0.253	*	
EB RIGHT	0	0	188	0	0	8	196	0.000		
										0.272
WB LEFT	1	1,600	31	0	0	0	31	0.019	*	
WB THRU	2	3,200	414	0	0	0	414	0.129		
WB RIGHT	0	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM		0.175
EAST/WEST CRITICAL SUM		0.272
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.547
LESS 0.07 FOR ATSAC		0.477
	PM INTERSECTION LOS	A
	PM IMPACT	0.006

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	150	0.094	*	
NB THRU	0	0	0	0.000		
NB RIGHT	1	1600	54	0.034		
						0.094
SB LEFT	0	0	0	0.000		
SB THRU	0	0	0	0.000		
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	2	3,200	581	0.218	*	
EB RIGHT	0	0	116	0.000		
						0.247
WB LEFT	1	1,600	46	0.029	*	
WB THRU	2	3,200	285	0.089		
WB RIGHT	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.094
EAST/WEST CRITICAL SUM	0.247
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.441
LESS 0.07 FOR ATSAC	0.371
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	150	0	0	0	150	0.094	*	
NB THRU	0	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	54	0	0	8	62	0.039		
										0.094
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	581	0	0	-3	578	0.216	*	
EB RIGHT	0	0	116	0	0	-2	114	0.000		
										0.249
WB LEFT	1	1,600	46	0	0	7	53	0.033	*	
WB THRU	2	3,200	285	0	0	0	285	0.089		
WB RIGHT	0	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM		0.094
EAST/WEST CRITICAL SUM		0.249
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.443
LESS 0.07 FOR ATSAC		0.373
	PM INTERSECTION LOS	A
	PM IMPACT	0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	0.068	*	
NB THRU	2	3,200	417	0.130		
NB RIGHT	1	1600	0	0.000		
						0.232
SB LEFT	1	1,600	0	0.000		
SB THRU	1	1,600	263	0.164	*	
SB RIGHT	1	1,600	208	0.130		
EB LEFT	1.5	2,400	398	0.166	*	
EB THRU	0.5	800	0	0.000		
EB RIGHT	1	1,600	260	0.129		
						0.166
WB LEFT	0	0	0	0.000		
WB THRU	1	1,600	0	0.000		
WB RIGHT	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM	0.232
EAST/WEST CRITICAL SUM	0.166
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.498
LESS 0.07 FOR ATSAC	0.428
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	0	0	0	108	0.068	*	
NB THRU	2	3,200	417	0	0	0	417	0.130		
NB RIGHT	1	1600	0	0	0	0	0	0.000		
										0.232
SB LEFT	1	1,600	0	0	0	0	0	0.000		
SB THRU	1	1,600	263	0	0	0	263	0.164	*	
SB RIGHT	1	1,600	208	0	0	7	215	0.134		
EB LEFT	1.5	2,400	398	0	0	5	403	0.168	*	
EB THRU	0.5	800	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	260	0	0	0	260	0.129		
										0.168
WB LEFT	0	0	0	0	0	0	0	0.000		
WB THRU	1	1600	0	0	0	0	0	0.000		
WB RIGHT	0	0	0	0	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM		0.232
EAST/WEST CRITICAL SUM		0.168
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.500
LESS 0.07 FOR ATSAC		0.430
	PM INTERSECTION LOS	A
	PM IMPACT	0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	0.036		
NB THRU	2	3,200	139	0.065	*	
NB RIGHT	0	0	70	0.000		
						0.158
SB LEFT	1	1,600	149	0.093	*	
SB THRU	1	1,600	176	0.110		
SB RIGHT	1	1,600	93	0.058		
EB LEFT	1	1,600	84	0.053	*	
EB THRU	2	3,200	656	0.221		
EB RIGHT	0	0	50	0.000		
						0.304
WB LEFT	1	1,600	72	0.045		
WB THRU	2	3,200	671	0.251	*	
WB RIGHT	0	0	133	0.000		

NORTH/SOUTH CRITICAL SUM	0.158
EAST/WEST CRITICAL SUM	0.304
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.562
LESS 0.07 FOR ATSAC	0.492
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	0	0	0	57	0.036		
NB THRU	2	3,200	139	0	0	3	142	0.066	*	
NB RIGHT	0	0	70	0	0	0	70	0.000		
										0.159
SB LEFT	1	1,600	149	0	0	0	149	0.093	*	
SB THRU	1	1,600	176	0	0	2	178	0.111		
SB RIGHT	1	1,600	93	0	0	0	93	0.058		
EB LEFT	1	1,600	84	0	0	0	84	0.053	*	
EB THRU	2	3,200	656	0	0	1	657	0.221		
EB RIGHT	0	0	50	0	0	0	50	0.000		
										0.304
WB LEFT	1	1,600	72	0	0	0	72	0.045		
WB THRU	2	3,200	671	0	0	0	671	0.251	*	
WB RIGHT	0	0	133	0	0	0	133	0.000		

NORTH/SOUTH CRITICAL SUM		0.159
EAST/WEST CRITICAL SUM		0.304
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.563
LESS 0.07 FOR ATSAC		0.493
	PM INTERSECTION LOS	A
	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	264	0.165	*	
NB RIGHT	1	1600	136	0.085		
						0.254
SB LEFT	0	0	72	0.000		
SB THRU	1	1,600	70	0.089	*	
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	1	1,600	0	0.000		
EB RIGHT	0	0	0	0.000		
						0.070
WB LEFT	0	0	72	0.000		
WB THRU	1	1,600	0	0.070		
WB RIGHT	0	0	40	0.000		

NORTH/SOUTH CRITICAL SUM	0.254
EAST/WEST CRITICAL SUM	0.070
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.424
	0.424
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	264	0	0	-5	259	0.162		
NB RIGHT	1	1600	136	0	0	2	138	0.086		
										0.256
SB LEFT	0	0	72	0	0	8	80	0.000		
SB THRU	1	1,600	70	0	0	0	70	0.094		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	1	1,600	0	0	0	0	0	0.000		
EB RIGHT	0	0	0	0	0	0	0	0.000		
										0.077
WB LEFT	0	0	72	0	0	3	75	0.000		
WB THRU	1	1600	0	0	0	0	0	0.077	*	
WB RIGHT	0	0	40	0	0	8	48	0.000		

NORTH/SOUTH CRITICAL SUM		0.256
EAST/WEST CRITICAL SUM		0.077
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.433
		0.433
	PM INTERSECTION LOS	A
	PM IMPACT	0.009

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THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	73	0.098	*	
NB RIGHT	0	0	83	0.000		
						0.206
SB LEFT	0	0	0	0.000		
SB THRU	1	1,600	55	0.108	*	
SB RIGHT	0	0	117	0.000		
EB LEFT	1	1,600	127	0.079	*	
EB THRU	0	0	0	0.000		
EB RIGHT	1	1,600	77	0.048		
						0.219
WB LEFT	1	1,600	31	0.019		
WB THRU	0	0	0	0.000		
WB RIGHT	1	1,600	224	0.14	*	

NORTH/SOUTH CRITICAL SUM	0.206
EAST/WEST CRITICAL SUM	0.219
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.525
	0.525
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	73	0	0	0	73	0.098	*	
NB RIGHT	0	0	83	0	0	0	83	0.000		
										0.207
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	1	1,600	55	0	0	0	55	0.109	*	
SB RIGHT	0	0	117	0	0	2	119	0.000		
EB LEFT	1	1,600	127	0	0	3	130	0.081	*	
EB THRU	0	0	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	77	0	0	0	77	0.048		
										0.217
WB LEFT	1	1,600	31	0	0	0	31	0.019		
WB THRU	0	0	0	0	0	0	0	0.000		
WB RIGHT	1	1,600	224	0	0	-7	217	0.136	*	

NORTH/SOUTH CRITICAL SUM	0.207
EAST/WEST CRITICAL SUM	0.217
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.524
	0.524
PM INTERSECTION LOS	A
PM IMPACT	-0.001

EXIST + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	0	0.000		
NB RIGHT	0	0	0	0.000		
						0.116
SB LEFT	1	1,600	185	0.116	*	
SB THRU	0	0	0	0.000		
SB RIGHT	1	1,600	70	0.044		
EB LEFT	1	1,600	5	0.003	*	
EB THRU	2	3,200	93	0.029		
EB RIGHT	0	0	0	0.000		
						0.218
WB LEFT	1	1,600	0	0.000		
WB THRU	1	1,600	202	0.215	*	
WB RIGHT	0	0	142	0.000		

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.116
EAST/WEST CRITICAL SUM	0.218
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.434
	0.434
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	0	0	0	0	0	0.000		
NB RIGHT	0	0	0	0	0	0	0	0.000		
										0.117
SB LEFT	1	1,600	185	0	0	2	187	0.117	*	
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	1	1,600	70	0	0	-2	68	0.043		
EB LEFT	1	1,600	5	0	0	0	5	0.003	*	
EB THRU	2	3,200	93	0	0	0	93	0.029		
EB RIGHT	0	0	0	0	0	0	0	0.000		
										0.218
WB LEFT	1	1,600	0	0	0	0	0	0		
WB THRU	1	1600	202	0	0	-3	199	0.215	*	
WB RIGHT	0	0	142	0	0	3	145	0.000		

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.117
EAST/WEST CRITICAL SUM	0.218
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.435
	0.435
PM INTERSECTION LOS	A
PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0.04		
NB THRU	2	3,200	438	0.137	*	
NB RIGHT free	1	1600	636	0.398		
						0.281
SB LEFT	1	1,600	230	0.144	*	
SB THRU	2	3,200	289	0.090		
SB RIGHT	1	1,600	25	0.016		
EB LEFT	1	1,600	20	0.013		
EB THRU	2	3,200	238	0.074	*	
EB RIGHT	1	1,600	50	0.031		
						0.221
WB LEFT	2	2,880	423	0.147	*	
WB THRU	1	1,600	279	0.174		
WB RIGHT	1	1,600	86	0.054		

NORTH/SOUTH CRITICAL SUM	0.281
EAST/WEST CRITICAL SUM	0.221
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.602
LESS 0.07 FOR ATSAC	0.532
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0	0	2	66	0.041		
NB THRU	2	3,200	438	0	0	0	438	0.137	*	
NB RIGHT free	1	1600	636	0	0	0	636	0.398		
										0.281
SB LEFT	1	1,600	230	0	0	0	230	0.144	*	
SB THRU	2	3,200	289	0	0	0	289	0.09		
SB RIGHT	1	1,600	25	0	0	0	25	0.016		
EB LEFT	1	1,600	20	0	0	0	20	0.013		
EB THRU	2	3,200	238	0	0	1	239	0.075	*	
EB RIGHT	1	1,600	50	0	0	1	51	0.032		
										0.222
WB LEFT	2	2,880	423	0	0	0	423	0.147	*	
WB THRU	1	1600	279	0	0	-2	277	0.173		
WB RIGHT	1	1,600	86	0	0	0	86	0.054		

NORTH/SOUTH CRITICAL SUM		0.281
EAST/WEST CRITICAL SUM		0.222
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.603
LESS 0.07 FOR ATSAC		0.533
	PM INTERSECTION LOS	A
	PM IMPACT	0.001

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JTO*	Intersection	*HAYDEN & WARNER*
Agency/Co.	*OTC INC*	Jurisdiction	*CULVER CITY*
Date Performed	*4/2011*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*AM PEAK HOUR*		

Project Description *WILLOWS COMMUNITY SCHOOL phase 1*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*346*	*150*	*88*	*125*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*143*	*0*	*31*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*143*	*0*	*31*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*88*	*125*	*0*	*0*	*346*	*150*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*88*		*174*			*0*	
C (m) (veh/h)	*1474*	*1078*		*395*				
v/c	*0.00*	*0.08*		*0.44*				
95% queue length	*0.00*	*0.27*		*2.19*				
Control Delay (s/veh)	*7.4*	*8.6*		*21.1*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*21.1*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*PM STREET PEAK HOUR*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project Description *WILLOWS COMMUNITY SCHOOL phase 1*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*282*	*91*	*75*	*99*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*75*	*0*	*40*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*75*	*0*	*40*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*75*	*99*	*0*	*0*	*282*	*91*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*75*		*115*			*0*	
C (m) (veh/h)	*1507*	*1197*		*515*				
v/c	*0.00*	*0.06*		*0.22*				
95% queue length	*0.00*	*0.20*		*0.85*				
Control Delay (s/veh)	*7.4*	*8.2*		*14.0*				
LOS	*A*	*A*		*B*				
Approach Delay (s/veh)	--	--	*14.0*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*PM SCHOOL PEAK HOUR*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project Description *WILLOWS COMMUNITY SCHOOL phase 1*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*259*	*138*	*80*	*70*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*75*	*0*	*48*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)		*0*	*0*	*75*	*0*	*48*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*80*	*70*	*0*	*0*	*259*	*138*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*		*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*				*TR*
v (veh/h)	*0*	*80*		*123*				*0*
C (m) (veh/h)	*1544*	*1173*		*554*				
v/c	*0.00*	*0.07*		*0.22*				
95% queue length	*0.00*	*0.22*		*0.84*				
Control Delay (s/veh)	*7.3*	*8.3*		*13.3*				
LOS	*A*	*A*		*B*				
Approach Delay (s/veh)	--	--	*13.3*					
Approach LOS	--	--	*B*					

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*AM EX PEAK HOUR 2010*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project ID *WILLOWS COMMUNITY SCHOOL phase 1*

East/West Street: *HIGUERA STREET* North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*153*	*0*	*80*	*74*	*0*	*355*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*30*	*26*	*0*	*45*	*239*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*153*	*80*	*74*	*355*	*56*		*284*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.14*	*0.07*	*0.07*	*0.32*	*0.05*		*0.25*	
hd, final value (s)	*6.50*	*5.28*	*6.29*	*5.08*	*5.76*		*5.09*	
x, final value	*0.28*	*0.12*	*0.13*	*0.50*	*0.09*		*0.40*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.2*	*3.0*	*4.0*	*2.8*	*3.8*		*3.1*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*403*	*330*	*324*	*605*	*306*		*534*	
Delay (s/veh)	*11.66*	*8.68*	*9.93*	*12.76*	*9.33*		*11.47*	
LOS	*B*	*A*	*A*	*B*	*A*		*B*	
Approach: Delay (s/veh)	*10.64*		*12.27*		*9.33*		*11.47*	
LOS	*B*		*B*		*A*		*B*	
Intersection Delay (s/veh)	*11.50*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*PM EX STREET PEAK HOUR*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project ID *WILLOWS COMMUNITY SCHOOL phase 1*

East/West Street: *HIGUERA STREET* North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*111*	*0*	*80*	*14*	*0*	*151*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*121*	*127*	*0*	*37*	*153*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*111*	*80*	*14*	*151*	*248*		*190*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.10*	*0.07*	*0.01*	*0.13*	*0.22*		*0.17*	
hd, final value (s)	*6.32*	*5.10*	*6.38*	*5.16*	*4.78*		*4.69*	
x, final value	*0.19*	*0.11*	*0.02*	*0.22*	*0.33*		*0.25*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.0*	*2.8*	*4.1*	*2.9*	*2.8*		*2.7*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*361*	*330*	*264*	*401*	*498*		*440*	
Delay (s/veh)	*10.54*	*8.45*	*9.24*	*9.28*	*10.11*		*9.23*	
LOS	*B*	*A*	*A*	*A*	*B*		*A*	
Approach: Delay (s/veh)	*9.67*		*9.28*		*10.11*		*9.23*	
LOS	*A*		*A*		*B*		*A*	
Intersection Delay (s/veh)	*9.62*							
Intersection LOS	*A*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*PM EX SCHOOL PEAK HOUR*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project ID

East/West Street: *HIGUERA STREET* North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*130*	*0*	*77*	*31*	*0*	*217*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*73*	*83*	*0*	*55*	*119*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*130*	*77*	*31*	*217*	*156*		*174*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.12*	*0.07*	*0.03*	*0.19*	*0.14*		*0.15*	
hd, final value (s)	*6.15*	*4.94*	*6.14*	*4.92*	*4.96*		*4.85*	
x, final value	*0.22*	*0.11*	*0.05*	*0.30*	*0.22*		*0.23*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*3.9*	*2.6*	*3.8*	*2.6*	*3.0*		*2.8*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*380*	*327*	*281*	*467*	*406*		*424*	
Delay (s/veh)	*10.60*	*8.22*	*9.18*	*9.68*	*9.32*		*9.33*	
LOS	*B*	*A*	*A*	*A*	*A*		*A*	
Approach: Delay (s/veh)	*9.72*		*9.62*		*9.32*		*9.33*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*9.52*							
Intersection LOS	*A*							

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FUTURE CUMULATIVE + PROJECT

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	2	2,880	181	0.063	*		137	0.048		
NB THRU	2	3,200	667	0.224			602	0.213	*	
NB RIGHT	0	0	50	0.000			80	0.000		
						0.294				0.310
SB LEFT	2	2,880	168	0.058			278	0.097	*	
SB THRU	2	3,200	685	0.231	*		770	0.253		
SB RIGHT	0	0	55	0.000			38	0.000		
EB LEFT	1	1,600	54	0.034	*		74	0.046	*	
EB THRU	2	3,200	851	0.266			779	0.243		
EB RIGHT	1	1,600	57	0.036			173	0.108		
						0.399				0.338
WB LEFT	1	1,600	78	0.049			37	0.023		
WB THRU	2	3,200	1168	0.365	*		933	0.292	*	
WB RIGHT	1	1,600	308	0.193			139	0.087		

NORTH/SOUTH CRITICAL SUM	0.294	NORTH/SOUTH CRITICAL SUM	0.310
EAST/WEST CRITICAL SUM	0.399	EAST/WEST CRITICAL SUM	0.338
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.793	INTERSECTION ICU VALUE	0.748
LESS 0.07 FOR ATSAC	0.723		0.678
AM INTERSECTION LOS	C	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	2	2,880	181	0	0	2	183	0.064 *		137	0	0	0	137	0.048	
NB THRU	2	3,200	667	0	0	20	687	0.230		602	0	0	5	607	0.215 *	
NB RIGHT	0	0	50	0	0	0	50	0.000		80	0	0	0	80	0.000	
									0.302							0.312
SB LEFT	2	2,880	168	0	0	0	168	0.058		278	0	0	0	278	0.097 *	
SB THRU	2	3,200	685	0	0	23	708	0.238 *		770	0	0	3	773	0.253	
SB RIGHT	0	0	55	0	0	0	55	0.000		38	0	0	0	38	0.000	
EB LEFT	1	1,600	54	0	0	0	54	0.034 *		74	0	0	0	74	0.046 *	
EB THRU	2	3,200	851	0	0	0	851	0.266		779	0	0	0	779	0.243	
EB RIGHT	1	1,600	57	0	0	3	60	0.038		173	0	0	1	174	0.109	
									0.399							0.338
WB LEFT	1	1,600	78	0	0	0	78	0.049		37	0	0	0	37	0.023	
WB THRU	2	3,200	1168	0	0	0	1168	0.365 *		933	0	0	0	933	0.292 *	
WB RIGHT	1	1,600	308	0	0	0	308	0.193		139	0	0	0	139	0.087	

NORTH/SOUTH CRITICAL SUM	0.302	NORTH/SOUTH CRITICAL SUM	0.312
EAST/WEST CRITICAL SUM	0.399	EAST/WEST CRITICAL SUM	0.338
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.801	INTERSECTION ICU VALUE	0.750
LESS 0.07 FOR ATSAC	0.731	LESS 0.07 FOR ATSAC	0.680
AM INTERSECTION LOS	C	PM INTERSECTION LOS	B
AM IMPACT	0.008	PM IMPACT	0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	281	0.176	*		312	0.195	*	
NB THRU	0	0	0	0.000			0	0.000		
NB RIGHT	1	1600	58	0.036			92	0.058		
						0.176				0.195
SB LEFT	0	0	0	0.000			0	0.000		
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	2	3,200	585	0.246	*		679	0.291	*	
EB RIGHT	0	0	203	0.000			252	0.000		
						0.287				0.305
WB LEFT	1	1,600	65	0.041	*		22	0.014	*	
WB THRU	2	3,200	590	0.184			473	0.148		
WB RIGHT	0	0	0	0.000			0	0.000		

NORTH/SOUTH CRITICAL SUM	0.176	NORTH/SOUTH CRITICAL SUM	0.195
EAST/WEST CRITICAL SUM	0.287	EAST/WEST CRITICAL SUM	0.305
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.563	INTERSECTION ICU VALUE	0.600
LESS 0.07 FOR ATSAC	0.493		0.530
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	281	0	0	22	303	0.189 *		312	0	0	5	317	0.198 *	
NB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	1	1600	58	0	0	-58	0	0.000		92	0	0	-14	78	0.049	
									0.189							0.198
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	2	3,200	585	0	0	12	597	0.254 *		679	0	0	2	681	0.292 *	
EB RIGHT	0	0	203	0	0	14	217	0.000		252	0	0	2	254	0.000	
									0.295							0.306
WB LEFT	1	1,600	65	0	0	0	65	0.041 *		22	0	0	0	22	0.014 *	
WB THRU	2	3,200	590	0	0	0	590	0.184		473	0	0	0	473	0.148	
WB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.189	NORTH/SOUTH CRITICAL SUM	0.198
EAST/WEST CRITICAL SUM	0.295	EAST/WEST CRITICAL SUM	0.306
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.584	INTERSECTION ICU VALUE	0.604
LESS 0.07 FOR ATSAC	0.514	LESS 0.07 FOR ATSAC	0.534
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.021	PM IMPACT	0.004

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	150	0.094	*		200	0.125	*	
NB THRU	0	0	0	0.000			0	0.000		
NB RIGHT	1	1600	18	0.011			65	0.041		
						0.094				0.125
SB LEFT	0	0	0	0.000			0	0.000		
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	2	3,200	482	0.191	*		676	0.255	*	
EB RIGHT	0	0	130	0.000			140	0.000		
						0.269				0.268
WB LEFT	1	1,600	124	0.078	*		21	0.013	*	
WB THRU	2	3,200	536	0.168			282	0.088		
WB RIGHT	0	0	0	0.000			0	0.000		

NORTH/SOUTH CRITICAL SUM	0.094	NORTH/SOUTH CRITICAL SUM	0.125
EAST/WEST CRITICAL SUM	0.269	EAST/WEST CRITICAL SUM	0.268
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.463	INTERSECTION ICU VALUE	0.493
LESS 0.07 FOR ATSAC	0.393	LESS 0.07 FOR ATSAC	0.423
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	150	0	0	0	150	0.094 *		200	0	0	0	200	0.125 *	
NB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	1	1600	18	0	0	79	97	0.061		65	0	0	19	84	0.053	
									0.094							0.125
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	2	3,200	482	0	0	-58	424	0.177 *		676	0	0	-14	662	0.251 *	
EB RIGHT	0	0	130	0	0	12	142	0.000		140	0	0	2	142	0.000	
									0.255							0.264
WB LEFT	1	1,600	124	0	0	0	124	0.078 *		21	0	0	0	21	0.013 *	
WB THRU	2	3,200	536	0	0	0	536	0.168		282	0	0	0	282	0.088	
WB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	

NORTH/SOUTH CRITICAL SUM	0.094	NORTH/SOUTH CRITICAL SUM	0.125
EAST/WEST CRITICAL SUM	0.255	EAST/WEST CRITICAL SUM	0.264
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.449	INTERSECTION ICU VALUE	0.489
LESS 0.07 FOR ATSAC	0.379	LESS 0.07 FOR ATSAC	0.419
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	-0.014	PM IMPACT	-0.004

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	169	0.106	*		98	0.061	*	
NB THRU	2	3,200	432	0.135			570	0.178		
NB RIGHT	1	1600	0	0.000			0	0		
						0.408				0.248
SB LEFT	1	1,600	0	0.000			0	0.000		
SB THRU	1	1,600	465	0.291			299	0.187	*	
SB RIGHT	1	1,600	483	0.302	*		223	0.139		
EB LEFT	1.5	2,400	291	0.121	*		496	0.207	*	
EB THRU	0.5	800	0	0.000			0	0.000		
EB RIGHT	1	1,600	221	0.085			237	0.118		
						0.121				0.207
WB LEFT	0	0	0	0.000			0	0.000		
WB THRU	1	1,600	0	0.000	*		0	0.000		
WB RIGHT	0	0	0	0.000	*		0	0.000		

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.408	NORTH/SOUTH CRITICAL SUM	0.248
EAST/WEST CRITICAL SUM	0.121	EAST/WEST CRITICAL SUM	0.207
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.629	INTERSECTION ICU VALUE	0.555
LESS 0.07 FOR ATSAC	0.559		0.485
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	169	0	0	0	169	0.106 *		98	0	0	0	98	0.061 *	
NB THRU	2	3,200	432	0	0	0	432	0.135		570	0	0	0	570	0.178	
NB RIGHT	1	1600	0	0	0	0	0	0.000		0	0	0	0	0	0	
									0.408							0.249
SB LEFT	1	1,600	0	0	0	0	0	0.000		0	0	0	0	0	0	
SB THRU	1	1,600	465	0	0	8	473	0.296		299	0	0	1	300	0.188 *	
SB RIGHT	1	1,600	483	0	0	0	483	0.302 *		223	0	0	0	223	0.139	
EB LEFT	1.5	2,400	291	0	0	21	312	0.130 *		496	0	0	5	501	0.209 *	
EB THRU	0.5	800	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB RIGHT	1	1,600	221	0	0	0	221	0.085		237	0	0	0	237	0.118	
									0.130							0.209
WB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB THRU	1	1600	0	0	0	0	0	0.000 *		0	0	0	0	0	0.000	
WB RIGHT	0	0	0	0	0	0	0	0.000 *		0	0	0	0	0	0.000	

*E/B right overlap N/B left = 0.5 N/B left

NORTH/SOUTH CRITICAL SUM	0.408	NORTH/SOUTH CRITICAL SUM	0.249
EAST/WEST CRITICAL SUM	0.130	EAST/WEST CRITICAL SUM	0.209
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.638	INTERSECTION ICU VALUE	0.558
LESS 0.07 FOR ATSAC	0.568	LESS 0.07 FOR ATSAC	0.488
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.009	PM IMPACT	0.003

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0.040			56	0.035		
NB THRU	2	3,200	335	0.126	*		165	0.077	*	
NB RIGHT	0	0	67	0.000			81	0.000		
						0.239				0.186
SB LEFT	1	1,600	180	0.113	*		174	0.109	*	
SB THRU	1	1,600	223	0.139			198	0.124		
SB RIGHT	1	1,600	64	0.040			148	0.093		
EB LEFT	1	1,600	71	0.044	*		118	0.074		
EB THRU	2	3,200	750	0.253			887	0.304	*	
EB RIGHT	0	0	59	0.000			87	0.000		
						0.445				0.349
WB LEFT	1	1,600	84	0.053	*		72	0.045	*	
WB THRU	2	3,200	1077	0.401	*		712	0.264		
WB RIGHT	0	0	207	0.000			134	0.000		

NORTH/SOUTH CRITICAL SUM	0.239	NORTH/SOUTH CRITICAL SUM	0.186
EAST/WEST CRITICAL SUM	0.445	EAST/WEST CRITICAL SUM	0.349
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.784	INTERSECTION ICU VALUE	0.635
LESS 0.07 FOR ATSAC	0.714		0.565
AM INTERSECTION LOS	C	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	64	0	0	0	64	0.040		56	0	0	0	56	0.035	
NB THRU	2	3,200	335	0	0	7	342	0.128 *		165	0	0	2	167	0.078 *	
NB RIGHT	0	0	67	0	0	0	67	0.000		81	0	0	0	81	0.000	
									0.241							0.187
SB LEFT	1	1,600	180	0	0	0	180	0.113 *		174	0	0	0	174	0.109 *	
SB THRU	1	1,600	223	0	0	9	232	0.145		198	0	0	1	199	0.124	
SB RIGHT	1	1,600	64	0	0	0	64	0.040		148	0	0	0	148	0.093	
EB LEFT	1	1,600	71	0	0	0	71	0.044 *		118	0	0	0	118	0.074	
EB THRU	2	3,200	750	0	0	3	753	0.254		887	0	0	1	888	0.305 *	
EB RIGHT	0	0	59	0	0	0	59	0.000		87	0	0	0	87	0.000	
									0.445							0.350
WB LEFT	1	1,600	84	0	0	0	84	0.053		72	0	0	0	72	0.045	
WB THRU	2	3,200	1077	0	0	0	1077	0.401 *		712	0	0	0	712	0.264	
WB RIGHT	0	0	207	0	0	0	207	0.000		134	0	0	0	134	0.000	

NORTH/SOUTH CRITICAL SUM	0.241	NORTH/SOUTH CRITICAL SUM	0.187
EAST/WEST CRITICAL SUM	0.445	EAST/WEST CRITICAL SUM	0.350
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.786	INTERSECTION ICU VALUE	0.637
LESS 0.07 FOR ATSAC	0.716	LESS 0.07 FOR ATSAC	0.567
AM INTERSECTION LOS	C	PM INTERSECTION LOS	A
AM IMPACT	0.002	PM IMPACT	0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1600	352	0.220	*		284	0.178	*	
NB RIGHT	1	1600	147	0.092			90	0.056		
						0.345				0.286
SB LEFT	0	0	75	0.000			73	0.000		
SB THRU	1	1,600	125	0.125	*		99	0.108	*	
SB RIGHT	0	0	0	0.000			0	0.000		
EB LEFT	0	0	0	0.000			0	0.000		
EB THRU	1	1,600	0	0.000			0	0.000		
EB RIGHT	0	0	0	0.000			0	0.000		
						0.100				0.069
WB LEFT	0	0	139	0.000			74	0.000		
WB THRU	1	1,600	0	0.100	*		0	0.069	*	
WB RIGHT	0	0	21	0.000			37	0.000		

NORTH/SOUTH CRITICAL SUM	0.345	NORTH/SOUTH CRITICAL SUM	0.286
EAST/WEST CRITICAL SUM	0.100	EAST/WEST CRITICAL SUM	0.069
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.545	INTERSECTION ICU VALUE	0.455
	0.545		0.455
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB THRU	1	1600	352	0	0	-120	232	0.145	*	284	0	0	-29	255	0.159	*
NB RIGHT	1	1600	147	0	0	-22	125	0.078		90	0	0	-6	84	0.053	
									0.279							0.268
SB LEFT	0	0	75	0	0	14	89	0.000		73	0	0	2	75	0.000	
SB THRU	1	1,600	125	0	0	0	125	0.134	*	99	0	0	0	99	0.109	*
SB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB THRU	1	1,600	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.174							0.087
WB LEFT	0	0	139	0	0	35	174	0.000		74	0	0	8	82	0.000	
WB THRU	1	1600	0	0	0	0	0	0.174	*	0	0	0	0	0	0.087	*
WB RIGHT	0	0	21	0	0	84	105	0.000		37	0	0	20	57	0.000	

NORTH/SOUTH CRITICAL SUM	0.279	NORTH/SOUTH CRITICAL SUM	0.268
EAST/WEST CRITICAL SUM	0.174	EAST/WEST CRITICAL SUM	0.087
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.553	INTERSECTION ICU VALUE	0.455
	0.553		0.455
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.008	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1600	30	0.036	*		121	0.155	*	
NB RIGHT	0	0	27	0.000			127	0.000		
						0.176				0.155
SB LEFT	0	0	0	0.000			0	0.000		
SB THRU	1	1,600	45	0.176	*		37	0.118	*	
SB RIGHT	0	0	236	0.000			152	0.000		
EB LEFT	1	1,600	148	0.093	*		110	0.069	*	
EB THRU	0	0	0	0.000			0	0.000		
EB RIGHT	1	1,600	81	0.051			80	0.050		
						0.321				0.165
WB LEFT	1	1,600	74	0.046			14	0.009		
WB THRU	0	0	0	0.000			0	0.000		
WB RIGHT	1	1,600	364	0.228	*		153	0.096	*	

NORTH/SOUTH CRITICAL SUM	0.176	NORTH/SOUTH CRITICAL SUM	0.155
EAST/WEST CRITICAL SUM	0.321	EAST/WEST CRITICAL SUM	0.165
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.597	INTERSECTION ICU VALUE	0.420
	0.597		0.420
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000 *		0	0	0	0	0	0.000	
NB THRU	1	1600	30	0	0	0	30	0.041		121	0	0	0	121	0.156 *	
NB RIGHT	0	0	27	0	0	8	35	0.000		127	0	0	1	128	0.000	
									0.181							0.156
SB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000 *	
SB THRU	1	1,600	45	0	0	0	45	0.181 *		37	0	0	0	37	0.119	
SB RIGHT	0	0	236	0	0	9	245	0.000		152	0	0	2	154	0.000	
EB LEFT	1	1,600	148	0	0	4	152	0.095 *		110	0	0	0	110	0.069 *	
EB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
EB RIGHT	1	1,600	81	0	0	8	89	0.056		80	0	0	1	81	0.051	
									0.215							0.139
WB LEFT	1	1,600	74	0	0	0	74	0.046		14	0	0	0	14	0.009	
WB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB RIGHT	1	1,600	364	0	0	-172	192	0.120 *		153	0	0	-41	112	0.07 *	

NORTH/SOUTH CRITICAL SUM	0.181	NORTH/SOUTH CRITICAL SUM	0.156
EAST/WEST CRITICAL SUM	0.215	EAST/WEST CRITICAL SUM	0.139
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.496	INTERSECTION ICU VALUE	0.395
	0.496		0.395
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	-0.101	PM IMPACT	-0.025

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000			0	0.000		
NB THRU	1	1,600	0	0.000			0	0.000		
NB RIGHT	0	0	0	0.000			0	0.000		
						0.077				0.257
SB LEFT	1	1,600	123	0.077	*		411	0.257	*	
SB THRU	0	0	0	0.000			0	0.000		
SB RIGHT	1	1,600	127	0.079			29	0.018		
EB LEFT	1	1,600	4	0.003	*		7	0.004	*	
EB THRU	2	3,200	41	0.013			149	0.047		
EB RIGHT	0	0	0	0.000			0	0.000		
						0.232				0.098
WB LEFT	0	0	0	0.000			0	0.000		
WB THRU	2	3,200	363	0.229	*		124	0.094	*	
WB RIGHT	0	0	370	0.000			176	0.000		

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.077	NORTH/SOUTH CRITICAL SUM	0.257
EAST/WEST CRITICAL SUM	0.232	EAST/WEST CRITICAL SUM	0.098
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.409	INTERSECTION ICU VALUE	0.455
	0.409		0.455
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB THRU	1	1,600	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
NB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.083							0.258
SB LEFT	1	1,600	123	0	0	9	132	0.083	*	411	0	0	2	413	0.258	*
SB THRU	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
SB RIGHT	1	1,600	127	0	0	31	158	0.099		29	0	0	4	33	0.021	
EB LEFT	1	1,600	4	0	0	0	4	0.003	*	7	0	0	0	7	0.004	*
EB THRU	2	3,200	41	0	0	0	41	0.013		149	0	0	0	149	0.047	
EB RIGHT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
									0.242							0.100
WB LEFT	0	0	0	0	0	0	0	0.000		0	0	0	0	0	0.000	
WB THRU	2	3,200	363	0	0	33	396	0.239	*	124	0	0	6	130	0.096	*
WB RIGHT	0	0	370	0	0	0	370	0.000		176	0	0	0	176	0.000	

S/B right not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.083	NORTH/SOUTH CRITICAL SUM	0.258
EAST/WEST CRITICAL SUM	0.242	EAST/WEST CRITICAL SUM	0.100
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.425	INTERSECTION ICU VALUE	0.458
	0.425		0.458
AM INTERSECTION LOS	A	PM INTERSECTION LOS	A
AM IMPACT	0.016	PM IMPACT	0.003

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING CONDITION

			AM PEAK HOUR				PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	109	0.068			52	0.033		
NB THRU	2	3,200	452	0.141	*		550	0.172	*	
NB RIGHT free	1	1600	530	0.331			884	0.553		
						0.243				0.307
SB LEFT	1	1,600	163	0.102	*		216	0.135	*	
SB THRU	2	3,200	438	0.137			337	0.105		
SB RIGHT	1	1,600	47	0.029			15	0.009		
EB LEFT	1	1,600	6	0.004	*		30	0.019		
EB THRU	2	3,200	117	0.037			429	0.134	*	
EB RIGHT	1	1,600	43	0.027			102	0.064		
						0.382				0.293
WB LEFT	2	2,880	906	0.315			459	0.159	*	
WB THRU	1	1,600	604	0.378	*		225	0.141		
WB RIGHT	1	1,600	180	0.113			68	0.043		

NORTH/SOUTH CRITICAL SUM	0.243	NORTH/SOUTH CRITICAL SUM	0.307
EAST/WEST CRITICAL SUM	0.382	EAST/WEST CRITICAL SUM	0.293
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.725	INTERSECTION ICU VALUE	0.700
LESS 0.07 FOR ATSAC	0.655		0.630
AM INTERSECTION LOS	B	PM INTERSECTION LOS	B

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + PROJECT

			AM PEAK HOUR							PM PEAK HOUR						
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C	CRITICAL PAIR
NB LEFT	1	1,600	109	0	0	7	116	0.073		52	0	0	1	53	0.033	
NB THRU	2	3,200	452	0	0	0	452	0.141	*	550	0	0	0	550	0.172	*
NB RIGHT free	1	1600	530	0	0	0	530	0.331		884	0	0	0	884	0.553	
									0.243							0.307
SB LEFT	1	1,600	163	0	0	0	163	0.102	*	216	0	0	0	216	0.135	*
SB THRU	2	3,200	438	0	0	0	438	0.137		337	0	0	0	337	0.105	
SB RIGHT	1	1,600	47	0	0	8	55	0.034		15	0	0	1	16	0.01	
EB LEFT	1	1,600	6	0	0	0	6	0.004	*	30	0	0	0	30	0.019	
EB THRU	2	3,200	117	0	0	3	120	0.038		429	0	0	0	429	0.134	*
EB RIGHT	1	1,600	43	0	0	6	49	0.031		102	0	0	2	104	0.065	
									0.395							0.293
WB LEFT	2	2,880	906	0	0	0	906	0.315		459	0	0	0	459	0.159	*
WB THRU	1	1600	604	0	0	21	625	0.391	*	225	0	0	4	229	0.143	
WB RIGHT	1	1,600	180	0	0	0	180	0.113		68	0	0	0	68	0.043	

NORTH/SOUTH CRITICAL SUM	0.243	NORTH/SOUTH CRITICAL SUM	0.307
EAST/WEST CRITICAL SUM	0.395	EAST/WEST CRITICAL SUM	0.293
CLEARANCE INTERVAL	0.100	CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.738	INTERSECTION ICU VALUE	0.700
LESS 0.07 FOR ATSAC	0.668	LESS 0.07 FOR ATSAC	0.630
AM INTERSECTION LOS	B	PM INTERSECTION LOS	B
AM IMPACT	0.013	PM IMPACT	0.000

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	0.05		
NB THRU	2	3,200	530	0.186	*	
NB RIGHT	0	0	64	0.000		
						0.272
SB LEFT	2	2,880	249	0.086	*	
SB THRU	2	3,200	629	0.211		
SB RIGHT	0	0	45	0.000		
EB LEFT	1	1,600	51	0.032	*	
EB THRU	2	3,200	659	0.206		
EB RIGHT	1	1,600	127	0.079		
						0.254
WB LEFT	1	1,600	73	0.046		
WB THRU	2	3,200	711	0.222	*	
WB RIGHT	1	1,600	193	0.121		

NORTH/SOUTH CRITICAL SUM	0.272
EAST/WEST CRITICAL SUM	0.254
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.626
LESS 0.07 FOR ATSAC	0.556
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND WASHINGTON BOULEVARD
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	2	2,880	144	0	0	2	146	0.051		
NB THRU	2	3,200	530	0	0	15	545	0.190	*	
NB RIGHT	0	0	64	0	0	0	64	0.000		
										0.276
SB LEFT	2	2,880	249	0	0	0	249	0.086	*	
SB THRU	2	3,200	629	0	0	13	642	0.215		
SB RIGHT	0	0	45	0	0	0	45	0.000		
EB LEFT	1	1,600	51	0	0	0	51	0.032	*	
EB THRU	2	3,200	659	0	0	1	660	0.206		
EB RIGHT	1	1,600	127	0	0	0	127	0.079		
										0.254
WB LEFT	1	1,600	73	0	0	0	73	0.046		
WB THRU	2	3,200	711	0	0	0	711	0.222	*	
WB RIGHT	1	1,600	193	0	0	0	193	0.121		

NORTH/SOUTH CRITICAL SUM		0.276
EAST/WEST CRITICAL SUM		0.254
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.630
LESS 0.07 FOR ATSAC		0.560
	PM INTERSECTION LOS	A
	PM IMPACT	0.004

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	274	0.171	*	
NB THRU	0	0	0	0.000		
NB RIGHT	1	1600	98	0.061		
						0.171
SB LEFT	0	0	0	0.000		
SB THRU	0	0	0	0.000		
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	2	3,200	615	0.251	*	
EB RIGHT	0	0	188	0.000		
						0.270
WB LEFT	1	1,600	31	0.019	*	
WB THRU	2	3,200	414	0.129		
WB RIGHT	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.171
EAST/WEST CRITICAL SUM	0.270
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.541
LESS 0.07 FOR ATSAC	0.471
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND HAYDEN AVENUE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	274	0	0	6	280	0.175	*	
NB THRU	0	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	98	0	0	-3	95	0.059		
										0.175
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	615	0	0	-2	613	0.253	*	
EB RIGHT	0	0	188	0	0	8	196	0.000		
										0.272
WB LEFT	1	1,600	31	0	0	0	31	0.019	*	
WB THRU	2	3,200	414	0	0	0	414	0.129		
WB RIGHT	0	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM		0.175
EAST/WEST CRITICAL SUM		0.272
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.547
LESS 0.07 FOR ATSAC		0.477
	PM INTERSECTION LOS	A
	PM IMPACT	0.006

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	150	0.094	*	
NB THRU	0	0	0	0.000		
NB RIGHT	1	1600	54	0.034		
						0.094
SB LEFT	0	0	0	0.000		
SB THRU	0	0	0	0.000		
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	2	3,200	581	0.218	*	
EB RIGHT	0	0	116	0.000		
						0.247
WB LEFT	1	1,600	46	0.029	*	
WB THRU	2	3,200	285	0.089		
WB RIGHT	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM	0.094
EAST/WEST CRITICAL SUM	0.247
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.441
LESS 0.07 FOR ATSAC	0.371
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND EASTHAM DRIVE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	150	0	0	0	150	0.094	*	
NB THRU	0	0	0	0	0	0	0	0.000		
NB RIGHT	1	1600	54	0	0	8	62	0.039		
										0.094
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	2	3,200	581	0	0	-3	578	0.216	*	
EB RIGHT	0	0	116	0	0	-2	114	0.000		
										0.249
WB LEFT	1	1,600	46	0	0	7	53	0.033	*	
WB THRU	2	3,200	285	0	0	0	285	0.089		
WB RIGHT	0	0	0	0	0	0	0	0.000		

NORTH/SOUTH CRITICAL SUM		0.094
EAST/WEST CRITICAL SUM		0.249
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.443
LESS 0.07 FOR ATSAC		0.373
	PM INTERSECTION LOS	A
	PM IMPACT	0.002

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THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	0.068	*	
NB THRU	2	3,200	417	0.130		
NB RIGHT	1	1600	0	0.000		
						0.232
SB LEFT	1	1,600	0	0.000		
SB THRU	1	1,600	263	0.164	*	
SB RIGHT	1	1,600	208	0.130		
EB LEFT	1.5	2,400	398	0.166	*	
EB THRU	0.5	800	0	0.000		
EB RIGHT	1	1,600	260	0.129		
						0.166
WB LEFT	0	0	0	0.000		
WB THRU	1	1,600	0	0.000		
WB RIGHT	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM	0.232
EAST/WEST CRITICAL SUM	0.166
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.498
LESS 0.07 FOR ATSAC	0.428
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: NATIONAL BOULEVARD AND JEFFERSON BOULEVARD
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	108	0	0	0	108	0.068	*	
NB THRU	2	3,200	417	0	0	0	417	0.130		
NB RIGHT	1	1600	0	0	0	0	0	0.000		
										0.232
SB LEFT	1	1,600	0	0	0	0	0	0.000		
SB THRU	1	1,600	263	0	0	0	263	0.164	*	
SB RIGHT	1	1,600	208	0	0	7	215	0.134		
EB LEFT	1.5	2,400	398	0	0	5	403	0.168	*	
EB THRU	0.5	800	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	260	0	0	0	260	0.129		
										0.168
WB LEFT	0	0	0	0	0	0	0	0.000		
WB THRU	1	1600	0	0	0	0	0	0.000		
WB RIGHT	0	0	0	0	0	0	0	0.000		

* e/b right overlap = .5 n/b left

NORTH/SOUTH CRITICAL SUM		0.232
EAST/WEST CRITICAL SUM		0.168
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.500
LESS 0.07 FOR ATSAC		0.430
	PM INTERSECTION LOS	A
	PM IMPACT	0.002

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	0.036		
NB THRU	2	3,200	139	0.065	*	
NB RIGHT	0	0	70	0.000		
						0.158
SB LEFT	1	1,600	149	0.093	*	
SB THRU	1	1,600	176	0.110		
SB RIGHT	1	1,600	93	0.058		
EB LEFT	1	1,600	84	0.053	*	
EB THRU	2	3,200	656	0.221		
EB RIGHT	0	0	50	0.000		
						0.304
WB LEFT	1	1,600	72	0.045		
WB THRU	2	3,200	671	0.251	*	
WB RIGHT	0	0	133	0.000		

NORTH/SOUTH CRITICAL SUM	0.158
EAST/WEST CRITICAL SUM	0.304
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.562
LESS 0.07 FOR ATSAC	0.492
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WASHINGTON BOULEVARD AND ROBERTSON / HIGUERA
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	57	0	0	0	57	0.036		
NB THRU	2	3,200	139	0	0	3	142	0.066	*	
NB RIGHT	0	0	70	0	0	0	70	0.000		
										0.159
SB LEFT	1	1,600	149	0	0	0	149	0.093	*	
SB THRU	1	1,600	176	0	0	2	178	0.111		
SB RIGHT	1	1,600	93	0	0	0	93	0.058		
EB LEFT	1	1,600	84	0	0	0	84	0.053	*	
EB THRU	2	3,200	656	0	0	1	657	0.221		
EB RIGHT	0	0	50	0	0	0	50	0.000		
										0.304
WB LEFT	1	1,600	72	0	0	0	72	0.045		
WB THRU	2	3,200	671	0	0	0	671	0.251	*	
WB RIGHT	0	0	133	0	0	0	133	0.000		

NORTH/SOUTH CRITICAL SUM		0.159
EAST/WEST CRITICAL SUM		0.304
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.563
LESS 0.07 FOR ATSAC		0.493
	PM INTERSECTION LOS	A
	PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	264	0.165	*	
NB RIGHT	1	1600	136	0.085		
						0.254
SB LEFT	0	0	72	0.000		
SB THRU	1	1,600	70	0.089	*	
SB RIGHT	0	0	0	0.000		
EB LEFT	0	0	0	0.000		
EB THRU	1	1,600	0	0.000		
EB RIGHT	0	0	0	0.000		
						0.070
WB LEFT	0	0	72	0.000		
WB THRU	1	1,600	0	0.070		
WB RIGHT	0	0	40	0.000		

NORTH/SOUTH CRITICAL SUM	0.254
EAST/WEST CRITICAL SUM	0.070
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.424
	0.424
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: WARNER DRIVE & HAYDEN AVENUE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	264	0	0	-5	259	0.162		
NB RIGHT	1	1600	136	0	0	2	138	0.086		
										0.256
SB LEFT	0	0	72	0	0	8	80	0.000		
SB THRU	1	1,600	70	0	0	0	70	0.094		
SB RIGHT	0	0	0	0	0	0	0	0.000		
EB LEFT	0	0	0	0	0	0	0	0.000		
EB THRU	1	1,600	0	0	0	0	0	0.000		
EB RIGHT	0	0	0	0	0	0	0	0.000		
										0.077
WB LEFT	0	0	72	0	0	3	75	0.000		
WB THRU	1	1600	0	0	0	0	0	0.077	*	
WB RIGHT	0	0	40	0	0	8	48	0.000		

NORTH/SOUTH CRITICAL SUM		0.256
EAST/WEST CRITICAL SUM		0.077
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.433
		0.433
	PM INTERSECTION LOS	A
	PM IMPACT	0.009

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	73	0.098	*	
NB RIGHT	0	0	83	0.000		
						0.206
SB LEFT	0	0	0	0.000		
SB THRU	1	1,600	55	0.108	*	
SB RIGHT	0	0	117	0.000		
EB LEFT	1	1,600	127	0.079	*	
EB THRU	0	0	0	0.000		
EB RIGHT	1	1,600	77	0.048		
						0.219
WB LEFT	1	1,600	31	0.019		
WB THRU	0	0	0	0.000		
WB RIGHT	1	1,600	224	0.14	*	

NORTH/SOUTH CRITICAL SUM	0.206
EAST/WEST CRITICAL SUM	0.219
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.525
	0.525
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND HAYDEN AVENUE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	73	0	0	0	73	0.098	*	
NB RIGHT	0	0	83	0	0	0	83	0.000		
										0.207
SB LEFT	0	0	0	0	0	0	0	0.000		
SB THRU	1	1,600	55	0	0	0	55	0.109	*	
SB RIGHT	0	0	117	0	0	2	119	0.000		
EB LEFT	1	1,600	127	0	0	3	130	0.081	*	
EB THRU	0	0	0	0	0	0	0	0.000		
EB RIGHT	1	1,600	77	0	0	0	77	0.048		
										0.217
WB LEFT	1	1,600	31	0	0	0	31	0.019		
WB THRU	0	0	0	0	0	0	0	0.000		
WB RIGHT	1	1,600	224	0	0	-7	217	0.136	*	

NORTH/SOUTH CRITICAL SUM	0.207
EAST/WEST CRITICAL SUM	0.217
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.524
	0.524
PM INTERSECTION LOS	A
PM IMPACT	-0.001

EXIST + PROJECT

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THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING CONDITION

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0.000		
NB THRU	1	1600	0	0.000		
NB RIGHT	0	0	0	0.000		
						0.116
SB LEFT	1	1,600	185	0.116	*	
SB THRU	0	0	0	0.000		
SB RIGHT	1	1,600	70	0.044		
EB LEFT	1	1,600	5	0.003	*	
EB THRU	2	3,200	93	0.029		
EB RIGHT	0	0	0	0.000		
						0.218
WB LEFT	1	1,600	0	0.000		
WB THRU	1	1,600	202	0.215	*	
WB RIGHT	0	0	142	0.000		

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.116
EAST/WEST CRITICAL SUM	0.218
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.434
	0.434
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: HIGUERA STREET AND EASTHAM DRIVE
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	0	0	0	0	0	0	0	0.000		
NB THRU	1	1600	0	0	0	0	0	0.000		
NB RIGHT	0	0	0	0	0	0	0	0.000		
										0.117
SB LEFT	1	1,600	185	0	0	2	187	0.117	*	
SB THRU	0	0	0	0	0	0	0	0.000		
SB RIGHT	1	1,600	70	0	0	-2	68	0.043		
EB LEFT	1	1,600	5	0	0	0	5	0.003	*	
EB THRU	2	3,200	93	0	0	0	93	0.029		
EB RIGHT	0	0	0	0	0	0	0	0.000		
										0.218
WB LEFT	1	1,600	0	0	0	0	0	0		
WB THRU	1	1600	202	0	0	-3	199	0.215	*	
WB RIGHT	0	0	142	0	0	3	145	0.000		

S/B right turn not part of traffic signal.

NORTH/SOUTH CRITICAL SUM	0.117
EAST/WEST CRITICAL SUM	0.218
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.435
	0.435
PM INTERSECTION LOS	A
PM IMPACT	0.001

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING CONDITION (2010)

			SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	VOLUMES	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0.04		
NB THRU	2	3,200	438	0.137	*	
NB RIGHT free	1	1600	636	0.398		
						0.281
SB LEFT	1	1,600	230	0.144	*	
SB THRU	2	3,200	289	0.090		
SB RIGHT	1	1,600	25	0.016		
EB LEFT	1	1,600	20	0.013		
EB THRU	2	3,200	238	0.074	*	
EB RIGHT	1	1,600	50	0.031		
						0.221
WB LEFT	2	2,880	423	0.147	*	
WB THRU	1	1,600	279	0.174		
WB RIGHT	1	1,600	86	0.054		

NORTH/SOUTH CRITICAL SUM	0.281
EAST/WEST CRITICAL SUM	0.221
CLEARANCE INTERVAL	0.100
INTERSECTION ICU VALUE	0.602
LESS 0.07 FOR ATSAC	0.532
PM INTERSECTION LOS	A

Overland Traffic Consultants, Inc.

THE WILLOWS COMMUNITY SCHOOL
ICU CALCULATIONS

INTERSECTION: RODEO ROAD AND JEFFERSON BOULEVARD
EXISTING + PROJECT

							SCHOOL PM PEAK HOUR			
MOVEMENT	NO. OF LANES	CAPACITY	EXISTING	AMBIENT GROWTH	RELATED	PROJECT	TOTAL	V/C		CRITICAL PAIR
NB LEFT	1	1,600	64	0	0	2	66	0.041		
NB THRU	2	3,200	438	0	0	0	438	0.137	*	
NB RIGHT free	1	1600	636	0	0	0	636	0.398		
										0.281
SB LEFT	1	1,600	230	0	0	0	230	0.144	*	
SB THRU	2	3,200	289	0	0	0	289	0.09		
SB RIGHT	1	1,600	25	0	0	0	25	0.016		
EB LEFT	1	1,600	20	0	0	0	20	0.013		
EB THRU	2	3,200	238	0	0	1	239	0.075	*	
EB RIGHT	1	1,600	50	0	0	1	51	0.032		
										0.222
WB LEFT	2	2,880	423	0	0	0	423	0.147	*	
WB THRU	1	1600	279	0	0	-2	277	0.173		
WB RIGHT	1	1,600	86	0	0	0	86	0.054		

NORTH/SOUTH CRITICAL SUM		0.281
EAST/WEST CRITICAL SUM		0.222
CLEARANCE INTERVAL		0.100
INTERSECTION ICU VALUE		0.603
LESS 0.07 FOR ATSAC		0.533
	PM INTERSECTION LOS	A
	PM IMPACT	0.001

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JTO*	Intersection	*HAYDEN & WARNER*
Agency/Co.	*OTC INC*	Jurisdiction	*CULVER CITY*
Date Performed	*4/2011*	Analysis Year	*EXISTING*
Analysis Time Period	*AM PEAK HOUR*		

Project Description *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*352*	*147*	*75*	*125*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*139*	*0*	*21*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*139*	*0*	*21*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*75*	*125*	*0*	*0*	*352*	*147*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*75*		*160*			*0*	
C (m) (veh/h)	*1474*	*1075*		*400*				
v/c	*0.00*	*0.07*		*0.40*				
95% queue length	*0.00*	*0.22*		*1.88*				
Control Delay (s/veh)	*7.4*	*8.6*		*19.9*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*19.9*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*AM PEAK HOUR*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project Description *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*232*	*125*	*89*	*125*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*174*	*0*	*105*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*174*	*0*	*105*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*89*	*125*	*0*	*0*	*232*	*125*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*89*		*279*			*0*	
C (m) (veh/h)	*1474*	*1213*		*523*				
v/c	*0.00*	*0.07*		*0.53*				
95% queue length	*0.00*	*0.24*		*3.11*				
Control Delay (s/veh)	*7.4*	*8.2*		*19.5*				
LOS	*A*	*A*		*C*				
Approach Delay (s/veh)	--	--	*19.5*					
Approach LOS	--	--	*C*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JTO*	Intersection	*HAYDEN & WARNER*
Agency/Co.	*OTC INC*	Jurisdiction	*CULVER CITY*
Date Performed	*10/26/2010*	Analysis Year	
Analysis Time Period	*PM STREET PEAK HOUR*		

Project Description *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*284*	*90*	*73*	*99*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*74*	*0*	*37*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*74*	*0*	*37*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*73*	*99*	*0*	*0*	*284*	*90*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*73*		*111*			*0*	
C (m) (veh/h)	*1507*	*1196*		*512*				
v/c	*0.00*	*0.06*		*0.22*				
95% queue length	*0.00*	*0.19*		*0.82*				
Control Delay (s/veh)	*7.4*	*8.2*		*14.0*				
LOS	*A*	*A*		*B*				
Approach Delay (s/veh)	--	--	*14.0*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JTO*	Intersection	*HAYDEN & WARNER*
Agency/Co.	*OTC INC*	Jurisdiction	*CULVER CITY*
Date Performed	*4/2011*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*PM STREET PEAK HOUR*		

Project Description *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*255*	*84*	*75*	*99*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*82*	*0*	*57*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*82*	*0*	*57*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*75*	*99*	*0*	*0*	*255*	*84*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*75*		*139*			*0*	
C (m) (veh/h)	*1507*	*1231*		*553*				
v/c	*0.00*	*0.06*		*0.25*				
95% queue length	*0.00*	*0.19*		*0.99*				
Control Delay (s/veh)	*7.4*	*8.1*		*13.7*				
LOS	*A*	*A*		*B*				
Approach Delay (s/veh)	--	--	*13.7*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JTO*	Intersection	*HAYDEN & WARNER*
Agency/Co.	*OTC INC*	Jurisdiction	*CULVER CITY*
Date Performed	*4/2011*	Analysis Year	*EXISTING*
Analysis Time Period	*PM SCHOOL PEAK HOUR*		

Project Description *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *WARNER DRIVE* | North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*264*	*136*	*72*	*70*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*72*	*0*	*40*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*72*	*0*	*40*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*72*	*70*	*0*	*0*	*264*	*136*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*72*		*112*			*0*	
C (m) (veh/h)	*1544*	*1170*		*553*				
v/c	*0.00*	*0.06*		*0.20*				
95% queue length	*0.00*	*0.20*		*0.75*				
Control Delay (s/veh)	*7.3*	*8.3*		*13.2*				
LOS	*A*	*A*		*B*				
Approach Delay (s/veh)	--	--	*13.2*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*PM SCHOOL PEAK HOUR*

Site Information

Intersection	*HAYDEN & WARNER*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project Description *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *WARNER DRIVE* North/South Street: *HAYDEN AVENUE*

Intersection Orientation: *North-South* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*259*	*138*	*80*	*70*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*75*	*0*	*48*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*0*	*1*	*0*
Configuration	*LT*		*R*	*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)		*0*	*0*	*75*	*0*	*48*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*80*	*70*	*0*	*0*	*259*	*138*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*		*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*LTR*		*LTR*				*TR*
v (veh/h)	*0*	*80*		*123*				*0*
C (m) (veh/h)	*1544*	*1173*		*554*				
v/c	*0.00*	*0.07*		*0.22*				
95% queue length	*0.00*	*0.22*		*0.84*				
Control Delay (s/veh)	*7.3*	*8.3*		*13.3*				
LOS	*A*	*A*		*B*				
Approach Delay (s/veh)	--	--	*13.3*					
Approach LOS	--	--	*B*					

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*AM EX PEAK HOUR 2010*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*148*	*0*	*81*	*74*	*0*	*364*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*30*	*27*	*0*	*45*	*236*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*148*	*81*	*74*	*364*	*57*		*281*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.13*	*0.07*	*0.07*	*0.32*	*0.05*		*0.25*	
hd, final value (s)	*6.50*	*5.29*	*6.28*	*5.07*	*5.76*		*5.10*	
x, final value	*0.27*	*0.12*	*0.13*	*0.51*	*0.09*		*0.40*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.2*	*3.0*	*4.0*	*2.8*	*3.8*		*3.1*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*398*	*331*	*324*	*614*	*307*		*531*	
Delay (s/veh)	*11.56*	*8.70*	*9.91*	*12.97*	*9.33*		*11.43*	
LOS	*B*	*A*	*A*	*B*	*A*		*B*	
Approach: Delay (s/veh)	*10.55*		*12.45*		*9.33*		*11.43*	
LOS	*B*		*B*		*A*		*B*	
Intersection Delay (s/veh)	*11.56*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*AM EX PEAK HOUR 2010*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*152*	*0*	*89*	*74*	*0*	*192*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*30*	*35*	*0*	*45*	*245*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*152*	*89*	*74*	*192*	*65*		*290*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.14*	*0.08*	*0.07*	*0.17*	*0.06*		*0.26*	
hd, final value (s)	*6.27*	*5.05*	*6.26*	*5.04*	*5.29*		*4.75*	
x, final value	*0.26*	*0.12*	*0.13*	*0.27*	*0.10*		*0.38*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.0*	*2.8*	*4.0*	*2.7*	*3.3*		*2.7*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*402*	*339*	*324*	*442*	*315*		*540*	
Delay (s/veh)	*11.21*	*8.47*	*9.88*	*9.59*	*8.85*		*10.66*	
LOS	*B*	*A*	*A*	*A*	*A*		*B*	
Approach: Delay (s/veh)	*10.20*		*9.67*		*8.85*		*10.66*	
LOS	*B*		*A*		*A*		*B*	
Intersection Delay (s/veh)	*10.09*							
Intersection LOS	*B*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*PM EX STREET PEAK HOUR*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*110*	*0*	*80*	*14*	*0*	*153*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*121*	*127*	*0*	*37*	*152*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*110*	*80*	*14*	*153*	*248*		*189*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.10*	*0.07*	*0.01*	*0.14*	*0.22*		*0.17*	
hd, final value (s)	*6.32*	*5.10*	*6.37*	*5.16*	*4.78*		*4.70*	
x, final value	*0.19*	*0.11*	*0.02*	*0.22*	*0.33*		*0.25*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*4.0*	*2.8*	*4.1*	*2.9*	*2.8*		*2.7*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*360*	*330*	*264*	*403*	*498*		*439*	
Delay (s/veh)	*10.52*	*8.45*	*9.24*	*9.30*	*10.11*		*9.22*	
LOS	*B*	*A*	*A*	*A*	*B*		*A*	
Approach: Delay (s/veh)	*9.65*		*9.29*		*10.11*		*9.22*	
LOS	*A*		*A*		*B*		*A*	
Intersection Delay (s/veh)	*9.62*							
Intersection LOS	*A*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*PM EX STREET PEAK HOUR*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*110*	*0*	*81*	*14*	*0*	*112*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*121*	*128*	*0*	*37*	*154*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*110*	*81*	*14*	*112*	*249*		*191*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.8*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.5*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.10*	*0.07*	*0.01*	*0.10*	*0.22*		*0.17*	
hd, final value (s)	*6.24*	*5.03*	*6.35*	*5.13*	*4.66*		*4.57*	
x, final value	*0.19*	*0.11*	*0.02*	*0.16*	*0.32*		*0.24*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*3.9*	*2.7*	*4.1*	*2.8*	*2.7*		*2.6*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*360*	*331*	*264*	*362*	*499*		*441*	
Delay (s/veh)	*10.41*	*8.37*	*9.21*	*8.81*	*9.87*		*9.03*	
LOS	*B*	*A*	*A*	*A*	*A*		*A*	
Approach: Delay (s/veh)	*9.54*		*8.85*		*9.87*		*9.03*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*9.41*							
Intersection LOS	*A*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*PM EX SCHOOL PEAK HOUR*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*127*	*0*	*77*	*31*	*0*	*224*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*73*	*83*	*0*	*55*	*117*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*127*	*77*	*31*	*224*	*156*		*172*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.11*	*0.07*	*0.03*	*0.20*	*0.14*		*0.15*	
hd, final value (s)	*6.16*	*4.94*	*6.13*	*4.91*	*4.97*		*4.86*	
x, final value	*0.22*	*0.11*	*0.05*	*0.31*	*0.22*		*0.23*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*3.9*	*2.6*	*3.8*	*2.6*	*3.0*		*2.9*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*377*	*327*	*281*	*474*	*406*		*422*	
Delay (s/veh)	*10.56*	*8.23*	*9.17*	*9.76*	*9.33*		*9.32*	
LOS	*B*	*A*	*A*	*A*	*A*		*A*	
Approach: Delay (s/veh)	*9.68*		*9.69*		*9.33*		*9.32*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*9.53*							
Intersection LOS	*A*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*JTO*
Agency/Co.	*OTC INC*
Date Performed	*4/2011*
Analysis Time Period	*PM EX SCHOOL PEAK HOUR*

Site Information

Intersection	*HIGUERA & HAYDEN*
Jurisdiction	*CULVER CITY*
Analysis Year	*EXISTING+PROJECT*

Project ID *WILLOWS COMMUNITY SCHOOL MASTER PLAN*

East/West Street: *HIGUERA STREET* North/South Street: *HAYDEN AVENUE*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*130*	*0*	*77*	*31*	*0*	*217*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*0*	*73*	*83*	*0*	*55*	*119*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*L*	*R*	*L*	*R*	*TR*		*TR*	
PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*		*1.00*	
Flow Rate (veh/h)	*130*	*77*	*31*	*217*	*156*		*174*	
% Heavy Vehicles	*0*	*0*	*0*	*0*	*0*		*0*	
No. Lanes	*2*		*2*		*1*		*1*	
Geometry Group	*5*		*5*		*2*		*2*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	*1.0*	*0.0*	*1.0*	*0.0*	*0.0*		*0.0*	
Prop. Right-Turns	*0.0*	*1.0*	*0.0*	*1.0*	*0.5*		*0.7*	
Prop. Heavy Vehicle	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	
hLT-adj	*0.5*	*0.5*	*0.5*	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*0.5*	*-0.7*	*0.5*	*-0.7*	*-0.3*		*-0.4*	

Departure Headway and Service Time

hd, initial value (s)	*3.20*	*3.20*	*3.20*	*3.20*	*3.20*		*3.20*	
x, initial	*0.12*	*0.07*	*0.03*	*0.19*	*0.14*		*0.15*	
hd, final value (s)	*6.15*	*4.94*	*6.14*	*4.92*	*4.96*		*4.85*	
x, final value	*0.22*	*0.11*	*0.05*	*0.30*	*0.22*		*0.23*	
Move-up time, m (s)	*2.3*		*2.3*		*2.0*		*2.0*	
Service Time, t_s (s)	*3.9*	*2.6*	*3.8*	*2.6*	*3.0*		*2.8*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*380*	*327*	*281*	*467*	*406*		*424*	
Delay (s/veh)	*10.60*	*8.22*	*9.18*	*9.68*	*9.32*		*9.33*	
LOS	*B*	*A*	*A*	*A*	*A*		*A*	
Approach: Delay (s/veh)	*9.72*		*9.62*		*9.32*		*9.33*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*9.52*							
Intersection LOS	*A*							

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July 3, 2012
(with corrections, July 6, 2012)

Via Electronic Mail
Mr. Todd Tipton, AICP
Redevelopment Administrator
City of Culver City
9770 Culver Blvd.
Culver City, CA 90232

Re: Summary of the "Opportunity Cost" Calculation for The Willows Master Plan

Dear Mr. Tipton:

Per your request, this letter provides a summary of the method HR&A Advisors, Inc. (HR&A) developed, on behalf of The Willows Community School ("The Willows"), and in response to a request from City of Culver City ("City") staff, to calculate the "opportunity cost" to the City of permitting The Willows to expand its elementary school program located in the Hayden Tract area of the City as proposed in its Master Plan. That Master Plan is now pending consideration for Conditional Use Permit approval by City decision makers.

Background to the Opportunity Cost Issue

As you are aware, the "opportunity cost" issue dates from concerns expressed by City decision makers during the 2004 Land Use Element Update and the 2005 Zoning Code Update for the General Industrial (IG) District. It also arose in the context of the 2009 hearings on The Willows' previous request for a CUP amendment, and in certain other land use cases in the Hayden Tract more recently. As we understand it, City decision makers are concerned that by permitting certain uses in the Hayden Tract, particularly tax-exempt uses, the City may be foreclosing revenue and other economic opportunities, despite other merits of the proposed uses.

Although the issue has been discussed on several occasions, the City has not adopted a formal policy for addressing it, nor has any official method for measuring "opportunity cost been approved. For The Willows current entitlements application, HR&A was tasked with developing a method for calculating this cost for its pending Master Plan. We did exactly that, and prepared a report on this matter for The Willows and City staff in May 2011. The "opportunity cost" calculation resulting from that report, and subsequent calculation adjustments to reflect an allowance for potentially foregone sales tax revenue, as recommended by the Keyser Marston Associates (KMA), the City's independent real estate advisor which reviewed the HR&A report, is the basis for the Public Benefit Payment that is included as a proposed condition of CUP approval in the pending entitlements proceedings. The following is a recap of that calculation method.

The Opportunity Cost Calculation Approach Developed for The Willows Master Plan

Following initial consultation with City staff and KMA, HR&A developed a calculation approach that measures the difference in City tax revenues that would be derived from implementation of The Willows' Master Plan, as compared with the "next best alternative," consistent with the general economic concept of "opportunity cost." This required, first, identifying the "next best alternative" for Phase I of the Master Plan and for completed buildout of Master Plan. Because of the substantive differences between Phase I and buildout of the Master Plan, and the point in

time at which these might occur, we identified two different "next best alternative" cases for comparison with the Master Plan.

Phase 1 of the Master Plan involves a relatively modest scale of development that would occur on property already owned or leased by The Willows, and does not involve change to any other adjacent property. But because future buildout of the Master Plan includes the eventual acquisition of two properties immediately adjacent to the existing school campus, commonly referred to as the Worldpac and California Stay properties, these properties were included in the evaluation, although no change to their current physical form or tax revenue yield was assumed in the short term. In the absence of City approval of Phase I, The Willows would continue to operate as it does today. Thus, the basis for the "next best alternative" was determined to be existing site conditions (including continued as-is use of the Worldpac and Cal Stay properties), which we called "Existing Willows + Existing Worldpac and Cal Stay." And therefore, the "opportunity cost" to the City applicable to Phase I was defined as the difference in tax revenue that it would receive after implementation of Phase I, as compared with Existing Willows + Existing Worldpac and Cal Stay.

Master Plan buildout, on the other hand, envisions much more extensive construction and future acquisition of the Worldpac and Cal Stay properties. Under the proposed Master Plan, these existing one-story buildings on single land parcels would be demolished and built on for school purposes. In this case, then, there is a question about tax revenues the Worldpac and California Stay buildings could conceivably generate for the City, considering that the Master Plan might not be implemented for many years. But here again, it is important to note that the remainder of the property owned or leased by The Willows would continue to operate as an elementary school indefinitely, so there is no basis for evaluating any alternative use of those facilities.

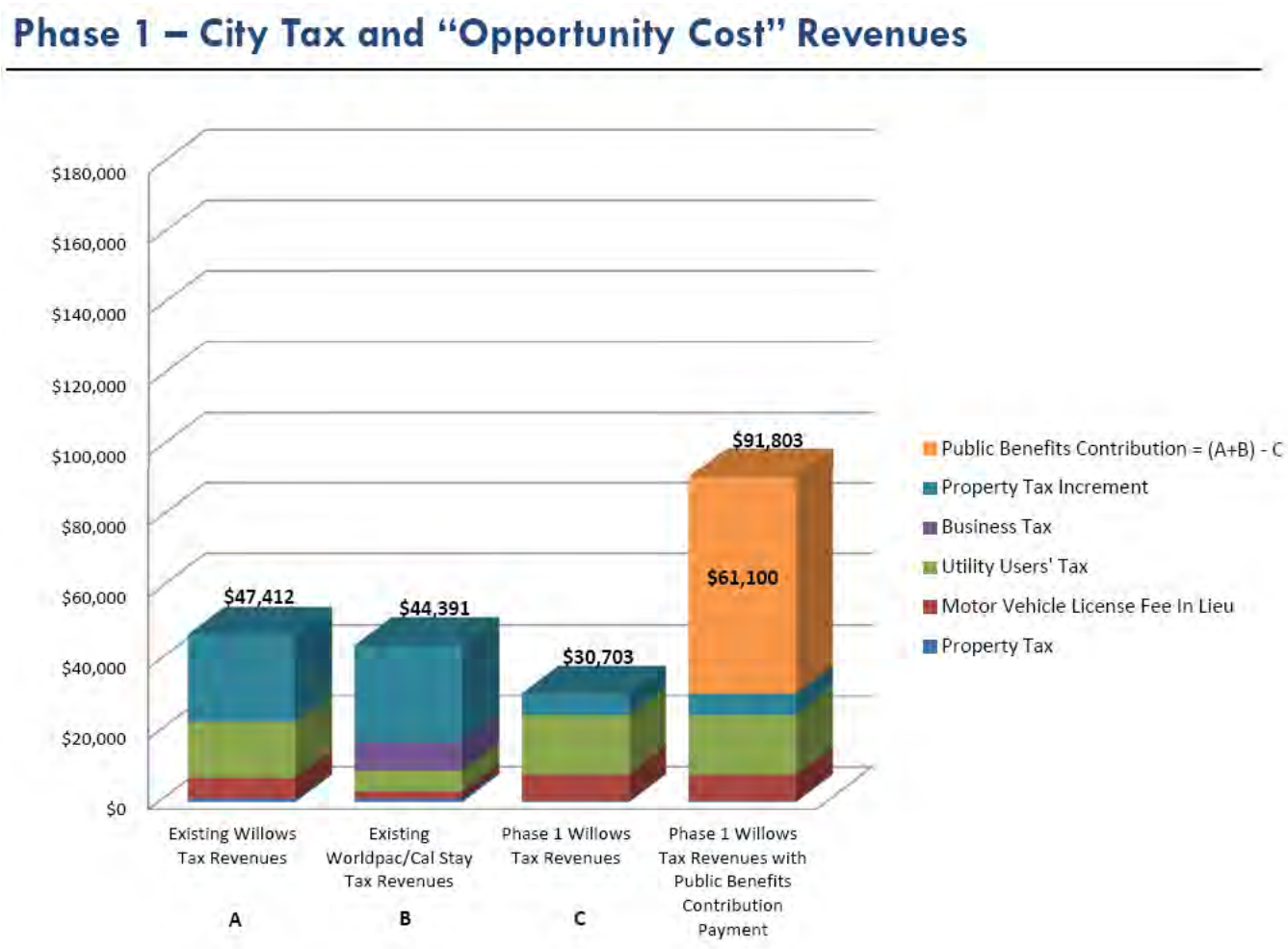
Nevertheless, the question then became what to assume about potential future use of the Worldpac and Cal Stay buildings over the time frame associated with buildout of the Master Plan, were the potential acquisitions for the Master Plan not to occur. We first performed a residual land value analysis to test whether new two- or three-story construction would be financially feasible for either property, even if off-site parking was assumed, and we concluded that it was not. We then developed a re-use scenario for each building that assumed intensified, office-like uses similar to other industrial building conversions in the Hayden Tract, so that its potential tax revenue profile could be evaluated. And, inasmuch as The Willows would continue to operate on its existing campus just as it does today, even if the Master Plan were not to be approved by the City, that part of the site was assumed to remain in elementary school use under a no-project scenario. Thus, the "next best alternative" for use in evaluating buildout of the Master Plan became what we called "Existing Willows + Intensified Use or Worldpac and Cal Stay."

Against this comparative framework, we then estimated the tax revenues that would be received by the City from all applicable sources. For Existing Willow, Phase I and Master Plan buildout, we utilized and extrapolated from data provided by The Willows for its existing operations (e.g., property tax data, utility use and tax payments). For analysis of both the existing conditions and "intensified use" of the Worldpac and California Stay properties, we relied on customary secondary data sources (e.g., property tax records), together with reasonable assumptions based on HR&A's experience performing fiscal impact analysis for a wide range of development products. We then compared the estimated total tax revenues to the City from Phase I versus Existing Willows + Existing Worldpac and Cal Stay, and we compared the estimated tax revenues from operation of The Willows' Master Plan at full buildout with Existing Willows + Intensified Use or Worldpac and Cal Stay.

The Opportunity Cost Calculation Results

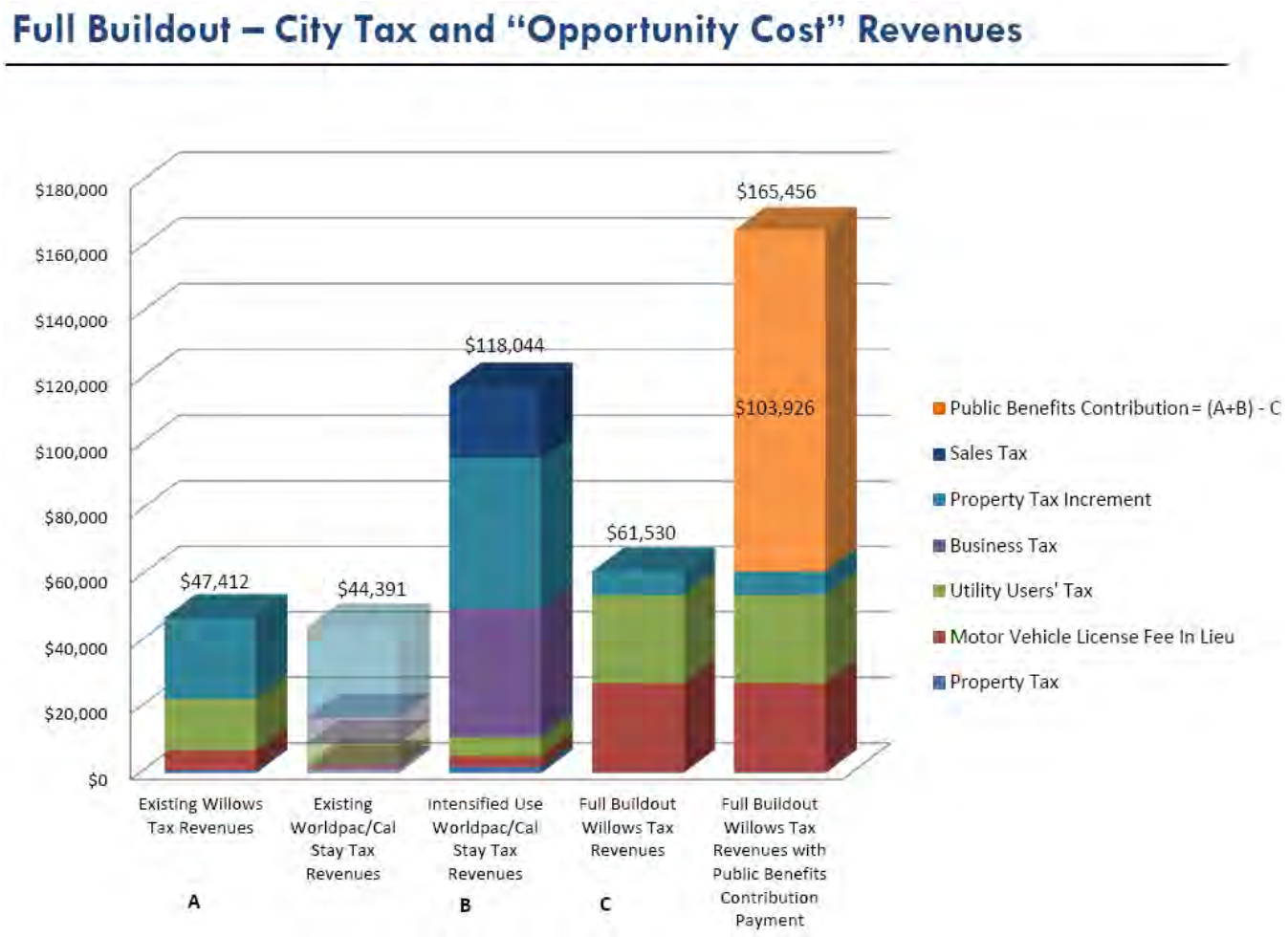
After applying the analytic approach summarized above, HR&A concluded that implementation of both Phase I and building of the Master Plan would result in less tax revenue accruing to the City than under the "next best alternative" applicable to each point in time and scale of development. The result for Phase I was -$61,100 as summarized in Figure 1.

Figure 1



The result was -$103,926 for buildout of the Master Plan, including Phase I, as summarized in Figure 2.

Figure 2



These results then became the basis for the Public Benefit Payment in the draft conditions of approval for the proposed CUP – i.e., $61,100 for Phase I, plus one half the difference between the "opportunity cost" for full buildout and the Phase I payment, to be paid at acquisition of each of the Worldpac and California Stay properties (i.e., ($103,926-$61,100)/2=$21,413). As also shown in the preceding figures, the City will still receive Phase I- and Master Plan-related tax revenues in addition to the proposed Public Benefit Contributions. And further, although not reflected in the Public Benefit Contribution, the City will also receive one-time tax revenues associated with construction. For Phase I, we estimated this amount would be about $13,000 and about $173,000 for buildout of the Master Plan.

****

Todd Tipton, AICP
City of Culver City
July 3, 2012

I hope the foregoing summary is useful for understanding the "opportunity cost" calculation approach we developed for The Willows Master Plan. I will be participating in The Willows' presentations to the Culver City Planning Commission and the City Council about this matter, and will be available to help answer any decision maker questions.

Sincerely,



Paul J. Silvern,

Partner



MASTER PLAN SITE OUTLINE

THE WILLOWS COMMUNITY SCHOOL
MASTER PLAN
Planning Submittal
JUNE 27, 2012

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History and Background

The Willows Community School (the "School") is a developmental kindergarten through eighth grade co-educational independent school founded to educate children from across Los Angeles using a progressive, innovative approach with strong academic roots.

The School's developmentally structured curriculum is founded on the principles of experiential learning and thematic instruction, with the integration of the arts and technology. These educational principles translate into a classroom experience of daily active learning characterized by attention to each student's needs and respect for individual differences. Since its founding in 1994, the School has been located in the Hayden Tract of Culver City(CC), CA.

In 1994, The Willows Community School opened in a single building on Higuera Street with 98 students and seventeen teachers. In 1998, the School leased its second building located on Warner Drive and opened its Middle School. As further described below (refer to Pg. 8), additional property was leased, occupied, and upgraded by the School in 1998, in 2000 and again 2004. Some of this leased land was purchased by the School in 2008.

Today, the School owns or leases a total of 5 parcels (refer to Pg. 8) and educates 425 children in four buildings adjacent to its original location with 83 faculty and staff. In order to meet its educational goals, the School is committed to maintaining an average class size of 25 students in the Lower School, with two full-time teachers, and 18 students in the Middle School, with one teacher per classroom.

The School continues to build and develop innovative programs to meet the needs of its student population and to seek out effective, state-of-the-art approaches to educate and inspire its students. Consistent with these goals, the School is seeking to plan for its future growth and development pursuant to a Master Plan.

This Master Plan establishes the Guidelines by which the School will enhance its current facilities to accommodate the current and future academic, physical education and curricular needs of the School in accordance with design and development standards set forth in the Master Plan. Under the Master Plan, the School proposes to construct new facilities to replace aging facilities; to expand parking, playgrounds and open space; and to maintain and update existing facilities. These upgrades to the School campus are proposed to take place first on land owned or leased by the School, and subsequently, on land adjacent to the School that may be acquired or leased in the future. The Master Plan also permits growth of the student, faculty and staff population at the School concurrently with the development of facilities to support that growth.

The Master Plan provides for three phases of growth over a 20 year period, with maximum student and employee populations established for each phase. Phase IA consists of an increase in student enrollment by 25 students once entitlements are approved. Phase IB, which is most fully designed, with detailed floor plans, layouts, and parking is scheduled to proceed with permitting through the CC Department of Building Safety once entitlements are approved. Building footprints and maximum enrollment and staff calculations have been prepared for Phase II and Phase III. These Phases are more conceptual than Phase IB, as they are proposed to be designed and developed subsequent to completion of Phase IB. Phase II and Phase III will be subject to conformance review by the City. Phase III of the Master Plan would require acquisition or lease of neighboring properties at the discretion of the School.

Project Description

Campus and Project Site

The Project Site is comprised of the current properties owned and/or leased by the School (described below), which has a primary address of 8509 Higuera Street in Culver City (the "Campus") and two properties currently owned by others adjacent to the School.

The Campus is generally bounded on the north by Warner Drive, on the east by private properties currently housing a Jason's Natural Products production/distribution warehouse and Alberstone distribution warehouse, on the south by Higuera Street and on the west by properties currently housing a California Stay distribution warehouse (the "California Stay property") and Smashbox Studios. Additionally, the warehouse building and property used by WorldPac (the "WorldPac property") that is located between School properties W-II and W-IV (discussed below) is not part of the School campus at this time. Beyond the properties adjacent to the Campus, the Project area is developed primarily with other office, light industrial and /warehouse land uses.

The Campus is approximately 2.5 acres and comprises the following five properties (refer to Pgs. 6,7, 8):

Willows One (W-I): This property: (Assessor's Parcel Number (APN) 4205024018) is located at 8509 and 8487 Higuera Street and is developed with a 10,984-square-foot, 16-foot tall building that houses the School's existing developmental kindergarten through 2nd grade classrooms, offices, and mechanical space, and a parking lot with 33 parking spaces (17 standard spaces, 14 tandem spaces, and 2 handicap accessible spaces) and 17 queuing spaces. The W-I property was leased, occupied, and upgraded by the School in 1994 and purchased by the School in 2008.

Willows Two (W-II): This property (APN 4205024021) is located at 8490 Warner Drive and is developed with a 13,270-square-foot, 20-foot tall building that houses the School's existing 6th through 8th grade classrooms, an indoor multi-purpose area and a rooftop multipurpose playcourt and eating area, science and art rooms, and office space. The W-II property was leased, occupied, and upgraded by the School in 1998 and purchased by the School in 2008.

Willows Three (W-III): This property (APN 4205024016) is located at 8479 Higuera Street and is developed with an 8,819-square-foot, 20'-10" tall building that houses the School's 3rd through 5th grade classrooms, the library, and office space. The W-III property was leased, occupied, and upgraded by the School in 2000.

Willows Four (W-IV): This property (APN 4205024402) is located at 8520 Warner Drive and is developed with a 19,264-square-foot, 34'-2" tall building that houses the School's existing gymnasium, theater, music rooms, and office and storage space. The W-IV property was leased and upgraded by the School in 2004.

Willows Five (W-V): This property (APN 4205024405) is located at 8476 Warner Drive and was previously developed with a 12,800-square-foot, 20-foot tall building that is currently vacant. The School purchased the W-V property in 2008.

The center of the Campus (on properties W-I and W-III) contains outdoor asphalt playcourts, play areas, and play structures serving all of the School's students.
In addition to the properties currently owned or leased by the School, the School is considering the acquisition or lease of the WorldPac property (located at 8510 Warner Drive, APN 4205024020) and the California Stay property (located at 8525 Higuera Street, APN 4205024011). Although specific terms of acquisition or lease of these properties have not been discussed, both property owners have consented to inclusion of said properties in the Master Plan. The existing Campus and these additional two properties comprise the "Project Site." If the school obtains ownership or a lease for one or both of the properties, their development would take place as Phase III of the Master Plan.

Land Use and Zoning; Parking
The City's current General Plan land use designation for the Project Site is Industrial, and the City's current zoning for the site is Industrial General (IG). Although (education) school land uses are not permitted under the existing land use designation and zoning for the Project Site, the School's operations are allowed under an existing Conditional Use Permit (CUP) that was issued originally by the City in 1999 and modified in 2002. Under the current CUP, the School is permitted a student enrollment maximum of 425 students.

With respect to parking, upon completion of Phase 1B described below, the School will provide 90 on site spaces, as follows:

- Lot W-I contains 33 parking spaces and will be modified. The existing parking lot between W-I and W-III would be reconfigured and extended along the northwestern edge to add 2 parking spaces for a total of 35 parking spaces.
- With the completion of Phase IB, the building on lot W-V would be demolished, and a surface parking lot would be constructed that would provide 21 full time parking spaces on the north end (i.e., 18 tandem parking spaces, 1 standard accessible space, and 2 handicap accessible spaces) and 34 spaces on the southern portion of the lot (used as a hard-court play area during School hours and for event parking outside of normal School hours).

The School would continue to lease 50 parking spaces in the Warner Drive Lot (8511 Warner Drive), including 20 parking spaces in that lot that are guaranteed through a recorded covenant to be available to the School until 2016 and an additional 30 spaces in the Warner Drive Lot that are not required by the covenant. On event days, the 30 non-covenanted parking spaces at the Warner Drive Lot (8511 Warner Drive) and the 34 spaces on the southern portion of the W-V lot would be available for event parking.

School Operations
The School currently serves a total of 425 students and employs a total of 83 full and part-time teachers, administrative and support staff. The School's regular hours are Monday through Friday 7:30 AM to 3:00 PM. Between 3:15 PM to 6:00 PM extended care and enrichment programs accommodate between 100 and 150 students each school day. The School is in session each year from early September through early June. A Summer Camp is generally operated on the School site each summer in the months of June, July and portions of August, although the exact schedule varies year to year.

Project Characteristics
The Master Plan proposes buildout of the Project Site in three phases, with the overall goal of enhancing facilities, increasing student enrollment from a maximum of 425 students to a maximum of 575 students and adding 12 employees (refer to Table II-1). The Master Plan includes an enrollment increase under Phase IA, and specific development under Phase IB, and conceptual development under Phases II and III. Phase IA & IB in combination with Phases II and III comprise the maximum buildout of the Master Plan. Development under all phases would be guided by Leadership in Energy and Environmental Design (LEED) principles and the 2009 mandatory Culver City Green Building Program. The Master Plan will incorporate design elements such as: green wall systems, natural lighting strategies, photovoltaic panels, post-consumer materials and high fly-ash concrete. New landscaping would be designed to incorporate low-water native plants, with a water-saving irrigation system. Pursuing LEED certification will be evaluated with the school as the project progresses.

Table II-1
New Students and Employees under the Master Plan

Master Plan Phase	New Students	New Employees		
		Faculty	Staff	Total Employees
Phase IA	25	1	0	1
Phase IB	25	1	0	1
Phase II	75	5	2	7
Phase III	25	2	1	3
Total	150	9	3	12

Source: The Willows Community School

Phase IA
Phase IA would give the School the immediate right to add 25 students to their current enrollment of 425 Students upon City approval of requested entitlements. The current site plan and floor plan layout would not be modified under Phase IA (refer to pg. 8). The existing parking supply on the Campus of 33 parking spaces (W-I) and the 20 parking spaces leased at the Warner Drive Lot (8511 Warner Drive) together exceed the daily parking requirement of 42 parking spaces required based on the existing 28 classrooms, by 11 spaces.

The excess of 11 spaces along with an additional 30 parking spaces currently leased at the Warner Drive Lot (8511 Warner Drive) that are not required by the parking covenant exceed the event parking requirement of 40 spaces by 1 space.

As noted on Table II-1, student enrollment and the number of employees would increase under Phase IA by a maximum of 25 students and 1 employee.

Phase IB
Phase IB includes enlarging classrooms in W-I and W-III through the development of "breakout" rooms, which would allow for small classroom group work and flexibility within the teaching space. The library in W-III would be relocated to the existing underused indoor multi-purpose room in W-II and would be upgraded to become the New Library/Media Center to allow for use of evolving technology (refer to Pg. 9)

As part of Phase IB, the building on lot W-V would be demolished, and a surface parking lot would be constructed, providing 21 full time parking spaces on the north end (i.e., 18 tandem parking spaces, 1 standard accessible space, and 2 handicap accessible spaces) and 34 spaces on the southern portion of the lot (used as a hard-court play area during School hours and for event parking outside

of normal School hours). In addition, the existing parking lot between W-I and W-III would be reconfigured and extended along the northwestern edge to add 2 parking spaces (for a total of 35 spaces). The School would continue to lease 50 parking spaces in the Warner Drive Lot (8511 Warner Drive), including 20 parking spaces in that lot that are guaranteed through a recorded covenant to be available to the School until 2016 and an additional 30 spaces in the Warner Drive Lot that are not required by the covenant. On event days, the 30 non-covenanted parking spaces at the Warner Drive Lot (8511 Warner Drive) and the 34 spaces on the southern portion of the W-V lot would be available for event parking.

Outdoor dining and a gardening area would be developed within the existing play area in the center of the campus, just south of the new W-V parking lot. Play areas would be improved, reconfigured, and extended to the north side of W-I, and an outdoor lab would be developed on the north side of W-III. The waste disposal area currently located outside at the northwestern corner of W-I would be relocated to the W-V property. Phase IB also includes a general "greening" throughout the School campus that enhances the existing landscaping with additional trees, other plants, and shade structures as part of a planned native planting program.

As noted on Table II-1, student enrollment and the number of employees would increase under Phase IB by a maximum of 25 students and 1 employee, respectively.

Phase II (Conceptual)

It is anticipated that development of Phase II would proceed after the completion of Phase I. Conceptually, Phase II includes the following (refer to Pg 14):

- Demolition and removal of the building on W-III;
- Development of a new approximately 18,000-square-foot building (which would be used for the same purposes as the existing building) on the remaining portion of the W-III property that would extend into the area that contains the existing parking on Higuera Street;
- Reconfiguration of the outdoor play area in the center of the campus; and
- Reconfiguration of interior spaces on parcels W-I, W-II, and W-IV to accommodate student needs, as necessary.

As noted on Table II-1, student enrollment and the number of employees would increase under Phase II by a maximum of 75 students and 7 employees, respectively.

Phase III (Conceptual)

Phase III is the final phase of the Master Plan and would depend upon the purchase by the School of the WorldPac and/or California Stay properties. Conceptually, Phase III development includes the following (refer to Pg 15):

- Demolition and removal of W-I and development of a new approximately 13,000-square-foot building on the W-I property (which would be used for the same purposes as the existing W-I);
- Purchase of the California Stay property, demolition and removal of the building on that property, and development of a new approximately 10,000-square-foot building on the property for use as classroom space; and
- Purchase of the WorldPac property, demolition and removal of the building on that property, and development of a new approximately 10,000-square-foot building (for possible use as a theater and a play yard on the property.

As noted on Table II-1, student enrollment and the number of employees would increase under Phase III by a maximum of 25 students and 3 employees, respectively.

Reference Name/Project Address/AssessorsBlock/Lot/Tract:

Willows I(W-I)	8509 Higuera Street and 8487 Higuera Street	Existing Property	4205024018/Lot=All 50 and 51/TR=13503
Willows II(W-II)	8490 Warner Drive	Existing Property	4205024021/Lot=All 42/TR=13503
Willows III(W-III)	8479 Higuera Street	Existing Property	4205024016/Lot=All 52/TR=13503
Willows IV(W-IV)	8520 Warner Drive	Existing Property	4205024420/Lot=All /TR=13503
Willows V(W-V)	8476 Warner Drive	Phase 1 Property	4205024405/Lot=All 43/TR=13503

Zoning District: IG (General Industrial) Zoning

Redevelopment Project Area: Area 3
General Plan Designation: Industrial

Existing, Phase IA and Phase IB Net Site Area:

Building	Existing/Phase IA Net Site Area	Phase IB Net Site Area		
W-I	17,500 SF	17,500 SF (Existing)		
(Parking Lot)	17,500 SF	17,500 SF (Existing)		
W-II	17,600 SF	17,600 SF (Existing)		
W-III	17,500 SF	17,500 SF (Existing)		
W-IV	23,000 SF	23,000 SF (Existing)		
W-V	N/A	15,900 SF (After Phase IA)		
TOTAL	93,100 SF	109,000 SF (After Phase IA)	(DIFF.)	15,900 SF

Existing, Phase IA, and Phase IB Gross Building Floor Area:

Building	Existing/Phase IA Gross Building Area	Phase IB Gross Building Area		
W-I	10,984 SF	10,984 SF (Existing)		
W-II	13,270 SF	13,270 SF (Existing)		
W-III	8,819 SF	8,819 SF (Existing)		
W-IV	19,264 SF	19,264 SF (Existing)		
*W-V	N/A	0 SF (After Phase IA)		
TOTAL	52,337 SF	52,337 SF (After Phase IA)	(DIFF.)	0 SF

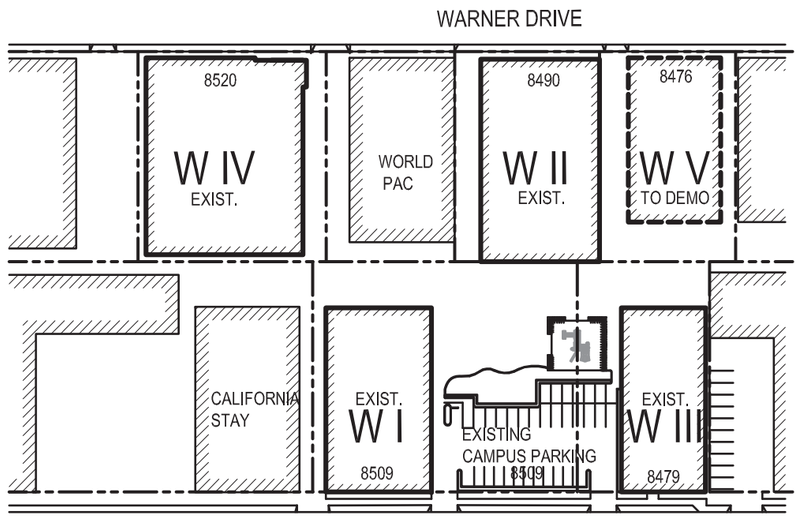
*Note: The vacant Willows V building, comprised of 9,000 sq. footage, will be removed as part of the Phase IB development of the 8476 Warner Street parking lot.

Occupancy: (Developmental Kindergarten - 8th Grade)
Group E - Educational at W-I, W-II, and W-III
Group A and E- Assembly and Education at W-IV

Building	Type of Construction	Number of Stories:
W-I	V-A (Sprinklered)	1
W-II	II-A (Sprinklered)	1
W-III	V-A (Sprinklered)	1
W-IV	V-A (Sprinklered)	1 plus mezzanine
W-V	N/A	N/A

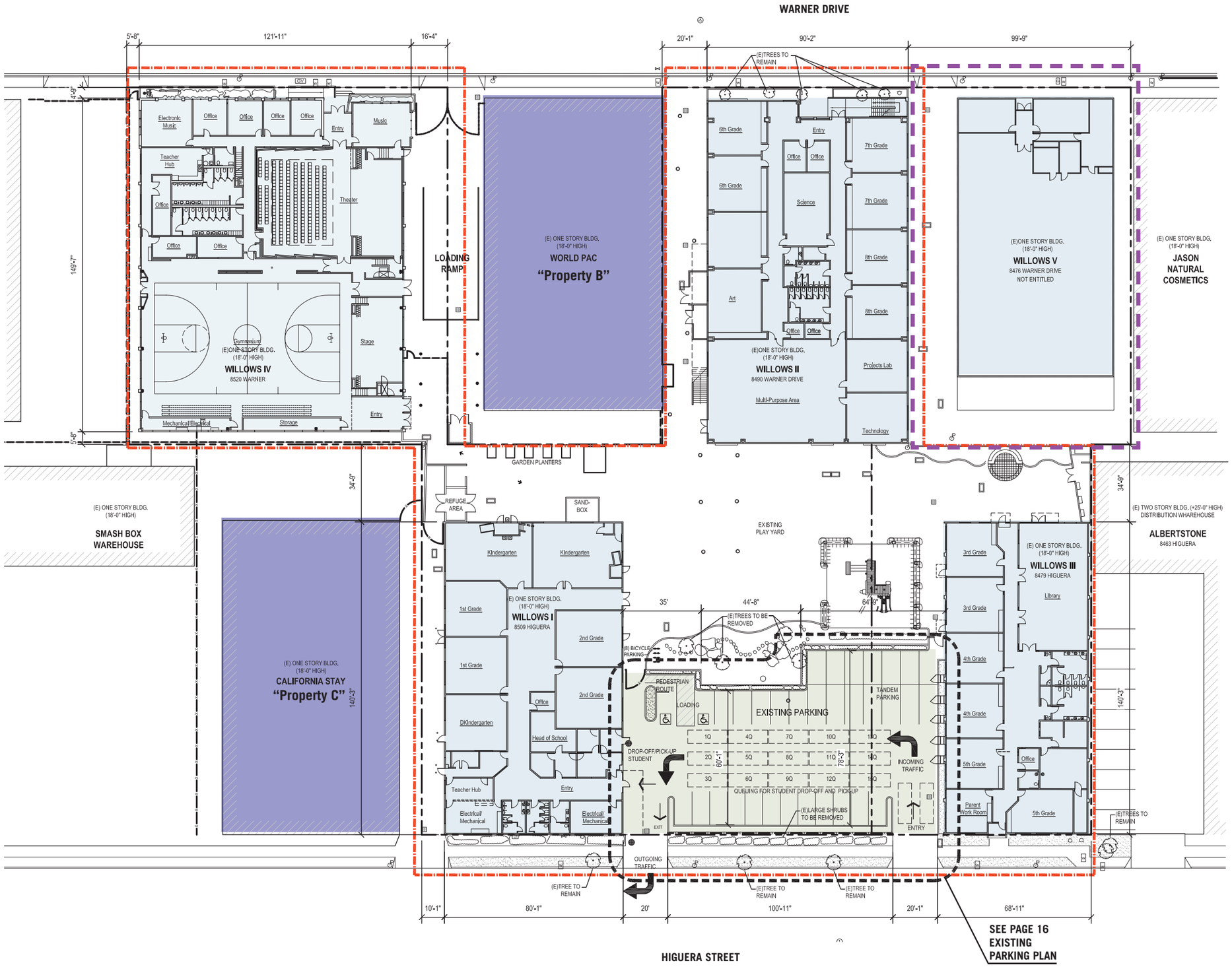
Height of Buildings:

W-I	16’-0”
W-II	20’-0” Building + 15’-0” Roof Top Play = 35’-0”
W-III	20’-10”
W-IV	34’-2”
W-V	N/A



KEY PLAN


LEGEND
AC ASPHALT
AD AREA DRAIN
BW BACK OF WALK
C&G CURB & GUTTER
CLG CHAIN-LINK GATE
CFG CURB FACE OUTLET
CONC CONCRETE
CON ELECTRICAL CONDUIT
DS DOWN SPOUT
EG EDGE OF GUTTER
EP EDGE OF PAVEMENT
FCPA FIRE DEPARTMENT CONNECTION PIPE ASSEMBLY
FF FINISHED FLOOR
FG FINISHED GRADE
FH FIRE HYDRANT
FL FLOW LINE
FS FINISHED SURFACE
GP GUARD POST
GV GAS VALVE
GM GAS METER
GMV GAS METER VAULT
INV INVERT
ICV IRRIGATION CONTROL VALVE
PA PLANTER AREA
PM PARKING METER POLE
PP POWER POLE (UTILITY POLE)
MG METAL GATE
MW GROUND WATER MONITOR WELL
SDMH STORM DRAIN MANHOLE
SCO SANITARY SEWER CLEAN OUT
SSMH SANITARY SEWER MANHOLE
TG TOP OF DRAIN GRATE
TMH TELEPHONE MANHOLE
TV TELEPHONE VAULT
TW TOP OF WALL
TC TOP OF CURB
W WATER
UV UTILITY VAULT
WM WATER METER
WV WATER VALVE
CONCRETE SURFACE
FENCE LINE
CONC BLOCK WALLS
CONC CURBS
TREES AND TRUNK DIAMETER
PROPERTY LINE
WARNER DRIVE
(60' ROW)
WILLOWS IV
8520 WARNER DR.
ONE STORY
CONC BLOCK BUILDING
WORLD PAC
"Property B"
ONE STORY
CONC BLOCK BUILDING
WILLOWS II
8490 WARNER DR.
ONE STORY
CONC BLOCK BUILDING
WILLOWS V
8476 WARNER DR.
ONE STORY
CONC BLOCK BUILDING
ONE STORY
CONC BLOCK BUILDING
CALIFORNIA STAY
"Property C"
ONE STORY
CONC BLOCK BUILDING
WILLOWS I
8509 HIGUERA
ONE STORY
CONC BLOCK BUILDING
WILLOWS III
8479 HIGUERA
ONE STORY
CONC BLOCK BUILDING
ONE STORY
CONC BLOCK BUILDING
HIGUERA STREET
(60' ROW)
PLAY GROUND AREA
ARTIFICIAL TURF
WOOD SHED
SAND BOX
BENCH MARK
CULVER CITY G.P.S. POINT NO. "77"
PK NAIL AND WASHER STAMPED "CCC ENGR DEPT" 34.12 FEET EASTERLY OF THE CENTERLINE INTERSECTION OF HAYDEN AVENUE AND HIGUERA STREET AS DESCRIBED IN RECORD OF SURVEY, R.S.B. 164-42-45.
ELEVATION = 86.59' (NAVD '88)
LEGAL DESCRIPTION
LOTS 39, 40, 41,42,43, 50, 51, 52 AND PORTIONS OF THEREOF, TRACT NO 13503, IN THE CITY OF CULVER CITY, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA AS PER MAP RECORDED IN BOOK 278 PAGES 38 AND 39 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OD SAID COUNTY.
AT THE TIME OF THIS SURVEY A COMPLETE LEGAL DESCRIPTION AND TITLE REPORT WERE NOT PROVIDED TO JMC2 THEREFORE BOUNDARY INFORMATION SHOWN ONLY FOR REFERENCE SUBJECT TO FINAL SURVEY CERTIFICATION.
20 10 0 20 40 60
SCALE: 1" =20'



Existing and Phase I Landscape/Open Area:

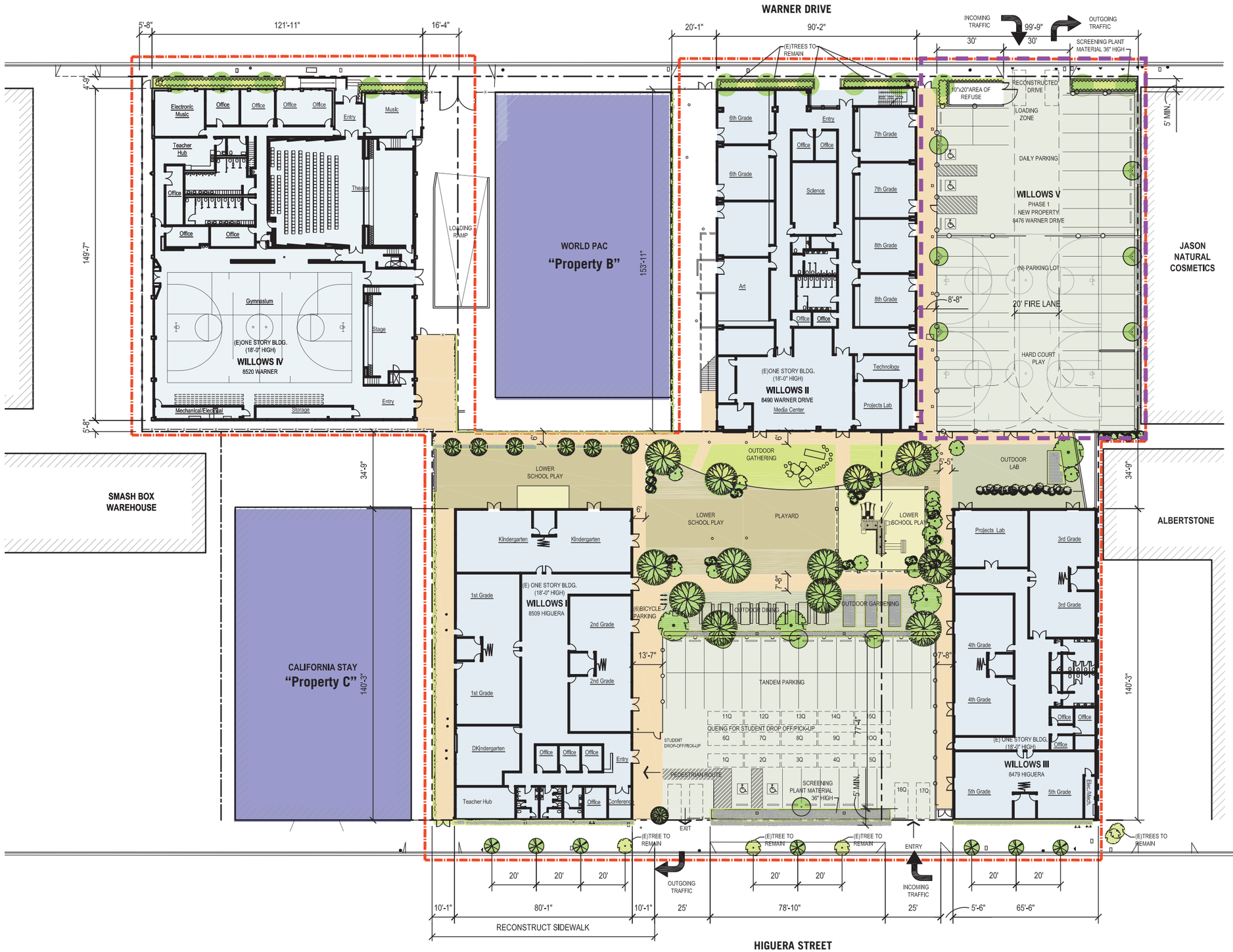
W-I	10,985 SF (Existing)	12,213 SF (Existing)
W-II	4,431 SF (Existing)	4,800 SF (Existing)
W-III	4,431 SF (Existing)	4,700 SF (Existing)
W-IV	4,431 SF (Existing)	4,550 SF (Existing)
W-V	N/A	8,451 SF (Existing)
TOTAL	24,278 SF	34,714 SF (After Phase 1)

10,436 SF (Difference)

- Property Line
- Proposed Edge of Development
- WV Entitlement Property- Phase I
- Potential Future Property
- Willows Owned/Leased
- Parking Area

0 22.5' 45' 90'

EXISTING/PHASE 1A SITE/FLOOR PLANS



NOTE:
See Pg. 16 for Phase IA & IB parking information.

- Property Line
- Proposed Edge of Development
- WV Entitlement Property- Phase I
- Potential Future Property
- Willows Owned/Leased
- Parking Area
- Landscape Area
- Pedestrian Area (D.G., Permiable Pavers, Concrete)

0 22.5' 45' 90'

PHASE IB SITE PLAN/PRELIMINARY LANDSCAPE AND FLOOR PLANS

PLANNING SUBMITTAL - JUNE 27, 2012 PFAU LONG ARCHITECTURE LTD

Shrubs and Perennials
- New Zeland Flax (Phormium hybrids)
- California lilac (Ceanothus ssp.)
- Toyon (Heteromeles arbutifolia)
- Assorted Succulents & Sedums (thornless)

Vines
- Passion Fruit (Passiflora edulis)
- Fiveleaf Akebia (Akebia quinata)
- Boston Ivy (Parthenocissus



Dancer Pear (Pyrus betulaefolia 'Dancer') per Culver City Street Tree Master Plan



Mexican Palo Verde (Parkinsonia aculeata)

Palette 4 Higuera St. Frontage

Shrubs and Perennials
- Fortenight Lily (Dietes vegeta)
- New Zeland Flax (Phormium hybrids)
- Natal Plum (Carrissa macrocarpa)
- Tobira (Pittosporum tobira 'Turner's Variegated Dwarf')

Vines
- Creeping Fig (ficus pumila)



Cajeput Tree (Melaleuca quinquenervia)



Bronze Loquat (Eriobotrya deflexa)

Palette 1 Warner Dr. Frontage



Silver Dollar Gum (Eucalyptus polyanthemos)

Palette 2 Willows V Parking Area



Coral Tree (Erythrina caffa)



Purple Orchid Tree (Bauhina variegata)



Australian Willow (Geijera parviflora)



California Pepper (Schinus molle)

Shrubs and Perennials
- Children's Vegetable Gardens
- Assorted Succulents & Sedums (thornless)
-Assorted Bulbs

Vines
- Creeping Fig (Ficus pumila)
- Passion Fruit (Passiflora edulis)
- Fiveleaf Akebia (Akebia quinata)
- Boston Ivy (Parthenocissus tricuspidata)



White Birch (Betula pendula)



Cork Oak (Quercus suber)



Chinese Elm (Ulmus parvifolia)

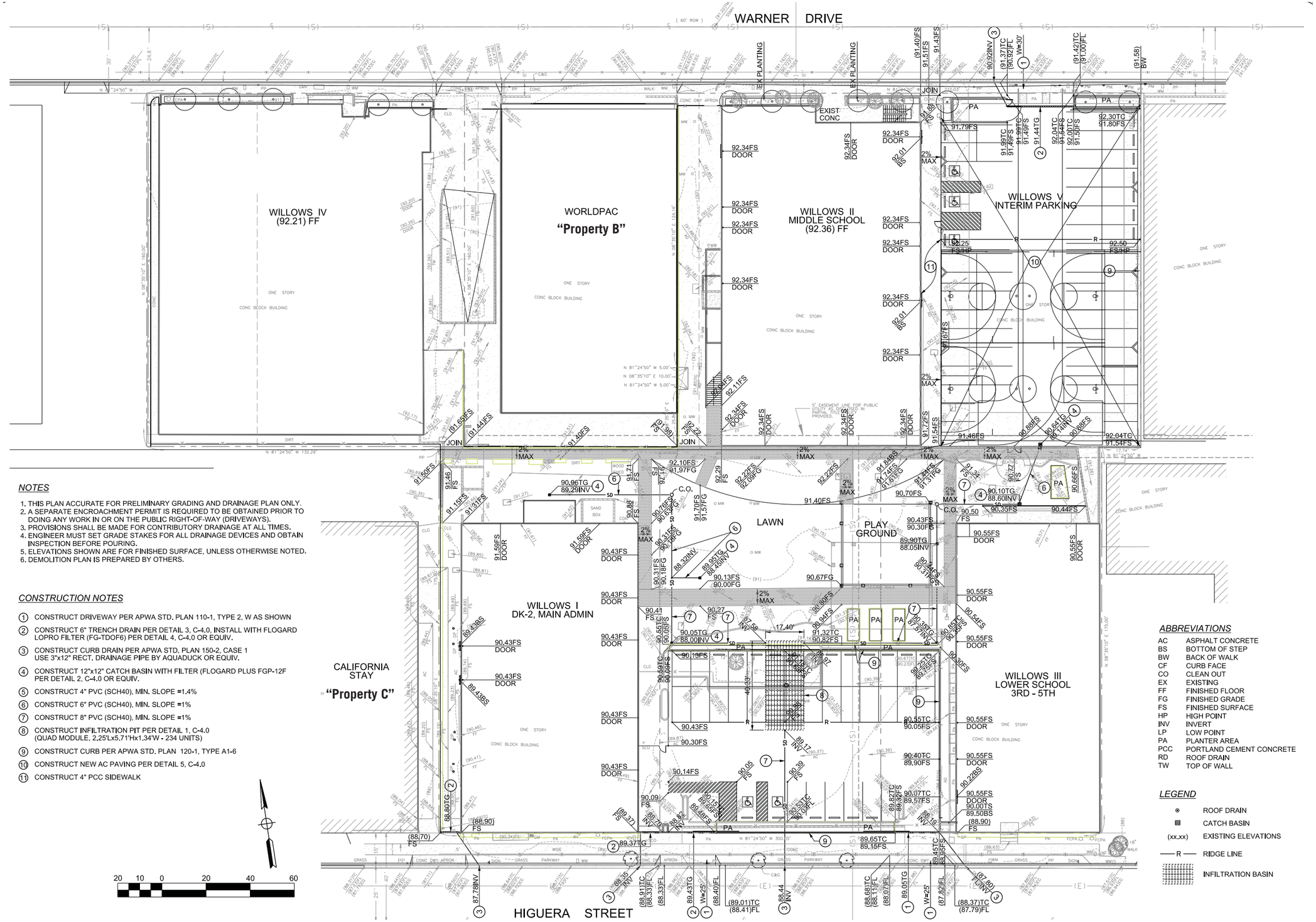


Jacaranda (Jacaranda mimosifolia)



Lombardy Poplar (Populus italica 'Nigra'

Palette 3 Interior Campus



NOTES

1. THIS PLAN ACCURATE FOR PRELIMINARY GRADING AND DRAINAGE PLAN ONLY.
2. A SEPARATE ENCROACHMENT PERMIT IS REQUIRED TO BE OBTAINED PRIOR TO DOING ANY WORK IN OR ON THE PUBLIC RIGHT-OF-WAY (DRIVEWAYS).
3. PROVISIONS SHALL BE MADE FOR CONTRIBUTORY DRAINAGE AT ALL TIMES.
4. ENGINEER MUST SET GRADE STAKES FOR ALL DRAINAGE DEVICES AND OBTAIN INSPECTION BEFORE POURING.
5. ELEVATIONS SHOWN ARE FOR FINISHED SURFACE, UNLESS OTHERWISE NOTED.
6. DEMOLITION PLAN IS PREPARED BY OTHERS.

CONSTRUCTION NOTES

1. CONSTRUCT DRIVEWAY PER APWA STD. PLAN 110-1, TYPE 2, W AS SHOWN
2. CONSTRUCT 6" TRENCH DRAIN PER DETAIL 3, C-4.0. INSTALL WITH FLOGARD LOPRO FILTER (FG-TDOF6) PER DETAIL 4, C-4.0 OR EQUIV.
3. CONSTRUCT CURB DRAIN PER APWA STD. PLAN 150-2, CASE 1 USE 3"x12" RECT. DRAINAGE PIPE BY AQUADUCK OR EQUIV.
4. CONSTRUCT 12"x12" CATCH BASIN WITH FILTER (FLOGARD PLUS FGP-12F PER DETAIL 2, C-4.0 OR EQUIV.
5. CONSTRUCT 4" PVC (SCH40), MIN. SLOPE =1.4%
6. CONSTRUCT 6" PVC (SCH40), MIN. SLOPE =1%
7. CONSTRUCT 8" PVC (SCH40), MIN. SLOPE =1%
8. CONSTRUCT INFILTRATION PIT PER DETAIL 1, C-4.0 (QUAD MODULE, 2.25'Lx5.71'Hx1.34'W - 234 UNITS)
9. CONSTRUCT CURB PER APWA STD. PLAN 120-1, TYPE A1-6
10. CONSTRUCT NEW AC PAVING PER DETAIL 5, C-4.0
11. CONSTRUCT 4" PCC SIDEWALK

ABBREVIATIONS

AC	ASPHALT CONCRETE
BS	BOTTOM OF STEP
BW	BACK OF WALK
CF	CURB FACE
CO	CLEAN OUT
EX	EXISTING
FF	FINISHED FLOOR
FG	FINISHED GRADE
FS	FINISHED SURFACE
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
PA	PLANTER AREA
PCC	PORTLAND CEMENT CONCRETE
RD	ROOF DRAIN
TW	TOP OF WALL

LEGEND

- ROOF DRAIN
- CATCH BASIN
- (xx.xx) EXISTING ELEVATIONS
- —R— RIDGE LINE
- INFILTRATION BASIN

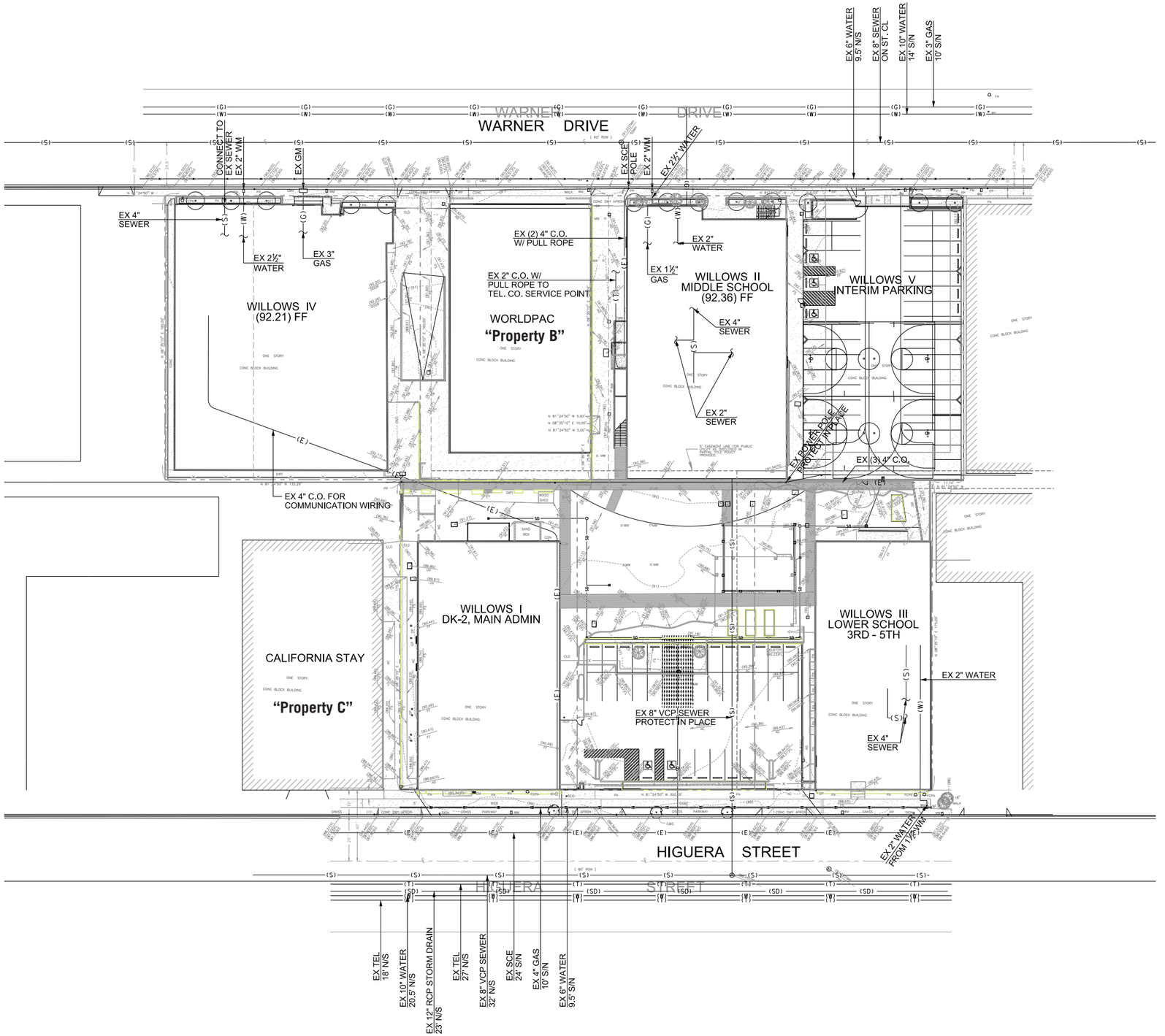
LEGEND

EXISTING	NEW	
(SD)	SD	STORM DRAIN
(S)	S	SANITARY SEWER
(T)	T	TELEPHONE
(G)	G	NATURAL GAS
(W)	W	WATER

		BACKFLOW PREVENTER, FDC & PIV
		ELBOW
		FIRE HYDRANT
		GAS METER
		SEWER MANHOLE
		TEE
		WATER METERS BY OTHERS
		THRUST BLOCK

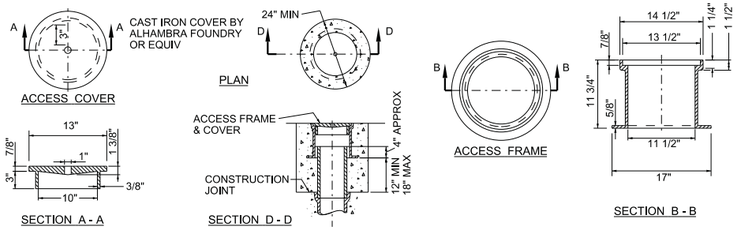
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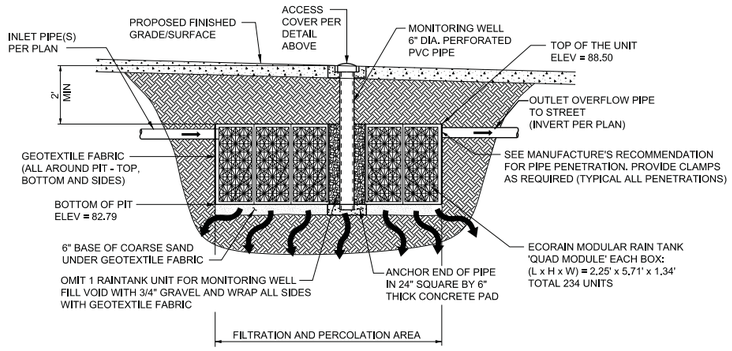
1. THIS PLAN ACCURATE FOR PRELIMINARY UTILITY PLAN ONLY.
2. DRAINAGE SYSTEM SHOWN FOR COORDINATION PURPOSES - SEE PRELIMINARY GRADING AND DRAINAGE PLAN FOR ADDITIONAL INFORMATION.
3. REFER TO PLUMBING PLANS FOR SPECIFIC PIPE SIZING ENTERING EACH BUILDING.
4. SHOWN EXISTING UTILITIES ON SITE ARE PER CAMPUS AS-BUILT PLANS. CONTRACTOR TO VERIFY ALL EXISTING UTILTIES FOR LOCATION AND SIZE PRIOR TO COMMENCING THE WORK.



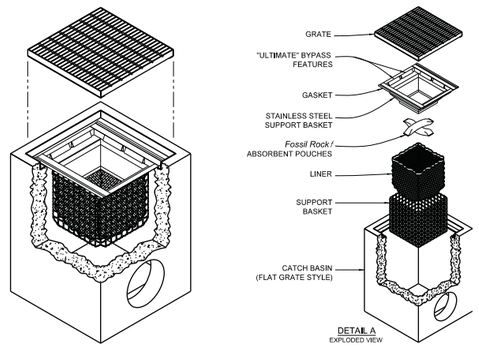
30 20 10 0 30 60 90

SCALE: 1" = 30'





INFILTRATION BASIN DETAIL 1
NO SCALE



FLOGARD+PLUS FILTER
-INSTALLED INTO CATCH BASIN-

NOTES:

1.FLOGARDD+PLUS (FRAME MOUNT) HIGH CAPACITY CATCH BASIN INSERTS ARE AVAILABLE IN MOST SIZES AND STYLES (SEE SPECIFIER CHART HEREON). REFER TO THE FLOGARDD+PLUS (WALL MOUNT) INSERT FOR DEVICES TO FIT NON-STANDARD, OR COMBINATION STYLE CATCH BASINS.

2.FILTER INSERT SHALL HAVE BOTH AN "INITIAL" FILTERING BYPASS AND "ULTIMATE" HIGH FLOW BYPASS FEATURE.

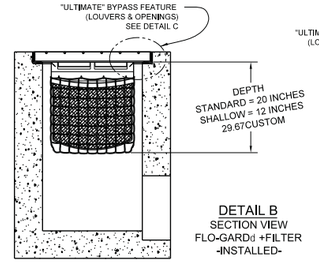
3.FILTER SUPPORT FRAME SHALL BE CONSTRUCTED FROM STAINLESS STEEL TYPE 304.

4.ALLOW A MINIMUM OF 2.0 FEET, OF CLEARANCE BETWEEN THE BOTTOM OF THE GRATE AND TOP OF OUTLET PIPE(S), OR REFER TO THE FLOGARDD INSERT FOR "SHALLOW" INSTALLATIONS.

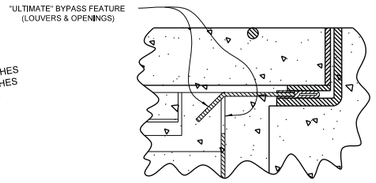
5.FILTER MEDIUM SHALL BE FOSSIL ROCKF, INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

6.STORAGE CAPACITY REFLECTS 80% OF MAXIMUM SOLIDS COLLECTION PRIOR TO IMPEDING FILTERING BYPASS.

7.FILTERED FLOW R/RATE INCLUDES A SAFETY FACTOR OF TWO.



DETAIL B
SECTION VIEW
FLO-GARDd +FILTER
-INSTALLED-



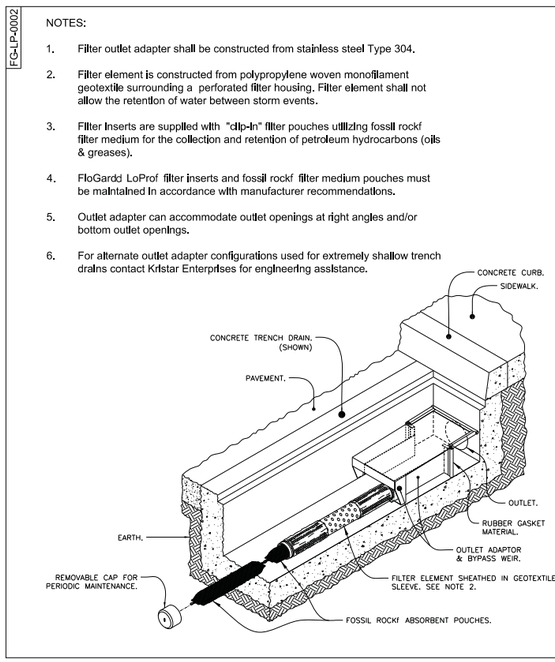
DETAIL C
"ULTIMATE"
BYPASS FEATURES

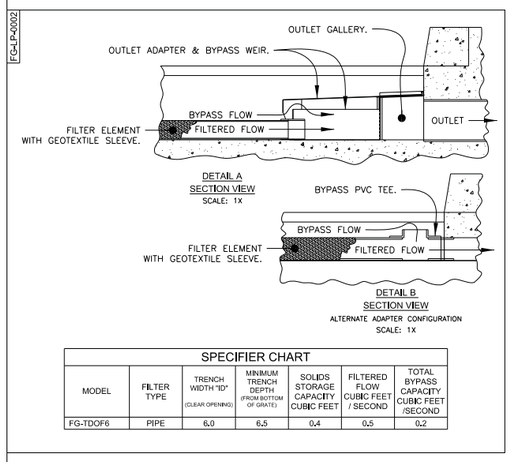
* MANY OTHER STANDARD & CUSTOM SIZES & DEPTHS AVAILABLE UPON REQUEST.

SPECIFIER CHART

MODEL NO. STANDARD DEPTH	STANDARD & SHALLOW DEPTH (DATA IN THESE COLUMES IS THE SAME FOR BOTH STANDARD & SHALLOW VERSIONS)			STANDARD DEPTH -20 Inches-		MODEL NO. SHALLOW DEPTH	SHALLOW DEPTH -12 Inches-	
	INLET ID Inside Dimension (Inch x Inch)	GRATE OD Outside Dimension (Inch x Inch)	TOTAL BYPASS CAPACITY (cu. ft.)	SOLIDS STORAGE CAPACITY (cu. ft.)	FILTERED FLOW (cu. ft. / sec.)		SOLIDS STORAGE CAPACITY (cu. ft.)	FILTERED FLOW (cu. ft. / sec.)
FGP-12F	12 X 12	12 X 14	2.8	0.3	0.4	FGP-12F8	0.15	0.25

FLOGARD PLUS DETAIL 2
NO SCALE

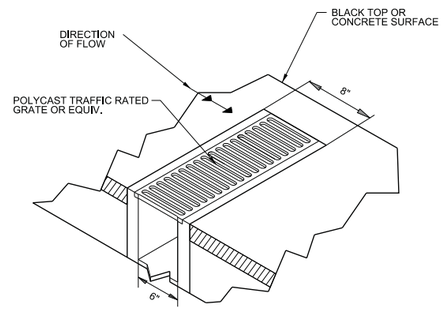




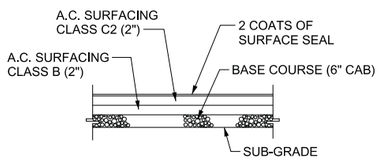
SPECIFIER CHART

MODEL	FILTER TYPE	TRENCH WIDTH "ID" (CLEAR OPENING)	MINIMUM TRENCH DEPTH (FROM BOTTOM OF GRATE)	SOLIDS STORAGE CAPACITY CUBIC FEET	FILTERED FLOW CUBIC FEET / SECOND	TOTAL BYPASS CAPACITY CUBIC FEET /SECOND
FG-TDOF6	PIPE	6.0	6.5	0.4	0.5	0.2

FLOGARD LOPRO DETAIL 4
NO SCALE



TRENCH DRAIN DETAIL 3
NO SCALE



AC PAVEMENT SECTION 5
NO SCALE


WARNER DRIVE
OUTGOING TRAFFIC
PARKING
Drop-Off/Pick-up and Visitor Parking
53 Parking Spaces
30 Queuing Spaces
Event Parking to be Provided Off Site
Willows IV
8520 Warner Dr.
World Pac
"Property B"
Willows II
8490 Warner Dr.
California Stay
"Property C"
Willows I
8509 Higuera
Outdoor Area
Phase II Building
(10) BICYCLE PARKING
Willows III Removed
INCOMING TRAFFIC
HIGUERA STREET
Property Line
Proposed Edge of Development
Willows Owned Property Future Building
Potential Future Property and/or Building
Willows Owned/Leased
0
22.5'
45'
90'


WARNER DRIVE
OUTGOING TRAFFIC
PARKING
Drop-Off/Pick-up and Visitor Parking
53 Parking Spaces
30 Queuing Spaces
Event Parking to be Provided Off Site
Phase III Building
"Property B"
Play Yard
Willows IV
8520 Warner Dr.
Willows II
8490 Warner Dr.
"Property C"
Willows I Removed
Phase III Building
Outdoor Area
Phase III Building
Phase II Building
INCOMING TRAFFIC
HIGUERA STREET
Property Line
Proposed Edge of Development
Willows Owned Property Future Building
Potential Future Property and/or Building
Willows Owned/Leased
0
22.5'
45'
90'

EXISTING AND PHASE 1A PARKING REQUIREMENTS

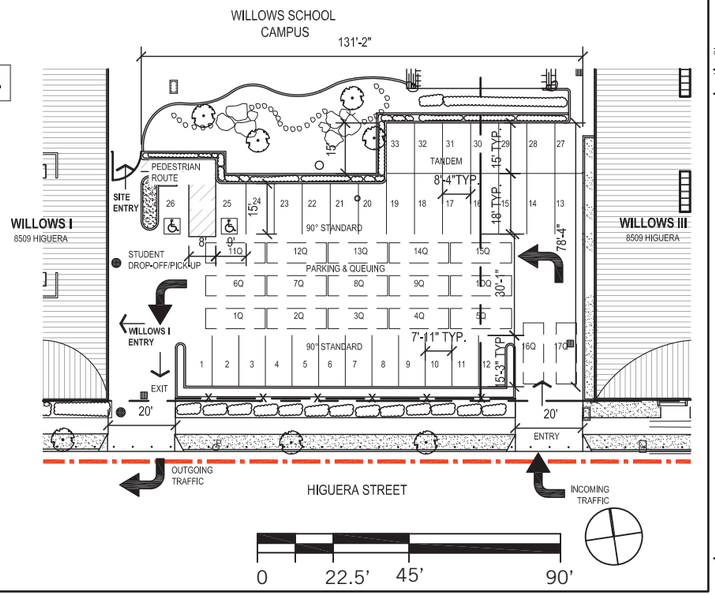
USE	No. of Rms/Square Footage	Parking Count Factor	Req. Phase 1 Parking
CLASSROOMS	28	1.5 spaces per clsrm	42
*ASSEMBLY SPACE	8064 SF	1 space per 200 SF	40
*EVENT PARKING			**82 TOTAL PARKING REQ.**

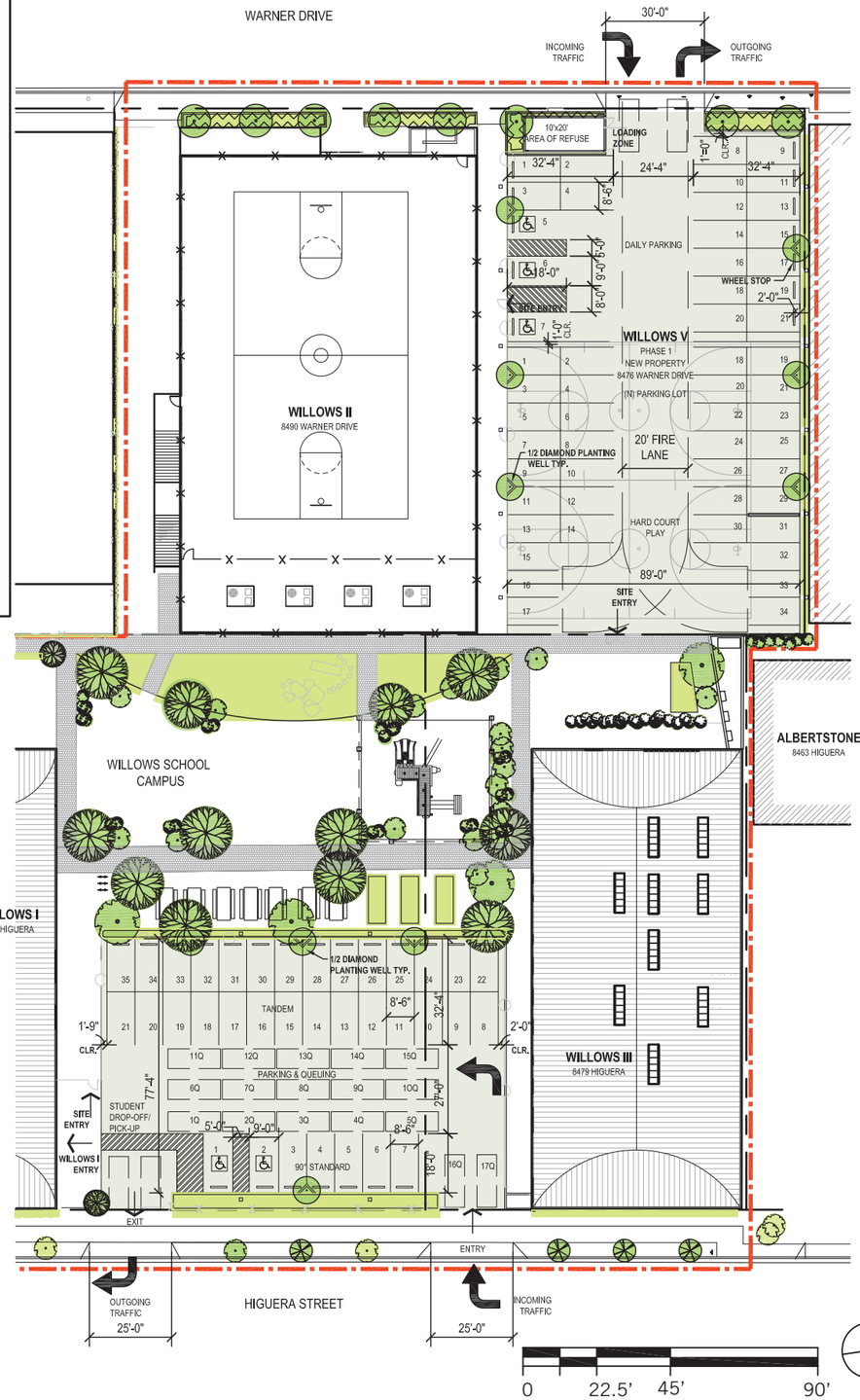
EXISTING AND PHASE 1A PARKING SUPPLY

LOT	VAN ACCESSIBLE	HANDICAP ACCESSIBLE	STANDARD	TANDEM	TOTAL	
HIGUERA	1	1	17	14	33	
WARNER (WV)	–	--	–	–	--	
*LEASED PARKING	–	--	20	–	20	**(Daily or Event)**
**LEASED PARKING	–	--	30	–	30	**(Daily or Event)**
SUBTOTAL	1	1	67	14	**83**	**TOTAL DAILY**
EVENT ONLY	–	--	–	–	–	**TOTAL EVENT**

*WARNER DRIVE PARKING LOT, LEASED PER COVENANT
**WARNER DRIVE PARKING

83 EXISTING AND PHASE IA





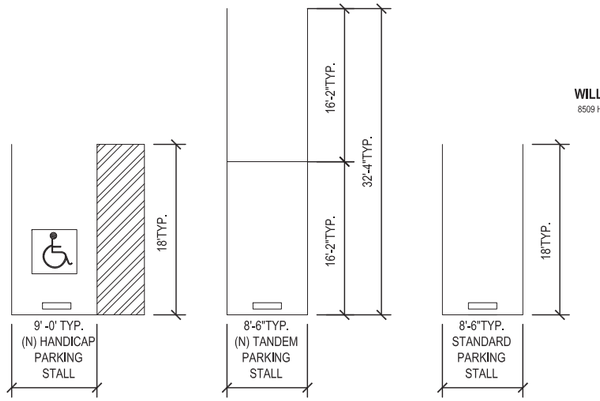
PHASE 1B PARKING REQUIREMENTS AND SUPPLY

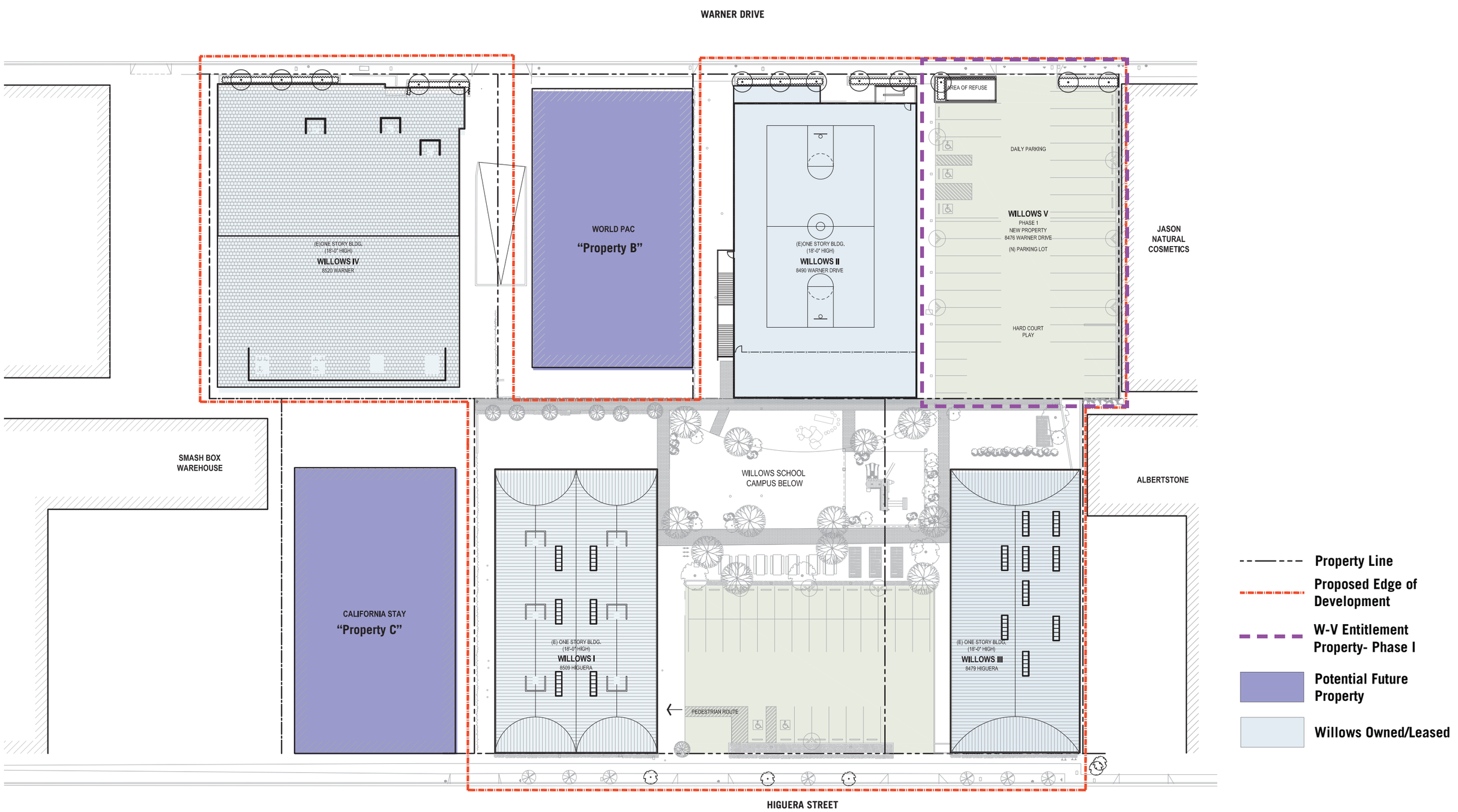
USE	No. of Rms/Square Footage	Parking Count Factor	Req. Phase 1 Parking
CLASSROOMS	33	1.5 spaces per clsrm	50
*ASSEMBLY SPACE	8064 SF	1 space per 200 SF	40
*EVENT PARKING			**90 TOTAL PARKING REQ.**

LOT	VAN ACCESSIBLE	HANDICAP ACCESSIBLE	STANDARD	TANDEM DAILY	TANDEM EVENT	TOTAL	
HIGUERA	1	1	5	28	–	35	
WARNER (WV)	1	2	–	18	–	21	
SUBTOTAL	2	3	5	46	–	**56**	**TOTAL DAILY ON SITE PARKING SUPPLY**
*LEASED PARKING	--	–	20	--	–	20	**LEASED PARKING PER COVENANT (Dally or Event)**
**LEASED PARKING	–	--	30	--		30	**LEASED PARKING, GENERAL (Daily or Event)**
SUBTOTAL			50			**50**	**TOTAL LEASED PARKING**
EVENT	--	–	–	--	34	**34**	**TOTAL DEDICATED EVENT (WARNER DR. WILLOWS V LOT)**

*WARNER DRIVE PARKING LOT, LEASED PER COVENANT
**WARNER DRIVE PARKING
*** 17 QUEUING SPACES TO REMAIN AT HIGUEREA LOT

140 TOTAL PHASE 1 SUPPLY
90 TOTAL PHASE 1 REQ.
+50 DIFFERENCE





PHASE IB ROOF PLAN

PFAU LONG ARCHITECTURE LTD

HIGUERA STREET PHOTO ELEVATION



WILLOWS I
8509 HIGUERA STREET

WILLOWS CAMPUS PARKING
8509 HIGUERA STREET

WILLOWS III
8479 HIGUERA STREET

WARNER DRIVE PHOTO ELEVATION



WILLOWS II
8490 WARNER DRIVE

WORLD PAC
8510 WARNER DRIVE
“Property B”

WILLOWS IV
8520 HIGUERA STREET

WARNER DRIVE PERSPECTIVE PHOTOS



VIEW D - WILLOWS II 8490 WARNER DRIVE
LOOKING TOWARDS WILLOWS IV



VIEW C - WILLOWS III 8479 HIGUERA STREET
LOOKING TOWARDS WILLOWS I

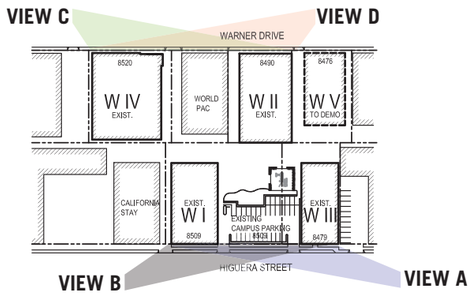
HIGUERA STREET PERSPECTIVE PHOTOS

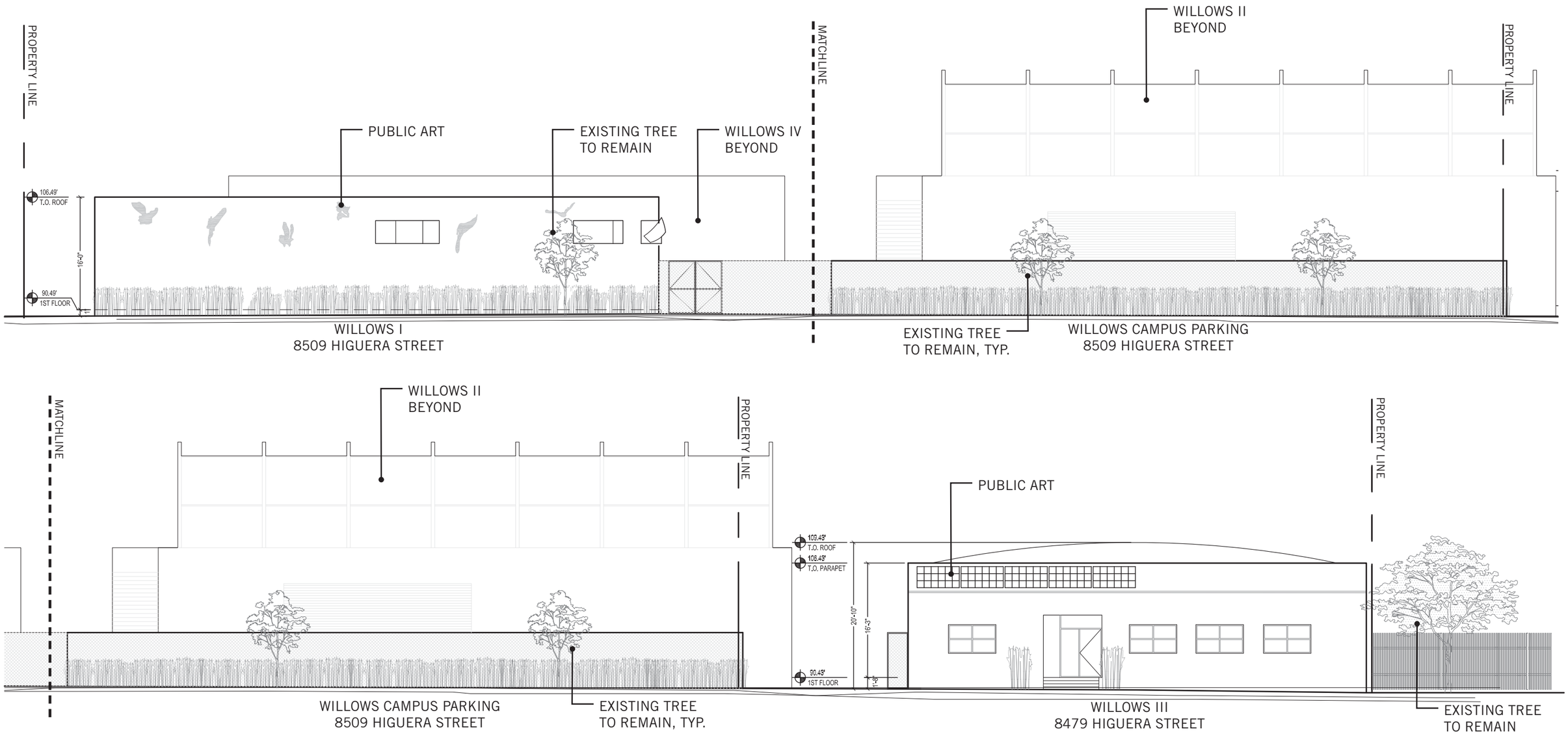


VIEW B - WILLOWS I 8509 HIGUERA STREET
LOOKING TOWARDS WILLOWS III

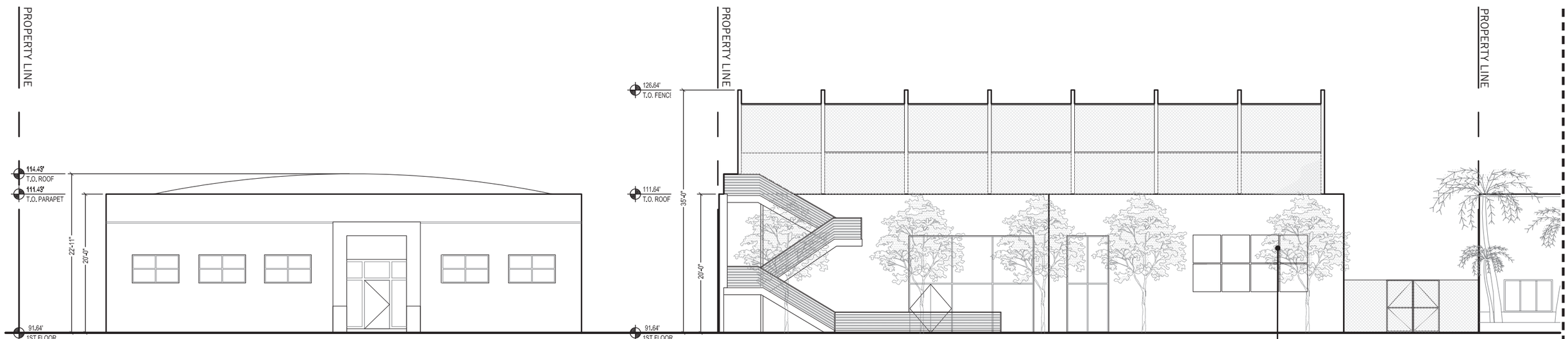


VIEW A - WILLOWS III 8479 HIGUERA STREET
LOOKING TOWARDS WILLOWS I

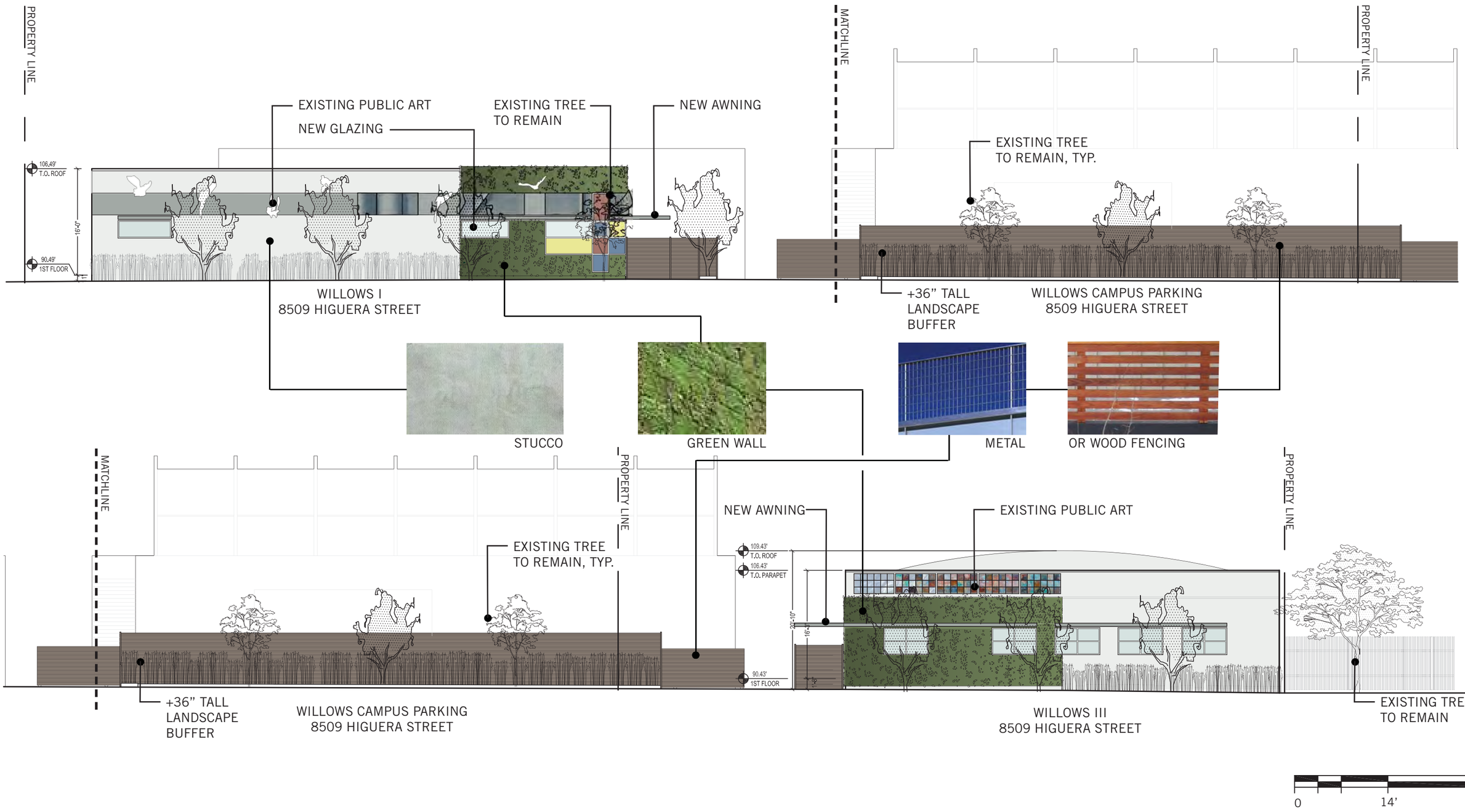


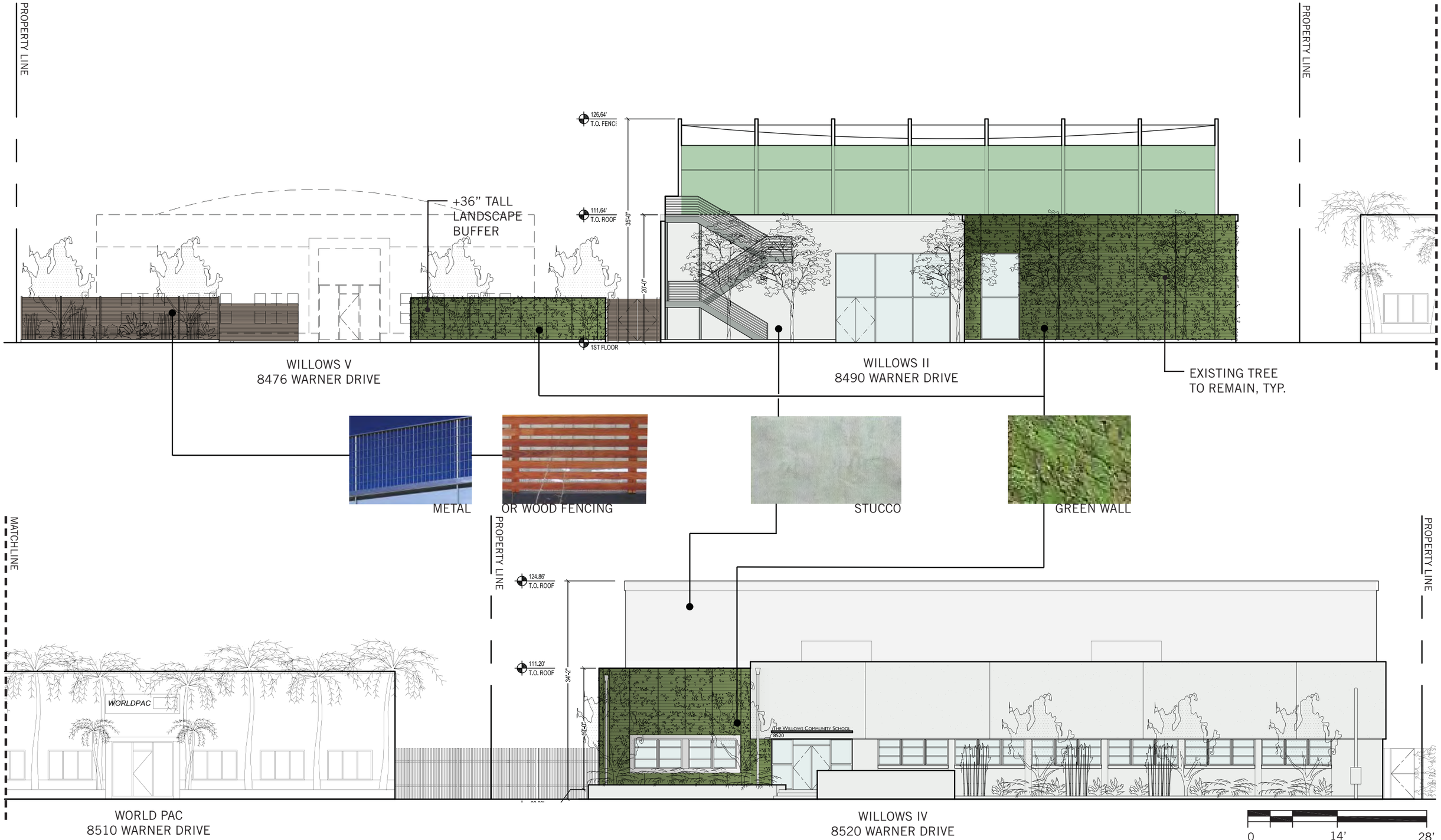


EXISTING HIGUERA STREET ELEVATIONS



EXISTING WARNER DRIVE ELEVATIONS


PROPERTY LINE
EXISTING PUBLIC ART
NEW GLAZING
EXISTING TREE
TO REMAIN
NEW AWNING
106.49'
T.O. ROOF
18'-0"
90.49'
1ST FLOOR
WILLOWS I
8509 HIGUERA STREET
MATCHLINE
PROPERTY LINE
EXISTING TREE
TO REMAIN, TYP.
+36" TALL
LANDSCAPE
BUFFER
WILLOWS CAMPUS PARKING
8509 HIGUERA STREET
STUCCO
GREEN WALL
METAL
OR WOOD FENCING
MATCHLINE
PROPERTY LINE
NEW AWNING
EXISTING PUBLIC ART
PROPERTY LINE
EXISTING TREE
TO REMAIN, TYP.
109.43'
T.O. ROOF
106.43'
T.O. PARAPET
20'-10"
16'-3"
90.43'
1ST FLOOR
+36" TALL
LANDSCAPE
BUFFER
WILLOWS CAMPUS PARKING
8509 HIGUERA STREET
WILLOWS III
8509 HIGUERA STREET
EXISTING TREE
TO REMAIN
0
14'
28'


PROPERTY LINE
PROPERTY LINE
MATCHLINE
126.64'
T.O. FENCE
111.64'
T.O. ROOF
35'-0"
20'-0"
1ST FLOOR
+36" TALL
LANDSCAPE
BUFFER
WILLOWS V
8476 WARNER DRIVE
WILLOWS II
8490 WARNER DRIVE
EXISTING TREE
TO REMAIN, TYP.
METAL
OR WOOD FENCING
STUCCO
GREEN WALL
MATCHLINE
PROPERTY LINE
PROPERTY LINE
124.86'
T.O. ROOF
111.20'
T.O. ROOF
34'-2"
18'-0"
WORLDPAC
THE WILLOWS COMMUNITY SCHOOL
8520
WORLD PAC
8510 WARNER DRIVE
WILLOWS IV
8520 WARNER DRIVE
0
14'
28'

RECEIVED
Community Services
Community School

Community

Zoning Code Amendment

Support Letters

For

The Willows Community School

304 Form Letters

8509
Higuera
Street
Culver City
California
90232

310.815.0411
Fax 310.815.0425
www.thewillows.org

Dear Honorable Members of the Culver City Planning Commission and City Council,

I am writing to support The Willows Community School in its application for a revised Conditional Use Permit and a Zone Text Amendment that would allow the School to expand its campus.

During the time that I have been associated with The Willows, I have seen a school with an unprecedented commitment to being a good neighbor. Since the School's inception 17 years ago, The Willows has never had an issue with its industrial neighbors. As those neighbors have changed from industrial users to high-tech and creative office uses, the relationship has grown even stronger. Parents from The Willows shop and dine nearby, while The Willows' neighbors support the School and even participate in education programs with students.

Anyone who has visited The Willows has seen the school adeptly managing its student pick-up and drop-off routines. By staggering the arrival and dismissal times, the School reduces the traffic in the area, and its "concierge" loading system allows students to make it to/from their parents' cars quickly and easily, without the parents ever leaving their vehicles.

The Willows has been an outstanding community partner, allowing the City and CCUSD schools use its facilities and working together on educational and other programs. It is part of The Willows' mission to partner with other schools and enhance the surrounding neighborhood.

Unlike many schools, who enjoy the ability to avoid paying property taxes, The Willows has negotiated with the City an agreement to reimburse the City for lost tax revenue as properties are eventually converted from industrial to school use. Especially during these tough economic times, this is a real benefit to the City and an example of how agreements for school and non-profits throughout the City should be created.

For these and many other reasons, I encourage you to support The Willows' application. Thank you.

Sincerely,

Suzi Walpert [redacted]

Print Name Phone Number

Signature

Culver City Resident Zoning Code Amendment Support Letters For The Willows Community School

The Willows Community School

8509
Higuera
Street
Culver City
California
90232

310.815.0411
Fax 310.815.0425
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The Willows has been an outstanding community partner, allowing the City and CCUSD schools use its facilities and working together on educational and other programs. It is wonderful to see this public-private school cooperation.

While the first phase of the proposed expansion of The Willows is before you today, you are only faced with a decision on this initial step. Every subsequent phase will have to come back to the Planning Commission and the City Council to be reviewed in the future.

I wholeheartedly support the school's initial phase, which includes a less than 6% increase in enrollment (25 students) upon approval and an additional 25 students when the first phase is complete. In addition, the school plans to demolish an existing building to make room for additional parking, which will benefit the community.

Finally, the school is making the commitment to reimburse the City for lost tax revenue as properties are eventually converted from industrial to school use – something most schools and non-profits are unwilling to do.

For these and many other reasons, I encourage you to support The Willows' application. Thank you.

Sincerely,

Skenae' Rouk
Skenae' Rouk
10879 STEVER ST.
Culver City, CA. 90230
3103567619

June 19, 2012

Dear Honorable Members of the Culver City Planning Commission and City Council,

I am writing to support The Willows Community School in its application for a revised Conditional Use Permit and a Zone Text Amendment that would allow the school to expand its campus.

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For these and many other reasons, I encourage you to support The Willows' application. Thank you.

Sincerely,

NINA BUSH
4131 MADISON AVE
CULVER CITY CA 90232

June 3, 2012

Dear Honorable Members of the Culver City Planning Commission and City Council,

I am writing to support The Willows Community School in its application for a revised Conditional Use Permit and a Zone Text Amendment that would allow the school to expand its campus.

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Sincerely,

Natalie Gluck Bergman
11175 McDonald St
Culver City CA 90230

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Sincerely,

Dennis David

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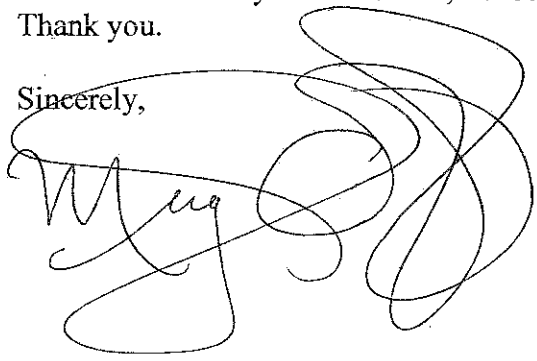
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D. Kenyon

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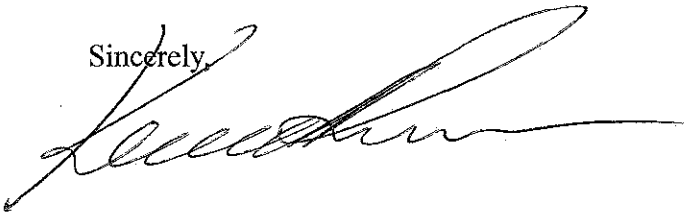
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Sincerely,

I. Ginap
4067 Charles Ave.
Culver City, CA 90232

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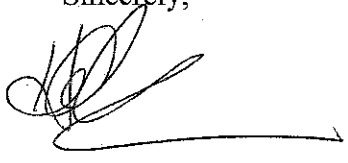
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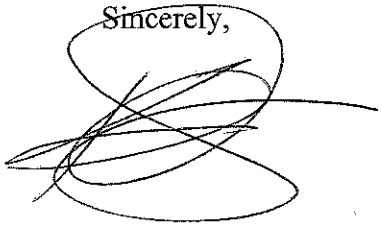
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Sincerely,



June 2, 2012

Dear Honorable Members of the Culver City Planning Commission and City Council,

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Sincerely,

David Dickman & Caroline Jones
10716 Lugo Way
Culver City, CA 90230
310.559.9061

Dear Honorable Members of the Culver City Planning Commission and City Council,

I am writing to support The Willows Community School in its application for a revised Conditional Use Permit and a Zone Text Amendment that would allow the school to expand its campus.

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Sincerely,

Neighboring Business Zoning Code Amendment Support Letters For The Willows Community School

The Willows Community School

8509
Higuera
Street
Culver City
California
90232

310.815.0411
Fax 310.815.0425
www.thewillow..org

J/Ā/S/Ö/N®
PURE, NATURAL & ORGANIC

THE HAIN CELESTIAL GROUP

June 6, 2012

Dear Honorable Members of the Planning Commission and City Council,

I would like to encourage Culver City to approve The Willows Community School's CUP modification and the school's proposed Zoning Code Text Amendment This amendment is necessary because the current zoning of the Hayden Industrial Tract does not provide a vehicle for The Willows Community School and other private schools already located in the tract to request revisions to their Conditional Use Permits.

The Willows Community School and its private school peers are valuable assets to Culver City. For 18 years, The Willows has provided its students with a stellar education experience. The Willows Community School is known across Los Angeles for being an innovative leader in progressive education, graduating students who become involved and dedicated adult global citizens.

As a Culver City business, we can attest first-hand to the additional business our community receives by having The Willows Community School, Park Century and Turning Point in Culver City. Simply put, this translates into increased revenue and exposure for us and for Culver City. The thousands of families brought to The Hayden Tract by these private schools bring hundreds of thousands of dollars to Culver City business each year from families across the greater Los Angeles area – families who would likely be spending these dollars elsewhere if their children did not go to school in Culver City. In addition, the schools in our community also spend money supporting local businesses.

These schools serve as a draw to those working in the Hayden Tract and throughout Culver City by providing local employees and residents with outstanding educational options for their children. These options fit perfectly with Culver City's dynamic and forward-thinking approach to growth.

As a school of innovation and progressive education, The Willows is a natural fit with the vibrant city Culver City has become. It is critical that we all work together to assure that The Willows and the other schools in the Hayden Tract have the flexibility they need in order to continue to flourish long into the future. With that in mind, we strongly encourage you to approve the proposed modifications to The Willows' CUP and the school's proposed Zone Text Amendment. Thank you.

Sincerely,

Bobby Perez, Plant Manager

The Hain Celestial Group

8468 Warner Drive

Culver City, CA 90232

Coporate Headquarters
Global Sales & Marketing
3515 Eastham Drive
Culver City, CA 90232

Private Label Group
Manufacturing & R&D Laboratory
8468 Warner Drive
Culver City, CA 90232

Distribution Center
5500 West 83rd Street
Los Angeles, CA 90045

Tel: 310. 838.7543
Fax: 310. 838.9274
jnp@jasoncorp.com
www.jason-natural.com

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Sincerely,

Richard Saltsman

Name: RICHARD SALTSMAN
Business Name: CALIF. STAR CO. INC.
Business Address: 8525 HIGUERA ST.
CULVER CITY, CA 90232

Dear Honorable Members of the Planning Commission and City Council,

I would like to encourage Culver City to approve The Willows Community School's CUP modification and the school's proposed Zoning Code Text Amendment This amendment is necessary because the current zoning of the Hayden Industrial Tract does not provide a vehicle for The Willows Community School and other private schools already located in the tract to request revisions to their Conditional Use Permits.

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Sincerely,

Name: Renny Nichols
Business Name: Allied Refrigeration
Business Address: 9460 Higuera St.
Culver City, CA 90232

Renhold Nichols

Dear Honorable Members of the Planning Commission and City Council,

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Sincerely,

Name:
Business Name:
Business Address:

Design Quest Custom Inc.
8463 Higuera St.
Culver City CA 90232
310-838-1226. P-H.

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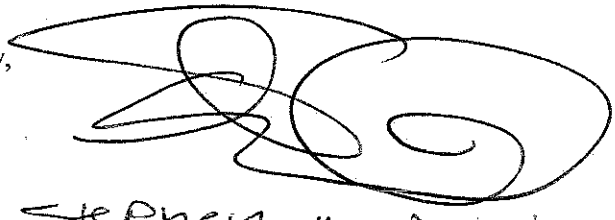
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Sincerely,



Name: Stephen McDaniel
Business Name: Lunchbox LP
Business Address: 8437 Warner Dr

Dear Honorable Members of the Planning Commission and City Council,

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Sincerely,

Name: Ronaldo Sepulveda.
Business Name: Smash Box Studios.
Business Address: 8549 Higuera St. Culver City, CA 90232

Dear Honorable Members of the Planning Commission and City Council,

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Sincerely,



Name: Michael Carpenter
Business Name: The Redd Collection
Business Address: 8440 Warner Dr.
Unit C
Culver City, CA 90232.

Dear Honorable Members of the Planning Commission and City Council,

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Sincerely,

Name: Timo Fehler
Business Name: UCLA GRADUATE STUDIOS
Business Address: 8535 WARNER DR.

Dear Honorable Members of the Planning Commission and City Council,

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Sincerely,

Name: SARA VAN GIESEN
Business Name: YOUR NEIGHBORHOOD STUDIO
Business Address: 3605 HAYDEN AVE SUITE D
CULVER CITY, CA 90232

The
CULVER HOTEL
Since 1924

Tuesday, June 05, 2012

Dear Members of the Culver City Planning Commission and City Council,

I am the proud General Manager of The Culver Hotel. Our owners have gone through the process of making significant improvement to our hotel property over the last 4 years. I am writing in support of **The Willows Community School** also wanting to do improvements to their business. We support their application for a revised Conditional Use Permit and a Zone Text Amendment that would allow the School to expand its campus.

My daughter did attend Turningpoint School since it relocated to Culver City until her graduation to Marlborough School in Hancock Park. I did become very familiar with The Willows, Turningpoint's neighbor. The Willows has a wonderful reputation in Los Angeles County, and their ability to draw their target demographics to Culver City would benefit the City of Culver City tremendously.

The Hayden Tract is an important business source for The Culver Hotel and we are familiar with how The Willows works within that community of interesting and dynamic businesses. We understand that The Willows is prepared to work closely with the City and the business' in The Hayden Tract to deal proactively with traffic and other local issues. We also understand that The Willows have definitively offered to reimburse the City for any lost revenue in the process of this proposal.

The Culver Hotel encourages you to support The Willows' application.

Your truly,

Seth Horowitz
General Manager

cc: Maya Mallick (Owner)

9400 Culver Blvd. Culver City, CA. 90232 - Tel.310.558.9400 - Fax.310.815.9618 - Office fax.310.815.0797
Reservations 1.888.3CULVER - www.culverhotel.com

Dear Honorable Members of the Culver City Planning Commission and City Council,

I am writing to support The Willows Community School in its application for a revised Conditional Use Permit and a Zone Text Amendment that would allow the School to expand its campus.

As a business owner in Culver City, I have seen the investment The Willows has made in our community. The Willows attracts new families to Culver City – families that shop and dine here and improve the economic vitality of the area.

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Schools and other non-profits often present problems for cities since they are not required to pay property taxes. The Willows, however, has agreed to keep the City whole financially by reimbursing the City for this lost revenue. In fact, this should be the model for all schools and non-profits in the future.

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Sincerely,

490

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ALAN SCHULMAN

AKASHA

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Sincerely,

Name: MICK BOND / SEAN PUTTOCK
Business Name: S-B PRINTING / BRITANNIA PRESS
Business Address: 3652 EASTHAM DRIVE
CULVER CITY CA 90232.

Dear Honorable Members of the Culver City Planning Commission and City Council.

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Sincerely,

Dennis Davis

Dear Honorable Members of the Culver City Planning Commission and City Council,

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Sincerely,

SHERI ZIGNAN

Dear Honorable Members of the Culver City Planning Commission and City Council,

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Sincerely,

David Azar and Melissa Greenspan

David AZAR
213-229-3524

Melissa Greenspan

Dear Honorable Members of the Culver City Planning Commission and City Council,

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Sincerely,

Cicek Bricault

Cicek Bricault

310-463-7418

Dear Honorable Members of the Culver City Planning Commission and City Council,

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Sincerely,

Michelle Robin

310-228-8405

Dear Honorable Members of the Culver City Planning Commission and City Council,

I am writing to support The Willows Community School in its application for a revised Conditional Use Permit and a Zone Text Amendment that would allow the School to expand its campus.

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Sincerely,

Ellen Dolson 310-850-2246

süperfad

Dear Honorable Members of the Culver City Planning Commission and City Council,

I am writing to support The Willows Community School in its application for a revised Conditional Use Permit and a Zone Text Amendment that would allow the School to expand its campus.

As a business owner of Superfad in The Hayden Tract of Culver City, I have seen the investment The Willows has made in our community. The Willows attracts new families to Culver City – families that shop and dine here and improve the economic vitality of the area.

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Sincerely,

Justin Leibow
Owner / Executive Creative Director
Superfad

3585 Hayden Avenue Culver City, Calif. 90232 T. 310.566.1330 F. 310.566.1331

1776 Old Ranch Road
Los Angeles, California 90049

June 1, 2012

Dear Honorable Members of the Culver City Planning Commission and City Council,

I am writing to support The Willows Community School in its application for a revised Conditional Use Permit and a Zone Text Amendment that would allow the School to expand its campus.

As one who develops real estate throughout Southern California and understands how City processes work, I can honestly state that during the time that I have been associated with The Willows as the parent of a student, I have seen a school with an unprecedented commitment to being a good neighbor. Since the School's inception 17 years ago, The Willows has never had an issue with its industrial neighbors. As those neighbors have changed from industrial uses to high-tech and creative office uses, the relationship has grown even stronger. Parents from The Willows shop and dine nearby, while The Willows' neighbors support the School and even participate in education programs with students.

Anyone who has visited The Willows has seen the school adeptly managing its student pick-up and drop-off routines. By staggering the arrival and dismissal times, the School reduces the traffic in the area, and its "concierge" loading system allows students to make it to/from their parents' cars quickly and easily, without the parents ever leaving their vehicles.

The Willows has been an outstanding community partner with the City and CCUSD schools both in allowing the use of its facilities and in working together on educational and other programs. It is part of The Willows' mission to partner with other schools and enhance the surrounding neighborhood.

Unlike many schools who enjoy the ability to avoid paying property taxes, The Willows has negotiated with the City an agreement to reimburse the City for lost tax revenue as properties are eventually converted from industrial to school use. Especially during these tough economic times, this is a real benefit to the City and an example of how agreements for schools and non-profits throughout the City should be created.

For these and many other reasons, I encourage you to support The Willows' application.

Thank you.

Sincerely,

Jeffrey N. Trenton

Dear Honorable Members of the Planning Commission and City Council,

I would like to encourage Culver City to approve The Willows Community School's CUP modification and the school's proposed Zoning Code Text Amendment This amendment is necessary because the current zoning of the Hayden Industrial Tract does not provide a vehicle for The Willows Community School and other private schools already located in the tract to request revisions to their Conditional Use Permits.

The Willows Community School and its private school peers are valuable assets to Culver City. For 18 years, The Willows has provided its students with a stellar education experience. The Willows Community School is known across Los Angeles for being an innovative leader in progressive education, graduating students who become involved and dedicated adult global citizens.

As a Culver City business, we can attest first-hand to the additional business our community receives by having The Willows Community School, Park Century and Turning Point in Culver City. Simply put, this translates into increased revenue and exposure for us and for Culver City. The thousands of families brought to The Hayden Tract by these private schools bring hundreds of thousands of dollars to Culver City business each year from families across the greater Los Angeles area – families who would likely be spending these dollars elsewhere if their children did not go to school in Culver City. In addition, the schools in our community also spend money supporting local businesses.

These schools serve as a draw to those working in the Hayden Tract and throughout Culver City by providing local employees and residents with outstanding educational options for their children. These options fit perfectly with Culver City's dynamic and forward-thinking approach to growth.

As a school of innovation and progressive education, The Willows is a natural fit with the vibrant city Culver City has become. It is critical that we all work together to assure that The Willows and the other schools in the Hayden Tract have the flexibility they need in order to continue to flourish long into the future. With that in mind, we strongly encourage you to approve the proposed modifications to The Willows' CUP and the school's proposed Zone Text Amendment. Thank you.

Sincerely,

Name: Diana L. Kunce
Business Name: CCMS Theatre Arts
Business Address: Culver City Middle School
4601 Elenda St.
Culver City, CA 90230
310.379.3909

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Sincerely,

Name: ANDREW WANTOCK
Business Name: TOSH.O
Business Address: 3555 HAYDEN AVENUE
CULVER CITY, CA 90232

City of Culver City, California

Planning Commission Agenda Item Report

Meeting Date: July 11, 2012	Item Number: PH-2
AGENDA ITEM: Modification to a previously approved Administrative Site Plan Review to allow additional square footage, an Administrative Modification to the parking requirements, and an Administrative Modification to the maximum height at 9920 Jefferson Boulevard	
Contact Person/Dept.: Jose Mendivil, Associate Planner	Phone Number: (310) 253-5757
Public Hearing: [X] Action Item: []	Attachments: [X]
Public Notification: On June 20, 2012, a notice was mailed to all the property owners and occupants within a 500-foot radius of the site and emailed to the Master Notification List.	
Planning Approval: Thomas Gorham, Planning Manager	Department Approval: Sol Blumenfeld, Community Development Director

RECOMMENDATION:

That the Planning Commission:

Adopt Proposed Resolution No. 2012P007 (Attachment No. 1): 1) 1) adopting a Revised Mitigated Negative Declaration finding the project will not have a significant adverse impact on the environment; and 2) Conditionally Approving Administrative Site Plan Review Modification, ASPR/M P-2012073; Administrative Modification, AM P-2012074; and Administrative Modification, AM P-2012079.

PROCEDURES:

1. Chair calls on staff for a staff report and Commission poses questions to staff as desired.
2. Chair opens the public hearing, providing the applicant the first opportunity to speak, followed by the general public.
3. Chair seeks a motion to close the public hearing after all testimony has been presented.
4. Commission discusses the matter and arrives at its decision.

BACKGROUND:

General Information

See Attachment No. 2, Project Summary

Request and Existing Entitlement

On June 15, 2011, the Community Development Department administratively approved Administrative Site Plan Review, ASPR P-2010184 (Attachment No. 3) filed by Abraxis Bioscience (now known as the Institute for Advanced Health). This entitlement permitted exterior and interior renovations for office uses to an existing 57,510 square foot structure (the former Continental Graphics building) including demolition of 2,001 square feet of the second floor in the structure resulting in a reduced 55,509 square foot building; demolition of an existing 8,250 square foot parking structure; and construction of a new 3-story 43-foot high, 17,000 square-foot office building over a new 8,250 square-foot, semi subterranean, one 1-story concrete basement structure.

As the project has proceeded through construction, the applicant has determined that the floor plates on the 17,000 square foot office building are not as efficient as they had envisioned. In order to enable the office space on each level to accommodate a more efficient layout they are proposing to add 5,475 square feet to the building including 1,077 square feet to the first floor and 2,199 square feet to both the second and third floors. The additional square footage results in a minor increase to the building's height from the code maximum of 43 feet to 46.81 feet. In addition, the proposed additional square footage will increase the code required parking by 16 spaces from 215 to 231 parking spaces.

In order to accommodate the changes outlined above, the applicant has requested a modification to the previously approved Administrative Site Plan Review and Administrative Modification's to the parking requirements and maximum height. One Administrative Modification would reduce the required on-site parking by 7.3% resulting in 214 parking stalls and the other Administrative Modification would increase the height in one portion of the new building from the code maximum of 43 feet to 46.81 feet (3.81 foot or 8.8% increase). Both Administrative Modifications fall within the allowable 10 percent threshold for approval.

Applicable Zoning Code Sections

Culver City Municipal Code, Title 17, Zoning Code Section 17.540.010.A.2 requires that the addition of 5,000 square feet or more to an existing commercial building shall require a Site Plan Review. Section 17.540.015 C (2) further provides that the Director shall have review authority for nonresidential projects of up to 15,000 sq. ft. Since the proposed project now exceeds 15,000 sq. ft., the matter has been referred to the Planning Commission in order to address the "two step approvals" to which the Commission has previously expressed concern. Zoning Code Chapter 17.550 – Variances and Administrative Modification allows a reduction of parking of up to 10% and an increase in building height up to 10% with an Administrative Modification, provided the relevant findings can be made.

ANALYSIS:

The June 15, 2011, Notice of Decision approving Administrative Site Plan Review, ASPR P-2010184 (Attachment No. 3) considered the project as originally proposed which is currently under construction. The administrative decision letter provides an analysis of the following:

Site Description
Project Description
Architecture
Landscaping
Traffic, Parking, and Circulation
Code Requirements/Conformance
Community Meetings and Public Notification/Comments
Environmental Factors/Identified Mitigation Measures
Findings

The proposed 5,574 square foot addition, 7.3% reduction in parking, and 8.8% increase in height will not materially affect the prior administrative decision. However, the proposed changes require further discussion related to traffic, parking, and circulation community meetings and public notification and related environmental review as discussed below.

Traffic, Parking, and Circulation

The originally approved project did not require a traffic study because the estimated net new peak hour trips for the AM and the PM peaks was 35 and 34 respectively which are below the City's 50 net new trip threshold to require a traffic study . Instead a Synchro and Gap Study Analysis (focused study), dated March 2, 2011, was prepared for the proposed project and revised on July 2,

2012 to incorporate the 5,475 square foot addition by a traffic consulting firm, Crain and Associates (CA) and was reviewed and accepted by the City's Traffic Engineer. This focused study evaluated the existing (year 2011) and forecast future (year 2020) conditions at five intersections in the vicinity of the project site. Impacts to these intersections were not identified except for site distance impacts and vehicle gap impacts for the Leash Lane/Jefferson Boulevard intersection. The focused study analyzed sight distance when making left turns onto Jefferson Boulevard from Leash Lane and on vehicle gaps along Jefferson Boulevard which affect the ability of vehicles on Leash Lane to make a left onto Jefferson Boulevard. The previous administrative decision determined that two traffic mitigations were necessary to address the two impacts noted above; those mitigations are:

TR 1: The radius at the Leash Lane approach to Jefferson Boulevard will be adjusted so that at the STOP Line, the intersection is perpendicular to Jefferson Boulevard, thereby creating a standard 90 degree intersection.

TR 2: A traffic signal loop detector shall be installed on Leash Lane connected to the traffic signal on Jefferson Boulevard immediately to the left of the intersection. This loop detector will activate that signal's north/south green-phase and thereby provide eastbound gaps; the created eastbound gaps will coincide with the westbound gaps created at Jefferson Boulevard and Duquesne Avenue.

According to the City's Traffic Engineer, the proposed 5,475 square foot addition to the building currently under construction will not significantly affect traffic related factors and no knew traffic mitigations were identified in the updated study. The trip generation rates noted above take into account the additional square footage.

The project will include the 214 parking spaces after approval of a 7.3% reduction in parking as allowed with an Administrative Modification. The 7.3% reduction is not expected to create a significant parking impact and adequate access to the site will be provided. The long and narrow shape of the lot in conjunction with the sloping topography precludes use of standard tandem parking. Providing the full 231 parking spaces would require either stacked parking along drive aisles which the Zoning Code does not permit or re-grading the site that likely would include cutting into the hillside at the rear of the lot. This option would create a financial burden and potentially create impacts on run-off, drainage, and slope stability. For these reasons staff believes that the findings can be made for a reduction of 17 parking spaces as allowed with approval of an Administrative Modification. The Commission may want to add a condition to Resolution that will require monitoring of the site after six months from building occupancy to ensure that the reduced parking is not causing an

impact and to allow imposition of additional requirements as necessary such as valet parking or off-site to address any impacts.

Building Height

The addition of 2,199 square feet to the third floor of the under construction office building will result in a 3.81 foot increase (an 8.8% increase) in building height putting it above the 43 foot height limit in the IG zone. This increase building height results from the downward slope of the project site and from the cross slope (rear to the front and from the north to the south side respectively). This increase will only add height to the portion of the new structure's ceiling (approximately half to three quarters of the depth of the 5,574 square foot addition at the 3rd floor level.

It would be impractical to require terracing for this minimal amount of area. Such a design would require further engineering, excavation, and foundation design and create inefficient floor plates and exacerbate compliance with exiting requirements under the Building Code. For these reasons staff believes that the findings can be made for a slight building height increase (8.8%) to a small portion of the building with approval of an Administrative Modification.

Community Meetings and Public Notification/Comments

As stated in the administrative decision letter, community meetings were held and the only group, the Friends of the Culver City Dog Park, expressed concern. Since the original administrative approval and subsequent commencement of construction no complaints regarding this project have been submitted. The Friends of the Culver City Dog Park submitted a letter that stated they had no objection to the proposed revisions to the project (Attachment No.7). On June 20, 2012, a public notice was mailed to all property owners and occupants within a 500 foot radius of the project site and as of the writing of this staff report, no comments in response to the notice have been submitted.

Environmental Factors/Identified Mitigation Measures

As part of the original administrative approval on April 15, 2011, the City circulated for public review an Initial Study pursuant to the California Environmental Quality Act (CEQA) to determine if the project will have environmental impacts. The Initial Study was recirculated and updated in strike out/underline form in order to address the proposed revisions to the project (Attachment No. 5). None of the originally identified mitigations needed to be revised or updated and no new mitigations were identified.

As stated above, traffic related impacts will be addressed with a realignment of the STOP Line at the Jefferson Boulevard/Leash Lane crossing to create 90 degree intersection and a traffic signal loop detector will be installed at Leash Lane that will create traffic gaps on Jefferson Boulevard. The proposed square footage addition will not require excavation and the Cultural Resources related mitigation requiring a Phase 1 Archaeological/Paleontological Survey is adequate. Further, the original project is already under construction and the excavation portion of the project is complete. During the excavation phase an archaeological/paleontological professional was present and monitored the work as required in the Phase 1 study. The proposed addition will not affect any of the abandoned oil wells identified in the original approval and the Hazardous Materials related mitigation is sufficient.

CONCLUSION:

Based upon the above findings and pursuant to CCMC Chapters 17.540 and 17.550 requirements, staff believes that the Administrative Site Plan Review Modification and Administrative Modifications can be supported and recommends approval.

ALTERNATIVE OPTIONS:

The following alternative actions may be considered by the Planning Commission:

1. Approve the application with the recommended conditions of approval if the application is deemed to meet the required findings.
2. Approve the application with additional or different conditions of approval, if deemed necessary to meet the required findings and mitigate any new project impacts identified at the meeting.
3. Disapprove the application if it does not meet the required findings.

ATTACHMENTS:

1. Draft Resolution No. 2012-P007 and Exhibit A – Conditions of Approval
2. Project Summary
3. Area Map
4. June 15, 2011 Administrative Site Plan Review Approval
5. Revised MND/Initial Study
6. Updated Traffic Study
7. Written Comments or Correspondence Regarding the Project.
8. Development Plans, stamped received June 21, 2012

RESOLUTION NO. 2012-P007

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CULVER CITY, CALIFORNIA, APPROVING ADMINISTRATIVE SITE PLAN REVIEW MODIFICATION, ASPR/M P-2012073; ADMINISTRATIVE MODIFICATION, AM P-2012074; AND ADMINISTRATIVE MODIFICATION, AM P-2012079 ALLOWING MODIFCATIONS TO PREVIOUSLY APPORVED ADMINISTRATIVE SITE PLAN REVIEW, ASPR P-2010184 FOR AN OFFICE DEVELOPMENT AT 9920 JEFFERSON BOULEVARD IN THE INDUSTRIAL GENERAL (IG) ZONE.

(Administrative Site Plan Review Modification, ASPR/M P-2012073)
(Administrative Modification, AM P-2012074)
(Administrative Modification, AM P-2012079)

WHEREAS, on June 15, 2011, Administrative Site Plan Review, ASPR P-2010184 was administratively approved and permitted Abraxis Bioscience to apply exterior and interior renovations to an existing 57,510 square foot structure for office use, partially demolish the existing structure resulting in a net new area of 55,509 square feet for office space, demolish an existing 8,250 square foot parking structure, construct a new 3-story 43-foot high, 17,000 square-foot office building, and re-strip the site's parking area resulting in 215 on-site parking spaces. The net new square footage was 14,999 square feet.

WHEREAS, on June 21, 2012, the Institute Advanced Health, successor to Abraxis Bioscience and the new applicant/property owner filed an Administrative Site Plan Review Modification to add an additional 5,475 square feet to the new building, an Administrative Modification to reduce the required parking by 7.3 % resulting in 214 on-site parking spaces, and an Administrative Modification to increase to the 43 foot maximum allowable building height by 8.8% to 46.81 feet. The project site is described more fully as Lots 11 and 12 of Tract No. 3343, in the City of Culver City, County of Los Angeles, State of California; and,

WHEREAS, in order to implement the proposed project, approval of the following applications is required:

1. Administrative Site Plan Review Modification: To ensure compliance with the required standards and City ordinances and establish all onsite and offsite conditions of approval to reflect the site features and compatibility of the proposed project with the uses on adjoining properties; and,

2. Administrative Modification: For the reduction of the required on-site parking spaces for office use; and,

3. Administrative Modification: For the increase in the maximum allowable height for a structure in the IG Zone.

WHEREAS, on July 11, 2012, after conducting a duly noticed public hearing on the subject applications, including full consideration of the application, plans, staff report, environmental information and all testimony presented, the Planning Commission (i) by a vote of __to __, adopted a Revised Mitigated Negative Declaration, in accordance with the California Environmental Quality Act (CEQA), finding the Project, as originally mitigated with the original administrative approval and taking into account the proposed revisions to that administrative approval, will not result in significant adverse environmental impacts; and (ii) by a vote of __to __, conditionally approved Administrative Site Plan Review Modification, ASPR/M P-2012073, Administrative Modification, AM P-2012074, and Administrative Modification, AM P-2012079 as set forth herein below.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF CULVER CITY, CALIFORNIA, RESOLVES AS FOLLOWS:

SECTION 1. Pursuant to the foregoing recitations and the provisions of Culver City Municipal Code (CCMC), the following findings are hereby made:

Administrative Site Plan Review Modification:

The following necessary findings for this application have been made pursuant to Culver City Municipal Code (CCMC) Section 17.540 – Site Plan Review, for this Administrative Site Plan Review Modification:

1. ***The general layout of the project, including orientation and location of buildings, open space, vehicular and pedestrian access and circulation, parking and loading facilities, building setbacks and heights, and other improvements on the site, is consistent with the purpose and intent of this Chapter, the requirements of the zoning district in which the site is located, and with all applicable development standards and design guidelines.***

   The general layout of the project conforms to all applicable provisions of the IG zoning district as well as the Industrial designation of the General Plan. The project is also consistent with objectives of the Design for Development (DFD) for Jefferson Boulevard Industrial Area by providing a type of use that is compatible and encouraged within the DFD area and also through the projects' site design and layout.

   The site layout, façade upgrades to the existing building, and the new structure's rectangular shape with glazing and plaster exterior finishes will provide a visual focal point along Jefferson Boulevard and for users of Culver City Park. The perimeter of the property facing Jefferson Boulevard and a portion of Leash Lane will incorporate landscaped treatment and/or planter areas that will provide visual relief and enhancement. The proposed building is setback from the rear of the existing building facing Jefferson Boulevard thereby allowing a prominent exterior motor courtyard between the two structures that will incorporate both landscaping and decorative hardscape. This courtyard will be visible from Leash Lane through a security wrought iron fence and will further add to the overall positive visual experience for users of the site and passers-by.

   The height of the existing building, at a maximum of 33 feet, is below the code required maximum allowable height of 43 feet and is consistent and compatible with other single and two story light industrial and commercial buildings or structures in the immediate area. The new structure, stepped back from front to rear following the project site's grade increase in height, will have four levels, one of which is semi-subterranean. Except for one portion of the new structure, the maximum height of the building will be the code required maximum allowable height of 43 feet and with the step backs, the four level structure will appear to match and harmonize with surrounding single and two story light industrial and commercial buildings. The portion of the building above the 43 foot height limit will be granted through an Administrative Modification with findings noted below under Administrative Modification findings.

With approval of an Administrative Modification for reduced parking, the on-site parking will satisfy the parking requirements for the existing and proposed building square footages and the site layout and design will provide safe and convenient pedestrian and vehicular pattern especially with a decorative paving section that guides people from the parking area to the building entrances. The reduced parking will be granted through an Administrative Modification with findings noted below under Administrative Modification findings. The proposed project will meet all applicable development standards required by the Zoning Code.

2. ***The architectural design of the structures and their materials and colors are compatible with the scale and character of surrounding development and other improvements on the site and are consistent with the purpose and intent of this Chapter, the requirements of the zoning district in which the site is located, and with all applicable development standards and design guidelines.***

The project will include a refurbished existing structure and a new structure both of which will house bio-science offices and affiliated companies. The existing two story concrete and brick structure with steel windows will maintain its basic design while incorporating new elements such as a storefront aluminum window system replacing the steel windows, a Jefferson Boulevard facing two-story storefront entrance window system with a grid like shade screen made of composite wood on a painted steel frame, and a rear facing a high ceiling aluminum storefront window system defining the main rear entrance. This rear main entrance will also include exterior cement plaster and the combination of the cement plaster and storefront window system is meant to act as a transition to the new building.

The new building, positioned approximately in the middle of the developed lot, is designed as an architecturally modern building with hard rectangular angles and the use of metal, glazing, aluminum, and cement plaster. The building is configured in an "L" shape with the basement and first parallel to Leash Lane. The second and third levels are rotated 90 degrees with their longer dimension perpendicular to Leash Lane, and the first two levels. Due to the site's rise of approximately 100 feet from a lower elevation at the Jefferson Boulevard street frontage to a higher elevation at the rear, the new building is terraced and stepped back to ensure the structure's height never exceeds the 43 foot code required limit at any one point along the building's exterior except for one section as noted in the Administrative Modification findings below.

The first two levels (subterranean storage area and 1st floor office area) are light gray colored exterior cement plaster with a smooth trowel finish and aluminum storefront windows. The second and third stories (turned at a 90 degree angle from the 1st two levels) are built with aluminum storefront window walls and metal panel veneer canopies separating each level. The building will be enhanced with extensive perimeter landscaping, outdoor terraces, and a roof top terrace. Roof mounted mechanical equipment, restrooms (for the roof top terrace), and stairwells are centrally located and recessed into the new building and encased in exterior plaster.

Overall, the new structure and the improved existing building will provide an office appearance for the area and compliment the surrounding light industrial and commercial structures that are predominantly constructed of brick, concrete, and cement plaster. The massing of these structures is similar in scale to surrounding developed properties several of which contain more than one building or are two stories in height. The project's design is consistent with IG development standards and with the DFD for Jefferson Boulevard Industrial Area.

3. ***The landscaping, including the location, type, size, color, texture, and coverage of plant materials, provisions for irrigation, and protection of landscape elements has been designed to create visual relief, complement structures, and provide an attractive environment and is consistent with the purpose and intent of this Chapter, the requirements of the zoning district in which the site is located, and with all applicable development standards and design guidelines.***

The proposed landscaping meets all zoning code requirements providing visual relief and enhancing sustainability goals. The site currently contains 21,795 square feet of vegetation including eucalyptus trees located at the front facing Jefferson Boulevard, along the rear portion of the surface parking, and in an undeveloped hill side area at the rear of the site. The majority of the existing landscaping will remain in its current condition along with the rear portion of the surface parking that will also remain as is. Landscaping along the Jefferson Boulevard frontage will be revised with some replacement planting and new planting material in areas currently occupied by parking and loading areas (that will be removed). New landscaping and decorative hardscape will be installed in the middle of the site. Specifically, new landscaping and decorative hardscape will be located in the area fronting the rear of the existing building, in the new parking area between the existing building and the new building, in the area surrounding the new building, and in the new parking area immediately to the rear of the new building. This new landscaping with a mix of Sycamore trees, Agave shrubs, Flax shrubs, Giant Turf Lily shrubs, and other types of shrubs and ground cover will create a pedestrian scale central courtyard between the existing and new structures that will also serve to soften the massing of the new structure for users of the project site. Too further define the new structure as it faces Leash Lane the project proposes to add new landscaping such as Flax, Agave and Acadia shrubs as well as Sycamore trees to a small portion of park area that abuts the project site and the new building. In total, approximately 21,795 square feet of existing landscaping will remain and 8,928 square feet of new landscaping will be installed. Overall the combined on-site and off-site landscaping will help to create an attractive environment for both project users and those traveling through the vicinity of the project site.

4. ***The design and layout of the proposed project will not interfere with the use and enjoyment of neighboring existing or future development, will not result in vehicular or pedestrian hazards, and will be in the best interest of the public health, safety, and general welfare.***

The project is designed to have minimal impact on and will not interfere with adjacent properties. With reduction in parking as noted in the Administrative Modification findings below, the project is designed to provide on-site parking resulting in adequate vehicular circulation patterns and maneuvering and does not create vehicular or pedestrian hazards. The project also meets the setbacks and height requirements of the IG zone. The design and layout will not hinder or interfere with surrounding and future developments and is in the best interest of the public health, safety and general welfare.

5. ***The existing or proposed public facilities necessary to accommodate the proposed project (e.g., fire protection devices, parkways, public utilities, sewers, sidewalks, storm drains, street lights, traffic control devices, and the width and pavement of adjoining streets and alleys) will be available to serve the subject site.***

The existing and proposed public service facilities necessary to accommodate the project such as the adjoining streets and park roads, traffic control devices, sewers, storm drains, proposed parkways, proposed sidewalks, street lights, proposed street trees, fire protection devices, and public utilities are provided for adequately as confirmed by the City agencies that reviewed the project during the interdepartmental review process. There are adequate existing public facilities necessary to service the project.

6. ***The proposed project is consistent with the General Plan and any applicable specific plan.***

The project is consistent with the General Plan Industrial land use designation in that it encourages desirable and creative new commercial businesses in an Industrial area. The project is also consistent with General Plan Land Use Objective 5 because as a space for new offices and commercial activity it will encourage new business opportunities that expand Culver City's economic base. As new businesses locate on the project site, the project will foster the growth of businesses overall thereby increasing City revenues as called for in Objective 8 – Fiscal Health, of the General Plan Land Use Element. With the development of the project for a bioscience company and affiliated businesses on a partially vacant lot, the project will further the Redevelopment Agency Component Area No. 4 objective of encouraging private sector investment. The project is consistent with the DFD for Jefferson Boulevard Industrial Area General Objective 2 that calls for expansion of Culver City's economic base because it will attract new businesses and create new employment opportunities.

Administrative Modification - Parking:

As outlined in CCMC Title 17, Section 17.550.020, the following required findings for an Administrative Modification are hereby made:

A. The strict application of the applicable development standards creates an

unnecessary, involuntary created hardship or unreasonable regulation which makes it obviously impractical to require compliance with the development standards.

The applicant is requesting an Administrative Modification to: reduce the required parking number of parking spaces from 231 down to 214 resulting in a 7.3% reduction in parking as allowed with an Administrative Modification which allows up to a 10% reduction. The 7.3% reduction is not expected to create a significant impact and adequate access to the site will be provided. The long and narrow shape of the lot along with the site's topography that results in grade changes in both the lots width and length orientations do not allow for standard parking in tandem. Requiring the full 231 parking spaces would require either stacked parking along drive aisles which tis not allowed in the Zoning Code or re-grading of the site including potentially cutting onto a hill at the rear of the site. This option would create a burden and potentially cause unforeseen impacts on run-off, drainage, and hillside stability. For these reasons a reduction of 17 parking spaces as allowed with approval of an Administrative Modification can be granted. A condition will be added to the original conditions of approval that will require monitoring of the site to ensure the reduced parking is not causing an impact and that will allow the City to impose additional requirements such as valet parking to lessen any impacts.

B. Approval of the Administrative Modification would not be detrimental to the public health, interest, safety, or general welfare and would not be detrimental or injurious to property or improvements in the vicinity and in the same zoning district.

Approval of the Administrative Modification will not be detrimental to the general welfare or injurious to property in the vicinity. The reduced required parking will be located on-site and will provide sufficient backup space, stall lengths, and maneuverability. The modification will not have a direct impact on the neighboring properties because the parking spaces will be located on-site. Approval of the proposed modification will not prevent development or limit the use of neighboring properties. Furthermore, approval of the Administrative Modification will include a condition that allows the City to require valet parking should the reduced parking result in unforeseen impacts.

C. The project is consistent with the General Plan and complies with all other applicable provision of this title.

The proposed reduced number of parking spaces will not have an impact on adjacent uses and therefore is found to be compatible with the existing and future residential and commercial land uses in the vicinity of the subject site. The resulting number of parking spaces provide for adequate back-up space and stall lengths sufficient to maneuver into and out of the site. This Zoning Code allows this type of modification permitting the reduction in the number of parking spaces. The modification will not make the project inconsistent with the General Plan as all of the Administrative Site

Plan Review required General findings will still be met.

Administrative Modification - Height:

As outlined in CCMC Title 17, Section 17.550.020, the following required findings for an Administrative Modification are hereby made:

A. The strict application of the applicable development standards creates an unnecessary, involuntary created hardship or unreasonable regulation which makes it obviously impractical to require compliance with the development standards.

The applicant is requesting an Administrative Modification to the height which will increase the maximum height of the new structure by an additional 3.81 feet beyond the 43 foot height limit. This increase will only add height to the portion of the new structure's ceiling that faces the rear of the existing structure, approximately half to three quarters of the depth of the additional area being requested at the 3rd floor level. This height increase results from the downward sloping of the project site from the rear to the front and from the north side to the south side. It would be impractical to require terracing for this minimal amount of area. Such a design would require further engineering, excavation, and support design and create inefficient floor plates with step downs which would create areas that would be difficult to divide into cubicle and minimum building code required hallway areas.

B. Approval of the Administrative Modification would not be detrimental to the public health, interest, safety, or general welfare and would not be detrimental or injurious to property or improvements in the vicinity and in the same zoning district.

Approval of the Administrative Modification will not be detrimental to the general welfare or injurious to property in the vicinity. The increased height is minimal and will not impact vistas or result in a design that is out of character from the originally approved project. The minimal height increase in one portion of the additional area for the new structure will not cause dangerous or potentially injurious situations in the vicinity of the project site. The modification will not have a direct impact on the neighboring properties because the height increase is minimal. Approval of the proposed modification will not prevent development or limit the use of neighboring properties. Furthermore, approval of the Administrative Modification will allow for more leasable floor plates ensuring viability of the project thereby enhancing the overall economic viability of surrounding area.

C. The project is consistent with the General Plan and complies with all other applicable provision of this title.

The proposed design, location, and width of the new structure with the minimal height increase in one section of the additional square footage will not have an impact on

adjacent uses and therefore is found to be compatible with the existing and future commercial land uses in the vicinity of the subject site. The design of the additional height is consistent with the overall design of the new structure is minimally noticeable as an increased height above the 43 foot height limit. The Zoning Code allows this type of modification. The modification will not make the project inconsistent with the General Plan as all of the Site Plan Review required General findings will still be met.

SECTION 2. Pursuant to the foregoing recitations and findings, the Planning Commission of the City of Culver City, California, hereby approves Administrative Site Plan Review Modification, ASPR/M P-2012073; Administrative Modification, AM P-2012074; and Administrative Modification, AM P-2012079; subject to the conditions of approval set forth in Exhibit A attached hereto and incorporated in herein by this reference.

APPROVED and ADOPTED this 11th day of July 2012.

_____

_____- CHAIRPERSON
PLANNING COMMISSION

CITY OF CULVER CITY, CALIFORNIA

Attested by:

_____
Yvonne Hunt
Administrative Secretary

EXHIBIT A

ADMINISTRATIVE SITE PLAN REVIEW. ASPR P-2010184;
ADMINISTRATIVE SITE PLAN REVIEW MODIFICATION, ASPR/M P-2012073;
ADMINISTRATIVE MODIFCATION, AM P-2012074; ADMINISTRATIVE MODIFCATION, AM P-2012079

9920 Jefferson Boulevard

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
1.	These Conditions of Approval are being imposed on an Administrative Site Plan Review, Administrative Site Plan Review Modification, and Administrative Modifications to allow an additional 5,475 square feet, a reduction in the number of parking spaces to 214 spaces, and an increase in building height to 46.81 feet to a previously approved Administrative Site Plan review that will result in renovations to an existing 57,510 square structure for office use, demolition of an existing 8,250 square foot parking structure, and construction of a new 46.81 foot high, 22,475 square foot office building with 214 on-site parking spaces (the "Project"), for the property located at 9920 Jefferson Boulevard (the "Property").	All	Standard	
2.	A copy of the Resolution approving the Project, and a copy of these Conditions of Approval, shall be printed on the plans submitted as part of any building permit application for the Project.	Planning	Standard	
3.	All building permit applications for the Project shall include sufficient information and detail to clearly reflect compliance with all applicable requirements of the Culver City Municipal Code (the "CCMC") and with these Conditions of Approval.	Planning	Standard	
4.	The land use permit to which these Conditions of Approval apply (the "Land Use Permit') shall expire one year from the date of final approval of said Land Use Permit, if the use has not been exercised. As provided in CCMC Section 15.595.030 – "Time Limits and Extensions", an applicant may request an extension of said expiration date by filing a written request with the Planning Division prior to the expiration of the land use permit.	Planning	Standard	
5.	The Project shall be developed pursuant to CCMC Chapter 17.300 – "General Property Development and Use Standards".	Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
6.	All planted areas on the Property shall be landscaped and irrigated pursuant to CCMC Chapter 17.310 - "Landscaping".	Planning	Standard	
7.	All parking areas on the Property shall be developed pursuant to CCMC Chapter 17.320 - "Off-Street Parking and Loading".	Planning	Standard	
8.	Signs proposed for the Project shall meet all applicable requirements of CCMC Chapter 17.330 - "Signs". All signs require a separate permit and approval.	Planning	Standard	
9.	All permits and licenses required in connection with the development or use of the Project shall be applied for and obtained separately.	All	Standard	
10.	All work within the public right-of-way (including but not limited to curb, gutter, sidewalk, and driveways) shall be designed and completed to the satisfaction of the City Engineer.	Public Works	Standard	
11.	Street trees shall be installed, to the satisfaction of the City Engineer, in conformity with the City's approved Street Tree Master Plan including tree wells and irrigation. All new (and existing) street trees shall be supplied with irrigation water from the overall site irrigation system which shall include a timer and a rain sensor. All new (and existing) street trees, landscaping, and irrigation shall be indicated on the overall site landscaping/ irrigation plan.	Public Works	Standard	
12.	Drainage devices, concrete curbs and gutters, sidewalks, drive approaches, and roadway pavement shall be designed in conformity with all provisions of the latest edition of the American Public Works Association Standard Plans ("APWA Standards").	Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
13.	At the sole cost and expense of the Property Owner, any broken or damaged curbs, gutters, sidewalks, and street pavement resulting from construction of the Project shall be repaired and reconstructed in conformity with APWA Standards.	Public Works	Standard	
14.	Trash enclosures shall be provided and shall each have a minimum inside dimension of 10 feet x 12 feet, a gated opening that is at least 8 feet wide, and a 6 inch high by 6 inch wide concrete curb along the inside perimeter wall. Each enclosure shall also have at least a 6 inch thick concrete slab that drains at a one percent gradient out of the enclosure. Final approval for the size, location, and type of equipment needed for the adequate storage and disposal of all solid and recyclable waste generated by the Project shall be obtained from the City's Environmental Programs and Operations Manager. A fire suppression sprinkler system shall be provided within any covered trash enclosure area as required by the Fire Marshal. All refuse containers assigned to or otherwise used by the Project shall be stored on-site in the trash enclosures.	Public Works/ Fire/ Planning	Standard	
15.	All Project related solid and recyclable waste material handling shall be in accordance with CCMC Section 5.01.010 – "Solid Waste Management", which outlines the Sanitation Division's exclusive franchise for this service.	Public Works	Standard	
16.	The Project shall meet all provisions of CCMC Section 7.05.015 -"Transportation Demand and Trip Reduction Measures".	Trans.	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
17.	All buildings and structures to be constructed as part of the Project shall be designed and constructed in accordance with all applicable regulations and standards of the City's Building Code, Fire Code and any related codes as determined by the Building Official and Fire Marshal; and all other applicable provisions of the CCMC which are adopted and in effect at the time of issuance of a building permit.	Building/ Fire	Standard	
18.	Any new utilities shall be placed underground or enclosed within the building construction; no new overhead utilities shall be permitted.	Building/ Planning	Standard	
19.	The Project shall comply with all applicable requirement of the Culver City Green Building Program as set forth in CCMC Section 15.02.1100, et.seq.	Building	Standard	
20.	The Project shall comply with the all applicable requirements relating to solar photovoltaic requirements as set forth in CCMC Section 15.02.100, et. seq.	Building	Standard	
21.	Changes to the Project or use approved as part of the Land Use Permit may only be made in accordance with the provisions of CCMC Section 17.595.035 – "Changes to an Approved Project".	Planning	Standard	
22.	The new parking and driveway area between the existing building and the new building and surrounding the new building shall incorporate decorative pavement of a design, color, and texture as approved by the Planning Manager.	Planning	Special	
23.	All walls, parapets and exterior fascia shall be constructed of solid materials (not foams) and wall faces and tops shall be able to support the weight of fire fighters and suppression equipment.	Fire	Special	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
24.	Emergency medical access shall be made available from Leash Lane and the private parking driveway located between the rear of the existing building and the new building.	Fire	Special	
25.	A fire hydrant(s) shall be required in the parking lot and its location shall be subject to final review and approval by the Fire Department.	Fire	Special	
26.	Fire Service for the suppression systems shall be separate and apart from each other; the fire suppression service line shall not be routed through the existing building for the new building unless the two structures are tied together by covenant to prevent sale of either structure individually.	Fire	Special	
27.	A covenant and agreement, on a form provided by the Planning Division and in form and substance acceptable to the City Attorney, acknowledging and agreeing to comply with all terms and conditions established herein, shall be signed by the Property Owner and recorded in the County Recorder's Office. The covenant and agreement shall run with the land and shall be binding on any subsequent owners, and tenants or occupants of the Property. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Planning Division.	Planning/ City Attorney	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
28.	The Applicant and Property Owner shall indemnify and agree to defend (at the Applicant's and Property Owner's sole expense, with legal counsel approved by the City) and hold harmless the City, and its elected and appointed officials, officers, employees, agents, contractors and consultants from and against any and all loss, damages, injuries, costs, expenses, liabilities, claims, demands, lawsuits, attorneys' fees and judgments, arising from or in any manner connected to any third party challenge to the City's approval of the Project. The obligations required by this Condition shall be set forth in a written instrument in form and substance acceptable to the City Attorney and signed by the Applicant and the Property Owner.	City Attorney	Standard	
29.	A minimum of three sets of final landscaping and irrigation plans (separate from the plans submitted for the building permit) shall be submitted to the Planning Division for review and approval.	Planning/ Parks & Rec.	Standard	
30.	Payment of New Development Impact Fees pursuant to CCMC Section 15.06.005 et. seq. shall be submitted.	Planning/ Building	Standard	
31.	A Construction Management Plan prepared by the construction contractor, which identifies the areas of construction staging, temporary power, portable toilet, and trash and material storage locations, shall be submitted to and approved by the Building Official. Prior to commencement of work the construction contractor shall advise the Public Works Inspector and the Building Inspector ('Inspectors") of the construction schedule and shall meet with the Inspectors.	Building/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
32.	A Pedestrian Protection Plan shall be submitted to and approved by the Building Official. Such plan shall identify all areas of pedestrian protection and indicate the method of pedestrian protection or pedestrian diversion when required. When pedestrian diversion is required, the Pedestrian Protection Plan must also be approved by the Public Works Director.	Building/ Public Works	Standard	
33.	Plans submitted as part of the building permit application shall include a schedule of the special inspections anticipated, the firm proposed for the special inspections, and the resumes of all proposed special inspectors. The Building Official reserves the right to reject any special inspector at any time for the duration of the Project. All special inspection reports shall be made available to the Building Official and to any Culver City Building Safety inspector as required by the Building Official No work shall be covered without a Culver City Building Safety inspection, whether or not a special inspection was performed on such work.	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
34.	A Construction Traffic Management Plan shall be prepared by a traffic or civil engineer registered in the State of California. The Construction Traffic Management Plan shall be submitted to the City Engineer and Planning Manager for review and approval prior to the issuance of any Project demolition, grading, or excavation permit. The Construction Traffic Management Plan shall also be reviewed and approved by the City's Fire and Police Departments. The City Engineer and Planning Manager reserve the right to reject any engineer at any time and to require that the Plan be prepared by a different engineer. The Construction Traffic Management Plan shall contain, but not be limited to, the following: A. The name and telephone number of a contact person who can be reached 24 hours a day regarding construction traffic complaints or emergency situations. B. An up-to-date list of local police, fire, and emergency response organizations and procedures for the continuous coordination of construction activity, potential delays, and any alerts related to unanticipated road conditions or delays, with local police, fire, and emergency response agencies. Coordination shall include the assessment of any alternative access routes that might be required through the Property, and maps showing access to and within the Property and to adjacent properties. C. Procedures for the training and certification of the flag persons used in implementation of the Construction Traffic Management Plan. D. The location, times, and estimated duration of any roadway closures, traffic detours, use of protective devices, warning signs, and staging or queuing areas. E. The location and travel routes of off-site staging and parking locations.	Planning/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
35.	Reasonable efforts shall be used to reuse and recycle construction and demolition debris, to use environmentally friendly materials, and to provide energy efficient buildings, equipment and systems. A Demolition Debris Recycling Plan that indicates where select demolition debris is to be sent shall be provided to the Building Official prior to the issuance of a demolition permit. The Plan shall list the material to be recycled and the name, address, and phone number of the facility of organization accepting the materials.	Building	Standard	
36.	A vector/pest control abatement plan prepared by a pest control specialist licensed or certified by the State of California shall be submitted for review and approval by the Planning Manager and the Building Official. Said plan shall outline all steps to be taken prior to the commencement of any demolition or construction activity in order to ensure that any and all pests (including, but not limited to, rodents, bees, ants and mosquitoes) that may populate the Property do not relocate to or impact adjoining properties.	Building/ Planning	Standard	
37.	Prior to issuance of a building permit, notice of the Project construction schedule shall be provided to all abutting property owners and occupants. Evidence of such notification shall be provided to the Building Division. The notice shall identify the commencement date and proposed timing for all construction phases (demolition, grading, excavation/shoring, foundation, rough frame, plumbing, roofing, mechanical and electrical, and exterior finish).	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
38.	A Phase 1 Archaeological/Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor all phases of excavation for the project site. In the event that the Phase 1 Archaeological/Paleontological Survey determines that no such resources exist but undetected fossil resources and/or human remains or other archaeological and/or paleontological resources are encountered during construction activities, work in that area must be halted and both the City of Culver City and the coroner must be notified. Work will be halted in that area of the detected resource until the City of Culver City and/or the coroner or an archaeological and/or paleontological professional(s), have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City.	Building/ Planning	CEQA Mitigation Measure	
39.	Coordination with the Division of Oil, Gas and Geothermal Resources (DOGGR) will be required to ensure that construction activity does not disturb the existing abandoned oil wells and any necessary measures needed to prevent release of hazardous materials as determined by DOGGR shall be implemented. Proof of this coordination an implementation measures if needed shall be presented to the City prior to issuance of City Permits.	Building/ Public Works/ Planning	CEQA Mitigation Measure	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
40.	Prior to excavation, the contractor shall coordinate with the property directly south of the project site to ensure existing shoring that is in place and encroaches underneath the project site is not disturbed. Any damage to this shoring or to the neighboring property that could occur if damage to the shoring occurs shall be repaired by the project applicant/owner at its sole expense.	Building Safety/ Planning	Special	
	DURING CONSTRUCTION			
41.	During all phases of construction, a "Construction Rules Sign" that includes contact names and telephone numbers of the Applicant, Property Owner, construction contractor(s), and the City, shall be posted on the Property in a location that is visible to the public. These names and telephone numbers shall also be made available to adjacent property owners and occupants to the satisfaction of the Planning Manager and Building Official.	Building/ Planning	Standard	
42.	The Property shall be maintained daily so that it is free of trash and litter.	Building	Standard	
43.	During construction, dust shall be controlled by regular watering or other methods as determined by the Building inspector.	Building	Standard	
44.	The Building Division may apply administrative assessments and/ or post general stop work notices for any violations of the Conditions of Approval for the Project, and any violations of the CCMC.	Building	Standard	
45.	During all phases of construction, best efforts shall be used to ensure that all construction workers, contractors and others involved with the Project park on the Property or at designated offsite locations approved by the City, and not in the surrounding neighborhood.	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
46.	When foundation shoring and/or foundation piles will be part of the Project, the engineer of record shall use noise dampening measures such as the drilling of shoring supports and piles as determined by the Building Official and Planning Manager.	Building/ Planning	Standard	
47.	Prior to the commencement of any excavation and or construction, a temporary construction fence shall be installed around the site. The height and fence material is subject to approval by the City Engineer and the Planning Manager and shall at minimum be covered in tarp or some other material that blocks views of the construction site from adjacent properties.	Building/ Planning/ Public Works	Standard	
48.	Hours of construction shall be limited to the following: 8:00 AM to 8:00 PM Monday through Friday; 9:00 AM to 7:00 PM Saturday; and 10:00 AM to 7:00 PM Sunday and National holidays. Dirt hauling and construction material deliveries or removal are prohibited during the morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) peak traffic periods. All construction workers shall be respectful of the surrounding neighborhood and keep non-construction related noise to a minimum prior to, during, and after permissible construction hours.	Building/ Public Works	Standard	
49.	All staging and storage of construction equipment and materials, including the construction dumpster, shall be on-site only. The Property Owner must obtain written permission from adjacent property owners for any construction staging occurring on adjacent property.	Building/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
50.	Compliance with the following noise standards shall be required with at all times: A. No construction equipment shall be operated without an exhaust muffler, and all such equipment shall have mufflers and sound control devices (i.e., intake silencers and noise shrouds) that are no less effective than those provided on the original equipment; B. All construction equipment shall be properly maintained to minimize noise emissions; C. If any construction vehicles are serviced at a location onsite, the vehicle(s) shall be setback from any street and other property lines so as to maintain the greatest distance from the public right-of-way and from Noise Sensitive Receptors; D. Noise impacts from stationary sources (i.e., mechanical equipment, ventilators, and air conditioning units) shall be minimized by proper selection of equipment and the installation of acoustical shielding as approved by the Planning Manager and the Building Official in order to comply with the City's Noise Regulations and Standards as set forth in CCMC Chapter 9.07; and E. Stationary source equipment (i.e., compressors) shall be located so as to maintain the greatest distance from the public right-of-way and from Noise Sensitive Receptors.	Building/ Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
51.	In the event three citations are issued in connection with the Project for violations of these Conditions of Approval or for other violations of the CCMC, Project construction shall be stopped until such time that it is determined to the satisfaction of the Community Development Director, that causes of such violations have been eliminated or corrected and that the Project will be able to proceed in full compliance with these Conditions of Approval and the CCMC.	Building/ Planning	Standard	
52.	Flag persons with certified training shall be provided for work site traffic control to minimize impacts to traffic flow and to ensure the safe movement of vehicles into and out of the Property.	Building/ Public Works	Standard	
53.	Trucks and other vehicles in loading and unloading queues must be parked with their engines off to reduce vehicle emissions. Construction deliveries shall be phased and scheduled to avoid emissions peaks as determined by the Building Official and discontinued during second-stage smog alerts. Queuing shall not be allowed on Duquesne Park Road or on the section of Leash Lane between the intersection of Duquesne Park Road and the entrance to the project.	Building/ Public Works	Special	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
54.	Construction vehicles shall not be permitted to stage or queue where they would interfere with vehicular and pedestrian traffic or block access to adjacent properties. Off-site staging shall be at locations approved by the City Engineer and shall be of sufficient length to accommodate large trucks without being unduly disruptive to traffic operations. The drivers of these trucks shall be in radio or phone communication with on-site personnel who shall advise the drivers when to proceed from the staging location to the Property. Construction-related vehicles including private vehicles operated by construction workers shall not be permitted to park on public streets or on any park road except for that portion of Leash Lane between Jefferson Boulevard and the project driveway entrance and after approval by the Planning Manager and the Senior Civil Engineer.	Building/ Public Works/ Planning	Special	
	PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION			
55.	All provisions, and requirements set forth in these Conditions of Approval, in the CCMC, or in any applicable written comments as provided by City representatives on **December 9, 2010** at the Project Review Committee meeting on the Land Use Permit application, shall be fulfilled and satisfied to the satisfaction of all City departments before the use may be established or the Project occupied.	All	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION			
56.	All requirements of the City's Art in Public Places Program, as set forth in CCMC Section 15.06.100, et. seq., shall be fully satisfied prior to the issuance of a certificate of occupancy; provided, that if such requirements will be satisfied by the payment of the public art in-lieu fee, the same shall be paid prior to the issuance of a building permit.	Cultural Affairs	Standard	
57.	All onsite and offsite improvements and all conditions of approval except those which are deferred pursuant to a bond or letter of credit as determined and approved by the Building Official, Fire Marshal, Planning Manager, and/or City Engineer shall be completed prior to issuance of any certificate of occupancy. Prior to issuance of any certificate of occupancy the following shall be provided to and approved by the City: A. Five full sets of as-built plans that shall include at a minimum the site plan, grading and utility plan, landscape and irrigation plan, floor plan for each level of the Project, parking structure plan, roof plan with all mechanical equipment identified as to purpose and source and all offsite improvements; and B. One set of as-built plans as described above in a digital format compatible with the City's computer system.	All	Standard	
58.	The radius at the Leash Lane approach to Jefferson Boulevard will be adjusted so that at it's the STOP Line, the intersection is perpendicular to Jefferson Boulevard, thereby creating a standard 90 degree intersection.	Public Works/ Planning	CEQA Mitigation Measure	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION			
59.	A traffic signal loop detector shall be installed on Leash Lane connected to the traffic signal on Jefferson Boulevard immediately to the left of the intersection. This loop detector shall activate that signal's north/south green-phase and thereby provide eastbound gaps along Jefferson Boulevard; the created eastbound gaps will coincide with the westbound gaps created at Jefferson Boulevard and Duquesne Avenue.	Public Works/ Planning	CEQA Mitigation Measure	
60.	The project site shall require an access easement from the City of Culver City for the use of Leash Lane. An encroachment agreement or easement for a new water main beneath Leash Lane and extended to Jefferson Boulevard will be required in order to service the new building with adequate domestic and fire sprinkler water. The form and content of these easements shall be approved by the City Engineer, City Attorney, and or City Council.	Public Works/ City Attorney	Special	
61.	Additional traffic related signs posting speed limits and or cautions/warnings along Culver City Park roads may be required by the Planning Manager and City Engineer. If required, final sign language and installation shall be approved by the City Engineer.	Public Works/ Planning	Special	
62.	Additional crosswalks along Culver City Park roads may be required and their location/installation shall be approved by the Planning Manager and City Engineer; existing cross walks along Culver City Park roads shall be highlighted and re-striped to the satisfaction of the City Engineer and Planning Manager.	Public Works/ Planning	Special	
63.	A training manual and/or program for all project employees and tenants that stresses safe driving in and around Culver City Park roads and maintaining a maximum speed limit of 15 mph on park roads shall be required and final form and content of said manual/program shall be approved by the Planning Manager.	Planning	Special	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION			
64.	Two speed feedback signs to control speeding on Leash Lane and Duquesne Avenue shall be installed to the satisfaction of the City Engineer.	Public Works	Special	
65.	The curb returns at the Leash Lane/Duquesne Park Road intersection shall be modified to increase compliance with the all-way stop control at the intersection to the satisfaction of the City Engineer.	Public Works	Special	
66.	Provide a standard 25-foot radius curb return (or as determined appropriate by the City Engineer) with handicap accessible curb ramp, standard right of way corner cut off, and provide the appropriate dedication for street purposes at the southwest corner of Jefferson Boulevard and Leash Lane.	Public Works	Special	
67.	The existing streetlight along Leash Lane shall be upgraded to a low voltage system, to include streetlight fixtures and service pedestal.	Public Works	Special	
68.	All existing utility poles along the property frontage of Leash Lane shall be undergrounded and the sidewalks reconstructed per latest edition of the American Public Works Association (APWA) Standard Plans.	Public Works	Special	
69.	The existing driveway approaches along Jefferson Boulevard shall be reconstructed into a full width sidewalk per latest edition of the American Public Works Association (APWA) Standard Plans.	Public Works	Special	
	ON-GOING			
70.	The use and development of the Property shall be in substantial conformance with the plans date received June 21, 2012 and materials submitted with the application for the Land Use Permit as reviewed by the Planning Commission excepted as modified by these Conditions of Approval.	Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
71.	Pursuant to CCMC Section 17.650.020 - "Inspection", the Property Owner and Applicant shall allow authorized City officials, or their designees, access to the Property where there is reasonable cause to believe the Property is not in compliance with these Conditions of Approval or other requirements of the CCMC.	All	Standard	
72.	The use and development of the Property shall comply with these Conditions of Approval and all applicable local, special district or authority, county, state and federal statutes, codes, standards, and regulations including, but not limited to, Building Division, Fire Department, Planning Division and Public Works Department requirements, and shall comply with all applicable CCMC requirements and all comments made during the City's building permit plan check review process. Failure to comply with said Conditions, statutes, codes, standards, and regulations may result in reconstruction work, demolition, stop work orders, withholding of certificate of occupancy, revocation of land use permit approval and/or any other lawful action the City might deem reasonable and appropriate to bring about compliance.	All	Standard	
73.	All graffiti shall be removed from the Property within 48 hours of its application.	Building/ Planning/ Public Works	Standard	
74.	The Property Owner shall maintain all street trees along the property frontage at his/her sole cost and expense.	Public Works	Standard	
75.	All mitigation measures set forth in any environmental document relating to the Project (including any reports of the type contemplated by the California Environmental Quality Act) shall be completed as specified therein.	Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
76.	The minimum number of parking spaces shall not be less than 214 spaces as established by this Administrative Modification.	Planning	Special	
77.	Follow-up review reports on the parking operation of the project shall be submitted to the Planning Division after six months and after one year of full operation. The Applicant shall enter into a Memorandum of Understanding (MOU) with City which outlines the scope and content of the reports. If it is determined by the Planning Manager and the City's Traffic Engineer that the reduced parking is causing as yet to be determined unforeseen impacts, additional requirements such as but not limited to, valet parking or off-site parking may be imposed as determined by the Planning Manager and the City's Traffic Engineer.	Planning	Special	
78.	The maximum building height in one portion of the additional 5,475 square feet of the new building as shown on predevelopment plans submitted on June 21, 2012 shall not exceed 46.81 feet as established by this Administrative Modification.	Planning	Special	

Attachment No. 2

PROJECT SUMMARY

APPLICATION TITLE & CASE NO:

Administrative Site Plan Review Modification, ASPR/M P-2012073; Administrative Modification, AM P-2012074; Administrative Modification, AM P-2012079 to allow revisions to a previously approved Administrative Site Plan Review for an Office Development at 9920 Jefferson Blvd in the IG Zone. The revisions will add 5,475 sq.ft., reduce the required parking by 7.3%, and increase the height by 8.8%.

PROJECT ADDRESS/LOCATION:	**APPLICANT INFORMATION:**
9920 Jefferson Boulevard Culver City, CA 90232	Van Tilburg, Banvard & Soderbergh, AIA 1738 Berkeley Street, Santa Monica, CA 90404 (310) 394-0273

PERMIT/APPLICATION TYPE:

☐ Administrative Use Permit	☐ Tentative Parcel Map
☐ Conditional Use Permit	☐ Tentative Tract Map
☐ Administrative Site Plan Review	☐ Lot Line Adjustment
☐ Site Plan Review	☐ Zoning Code Amendment - Text
☒ Administrative Modifications (parking and height)	☐ Zoning Code Amendment -Map
☐ Variance	☐ General Plan Amendment - Text
☐ Master Sign Program	☐ General Plan Amendment - Map
☐ Certificate of Appropriateness	☐ Planned Unit Development
☐ Certificate of Exemption	☐ Specific Plan
☐ DOBI	☒ Other: Administrative Site Plan Review Modification

APPROVAL BODY: ☒ **Public Hearing** ☐ **Public Meeting** ☐ **Administrative**

☐ Administrative	☐ Redevelopment Agency
☒ Planning Commission ☐ City Council	☐ Other:

ENVIRONMENTAL DETERMINATION AND NOTICING:

CEQA Determination	☐ Categorical Exemption, Class 32 ☐ Negative Declaration or ☒ Mitigated Negative Declaration ☐ Environmental Impact Report, Type: _____
CEQA Noticing	☐ Notice of Exemption (w/in 5 days of decision) ☒ Notice of Intent to Adopt (21 days prior to decision) ☐ Notice of Determination (w/in 5 days of decision) ☐ Fish & Game Certificate of Fee Exemption (w/in 5 days of decision) ☐ Notice of Preparation ☐ Notice of Availability ☐ Notice of Completeness

PUBLIC NOTIFICATION:

Mailing Date: 06/20/12	☒ Property Owners ☒ Occupants ☐ Adjacent Property Owners & Occupants	☒ w/in 500' foot radius ☐ w/in 500' foot radius / Extended ☐ Other: Beyond 500' radius
Posting	☐ Onsite ☐ Offsite	☐ Other:
Publication	☐ Culver City News	☐ Other:
Courtesy Date: 06/20/12	☒ City Council ☐ Cable Crawler ☒ Commissions ☒ Master Notification List ☐ Culver City Website	☐ Press Release ☒ HOA /Neighborhood Groups ☐ Culver City Organizations ☒ Other: Friends of the Culver City Dog Park

GENERAL INFORMATION:

General Plan: Industrial	**Zoning:** Industrial General (IG)
Redevelopment Plan: Area #4	**Overlay Zone/District:** N/A
Legal Description Lots 11 and 12 of Tract No. 3343	**Existing Land Use** 2-story, 55,509 sq.ft. masonry structure; a 17,000 sq.ft. building over an 8,250 sq.ft. concrete basement floor currently under construction; and a surface parking area.

PROJECT SUMMARY

ADJACENT ZONING AND LAND USES

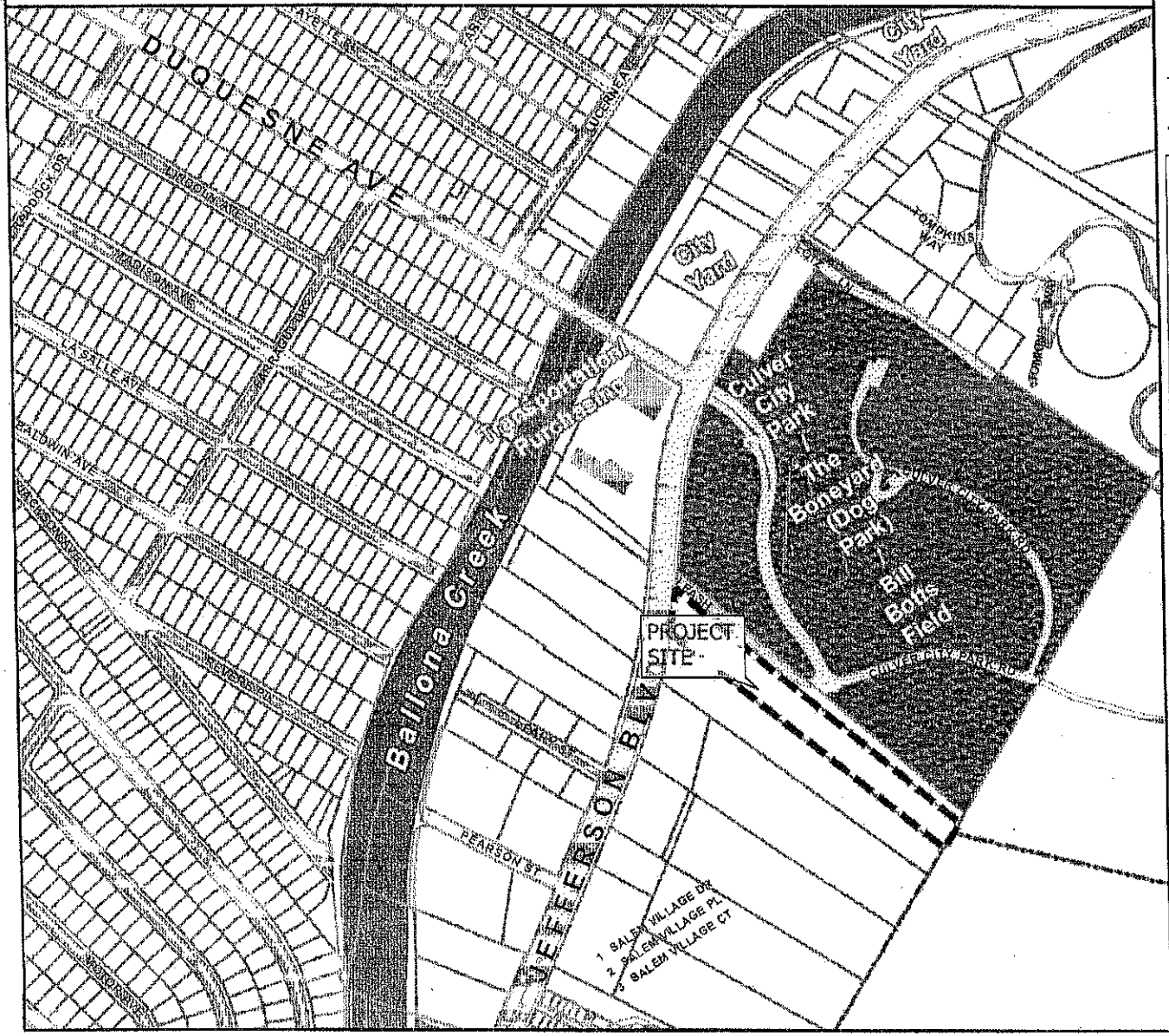
Location	Zoning	Land Use
North:	OS	Culver City Park, various park roads and park facilities
South:	IG	Public Storage building
East:	R-1 & L.A.County	Open space, undeveloped land, and oil wells
West:	IG	Jefferson Blvd/ light industrial & commercial buildings beyond

Project Data	Existing	Proposed	Required/Allowed
Lot Area	3.3 Acres.	Same	No minimum
Building Coverage:	41,632 S.F.	Same	N/A
Landscaped Area:	21,795 S.F.	29,975 S.F.	No minimum

Project Data	Existing	Proposed	Required/Allowed
Parking:			
Office	332	214	231
Handicapped (Part of Total)	*n/a*	*8*	*8*
Total:	**332**	**214**	**231**
Building Height:	33.5' maximum	43' maximum 46.81' in one portion of the new building	43' maximum
Building Setbacks:			
Front	6' minimum	No Change	5' minimum
Rear	920'	670'	No Requirement
Side (Street Facing Right Side)	3' minimum	No Change	No Requirement
Side (Street Facing Left Side)	0' minimum	No Change	No Requirement

ESTIMATED FEES:		
☒ New Development Impact: $475 (Estimated – Fee already collected for Administrative Approval) ☐ In Lieu Parkland:	☒ School District: TBD ☒ Art: TBD	☒Plan Check: TBD ☒ Sewer: TBD
INTERDEPARTMENTAL REVIEW:		
Planning, Engineering, Building & Safety, and Fire Prevention reviewed the project. No additional comments or conditions other than those incorporated into the Administrative approval.		
ART IN PUBLIC PLACES:		
Applies to Project - N/A		

Project Site Map



Culver CITY

9920 Jefferson Boulevard

THE CITY OF CULVER CITY

INFORMATION TECHNOLOGY DEPARTMENT
GEOGRAPHIC INFORMATION SYSTEMS
9770 CULVER BLVD
CULVER CITY, CA 90232

Scale: 1: 5,912

0 246.35 492.7 Feet

Attachment No. 3

Culver CITY
PLANNING DIVISION

(310) 253-5710
FAX (310) 253-5721

SOL BLUMENFELD
Community Development
Director

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

June 15, 2011

Peter J. Petraglia, Project Manager (Applicant)
Van Tilburg, Banvard & Soderbergh, AIA
1738 Berkeley Street
Santa Monica, Ca 90404

Michael Brunelle (Owner)
Abraxis BioScience, LLC
11755 Wilshire Blvd, Suite 200
Los Angeles, CA 90025

NOTICE OF DECISION: ADMINISTRATIVE SITE PLAN REVIEW, ASPR P-2010184
9920 Jefferson Boulevard in the Industrial General (IG) Zone

Dear Mr. Petraglia:

This letter is to inform you that we have approved your application for an Administrative Site Plan Review (ASPR) for Abraxis Bioscience to allow the following: exterior and interior renovations to an existing 57,510 square foot structure for office use; demolition of an existing 8,250 square foot parking structure; construction of a new 3-story 43-foot high, 17,000 square-foot office building; and the use of 215 on-site parking spaces; subject to conditions of approval attached herein.

Background

Site Description

The project site is 3.3 acres in area and contains a 2-story, 57,510 square foot, reinforced masonry building and a paved surface parking area containing 332 parking spaces (except for 29 spaces located inside a 8,250 square foot semi-subterranean parking garage). Approximately twenty (20) percent of the project site is currently unpaved with vegetation and landscaping. The project site rises from a lower elevation at the Jefferson Boulevard street frontage to a higher elevation at the rear with a change of approximately 100 feet. The site is long and narrow and is approximately 100 feet at its narrowest and approximately 1,230 feet at its longest. The existing building was once used by Continental Graphics, a commercial printing and graphics company and is currently used by the property owner, Abraxis Bioscience, to store their office equipment. Once the project is developed, Abraxis Bioscience and other affiliated companies will use the existing building for office purposes.

Assuming that Jefferson Boulevard runs in a north/south orientation at the project location, the immediate uses surrounding the project site include: to the west, Jefferson Boulevard and light industrial/warehouse and commercial buildings beyond; to the east, undeveloped open space and oil fields/wells; to the north, Culver City Park, various park roads and park facilities/amenities; and to the south, a personal storage facility.

Analysis

Project Description

The project is intended to be used as new offices for Abraxis BioScience and affiliated companies and includes the following components: exterior and interior renovations to the existing 57,510 square foot building including demolition of 2,001 square feet of the second floor resulting in a reduced overall square footage for the existing building of 55,509 square feet; demolition of the existing 8,250 square foot parking garage; and construction of a new 3-story 43-foot high, 17,000 square-foot steel framed office building over a new 8,250 square-foot concrete basement structure to be used for storage. The total net new floor area for the property is 14,999 square feet.

The new construction will remove 154 of the 332 existing parking spaces with 178 existing parking spaces (some of which are compact and therefore legal non-conforming) to remain; and the addition of 37 new parking spaces for a new total of 215 onsite parking spaces.

New onsite improvements will include decorative hardscape and decorative parking lot paving and approximately 8,928 square feet of new landscaping to augment the existing 21,795 square feet of existing landscaping (resulting in New landscaping and decorative hardscape will be installed in the middle of the site. Specifically, new landscaping and decorative hardscape will be located in the area fronting the rear of the existing building, in the new parking area between the existing building and the new building, in the area surrounding the new building, and in the new parking area immediately to the rear of the new building. This new landscaping with a mix of sycamore trees, agave shrubs, flax shrubs, giant turf lily shrubs, and other types of shrubs and ground cover will create a pedestrian scale central courtyard between the existing and new structures that will also serve to soften the massing of the new structure for users of the project site. Too further define the new structure as it faces Leash Lane the project proposes to add new landscaping such as flax, agave and Acadia shrubs as well as sycamore trees to a small portion of park area that abuts the project site and the new building. Project offsite improvements include new landscaping and landscape maintenance for a small portion of the park directly adjacent to the project and roadway improvements at Leash Lane/Jefferson Boulevard and Leash Lane/Duquesne Park Road.

Architecture

The existing two story concrete and brick building is in a state of disrepair and will be refurbished. While maintaining the basic brick and concrete design, steel windows will be replaced with a storefront aluminum window system that includes blue green tinted glazing. This new glazing will provide a more inviting exterior façade especially along the Jefferson Boulevard frontage where the building's main entrance two-story storefront window system will be replaced with the new glazing and enhanced with a grid like shade screen made of composite wood on a painted steel frame. The existing rollup doors facing Jefferson Boulevard previously used for shipping and receiving will be replaced with the new window system and glazing. One of the previous roll up doors will be replaced with double glass doors and will be used as a small loading area. New landscaping along the Jefferson Boulevard frontage will be installed within low level concrete planter walls. These façade improvements will convert the building's current industrial look to an office appearance.

The rear of the existing building will include new architectural features meant to mirror the new building that will face the rear façade of the existing building. These rear facing architectural features include a high ceiling aluminum storefront window system defining the main rear entrance and similar in style to the Jefferson Boulevard facing storefront window system. Exterior cement plaster and two window doors will replace the two existing rear facing roll up doors. The use of elements such as aluminum, glazing, cement plaster, and metal panel veneer along the rear facing façade of the existing brick and concrete building will enhance the new building.

The new building, positioned approximately in the middle of the developed lot, is designed as an architecturally modern building with hard rectangular angles and the use of metal, glazing, aluminum, and cement plaster. The building is configured in an "L" shape with the basement and first parallel to Leash Lane. The second and third levels are rotated 90 degrees with their longer dimension perpendicular to Leash Lane, and the first two levels., To accommodate the 100 foot change in site elevation, the new building is terraced and stepped back to ensure the structure's height never exceeds the 43 foot height limit.

The first two levels (subterranean storage area and 1st floor office area) are light gray colored exterior cement plaster with a smooth trowel finish and aluminum storefront windows. The second and third stories (turned at a 90 degree angle from the 1st two levels) are built with aluminum storefront window walls and metal panel veneer canopies separating each level. The building will be enhanced with extensive perimeter landscaping, outdoor terraces, and a roof top terrace. Roof mounted mechanical equipment, restrooms (for the roof top terrace), and stairwells are centrally located and recessed into the new building and encased in exterior plaster. Solar panels will be installed on the roof of both structures in compliance with the City's photovoltaic ordinance.

Landscaping

The site currently contains 21,795 square feet of vegetation including eucalyptus trees located at the front facing Jefferson Boulevard, along the rear portion of the surface parking, and in an undeveloped hill side area at the rear of the site. The majority of the existing landscaping will remain in its current condition along with the rear portion of the surface parking that will also remain as is. Landscaping along the Jefferson Boulevard frontage will be replanted. New landscaping and decorative hardscape will be installed in the middle of the site, specifically in the area fronting the rear of the existing building, in the new parking area between the existing building and the new building, in the area surrounding the new building, and in the new parking area immediately to the rear of the new building . This new landscaping with a mix of Sycamore trees, Agave shrubs, Flax shrubs, Giant Turf Lily shrubs, and other types of shrubs and ground cover will create a pedestrian scale central courtyard between the existing and new structures that will also serve to soften the massing of the new structure for users of the project site. Too further define the new structure as it faces Leash Lane the project proposes to add new landscaping such as Flax, Agave and Acadia shrubs as well as Sycamore trees to a small portion of park area that abuts the project site and the new building. In total, approximately 21,795 square feet of existing landscaping will remain and 8,928 square feet of new landscaping will be installed.

Traffic, Parking, and Circulation

A full traffic analysis was not needed for this project because the estimated net new peak hour trips for the project will be 25, below the 50 net new trip threshold. However, a Synchro and Gap Study Analysis (focused study) was prepared for the proposed project. This focused study evaluated the existing (year 2011) and forecast future (year 2020) conditions at five intersections in the vicinity of the project site. Impacts to these intersections were not identified except for site distance impacts and vehicle gap impacts for the Leash Lane/Jefferson Boulevard intersection. The focused study analyzed sight distance when making left turns onto Jefferson Boulevard from Leash Lane and on vehicle gaps along Jefferson Boulevard which affect the ability of vehicles on Leash Lane to make a left onto Jefferson Boulevard.

The sight distance analysis determined that motorists turning left onto Jefferson Boulevard from Leash Lane have limited sight distance to oncoming Jefferson Boulevard traffic due to street parking spaces on Jefferson Boulevard immediately adjacent to the project site and to the obtuse, 120 degree angle of the intersection (from the Leash Lane perspective). The study recommended that the parking spaces be removed and the curbing be painted red. On, or about March 1, 2011 the Culver City Public Works Department removed the parking spaces and painted the curb red resulting in improved visibility for motorists on Leash Lane entering Jefferson Boulevard.

The gap analysis indicated that for the afternoon peak traffic period only, vehicles making a left onto Jefferson Boulevard from Leash Lane under future conditions (when

related projects, such as the West Los Angeles College expansion, are fully operational) may not have the benefit of sufficient traffic gaps along Jefferson Boulevard to make that left turn. The increase in the time required to make that left turn under future conditions will potentially cause back up delays along Leach Lane and decrease the overall level of service for this intersection. Two traffic mitigations were identified that will ease this situation.

First, the obtuse, 120 degree angle at the Leash Lane approach to Jefferson Boulevard will be adjusted so that at the Leash Lane limit line, the intersection will be perpendicular to Jefferson Boulevard, thereby creating a standard 90 degree intersection. This will facilitate left turn movements (reducing potential back up delays) and improve the site lines for Leash Lane motorists making the left turn. The other mitigation will require the installation of a traffic signal loop detector on Leash Lane that will be connected to the traffic signal on Jefferson Boulevard immediately to the left of the Leash Lane/Jefferson Boulevard intersection. This loop detector will activate that signal's north/south green-phase resulting in eastbound vehicle gaps; these eastbound gaps will coincide with the westbound gaps created at Jefferson Boulevard and Duquesne Avenue. With the traffic gaps along Jefferson Boulevard, left turns onto Jefferson Boulevard from Leash Lane in the afternoon peak traffic period will be possible without significantly impacting traffic flow. The ability to make left turns more easily at the identified intersection during the afternoon peak traffic period may reduce overall traffic from the project through the park and onto the signalized Jefferson Boulevard/Duquesne Avenue intersection.

In addition to the two traffic mitigations noted above the applicant has agreed to provide two speed feedback signs to control speeding on Leash Lane and Duquesne Avenue and to modify the curb returns at the Leash Lane/Duquesne Park Road intersection to increase compliance with the all-way stop control at the intersection. These voluntary project conditions are intended to reduce potential conflicts between park users and project related vehicle traffic.

The applicant is required to provide 215 on-site parking spaces. 178 of the existing parking spaces (some of which are compact and therefore legal non-conforming) will remain and 37 new parking spaces will be added resulting in a total of 215 parking spaces provided on site. The project will also include on-site loading spaces and on-site bicycle parking as required by the Zoning Code.

Adequate drive aisle widths for both the existing parking and the new parking will be provided and a standard code required driveway approach will ensure the project's on-site circulation is sufficient for project traffic. Access to the site will be achieved through the continued use of Leash Lane. The traffic related mitigations noted above will further provide acceptable vehicle maneuverability for vehicles entering the site from the Leash Lane/Jefferson Boulevard intersection. Project traffic will also have the ability to travel through Culver City Park via the Duquesne Park Road connecting Leash Lane with the signalized intersection of Duquesne Avenue and Jefferson Boulevard.

Code Requirements/Conformance

The project conforms with the Culver City Zoning Code and is compliant with the Industrial General (IG) Zone height limit of 43 feet and with setback limits. The street facing setback requires a minimum of five feet and at its closest; the existing building is setback six feet from the Jefferson Boulevard property line. There are no required side and rear setbacks for the IG Zone when property is not adjacent to residential zones as is the case with the project site. The project provides the code required 215 on-site parking spaces.

Community Meetings and Public Notification/Comments

On January 13, 2011, a community meeting was held to introduce the project to surrounding area property owners and businesses. The applicant mailed a community meeting notice to all property owners and occupants within a radius of five hundred feet (500') of the exterior boundaries of the site. Three individuals attended, all of which are associated with the Friends of the Culver City Dog Park community organization. Key concerns express by the meeting participants included potential increased traffic through Culver City Park, increased street parking in the immediate area surrounding the park, potential view obstructions for Dog Park users, and construction impacts.

On March 1, 2011, the proposed project was presented before the Parks, Recreation, and Community Services Commission as an information item. At this meeting, commission members expressed similar concerns as those stated by the January 13th community meeting attendees. The Commission welcomed the project but asked for speed limit signs on Culver City Park roads, measures to slow the flow of traffic through the park roads, and strict enforcement of speed limits on park roads. In addition they asked the applicant coordinate the State of California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGER) during construction because of four abandoned oil wells currently located on the site.

On April 21, 2011, notification of the filing of this application and an invitation to submit comments were sent to the same property owners and occupants as noted above. During the comment period two comments were submitted, one from the neighboring property that is developed as a public storage facility with a caretaker unit and the other from the Friends of the Culver City Dog Park. Both comment letters expressed overall support for the project. The public storage facility wanted to ensure that a previous easement that allowed shoring piles to cross into the project site would be honored and that noise and dust during construction will not negatively affect the caretaker residents. The Friends of the Culver City Dog Park asked for enforcement of speed laws within park roads, installation of traffic/safety signs and crosswalks on park roads, speed bumps on park roads, and a condition requiring the applicant to develop a training program for project site tenants that stress safe driving on park roads.

In response to various comments, the conditions of approval require that the applicant honor all easement agreements with neighboring properties, coordinate with DOGGER to ensure on-site abandoned oil wells do not impact surrounding area, and provide various traffic related improvements as noted above under the Traffic, Parking, and Circulation section. Additional conditions to address the Friends of the Culver City Dog Park comments are also required.

Environmental Factors/Identified Mitigation Measures

The City processed Initial Study pursuant to the California Environmental Quality Act (CEQA) to determine if the project will have environmental impacts. The Initial Study determined that three environmental factors could be affected unless mitigations are imposed. As stated above, traffic related impacts will be addressed with a realignment of the STOP Line at the Jefferson Boulevard/Leash Lane crossing to create 90 degree intersection and a traffic signal loop detector will be installed at Leash Lane that will create traffic gaps on Jefferson Boulevard.

Due to significant excavation for the new building there is a potential for paleontological and/or archeological resources to be unearthed. In response to this potentially significant impact to Cultural Resources, a Phase 1 Archaeological/Paleontological Survey for the project site will be required. If the survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), will monitor all phases of excavation for the project site.

The presence of four abandoned oil wells on the project site can result in potential impacts due to the release of Hazardous Materials such as petroleum. Although the four wells have been abandoned and no new structures are proposed over the abandoned oil wells, the applicant will be required to coordinate with DOGGR to ensure construction activity does not disturb the existing abandoned oil wells.

Findings

The following necessary findings for this application have been made pursuant to Culver City Municipal Code (CCMC) Section 17.540 – Site Plan Review, for this Administrative Site Plan Review:

1. ***The general layout of the project, including orientation and location of buildings, open space, vehicular and pedestrian access and circulation, parking and loading facilities, building setbacks and heights, and other improvements on the site, is consistent with the purpose and intent of this Chapter, the requirements of the zoning district in which the site is located, and with all applicable development standards and design guidelines.***

   The general layout of the project conforms to all applicable provisions of the IG zoning district as well as the Industrial designation of the General Plan. The project is also consistent with objectives of the Design for Development (DFD) for

Jefferson Boulevard Industrial Area by providing a type of use that is compatible and encouraged within the DFD area and also through the projects' site design and layout.

The site layout, façade upgrades to the existing building, and the new structure's rectangular shape with glazing and plaster exterior finishes will provide a visual focal point along Jefferson Boulevard and for users of Culver City Park. The perimeter of the property facing Jefferson Boulevard and a portion of Leash Lane will incorporate landscaped treatment and/or planter areas that will provide visual relief and enhancement. The proposed building is setback from the rear of the existing building facing Jefferson Boulevard thereby allowing a prominent exterior motor courtyard between the two structures that will incorporate both landscaping and decorative hardscape. This courtyard will be visible from Leash Lane through a security wrought iron fence and will further add to the overall positive visual experience for users of the site and passers-by.

The height of the existing building, at a maximum of 33 feet, is below the code required maximum allowable height of 43 feet and is consistent and compatible with other single and two story light industrial and commercial buildings or structures in the immediate area. The new structure, stepped back from front to rear following the project site's grade increase in height, will have four levels, one of which is semi-subterranean. The maximum height of the building will be the code required maximum allowable height of 43 feet and with the step backs, the four level structure will appear to match and harmonize with surrounding single and two story light industrial and commercial buildings. The on-site parking will satisfy the parking requirements for the existing and proposed building square footages and the site layout and design will provide safe and convenient pedestrian and vehicular pattern especially with a decorative paving section that guides people from the parking area to the building entrances. The proposed project will meet all applicable development standards required by the Zoning Code.

2. ***The architectural design of the structures and their materials and colors are compatible with the scale and character of surrounding development and other improvements on the site and are consistent with the purpose and intent of this Chapter, the requirements of the zoning district in which the site is located, and with all applicable development standards and design guidelines.***

The project will include a refurbished existing structure and a new structure both of which will house bio-science offices and affiliated companies. The existing two story concrete and brick structure with steel windows will maintain its basic design while incorporating new elements such as a storefront aluminum window system replacing the steel windows, a Jefferson Boulevard facing two-story storefront

entrance window system with a grid like shade screen made of composite wood on a painted steel frame, and a rear facing a high ceiling aluminum storefront window system defining the main rear entrance. This rear main entrance will also include exterior cement plaster and the combination of the cement plaster and storefront window system is meant to act as a transition to the new building.

The new building, positioned approximately in the middle of the developed lot, is designed as an architecturally modern building with hard rectangular angles and the use of metal, glazing, aluminum, and cement plaster. The building is configured in an "L" shape with the basement and first parallel to Leash Lane. The second and third levels are rotated 90 degrees with their longer dimension perpendicular to Leash Lane, and the first two levels. Due to the site's rise of approximately 100 feet from a lower elevation at the Jefferson Boulevard street frontage to a higher elevation at the rear, the new building is terraced and stepped back to ensure the structure's height never exceeds the 43 foot code required limit at any one point along the building's exterior.

The first two levels (subterranean storage area and 1st floor office area) are light gray colored exterior cement plaster with a smooth trowel finish and aluminum storefront windows. The second and third stories (turned at a 90 degree angle from the 1st two levels) are built with aluminum storefront window walls and metal panel veneer canopies separating each level. The building will be enhanced with extensive perimeter landscaping, outdoor terraces, and a roof top terrace. Roof mounted mechanical equipment, restrooms (for the roof top terrace), and stairwells are centrally located and recessed into the new building and encased in exterior plaster.

Overall, the new structure and the improved existing building will provide an office appearance for the area and compliment the surrounding light industrial and commercial structures that are predominantly constructed of brick, concrete, and cement plaster. The massing of these structures is similar in scale to surrounding developed properties several of which contain more than one building or are two stories in height. The project's design is consistent with IG development standards and with the DFD for Jefferson Boulevard Industrial Area.

3. ***The landscaping, including the location, type, size, color, texture, and coverage of plant materials, provisions for irrigation, and protection of landscape elements has been designed to create visual relief, complement structures, and provide an attractive environment and is consistent with the purpose and intent of this Chapter, the requirements of the zoning district in which the site is located, and with all applicable development standards and design guidelines.***

The proposed landscaping meets all zoning code requirements providing visual relief and enhancing sustainability goals. The site currently contains 21,795 square feet of vegetation including eucalyptus trees located at the front facing

Jefferson Boulevard, along the rear portion of the surface parking, and in an undeveloped hill side area at the rear of the site. The majority of the existing landscaping will remain in its current condition along with the rear portion of the surface parking that will also remain as is. Landscaping along the Jefferson Boulevard frontage will be revised with some replacement planting and new planting material in areas currently occupied by parking and loading areas (that will be removed). New landscaping and decorative hardscape will be installed in the middle of the site. Specifically, new landscaping and decorative hardscape will be located in the area fronting the rear of the existing building, in the new parking area between the existing building and the new building, in the area surrounding the new building, and in the new parking area immediately to the rear of the new building. This new landscaping with a mix of Sycamore trees, Agave shrubs, Flax shrubs, Giant Turf Lily shrubs, and other types of shrubs and ground cover will create a pedestrian scale central courtyard between the existing and new structures that will also serve to soften the massing of the new structure for users of the project site. Too further define the new structure as it faces Leash Lane the project proposes to add new landscaping such as Flax, Agave and Acadia shrubs as well as Sycamore trees to a small portion of park area that abuts the project site and the new building. In total, approximately 21,795 square feet of existing landscaping will remain and 8,928 square feet of new landscaping will be installed. Overall the combined on-site and off-site landscaping will help to create an attractive environment for both project users and those traveling through the vicinity of the project site.

4. ***The design and layout of the proposed project will not interfere with the use and enjoyment of neighboring existing or future development, will not result in vehicular or pedestrian hazards, and will be in the best interest of the public health, safety, and general welfare.***

The project is designed to have minimal impact on and will not interfere with adjacent properties. The project is designed to provide on-site parking resulting in adequate vehicular circulation patterns and maneuvering and does not create vehicular or pedestrian hazards. The project also meets the setbacks and height requirements of the IG zone. The design and layout will not hinder or interfere with surrounding and future developments and is in the best interest of the public health, safety and general welfare.

5. ***The existing or proposed public facilities necessary to accommodate the proposed project (e.g., fire protection devices, parkways, public utilities, sewers, sidewalks, storm drains, street lights, traffic control devices, and the width and pavement of adjoining streets and alleys) will be available to serve the subject site.***

The existing and proposed public service facilities necessary to accommodate the project such as the adjoining streets and park roads, traffic control devices, sewers, storm drains, proposed parkways, proposed sidewalks, street lights,

proposed street trees, fire protection devices, and public utilities are provided for adequately as confirmed by the City agencies that reviewed the project during the interdepartmental review process. There are adequate existing public facilities necessary to service the project.

6. ***The proposed project is consistent with the General Plan and any applicable specific plan.***

The project is consistent with the General Plan Industrial land use designation in that it encourages desirable and creative new commercial businesses in an Industrial area. The project is also consistent with General Plan Land Use Objective 5 because as a space for new offices and commercial activity it will encourage new business opportunities that expand Culver City's economic base. As new businesses locate on the project site, the project will foster the growth of businesses overall thereby increasing City revenues as called for in Objective 8 – Fiscal Health, of the General Plan Land Use Element. With the development of the project for a bioscience company and affiliated businesses on a partially vacant lot, the project will further the Redevelopment Agency Component Area No. 4 objective of encouraging private sector investment. The project is consistent with the DFD for Jefferson Boulevard Industrial Area General Objective 2 that calls for expansion of Culver City's economic base because it will attract new businesses and create new employment opportunities.

Environmental Determination

In accordance with the California Environmental Quality Act (CEQA), it has been determined that the project will not have significant impacts on the environment provided certain mitigations related to Cultural Resources, Hazardous Materials, and Transportation/Traffic are adopted, and that a Mitigated Negative Declaration finding is appropriate (Attachment No. 3).

Conditions of Approval

Based upon the above findings and pursuant to CCMC Chapter 17.540 requirements, Administrative Site Plan Review, ASPR P-2010184, is hereby approved subject to the conditions of approval set forth in Attachment No. 1, Exhibit A attached hereto and incorporated herein by this reference.

Appeal

This administrative decision may be appealed in accordance with Chapter 17.640-Appeals, by any interested person within 15 calendar days of approval, or by 5:30 P.M., June 30, 2011. If no appeal is filed by that date, the decision shall be final. If a timely appeal is filed, we will notify you. If you have any questions, please contact Jose Mendivil, Associate Planner, at (310) 253-5757.

Sincerely,

Sol Blumenfeld
Community Development Director

Copy: Thomas Gorham, Deputy Community Development Director/Planning Manager
Craig Johnson, Building Official
Ken Quick, Fire Marshal
Andy O'Connell, Senior Civil Engineer
Christine Byers, Cultural Affairs
Jose Mendivil, Associate Planner

Attachment No. 1: Exhibit A - Standard Conditions of Approval
Attachment No. 2: Mitigated Negative Declaration and Initial Study
Attachment No. 3: Approved Predevelopment Plans Dated March 14, 2011

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
1.	These Conditions of Approval are being imposed on an Administrative Site Plan Review to allow renovations to an existing 57,510 square structure for office use, demolition of an existing 8,250 square foot parking structure, and construction of a new 43 foot high, 17,000 square foot office building with 215 on-site parking spaces (the "Project"), for the property located at 9920 Jefferson Boulevard (the "Property").	All	Standard	
2.	A copy of the Administrative Notice of Decision approving the Project, and a copy of these Conditions of Approval, shall be printed on the plans submitted as part of any building permit application for the Project.	Planning	Standard	
3.	All building permit applications for the Project shall include sufficient information and detail to clearly reflect compliance with all applicable requirements of the Culver City Municipal Code (the "CCMC") and with these Conditions of Approval.	Planning	Standard	
4.	The land use permit to which these Conditions of Approval apply (the "Land Use Permit') shall expire one year from the date of final approval of said Land Use Permit, if the use has not been exercised. As provided in CCMC Section 15.595.030 – "Time Limits and Extensions", an applicant may request an extension of said expiration date by filing a written request with the Planning Division prior to the expiration of the land use permit.	Planning	Standard	
5.	The Project shall be developed pursuant to CCMC Chapter 17.300 – "General Property Development and Use Standards".	Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
6.	All planted areas on the Property shall be landscaped and irrigated pursuant to CCMC Chapter 17.310 - "Landscaping".	Planning	Standard	
7.	All parking areas on the Property shall be developed pursuant to CCMC Chapter 17.320 - "Off-Street Parking and Loading".	Planning	Standard	
8.	Signs proposed for the Project shall meet all applicable requirements of CCMC Chapter 17.330 - "Signs". All signs require a separate permit and approval.	Planning	Standard	
9.	All permits and licenses required in connection with the development or use of the Project shall be applied for and obtained separately.	All	Standard	
10.	All work within the public right-of-way (including but not limited to curb, gutter, sidewalk, and driveways) shall be designed and completed to the satisfaction of the City Engineer.	Public Works	Standard	
11.	Street trees shall be installed, to the satisfaction of the City Engineer, in conformity with the City's approved Street Tree Master Plan including tree wells and irrigation. All new (and existing) street trees shall be supplied with irrigation water from the overall site irrigation system which shall include a timer and a rain sensor. All new (and existing) street trees, landscaping, and irrigation shall be indicated on the overall site landscaping/ irrigation plan.	Public Works	Standard	
12.	Drainage devices, concrete curbs and gutters, sidewalks, drive approaches, and roadway pavement shall be designed in conformity with all provisions of the latest edition of the American Public Works Association Standard Plans ("APWA Standards").	Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
13.	At the sole cost and expense of the Property Owner, any broken or damaged curbs, gutters, sidewalks, and street pavement resulting from construction of the Project shall be repaired and reconstructed in conformity with APWA Standards.	Public Works	Standard	
14.	Trash enclosures shall be provided and shall each have a minimum inside dimension of 10 feet x 12 feet, a gated opening that is at least 8 feet wide, and a 6 inch high by 6 inch wide concrete curb along the inside perimeter wall. Each enclosure shall also have at least a 6 inch thick concrete slab that drains at a one percent gradient out of the enclosure. Final approval for the size, location, and type of equipment needed for the adequate storage and disposal of all solid and recyclable waste generated by the Project shall be obtained from the City's Environmental Programs and Operations Manager. A fire suppression sprinkler system shall be provided within any covered trash enclosure area as required by the Fire Marshal. All refuse containers assigned to or otherwise used by the Project shall be stored on-site in the trash enclosures.	Public Works/ Fire/ Planning	Standard	
15.	All Project related solid and recyclable waste material handling shall be in accordance with CCMC Section 5.01.010 – "Solid Waste Management", which outlines the Sanitation Division's exclusive franchise for this service.	Public Works	Standard	
16.	The Project shall meet all provisions of CCMC Section 7.05.015 -"Transportation Demand and Trip Reduction Measures".	Trans.	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
17.	All buildings and structures to be constructed as part of the Project shall be designed and constructed in accordance with all applicable regulations and standards of the City's Building Code, Fire Code and any related codes as determined by the Building Official and Fire Marshal; and all other applicable provisions of the CCMC which are adopted and in effect at the time of issuance of a building permit.	Building/ Fire	Standard	
18.	Any new utilities shall be placed underground or enclosed within the building construction; no new overhead utilities shall be permitted.	Building/ Planning	Standard	
19.	The Project shall comply with all applicable requirement of the Culver City Green Building Program as set forth in CCMC Section 15.02.1100, et.seq.	Building	Standard	
20.	The Project shall comply with the all applicable requirements relating to solar photovoltaic requirements as set forth in CCMC Section 15.02.100, et. seq.	Building	Standard	
21.	Changes to the Project or use approved as part of the Land Use Permit may only be made in accordance with the provisions of CCMC Section 17.595.035 – "Changes to an Approved Project".	Planning	Standard	
22.	The new parking and driveway area between the existing building and the new building and surrounding the new building shall incorporate decorative pavement of a design, color, and texture as approved by the Planning Manager.	Planning	Special	
23.	All walls, parapets and exterior fascia shall be constructed of solid materials (not foams) and wall faces and tops shall be able to support the weight of fire fighters and suppression equipment.	Fire	Special	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	GENERAL			
24.	Emergency medical access shall be made available from Leash Lane and the private parking driveway located between the rear of the existing building and the new building.	Fire	Special	
25.	A fire hydrant(s) shall be required in the parking lot and its location shall be subject to final review and approval by the Fire Department.	Fire	Special	
26.	Fire Service for the suppression systems shall be separate and apart from each other; the fire suppression service line shall not be routed through the existing building for the new building unless the two structures are tied together by covenant to prevent sale of either structure individually.	Fire	Special	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
27.	A covenant and agreement, on a form provided by the Planning Division and in form and substance acceptable to the City Attorney, acknowledging and agreeing to comply with all terms and conditions established herein, shall be signed by the Property Owner and recorded in the County Recorder's Office. The covenant and agreement shall run with the land and shall be binding on any subsequent owners, and tenants or occupants of the Property. After recordation, a certified copy bearing the Recorder's number and date shall be provided to the Planning Division.	Planning/ City Attorney	Standard	
28.	The Applicant and Property Owner shall indemnify and agree to defend (at the Applicant's and Property Owner's sole expense, with legal counsel approved by the City) and hold harmless the City, and its elected and appointed officials, officers, employees, agents, contractors and consultants from and against any and all loss, damages, injuries, costs, expenses, liabilities, claims, demands, lawsuits, attorneys' fees and judgments, arising from or in any manner connected to any third party challenge to the City's approval of the Project. The obligations required by this Condition shall be set forth in a written instrument in form and substance acceptable to the City Attorney and signed by the Applicant and the Property Owner.	City Attorney	Standard	
29.	A minimum of three sets of final landscaping and irrigation plans (separate from the plans submitted for the building permit) shall be submitted to the Planning Division for review and approval.	Planning/ Parks & Rec.	Standard	
30.	Payment of New Development Impact Fees pursuant to CCMC Section 15.06.005 et. seq. shall be submitted.	Planning/ Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
31.	A Construction Management Plan prepared by the construction contractor, which identifies the areas of construction staging, temporary power, portable toilet, and trash and material storage locations, shall be submitted to and approved by the Building Official. Prior to commencement of work the construction contractor shall advise the Public Works Inspector and the Building Inspector ('Inspectors") of the construction schedule and shall meet with the Inspectors.	Building/ Public Works	Standard	
32.	A Pedestrian Protection Plan shall be submitted to and approved by the Building Official. Such plan shall identify all areas of pedestrian protection and indicate the method of pedestrian protection or pedestrian diversion when required. When pedestrian diversion is required, the Pedestrian Protection Plan must also be approved by the Public Works Director.	Building/ Public Works	Standard	
33.	Plans submitted as part of the building permit application shall include a schedule of the special inspections anticipated, the firm proposed for the special inspections, and the resumes of all proposed special inspectors. The Building Official reserves the right to reject any special inspector at any time for the duration of the Project. All special inspection reports shall be made available to the Building Official and to any Culver City Building Safety inspector as required by the Building Official No work shall be covered without a Culver City Building Safety inspection, whether or not a special inspection was performed on such work.	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
34.	A Construction Traffic Management Plan shall be prepared by a traffic or civil engineer registered in the State of California. The Construction Traffic Management Plan shall be submitted to the City Engineer and Planning Manager for review and approval prior to the issuance of any Project demolition, grading, or excavation permit. The Construction Traffic Management Plan shall also be reviewed and approved by the City's Fire and Police Departments. The City Engineer and Planning Manager reserve the right to reject any engineer at any time and to require that the Plan be prepared by a different engineer. The Construction Traffic Management Plan shall contain, but not be limited to, the following: A. The name and telephone number of a contact person who can be reached 24 hours a day regarding construction traffic complaints or emergency situations. B. An up-to-date list of local police, fire, and emergency response organizations and procedures for the continuous coordination of construction activity, potential delays, and any alerts related to unanticipated road conditions or delays, with local police, fire, and emergency response agencies. Coordination shall include the assessment of any alternative access routes that might be required through the Property, and maps showing access to and within the Property and to adjacent properties. C. Procedures for the training and certification of the flag persons used in implementation of the Construction Traffic Management Plan. D. The location, times, and estimated duration of any roadway closures, traffic detours, use of protective devices, warning signs, and staging or queuing areas. E. The location and travel routes of off-site staging and parking locations.	Planning/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
35.	Reasonable efforts shall be used to reuse and recycle construction and demolition debris, to use environmentally friendly materials, and to provide energy efficient buildings, equipment and systems. A Demolition Debris Recycling Plan that indicates where select demolition debris is to be sent shall be provided to the Building Official prior to the issuance of a demolition permit. The Plan shall list the material to be recycled and the name, address, and phone number of the facility of organization accepting the materials.	Building	Standard	
36.	A vector/pest control abatement plan prepared by a pest control specialist licensed or certified by the State of California shall be submitted for review and approval by the Planning Manager and the Building Official. Said plan shall outline all steps to be taken prior to the commencement of any demolition or construction activity in order to ensure that any and all pests (including, but not limited to, rodents, bees, ants and mosquitoes) that may populate the Property do not relocate to or impact adjoining properties.	Building/ Planning	Standard	
37.	Prior to issuance of a building permit, notice of the Project construction schedule shall be provided to all abutting property owners and occupants. Evidence of such notification shall be provided to the Building Division. The notice shall identify the commencement date and proposed timing for all construction phases (demolition, grading, excavation/shoring, foundation, rough frame, plumbing, roofing, mechanical and electrical, and exterior finish).	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
38.	A Phase 1 Archaeological/Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor all phases of excavation for the project site. In the event that the Phase 1 Archaeological/Paleontological Survey determines that no such resources exist but undetected fossil resources and/or human remains or other archaeological and/or paleontological resources are encountered during construction activities, work in that area must be halted and both the City of Culver City and the coroner must be notified. Work will be halted in that area of the detected resource until the City of Culver City and/or the coroner or an archaeological and/or paleontological professional(s), have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City.	Building/ Planning	CEQA Mitigation Measure	
39.	Coordination with the Division of Oil, Gas and Geothermal Resources (DOGGR) will be required to ensure that construction activity does not disturb the existing abandoned oil wells and any necessary measures needed to prevent release of hazardous materials as determined by DOGGR shall be implemented. Proof of this coordination an implementation measures if needed shall be presented to the City prior to issuance of City Permits.	Building/ Public Works/ Planning	CEQA Mitigation Measure	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO BUILDING PERMIT ISSUANCE			
40.	Prior to excavation, the contractor shall coordinate with the property directly south of the project site to ensure existing shoring that is in place and encroaches underneath the project site is not disturbed. Any damage to this shoring or to the neighboring property that could occur if damage to the shoring occurs shall be repaired by the project applicant/owner at its sole expense.	Building Safety/ Planning	Special	
	DURING CONSTRUCTION			
41.	During all phases of construction, a "Construction Rules Sign" that includes contact names and telephone numbers of the Applicant, Property Owner, construction contractor(s), and the City, shall be posted on the Property in a location that is visible to the public. These names and telephone numbers shall also be made available to adjacent property owners and occupants to the satisfaction of the Planning Manager and Building Official.	Building/ Planning	Standard	
42.	The Property shall be maintained daily so that it is free of trash and litter.	Building	Standard	
43.	During construction, dust shall be controlled by regular watering or other methods as determined by the Building inspector.	Building	Standard	
44.	The Building Division may apply administrative assessments and/ or post general stop work notices for any violations of the Conditions of Approval for the Project, and any violations of the CCMC.	Building	Standard	
45.	During all phases of construction, best efforts shall be used to ensure that all construction workers, contractors and others involved with the Project park on the Property or at designated offsite locations approved by the City, and not in the surrounding neighborhood.	Building	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
46.	When foundation shoring and/or foundation piles will be part of the Project, the engineer of record shall use noise dampening measures such as the drilling of shoring supports and piles as determined by the Building Official and Planning Manager.	Building/ Planning	Standard	
47.	Prior to the commencement of any excavation and or construction, a temporary construction fence shall be installed around the site. The height and fence material is subject to approval by the City Engineer and the Planning Manager and shall at minimum be covered in tarp or some other material that blocks views of the construction site from adjacent properties.	Building/ Planning/ Public Works	Standard	
48.	Hours of construction shall be limited to the following: 8:00 AM to 8:00 PM Monday through Friday; 9:00 AM to 7:00 PM Saturday; and 10:00 AM to 7:00 PM Sunday and National holidays. Dirt hauling and construction material deliveries or removal are prohibited during the morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) peak traffic periods. All construction workers shall be respectful of the surrounding neighborhood and keep non-construction related noise to a minimum prior to, during, and after permissible construction hours.	Building/ Public Works	Standard	
49.	All staging and storage of construction equipment and materials, including the construction dumpster, shall be on-site only. The Property Owner must obtain written permission from adjacent property owners for any construction staging occurring on adjacent property.	Building/ Public Works	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
50.	Compliance with the following noise standards shall be required with at all times: A. No construction equipment shall be operated without an exhaust muffler, and all such equipment shall have mufflers and sound control devices (i.e., intake silencers and noise shrouds) that are no less effective than those provided on the original equipment; B. All construction equipment shall be properly maintained to minimize noise emissions; C. If any construction vehicles are serviced at a location onsite, the vehicle(s) shall be setback from any street and other property lines so as to maintain the greatest distance from the public right-of-way and from Noise Sensitive Receptors; D. Noise impacts from stationary sources (i.e., mechanical equipment, ventilators, and air conditioning units) shall be minimized by proper selection of equipment and the installation of acoustical shielding as approved by the Planning Manager and the Building Official in order to comply with the City's Noise Regulations and Standards as set forth in CCMC Chapter 9.07; and E. Stationary source equipment (i.e., compressors) shall be located so as to maintain the greatest distance from the public right-of-way and from Noise Sensitive Receptors.	Building/ Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
51.	In the event three citations are issued in connection with the Project for violations of these Conditions of Approval or for other violations of the CCMC, Project construction shall be stopped until such time that it is determined to the satisfaction of the Community Development Director, that causes of such violations have been eliminated or corrected and that the Project will be able to proceed in full compliance with these Conditions of Approval and the CCMC.	Building/ Planning	Standard	
52.	Flag persons with certified training shall be provided for work site traffic control to minimize impacts to traffic flow and to ensure the safe movement of vehicles into and out of the Property.	Building/ Public Works	Standard	
53.	Trucks and other vehicles in loading and unloading queues must be parked with their engines off to reduce vehicle emissions. Construction deliveries shall be phased and scheduled to avoid emissions peaks as determined by the Building Official and discontinued during second-stage smog alerts. Queuing shall not be allowed on Duquesne Park Road or on the section of Leash Lane between the intersection of Duquesne Park Road and the entrance to the project.	Building/ Public Works	Special	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	DURING CONSTRUCTION			
54.	Construction vehicles shall not be permitted to stage or queue where they would interfere with vehicular and pedestrian traffic or block access to adjacent properties. Off-site staging shall be at locations approved by the City Engineer and shall be of sufficient length to accommodate large trucks without being unduly disruptive to traffic operations. The drivers of these trucks shall be in radio or phone communication with on-site personnel who shall advise the drivers when to proceed from the staging location to the Property. Construction-related vehicles including private vehicles operated by construction workers shall not be permitted to park on public streets or on any park road except for that portion of Leash Lane between Jefferson Boulevard and the project driveway entrance and after approval by the Planning Manager and the Senior Civil Engineer.	Building/ Public Works/ Planning	Special	
	PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION			
55.	All provisions, and requirements set forth in these Conditions of Approval, in the Administrative Notice of Decision approving the project, in the CCMC, or in any applicable written comments as provided by City representatives on **December 9, 2010** at the Project Review Committee meeting on the Land Use Permit application, shall be fulfilled and satisfied to the satisfaction of all City departments before the use may be established or the Project occupied.	All	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION			
56.	All requirements of the City's Art in Public Places Program, as set forth in CCMC Section 15.06.100, et. seq., shall be fully satisfied prior to the issuance of a certificate of occupancy; provided, that if such requirements will be satisfied by the payment of the public art in-lieu fee, the same shall be paid prior to the issuance of a building permit.	Cultural Affairs	Standard	
57.	All onsite and offsite improvements and all conditions of approval except those which are deferred pursuant to a bond or letter of credit as determined and approved by the Building Official, Fire Marshal, Planning Manager, and/or City Engineer shall be completed prior to issuance of any certificate of occupancy. Prior to issuance of any certificate of occupancy the following shall be provided to and approved by the City: A. Five full sets of as-built plans that shall include at a minimum the site plan, grading and utility plan, landscape and irrigation plan, floor plan for each level of the Project, parking structure plan, roof plan with all mechanical equipment identified as to purpose and source and all offsite improvements; and B. One set of as-built plans as described above in a digital format compatible with the City's computer system.	All	Standard	
58.	The radius at the Leash Lane approach to Jefferson Boulevard will be adjusted so that at it's the STOP Line, the intersection is perpendicular to Jefferson Boulevard, thereby creating a standard 90 degree intersection.	Public Works/ Planning	CEQA Mitigation Measure	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION			
59.	A traffic signal loop detector shall be installed on Leash Lane connected to the traffic signal on Jefferson Boulevard immediately to the left of the intersection. This loop detector shall activate that signal's north/south green-phase and thereby provide eastbound gaps along Jefferson Boulevard; the created eastbound gaps will coincide with the westbound gaps created at Jefferson Boulevard and Duquesne Avenue.	Public Works/ Planning	CEQA Mitigation Measure	
60.	The project site shall require an access easement from the City of Culver City for the use of Leash Lane. An encroachment agreement or easement for a new water main beneath Leash Lane and extended to Jefferson Boulevard will be required in order to service the new building with adequate domestic and fire sprinkler water. The form and content of these easements shall be approved by the City Engineer, City Attorney, and or City Council.	Public Works/ City Attorney	Special	
61.	Additional traffic related signs posting speed limits and or cautions/warnings along Culver City Park roads may be required by the Planning Manager and City Engineer. If required, final sign language and installation shall be approved by the City Engineer.	Public Works/ Planning	Special	
62.	Additional crosswalks along Culver City Park roads may be required and their location/installation shall be approved by the Planning Manager and City Engineer; existing cross walks along Culver City Park roads shall be highlighted and re-striped to the satisfaction of the City Engineer and Planning Manager.	Public Works/ Planning	Special	
63.	A training manual and/or program for all project employees and tenants that stresses safe driving in and around Culver City Park roads and maintaining a maximum speed limit of 15 mph on park roads shall be required and final form and content of said manual/program shall be approved by the Planning Manager.	Planning	Special	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	PRIOR TO CERTIFICATE OF OCCUPANCY OR FINAL INSPECTION			
64.	Two speed feedback signs to control speeding on Leash Lane and Duquesne Avenue shall be installed to the satisfaction of the City Engineer.	Public Works	Special	
65.	The curb returns at the Leash Lane/Duquesne Park Road intersection shall be modified to increase compliance with the all-way stop control at the intersection to the satisfaction of the City Engineer.	Public Works	Special	
66.	Provide a standard 25-foot radius curb return (or as determined appropriate by the City Engineer) with handicap accessible curb ramp, standard right of way corner cut off, and provide the appropriate dedication for street purposes at the southwest corner of Jefferson Boulevard and Leash Lane.	Public Works	Special	
67.	The existing streetlight along Leash Lane shall be upgraded to a low voltage system, to include streetlight fixtures and service pedestal.	Public Works	Special	
68.	All existing utility poles along the property frontage of Leash Lane shall be undergrounded and the sidewalks reconstructed per latest edition of the American Public Works Association (APWA) Standard Plans.	Public Works	Special	
69.	The existing driveway approaches along Jefferson Boulevard shall be reconstructed into a full width sidewalk per latest edition of the American Public Works Association (APWA) Standard Plans.	Public Works	Special	
	ON-GOING			
70.	The use and development of the Property shall be in substantial conformance with the plans date received March 14, 2011 and materials submitted with the application for the Land Use Permit as reviewed by the Planning Manager except as modified by these Conditions of Approval.	Planning	Standard	

NO.	CONDITIONS OF APPROVAL	Agency	Source	Compliance Verification
	ON-GOING			
71.	Pursuant to CCMC Section 17.650.020 - "Inspection", the Property Owner and Applicant shall allow authorized City officials, or their designees, access to the Property where there is reasonable cause to believe the Property is not in compliance with these Conditions of Approval or other requirements of the CCMC.	All	Standard	
72.	The use and development of the Property shall comply with these Conditions of Approval and all applicable local, special district or authority, county, state and federal statutes, codes, standards, and regulations including, but not limited to, Building Division, Fire Department, Planning Division and Public Works Department requirements, and shall comply with all applicable CCMC requirements and all comments made during the City's building permit plan check review process. Failure to comply with said Conditions, statutes, codes, standards, and regulations may result in reconstruction work, demolition, stop work orders, withholding of certificate of occupancy, revocation of land use permit approval and/or any other lawful action the City might deem reasonable and appropriate to bring about compliance.	All	Standard	
73.	All graffiti shall be removed from the Property within 48 hours of its application.	Building/ Planning/ Public Works	Standard	
74.	The Property Owner shall maintain all street trees along the property frontage at his/her sole cost and expense.	Public Works	Standard	
75.	All mitigation measures set forth in any environmental document relating to the Project (including any reports of the type contemplated by the California Environmental Quality Act) shall be completed as specified therein.	Planning	Standard	

Attachment No. 5

Culver CITY

(310) 253-5710
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PLANNING DIVISION

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

REVISED PROPOSED MITIGATED NEGATIVE DECLARATION

Project Title and File No.: Institute for Advanced Health ~~Abraxis Bioscience~~ Administrative Site Plan Review Modification, ASPR/M P-2012073; Administrative Modification, AM P-2012074; Administrative Site Plan Review, ASPR P-2010184; Mitigated Negative Declaration, MND P-2010185 for an Office Development

Project Location: 9920 Jefferson Boulevard

Project Sponsor: Peter J. Petraglia, Van Tilburg, Banvard & Soderbergh, AIA

Project Description: The project includes a Modification to a previously approved Administrative Site Plan Review and an Administrative Modification to the parking requirements. The applicant proposes to add 5,475 square feet to a previously approved Administrative Site Plan Review that permits exterior and interior renovations to an existing 57,510 square foot structure for office use, demolition of an existing 8,250 square foot parking structure, and the construction of a new 3-story 43-foot high, 17,000 square-foot office building. An Administrative Modification requesting a 7.3% reduction in the number of required parking stalls will result in 214 parking stalls.

Environmental Determination:

This is to advise that the City of Culver City, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environment and is proposing this MITIGATED NEGATIVE DECLARATION based on the following finding:

☐ The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

☒ The Initial Study identified potentially significant effects, but:

1. Revisions in the project plans or proposals made by, or agreed to by the applicant before this proposed MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY was released for public review would avoid the effects or mitigate the effects or mitigate the effects to a point where clearly no significant effects would occur, and

2. There is no substantial evidence before the agency that the project as revised may have a significant effect on the environment.

A copy of the Initial Study, and any applicable mitigation measure, and any other material which constitute the record of proceedings upon which the City based its decision to adopt this MITIGATED NEGATIVE DECLARATION may be obtained at:

City of Culver City, Planning Division
9770 Culver Boulevard, Culver City, CA 90232

The public is invited to comment on the proposed MITIGATED NEGATIVE DECLARATION during the review period, which ends **July 11, 2012.**

Jose Mendivil, Associate Planner June 20, 2012

Culver CITY

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PLANNING DIVISION

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

REVISED INITIAL STUDY

ENVIRONMENTAL CHECKLIST FORM AND ENVIRONMENTAL DETERMINATION

Project Title/ Case Nos:	Institute for Advanced Health ~~Abraxis Bioscience~~ Administrative Site Plan Review Modification, ASPR/M P-2012073; Administrative Modification, AM P-2012074; Administrative Site Plan Review, ASPR P-2010184; Mitigated Negative Declaration, MND P-2010185 for an Office Development		
Lead Agency Name & Address:	City of Culver City, Planning Division 9770 Culver Boulevard Culver City, CA 90232		
Contact Person & Phone No.:	Jose Mendivil, Associate Planner (310) 253-5757		
Project Location/Address:	9920 Jefferson Boulevard Culver City, CA 90232		
Nearest Cross Street:	Jefferson Boulevard and Duquesne Avenue	**APN:**	4296-001-009
Project Sponsor's Name & Address:	Peter J. Petraglia (on behalf of Institute for Advanced Health ~~Abraxis Bioscience~~) Van Tilburg, Banvard & Soderbergh, AIA 1738 Berkeley Street Santa Monica, CA 90404 (310) 394-0273		
General Plan Designation:	Industrial	**Zoning:**	Industrial General (IG)
Redevelopment Project Area:	Component Area No. 4 (Sub-Area F: Jefferson)		
Overlay Zone/Special District:	No Overlay Zones or Special Districts		

Project Description and Requested Action: *(Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary)*

The project includes a Modification to a previously approved Administrative Site Plan Review and an Administrative Modification to the parking requirements. The applicant proposes to add 5,475 square feet to a previously approved Administrative Site Plan Review that permits exterior and interior renovations to an existing 57,510 square foot structure for office use, demolition of an existing 8,250 square foot parking structure, and the construction of a new 3-story 43-foot high, 17,000 square-foot office building. An Administrative Modification requesting a 7.3% reduction in the number of required parking stalls will result in 214 parking stalls. The applicant is the Institute for Advanced Health (formally Abraxis Bioscience) and the previously approved entitlement is currently under construction.

The previously approved entitlement is described as follows. ~~The applicant proposes to~~: apply exterior and interior renovations to an existing 57,510 square foot structure; demolish 2,001 square feet of the second floor in the existing structure resulting in a reduced 55,509 square foot existing structure; demolish an existing 8,250 square foot parking structure; and construct a new 3-story 43-foot high, 17,000 square-foot steel framed structure over a new 8,250 square-foot, semi subterranean, one 1-story concrete basement structure. The basement square footage is replacement area from the parking structure demolition. The total net new floor area will not exceed 14,999 square feet. The new construction will remove a total of 154 existing parking spaces resulting in a total of 178 existing parking spaces (some of which are compact and therefore legal non-conforming) to remain. The new construction will include the addition of 37 new parking spaces resulting in a total of 215 parking spaces provided on site. The required parking for the project is 215 spaces. New onsite improvements will include new decorative hardscape and decorative parking lot paving and approximately 20,000 square feet of new landscaping. The proposed use will be offices for Abraxis, a bioscience company, and other offices for new businesses, except for the 8,250 square foot, semi subterranean, basement which will be used for storage by the on-site tenants. The project also includes offsite improvements including: improvements to the intersection of Leash Lane and the Park Road (southerly extension of Duquesne Avenue) to reduce speeds and increase motorists' compliance with the all-way stop control; the elimination by the City of Culver City of five parking spaces adjacent to the project site's Jefferson Boulevard frontage to improve visibility for motorists on Leash Lane entering Jefferson Boulevard; installation of a standard 25-foot radius curb return with handicap accessible curb ramp and standard right of way corner cut off at the southwest corner of Jefferson Boulevard and Leash Lane; and new landscaping and landscape maintenance for a small portion of the park directly adjacent to the project. The estimated project valuation is $9,000,000. The requested approval is an Administrative Site Plan Review to construct 14,999 square feet of net new office space.

Existing Conditions of the Project Site:

The 3.3 acre project site contains a 2-story, 55,509 ~~57,510~~ square foot, reinforced masonry structure, a 17,000 square foot office building over an 8,250 concrete basement floor currently under construction, and a ~~paved~~ surface parking area that formally contained ~~containing~~ 332 parking spaces ~~(except for 29 spaces located inside a semi-subterranean garage structure)~~. The site is under construction with some parking spaces removed and other parking spaces currently disrupted by the construction activities. Approximately twenty (20) percent of the project site is currently unpaved with vegetation and landscaping. The project site rises from a lower elevation at the Jefferson Boulevard street frontage to a higher elevation at the rear with a change of approximately 100 feet. The site is long and narrow and is approximately 100 feet at its narrowest and approximately 1,230 feet at its longest. The building was once used by Continental Graphics, a commercial printing and graphics company and up until construction began, was ~~is currently~~ used by the property owner, Institute for Advanced Health (formally Abraxis Bioscience) ~~Abraxis Bioscience~~, to store their office equipment. Once the project is developed, Institute for Advanced Health ~~Abraxis Bioscience~~ and other affiliated companies will use the existing building for office purposes.

Surrounding Land Uses and Setting: *(Briefly describe the project's surrounding)*
Jefferson Blvd at this location is considered to run in a north/south
West: Jefferson Boulevard and light industrial/warehouse and commercial buildings beyond
East: Open space, undeveloped land, and oil wells
North: Culver City Park, various park roads and park facilities
South: Public Storage building

Other public agencies whose approval is required: (*e.g., permits, financing approval, or participation agreement)*

N/A

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- ☐ Aesthetics
- ☐ Agriculture and Forestry Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Geology /Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards & Hazardous Materials
- ☐ Hydrology / Water Quality
- ☐ Land Use / Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population / Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation/Traffic
- ☐ Utilities / Service Systems
- ☐ Mandatory Findings of Significance

ENVIRONMENTAL DETERMINATION:

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. 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 'potentially significant impact' or 'potentially significant unless mitigated' impact 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 the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jose Mendivil 6/20/12

Jose Mendivil, Associate Planner — Date

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Responses:

a) *Less than Significant Impact*. The project is located in an urbanized area, with commercial, industrial and city park uses in the immediate vicinity. Surrounding area to the west and south of the project site are relatively flat with no substantial ocean or mountain views that can be considered scenic. The topography of the site rises to an elevation of approximately 100 feet higher than at the Jefferson Boulevard frontage and surrounding areas to the rear/east and north of the site also have increases in elevation. From the site and these surrounding areas north and east of the site, scenic vistas such as mountain, ocean, urban sprawl views of western portions of the City of Los Angeles become more visible at the higher elevations. Directly to the north is Culver City Park that includes the Dog Park just to the northeast of the site and the vistas noted above are visible from the Dog Park. The existing building will not affect these vistas because tenant improvements to this building will not result in increased height except for a nine foot high architectural feature at the rear of the existing building that will be at a lower elevation than the Dog Park. The new building will partially obstruct current vistas from the Dog Park of Culver City to the west. However views of the mountains and western Los Angeles urban sprawl as well as ocean vistas will not be obstructed by the new building because the Dog Park is at a higher elevation than the location of the proposed new building. Other portions of Culver City Park north of the site are at even higher elevations than those of the Dog Park or the project site and the new building will not obstruct current vistas from these higher elevations. Vistas from the properties to the rear or east which are at higher elevations than that of the project site will not be affected. These properties have no commercial or residential structures, currently contain oil wells, and have no access for the general public. Overall scenic vistas are not expected to be significantly affected by the project. No mitigation measures are necessary.

b) *Less than Significant Impact*. There are no identified rock outcroppings or historic buildings within a state scenic highway on the site or near the site. The project site is currently developed with a building, surface parking, and landscaping. Existing trees at the rear of the site will remain, additional trees will be planted on-site, and overall, the on-site landscaping will be enhanced. There are no street trees existing or planned but several on-site trees fronting Jefferson Boulevard will remain. The proposed enhanced on-site landscaping will reduce any potential impact to a level that is less than significant. No mitigation measures are necessary.

c) *Less than Significant Impact*. The site currently has a semi-vacant brick face building and is lacking in visually interesting façade characteristics. Dominating the site to the rear of the building is the site's parking lot and barbed wire fencing. With the building façade improvements to the existing building such as new aluminum storefront windows, a new wood shade screen at the Jefferson Boulevard frontage, and a new architectural feature at the rear of the building comprising window and aluminum elements, the visual character of the existing building will be improved. The new building dominated by a cement plaster base and window walls will replace portions of the parking lot and barbed wire fencing visible from Leash Lane, a public park road. Overall, façade improvement to the existing building, the new structure, and enhanced landscaping will improve the visual quality of the project site. Surrounding areas will be minimally affected because the new building will be terraced from front to rear as the site rises in elevation maintaining a maximum height that is at or below the 43 foot maximum height allowed in the Industrial General (IG) zone. The project will not degrade the visual character of the site and will be a significant improvement for the immediate area. No mitigation measures are necessary.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

d) *Less than Significant Impact*. The proposed project will bring new sources of light at nighttime from exterior lighting of the new building and re-use of the existing building. However, the project is required to be built to City codes and all lighting is required to be shielded or recessed so that direct glare and reflections are confined to the boundaries of the site and do not shine or glare directly onto adjacent public and private properties. With implementation of these code requirements, this potential impact is reduced to a level that is less than significant. No mitigation measures are necessary.

The additional 5,475 square feet to the new building will not impact any of the Aesthetic Environmental Factors because the addition will be minimal in overall building volume and will be situated within the footprint and height of the approved structure currently under construction.

Mitigation Measure(s): None required

II. AGRICULTURE RESOURCES AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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 Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Responses:

a)- e) *No Impact*. The project site, the new structure currently under construction, and the proposed additional area to the new structure are is not located on land identified, utilized, or zoned for agricultural purposes, and there is no known Williamson Act contract in effect on the project site. The site is located in an urban/light industrial area and although properties to the rear/east are undeveloped, those parcels currently contain oil wells that have been in operation for several years. Culver City Park to the north of the site is developed as an open space city park with a dog park, skate board park, baseball and soccer fields, a hiking trail, passive use areas, and scenic picnic areas. This project with all uses and parking contained on-site, will not conflict with the Culver City Park nor will the project require that any of the park facilities or landscaping be removed. No mitigation measures are necessary.

Mitigation Measure(s): None required

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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 which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Responses:

a) *Less Than Significant Impact*. The project site is within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles County and Orange, Riverside, and San Bernardino counties. Air quality conditions in the Basin are under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing an Air Quality Management Plan (AQMP) for the basin. The current AQMP was approved in 2007. Implementation of the AQMP is based on a series of control measures that vary by source type, such as stationary or mobile, as well as by the pollutant targeted. Since the AQMP is based on growth projections reflected in local general plans, only new or amended general plans or projects that exceed the level of development contemplated in the general plan have the potential to conflict with the AQMP. The proposed project does not require an amendment to the General Plan land use designation of Industrial, is consistent with expected commercial/office and light industrial development potential build out along the Jefferson Boulevard industrial and commercial corridor, and is consistent with the Industrial General (IG) Zoning development standards. The current project under construction and proposed addition do not ~~There is no~~ conflict with the AQMP and no mitigation measures are necessary.

b)-c) *Less Than Significant Impact*. Future new development in Culver City may contribute both at the project level and cumulatively to pollutant emissions over existing non-attainment conditions due to both construction and operation of individual projects. This project involves tenant improvements to an existing 57,510 square foot building; demolition of 2,001 square feet from the existing building resulting in a reduced 55,509 square foot existing building; demolition of an existing 8,250 square foot parking structure; and construction of a new 3-story 43-foot high, 22,475 ~~17,000~~ square-foot steel framed structure over a new 8,250 square-foot, semi subterranean, one 1-story concrete basement structure. The basement square footage is replacement area from the parking structure demolition. The total net new floor area will not exceed 20,474 ~~14,999~~ square feet. In addition, the project will include the striping of 214 parking spaces after approval of a 7.3% reduction as allowed with an Administrative Modification. ~~37 new parking spaces resulting in a total of 215 parking spaces provided on site.~~ The project also includes enhanced landscaping and offsite road improvements resulting in operational improvements to adjacent park roads. During construction, air contaminant emissions would result from the use of construction equipment such as bulldozers, trucks, scrapers, loaders, graders, and backhoes, as well as construction workers that would be traveling to and from the project. Project related construction traffic would have a temporary effect on air quality in the vicinity of the project. Construction worker traffic and diesel powered equipment would emit nitrogen oxides, carbon monoxide,

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

sulfur oxides, hydrocarbons, and particulates. These emissions would increase local concentrations temporarily but would not be expected to increase the frequency of violations of air quality standards because the project would be subject to limits on the construction hours per construction related standard conditions of approval. The project will be subject to these standard conditions that will reduce construction related pollutant emissions and dust emissions.

Overall, construction emissions would be short-term and limited only to the time period when construction activity is taking place. Therefore, construction emissions would not add to long-term air quality degradation. Further the proposed project will implement standard SCAGMD-approved construction procedures and will comply with applicable provisions of SCAGMD Rule 403.

Operationally the project is also not expected to create significant air quality impacts. Based on the Synchro and Gap Study Analysis prepared for the site, the proposed project will not generate significant traffic impacts at any of the studied intersections except for one. In the future, ambient traffic conditions in the PM peak resulting from the West Los Angeles College expansion (and other surrounding projects) are expected to result in shortened gaps that do not allow sufficient number of vehicles on Leash Lane to make a left onto Jefferson Boulevard without impacting traffic flow. This impact can be addressed by: restricting left turns from Leash Lane onto Jefferson Boulevard in the PM peak, thereby redirecting those left turn movements to the signalized intersection of Duquesne Avenue and Jefferson Boulevard; or installing a loop detector on Leash Lane at Jefferson Boulevard that would trigger a red light at the nearest traffic signal south of the site resulting in a sufficient gap to allow for left turn movements. The City will require a loop detector to allow these left turn movements with sufficient gaps thereby not impacting traffic flow. Thus, emissions resulting from the number of vehicles related to the proposed project in the AM and PM peak hours are not expected to be significant as well.

An updated Synchro and Gap Study Analysis was prepared that incorporates the additional 5,475 square feet and it determined that findings and mitigations form the original study do not need to be revised.

d) *Less Than Significant Impact*. Users of Culver City Park adjacent to the project site would be considered sensitive receptors. Although the project site would cause emissions in close proximity to the park during construction, it would be for a limited period of time and the construction would be subject to standard construction conditions. Operationally as a primary commercial office use, emissions would not be expected to be significant or above normal emissions as compared to any of the existing office or light industrial uses in the project vicinity. Impacts are expected to be less than significant (see Section III. a., above).

e) *Less Than Significant Impact*. Diesel-powered equipment used for construction could cause odors and emissions that may be offensive to sensitive persons. The closest sensitive uses to the project area are users of Culver City Park located adjacent to the site. This would be a temporary impact and would be mitigated by existing AQMD regulations requiring proper maintenance of vehicle engines and exhaust systems, and by standard construction conditions. Therefore, impacts are not expected to be significant. No mitigation measures are necessary.

Overall the additional the additional 5,475 square feet will not affect air quality to a level of significance.

Mitigation Measure(s): None required

IV. BIOLOGICAL RESOURCES -- Would the project:				
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 U.S. Fish and Wildlife Service?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Responses:

a)-f) *Less Than Significant Impact*. The project site is comprised of a 2-story, 55,509 square foot, reinforced masonry structure, a 17,000 square foot office building over an 8,250 concrete basement floor currently under construction, ~~an existing 57,510 square foot building~~ and surface parking. At the rear of the site there is a cluster of trees and there is existing parking lot landscaping and landscaping in the front of the site. After tenant improvements to the existing building and construction of the new building over existing surface parking, overall landscaping will be enhanced with an additional 8,900 square feet of landscaped area. The cluster of trees at the rear of the site will not be disturbed. The site has been developed as an urban use for several decades and no sensitive native plants or wildlife are known to inhabit the site. There is no riparian habitat or other sensitive natural community on the site. The project site supports no federally-protected wetlands or waters of the United States as defined by Section 404 of the Clean Water Act. The project site is completely surrounded by commercial and light industrial development, a city park, and oil fields and has not been identified as part of a resident migratory wildlife corridor or wildlife nursery site. Development of the proposed project would result in impacts that are less than significant. No mitigation measures are necessary.

Mitigation Measure(s): None required

V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Responses:

a) *Less than Significant Impact.* Information on existing conditions of the project site per City records and project application materials indicates that no identified historical resources exist on site and no significant adverse impacts relative to historical resources are associated with the project. The project site includes an a 2-story, 55,509 square foot, reinforced masonry structure, a 17,000 square foot office building over an 8,250 concrete basement floor currently under construction,, ~~existing 57,510 square foot brick and concrete building~~, surface parking, and has been used for commercial and light industrial purposes. The site is not been identified as an historic resource

b) – d) *Potentially Significant Impact Unless Mitigation Incorporated*. The project site is developed and located in an urbanized area surrounded by existing disturbed land and development. The new structure will require new excavation at the rear ranging from 8 to 16 feet below grade for the partial subterranean storage level. The potential does exist for fossil resources, burial sites, and other paleontological/archaeological resources to be unearthed during construction activities. Culver City is located in a region of western Los Angeles basin known to contain paleontological/archaeological resources and upon excavation for the partial subterranean storage level such resources could surface[1]. This potential impact is considered significant without mitigation. A Phase 1 Archaeological/Paleontological Survey is required prior to building permit issuance. Implementation of the survey described below would reduce the significance of potential impacts to a less than significant level. No additional excavation will be required for the 5,475 square feet because the added square footage will be situated within the footprint and height of the approved structure currently under construction. The original mitigation as stated below is sufficient to address this potential impact.

Mitigation Measure(s):

CR-1: Prior to building permit issuance, a Phase 1 Archaeological/Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor all phases of excavation for the project site. In the event that the Phase 1 Archaeological/Paleontological Survey determines that no such resources exist but undetected fossil resources and/or human remains or other archaeological and/or paleontological resources are encountered during construction activities, work in that area must be halted and both the City of Culver City and the coroner must be notified. Work will be halted in that area of the detected resource until the City of Culver City and/or the coroner or an archaeological and/or paleontological professional(s), have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City.

VI. GEOLOGY AND SOILS -- Would the project:

[1] Culver City General Plan Program EIR, November 1995, page 226

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures 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? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic 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?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Responses:

a) (i-ii) *Less Than Significant Impact*. Based on a Geotechnical Investigation Report (dated November 16, 2010) prepared by Global Geo-Engineering, Inc. for the proposed project, the site is not located in an Alquist-Priolo zone. The closest active fault occurs on the Newport Inglewood Fault located approximately 0.8 miles northeast of the site and the Overland Fault is located approximately the same distance southwest of the site. The faults do not present a potential surface fault rupture hazard, however the site is subject to ground shaking during the event of an earthquake.

A standard code requirement requires the submittal of the geotechnical report to ensure adequate seismic safety and soils stability of all proposed development improvements for the project. In addition, the project grading plan and building plans shall conform to the recommendations in the geotechnical report in a manner meeting the approval of the City. Compliance with the recommendations in the geotechnical report and standard building code requirements would reduce this impact to a level that is less than significant. No mitigation measures are necessary.

a) (iii) *Less Than Significant Impact*. Based on information contained in the geotechnical report referenced above, the project site is not located within an area identified as having a potential for liquefaction. However the site borders a liquefaction zone. Liquefaction involves the temporary loss in strength of soils and results in transformation of the soils into a fluid mass. The report does not include a liquefaction analysis of the soils underlying the site because the site is outside a liquefaction zone and because there is an absence of shallow ground water. Historically, the highest ground water levels at the site are deeper than 40 feet below the ground surface.

The geotechnical report referenced above provides recommendations at the construction stage for adequate seismic safety and soils stability of all proposed development improvements for the project. In addition, the project grading plan and building plans shall conform to the recommendations in the geotechnical report in a manner meeting the approval of the City. Compliance with recommendations in the geotechnical report and standard building code requirements would reduce this impact to a level that is less than significant. No mitigation measures are necessary.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

a) (iv) *Less Than Significant Impact*. Based on the geotechnical report referenced above and Culver City Natural Hazard maps only the rear portion of the property which is currently undeveloped and contains trees and natural landscaping is within an area identified as having a potential for slope instability. The majority of the site is outside the identified known landslide area and the majority of the site is not in the path of any potential landslides. Further at the rear there is an existing 8-inch thick retaining wall separating the landside area from the rest of the site. The closest area to the landslide area is used as surface parking and not structures are located in this area of the project site. No mitigation measures are necessary.

b)-c) *Less Than Significant Impact.* The project site is developed with The project site includes an a 2-story, 55,509 square foot, reinforced masonry structure, a 17,000 square foot office building over an 8,250 concrete basement floor currently under construction, ~~an existing 57,510 square foot building existing~~ and surface parking and is surrounded by urban development, parkland, and oil fields. The site does not currently contain top soil as it is surfaced with structures and asphalt parking except for the extreme rear portion which is a naturally developed hillside landscaped area. This rear portion will not be disturbed. Therefore the proposed project will not result in substantial soil erosion or the loss of topsoil where none exists now or where none is needed. As already stated the site is not within a liquefaction area and only the rear naturally developed portion is within a landslide area. The portion is separate from the rest of the site with an 8-inch thick retaining wall. No mitigations are needed.

d) *Less Than Significant Impact.* According to the report the existing surficial soils consist of silty sand soils and expansion potential of subgrade soils is considered low. However, standard code requirements and conditions of approval requires the preparation of erosion/sediment control plans such as the Standard Urban Storm Water Mitigation Plan (SUSMP), to regulate and control pollutant run-off by using Best Management Practices (BMP's) in accordance with National Pollutant Discharge Elimination System (NPDES). These plans shall show all temporary and permanent erosion control devices, effective planting of graded slopes, practical accessibility for maintenance purposes and proper precautions and fences to prevent public trespass on to certain areas where impounded water may create hazardous conditions. These plans would reduce this impact to a level that is less than significant.

e) *No Impact*. The project would not involve the use of septic tanks. All wastewater is proposed to be conveyed off-site via connections to the public sanitary sewer system. No mitigation measures are necessary.

Mitigation Measure(s): None required

VII. GREENHOUSE GAS EMISSIONS --Would the project:

a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Responses:

a)- b) *Less Than Significant Impact.* As discussed above, the project involves tenant improvements to a 2-story, 55,509 square foot, reinforced masonry structure, construction of a 17,000 square foot office building over an 8,250 concrete basement floor (currently being built), and the addition of 5,475 square feet to the building under construction. ~~an existing 57,510 square foot building; demolition of 2,001 square feet from the existing building resulting in a reduced 55,509 square foot existing building; demolition of an existing 8,250 square foot parking structure; and construction of a new 3-story 43-foot high, 17,000 square foot steel framed structure over a new 8,250 square foot, semi subterranean, one 1-story concrete basement structure~~. The basement square footage is replacement area from the parking structure demolition. The total net new floor area will not exceed 20,474 ~~14,999~~ square feet. In addition, the project will include the striping of 214 parking spaces after approval of a 7.3% reduction

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

as allowed with an Administrative Modification. ~~37 new parking spaces resulting in a total of 215 parking spaces provided on site.~~ The project also includes enhanced landscaping and offsite road improvements resulting in operational improvements to adjacent park roads. The Greenhouse Gas Inventory and Analysis prepared by CAJA Environmental Services (dated October 2010) indicates that the greenhouse gas emissions associated with the existing site and retail uses, including the demand of natural gas, electricity, water, and motor vehicles, totals an estimated 788.36 ~~377.90~~ net metric tons per year. Specifically, the emissions are generated by fossil fuels necessary to generate electricity, provide heating and hot water for the on-site land uses, propel landscaping equipment, convey, transport and treat water and the consumption of fuel by mobile vehicles.

The analysis also assessed both short-term construction related activities and long-term operational activities of the proposed project. The estimated greenhouse gas emissions generated during construction during the year 2011 and 2012 combined is expected to be 362.45 metric tons. Activities associated with the emissions include the use of construction equipment during demolition, grading, construction and paving, haul truck trips, construction worker trips, and vendor trips to the site.

The total estimated greenhouse gas emissions for the proposed project long-term operational activities are 2,001.36 ~~1,590.90~~ metric tons per year which is a net increase of 788.36 ~~377.90~~ metric tons of the existing site (as noted above). In an effort to put this increase in appropriate context, these emissions would be far less than 0.001% of the estimated Statewide total for the year 2008 which is the most current California green house gas inventory provided by the California Air Resource Board (CARB).

In addition, there are currently no quantified thresholds or guidance adopted by CARB, the City or SCAQMD to assess the significance of potential impacts associated with greenhouse gas emissions and the recently adopted CEQA Guidelines amendments do not establish a threshold of significance for emissions.

The generation rates do not account for the improved sustainability of modern construction and design for the new structure. It is anticipated that greenhouse gas emissions would be reduced by the sustainable design and construction requirements as found in the 2010 California Green Building Standards Code (or CALGreen Code), the Culver City Building Safety Division Mandatory Green Building Program, and the Culver City Building Safety Division Mandatory Solar Photovoltaic Requirement, all of which the project is subject to.

In the absence of established quantitative thresholds to evaluate impacts associated with greenhouse gas emissions, consistency with adopted programs and policies to reduce greenhouse gas emissions has been suggested as a method to qualitatively evaluate the significant of cumulative impacts. A project's consistency with implementing programs and regulations to achieve statewide greenhouse gas emissions reduction goals established under AB 32 cannot be evaluated because they are still under development. Although the City does not currently have a Climate Action Plan, the City does have standard code required conditions of approval to help reduce greenhouse gas emissions and the project will be subject to the City's Mandatory Green Building Program and Solar Photovoltaic Requirement.

The project's additional 5,475 square feet have been incorporated into an updated analysis of the Green House Gas Study noted above and no new or additional impacts were identified.

Mitigation Measure(s): None required

VIII. HAZARDS AND HAZARDOUS MATERIALS --Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☒	☐	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
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 it create a significant hazard to the public or the environment?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact.* Operationally as a commercial office development, the project is not expected to involve the routine use, transport or disposal of hazardous materials. During demolition and construction there may be hazardous materials either on-site or transported to and from the site. However the project will be subject to all applicable Federal, State, County, and City requirements for the handling of hazardous materials. A Phase I Environmental Assessment report was prepared by LFE, Inc. for the project site (dated January 26, 2006). The report did not identify significant potential hazardous materials on the site except for four abandoned oil wells which will be discussed below in sections b) and c). Mitigations are not necessary.

b)-c) *Potentially Significant Impact Unless Mitigation Incorporated.* Eco Star Station and Star Prep Academy elementary school (10101 Jefferson Boulevard) is located to the west of the project site within one-quarter mile. As a commercial office development, hazardous materials are not expected to be used in connection with the new project. However, during construction there is a potential for the disturbance of one abandoned oil well located in an area to be regarded for surface parking and landscaping; currently the area where the abandoned oil well is located is used as parking. Three additional abandoned oil wells are located further to the rear of the site underneath existing surface parking which will not be disturbed. The Phase I Environmental Assessment report indicates that all four oil wells were in operation from 1925 to 1955 and the Division of Oil, Gas and Geothermal Resources (DOGGR) issued closure letter s for the plugging and abandoning of these wells in 1994. The report indicates that DOGGR believes the abandoned wells are likely in compliance with current guidelines. The Phase I Report recommends that in the event future development includes construction over or in close proximity to the former oil wells, such activity be coordinated with DOGGR to determine whether any mitigation measures will be necessary in conjunction with such development. Implementation of a mitigation measure (below) that address this recommendation would reduce the significance of potential impacts to a level that is less than significant.

d) *Less Than Significant Impact.* The site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, as stated above the site contains abandoned oil wells and a mitigation measure addressing these well will be included as a project condition.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

e)- f) *No Impact.* The proposed project is not located within two miles of any public or private airstrip that would result in a safety hazard for people residing or working in the project area. The nearest airports to the project site are the Los Angeles International Airport (LAX), located approximately 5 miles south of the project site and the Santa Monica Airport located approximately 3.5 miles northwest of the site. Therefore, impacts are expected to be less than significant. There are no private airstrips within the project vicinity. No mitigation measures are necessary.

g) *Less Than Significant Impact.* The proposed project would have no long-term effect on any emergency response or emergency evacuation plan or procedures. Emergency evacuation routes could be affected during construction however, temporary street or lane closures will be required to meet standard City conditions to prepare and implement traffic control plans to ensure that construction does not obstruct emergency access. No mitigation measures are necessary.

h) *Less Than Significant Impact.* The project site currently contains a 2-story, 55,509 square foot, reinforced masonry structure, a 17,000 square foot office building over an 8,250 concrete basement floor currently under construction, ~~57,510 square foot building~~ and paved surface parking and surrounding properties are located in an area with urban uses. There are no wildlands on the project site or in the immediate vicinity of the site. To the rear there are oil fields that do not appear to have managed landscaping and therefore have wild growth. The site is located within an area determined by the Culver City Natural Hazards Map to be a Fire Hazard Zone. However, the proposed project would adhere to applicable fire suppression regulations. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildfires. No impact would occur.

The revised addition of 5,475 square feet to the building currently under construction will not significantly affect this environmental factor; the addition will be built within the footprint and height volume of the existing building under construction, the use will not change, and no knew excavation will be required. The mitigation below is sufficient to address potential impacts due to the disturbance of abandoned oil wells.

Mitigation Measure(s):

HM 1: Prior to the issuance of any City permits, coordination with the Division of Oil, Gas and Geothermal Resources (DOGGR) will be required to ensure that construction activity does not disturb the existing abandoned oil wells and any necessary measures needed to prevent release of hazardous materials as determined by DOGGR shall be implemented. Proof of this coordination an implementation measure if needed shall be presented to the City prior to issuance of City Permits.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
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 table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, 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?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

preparation of erosion/sediment control plans such as the Local Storm Water Pollution Prevention Plan (LSWPPP) and Standard Urban Storm Water Mitigation Plan (SUSMP), to regulate and control pollutant run-off by using Best Management Practices (BMP's) in accordance with National Pollutant Discharge Elimination System (NPDES). The construction of the proposed commercial development would not result in a significant increase in runoff during storm events. Also the course of the nearby Ballona Creek, which is channelized with concrete will not be affected or rerouted as a result of the project. Standard City and State code requirements for stormwater runoff and drainage as described in the sections above would substantially reduce this impact to a level that is less than significant.

e)- f) *Less Than Significant Impact*. See Sections VIII. a)- d), above. The project would be expected to result in an insignificant increase in runoff, which would be conveyed to public storm drains by required drainage improvements. Also, there are no other known impacts to water quality. No mitigation measures are necessary.

g)- h) *No Impact*. The site is not within a 100-year flood hazard area. No mitigation measures are necessary.

i) *Less Than Significant Impact*. The site is located within the Mullholland Dam Inundation zone; however, this dam is continually monitored by the State of California Division of Safety of Dams and the U.S. Army Corps of Engineers to guard against the threat of dam failure. Design and construction practices are intended to ensure that all dams are capable of withstanding the maximum considered earthquake (MCE) for the site. Due to the distance of the project site from the Mullholland Dam and the extent of the intervening development, as well as early warning systems in place, impacts associated with exposing people or structures to significant risk as a result of dam failure are less than significant.

j) *No Impact*. Inundation by seiche, tsunami, or mudflow is highly unlikely as the site is not near any inland body of water and is located in a relatively flat plane where mudflows would not occur. No mitigation measures are necessary.

The revised addition of 5,475 square feet to the building currently under construction will not significantly affect this environmental factor; the addition will be built within the footprint and height volume of the existing building under construction, the use will not change, and no knew excavation will be required. When the building permit for this addition is reviewed all applicable storm and water quality related codes and regulations will be applied.

Mitigation Measure(s): None required

X. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact*. The project would not physically divide an established community as the proposed commercial office uses are similar types of land uses to the existing adjacent commercial and light industrial uses to the surrounding area near the project site.

b) *Less Than Significant Impact*. The General Plan Land Use Element designates the property as Industrial which is an industrial designation that allows industrial and office uses. It is located within the City's Redevelopment Project Component Area No. 4. As required by redevelopment law, the land uses designated in the Redevelopment Plan

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, 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 which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact.* During excavation and construction, erosion and siltation could occur resulting in water pollution and a violation of Regional Water Quality Control Board standards if proper steps are not implemented. Standard code requirements and conditions of approval to the project requires the preparation of erosion/sediment control plans such as the Local Storm Water Pollution Prevention Plan (LSWPPP) and Standard Urban Storm Water Mitigation Plan (SUSMP), to regulate and control pollutant run-off by using Best Management Practices (BMP's) in accordance with National Pollutant Discharge Elimination System (NPDES). These plans shall show all temporary and permanent erosion control devices, effective planting of graded slopes, practical accessibility for maintenance purposes and proper precautions and fences to prevent public trespass on to certain areas where impounded water may create hazardous conditions. City and State standard code requirements and site design elements would reduce this potential impact to a level that is less than significant. No mitigation measures are necessary.

b) *Less Than Significant Impact.* Water service to the City is provided by the Golden State Water Company which contracts with the Metropolitan Water District for its supply. There are no water wells within the City and the project does not require the installation of wells for water service. The existing project site is comprised of a 2-story, 55,509 square foot, reinforced masonry structure, a 17,000 square foot office building over an 8,250 concrete basement floor currently under construction, ~~57,510 square foot building~~ and surface parking. The amount of storm water runoff percolated on this site is insignificant. Development of the project will require the installation of landscaped areas that will percolate and filter the first ¾ inch of rain fall. Also the shallowest identified ground water is located more than 40 feet below the surface, well below that maximum 16 foot excavation needed for the new building. No mitigation measures are necessary.

c) *Less Than Significant Impact.* Grading in connection with the project would result in insignificant changes to existing drainage patterns. Grading and building plans will be reviewed by the City's Engineering Division to ensure that grading and drainage would be done in manner that does not cause substantial erosion, siltation or flooding. Also the course of existing surrounding washes or rivers, all of which are channelized with concrete will not be affected or rerouted as a result of the project. No mitigation measures are necessary.

d) *Less Than Significant Impact.* Standard code requirements and conditions of approval to the project requires the

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

area must be consistent with those identified in the Culver City General Plan Land Use Element. The property is presently zoned Industrial General (IG) which permits the proposed commercial office development. The proposal is consistent with these designations and respects all provisions and development regulations of the Zoning Code~~,~~ and General Plan, and Redevelopment Plan. The application does not include any variance or request to amend the General Plan, Redevelopment Plan or Zoning designation.

c) *No Impact*. The site is not located within a Natural Community Conservation Plan area or other habitat conservation plan area. No mitigation measures are required.

Mitigation Measure(s): None required

XI. MINERAL RESOURCES -- Would the project:

a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b)	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?	☐	☐	☐	☒

Responses:

a)- b) *No Impact*. The project site and its surrounding area are currently developed with light industrial and commercial urban uses. Nearby is a city park and oil fields. As already noted above the four existing oil wells on the site have been abandoned and are no longer operational. Current site conditions indicate that there are no mineral resources on or within the project site and no locally important mineral resource recovery areas located in the project area. Therefore, project implementation would not result in impacts associated with the loss or availability of a known mineral resource that would be of value to the region and the residents of the state. No mitigation measures are necessary.

Mitigation Measure(s): None required

XII. NOISE --Would the project 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?	☐	☐	☒	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact 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?	☐	☐	☒	☐

Responses:

a)- d) *Less Than Significant Impact*. There are two potential sources of concern regarding noise: 1) noise generated on adjacent properties during construction and 2) noise impacts caused by the additional traffic generated by future occupants of the proposed project.

A short-term noise increase during construction would be expected to occur from the use and transport of heavy constructed equipment. However, pursuant to the City's standard condition of approval, construction shall be limited to the hours of 8:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. through 6:00 p.m. on Saturday and 10:00 a.m. through 6:00 p.m. on Sundays and national holidays. Dirt hauling and construction material deliveries or removal are prohibited during the peak traffic periods; morning (7:00 a.m. to 9:00 a.m.) and afternoon (4:00 p.m. to 6:00 p.m.). This condition of approval requirement limiting the hours on construction activity would reduce potential impact from construction noise to a level that is less than significant.

A short-term increase in groundborne vibration and noise would be expected to occur during grading and construction. The size of the project and limitations on allowable hours of construction found in the City's Municipal Code as well as conditions of approval to the project would reduce this impact to a level that is less than significant.

The marginal increases in traffic on surrounding streets would not generate a significant increase in noise levels. The project site is located in an area consisting of light industrial and office uses, a city park, oil fields, and is located on a high traffic volume boulevard. These surrounding uses will potentially be exposed to noise generated by operational activities. Operational noise levels would result from vehicles entering and exiting the site and from noise normally generated by office uses. These types of noise levels are consistent with existing surrounding ambient noise cause by existing light industrial office uses and noise caused by park users. Noise attributed to operational activities is not expected to be significant. No mitigation measures are necessary.

e)- f) *No Impact*. The site is not located near an airport flight path and there are no private airstrips within the vicinity of the site. The nearest airports to the project site are the Los Angeles International Airport (LAX), located approximately 5 miles south of the project site and the Santa Monica Airport located approximately 3.5 miles northwest of the site. No mitigation measures are necessary.

Mitigation Measure(s): None required

XIII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Responses:

a) *Less Than Significant Impact.* The General Plan Land Use Element designation for the project site is Industrial which allows office development. The Zoning for this area is Industrial General which is consistent with the Land Use designation and provides development standards for office development. No housing is proposed; however the

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

project may result in a marginal increase in population because it will provide for new job opportunities that may result in new employees moving into the City. However this population increase is not expected to be significant.

b)- c) *No Impact* The project is comprised of a commercial building with surface parking and no residential uses. The proposed use will serve office users and there will be no demolition of residential uses or displacement of people. No significant reduction or displacement of population or housing is associated with the project.

Mitigation Measure(s): None required

XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for 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 public services:

Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

Responses:

a) & b) Fire and Police protection

Less Than Significant Impact. The Culver City Fire Department (CCFD) maintains three stations and the closest station to the proposed site is Station No. 1 located approximately 0.8 miles northeast of the site. The proposed project will be conducted and operated in accordance with the latest CCFD codes and guidelines for construction, access, water, fire flows and hydrants. Including, standard conditions regarding street improvements require the preparation and implementation of traffic control plans to ensure that construction does not obstruct emergency access.

The Culver City Police Department (CCPD) is located approximately 0.6 miles northeast of the project site. According to the CCPD, the emergency response time anywhere in the City for a top priority emergency is three minutes or less.

Currently the project site is developed with a 2-story, 55,509 square foot, reinforced masonry structure, a 17,000 square foot office building over an 8,250 concrete basement floor currently under construction, ~~57,510 square foot building~~ and surface parking. Although the proposed uses will result in a total of 20,474 ~~14,999~~ net new square feet of commercial office space, the existing uses are currently generating Fire and Police services as needed. The increased commercial square footage is not expected to result in a substantial increase in Fire and Police services. Also the current existing vacant building will be fully occupied potentially decreasing calls for police services usually associated with the vandalization of vacant buildings. Neither the Fire Department nor the Police Department during the internal review of the project identified impacts to their response times as noted above; further they did not identify impacts to their ability to provide adequate services.

Implementation of standard Fire Department related requirements will address potential impacts and the inclusion of security measures such as gates, fencing, on-site exterior lighting, and alarm systems will assist in deterring potential criminal activity. Additionally the project and revision is within the expected development envelope for this industrial and commercial strip of Jefferson Boulevard and is no greater than what is anticipated for this land use. Fire and Police comments did not indicate that this project was beyond their scope of services as would be expected along this commercial strip.

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

c) Schools

Less Than Significant Impact. As a proposed office use with no residential component the project is not expected to generate a substantial population increase that would necessitate additional school services. Further, the Culver City Unified School District (CCUSD), in accordance with California Government Code Section 53080 and 65995, collects statutory developer fees prior to the issuance of a building permit. CCUSD determines the use of these funds which can include construction or reconstruction of school facilities. The office project will not result in significant adverse impacts relative to schools because it is not expected to generate a substantial population increase and payment of the school fees by the applicant, in accordance with State law, would offset impacts to school services. No mitigation measures are necessary.

d) Parks

Less Than Significant Impact. The use of the existing neighborhood and regional parks is not expected to substantially increase with the addition of 20,474 ~~14,999~~ net new office square feet. Potential new users of the adjacent Culver City park generated by the employees of the proposed office use are not expected to significantly impact the general uses and services provided by the park. The park as designed is expected to service a variety of users at various times and the new employees are not expected to impact that expected level of service. The project will not require new construction or expansion of parks facilities and the project will include onsite open space areas for employees such as landscaped areas, balcony/decks, and a roof top terrace.

e) Other Public Facilities

No Impact. Other facilities have not been identified that could be impacted by the project. No mitigation measures are necessary.

Mitigation Measure(s): None required

XV. RECREATION --

a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Responses:

a)-b) Less Than Significant Impact. As stated above in Section XIV- Parks, the use of the existing neighborhood and regional parks is not expected to substantially increase with the addition of 14,999 square feet of commercial office space. The project will not require new construction or expansion of parks or recreational facilities. Also the project will include onsite open space areas for employees such as landscaped areas, balcony/decks, and a roof top terrace. Overall, the project will not result in significant adverse impacts relative to recreation because it is not expected to generate a substantial population increase. No mitigation mea6sures are necessary.

Mitigation Measure(s): None required

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulating system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c) 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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Responses:

a), b), and d) *Potentially Significant Impact Unless Mitigation Incorporated.* A full traffic analysis was not needed because the estimated net new peak hour trips for ~~both~~ the AM and the PM was 35 and 34 respectively ~~25~~ which are ~~is~~ below the 50 net new trip threshold. Instead a Synchro and Gap Study Analysis (focused study), dated March 2, 2011, was prepared for the proposed project and revised on June 20, 2012 to incorporate the 5,475 square foot addition by a traffic consulting firm, Crain and Associates (CA) and was reviewed and accepted by the City's Traffic Engineer.

This focused study evaluated the existing (year 2010) and forecast future (year 2020) conditions at five intersections in the vicinity of the project site during both the AM and PM peak hours. Impacts to these intersections were not identified except for site distance and gaps for the Leash Lane/Jefferson Boulevard intersection. This report focused on sight distance when making left turns onto Jefferson Boulevard from Leash Lane and a Gap Study for vehicles making the same maneuver at the same intersection noted above.

The sight distance analysis determined that motorists approaching the Jefferson Boulevard from Leash Lane and wanting to turn left onto Jefferson Boulevard have limited sight distance due to three street parking spaces immediately adjacent to the project site. The study recommended that these three spaces be removed and the curbing be painted red. On, or about March 1, 2011 the Culver City Public Works Department removed the three spaces and red curbed the curbing thus reducing this potential impact to less than significant.

The Gap Study indicated that for the PM peak only, vehicles making a left onto Jefferson Boulevard from Leash Lane under future conditions (when related projects such as the West Los Angeles College expansion [2020] are fully

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

operational) may not have sufficient gaps of traffic along Jefferson Boulevard to make that left turn. The increase in the time needed to make that left turn under future conditions will decrease the Level of Service (LOS) for this intersection from Level D to Level E in the PM peak only.

Level of Service (LOS) is a professional industry standard by which to measure the operating conditions of a given roadway segment or intersection. LOS is define on a scale of A to F, where LOS A represents free flowing traffic conditions with no restrictions on maneuvering or operating speeds, low traffic volumes and high speeds; LOS B represents stable flow, more restrictions, operating speeds beginning to be affected by traffic volumes; LOS C represents stable flow, more restrictions, speed and maneuverability more closely controlled by higher traffic volumes; LOS D represents conditions approaching unstable flow, traffic volumes profoundly affect arterial flow; LOS E represents unstable flow and some stoppages; and LOS F represents forced flow, many stoppages and low operating speeds.

In order to address this potentially significant impact, the focused study recommended mitigation measures. First, the intersection at Leash Lane/Jefferson Boulevard is currently designed at an obtuse 120 degrees (from the Leash Lane perspective) inhibiting ease of traffic flow for left turn movements. The radius at the Leash Lane approach to Jefferson Boulevard will be adjusted so that at its STOP Line, the intersection is perpendicular to Jefferson Boulevard, thereby creating a standard 90 degree intersection. This will ease both the sight-triangle and required acceleration for the left turning vehicles. The second mitigation involves the installation of a traffic signal loop detector on Leash Lane connected to the traffic signal on Jefferson Boulevard immediately to the left of the intersection. This loop detector will activate that signal's north/south green-phase and thereby provide eastbound gaps; the created eastbound gaps will coincide with the westbound gaps created at Jefferson Boulevard and Duquesne Avenue. With the traffic gaps created along Jefferson Boulevard, left turns onto Jefferson Boulevard from Leash Lane in the PM peak will be possible without significantly impacting traffic flow. Additionally, the ability to make left turns at the identified intersection during the PM peak may reduce overall traffic from the project through the park and onto the intersection of Jefferson Boulevard and Duquesne Avenue. With these mitigations potential traffic related impacts will be reduced to less than significant.

Although not identified as mitigation measures, the project applicant has agreed to provide two more improvements to the Leash Lane/Duquesne Avenue park roads: two speed feedback signs to control speeding and a modification of the curb returns at the Leash Lane/Duquesne Park Road intersection to increase compliance with the all-way stop control at the intersection. These additional voluntary improvements along with the mitigations noted above will reduce potential traffic impacts to less than significant.

Further the additional 5,475 square feet to the building currently under construction will not significantly affect this environmental factor and no knew traffic mitigations are needed.

c) *No Impact.* As noted above in previous sections the project site is not near or adjacent to any airport and the project would have no effect on air traffic patterns.

e) *Less Than Significant Impact.* The project will include the striping of 214 parking spaces after approval of a 7.3% reduction as allowed with an Administrative Modification. Findings for this type modification can be made and the 7.3 % is not expected to create a significant impact. ~~The project will provide the code required parking and~~ Adequate access to the site will be provided and will not impede ~~without impeding~~ emergency access. On-site circulation provides for adequate turning radii for emergency vehicles and both the Police and Fire departments did not identify potential impacts to emergency access resulting from the project. Standard construction related conditions of approval will ensure adequate emergency access during construction. No mitigation measures are necessary.

f) *No Impact.* There are no policies that apply to the project related to alternative transportation. No mitigation measures are necessary.

Mitigation Measure(s):

TR 1: The radius at the Leash Lane approach to Jefferson Boulevard will be adjusted so that at it's the STOP Line, the intersection is perpendicular to Jefferson Boulevard, thereby creating a standard 90 degree intersection. .

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

TR 2: A traffic signal loop detector shall be installed on Leash Lane connected to the traffic signal on Jefferson Boulevard immediately to the left of the intersection. This loop detector will activate that signal's north/south green-phase and thereby provide eastbound gaps; the created eastbound gaps will coincide with the westbound gaps created at Jefferson Boulevard and Duquesne Avenue.

XVII. UTILITIES AND SERVICE SYSTEMS --Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
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?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Responses:

a),b),&e) *Less Than Significant Impact*. Culver City maintains its own sewage collection facilities within the City limits and contracts with the City of Los Angeles for treatment and disposal service. Treatment occurs at the Hyperion Treatment Plan, located southwest of the City which has sufficient capacity to serve the needs of the proposed project. Expansion of the existing facilities is not necessary. The proposed project will have less than significant impact to the waste water system.

c) *Less Than Significant Impact.* The City is primarily served by the Los Angeles County Storm Drainage System. The City currently maintains some of its own storm drains that connect to the County systems. The combined system is adequate to serve the proposed project.

d) *Less Than Significant Impact.* Water service for this project site is provided by the Golden State Water Company (GSWC) which contracts with the Metropolitan Water District for its supply. There are sufficient water supplies to the City to serve the proposed project. Expansion of the existing services is not necessary. The proposed project will have less than significant impacts to the water system.

f) *Less Than Significant Impact.* Solid waste from the proposed project area is disposed of at the Puente Hills landfill in the City of Industry. Other landfills available for City waste disposal include BKK Sanitary Landfill located in the City of West Covina and Bradley West Landfill located in the City of Sun Valley. The Municipal Code requires provision of trash containers for recyclable materials and yard waste to reduce solid waste generation. No mitigation

EVALUATION OF ENVIRONMENTAL IMPACTS:	Potentially Significant Impact	Potentially Significant Impact Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

measures are necessary.

g) *Less Than Significant Impact.* See Section XVI.f, above. The project could generate solid waste during construction. Standard conditions requiring the contractor to remove and dispose of waste in accordance with applicable statues and regulations would reduce this impact to a level that is less than significant. No mitigation measures are necessary.

Mitigation Measure(s): None required

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE –

a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b)	Does the project have 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 past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Responses:

a) *Less Than Significant Impact.* The proposed project will improve the project site which currently contains a 2-story, 55,509 square foot, reinforced masonry structure, a 17,000 square foot office building over an 8,250 concrete basement floor currently under construction, ~~vacant 57,510 square foot building~~ and surface parking. The project site does not contain any threatened or endangered species or sensitive habitats. Therefore, the project will not degrade the quality of the environment or have any potential significant impacts to any plant or animal wildlife species.

b) *Less Than Significant Impact.* Any potential cumulative impacts will be substantially reduced due to standards City code requirements and conditions of approval to less than significant.

c) *Less Than Significant Impact.* The project will not result in significant environmental impacts from construction and operation of the project. Standard City code requirements will reduce any potential impacts to less than significant.

Mitigation Measure(s): None required

XVIII. EARLIER ANALYSES:

None

References Utilized:

1. Geotechnical Investigation Report prepared by Global Geo-Engineering, Inc., November 16, 2010.
2. Greenhouse Gas Inventory and Analysis prepared by CAJA Environmental Services, LLC., October, 2010 and updated on June 20, 2012.
3. Phase I Environmental Assessment for 9920 Jefferson Boulevard prepared by LFR, Inc., February 6, 2006.
4. Synchro and Gap Study Analysis prepared by Crain and Associates, March 2, 2011 and updated June 20, 2012.
7. Culver City Redevelopment Plan Amendment and Merger Program Subsequent Environmental Impact Report, November 16, 1998.
8. Culver City General Plan Update Program Environmental Impact Report, November 1995

MITIGATION MONITORING PROGRAM

The following environmental mitigation measures shall be incorporated into the project development as conditions of approval. The project applicant shall secure a signed verification for each of the mitigation measures which indicate that mitigation measures have been complied with and implemented, and fulfills the City environmental and other requirements (Public Resources Code Section 21081.6.). Final clearance shall require all applicable verification as included in the following table. The City of Culver City will have primary responsibility for monitoring and reporting the implementation of the mitigation measures unless otherwise indicated. The mitigation measures have been identified by impact category and numbered for ease of reference.

MITIGATION MONITORING PROGRAM
Administrative Site Plan Review Modification, ASPR/M P-2012073; Administrative Modification, AM P-2012074;
Administrative Site Plan Review, ASPR P-2010184; Mitigated Negative Declaration, MND P-2010185
June 20, 2012 ~~April 15, 2011~~

MITIGATION MEASURE	Implementing Action, Condition or Mechanism	Method of Verification	Timing of Verification	Responsible Persons
Cultural Resources **CR-1** *Prior to Building Permit issuance, a Phase 1 Archaeological/Paleontological Survey shall be completed and submitted to the Planning Division and Building Safety Division for review. If the Phase 1 Archaeological/Paleontological Survey indicates the presence of archaeological and/or paleontological resources, then an archaeological and/or paleontological professional(s), approved by the City, shall monitor all phases of excavation for the project site. In the event that the Phase 1 Archaeological/Paleontological Survey determines that no such resources exist but undetected fossil resources and/or human remains or other archaeological and/or paleontological resources are encountered during construction activities, work in that area must be halted and both the City of Culver City and the coroner must be notified. Work will be halted in that area of the detected resource until the City of Culver City and/or the coroner or an archaeological and/or paleontological professional(s), have been contacted to evaluate the resources and permission to commence work in that area has been given by the City of Culver City.*	Condition of Approval	Plan Check note and Field Inspection	Prior to Issuance of a Building Permit and On-Going during Construction	Building Safety Division and Building Safety Inspector
Hazardous Materials **HM-1** *Prior to the issuance of any City permits, coordination with the Division of Oil, Gas and Geothermal Resources (DOGGR) will be required to ensure that construction activity does not disturb the existing abandoned oil wells and any necessary measures needed to prevent release of hazardous materials as determined by DOGGR shall be implemented. Proof of this*	Condition of Approval	Plan Check note and Field Inspection	Prior to Issuance of first Permit associated with this project and On-Going during Construction if needed.	Building Safety Division and Building Safety Inspector Public Works/ Engineering Services and Public Works

MITIGATION MONITORING PROGRAM

Administrative Site Plan Review Modification, ASPR/M P-2012073; Administrative Modification, AM P-2012074; Administrative Site Plan Review, ASPR P-2010184; Mitigated Negative Declaration, MND P-2010185
June 20, 2012 ~~April 15, 2011~~

MITIGATION MEASURE	Implementing Action, Condition or Mechanism	Method of Verification	Timing of Verification	Responsible Persons
coordination an implementation measures if needed shall be presented to the City prior to issuance of City Permits.				Inspector
Transportation/Traffic **TR 1:** *The radius at the Leash Lane approach to Jefferson Boulevard will be adjusted so that at it's the STOP Line, the intersection is perpendicular to Jefferson Boulevard, thereby creating a standard 90 degree intersection.*	Condition of Approval	Plan Check note and Field Inspection	Prior to Certificate of Occupancy of final inspection	Public Works/ Engineering Services and Public Works Inspector
Transportation/Traffic **TR 2:** *A traffic signal loop detector shall be installed on Leash Lane connected to the traffic signal on Jefferson Boulevard immediately to the left of the intersection. This loop detector will activate that signal's north/south green-phase and thereby provide eastbound gaps; the created eastbound gaps will coincide with the westbound gaps created at Jefferson Boulevard and Duquesne Avenue.*	Condition of Approval	Plan Check note and Field Inspection	Prior to Certificate of Occupancy of final inspection	Public Works/ Engineering Services and Public Works Inspector

CRAIN & ASSOCIATES

E-MAIL TRANSMITTED

July 2, 2012

Mr. Barry Kurtz
City of Culver City
Public Works
Engineering Division
9770 Culver Boulevard, 2nd Floor
Culver City, California 90232

RE: Synchro and Gap Study Analysis for the Nantworks BioScience Culver City Project – Turning Movements from Leash lane to Jefferson Boulevard

Dear Mr. Kurtz,

All About Advanced Health (Nantworks BioScience) proposes to renovate an existing building and construct an addition to that building, which is located at 9920 Jefferson Boulevard. The subject property is located on the south side of Jefferson Boulevard, approximately 600 feet west of Duquesne Avenue, in the City of Culver City, California. The project is accessible from Jefferson Boulevard via Leash Lane (Leash Lane is not part of the public roadway network), and from Duquesne Avenue south of Jefferson Boulevard (this segment of Duquesne Avenue is a Park Road rather than part of the public roadway network) via Leash Lane. The existing building consists of approximately 57,510 square feet of floor area. At the completion of the project, the site will consist of approximately 78,509 square feet of office use and 8,250 square feet of warehouse use. Site automobile access is, and will continue to be, provided via one driveway on Leash Lane, approximately 320 feet southeast of Jefferson Boulevard. A site plan of the property at project completion, including the driveway area, is shown in Attachment A.

At the City of Culver City's request, Crain & Associates has conducted a sight distance analysis to determine if vehicles performing a northbound left-turn have adequate sight distance to safely complete the turn onto the westbound traffic flow on Jefferson Boulevard. In addition, a gap study of existing conditions and a Synchro analysis of future conditions for the Leash Lane northbound left-turns to Jefferson Boulevard have been conducted to determine whether outbound motorists can safely utilize Leash Lane to depart from the project site. This intersection provides the most direct primary access to and from the Nantworks BioScience property. Specifically, we examined conditions during the AM and PM peak hours for making a northbound left-turn from the one-way STOP sign on Leash Lane onto westbound Jefferson Boulevard. Finally, this report recommends mitigation and determines whether the project would have significant traffic impacts with the mitigation being installed.

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Project Trip Generation

The trip-generating characteristics of many land uses have been studied by the Institute of Transportation Engineers (ITE). The results of the trip generation studies have been published in the current 8th Edition of the Trip Generation manual, which has become the industry standard for estimating the trip generation of land uses. Table 1 provides the trip generation rates for the "Office" and "Warehouse" land uses from this manual, which were used to estimate the project trip generation.

Table 1: Project Trip Generation Rates

Warehousing (Land Use Code 150)

Daily:	T = 3.56 (A)
AM Peak Hour:	T = 0.30 (A); 79% inbound, 21% outbound
PM Peak Hour:	T = 0.32 (A); 25% inbound, 75% outbound

Office (Land Use Code 710)

Daily:	T = 11.01 (A)
AM Peak Hour:	T = 1.55 (A); 88% inbound, 12% outbound
PM Peak Hour:	T = 1.49 (A); 17% inbound, 83% outbound

T = Trip Ends; A = 1,000s square feet gross floor area.

Based on these trip generation rates, the estimated project trip generation was calculated and presented in Table 2. As shown in Table 2, the project would generate an estimated 260 net new trips per day, including 35 AM and 34 PM peak-hour trips.

Table 2: Estimated Project Trip Generation

			AM Peak Hour			PM Peak Hour		
Use	**Size**	**Daily**	**I/B**	**O/B**	**Total**	**I/B**	**O/B**	**Total**
With Project Site Trips								
Office (Total GFA)	78,509 sf	864	107	15	122	20	97	117
Warehouse	8,250 sf	29	2	0	2	1	2	3
Total	80,759 sf	893	109	15	124	21	99	120
Less Without Project Site Trips								
Office	57,510 sf	633	78	11	89	15	71	86
Net Project Added Trips		**260**	**31**	**4**	**35**	**6**	**28**	**34**

Existing & Future Traffic Volumes

Weekday traffic volumes for existing conditions at five study intersections were determined from manual traffic counts conducted in the AM and PM periods during September and October 2010. Existing weekday peak-hour study intersections volumes are illustrated in Figures 1(a) and 1(b). The traffic data count sheets are in Attachment B.

Information pertaining to intersection widths and geometrics, on-street parking restrictions, and traffic signal operations were obtained from field observations and City engineering plans. The existing lane configuration and traffic control conditions for the study intersections are in Attachment C. The building expansion and re-occupancy is anticipated to be completed within late 2012 and early 2013, but to be conservative, it was agreed with City of Culver City staff that 2020 would be analyzed as the future study year. Future (2020) traffic volume estimates were developed to analyze traffic conditions after the completion of project's construction or otherwise planned for occupancy within the study area, including the proposed project. Pursuant to the City of Culver City Memorandum of Understanding for the Traffic Study, the following steps were performed to estimate "Future (2020) Without Project" conditions:

1. Existing (2010) traffic volume counts were used as a base. A traffic growth of 2.0 percent per year through 2020 plus volumes from the related projects with direct access from the area roads were added to the existing count volumes in order to establish the base analysis year traffic volumes. This 2.0 percent growth includes 1.0 percent to account for other local related projects growth (not including the project across the street and the college project mentioned below) and 1.0 percent for non-area traffic growth.

2. The traffic volumes listed as item 1 above included the related projects that would affect study area intersection turning movement percentages in order to calculate the worst case "Future (2020) Without Project" volumes. Information regarding related projects was obtained from the City of Culver City in late 2010. Reoccupancy of the site and two other related projects could substantially alter traffic patterns at the study intersections by the future study year. The 9919 Jefferson Boulevard Project is located on the north side of Jefferson Boulevard opposite, but somewhat offset from, the Nantworks BioScience site. The traffic study prepared by Fehr & Peers for the 9919 Jefferson project in July 2008 was utilized in order to obtain the traffic volumes from that project anticipated at the study intersections. A traffic study for West Los Angeles College project was prepared by Kaku Associates in September 2004, which was included in 2005 EIR. That study was utilized to obtain the college's traffic volumes at the study intersections. The West Los Angeles College project has an updated 2010 EIR, which shows a lower project trip generation level than the 2005 EIR. To be conservative, this technical report analyzed each West Los Angeles College EIR project traffic volumes separately as a different scenario.

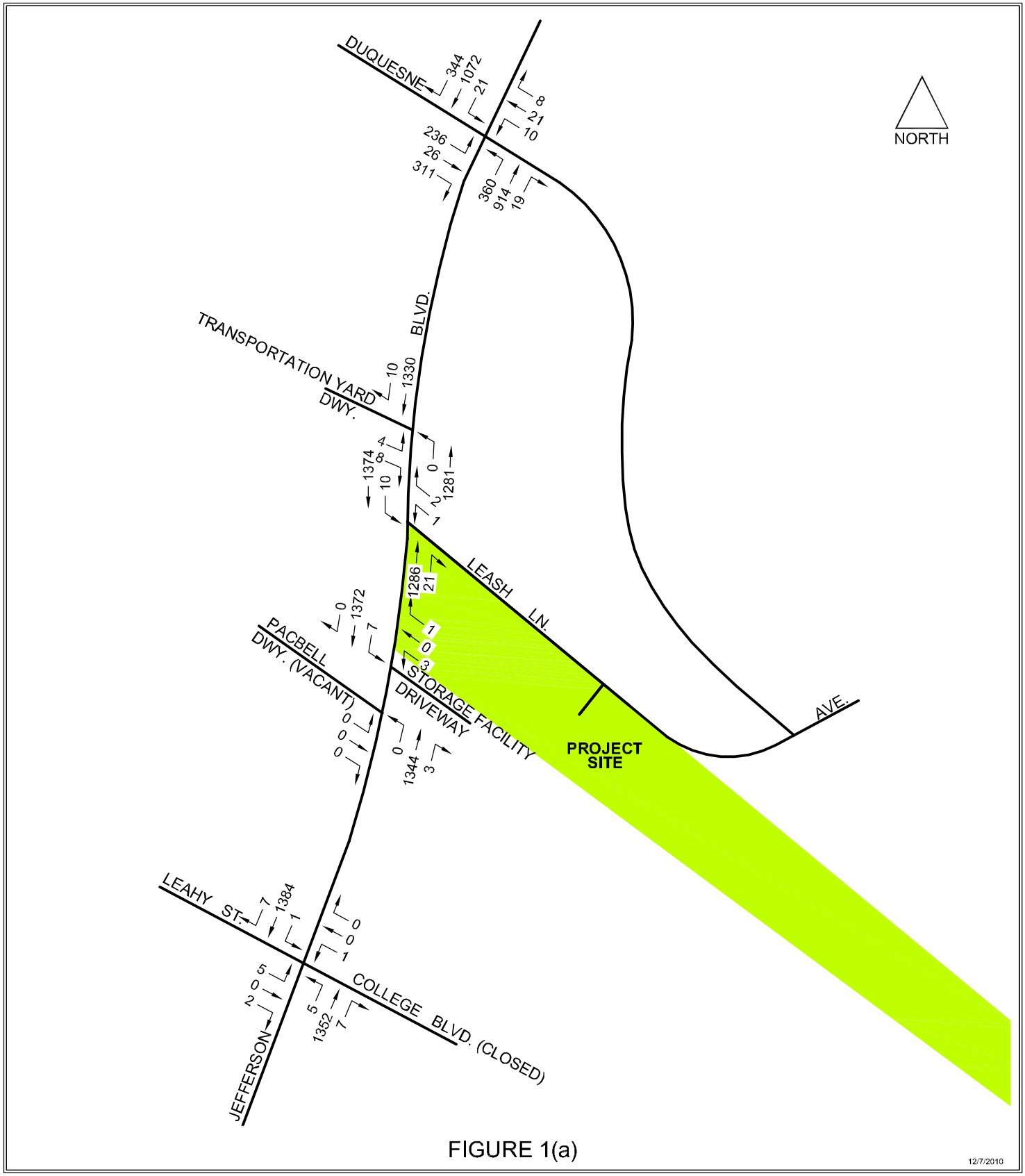


FIGURE 1(a)

12/7/2010

Abraxis BioScience Culver CityAM2010

EXISTING (2010) TRAFFIC VOLUMES
AM PEAK HOUR

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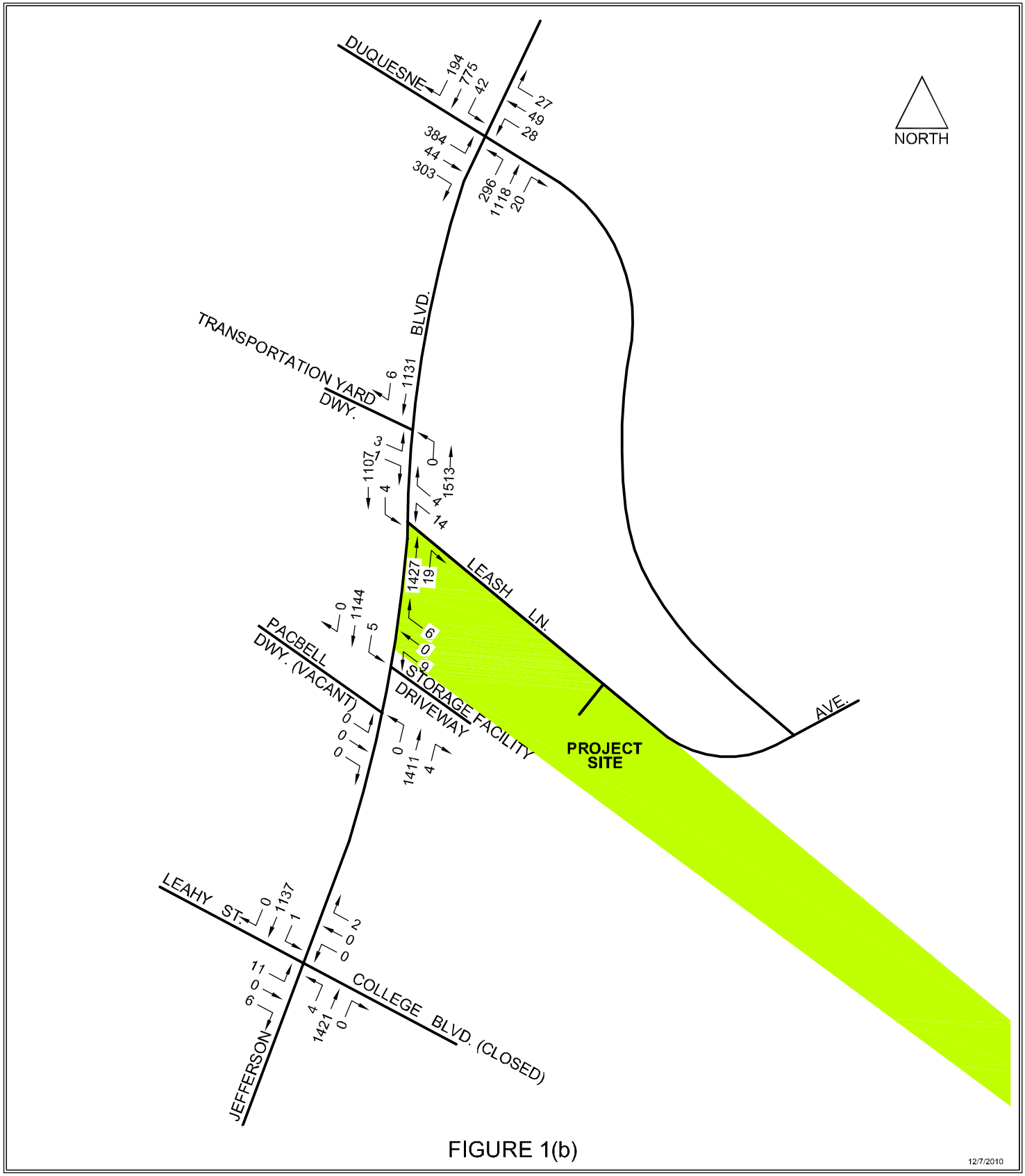


FIGURE 1(b)

12/7/2010

Abraxis BioScience Culver City\PM2010

EXISTING (2010) TRAFFIC VOLUMES
PM PEAK HOUR

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3. The traffic volumes in item 2. above were then further increased by adding project net traffic volumes in order to calculate "Future (2020) With Project" volumes. Estimation of the directional distribution of project trips was determined on the basis of the existing project site traffic patterns, characteristics of the surrounding roadway system, geographic location of the project and its proximity to freeways and major travel routes, and population and employment centers that would generate trip origins and destinations. The existing driveway travel pattern counts were conducted to further assist in determining the directional trip distributions. The data collection sheets from the counts conducted at the site driveways are included in Attachment D. Considering the above factors, the general project trip distribution percentages were estimated, and are included in Figure 2. The directional distribution percentages were then disaggregated and assigned to the most direct and reasonable routes that would be expected to be used for project access within the study area. This distribution pattern was agreed to with City staff as part of the project scoping process. Applying these inbound and outbound percentages to the project trip generation in Table 2, the AM and PM peak-hour project traffic volumes were estimated for the five study intersections. The assigned project traffic volumes were the basis for determining the traffic impacts attributable to the project. The Future (2020) With Project peak-hour volumes are presented in Figures 3(a) and 3(b) for "with 2005 West Los Angeles College EIR" scenario, and Figures 4(a) and 4(b) for "with 2010 West Los Angeles College EIR" scenario.

Sight Distance

Sight distance measurements were performed at the location of the subject property and its adjacent roadway – Leash Lane intersection with Jefferson Boulevard. These measurements were performed in accordance with American Association of State Highway and Transportation Officials (AASHTO)[1] requirements. Both stopping sight distance (SSD) and intersection sight distance (ISD) measurements were performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD or corner sight distance (CSD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an oncoming vehicle and safely complete a turning or crossing maneuver with oncoming traffic. In accordance with AASHTO standards, at a minimum, sufficient SSD must be provided at an intersection, although the provision of ISD is preferable as being safer and more efficient.

[1] A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO), 2004.

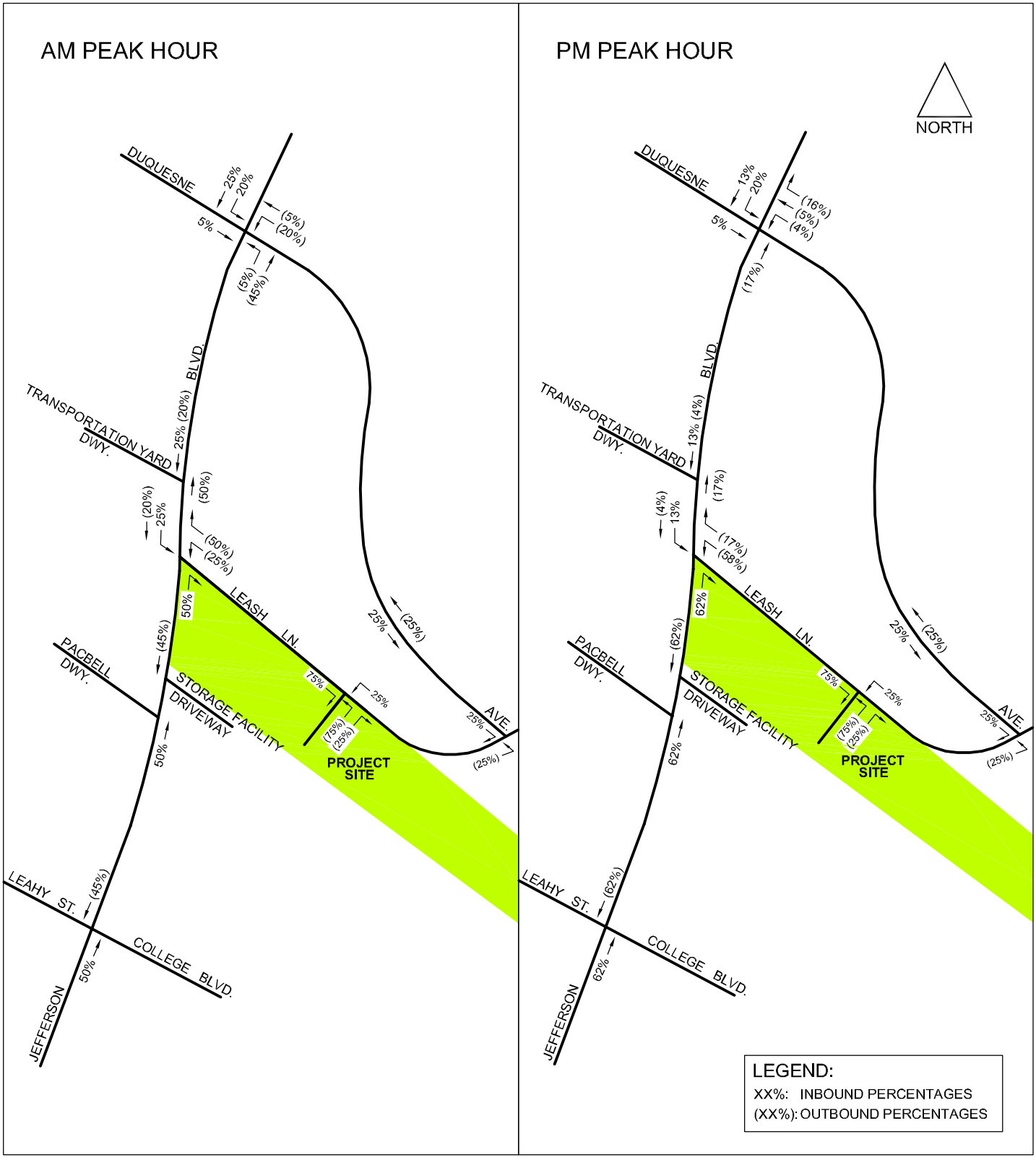


FIGURE 2

12/7/2010

Abraxis BioScience Culver City/DIST

PROJECT TRIP DISTRIBUTION PERCENTAGES

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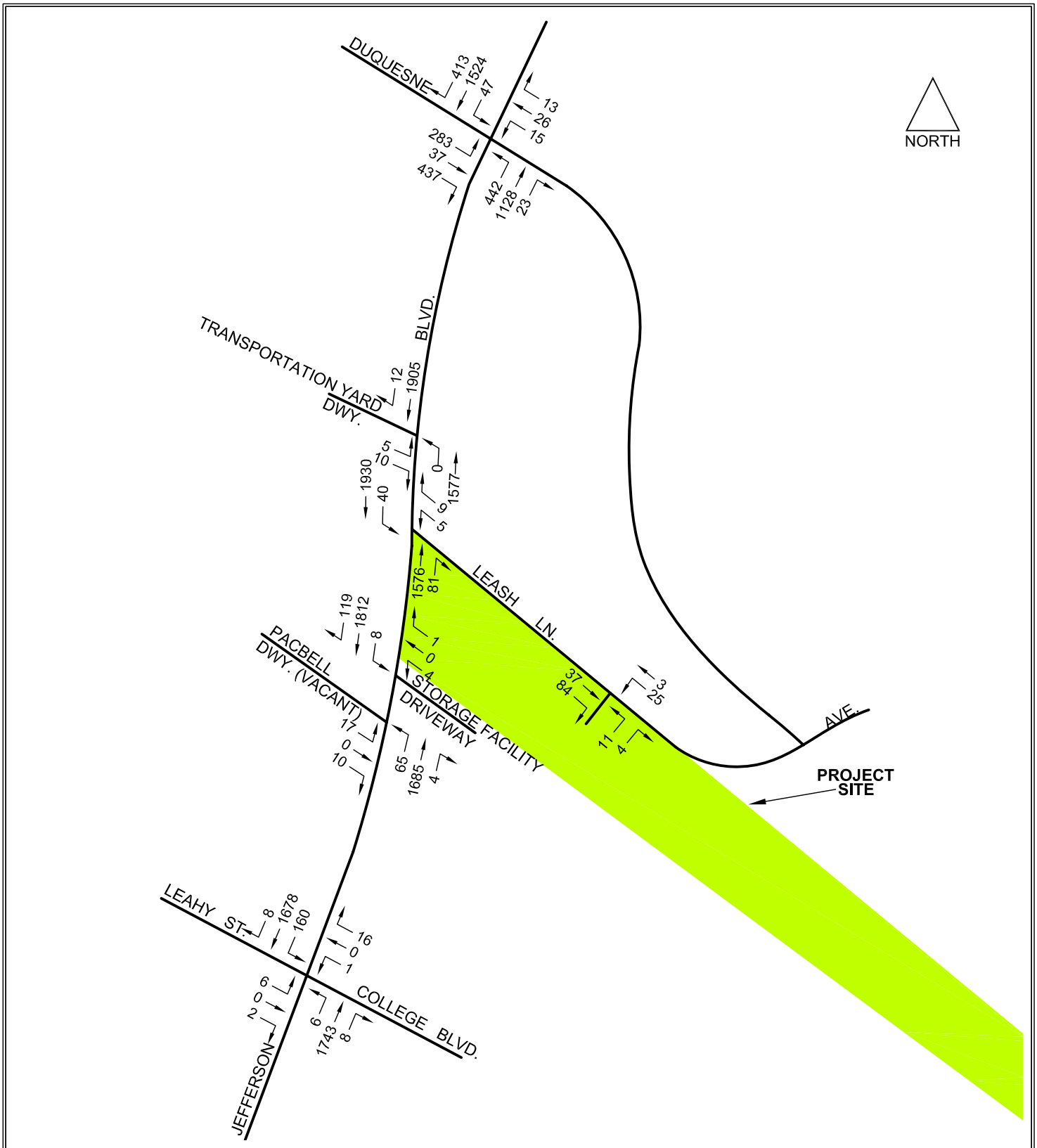


FIGURE 3(a)

6/12/2012

Advanced Health Abraxis BioSci Culver City\2012 Report\AM2020WP2005

FUTURE (2020) TRAFFIC VOLUMES
WITH PROJECT (WITH 2005 COLLEGE EIR BASE)
AM PEAK HOUR

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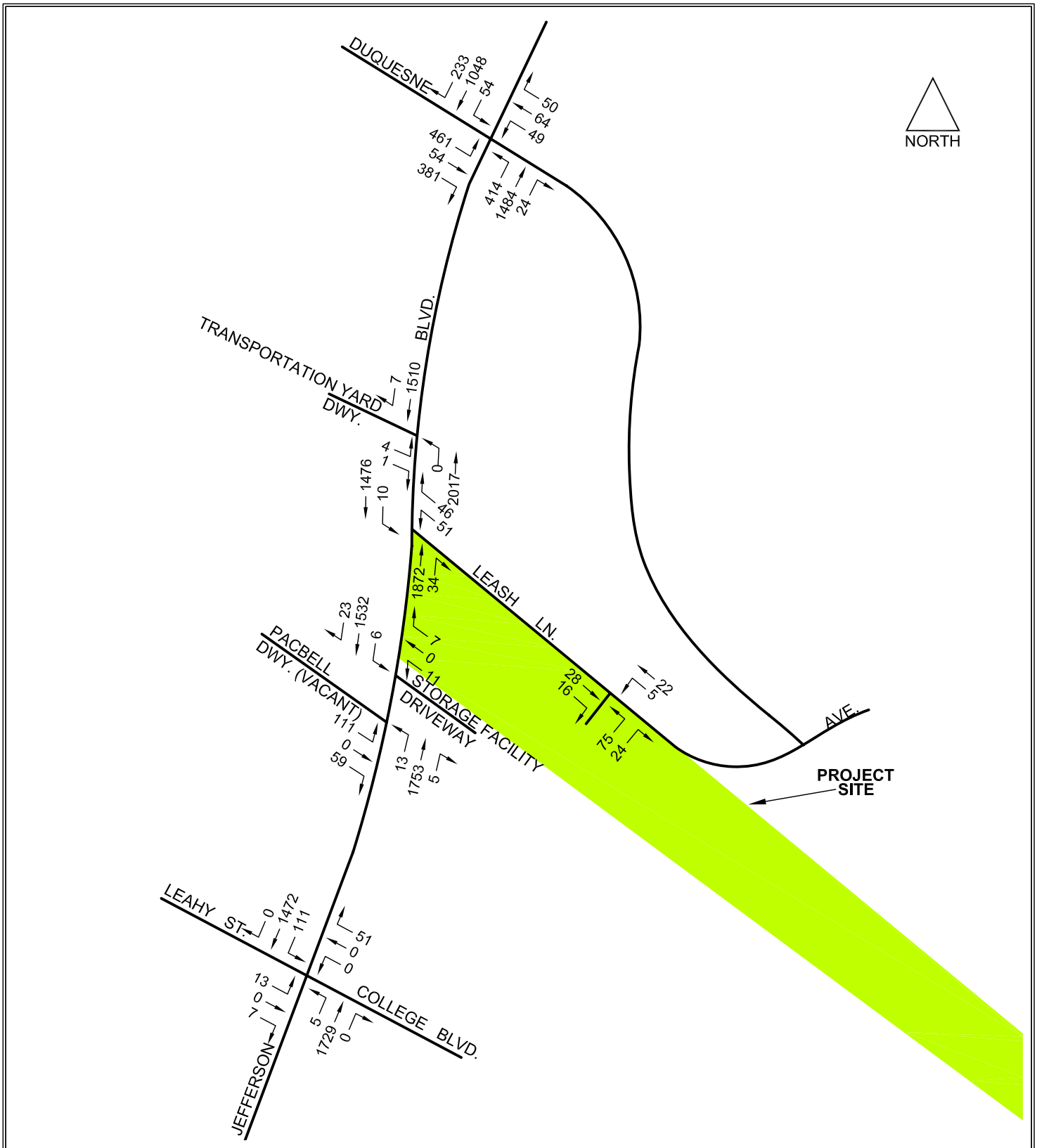


FIGURE 3(b)

6/12/2012

Advanced Health Abraxis BioSci Culver City\2012 Report\PM2020WP2005

FUTURE (2020) TRAFFIC VOLUMES
WITH PROJECT (WITH 2005 COLLEGE EIR BASE)
PM PEAK HOUR

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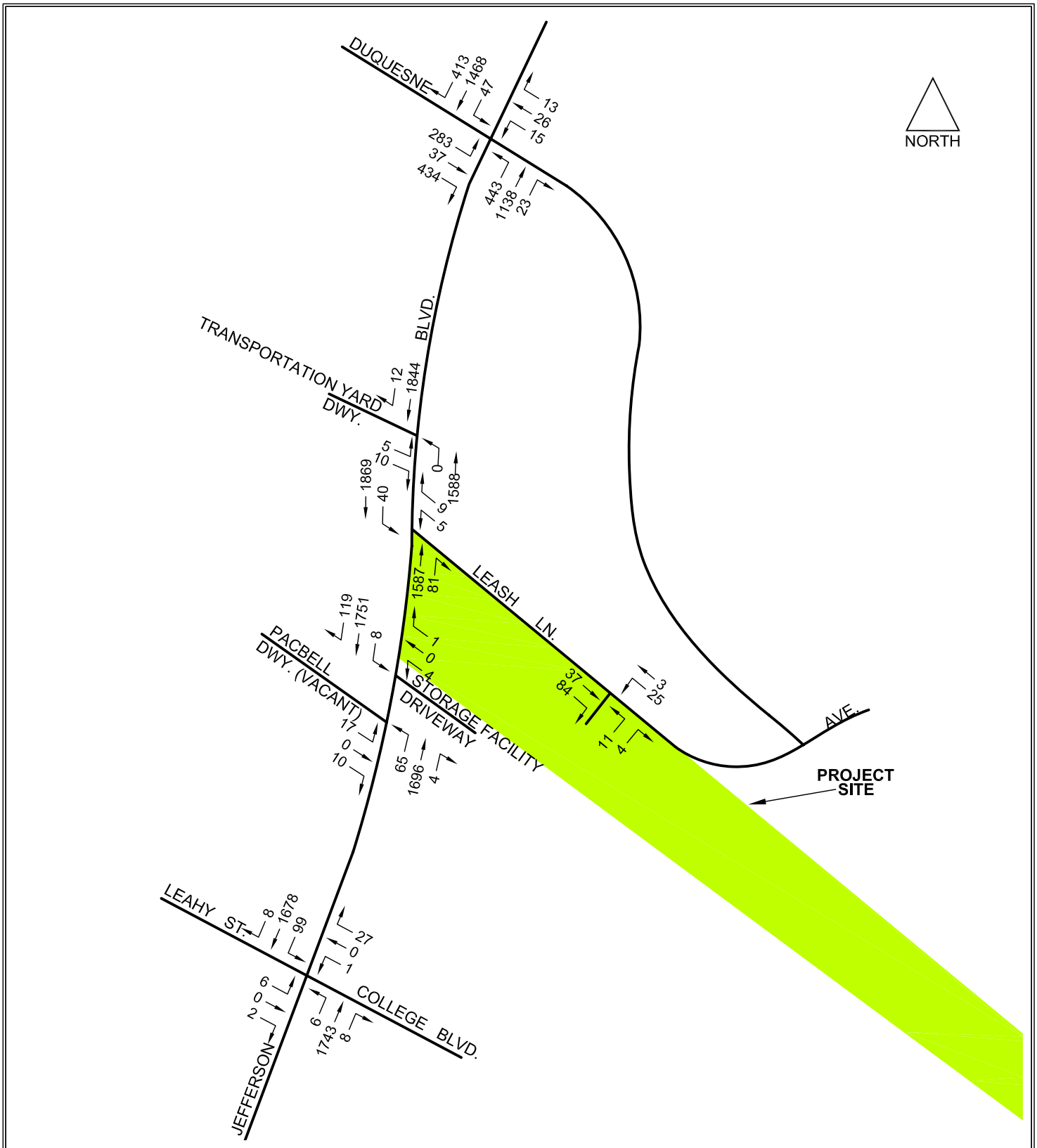


FIGURE 4(a)

6/12/2012

Advanced Health Abraxis BioSci Culver City\2012 Report\AM2020WP2010

FUTURE (2020) TRAFFIC VOLUMES
WITH PROJECT (WITH 2010 COLLEGE EIR BASE)
AM PEAK HOUR

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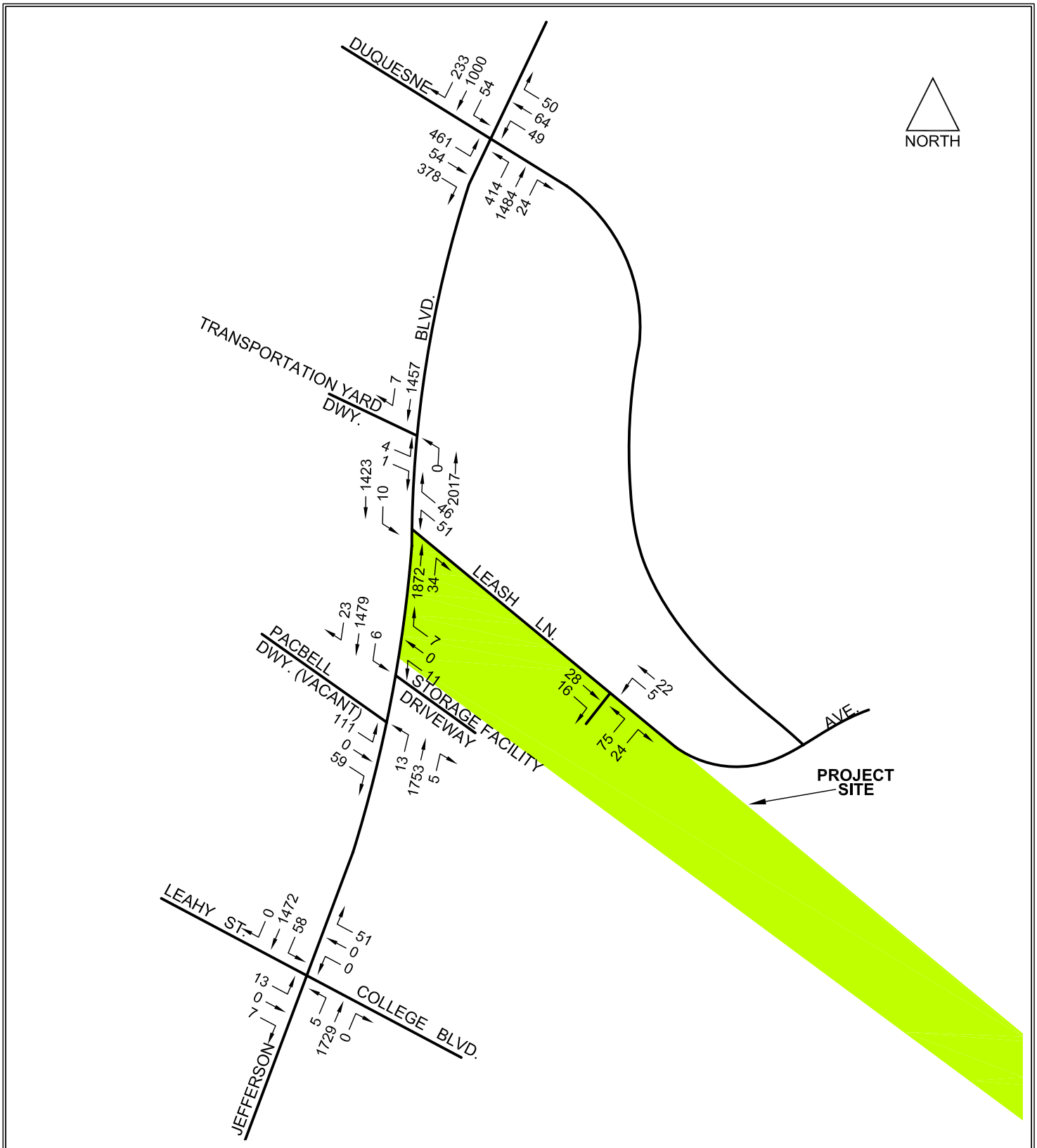


FIGURE 4(b)

6/12/2012

Advanced Health Abraxis BioSci Culver City\2012 Report\PM2020WP2010

FUTURE (2020) TRAFFIC VOLUMES
WITH PROJECT (WITH 2010 COLLEGE EIR BASE)
PM PEAK HOUR

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The posted speed limit on this segment of Jefferson Boulevard is 40 miles per hour (mph). To be conservative, 45 miles per hour (mph) prevailing speed is used in the sight distance analysis. Table 3 presents the required, desirable, and measured SSD and ISD for northbound movements from Leash Lane at its intersection with Jefferson Boulevard.

Table 3: Sight Distance Measurements

Location	Stopping Sight Distance (Feet)[1]	Intersection Sight Distance (Feet)	Measured Constrain Distance (Feet)[2]	Constrain Distance With Parking Removal (Feet)
Northbound Leash Lane and Jefferson Boulevard				
Left-Turn from Leash Lane	360	500	140	500 +
Right-Turn from Leash Lane	360	430	140	500 +

Notes

[1] Recommended minimum values (Stopping Sight Distance) obtained from A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO), 2004, and based on a 45 mph design speed for motorists on Jefferson Boulevard approaching Leash Lane from the west and east.

[2] The constrain sight distance is for vehicles turning left/right looking west from Leash Lane.

The available SSD and ISD were measured in the field in 2010. The south side of Jefferson Boulevard was lined with on-street parking. Attachment E illustrates the stopping sight distance and intersection sight distance analyses. Lines of sight for motorists approaching the proposed site driveway from the west were found to be limited by the on-street parking in front of the project site. In order to provide adequate SSD and/or ISD at Leash Lane, it is recommended that three on-street parking spaces to be removed in front of the project site to improve the sight distance to satisfy the sight distance requirement. For traffic safety purposes (to provide enough sight distance for existing, cumulative and project traffic), the City staff concurred and removed the parking spaces along Jefferson Boulevard at the project frontage. This removal increased visibility for existing and future motorists on Leash Lane entering Jefferson Boulevard.



Looking west from Leash Ln. along Jefferson Bl.



Looking east from Leash Ln. along Jefferson Bl.

Gap Study

A gap study was conducted to evaluate the existing conditions for making the left-turn maneuvers from Leash Lane to westbound Jefferson Boulevard. The gap study was performed in accordance with current CALTRANS Highway Capacity Manual 2010 (HCM). Procedures for estimating one-stage and two-stage critical gaps (i.e. with and without relying on stopping within the two-way left-turn median) are provided in the HCM. The critical gap is defined as the minimum time interval between vehicles in the major-street traffic stream that allows left turn entry onto the major street for one minor-street vehicle. The time between the departure of one vehicle from the minor street and the departure of the next vehicle using the same major-street gap, under a condition of continuous queuing on Leash lane, is called the follow-up time.

Currently, Jefferson Boulevard operates with two lanes in each direction and one two-way left-turn median lane. Left-turns from Leash Lane to westbound Jefferson Boulevard can be conducted through one-stage turns by waiting for the gap of the traffic streams of both directions, or two-stage turns by making a left-turn using the median lane to wait for the gaps of the westbound traffic stream along Jefferson Boulevard. HCM provides values of the critical gaps: for left-turns from minor-street to four-lane major-street, 7.5 seconds for one-stage left-turn, 6.5 for two stage left-turn, and 3.5 for follow-up time[2].

In order to determine if enough gap exists at Leash Lane and Jefferson Boulevard, a survey was conducted on Tuesday, October 12, 2010, during the AM and PM peak hours. The counts are included in Attachment F. The results are shown in Table 4.

Table 4: Volume of Cars Able To Make NB Left-Turn From Leash Ln. to Jefferson Bl.

	AM Peak Hour (8:00 - 9:00 AM)	PM Peak Hour (5:00 - 6:00 PM)
One-Stage Gap	41 Cars	44 Cars
Two-Stage Gap	326 Cars	181 Cars

As shown in Table 4, there are gaps for 41 cars to make a left-turn from northbound Leash Lane to westbound Jefferson Boulevard during the AM peak hour, and 44 cars during the PM peak hour, assuming one-stage gaps are utilized by drivers. However, there are sufficient gaps for 326 cars to make a left-turn from Leash Lane to westbound Jefferson Boulevard during the AM peak

[2] Highway Capacity Manual 2010, Chapter 19/Two-Way Stop-Controlled Intersections, December 2010. Exhibit 19-10: Base Critical Headways for TWSC Intersections and Exhibit 19-11 Base Follow-Up Headways for TWSC Intersections.
For one-stage left-turn maneuvers, vehicles proceed directly from the approach to the departing through lane, requiring a simultaneous gap in both directions of traffic along the roadway the vehicles are entering. A two-stage maneuver utilizes the median as a resting area, not requiring simultaneous gaps in both traffic directions on the road the vehicles are entering.

hour, and 181 cars during the PM peak hour assuming two-stage gaps are acceptable to drivers.

As shown in Figures 1(a) and 1(b), the existing northbound left turn traffic volumes at the intersection of Jefferson Boulevard and Leash Lane are 1 left-turn trip during the AM peak hour and 14 left-turn trips during the PM peak hour. As shown above, there were more than sufficient available gaps for left-turns to be accommodated.

Synchro Analysis of Future Conditions

The potential operational traffic impacts associated with the left-turn out of Leash Lane along Jefferson Boulevard from the proposed project were analyzed for the AM and PM weekday peak periods using Synchro Version 7 software. The study area for the traffic analysis is bounded by the signalized intersections of Jefferson Boulevard & Duquesne Avenue and Jefferson Boulevard & Leahy Street/College Boulevard.

The future year operational analysis was conducted using the operational analysis methodology of the HCM, which takes into account signal operations, producing existing volume-to-capacity (V/C) ratios and vehicular delays at these locations. Specifically, this method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on delay.

Level-of-service (LOS) designations are based on the criterion of average control (signal) delay per vehicle. Control (signal) delay is a measure of driver discomfort, frustration, and fuel consumption, and includes initial deceleration delay approaching the traffic signal, queue move-up time, stopped delay and final acceleration delay. Tables 5 and 6 summarize the relationship between LOS and control delay for signalized and unsignalized intersections, respectively.

Table 5: Level-of-Service Criteria for Signalized Intersections

LOS	Description of Operating Characteristics	Control Delay per Vehicle (Seconds)
A	Very low control delay, most vehicles do not stop at all	≤ 10.0
B	Relatively low control delay. However, more vehicles stop than LOS A.	$>10.0 \leq 20.0$
C	Higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	$>20.0 \leq 35.0$
D	Control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop and individual cycle failures are noticeable.	$>35.0 \leq 55.0$
E	High control delay values. Individual cycle failures are frequent occurrences.	$>55.0 \leq 80.0$
F	High control delay values that often occur with over-saturation. Most cycles fail to clear the queue.	> 80.0

Source: *Highway Capacity Manual* (Transportation Research Board, Washington, D.C.; 2010), pages 18-6.

Table 6: Level-of-Service Criteria for TWSC* Intersections

LOS	Description of Operating Characteristics	Control Delay per Vehicle (Seconds)
A	Very low control delay	≤ 10.0
B	Relatively low control delay. However, vehicles experience more delay than LOS A.	>10.0 ≤ 15.0
C	Higher control delays. The delay of vehicles stopping is significant at this level	>15.0 ≤ 25.0
D	Control delay in the range where the influence of congestion becomes more noticeable.	>25.0 ≤ 35.0
E	High control delay values. High volume to capacity (v/c) ratios.	>35.0 ≤ 50.0
F	High control delay values that often occur with over-saturation.	> 50.0

*TWSC = Two-way STOP control
Source: *Highway Capacity Manual* (Transportation Research Board, Washington, D.C.; 2010), pages 19-2, Exhibit 19-1.

For signalized intersections, 90-second signal cycle length[3] was assumed and the HCM methodology was used for both existing and future conditions. To be consistent, the Synchro intersection signal split optimization and network offset optimization values were applied to each scenario. The resulting operations for the existing and future AM and PM peak-hour conditions for the study intersections are shown in Table 7. The Synchro analysis worksheets for existing and future traffic conditions are provided in Attachment G.

Table 7(a): Intersection Level-of-Service – Existing and Future Conditions (with 2005 West Los Angeles College EIR)

			Existing (2010)		Future (2020) Without Project		Future (2020) With Project	
			Delay	LOS	Delay	LOS	Delay	LOS
1.	Jefferson Bl. & Duquesne Av.	AM Peak Hour	29.7 sec	C	78.4 sec	E	79.4 sec	E
		PM Peak Hour	33.5 sec	C	69.6 sec	E	70.2 sec	E
2.	Jefferson Bl. & Transportation Yard Dwy.	AM Peak Hour	0.1 sec	A	0.1 sec	A	0.1 sec	A
		PM Peak Hour	0.0 sec	A	0.0 sec	A	0.0 sec	A
3.	Jefferson Bl. & Leash Ln.	AM Peak Hour	0.1 sec	A	0.7 sec	A	0.9 sec	A
		PM Peak Hour	0.2 sec	A	0.9 sec	A	1.5 sec	A
4.	Jefferson Bl. & Pacbell Dwy./Private Dwy.	AM Peak Hour	0.7 sec	A	2.0 sec	A	2.1 sec	A
		PM Peak Hour	1.2 sec	A	4.5 sec	A	4.5 sec	A
5.	Jefferson Bl. & Leahy St./College Bl.	AM Peak Hour	3.6 sec	A	13.0 sec	B	13.2 sec	B
		PM Peak Hour	4.9 sec	A	14.1 sec	B	14.1 sec	B

[3] Cycle length is the overall time for all cycle phases to be completed. Cycle length is represented by the time taken from the start of one green indication to the start of the next green indication for the same intersection approach.

Table 7(b): Intersection Level-of-Service – Existing and Future Conditions (with 2010 West Los Angeles College EIR)

			Existing (2010)		Future (2020) Without Project		Future (2020) With Project	
			Delay	LOS	Delay	LOS	Delay	LOS
1.	Jefferson Bl. & Duquesne Av.	AM Peak Hour	29.7 sec	C	68.4 sec	E	70.2 sec	E
		PM Peak Hour	33.5 sec	C	66.1 sec	E	66.8 sec	E
2.	Jefferson Bl. & Transportation Yard Dwy.	AM Peak Hour	0.1 sec	A	0.1 sec	A	0.1 sec	A
		PM Peak Hour	0.0 sec	A	0.0 sec	A	0.0 sec	A
3.	Jefferson Bl. & Leash Ln.	AM Peak Hour	0.1 sec	A	0.7 sec	A	0.8 sec	A
		PM Peak Hour	0.2 sec	A	0.9 sec	A	1.5 sec	A
4.	Jefferson Bl. & Pacbell Dwy./Private Dwy.	AM Peak Hour	0.7 sec	A	3.9 sec	A	4.0 sec	A
		PM Peak Hour	1.2 sec	A	4.6 sec	A	4.6 sec	A
5.	Jefferson Bl. & Leahy St./College Bl.	AM Peak Hour	3.6 sec	A	12.0 sec	A	12.2 sec	B
		PM Peak Hour	4.9 sec	A	11.7 sec	A	11.8 sec	B

To evaluate the feasibility of left-turns from Leash lane to westbound Jefferson Boulevard, and to address the issue related to the left-turn from the Transportation Yard Driveway to eastbound Jefferson Boulevard, the single movement approach delay was analyzed and the results are included in Table 8.

Table 8(a): Northbound Leash Lane onto Jefferson Boulevard Left-Turn Movement Conditions Existing and Future (with 2005 West Los Angeles College EIR Project)

			Existing (2010)		Future (2020) Without Project		Future (2020) With Project	
			Delay	LOS	Delay	LOS	Delay	LOS
2.	Jefferson Bl. & Transportation Yard Dwy.	AM Peak Hour	12.9 sec	B	21.1 sec	C	21.3 sec	C
		PM Peak Hour	15.2 sec	C	20.1 sec	C	20.2 sec	C
3.	Jefferson Bl. & Leash Ln.	AM Peak Hour	16.2 sec	C	18.8 sec	C	18.9 sec	C
		PM Peak Hour	25.2 sec	D	34.2 sec	D	47.2 sec	E

Table 8(b): Northbound Leash Lane onto Jefferson Boulevard
Left-Turn Movement Conditions
Existing and Future (with 2010 West Los Angeles College EIR Project)

			Existing (2010)		Future (2020) Without Project		Future (2020) With Project	
			Delay	LOS	Delay	LOS	Delay	LOS
2.	Jefferson Bl. &	AM Peak Hour	12.9 sec	B	19.5 sec	C	19.6 sec	C
	Transportation Yard Dwy.	PM Peak Hour	15.2 sec	C	19.1 sec	C	19.1 sec	C
3.	Jefferson Bl. &	AM Peak Hour	16.2 sec	C	18.9 sec	C	19.0 sec	C
	Leash Ln.	PM Peak Hour	25.2 sec	D	34.3 sec	D	47.4 sec	E

As shown in Tables 8(a) and 8(b), the Synchro analysis forecasts that for the future 2020 conditions, the left-turn from Transportation Yard Driveway to eastbound Jefferson Boulevard will be operating at LOS C during both AM and PM peak hours. The left-turn from Leash Lane to westbound Jefferson Boulevard is projected to operate at LOS C during the AM peak hour. However, during the PM peak hour in the future 2020 conditions, this movement is projected to operate at LOS E.

Mitigation Measures

The traffic study explored the possibility of a traffic signal installation at the intersection of Leash Lane and Jefferson Boulevard. It was determined that the amount of traffic from Leash Lane entering Jefferson Boulevard is insufficient to qualify the intersection for a traffic signal based on nationally recognized traffic signal warrants. In addition, the installation of a traffic signal at this location would adversely affect traffic operations and bus access for the City's Transportation yard. Instead, other measures are recommended below.

Loop Detector Plus Realign Leash Lane at Jefferson Boulevard

As shown in the previous "Gap Study" section, the northbound left-turn movements from Leash Lane to Jefferson Boulevard will have sufficient gaps at the present time to make two-stage turns. This number of gaps is sufficient even if the site now owned by Nantworks Bioscience is re-occupied as proposed. However, in order to further facilitate this left-turn maneuver, two changes are recommended.

1. The radius of the northbound approach of Leash Lane to Jefferson Boulevard should be adjusted so that at its STOP line, Leash Lane is perpendicular to Jefferson Boulevard. This will ease both the sight-triangle and required acceleration for left turning vehicles.

2. A loop detector should be installed on Leash Lane and connected to the signal on Jefferson Boulevard immediately west of the project site. This loop will activate that signal's north/south green-phase and thereby provide additional eastbound gaps. Due to the coordination of signal phases for progressive platoon along Jefferson Boulevard, the created eastbound gaps will coincide with the westbound gaps being created by the Jefferson Boulevard and Duquesne Avenue signal.

As shown in Figure 3(b), a maximum of 51 left turns are anticipated for the PM peak hour "Future With Project" scenario. In order to assess the effectiveness of the mitigation, a more conservative potential future scenario was also developed and analyzed. For the critical PM peak hour, assuming all non-project traffic (35 vehicles in the PM peak hour) plus all exiting traffic of the project (28 as shown in Table 2) will make left-turns from the driveway onto northbound Leash Lane traveling directly to Jefferson Boulevard, a maximum of 63 trips will make a left-turn at Leash Lane to Jefferson Boulevard during the PM peak hour. The traffic volumes along Jefferson Boulevard are anticipated to increase, and gaps are anticipated to decrease in the future. As shown in Table 9, if the through traffic volumes along Jefferson Boulevard do not platoon and the gaps decrease in inverse proportion to traffic volumes, there will be 138-car gaps if West LA College is built-out per the 2010 EIR and 136-car gaps if West LA College is built out to the 2005 EIR level. Either would provide a safety factor of more than 2 times over the peak hour demand of 63 left-turns. Therefore, no significant adverse impact is anticipated with implementation of these measures.

Table 9: Volume of Cars Able To Make NB Left-Turn From Leash Ln. to Jefferson Bl. – Future Conditions

Total Traffic Volumes at all study intersections

	Volumes	Ratio
Existing	27,833	
Future 2020 with West LA College 2005 EIR Level	37,147	1.33
Future 2020 with West LA College 2010 EIR Level	36,632	1.32

Two-Stage Gap-Volume of Cars Able To NB Make Left-Turn From Leash Ln. to Jefferson Bl.

	Available Gap
Existing	**181 cars**
Future 2020 with West LA College 2005 EIR Level	**136 cars**
Future 2020 with West LA College 2010 EIR Level	**138 cars**

As shown in Table 10, by applying the project trip distribution percentages (Figure 2) to the project peak hour trip generations (Table 2), in 2020 during the worst hours of the day, 19 vehicles during the AM peak hour and 14 vehicles during the PM peak hour in and out of the project's driveway would use the Jefferson/Duquesne traffic signal for access. That amounts to approximately one vehicle every three minutes during AM peak hour and one vehicle every four

minutes during the PM peak hour. That is considered a very minor amount of traffic. The mitigation measures recommended above, which include:

- Realignment of the Leash/Jefferson intersection.
- Installation of a traffic signal loop detector on Leash Lane to create more gaps.

The above mitigation measures are expected to reduce the net project's traffic to less than the 19 vehicles during the AM peak hour and 14 vehicles during the PM peak hour that might otherwise traverse the road adjacent to the City's Dog Park in order to use the Jefferson/Duquesne signal.

Table 10: Project Trips at Jefferson/Duquesne

	AM Peak Hour			PM Peak Hour		
	I/B	O/B	Total	I/B	O/B	Total
Net Project Added Trips:	31	4	35	6	28	34
Project Trip Distribution Percentage at Jefferson/Duquesne:	50%	75%		38%	42%	
Project Trips at Jefferson/Duquesne:	**16**	**3**	**19**	**2**	**12**	**14**

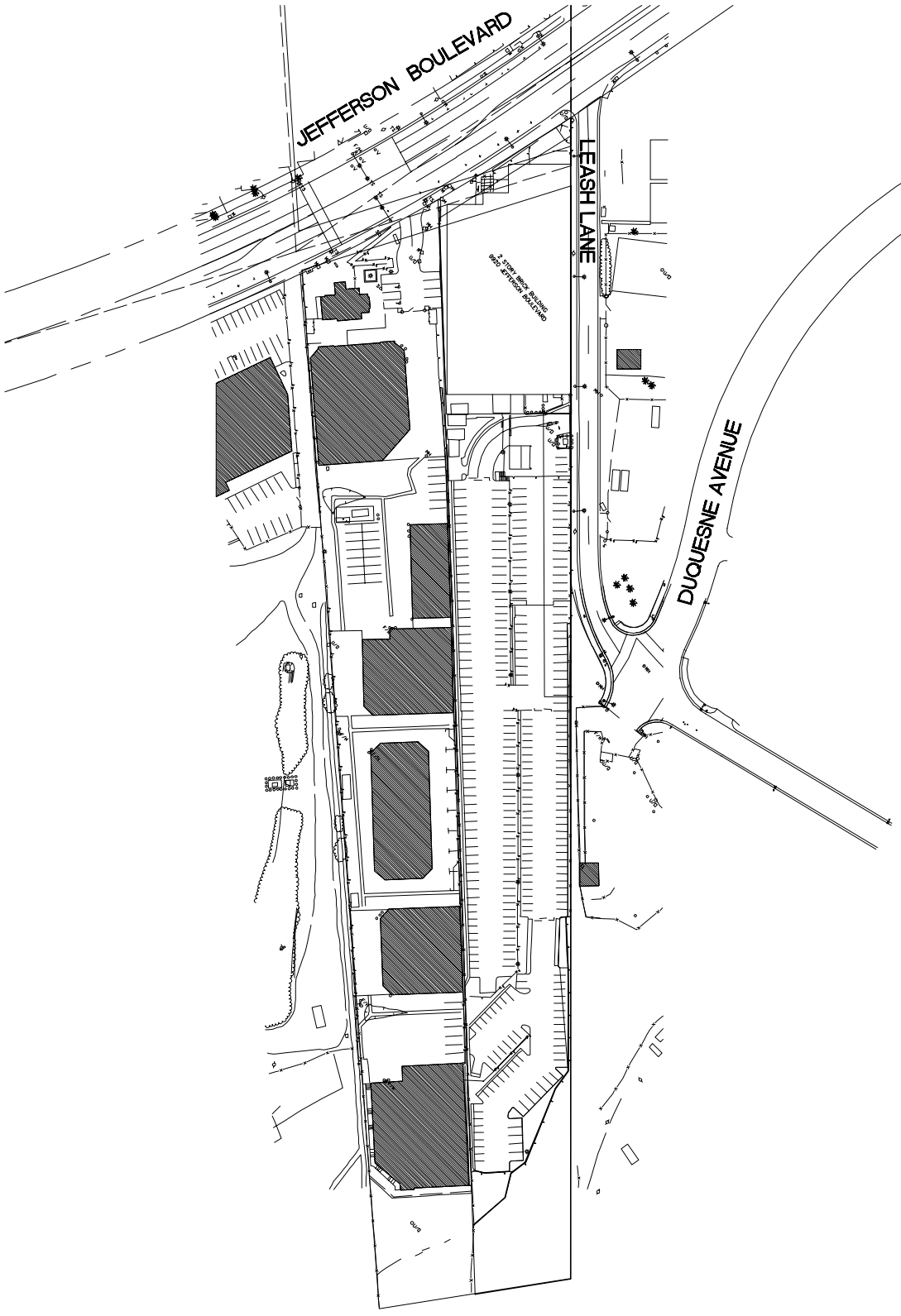
If you have any questions, please feel free to call us.

Sincerely,

George Rhyner, C.E. 47763. T.E. 2143
Senior Transportation Engineer

GR:hs
C20647
attachments

ATTACHMENT A
CONCEPTUAL PROJECT SITE PLAN



ATTACHMENT A

12/7/2010

FN: ABRAXIS BISCIENCE CULVER CITY\SITEPLAN

CONCEPTUAL SITE PLAN

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

ATTACHMENT B
MANUAL INTERSECTION COUNTS

Crain & Associates
2007 Sawtelle Blvd., Suite 4
Los Angeles, CA 90025
Tel: (310) 473-6508

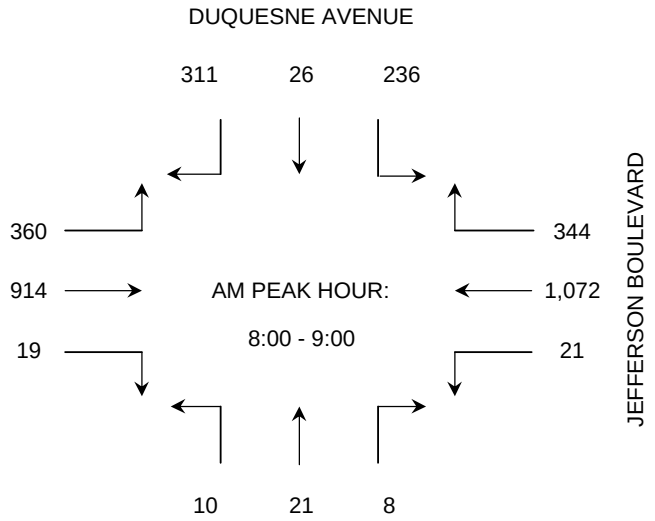
VEHICLE TURNING MOVEMENT COUNT SUMMARY

N/S STREET: DUQUESNE AVENUE **E/W STREET:** JEFFERSON BOULEVARD

PERIOD: AM PEAK HOUR **DATE:** TUESDAY SEPTEMBER 21, 2010

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	3	141	66	26	86	4	1	2	0	25	4	19	377
7:15 - 7:30	2	161	84	55	130	1	0	2	1	33	3	27	499
7:30 - 7:45	1	235	97	86	188	2	1	6	1	47	3	45	712
7:45 - 8:00	0	272	94	79	221	4	2	4	0	55	4	59	794
8:00 - 8:15	3	289	73	85	242	5	3	10	2	68	4	74	858
8:15 - 8:30	5	273	112	92	234	5	5	3	2	49	4	69	853
8:30 - 8:45	3	248	84	101	219	8	1	5	1	58	9	87	824
8:45 - 9:00	10	262	75	82	219	1	1	3	3	61	9	81	807

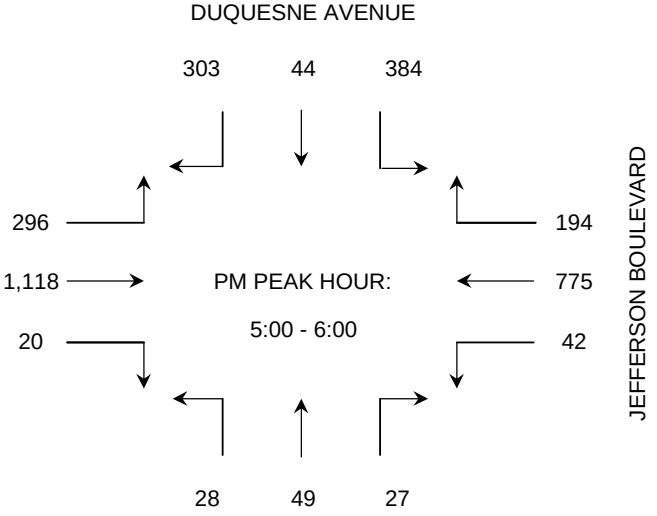
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	6	809	341	246	625	11	4	14	2	160	14	150	2,382
7:15 - 8:15	6	957	348	305	781	12	6	22	4	203	14	205	2,863
7:30 - 8:30	9	1,069	376	342	885	16	11	23	5	219	15	247	3,217
7:45 - 8:45	11	1,082	363	357	916	22	11	22	5	230	21	289	3,329
8:00 - 9:00	21	1,072	344	360	914	19	10	21	8	236	26	311	3,342 *



PERIOD: PM PEAK HOUR **DATE:** TUESDAY SEPTEMBER 21, 2010

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	3	149	34	73	233	3	4	6	8	85	4	66	668
4:15 - 4:30	2	157	40	59	232	0	3	5	7	81	7	59	652
4:30 - 4:45	4	164	39	63	230	2	9	10	5	84	5	73	688
4:45 - 5:00	4	182	45	68	278	3	3	9	5	84	8	67	756
5:00 - 5:15	10	192	44	67	300	4	8	11	9	100	10	71	826
5:15 - 5:30	7	211	50	74	282	6	6	9	4	91	9	70	819
5:30 - 5:45	9	182	48	82	266	6	7	14	6	89	14	74	797
5:45 - 6:00	16	190	52	73	270	4	7	15	8	104	11	88	838

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	13	652	158	263	973	8	19	30	25	334	24	265	2,764
4:15 - 5:15	20	695	168	257	1,040	9	23	35	26	349	30	270	2,922
4:30 - 5:30	25	749	178	272	1,090	15	26	39	23	359	32	281	3,089
4:45 - 5:45	30	767	187	291	1,126	19	24	43	24	364	41	282	3,198
5:00 - 6:00	42	775	194	296	1,118	20	28	49	27	384	44	303	3,280 *



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Los Angeles, CA 90025
Tel: (310) 473-6508

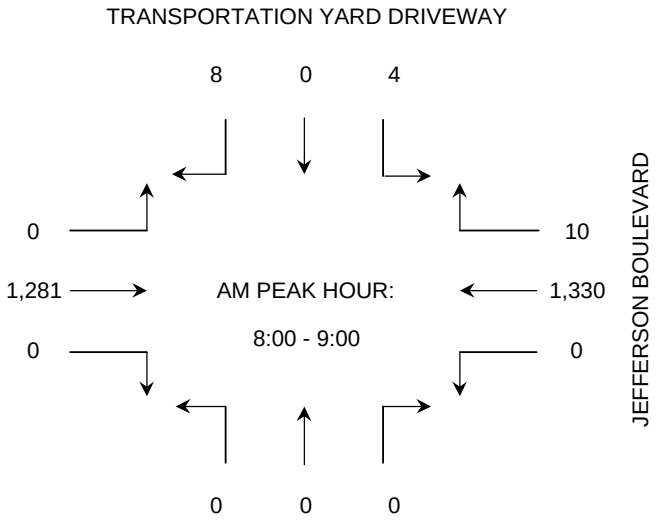
VEHICLE TURNING MOVEMENT COUNT SUMMARY

N/S STREET: TRANSPORTATION YARD DRIVEWAY **E/W STREET:** JEFFERSON BOULEVARD

PERIOD: AM PEAK HOUR **DATE:** THURSDAY OCTOBER 7, 2010

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	171	2	3	150	3	0	0	0	1	0	4	334
7:15 - 7:30	0	195	0	0	201	0	0	0	0	1	0	3	400
7:30 - 7:45	0	265	1	1	255	1	0	0	0	1	0	1	525
7:45 - 8:00	0	302	3	0	293	0	0	0	0	0	0	2	600
8:00 - 8:15	0	367	5	0	319	0	0	0	0	2	0	3	696
8:15 - 8:30	0	347	2	0	354	0	0	0	0	0	0	3	706
8:30 - 8:45	0	283	2	0	299	0	0	0	0	1	0	0	585
8:45 - 9:00	0	333	1	0	309	0	0	0	0	1	0	2	646

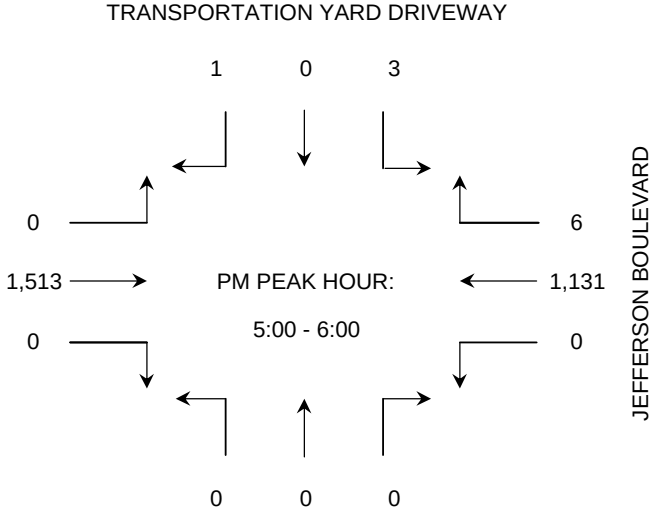
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	933	6	4	899	4	0	0	0	3	0	10	1,859
7:15 - 8:15	0	1,129	9	1	1,068	1	0	0	0	4	0	9	2,221
7:30 - 8:30	0	1,281	11	1	1,221	1	0	0	0	3	0	9	2,527
7:45 - 8:45	0	1,299	12	0	1,265	0	0	0	0	3	0	8	2,587
8:00 - 9:00	0	1,330	10	0	1,281	0	0	0	0	4	0	8	2,633 *



PERIOD: PM PEAK HOUR **DATE:** THURSDAY OCTOBER 7, 2010

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	208	1	1	304	0	0	0	0	2	0	3	519
4:15 - 4:30	0	229	2	1	311	0	0	0	0	1	0	1	545
4:30 - 4:45	0	242	0	2	329	0	0	0	0	0	0	1	574
4:45 - 5:00	0	252	3	1	326	0	0	0	0	1	0	1	584
5:00 - 5:15	0	255	3	0	375	0	0	0	0	2	0	0	635
5:15 - 5:30	0	288	1	0	387	0	0	0	0	1	0	0	677
5:30 - 5:45	0	308	1	0	382	0	0	0	0	0	0	0	691
5:45 - 6:00	0	280	1	0	369	0	0	0	0	0	0	1	651

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	931	6	5	1,270	0	0	0	0	4	0	6	2,222
4:15 - 5:15	0	978	8	4	1,341	0	0	0	0	4	0	3	2,338
4:30 - 5:30	0	1,037	7	3	1,417	0	0	0	0	4	0	2	2,470
4:45 - 5:45	0	1,103	8	1	1,470	0	0	0	0	4	0	1	2,587
5:00 - 6:00	0	1,131	6	0	1,513	0	0	0	0	3	0	1	2,654 *



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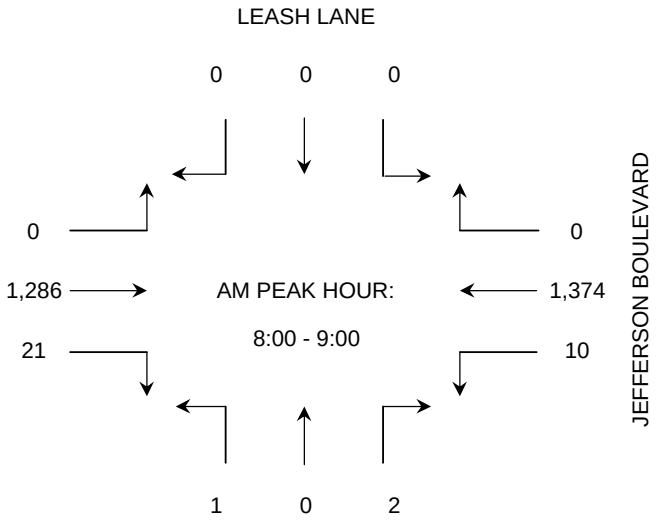
VEHICLE TURNING MOVEMENT COUNT SUMMARY

N/S STREET: LEASH LANE **E/W STREET:** JEFFERSON BOULEVARD

PERIOD: AM PEAK HOUR **DATE:** TUESDAY SEPTEMBER 21, 2010

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	2	155	0	0	113	1	1	0	1	0	0	0	273
7:15 - 7:30	1	185	0	0	184	0	1	0	2	0	0	0	373
7:30 - 7:45	1	278	0	0	270	0	0	0	1	0	0	0	550
7:45 - 8:00	0	333	0	0	301	2	0	0	1	0	0	0	637
8:00 - 8:15	0	361	0	0	330	3	0	0	0	0	0	0	694
8:15 - 8:30	3	340	0	0	331	9	0	0	0	0	0	0	683
8:30 - 8:45	5	333	0	0	325	5	1	0	2	0	0	0	671
8:45 - 9:00	2	340	0	0	300	4	0	0	0	0	0	0	646

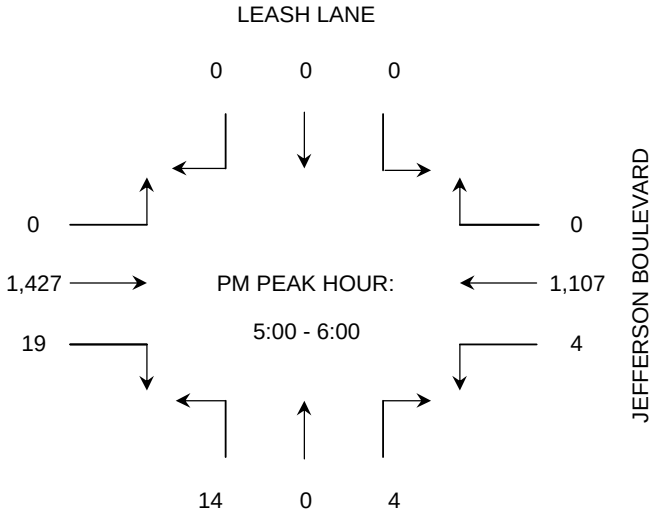
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	4	951	0	0	868	3	2	0	5	0	0	0	1,833
7:15 - 8:15	2	1,157	0	0	1,085	5	1	0	4	0	0	0	2,254
7:30 - 8:30	4	1,312	0	0	1,232	14	0	0	2	0	0	0	2,564
7:45 - 8:45	8	1,367	0	0	1,287	19	1	0	3	0	0	0	2,685
8:00 - 9:00	10	1,374	0	0	1,286	21	1	0	2	0	0	0	2,694 *



PERIOD: PM PEAK HOUR **DATE:** TUESDAY SEPTEMBER 21, 2010

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	2	217	0	0	308	3	3	0	1	0	0	0	534
4:15 - 4:30	0	219	0	0	289	1	2	0	0	0	0	0	511
4:30 - 4:45	0	246	0	0	289	8	5	1	2	0	0	0	551
4:45 - 5:00	0	252	0	0	346	4	4	0	3	0	0	0	609
5:00 - 5:15	2	268	0	0	370	6	0	0	1	0	0	0	647
5:15 - 5:30	1	289	0	0	359	5	6	0	0	0	0	0	660
5:30 - 5:45	0	265	0	0	353	3	4	0	1	0	0	0	626
5:45 - 6:00	1	285	0	0	345	5	4	0	2	0	0	0	642

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	2	934	0	0	1,232	16	14	1	6	0	0	0	2,205
4:15 - 5:15	2	985	0	0	1,294	19	11	1	6	0	0	0	2,318
4:30 - 5:30	3	1,055	0	0	1,364	23	15	1	6	0	0	0	2,467
4:45 - 5:45	3	1,074	0	0	1,428	18	14	0	5	0	0	0	2,542
5:00 - 6:00	4	1,107	0	0	1,427	19	14	0	4	0	0	0	2,575 *



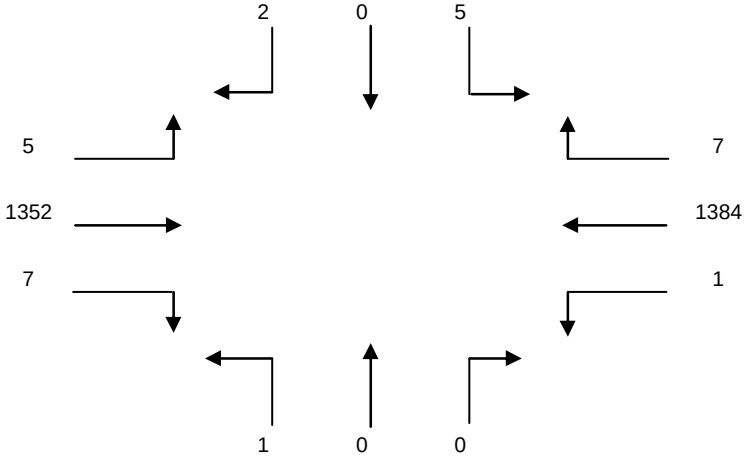
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: CULVER CITY
DATE: TUESDAY SEPTEMBER 21, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S LEAHY STREET / COLLEGE DRIVE
E/W JEFFERSON BOULEVARD
FILE NUMBER: 1-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	0	0	3	207	0	0	0	0	0	188	1
715-730	1	0	0	1	233	0	0	0	0	0	225	0
730-745	1	0	0	2	288	0	0	0	0	0	306	1
745-800	0	0	1	2	345	0	0	0	0	2	333	1
800-815	0	0	3	3	339	0	0	0	0	2	341	0
815-830	1	0	0	1	359	0	0	0	0	2	342	3
830-845	1	0	1	1	341	1	0	0	1	1	336	1
845-900	0	0	0	4	246	1	0	0	1	1	328	3

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	2	0	1	8	1073	0	0	0	0	2	1052	3	2141
715-815	2	0	4	8	1205	0	0	0	0	4	1205	2	2430
730-830	2	0	4	8	1331	0	0	0	0	6	1322	5	2678
745-845	2	0	5	7	1384	1	0	0	1	7	1352	5	2764
800-900	2	0	4	9	1285	2	0	0	2	6	1347	7	2664

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

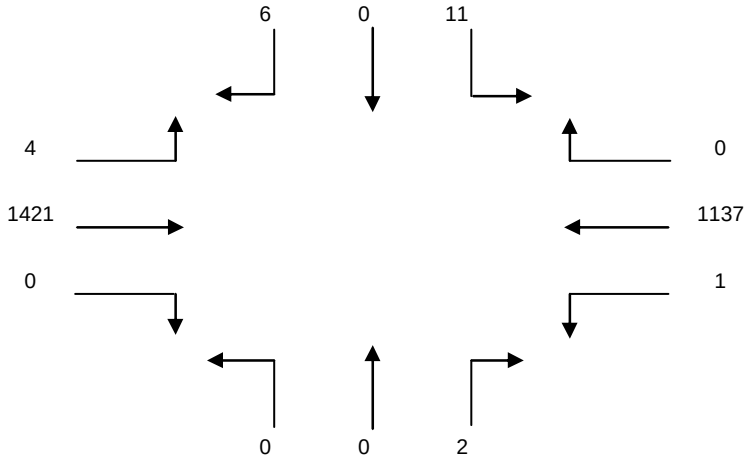
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: CULVER CITY
DATE: TUESDAY SEPTEMBER 21, 2010
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION: N/S LEAHY STREET / COLLEGE DRIVE
E/W JEFFERSON BOULEVARD
FILE NUMBER: 1-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	2	0	3	0	215	0	1	0	3	0	300	0
415-430	1	0	3	1	229	0	0	0	0	0	307	1
430-445	1	0	2	1	262	1	0	0	0	0	299	0
445-500	1	0	3	1	246	0	0	0	0	0	333	0
500-515	2	0	6	0	303	0	0	0	0	0	388	3
515-530	3	0	2	0	276	0	1	0	0	0	328	0
530-545	0	0	2	0	280	0	0	0	0	0	385	0
545-600	1	0	1	0	278	1	1	0	0	0	320	1

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	5	0	11	3	952	1	1	0	3	0	1239	1	2216
415-515	5	0	14	3	1040	1	0	0	0	0	1327	4	2394
430-530	7	0	13	2	1087	1	1	0	0	0	1348	3	2462
445-545	6	0	13	1	1105	0	1	0	0	0	1434	3	2563
500-600	6	0	11	0	1137	1	2	0	0	0	1421	4	2582

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

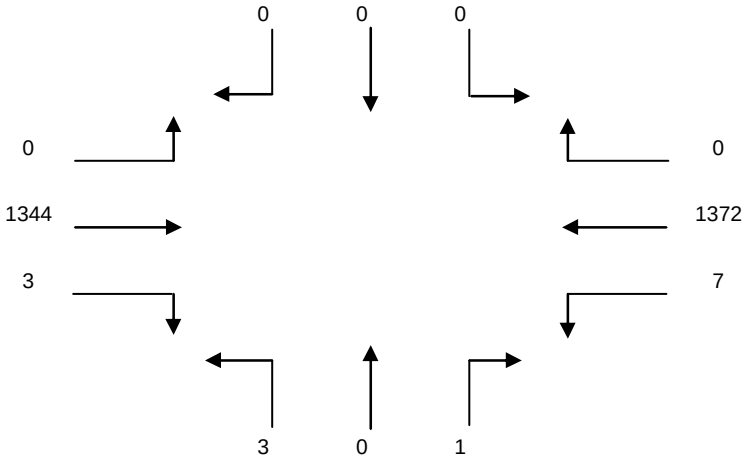
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: CULVER CITY
DATE: TUESDAY SEPTEMBER 21, 2010
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: N/S PACBELL DRIVEWAY
E/W JEFFERSON BOULEVARD
FILE NUMBER: 1-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	0	0	0	211	1	0	0	0	0	191	0
715-730	0	0	0	0	241	1	1	0	1	0	222	0
730-745	0	0	0	0	277	0	1	0	0	1	305	0
745-800	0	0	0	0	338	1	0	0	0	1	327	0
800-815	0	0	0	0	341	2	1	0	1	1	333	0
815-830	0	0	0	0	355	2	0	0	1	0	345	0
830-845	0	0	0	0	338	2	0	0	1	1	339	0
845-900	0	0	0	0	251	3	1	0	1	1	325	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	0	0	0	1067	3	2	0	1	2	1045	0	2120
715-815	0	0	0	0	1197	4	3	0	2	3	1187	0	2396
730-830	0	0	0	0	1311	5	2	0	2	3	1310	0	2633
745-845	0	0	0	0	1372	7	1	0	3	3	1344	0	2730
800-900	0	0	0	0	1285	9	2	0	4	3	1342	0	2645

A.M. PEAK HOUR
0745-0845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

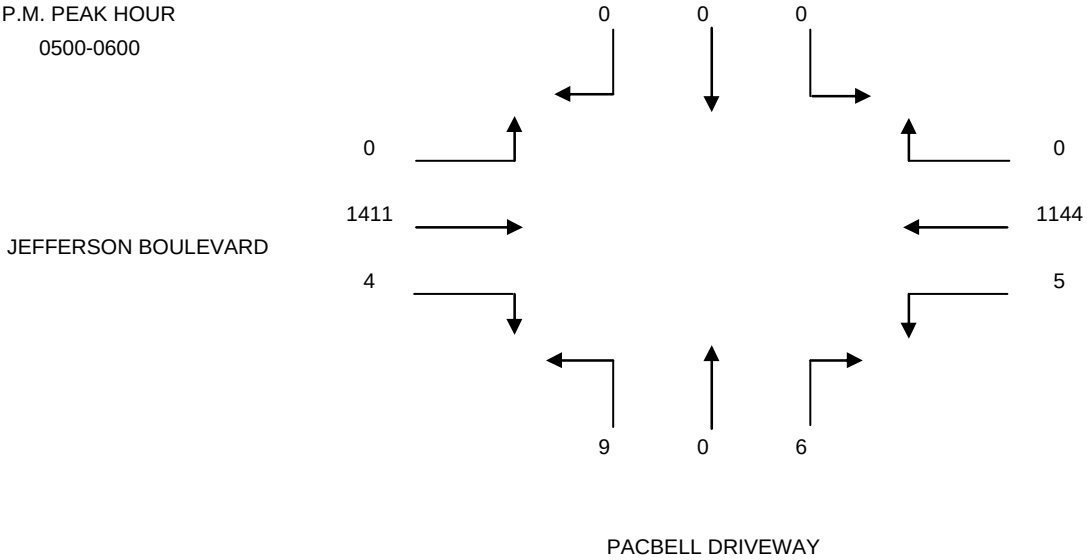
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: CULVER CITY
DATE: TUESDAY SEPTEMBER 21, 2010
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION: N/S PACBELL DRIVEWAY
E/W JEFFERSON BOULEVARD
FILE NUMBER: 1-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	0	0	0	224	0	1	0	0	3	311	0
415-430	0	0	0	0	237	2	1	0	0	1	309	0
430-445	0	0	0	0	264	0	0	0	2	1	302	0
445-500	0	0	0	0	246	2	0	0	0	1	339	0
500-515	0	0	0	0	308	2	1	0	2	1	372	0
515-530	0	0	0	0	279	1	2	0	2	2	322	0
530-545	0	0	0	0	276	1	1	0	3	0	379	0
545-600	0	0	0	0	281	1	2	0	2	1	338	0

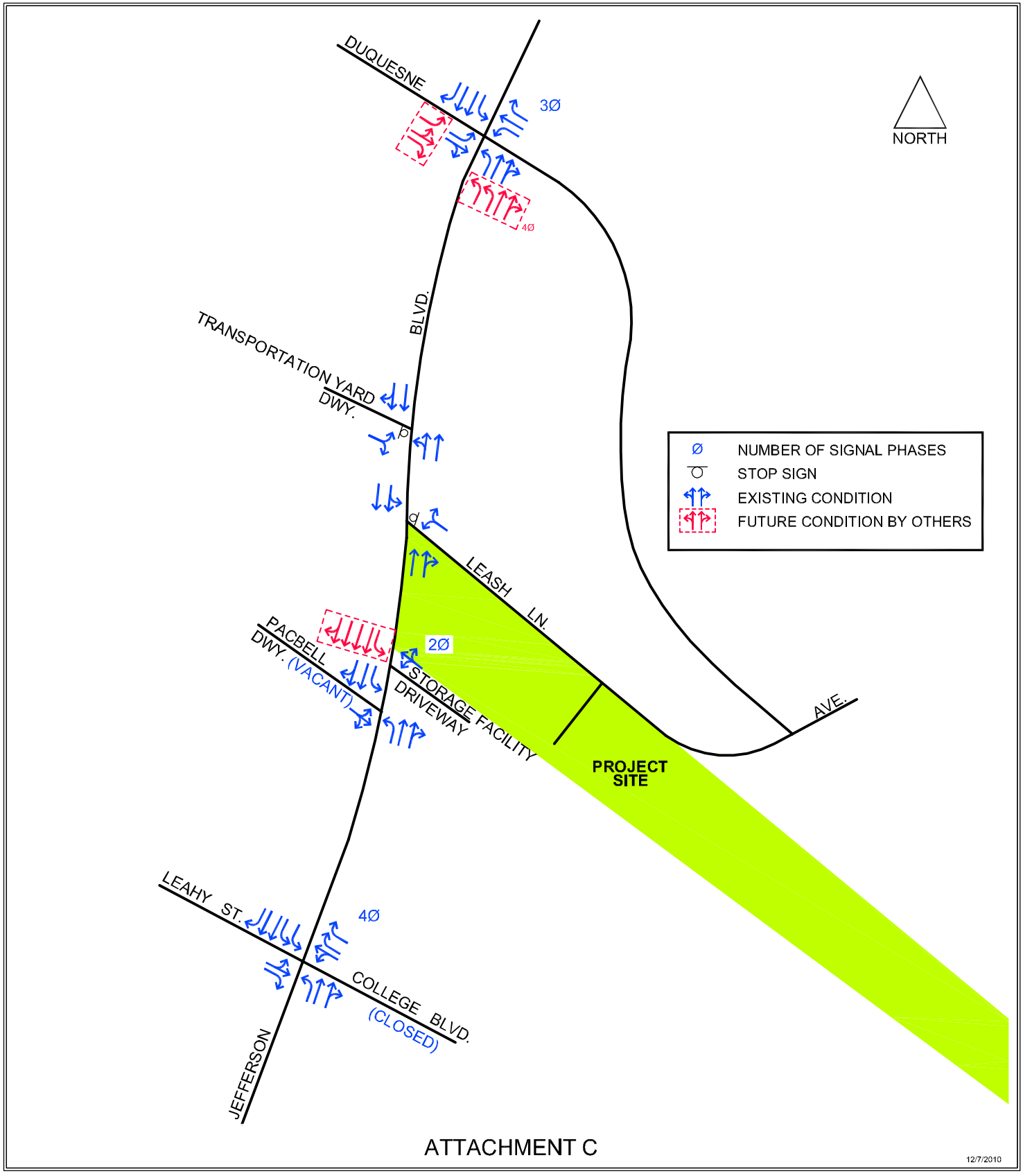
1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	0	0	0	971	4	2	0	2	6	1261	0	2246
415-515	0	0	0	0	1055	6	2	0	4	4	1322	0	2393
430-530	0	0	0	0	1097	5	3	0	6	5	1335	0	2451
445-545	0	0	0	0	1109	6	4	0	7	4	1412	0	2542
500-600	0	0	0	0	1144	5	6	0	9	4	1411	0	2579

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

ATTACHMENT C
INTERSECTION LANE CONFIGURATIONS AND SIGNAL PHASING



ATTACHMENT C

12/7/2010

ABRAXIS BIO SCIENCE CULVER CITY\LANE-CONFIG

EXISTING AND FUTURE LANE CONFIGURATION AND SIGNAL PHASING

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

ATTACHMENT D
EXISTING DRIVEWAY VOLUMES COUNTS

VEHICLE TURNING MOVEMENT COUNT SUMMARY

Crain & Associates
2007 Sawtelle Blvd., Suite 4
Los Angeles, CA 90025
Tel: (310) 473-6508

DRIVEWAY: LEASH LANE DRIVEWAY
DATE: SEPTEMBER 21, 2010
PERIOD: AM PEAK HOUR

15-MINUTE	INBOUND		OUTBOUND		
TOTALS	Left-in	Right-in	Left-out	Right-out	TOTAL
7:00 - 7:15	0	0	0	0	0
7:15 - 7:30	1	0	0	0	1
7:30 - 7:45	0	0	0	0	0
7:45 - 8:00	1	1	0	0	2
8:00 - 8:15	0	1	0	0	1
8:15 - 8:30	1	3	0	0	4
8:30 - 8:45	1	5	0	0	6
8:45 - 9:00	2	3	0	0	5

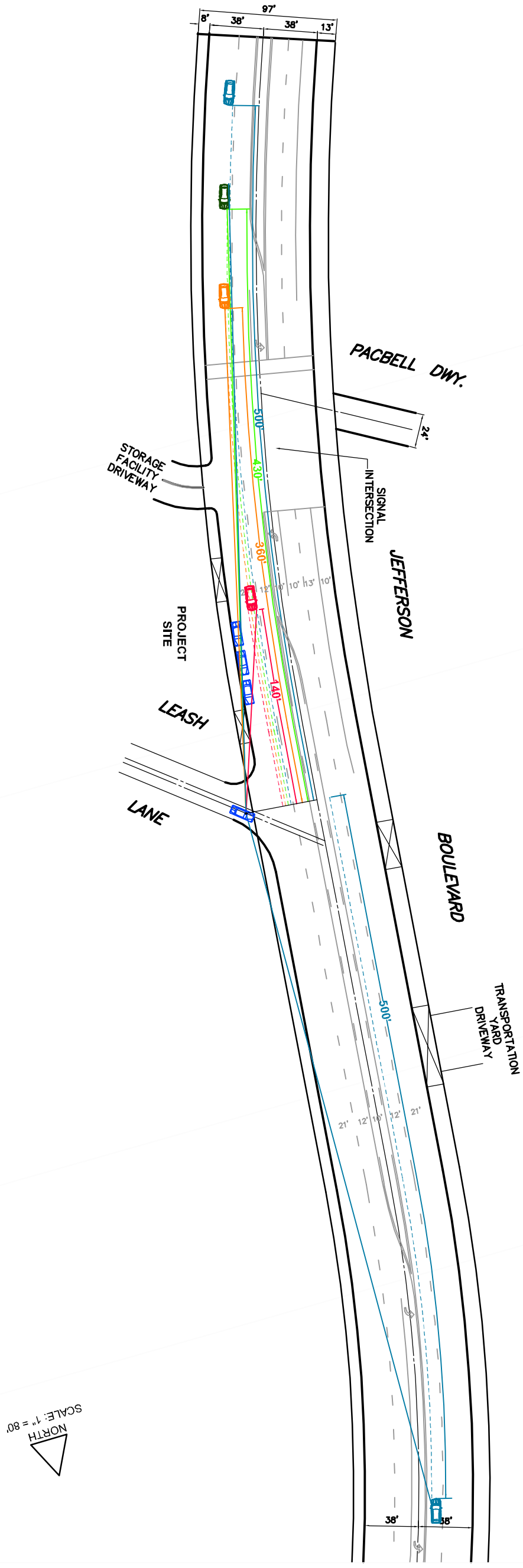
1-HOUR	INBOUND		OUTBOUND		
TOTALS	Left-in	Right-in	Left-out	Right-out	TOTAL
7:00 - 8:00	2	1	0	0	3
7:15 - 8:15	2	2	0	0	4
7:30 - 8:30	2	5	0	0	7
7:45 - 8:45	3	10	0	0	13
8:00 - 9:00	4	12	0	0	16 *

PERIOD: PM PEAK HOUR

15-MINUTE	INBOUND		OUTBOUND		
TOTALS	Left-in	Right-in	Left-out	Right-out	TOTAL
4:00 - 4:15	0	0	0	0	0
4:15 - 4:30	0	0	1	1	2
4:30 - 4:45	0	0	2	1	3
4:45 - 5:00	0	0	1	0	1
5:00 - 5:15	0	0	5	0	5
5:15 - 5:30	0	0	8	0	8
5:30 - 5:45	0	0	1	2	3
5:45 - 6:00	0	0	2	2	4

1-HOUR	INBOUND		OUTBOUND		
TOTALS	Left-in	Right-in	Left-out	Right-out	TOTAL
4:00 - 5:00	0	0	4	2	6
4:15 - 5:15	0	0	9	2	11
4:30 - 5:30	0	0	16	1	17
4:45 - 5:45	0	0	15	2	17
5:00 - 6:00	0	0	16	4	20 *

ATTACHMENT E
STOPPING/INTERSECTION SIGHT DISTANCE ANALYSIS



ATTACHMENT E

1/4/2011

ABRAXIS BIOSCIENCE CULVER CITY\STOP-SIGHT DISTANCE

STOPPING/INTERSECTION SIGHT DISTANCE ANALYSIS

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
300 Corporate Pointe, Suite 470
Culver City, California 90230
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

ATTACHMENT F
GAP STUDY

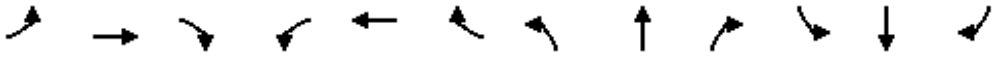
Tuesday, October 12, 2010

		Available Gaps					Total
		7.5 <=G< 11 seconds	11<=G< 14.5 seconds	14.5 <=G< 18 seconds	18 <=G< 21.5 seconds	21.5 <=G< 25 seconds	
AM Peak Hour	# of One-Stage Gaps	16	5	2	1	1	
(8:00 - 9:00 AM)	# of Cars to make left-turn out of Leash Lane	1	2	3	4	5	
	Subtotal	**16**	**10**	**6**	**4**	**5**	**41**
PM Peak Hour	# of One-Stage Gaps	15	8	3	1	0	
(5:00 - 6:00 AM)	# of Cars to make left-turn out of Leash Lane	1	2	3	4	5	
	Subtotal	**15**	**16**	**9**	**4**	**0**	**44**

		Available Gaps									Total
		6.5 <=G< 10 seconds	10<=G< 13.5 seconds	13.5 <=G< 17 seconds	17 <=G< 20.5 seconds	20.5 <=G< 24 seconds	24 <=G< 27.5 seconds	27.5 <=G< 31 seconds	31 <=G< 34.5 seconds	40 seconds	
AM Peak Hour	# of Two-Stage Gaps	30	7	6	17	2	14	12	0	2	
(8:00 - 9:00 AM)	# of Cars to make left-turn out of Leash Lane	1	2	3	4	5	6	7	8	9	
	Subtotal	**30**	**14**	**18**	**68**	**10**	**84**	**84**	**0**	**18**	**326**
PM Peak Hour	# of Two-Stage Gaps	27	20	11	3	3	3	4	1		
(5:00 - 6:00 AM)	# of Cars to make left-turn out of Leash Lane	1	2	3	4	5	6	7	8		
	Subtotal	**27**	**40**	**33**	**12**	**15**	**18**	**28**	**8**		**181**

ATTACHMENT G
SYNCHRO WORKSHEETS

Existing



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	236	26	311	10	21	8	360	914	19	21	1072	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.86		1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1652	1605		1652	1863	1583	1652	3411		1888	3303	1583
Flt Permitted	0.74	1.00		0.21	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1291	1605		357	1863	1583	1652	3411		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	257	28	338	11	23	9	391	993	21	23	1165	374
RTOR Reduction (vph)	0	265	0	0	0	7	0	1	0	0	0	139
Lane Group Flow (vph)	257	101	0	11	23	2	391	1013	0	23	1165	235
Turn Type	Perm			Perm		Perm	Prot			Prot		custom
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4		4						6
Actuated Green, G (s)	19.5	19.5		19.5	19.5	19.5	23.2	56.5		2.0	35.3	56.5
Effective Green, g (s)	19.5	19.5		19.5	19.5	19.5	23.2	56.5		2.0	35.3	56.5
Actuated g/C Ratio	0.22	0.22		0.22	0.22	0.22	0.26	0.63		0.02	0.39	0.63
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	280	348		77	404	343	426	2141		42	1296	994
v/s Ratio Prot		0.06			0.01		c0.24	0.30		0.01	c0.35	
v/s Ratio Perm	c0.20			0.03		0.00						0.15
v/c Ratio	0.92	0.29		0.14	0.06	0.01	0.92	0.47		0.55	0.90	0.24
Uniform Delay, d1	34.5	29.5		28.5	28.0	27.6	32.5	8.9		43.6	25.7	7.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.90	1.29		1.00	1.00	1.00
Incremental Delay, d2	32.6	0.5		0.9	0.1	0.0	23.0	0.7		13.8	10.1	0.6
Delay (s)	67.1	29.9		29.3	28.0	27.7	52.2	12.1		57.4	35.8	7.9
Level of Service	E	C		C	C	C	D	B		E	D	A
Approach Delay (s)		45.3			28.3			23.3			29.4	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	8	0	1281	1330	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	9	0	1392	1446	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.71	0.67	0.67			
vC, conflicting volume	2147	728	1457			
vC1, stage 1 conf vol	1451					
vC2, stage 2 conf vol	696					
vCu, unblocked vol	1318	0	705			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	100			
cM capacity (veh/h)	273	729	598			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	13	464	928	964	493
Volume Left	4	0	0	0	0
Volume Right	9	0	0	0	11
cSH	468	598	1700	1700	1700
Volume to Capacity	0.03	0.00	0.55	0.57	0.29
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	12.9	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	12.9	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		



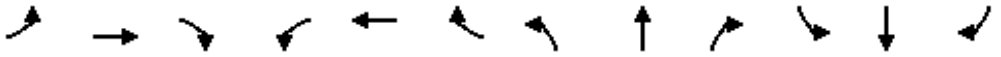
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1286	21	10	1374	1	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1398	23	11	1493	1	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.92		0.71	0.92
vC, conflicting volume			1421		2178	710
vC1, stage 1 conf vol					1409	
vC2, stage 2 conf vol					768	
vCu, unblocked vol			1284		1348	512
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			98		99	100
cM capacity (veh/h)			493		201	466

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	932	489	509	996	3
Volume Left	0	0	11	0	1
Volume Right	0	23	0	0	2
cSH	1700	1700	493	1700	324
Volume to Capacity	0.55	0.29	0.02	0.59	0.01
Queue Length 95th (ft)	0	0	2	0	1
Control Delay (s)	0.0	0.0	0.6	0.0	16.2
Lane LOS			A		C
Approach Delay (s)	0.0		0.2		16.2
Approach LOS					C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations											
Volume (vph)	3	0	1	0	1344	3	7	1372	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0				4.0		4.0	4.0			
Lane Util. Factor	1.00				0.95		1.00	0.95			
Frt	0.97				1.00		1.00	1.00			
Flt Protected	0.96				1.00		0.95	1.00			
Satd. Flow (prot)	1735				3538		1770	3539			
Flt Permitted	0.96				1.00		0.17	1.00			
Satd. Flow (perm)	1735				3538		323	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	0	1	0	1461	3	8	1491	0	0	0
RTOR Reduction (vph)	1	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	3	0	0	0	1464	0	8	1491	0	0	0
Turn Type				Perm			Perm				
Protected Phases	1				2			2		4	
Permitted Phases				2			2				
Actuated Green, G (s)	1.3				80.7		80.7	80.7			
Effective Green, g (s)	1.3				80.7		80.7	80.7			
Actuated g/C Ratio	0.01				0.90		0.90	0.90			
Clearance Time (s)	4.0				4.0		4.0	4.0			
Vehicle Extension (s)	3.0				3.0		3.0	3.0			
Lane Grp Cap (vph)	25				3172		290	3173			
v/s Ratio Prot	c0.00				0.41			c0.42			
v/s Ratio Perm							0.02				
v/c Ratio	0.12				0.46		0.03	0.47			
Uniform Delay, d1	43.8				0.8		0.5	0.8			
Progression Factor	1.00				0.00		0.18	0.63			
Incremental Delay, d2	2.2				0.4		0.1	0.3			
Delay (s)	45.9				0.4		0.2	0.8			
Level of Service	D				A		A	A			
Approach Delay (s)	45.9				0.4			0.8		0.0	
Approach LOS	D				A			A		A	

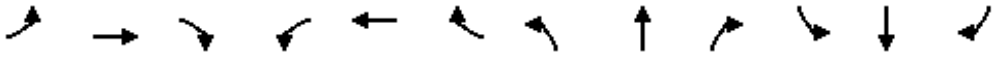
Intersection Summary			
HCM Average Control Delay	0.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	0	2	1	0	0	5	1352	7	1	1384	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		0.97	0.95	1.00
Frt		1.00	0.85		1.00		1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.95		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1652	1478		1711		1711	3418		3204	3303	1531
Flt Permitted		0.95	1.00		0.95		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1652	1478		1711		1711	3418		3204	3303	1531
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	2	1	0	0	5	1470	8	1	1504	8
RTOR Reduction (vph)	0	0	2	0	0	0	0	0	0	0	0	2
Lane Group Flow (vph)	0	5	0	0	1	0	5	1478	0	1	1504	6
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		1.3	1.3		1.2		1.3	70.4		1.1	70.2	70.4
Effective Green, g (s)		1.3	1.3		1.2		1.3	70.4		1.1	70.2	70.4
Actuated g/C Ratio		0.01	0.01		0.01		0.01	0.78		0.01	0.78	0.78
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		24	21		23		25	2674		39	2576	1198
v/s Ratio Prot		c0.00	0.00		c0.00		c0.00	0.43		0.00	c0.46	
v/s Ratio Perm												0.00
v/c Ratio		0.21	0.00		0.04		0.20	0.55		0.03	0.58	0.01
Uniform Delay, d1		43.8	43.7		43.8		43.8	3.8		43.9	4.0	2.1
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.13	0.32	0.03
Incremental Delay, d2		4.3	0.0		0.8		3.9	0.8		0.2	0.9	0.0
Delay (s)		48.1	43.7		44.6		47.8	4.6		49.7	2.2	0.1
Level of Service		D	D		D		D	A		D	A	A
Approach Delay (s)		46.9			44.6			4.7			2.2	
Approach LOS		D			D			A			A	

Intersection Summary					
HCM Average Control Delay	3.6	HCM Level of Service		A	
HCM Volume to Capacity ratio	0.56				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	54.9%	ICU Level of Service		A	
Analysis Period (min)	15				

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	384	44	303	28	49	27	296	1118	20	42	775	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.87		1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1652	1619		1652	1863	1583	1652	3412		1888	3303	1583
Flt Permitted	0.72	1.00		0.34	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1256	1619		592	1863	1583	1652	3412		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	417	48	329	30	53	29	322	1215	22	46	842	211
RTOR Reduction (vph)	0	214	0	0	0	19	0	2	0	0	0	107
Lane Group Flow (vph)	417	163	0	30	53	10	322	1235	0	46	842	104
Turn Type	Perm			Perm		Perm	Prot			Prot		custom
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4		4						6
Actuated Green, G (s)	31.4	31.4		31.4	31.4	31.4	19.4	44.2		2.4	27.2	44.2
Effective Green, g (s)	31.4	31.4		31.4	31.4	31.4	19.4	44.2		2.4	27.2	44.2
Actuated g/C Ratio	0.35	0.35		0.35	0.35	0.35	0.22	0.49		0.03	0.30	0.49
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	438	565		207	650	552	356	1676		50	998	777
v/s Ratio Prot		0.10			0.03		c0.19	0.36		0.02	c0.25	
v/s Ratio Perm	c0.33			0.05		0.01						0.07
v/c Ratio	0.95	0.29		0.14	0.08	0.02	0.90	0.74		0.92	0.84	0.13
Uniform Delay, d1	28.6	21.2		20.1	19.6	19.2	34.4	18.3		43.7	29.4	12.5
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.94	0.95		1.00	1.00	1.00
Incremental Delay, d2	30.9	0.3		0.3	0.1	0.0	23.8	2.7		97.4	8.7	0.4
Delay (s)	59.4	21.5		20.4	19.7	19.2	56.1	20.1		141.1	38.1	12.8
Level of Service	E	C		C	B	B	E	C		F	D	B
Approach Delay (s)		41.4			19.8			27.5			37.5	
Approach LOS		D			B			C			D	

Intersection Summary			
HCM Average Control Delay	33.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	1	0	1513	1131	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1	0	1645	1229	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.82	0.77	0.77			
vC, conflicting volume	2055	618	1236			
vC1, stage 1 conf vol	1233					
vC2, stage 2 conf vol	822					
vCu, unblocked vol	1260	0	697			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	100	100			
cM capacity (veh/h)	301	830	686			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	4	548	1096	820	416
Volume Left	3	0	0	0	0
Volume Right	1	0	0	0	7
cSH	358	686	1700	1700	1700
Volume to Capacity	0.01	0.00	0.64	0.48	0.24
Queue Length 95th (ft)	1	0	0	0	0
Control Delay (s)	15.2	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	15.2	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1427	19	4	1107	14	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1551	21	4	1203	15	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.89		0.82	0.89
vC, conflicting volume			1572		2172	786
vC1, stage 1 conf vol					1561	
vC2, stage 2 conf vol					610	
vCu, unblocked vol			1402		1415	523
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			99		91	99
cM capacity (veh/h)			432		170	446

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	1034	538	405	802	20
Volume Left	0	0	4	0	15
Volume Right	0	21	0	0	4
cSH	1700	1700	432	1700	197
Volume to Capacity	0.61	0.32	0.01	0.47	0.10
Queue Length 95th (ft)	0	0	1	0	8
Control Delay (s)	0.0	0.0	0.3	0.0	25.2
Lane LOS			A		D
Approach Delay (s)	0.0		0.1		25.2
Approach LOS					D

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations											
Volume (vph)	9	0	6	0	1411	4	5	1144	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0				4.0		4.0	4.0			
Lane Util. Factor	1.00				0.95		1.00	0.95			
Frt	0.94				1.00		1.00	1.00			
Flt Protected	0.97				1.00		0.95	1.00			
Satd. Flow (prot)	1709				3538		1770	3539			
Flt Permitted	0.97				1.00		0.16	1.00			
Satd. Flow (perm)	1709				3538		291	3539			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	0	7	0	1534	4	5	1243	0	0	0
RTOR Reduction (vph)	7	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	10	0	0	0	1538	0	5	1243	0	0	0
Turn Type				Perm			Perm				
Protected Phases	1				2			2		4	
Permitted Phases				2			2				
Actuated Green, G (s)	2.9				79.1		79.1	79.1			
Effective Green, g (s)	2.9				79.1		79.1	79.1			
Actuated g/C Ratio	0.03				0.88		0.88	0.88			
Clearance Time (s)	4.0				4.0		4.0	4.0			
Vehicle Extension (s)	3.0				3.0		3.0	3.0			
Lane Grp Cap (vph)	55				3110		256	3110			
v/s Ratio Prot	c0.01				c0.43			0.35			
v/s Ratio Perm							0.02				
v/c Ratio	0.19				0.49		0.02	0.40			
Uniform Delay, d1	42.4				1.2		0.7	1.0			
Progression Factor	1.00				0.01		0.25	1.25			
Incremental Delay, d2	1.6				0.5		0.1	0.3			
Delay (s)	44.0				0.5		0.3	1.6			
Level of Service	D				A		A	A			
Approach Delay (s)	44.0				0.5			1.5		0.0	
Approach LOS	D				A			A		A	

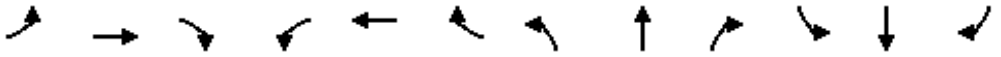
Intersection Summary			
HCM Average Control Delay	1.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	0	6	0	0	2	4	1421	0	1	1137	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00			0.88	1.00	0.95		0.97	0.95	
Frt		1.00	0.85			0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1652	1478			2787	1711	3421		3204	3303	
Flt Permitted		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1652	1478			2787	1711	3421		3204	3303	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	0	7	0	0	2	4	1545	0	1	1236	0
RTOR Reduction (vph)	0	0	7	0	0	2	0	0	0	0	0	0
Lane Group Flow (vph)	0	12	0	0	0	0	4	1545	0	1	1236	0
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		2.9	2.9			1.1	1.3	68.9		1.1	68.7	
Effective Green, g (s)		2.9	2.9			1.1	1.3	68.9		1.1	68.7	
Actuated g/C Ratio		0.03	0.03			0.01	0.01	0.77		0.01	0.76	
Clearance Time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		53	48			34	25	2619		39	2521	
v/s Ratio Prot		c0.01	0.00			c0.00	c0.00	c0.45		0.00	0.37	
v/s Ratio Perm												
v/c Ratio		0.23	0.00			0.00	0.16	0.59		0.03	0.49	
Uniform Delay, d1		42.5	42.2			43.9	43.8	4.5		43.9	4.0	
Progression Factor		1.00	1.00			1.00	1.00	1.00		1.46	0.69	
Incremental Delay, d2		2.2	0.0			0.0	3.0	1.0		0.3	0.6	
Delay (s)		44.6	42.2			43.9	46.8	5.5		64.2	3.4	
Level of Service		D	D			D	D	A		E	A	
Approach Delay (s)		43.7			43.9			5.6			3.5	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	4.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Future Without Project Conditions
(With 2005 College EIR Base)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	283	35	437	14	26	12	442	1126	23	41	1516	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1569	1703	1794	1652	1863	1583	3204	3411		1888	3303	1583
Flt Permitted	0.95	0.60	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1569	1067	1794	1652	1863	1583	3204	3411		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	308	38	475	15	28	13	480	1224	25	45	1648	449
RTOR Reduction (vph)	0	0	37	0	0	11	0	2	0	0	0	228
Lane Group Flow (vph)	172	174	438	15	28	2	480	1247	0	45	1648	221
Turn Type	Prot		custom	Prot		Perm	Prot			Prot		custom
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases			4			4						6
Actuated Green, G (s)	15.0	30.2	22.2	0.6	11.2	11.2	11.0	44.2		3.6	36.8	44.2
Effective Green, g (s)	15.0	30.2	22.2	0.6	11.2	11.2	11.0	44.2		3.6	36.8	44.2
Actuated g/C Ratio	0.17	0.34	0.25	0.01	0.12	0.12	0.12	0.49		0.04	0.41	0.49
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	262	464	522	11	232	197	392	1675		76	1351	777
v/s Ratio Prot	c0.11	0.06	c0.10	0.01	0.02		c0.15	0.37		0.02	c0.50	
v/s Ratio Perm		0.06	0.14			0.00						0.14
v/c Ratio	0.66	0.38	0.84	1.36	0.12	0.01	1.22	0.74		0.59	1.22	0.28
Uniform Delay, d1	35.1	22.7	32.2	44.7	35.0	34.5	39.5	18.4		42.5	26.6	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.18		1.00	1.00	1.00
Incremental Delay, d2	5.8	0.5	11.3	409.1	0.2	0.0	118.9	2.6		11.8	105.8	0.9
Delay (s)	40.9	23.2	43.5	453.8	35.3	34.5	155.4	24.3		54.2	132.4	14.5
Level of Service	D	C	D	F	D	C	F	C		D	F	B
Approach Delay (s)		38.7			147.2			60.7			106.1	
Approach LOS		D			F			E			F	

Intersection Summary			
HCM Average Control Delay	78.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	10	0	1575	1896	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	11	0	1712	2061	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.72	0.61	0.61			
vC, conflicting volume	2923	1037	2074			
vC1, stage 1 conf vol	2067					
vC2, stage 2 conf vol	856					
vCu, unblocked vol	1558	0	1490			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	98	100			
cM capacity (veh/h)	105	665	274			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	571	1141	1374	700
Volume Left	5	0	0	0	0
Volume Right	11	0	0	0	13
cSH	239	274	1700	1700	1700
Volume to Capacity	0.07	0.00	0.67	0.81	0.41
Queue Length 95th (ft)	5	0	0	0	0
Control Delay (s)	21.1	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	21.1	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		

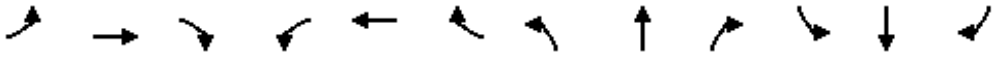
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1576	65	32	1929	4	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1713	71	35	2097	4	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.78		0.73	0.78
vC, conflicting volume			1784		2866	892
vC1, stage 1 conf vol					1748	
vC2, stage 2 conf vol					1118	
vCu, unblocked vol			1446		1469	306
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			90		97	99
cM capacity (veh/h)			364		147	540

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	1142	642	734	1398	12
Volume Left	0	0	35	0	4
Volume Right	0	71	0	0	8
cSH	1700	1700	364	1700	273
Volume to Capacity	0.67	0.38	0.10	0.82	0.04
Queue Length 95th (ft)	0	0	8	0	3
Control Delay (s)	0.0	0.0	3.2	0.0	18.8
Lane LOS			A		C
Approach Delay (s)	0.0		1.1		18.8
Approach LOS					C

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Volume (vph)	4	0	1	65	1669	4	8	1810	119	17	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00			1.00	0.95		1.00	0.86			1.00	
Frt	0.97			1.00	1.00		1.00	0.99			0.95	
Flt Protected	0.96			0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1743			1770	3538		1770	6349			1714	
Flt Permitted	0.96			0.07	1.00		0.10	1.00			0.97	
Satd. Flow (perm)	1743			131	3538		187	6349			1714	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	1	71	1814	4	9	1967	129	18	0	11
RTOR Reduction (vph)	1	0	0	0	0	0	0	4	0	0	11	0
Lane Group Flow (vph)	4	0	0	71	1818	0	9	2092	0	0	18	0
Turn Type				Perm			Perm			Perm		
Protected Phases	1				2			2			4	
Permitted Phases				2			2			4		
Actuated Green, G (s)	1.3			73.5	73.5		73.5	73.5			3.2	
Effective Green, g (s)	1.3			73.5	73.5		73.5	73.5			3.2	
Actuated g/C Ratio	0.01			0.82	0.82		0.82	0.82			0.04	
Clearance Time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0			3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	25			107	2889		153	5185			61	
v/s Ratio Prot	c0.00				0.51			0.33				
v/s Ratio Perm				c0.54			0.05				0.01	
v/c Ratio	0.16			0.66	0.63		0.06	0.40			0.30	
Uniform Delay, d1	43.8			3.3	3.1		1.6	2.3			42.3	
Progression Factor	1.00			1.04	0.35		0.42	0.38			1.00	
Incremental Delay, d2	3.0			17.9	0.6		0.1	0.0			2.8	
Delay (s)	46.8			21.3	1.7		0.7	0.9			45.1	
Level of Service	D			C	A		A	A			D	
Approach Delay (s)	46.8				2.5			0.9			45.1	
Approach LOS	D				A			A			D	

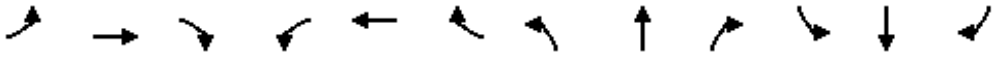
Intersection Summary			
HCM Average Control Delay	2.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	0	2	1	0	16	6	1727	8	160	1676	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	0.88	1.00	0.95		0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.95	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1652	1478		1711	2787	1711	3419		3204	3303	1531
Flt Permitted		0.95	1.00		0.95	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1652	1478		1711	2787	1711	3419		3204	3303	1531
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	0	2	1	0	17	7	1877	9	174	1822	9
RTOR Reduction (vph)	0	0	2	0	0	17	0	0	0	0	0	3
Lane Group Flow (vph)	0	7	0	0	1	0	7	1886	0	174	1822	6
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		1.4	1.4		2.5	2.5	1.4	57.3		12.8	68.7	57.3
Effective Green, g (s)		1.4	1.4		2.5	2.5	1.4	57.3		12.8	68.7	57.3
Actuated g/C Ratio		0.02	0.02		0.03	0.03	0.02	0.64		0.14	0.76	0.64
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		26	23		48	77	27	2177		456	2521	975
v/s Ratio Prot		c0.00	0.00		c0.00	0.00	0.00	c0.55		c0.05	c0.55	
v/s Ratio Perm												0.00
v/c Ratio		0.27	0.00		0.02	0.01	0.26	0.87		0.38	0.72	0.01
Uniform Delay, d1		43.8	43.6		42.6	42.5	43.8	13.2		35.0	5.6	6.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.01	0.55	0.49
Incremental Delay, d2		5.5	0.0		0.2	0.0	5.1	4.9		0.5	1.7	0.0
Delay (s)		49.3	43.6		42.7	42.6	48.8	18.2		36.0	4.8	3.0
Level of Service		D	D		D	D	D	B		D	A	A
Approach Delay (s)		48.1			42.6			18.3			7.5	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	13.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	461	54	381	48	63	46	414	1479	24	53	1047	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1569	1702	1794	1652	1863	1583	3204	3413		1888	3303	1583
Flt Permitted	0.95	0.56	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1569	993	1794	1652	1863	1583	3204	3413		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	501	59	414	52	68	50	450	1608	26	58	1138	253
RTOR Reduction (vph)	0	0	135	0	0	42	0	1	0	0	0	146
Lane Group Flow (vph)	281	279	279	52	68	8	450	1633	0	58	1138	107
Turn Type	Prot		custom	Prot		Perm	Prot			Prot		custom
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases			4			4						6
Actuated Green, G (s)	19.0	36.6	25.6	4.2	13.6	13.6	12.0	38.2		3.2	29.4	38.2
Effective Green, g (s)	19.0	36.6	25.6	4.2	13.6	13.6	12.0	38.2		3.2	29.4	38.2
Actuated g/C Ratio	0.21	0.41	0.28	0.05	0.15	0.15	0.13	0.42		0.04	0.33	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	331	553	590	77	282	239	427	1449		67	1079	672
v/s Ratio Prot	c0.18	0.11	0.06	0.03	0.04		c0.14	c0.48		0.03	0.34	
v/s Ratio Perm		c0.10	0.09			0.00						0.07
v/c Ratio	0.85	0.50	0.47	0.68	0.24	0.03	1.05	1.13		0.87	1.05	0.16
Uniform Delay, d1	34.1	19.9	26.6	42.2	33.7	32.6	39.0	25.9		43.2	30.3	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.09		1.00	1.00	1.00
Incremental Delay, d2	18.0	0.7	0.6	20.9	0.4	0.1	52.2	64.3		64.8	43.0	0.5
Delay (s)	52.1	20.7	27.2	63.2	34.1	32.6	91.7	92.6		108.0	73.3	16.5
Level of Service	D	C	C	E	C	C	F	F		F	E	B
Approach Delay (s)		32.5			42.6			92.4			64.8	
Approach LOS		C			D			F			E	

Intersection Summary			
HCM Average Control Delay	69.6	HCM Level of Service	E
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	1	0	2012	1508	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1	0	2187	1639	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.75	0.68	0.68			
vC, conflicting volume	2736	823	1647			
vC1, stage 1 conf vol	1643					
vC2, stage 2 conf vol	1093					
vCu, unblocked vol	747	0	1023			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	100	100			
cM capacity (veh/h)	208	742	462			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	5	729	1458	1093	554
Volume Left	4	0	0	0	0
Volume Right	1	0	0	0	8
cSH	243	462	1700	1700	1700
Volume to Capacity	0.02	0.00	0.86	0.64	0.33
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	20.1	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	20.1	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1872	30	9	1475	35	41
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2035	33	10	1603	38	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.60		0.75	0.60
vC, conflicting volume			2067		2872	1034
vC1, stage 1 conf vol					2051	
vC2, stage 2 conf vol					821	
vCu, unblocked vol			1434		965	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			97		66	93
cM capacity (veh/h)			280		113	646

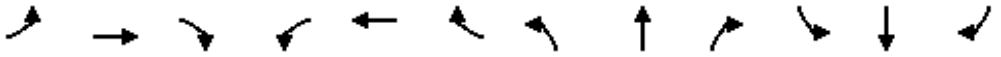
Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	1357	711	544	1069	83
Volume Left	0	0	10	0	38
Volume Right	0	33	0	0	45
cSH	1700	1700	280	1700	204
Volume to Capacity	0.80	0.42	0.03	0.63	0.41
Queue Length 95th (ft)	0	0	3	0	46
Control Delay (s)	0.0	0.0	1.2	0.0	34.2
Lane LOS			A		D
Approach Delay (s)	0.0		0.4		34.2
Approach LOS					D

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Volume (vph)	11	0	7	13	1749	5	6	1515	23	111	0	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00			1.00	0.95		1.00	0.86			1.00	
Frt	0.95			1.00	1.00		1.00	1.00			0.95	
Flt Protected	0.97			0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1711			1770	3538		1770	6393			1720	
Flt Permitted	0.97			0.11	1.00		0.06	1.00			0.97	
Satd. Flow (perm)	1711			203	3538		120	6393			1720	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	0	8	14	1901	5	7	1647	25	121	0	64
RTOR Reduction (vph)	8	0	0	0	0	0	0	1	0	0	22	0
Lane Group Flow (vph)	12	0	0	14	1906	0	7	1671	0	0	163	0
Turn Type				Perm			Perm			Perm		
Protected Phases	1				2			2			4	
Permitted Phases				2			2			4		
Actuated Green, G (s)	2.9			62.1	62.1		62.1	62.1			13.0	
Effective Green, g (s)	2.9			62.1	62.1		62.1	62.1			13.0	
Actuated g/C Ratio	0.03			0.69	0.69		0.69	0.69			0.14	
Clearance Time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0			3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	55			140	2441		83	4411			248	
v/s Ratio Prot	c0.01				c0.54			0.26				
v/s Ratio Perm				0.07			0.06				0.09	
v/c Ratio	0.22			0.10	0.78		0.08	0.38			0.66	
Uniform Delay, d1	42.5			4.6	9.4		4.6	5.9			36.4	
Progression Factor	1.00			0.02	0.12		0.37	0.33			1.00	
Incremental Delay, d2	2.1			0.8	1.5		1.1	0.1			6.1	
Delay (s)	44.5			0.9	2.6		2.8	2.0			42.5	
Level of Service	D			A	A		A	A			D	
Approach Delay (s)	44.5				2.6			2.0			42.5	
Approach LOS	D				A			A			D	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

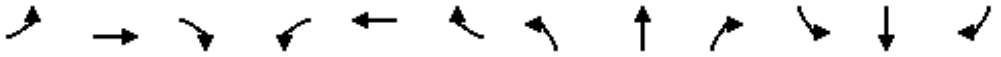


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	0	7	0	0	51	5	1725	0	111	1455	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00			0.88	1.00	0.95		0.97	0.95	
Frt		1.00	0.85			0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1652	1478			2787	1711	3421		3204	3303	
Flt Permitted		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1652	1478			2787	1711	3421		3204	3303	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	0	8	0	0	55	5	1875	0	121	1582	0
RTOR Reduction (vph)	0	0	8	0	0	52	0	0	0	0	0	0
Lane Group Flow (vph)	0	14	0	0	0	3	5	1875	0	121	1582	0
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		2.9	2.9			4.4	1.3	57.4		9.3	65.4	
Effective Green, g (s)		2.9	2.9			4.4	1.3	57.4		9.3	65.4	
Actuated g/C Ratio		0.03	0.03			0.05	0.01	0.64		0.10	0.73	
Clearance Time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		53	48			136	25	2182		331	2400	
v/s Ratio Prot		c0.01	0.00			c0.00	0.00	c0.55		c0.04	c0.48	
v/s Ratio Perm												
v/c Ratio		0.26	0.01			0.02	0.20	0.86		0.37	0.66	
Uniform Delay, d1		42.5	42.2			40.7	43.8	13.1		37.6	6.5	
Progression Factor		1.00	1.00			1.00	1.00	1.00		1.01	0.77	
Incremental Delay, d2		2.7	0.0			0.1	3.9	4.7		0.7	1.4	
Delay (s)		45.2	42.2			40.8	47.8	17.8		38.7	6.3	
Level of Service		D	D			D	D	B		D	A	
Approach Delay (s)		44.1			40.8			17.8			8.6	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Future Without Project Conditions
(With 2010 College EIR Base)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	283	35	434	14	26	12	443	1136	23	41	1460	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1569	1703	1794	1652	1863	1583	3204	3411		1888	3303	1583
Flt Permitted	0.95	0.60	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1569	1056	1794	1652	1863	1583	3204	3411		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	308	38	472	15	28	13	482	1235	25	45	1587	449
RTOR Reduction (vph)	0	0	71	0	0	11	0	1	0	0	0	223
Lane Group Flow (vph)	172	174	401	15	28	2	482	1259	0	45	1587	226
Turn Type	Prot		custom	Prot		Perm	Prot			Prot		custom
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases			4			4						6
Actuated Green, G (s)	15.6	30.2	21.6	1.0	10.6	10.6	11.0	45.4		2.4	36.8	45.4
Effective Green, g (s)	15.6	30.2	21.6	1.0	10.6	10.6	11.0	45.4		2.4	36.8	45.4
Actuated g/C Ratio	0.17	0.34	0.24	0.01	0.12	0.12	0.12	0.50		0.03	0.41	0.50
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	272	466	510	18	219	186	392	1721		50	1351	799
v/s Ratio Prot	c0.11	0.06	c0.10	0.01	0.02		c0.15	0.37		0.02	c0.48	
v/s Ratio Perm		0.06	0.13			0.00						0.14
v/c Ratio	0.63	0.37	0.79	0.83	0.13	0.01	1.23	0.73		0.90	1.17	0.28
Uniform Delay, d1	34.5	22.7	32.0	44.4	35.6	35.1	39.5	17.5		43.7	26.6	12.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.70		1.00	1.00	1.00
Incremental Delay, d2	4.7	0.5	7.9	131.9	0.3	0.0	120.9	2.3		90.4	86.7	0.9
Delay (s)	39.3	23.2	39.9	176.3	35.8	35.1	160.6	14.5		134.1	113.3	13.8
Level of Service	D	C	D	F	D	D	F	B		F	F	B
Approach Delay (s)		36.2			73.3			54.9			92.3	
Approach LOS		D			E			D			F	

Intersection Summary					
HCM Average Control Delay	68.4	HCM Level of Service		E	
HCM Volume to Capacity ratio	0.98				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	80.6%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	10	0	1586	1835	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	11	0	1724	1995	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.72	0.61	0.61			
vC, conflicting volume	2863	1004	2008			
vC1, stage 1 conf vol	2001					
vC2, stage 2 conf vol	862					
vCu, unblocked vol	1455	0	1382			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	98	100			
cM capacity (veh/h)	120	665	302			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	575	1149	1330	678
Volume Left	5	0	0	0	0
Volume Right	11	0	0	0	13
cSH	265	302	1700	1700	1700
Volume to Capacity	0.06	0.00	0.68	0.78	0.40
Queue Length 95th (ft)	5	0	0	0	0
Control Delay (s)	19.5	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	19.5	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1587	65	32	1868	4	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1725	71	35	2030	4	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.78		0.73	0.78
vC, conflicting volume			1796		2845	898
vC1, stage 1 conf vol					1760	
vC2, stage 2 conf vol					1085	
vCu, unblocked vol			1454		1421	301
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			90		97	99
cM capacity (veh/h)			359		145	541

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	1150	646	712	1354	12
Volume Left	0	0	35	0	4
Volume Right	0	71	0	0	8
cSH	1700	1700	359	1700	271
Volume to Capacity	0.68	0.38	0.10	0.80	0.04
Queue Length 95th (ft)	0	0	8	0	3
Control Delay (s)	0.0	0.0	3.2	0.0	18.9
Lane LOS			A		C
Approach Delay (s)	0.0		1.1		18.9
Approach LOS					C

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

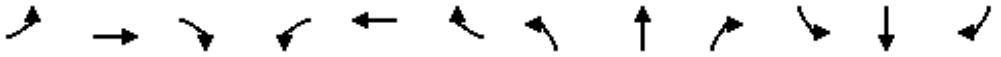
Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Volume (vph)	4	0	1	65	1680	4	8	1749	119	17	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00			1.00	0.95		1.00	0.86			1.00	
Frt	0.97			1.00	1.00		1.00	0.99			0.95	
Flt Protected	0.96			0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1743			1770	3538		1770	6347			1714	
Flt Permitted	0.96			0.08	1.00		0.10	1.00			0.97	
Satd. Flow (perm)	1743			142	3538		183	6347			1714	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	1	71	1826	4	9	1901	129	18	0	11
RTOR Reduction (vph)	1	0	0	0	0	0	0	4	0	0	11	0
Lane Group Flow (vph)	4	0	0	71	1830	0	9	2026	0	0	18	0
Turn Type				Perm			Perm			Perm		
Protected Phases	1				2			2			4	
Permitted Phases				2			2			4		
Actuated Green, G (s)	1.3			73.5	73.5		73.5	73.5			3.2	
Effective Green, g (s)	1.3			73.5	73.5		73.5	73.5			3.2	
Actuated g/C Ratio	0.01			0.82	0.82		0.82	0.82			0.04	
Clearance Time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0			3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	25			116	2889		149	5183			61	
v/s Ratio Prot	c0.00				c0.52			0.32				
v/s Ratio Perm				0.50			0.05				0.01	
v/c Ratio	0.16			0.61	0.63		0.06	0.39			0.30	
Uniform Delay, d1	43.8			3.0	3.1		1.6	2.2			42.3	
Progression Factor	1.00			0.67	0.20		2.08	2.33			1.00	
Incremental Delay, d2	3.0			14.5	0.7		0.1	0.0			2.8	
Delay (s)	46.8			16.5	1.3		3.4	5.2			45.1	
Level of Service	D			B	A		A	A			D	
Approach Delay (s)	46.8				1.9			5.2			45.1	
Approach LOS	D				A			A			D	

Intersection Summary			
HCM Average Control Delay	3.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	0	2	1	0	27	6	1727	8	99	1676	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	0.88	1.00	0.95		0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.95	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1652	1478		1711	2787	1711	3419		3204	3303	1531
Flt Permitted		0.95	1.00		0.95	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1652	1478		1711	2787	1711	3419		3204	3303	1531
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	0	2	1	0	29	7	1877	9	108	1822	9
RTOR Reduction (vph)	0	0	2	0	0	28	0	0	0	0	0	2
Lane Group Flow (vph)	0	7	0	0	1	1	7	1886	0	108	1822	7
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		1.4	1.4		3.7	3.7	1.4	60.2		8.7	67.5	60.2
Effective Green, g (s)		1.4	1.4		3.7	3.7	1.4	60.2		8.7	67.5	60.2
Actuated g/C Ratio		0.02	0.02		0.04	0.04	0.02	0.67		0.10	0.75	0.67
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		26	23		70	115	27	2287		310	2477	1024
v/s Ratio Prot		c0.00	0.00		c0.00	0.00	0.00	c0.55		c0.03	c0.55	
v/s Ratio Perm												0.00
v/c Ratio		0.27	0.00		0.01	0.01	0.26	0.82		0.35	0.74	0.01
Uniform Delay, d1		43.8	43.6		41.4	41.4	43.8	11.0		38.0	6.3	5.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.25	0.73	0.47
Incremental Delay, d2		5.5	0.0		0.1	0.0	5.1	3.5		0.7	1.9	0.0
Delay (s)		49.3	43.6		41.5	41.4	48.8	14.5		48.3	6.5	2.3
Level of Service		D	D		D	D	D	B		D	A	A
Approach Delay (s)		48.1			41.4			14.7			8.8	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	12.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	461	54	378	48	63	46	414	1479	24	53	999	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1569	1702	1794	1652	1863	1583	3204	3413		1888	3303	1583
Flt Permitted	0.95	0.56	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1569	993	1794	1652	1863	1583	3204	3413		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	501	59	411	52	68	50	450	1608	26	58	1086	253
RTOR Reduction (vph)	0	0	137	0	0	42	0	1	0	0	0	146
Lane Group Flow (vph)	281	279	274	52	68	8	450	1633	0	58	1086	107
Turn Type	Prot		custom	Prot		Perm	Prot			Prot		custom
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases			4			4						6
Actuated Green, G (s)	19.0	36.6	26.6	4.2	13.6	13.6	13.0	38.2		3.2	28.4	38.2
Effective Green, g (s)	19.0	36.6	26.6	4.2	13.6	13.6	13.0	38.2		3.2	28.4	38.2
Actuated g/C Ratio	0.21	0.41	0.30	0.05	0.15	0.15	0.14	0.42		0.04	0.32	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	331	553	610	77	282	239	463	1449		67	1042	672
v/s Ratio Prot	c0.18	0.11	0.06	0.03	0.04		c0.14	c0.48		0.03	0.33	
v/s Ratio Perm		c0.10	0.09			0.00						0.07
v/c Ratio	0.85	0.50	0.45	0.68	0.24	0.03	0.97	1.13		0.87	1.04	0.16
Uniform Delay, d1	34.1	19.9	25.8	42.2	33.7	32.6	38.3	25.9		43.2	30.8	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.03	1.06		1.00	1.00	1.00
Incremental Delay, d2	18.0	0.7	0.5	20.9	0.4	0.1	28.7	64.3		64.8	39.5	0.5
Delay (s)	52.1	20.7	26.3	63.2	34.1	32.6	68.0	91.7		108.0	70.3	16.5
Level of Service	D	C	C	E	C	C	E	F		F	E	B
Approach Delay (s)		32.1			42.6			86.6			62.1	
Approach LOS		C			D			F			E	

Intersection Summary			
HCM Average Control Delay	66.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	1	0	2012	1455	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1	0	2187	1582	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.74	0.70	0.70			
vC, conflicting volume	2679	795	1589			
vC1, stage 1 conf vol	1585					
vC2, stage 2 conf vol	1093					
vCu, unblocked vol	720	0	972			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	100	100			
cM capacity (veh/h)	224	754	490			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	5	729	1458	1054	535
Volume Left	4	0	0	0	0
Volume Right	1	0	0	0	8
cSH	261	490	1700	1700	1700
Volume to Capacity	0.02	0.00	0.86	0.62	0.31
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	19.1	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	19.1	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1872	30	9	1422	35	41
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2035	33	10	1546	38	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.60		0.75	0.60
vC, conflicting volume			2067		2843	1034
vC1, stage 1 conf vol					2051	
vC2, stage 2 conf vol					792	
vCu, unblocked vol			1434		978	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			97		66	93
cM capacity (veh/h)			280		113	646

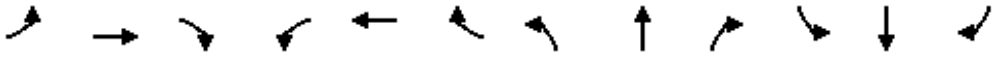
Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	1357	711	525	1030	83
Volume Left	0	0	10	0	38
Volume Right	0	33	0	0	45
cSH	1700	1700	280	1700	203
Volume to Capacity	0.80	0.42	0.03	0.61	0.41
Queue Length 95th (ft)	0	0	3	0	46
Control Delay (s)	0.0	0.0	1.2	0.0	34.3
Lane LOS			A		D
Approach Delay (s)	0.0		0.4		34.3
Approach LOS					D

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Volume (vph)	11	0	7	13	1749	5	6	1462	23	111	0	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00			1.00	0.95		1.00	0.86			1.00	
Frt	0.95			1.00	1.00		1.00	1.00			0.95	
Flt Protected	0.97			0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1711			1770	3538		1770	6393			1720	
Flt Permitted	0.97			0.12	1.00		0.06	1.00			0.97	
Satd. Flow (perm)	1711			219	3538		120	6393			1720	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	0	8	14	1901	5	7	1589	25	121	0	64
RTOR Reduction (vph)	8	0	0	0	0	0	0	2	0	0	22	0
Lane Group Flow (vph)	12	0	0	14	1906	0	7	1612	0	0	163	0
Turn Type				Perm			Perm			Perm		
Protected Phases	1				2			2			4	
Permitted Phases				2			2			4		
Actuated Green, G (s)	2.9			62.1	62.1		62.1	62.1			13.0	
Effective Green, g (s)	2.9			62.1	62.1		62.1	62.1			13.0	
Actuated g/C Ratio	0.03			0.69	0.69		0.69	0.69			0.14	
Clearance Time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0			3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	55			151	2441		83	4411			248	
v/s Ratio Prot	c0.01				c0.54			0.25				
v/s Ratio Perm				0.06			0.06				0.09	
v/c Ratio	0.22			0.09	0.78		0.08	0.37			0.66	
Uniform Delay, d1	42.5			4.6	9.4		4.6	5.8			36.4	
Progression Factor	1.00			0.02	0.09		0.39	0.34			1.00	
Incremental Delay, d2	2.1			0.8	1.7		1.1	0.1			6.1	
Delay (s)	44.5			0.9	2.6		2.9	2.1			42.5	
Level of Service	D			A	A		A	A			D	
Approach Delay (s)	44.5				2.6			2.1			42.5	
Approach LOS	D				A			A			D	

Intersection Summary			
HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	0	7	0	0	51	5	1725	0	58	1455	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00			0.88	1.00	0.95		0.97	0.95	
Frt		1.00	0.85			0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1652	1478			2787	1711	3421		3204	3303	
Flt Permitted		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1652	1478			2787	1711	3421		3204	3303	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	0	8	0	0	55	5	1875	0	63	1582	0
RTOR Reduction (vph)	0	0	8	0	0	52	0	0	0	0	0	0
Lane Group Flow (vph)	0	14	0	0	0	3	5	1875	0	63	1582	0
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		2.9	2.9			4.4	1.3	60.6		6.1	65.4	
Effective Green, g (s)		2.9	2.9			4.4	1.3	60.6		6.1	65.4	
Actuated g/C Ratio		0.03	0.03			0.05	0.01	0.67		0.07	0.73	
Clearance Time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		53	48			136	25	2303		217	2400	
v/s Ratio Prot		c0.01	0.00			c0.00	0.00	c0.55		c0.02	c0.48	
v/s Ratio Perm												
v/c Ratio		0.26	0.01			0.02	0.20	0.81		0.29	0.66	
Uniform Delay, d1		42.5	42.2			40.7	43.8	10.6		39.9	6.5	
Progression Factor		1.00	1.00			1.00	1.00	1.00		1.00	0.77	
Incremental Delay, d2		2.7	0.0			0.1	3.9	3.3		0.7	1.4	
Delay (s)		45.2	42.2			40.8	47.8	13.9		40.7	6.4	
Level of Service		D	D			D	D	B		D	A	
Approach Delay (s)		44.1			40.8			14.0			7.7	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Future With Project Conditions
(With 2005 College EIR Base)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	283	37	437	15	26	13	442	1128	23	47	1524	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1569	1704	1794	1652	1863	1583	3204	3411		1888	3303	1583
Flt Permitted	0.95	0.60	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1569	1058	1794	1652	1863	1583	3204	3411		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	308	40	475	16	28	14	480	1226	25	51	1657	449
RTOR Reduction (vph)	0	0	53	0	0	12	0	2	0	0	0	226
Lane Group Flow (vph)	172	176	422	16	28	2	480	1249	0	51	1657	223
Turn Type	Prot		custom	Prot		Perm	Prot			Prot		custom
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases			4			4						6
Actuated Green, G (s)	16.0	30.4	21.4	1.6	10.4	10.4	11.0	44.0		3.6	36.6	44.0
Effective Green, g (s)	16.0	30.4	21.4	1.6	10.4	10.4	11.0	44.0		3.6	36.6	44.0
Actuated g/C Ratio	0.18	0.34	0.24	0.02	0.12	0.12	0.12	0.49		0.04	0.41	0.49
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	279	472	506	29	215	183	392	1668		76	1343	774
v/s Ratio Prot	c0.11	0.07	c0.10	0.01	0.02		c0.15	0.37		0.03	c0.50	
v/s Ratio Perm		0.06	0.13			0.00						0.14
v/c Ratio	0.62	0.37	0.83	0.55	0.13	0.01	1.22	0.75		0.67	1.23	0.29
Uniform Delay, d1	34.2	22.6	32.6	43.8	35.7	35.2	39.5	18.5		42.6	26.7	13.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.18		1.00	1.00	1.00
Incremental Delay, d2	4.0	0.5	11.4	20.8	0.3	0.0	118.8	2.6		20.8	111.9	0.9
Delay (s)	38.2	23.1	44.0	64.6	36.0	35.3	155.3	24.5		63.5	138.6	14.6
Level of Service	D	C	D	E	D	D	F	C		E	F	B
Approach Delay (s)		38.3			43.7			60.7			111.0	
Approach LOS		D			D			E			F	

Intersection Summary			
HCM Average Control Delay	79.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	10	0	1577	1905	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	11	0	1714	2071	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.71	0.60	0.60			
vC, conflicting volume	2934	1042	2084			
vC1, stage 1 conf vol	2077					
vC2, stage 2 conf vol	857					
vCu, unblocked vol	1540	0	1484			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	98	100			
cM capacity (veh/h)	104	656	271			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	571	1143	1380	703
Volume Left	5	0	0	0	0
Volume Right	11	0	0	0	13
cSH	237	271	1700	1700	1700
Volume to Capacity	0.07	0.00	0.67	0.81	0.41
Queue Length 95th (ft)	5	0	0	0	0
Control Delay (s)	21.3	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	21.3	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

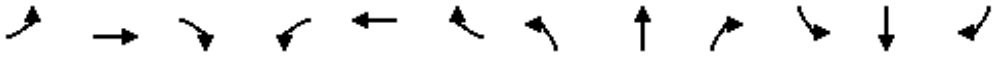
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1576	81	40	1930	5	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1713	88	43	2098	5	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.78		0.72	0.78
vC, conflicting volume			1801		2893	901
vC1, stage 1 conf vol					1757	
vC2, stage 2 conf vol					1136	
vCu, unblocked vol			1457		1459	299
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			88		96	98
cM capacity (veh/h)			357		145	542

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	1142	659	743	1399	15
Volume Left	0	0	43	0	5
Volume Right	0	88	0	0	10
cSH	1700	1700	357	1700	275
Volume to Capacity	0.67	0.39	0.12	0.82	0.06
Queue Length 95th (ft)	0	0	10	0	4
Control Delay (s)	0.0	0.0	4.2	0.0	18.9
Lane LOS			A		C
Approach Delay (s)	0.0		1.4		18.9
Approach LOS					C

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Volume (vph)	4	0	1	65	1685	4	8	1812	119	17	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00			1.00	0.95		1.00	0.86			1.00	
Frt	0.97			1.00	1.00		1.00	0.99			0.95	
Flt Protected	0.96			0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1743			1770	3538		1770	6349			1714	
Flt Permitted	0.96			0.07	1.00		0.10	1.00			0.97	
Satd. Flow (perm)	1743			130	3538		182	6349			1714	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	1	71	1832	4	9	1970	129	18	0	11
RTOR Reduction (vph)	1	0	0	0	0	0	0	4	0	0	11	0
Lane Group Flow (vph)	4	0	0	71	1836	0	9	2095	0	0	18	0
Turn Type				Perm			Perm			Perm		
Protected Phases	1				2			2			4	
Permitted Phases				2			2			4		
Actuated Green, G (s)	1.3			73.5	73.5		73.5	73.5			3.2	
Effective Green, g (s)	1.3			73.5	73.5		73.5	73.5			3.2	
Actuated g/C Ratio	0.01			0.82	0.82		0.82	0.82			0.04	
Clearance Time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0			3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	25			106	2889		149	5185			61	
v/s Ratio Prot	c0.00				0.52			0.33				
v/s Ratio Perm				c0.55			0.05				0.01	
v/c Ratio	0.16			0.67	0.64		0.06	0.40			0.30	
Uniform Delay, d1	43.8			3.3	3.1		1.6	2.3			42.3	
Progression Factor	1.00			1.02	0.38		0.42	0.38			1.00	
Incremental Delay, d2	3.0			18.2	0.6		0.1	0.0			2.8	
Delay (s)	46.8			21.6	1.8		0.7	0.9			45.1	
Level of Service	D			C	A		A	A			D	
Approach Delay (s)	46.8				2.6			0.9			45.1	
Approach LOS	D				A			A			D	

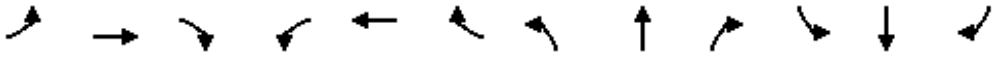
Intersection Summary			
HCM Average Control Delay	2.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	0	2	1	0	16	6	1743	8	160	1678	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	0.88	1.00	0.95		0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.95	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1652	1478		1711	2787	1711	3419		3204	3303	1531
Flt Permitted		0.95	1.00		0.95	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1652	1478		1711	2787	1711	3419		3204	3303	1531
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	0	2	1	0	17	7	1895	9	174	1824	9
RTOR Reduction (vph)	0	0	2	0	0	17	0	0	0	0	0	3
Lane Group Flow (vph)	0	7	0	0	1	0	7	1904	0	174	1824	6
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		1.4	1.4		2.5	2.5	1.4	57.3		12.8	68.7	57.3
Effective Green, g (s)		1.4	1.4		2.5	2.5	1.4	57.3		12.8	68.7	57.3
Actuated g/C Ratio		0.02	0.02		0.03	0.03	0.02	0.64		0.14	0.76	0.64
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		26	23		48	77	27	2177		456	2521	975
v/s Ratio Prot		c0.00	0.00		c0.00	0.00	0.00	c0.56		c0.05	c0.55	
v/s Ratio Perm												0.00
v/c Ratio		0.27	0.00		0.02	0.01	0.26	0.87		0.38	0.72	0.01
Uniform Delay, d1		43.8	43.6		42.6	42.5	43.8	13.4		35.0	5.6	6.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.01	0.55	0.49
Incremental Delay, d2		5.5	0.0		0.2	0.0	5.1	5.3		0.5	1.8	0.0
Delay (s)		49.3	43.6		42.7	42.6	48.8	18.7		35.9	4.8	3.0
Level of Service		D	D		D	D	D	B		D	A	A
Approach Delay (s)		48.1			42.6			18.8			7.5	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	461	54	381	49	64	50	414	1484	24	54	1048	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1569	1702	1794	1652	1863	1583	3204	3413		1888	3303	1583
Flt Permitted	0.95	0.56	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1569	991	1794	1652	1863	1583	3204	3413		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	501	59	414	53	70	54	450	1613	26	59	1139	253
RTOR Reduction (vph)	0	0	135	0	0	46	0	1	0	0	0	146
Lane Group Flow (vph)	281	279	279	53	70	8	450	1638	0	59	1139	107
Turn Type	Prot		custom	Prot		Perm	Prot			Prot		custom
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases			4			4						6
Actuated Green, G (s)	19.0	36.6	25.6	4.2	13.6	13.6	12.0	38.2		3.2	29.4	38.2
Effective Green, g (s)	19.0	36.6	25.6	4.2	13.6	13.6	12.0	38.2		3.2	29.4	38.2
Actuated g/C Ratio	0.21	0.41	0.28	0.05	0.15	0.15	0.13	0.42		0.04	0.33	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	331	553	590	77	282	239	427	1449		67	1079	672
v/s Ratio Prot	c0.18	0.11	0.06	0.03	0.04		c0.14	c0.48		0.03	0.34	
v/s Ratio Perm		c0.10	0.09			0.01						0.07
v/c Ratio	0.85	0.50	0.47	0.69	0.25	0.03	1.05	1.13		0.88	1.06	0.16
Uniform Delay, d1	34.1	19.9	26.6	42.3	33.7	32.6	39.0	25.9		43.2	30.3	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.09		1.00	1.00	1.00
Incremental Delay, d2	18.0	0.7	0.6	22.6	0.5	0.1	52.2	65.7		69.7	43.3	0.5
Delay (s)	52.1	20.7	27.2	64.8	34.2	32.7	91.7	94.0		112.9	73.6	16.5
Level of Service	D	C	C	E	C	C	F	F		F	E	B
Approach Delay (s)		32.5			42.9			93.5			65.3	
Approach LOS		C			D			F			E	

Intersection Summary			
HCM Average Control Delay	70.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	1	0	2017	1510	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1	0	2192	1641	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.75	0.68	0.68			
vC, conflicting volume	2741	824	1649			
vC1, stage 1 conf vol	1645					
vC2, stage 2 conf vol	1096					
vCu, unblocked vol	749	0	1026			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	100	100			
cM capacity (veh/h)	207	742	460			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	5	731	1462	1094	555
Volume Left	4	0	0	0	0
Volume Right	1	0	0	0	8
cSH	242	460	1700	1700	1700
Volume to Capacity	0.02	0.00	0.86	0.64	0.33
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	20.2	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	20.2	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		



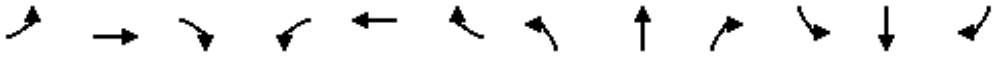
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1872	34	10	1476	51	46
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2035	37	11	1604	55	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.59		0.75	0.59
vC, conflicting volume			2072		2877	1036
vC1, stage 1 conf vol					2053	
vC2, stage 2 conf vol					824	
vCu, unblocked vol			1434		965	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			96		51	92
cM capacity (veh/h)			278		113	643

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	1357	715	546	1070	105
Volume Left	0	0	11	0	55
Volume Right	0	37	0	0	50
cSH	1700	1700	278	1700	186
Volume to Capacity	0.80	0.42	0.04	0.63	0.57
Queue Length 95th (ft)	0	0	3	0	76
Control Delay (s)	0.0	0.0	1.4	0.0	47.2
Lane LOS			A		E
Approach Delay (s)	0.0		0.5		47.2
Approach LOS					E

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Volume (vph)	11	0	7	13	1753	5	6	1532	23	111	0	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00			1.00	0.95		1.00	0.86			1.00	
Frt	0.95			1.00	1.00		1.00	1.00			0.95	
Flt Protected	0.97			0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1711			1770	3538		1770	6394			1720	
Flt Permitted	0.97			0.11	1.00		0.06	1.00			0.97	
Satd. Flow (perm)	1711			199	3538		120	6394			1720	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	0	8	14	1905	5	7	1665	25	121	0	64
RTOR Reduction (vph)	8	0	0	0	0	0	0	1	0	0	22	0
Lane Group Flow (vph)	12	0	0	14	1910	0	7	1689	0	0	163	0
Turn Type				Perm			Perm			Perm		
Protected Phases	1				2			2			4	
Permitted Phases				2			2			4		
Actuated Green, G (s)	2.9			62.1	62.1		62.1	62.1			13.0	
Effective Green, g (s)	2.9			62.1	62.1		62.1	62.1			13.0	
Actuated g/C Ratio	0.03			0.69	0.69		0.69	0.69			0.14	
Clearance Time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0			3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	55			137	2441		83	4412			248	
v/s Ratio Prot	c0.01				c0.54			0.26				
v/s Ratio Perm				0.07			0.06				0.09	
v/c Ratio	0.22			0.10	0.78		0.08	0.38			0.66	
Uniform Delay, d1	42.5			4.7	9.4		4.6	5.9			36.4	
Progression Factor	1.00			0.02	0.12		0.37	0.33			1.00	
Incremental Delay, d2	2.1			0.9	1.5		1.1	0.1			6.1	
Delay (s)	44.5			1.0	2.6		2.8	2.1			42.5	
Level of Service	D			A	A		A	A			D	
Approach Delay (s)	44.5				2.6			2.1			42.5	
Approach LOS	D				A			A			D	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	0	7	0	0	51	5	1729	0	111	1472	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00			0.88	1.00	0.95		0.97	0.95	
Frt		1.00	0.85			0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1652	1478			2787	1711	3421		3204	3303	
Flt Permitted		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1652	1478			2787	1711	3421		3204	3303	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	0	8	0	0	55	5	1879	0	121	1600	0
RTOR Reduction (vph)	0	0	8	0	0	52	0	0	0	0	0	0
Lane Group Flow (vph)	0	14	0	0	0	3	5	1879	0	121	1600	0
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		2.9	2.9			4.4	1.3	57.4		9.3	65.4	
Effective Green, g (s)		2.9	2.9			4.4	1.3	57.4		9.3	65.4	
Actuated g/C Ratio		0.03	0.03			0.05	0.01	0.64		0.10	0.73	
Clearance Time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		53	48			136	25	2182		331	2400	
v/s Ratio Prot		c0.01	0.00			c0.00	0.00	c0.55		c0.04	c0.48	
v/s Ratio Perm												
v/c Ratio		0.26	0.01			0.02	0.20	0.86		0.37	0.67	
Uniform Delay, d1		42.5	42.2			40.7	43.8	13.1		37.6	6.5	
Progression Factor		1.00	1.00			1.00	1.00	1.00		1.02	0.77	
Incremental Delay, d2		2.7	0.0			0.1	3.9	4.8		0.6	1.4	
Delay (s)		45.2	42.2			40.8	47.8	17.9		38.8	6.4	
Level of Service		D	D			D	D	B		D	A	
Approach Delay (s)		44.1			40.8			17.9			8.7	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Future With Project Conditions
(With 2010 College EIR Base)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	283	37	434	15	26	13	443	1138	23	47	1468	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1569	1704	1794	1652	1863	1583	3204	3411		1888	3303	1583
Flt Permitted	0.95	0.60	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1569	1058	1794	1652	1863	1583	3204	3411		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	308	40	472	16	28	14	482	1237	25	51	1596	449
RTOR Reduction (vph)	0	0	53	0	0	12	0	2	0	0	0	227
Lane Group Flow (vph)	172	176	419	16	28	2	482	1260	0	51	1596	222
Turn Type	Prot		custom	Prot		Perm	Prot			Prot		custom
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases			4			4						6
Actuated Green, G (s)	16.0	30.4	21.4	1.6	10.4	10.4	11.0	44.4		3.2	36.6	44.4
Effective Green, g (s)	16.0	30.4	21.4	1.6	10.4	10.4	11.0	44.4		3.2	36.6	44.4
Actuated g/C Ratio	0.18	0.34	0.24	0.02	0.12	0.12	0.12	0.49		0.04	0.41	0.49
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	279	472	506	29	215	183	392	1683		67	1343	781
v/s Ratio Prot	c0.11	0.07	c0.10	0.01	0.02		c0.15	0.37		0.03	c0.48	
v/s Ratio Perm		0.06	0.13			0.00						0.14
v/c Ratio	0.62	0.37	0.83	0.55	0.13	0.01	1.23	0.75		0.76	1.19	0.28
Uniform Delay, d1	34.2	22.6	32.5	43.8	35.7	35.2	39.5	18.3		43.0	26.7	13.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	0.69		1.00	1.00	1.00
Incremental Delay, d2	4.0	0.5	10.7	20.8	0.3	0.0	120.9	2.6		39.2	92.5	0.9
Delay (s)	38.2	23.1	43.2	64.6	36.0	35.3	160.6	15.2		82.2	119.2	14.3
Level of Service	D	C	D	E	D	D	F	B		F	F	B
Approach Delay (s)		37.8			43.7			55.4			95.9	
Approach LOS		D			D			E			F	

Intersection Summary			
HCM Average Control Delay	70.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	10	0	1588	1844	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	11	0	1726	2004	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.71	0.60	0.60			
vC, conflicting volume	2874	1009	2017			
vC1, stage 1 conf vol	2011					
vC2, stage 2 conf vol	863					
vCu, unblocked vol	1437	0	1375			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	98	100			
cM capacity (veh/h)	119	656	299			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	575	1151	1336	681
Volume Left	5	0	0	0	0
Volume Right	11	0	0	0	13
cSH	263	299	1700	1700	1700
Volume to Capacity	0.06	0.00	0.68	0.79	0.40
Queue Length 95th (ft)	5	0	0	0	0
Control Delay (s)	19.6	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	19.6	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1587	81	40	1869	5	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1725	88	43	2032	5	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.77		0.72	0.77
vC, conflicting volume			1813		2872	907
vC1, stage 1 conf vol					1769	
vC2, stage 2 conf vol					1103	
vCu, unblocked vol			1466		1411	294
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			88		96	98
cM capacity (veh/h)			353		144	544

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	1150	663	721	1354	15
Volume Left	0	0	43	0	5
Volume Right	0	88	0	0	10
cSH	1700	1700	353	1700	273
Volume to Capacity	0.68	0.39	0.12	0.80	0.06
Queue Length 95th (ft)	0	0	10	0	4
Control Delay (s)	0.0	0.0	4.2	0.0	19.0
Lane LOS			A		C
Approach Delay (s)	0.0		1.5		19.0
Approach LOS					C

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		

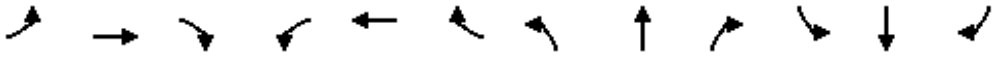
Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Volume (vph)	4	0	1	65	1696	4	8	1751	119	17	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00			1.00	0.95		1.00	0.86			1.00	
Frt	0.97			1.00	1.00		1.00	0.99			0.95	
Flt Protected	0.96			0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1743			1770	3538		1770	6347			1714	
Flt Permitted	0.96			0.08	1.00		0.10	1.00			0.97	
Satd. Flow (perm)	1743			142	3538		179	6347			1714	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	1	71	1843	4	9	1903	129	18	0	11
RTOR Reduction (vph)	1	0	0	0	0	0	0	4	0	0	11	0
Lane Group Flow (vph)	4	0	0	71	1847	0	9	2028	0	0	18	0
Turn Type				Perm			Perm			Perm		
Protected Phases	1				2			2			4	
Permitted Phases				2			2			4		
Actuated Green, G (s)	1.3			73.5	73.5		73.5	73.5			3.2	
Effective Green, g (s)	1.3			73.5	73.5		73.5	73.5			3.2	
Actuated g/C Ratio	0.01			0.82	0.82		0.82	0.82			0.04	
Clearance Time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0			3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	25			116	2889		146	5183			61	
v/s Ratio Prot	c0.00				c0.52			0.32				
v/s Ratio Perm				0.50			0.05				0.01	
v/c Ratio	0.16			0.61	0.64		0.06	0.39			0.30	
Uniform Delay, d1	43.8			3.0	3.2		1.6	2.2			42.3	
Progression Factor	1.00			0.65	0.21		2.08	2.33			1.00	
Incremental Delay, d2	3.0			14.3	0.7		0.1	0.0			2.8	
Delay (s)	46.8			16.3	1.4		3.4	5.2			45.1	
Level of Service	D			B	A		A	A			D	
Approach Delay (s)	46.8				1.9			5.2			45.1	
Approach LOS	D				A			A			D	

Intersection Summary			
HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	0	2	1	0	27	6	1743	8	99	1678	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	0.88	1.00	0.95		0.97	0.95	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.95	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1652	1478		1711	2787	1711	3419		3204	3303	1531
Flt Permitted		0.95	1.00		0.95	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1652	1478		1711	2787	1711	3419		3204	3303	1531
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	0	2	1	0	29	7	1895	9	108	1824	9
RTOR Reduction (vph)	0	0	2	0	0	28	0	0	0	0	0	2
Lane Group Flow (vph)	0	7	0	0	1	1	7	1904	0	108	1824	7
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		1.4	1.4		3.7	3.7	1.4	60.2		8.7	67.5	60.2
Effective Green, g (s)		1.4	1.4		3.7	3.7	1.4	60.2		8.7	67.5	60.2
Actuated g/C Ratio		0.02	0.02		0.04	0.04	0.02	0.67		0.10	0.75	0.67
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		26	23		70	115	27	2287		310	2477	1024
v/s Ratio Prot		c0.00	0.00		c0.00	0.00	0.00	c0.56		c0.03	c0.55	
v/s Ratio Perm												0.00
v/c Ratio		0.27	0.00		0.01	0.01	0.26	0.83		0.35	0.74	0.01
Uniform Delay, d1		43.8	43.6		41.4	41.4	43.8	11.1		38.0	6.3	5.0
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.25	0.73	0.47
Incremental Delay, d2		5.5	0.0		0.1	0.0	5.1	3.7		0.7	1.9	0.0
Delay (s)		49.3	43.6		41.5	41.4	48.8	14.9		48.3	6.5	2.4
Level of Service		D	D		D	D	D	B		D	A	A
Approach Delay (s)		48.1			41.4			15.0			8.8	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	461	54	378	49	64	50	414	1484	24	54	1000	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	16	10	12	12	10	11	12	14	10	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1569	1702	1794	1652	1863	1583	3204	3413		1888	3303	1583
Flt Permitted	0.95	0.56	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1569	991	1794	1652	1863	1583	3204	3413		1888	3303	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	501	59	411	53	70	54	450	1613	26	59	1087	253
RTOR Reduction (vph)	0	0	136	0	0	46	0	1	0	0	0	146
Lane Group Flow (vph)	281	279	275	53	70	8	450	1638	0	59	1087	107
Turn Type	Prot		custom	Prot		Perm	Prot			Prot		custom
Protected Phases	3	8	1	7	4		1	6		5	2	
Permitted Phases			4			4						6
Actuated Green, G (s)	19.0	36.6	26.6	4.2	13.6	13.6	13.0	38.2		3.2	28.4	38.2
Effective Green, g (s)	19.0	36.6	26.6	4.2	13.6	13.6	13.0	38.2		3.2	28.4	38.2
Actuated g/C Ratio	0.21	0.41	0.30	0.05	0.15	0.15	0.14	0.42		0.04	0.32	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	331	553	610	77	282	239	463	1449		67	1042	672
v/s Ratio Prot	c0.18	0.11	0.07	0.03	0.04		c0.14	c0.48		0.03	0.33	
v/s Ratio Perm		c0.10	0.09			0.01						0.07
v/c Ratio	0.85	0.50	0.45	0.69	0.25	0.03	0.97	1.13		0.88	1.04	0.16
Uniform Delay, d1	34.1	19.9	25.8	42.3	33.7	32.6	38.3	25.9		43.2	30.8	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.02	1.06		1.00	1.00	1.00
Incremental Delay, d2	18.0	0.7	0.5	22.6	0.5	0.1	28.7	65.7		69.7	39.8	0.5
Delay (s)	52.1	20.7	26.3	64.8	34.2	32.7	67.9	93.1		112.9	70.6	16.5
Level of Service	D	C	C	E	C	C	E	F		F	E	B
Approach Delay (s)		32.1			42.9			87.7			62.6	
Approach LOS		C			D			F			E	

Intersection Summary					
HCM Average Control Delay	66.8	HCM Level of Service		E	
HCM Volume to Capacity ratio	0.92				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	76.0%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	1	0	2017	1457	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1	0	2192	1584	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	None	
Median storage veh)				2		
Upstream signal (ft)				403	427	
pX, platoon unblocked	0.74	0.70	0.70			
vC, conflicting volume	2684	796	1591			
vC1, stage 1 conf vol	1588					
vC2, stage 2 conf vol	1096					
vCu, unblocked vol	722	0	975			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	100	100			
cM capacity (veh/h)	224	754	489			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	5	731	1462	1056	536
Volume Left	4	0	0	0	0
Volume Right	1	0	0	0	8
cSH	260	489	1700	1700	1700
Volume to Capacity	0.02	0.00	0.86	0.62	0.32
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	19.1	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	19.1	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		



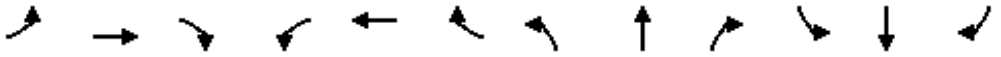
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	1872	34	10	1423	51	46
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2035	37	11	1547	55	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	253			577		
pX, platoon unblocked			0.59		0.74	0.59
vC, conflicting volume			2072		2848	1036
vC1, stage 1 conf vol					2053	
vC2, stage 2 conf vol					795	
vCu, unblocked vol			1434		978	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			96		51	92
cM capacity (veh/h)			278		113	643

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NW 1
Volume Total	1357	715	526	1031	105
Volume Left	0	0	11	0	55
Volume Right	0	37	0	0	50
cSH	1700	1700	278	1700	185
Volume to Capacity	0.80	0.42	0.04	0.61	0.57
Queue Length 95th (ft)	0	0	3	0	76
Control Delay (s)	0.0	0.0	1.4	0.0	47.4
Lane LOS			A		E
Approach Delay (s)	0.0		0.5		47.4
Approach LOS					E

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Volume (vph)	11	0	7	13	1753	5	6	1479	23	111	0	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00			1.00	0.95		1.00	0.86			1.00	
Frt	0.95			1.00	1.00		1.00	1.00			0.95	
Flt Protected	0.97			0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1711			1770	3538		1770	6393			1720	
Flt Permitted	0.97			0.11	1.00		0.06	1.00			0.97	
Satd. Flow (perm)	1711			214	3538		120	6393			1720	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	0	8	14	1905	5	7	1608	25	121	0	64
RTOR Reduction (vph)	8	0	0	0	0	0	0	2	0	0	22	0
Lane Group Flow (vph)	12	0	0	14	1910	0	7	1631	0	0	163	0
Turn Type				Perm			Perm			Perm		
Protected Phases	1				2			2			4	
Permitted Phases				2			2			4		
Actuated Green, G (s)	2.9			62.1	62.1		62.1	62.1			13.0	
Effective Green, g (s)	2.9			62.1	62.1		62.1	62.1			13.0	
Actuated g/C Ratio	0.03			0.69	0.69		0.69	0.69			0.14	
Clearance Time (s)	4.0			4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0			3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	55			148	2441		83	4411			248	
v/s Ratio Prot	c0.01				c0.54			0.26				
v/s Ratio Perm				0.07			0.06				0.09	
v/c Ratio	0.22			0.09	0.78		0.08	0.37			0.66	
Uniform Delay, d1	42.5			4.6	9.4		4.6	5.8			36.4	
Progression Factor	1.00			0.02	0.09		0.39	0.35			1.00	
Incremental Delay, d2	2.1			0.8	1.7		1.2	0.1			6.1	
Delay (s)	44.5			0.9	2.6		3.0	2.2			42.5	
Level of Service	D			A	A		A	A			D	
Approach Delay (s)	44.5				2.6			2.2			42.5	
Approach LOS	D				A			A			D	

Intersection Summary			
HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	0	7	0	0	51	5	1729	0	58	1472	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	10	12	11	12	11	11	12	10	10	11
Total Lost time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00			0.88	1.00	0.95		0.97	0.95	
Frt		1.00	0.85			0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1652	1478			2787	1711	3421		3204	3303	
Flt Permitted		0.95	1.00			1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1652	1478			2787	1711	3421		3204	3303	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	0	8	0	0	55	5	1879	0	63	1600	0
RTOR Reduction (vph)	0	0	8	0	0	52	0	0	0	0	0	0
Lane Group Flow (vph)	0	14	0	0	0	3	5	1879	0	63	1600	0
Turn Type	Split		Prot	Split		Prot	Prot			Prot		custom
Protected Phases	3	3	3	4	4	4	1	6		5	2	
Permitted Phases												6
Actuated Green, G (s)		2.9	2.9			4.4	1.3	60.6		6.1	65.4	
Effective Green, g (s)		2.9	2.9			4.4	1.3	60.6		6.1	65.4	
Actuated g/C Ratio		0.03	0.03			0.05	0.01	0.67		0.07	0.73	
Clearance Time (s)		4.0	4.0			4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		53	48			136	25	2303		217	2400	
v/s Ratio Prot		c0.01	0.00			c0.00	0.00	c0.55		c0.02	c0.48	
v/s Ratio Perm												
v/c Ratio		0.26	0.01			0.02	0.20	0.82		0.29	0.67	
Uniform Delay, d1		42.5	42.2			40.7	43.8	10.7		39.9	6.5	
Progression Factor		1.00	1.00			1.00	1.00	1.00		1.00	0.79	
Incremental Delay, d2		2.7	0.0			0.1	3.9	3.3		0.7	1.4	
Delay (s)		45.2	42.2			40.8	47.8	14.0		40.7	6.5	
Level of Service		D	D			D	D	B		D	A	
Approach Delay (s)		44.1			40.8			14.1			7.8	
Approach LOS		D			D			B			A	

Intersection Summary					
HCM Average Control Delay	11.8	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.75				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		20.0	
Intersection Capacity Utilization	64.5%	ICU Level of Service		C	
Analysis Period (min)	15				

c Critical Lane Group

Friends of the Culver City Dog Park
P. O. Box 4129
Culver City CA 90231-4129
310-390-9114-Phone 310-397-2112-Fax
info@culvercitydogpark.org www.culvercitydogpark.org

June 11, 2012

City of Culver City,
Attention: Thomas Gorham
9700 Culver Blvd
Culver City CA 90232

Regarding: "9920 Jefferson Project"

Dear Friends:

This letter is to inform you that Friends of the Culver City Dog Park (FCCDP)

have visited the "9920 Jefferson Project" and are aware of the request for

permission to expand this project.

The Friends have no objection to this expansion as long as all previous

guidelines from the City are followed as to noise, clean-up, traffic,

and other issues previously addressed by the City.

If you have any questions, please let us know.

Sincerely,

Vicki Daly Redholtz

Vicki Daly Redholtz
Chair

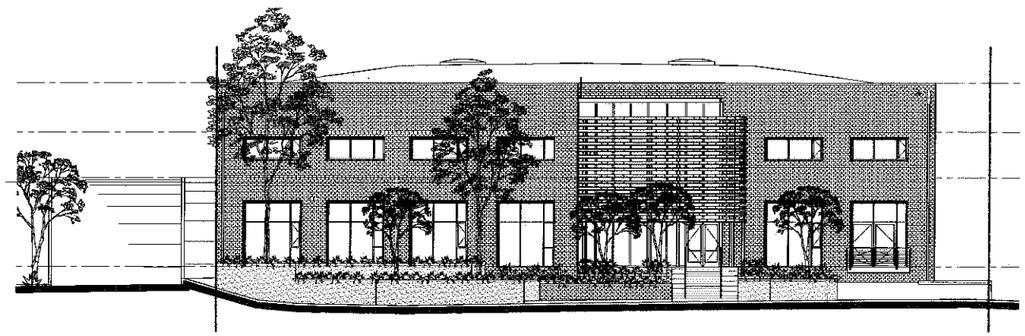
BUILDING AREA SUMMARY:

BUILDING ONE: [EXISTING]		PERMITTED
AREA:	NET AREA:	GROSS AREA:
GROUND FLOOR:	28,929 SF	28,929 SF
SECOND FLOOR:	28,581 SF	28,929 SF
TOTAL:	57,510 SF	57,858 SF

EXISTING PARKING STRUCTURE:		PERMITTED
AREA:	NET AREA:	GROSS AREA:
GROUND FLOOR:	8,250 SF	8,250 SF
TOTAL: [TO BE REMOVED AND REPLACED WITH EQUAL AREA FOR WAREHOUSE USE]	8,250 SF	8,250 SF

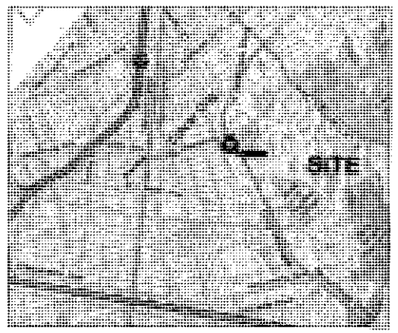
BUILDING ONE: [ALTERATIONS]		PERMITTED
AREA:	NET AREA:	GROSS AREA:
GROUND FLOOR:	28,929 SF	28,929 SF
SECOND FLOOR:	26,580 SF	28,929 SF
TOTAL:	55,509 SF	57,858 SF
EXISTING FLOOR AREA REMOVED:	-2,001 SF	

BUILDING TWO: [NEW]		PERMITTED	ADDITION	
AREA:	NET AREA:	GROSS AREA:	NET AREA:	GROSS AREA:
STORAGE / WAREHOUSE: [BUILDING TWO BASEMENT/ EXISTING FLOOR AREA]	8,250 SF	8,250 SF	0 SF	0 SF
TOTAL WAREHOUSE AREA:	8,250 SF	8,250 SF	0 SF	0 SF
GROUND FLOOR:	3,350 SF	3,464 SF	+1,077 SF	+1,077 SF
SECOND FLOOR:	6,708 SF	7,292 SF	+2,189 SF	+2,189 SF
THIRD FLOOR:	6,708 SF	7,292 SF	+2,148 SF	+2,148 SF
ROOF:	224 SF	224 SF	0 SF	0 SF
SUB TOTALS:	17,000 SF	18,272 SF	+5,475 SF	+5,475 SF



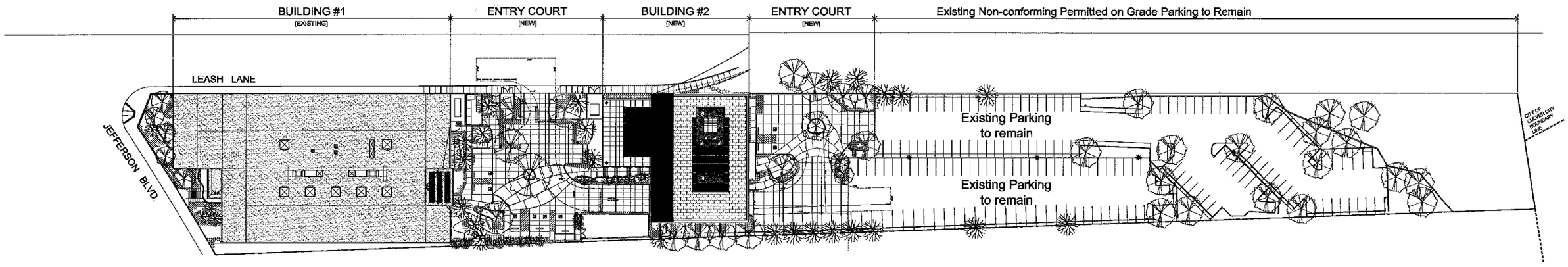
RECEIVED
JUN 21 2012
Culver City
Planning Division

VICINITY MAP:



SHEET INDEX:

A0.0	COVER SHEET / OVERALL SITE PLAN	
A0.1	ARCHITECTURAL SITE PLAN	
A0.2	EXISTING SITE PHOTOS JUNE 1, 2012	
A1.0	GROUND FLOOR PLAN	(BUILDING ONE)
A1.1	SECOND FLOOR PLAN	(BUILDING ONE)
A1.2	ROOF PLAN	(BUILDING ONE)
A2.0	BASEMENT FLOOR PLAN	[BUILDING TWO]
A2.1	GROUND FLOOR PLAN	[BUILDING TWO]
A2.2	SECOND FLOOR PLAN	[BUILDING TWO]
A2.3	THIRD FLOOR PLAN	[BUILDING TWO]
A2.4	ROOF TERRACE PLAN	[BUILDING TWO]
A2.5	HIGH ROOF PLAN	[BUILDING TWO]
A3.0	EXTERIOR ELEVATIONS:	[BUILDING ONE]
A3.1	EXTERIOR ELEVATIONS:	[BUILDING ONE]
A3.2	EXTERIOR ELEVATIONS:	[BUILDING TWO]
A3.3	EXTERIOR ELEVATIONS:	[BUILDING TWO]
A3.4	SITE ELEVATIONS	



OVERALL SITE PLAN

LANDSCAPE SUMMARY:

LANDSCAPE AREA PROVIDED:	29,975 S.F.
HARDSCAPE AREA PROVIDED:	80,959 S.F.

[REFER TO PRELIMINARY LANDSCAPE PLANS FOR DETAILS]

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

PARKING SUMMARY:

OFFICE AREA:	PERMITTED:	2,593
	ADDITION:	5,475
WAREHOUSE:		8,250 S.F. / 1,000 = 9 STALLS REQUIRED 9 STALLS REQUIRED
PARKING REQUIRED 10% REDUCTION VARIANCE		209 STALLS @ 0.9 RATIO -20 STALLS
TOTAL PARKING REQUIRED: TOTAL PARKING PROVIDED:		209 STALLS 214 STALLS

PLAN NORTH
TRUE NORTH
SCALE: 1"=40'-0"
0 10' 20' 40' 80'

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

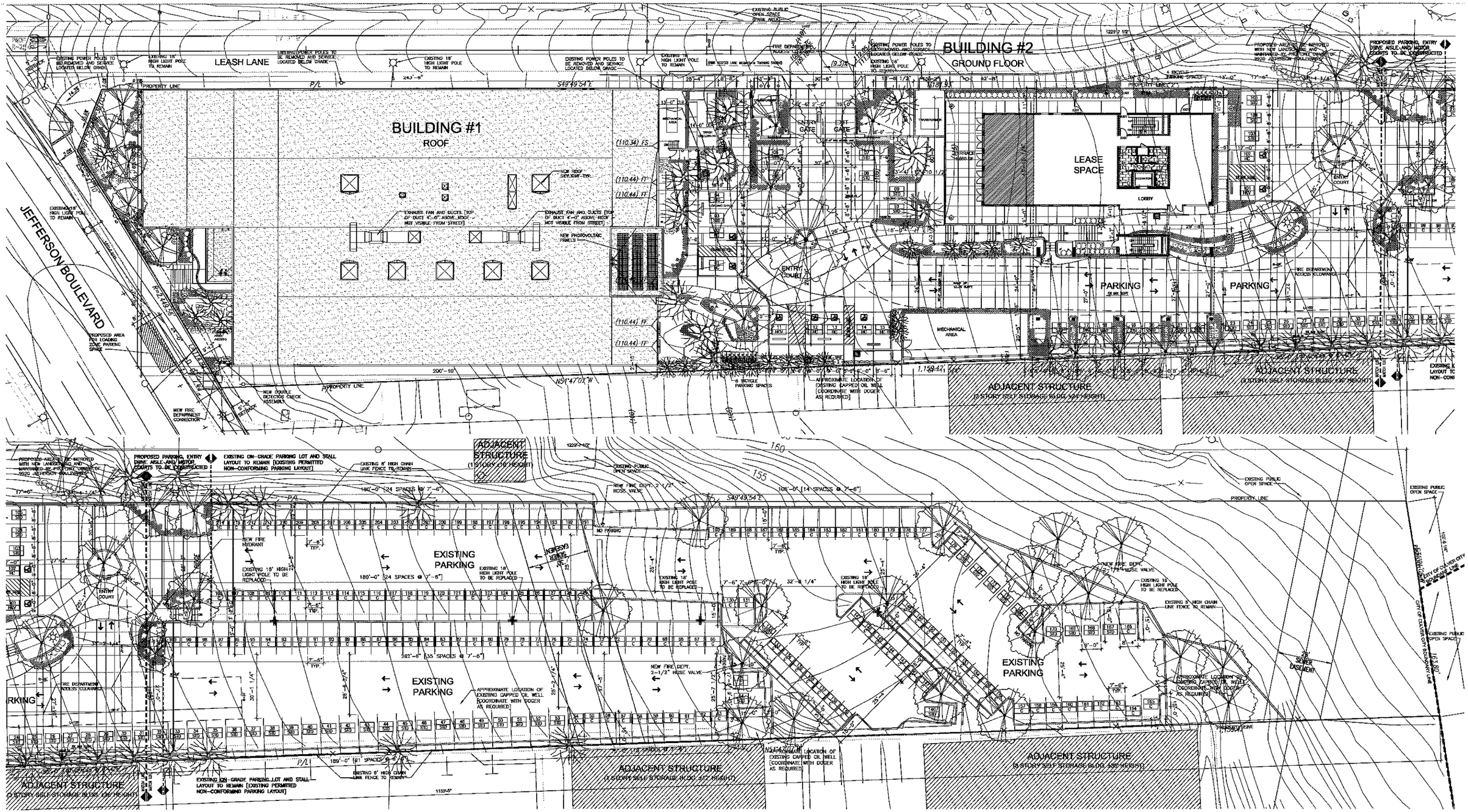
COVER SHEET A0.0

5,475 SF Addition to New Building
9922 Jefferson Boulevard
Culver City, California

#10048

VAN TILBURG
BANVARD &
SODERBERGH, AIA
ARCHITECTURE PLANNING INTERIORS
1738 BERKELEY STREET
SANTA MONICA, CALIFORNIA 90404
TEL: 310.394.0223 FAX: 310.394.3404
www.vtbs.com

SITE PLAN REVIEW SUBMITTAL
JUNE 01, 2012 (REVISIONS)



PARKING SUMMARY:

HANDICAP STALLS:	6 STALLS
HANDYCAP VAN STALLS:	2 STALLS
STANDARD STALLS:	62 STALLS
COMPACT STALLS:	144 STALLS
TOTAL:	214 STALLS
LOADING SPACES:	

SITE PLAN

A0.1

#10048

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

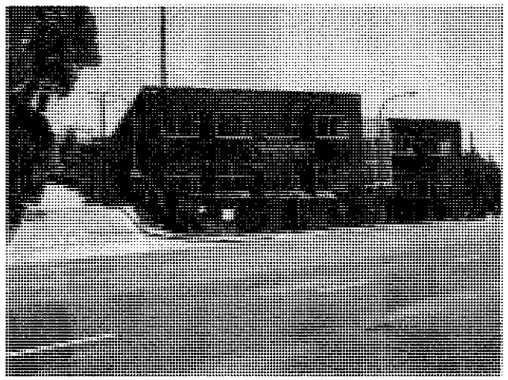
5,475 SF Addition to New Building
9922 Jefferson Boulevard
Culver City, California

PLAN NORTH
TRUE NORTH

SCALE: 1"=20'-0"
0 5' 10' 20' 40'

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(A) VIEW FROM JEFFERSON BLVD.
Looking Southeast



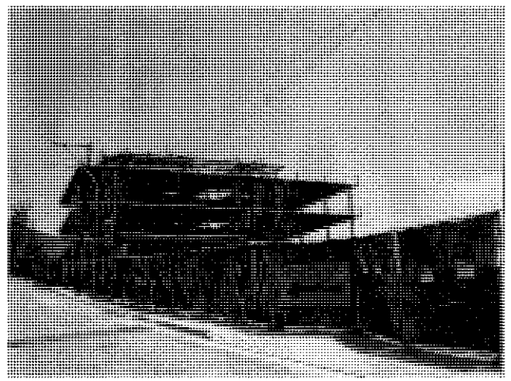
(B) VIEW FROM JEFFERSON BLVD.
Looking Northeast



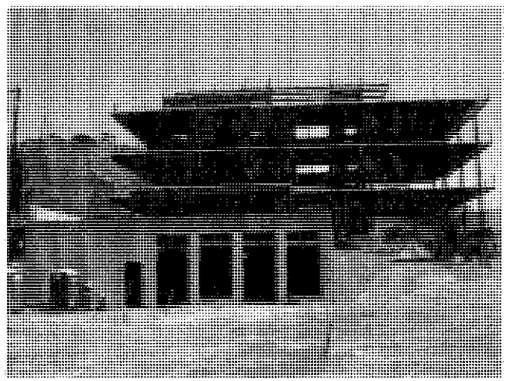
(C) VIEW FROM PARKING LOT
Looking Northwest



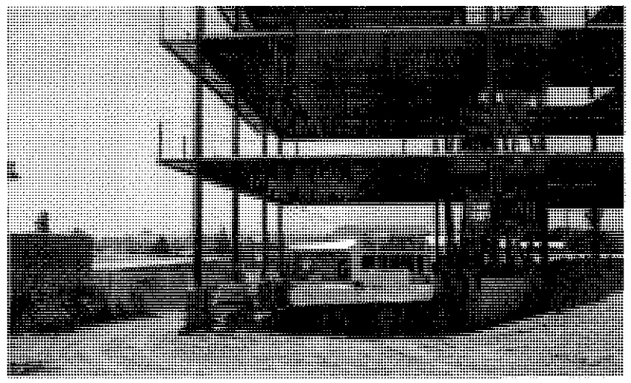
(D) VIEW FROM LEASH LANE
Looking Southwest



(E) VIEW FROM LEASH LANE
Looking Northeast



(F) VIEW FROM LEASH LANE
Looking East



(G) VIEW FROM REAR PARKING LOT
Looking West



(H) VIEW FROM REAR PARKING LOT
Looking East

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

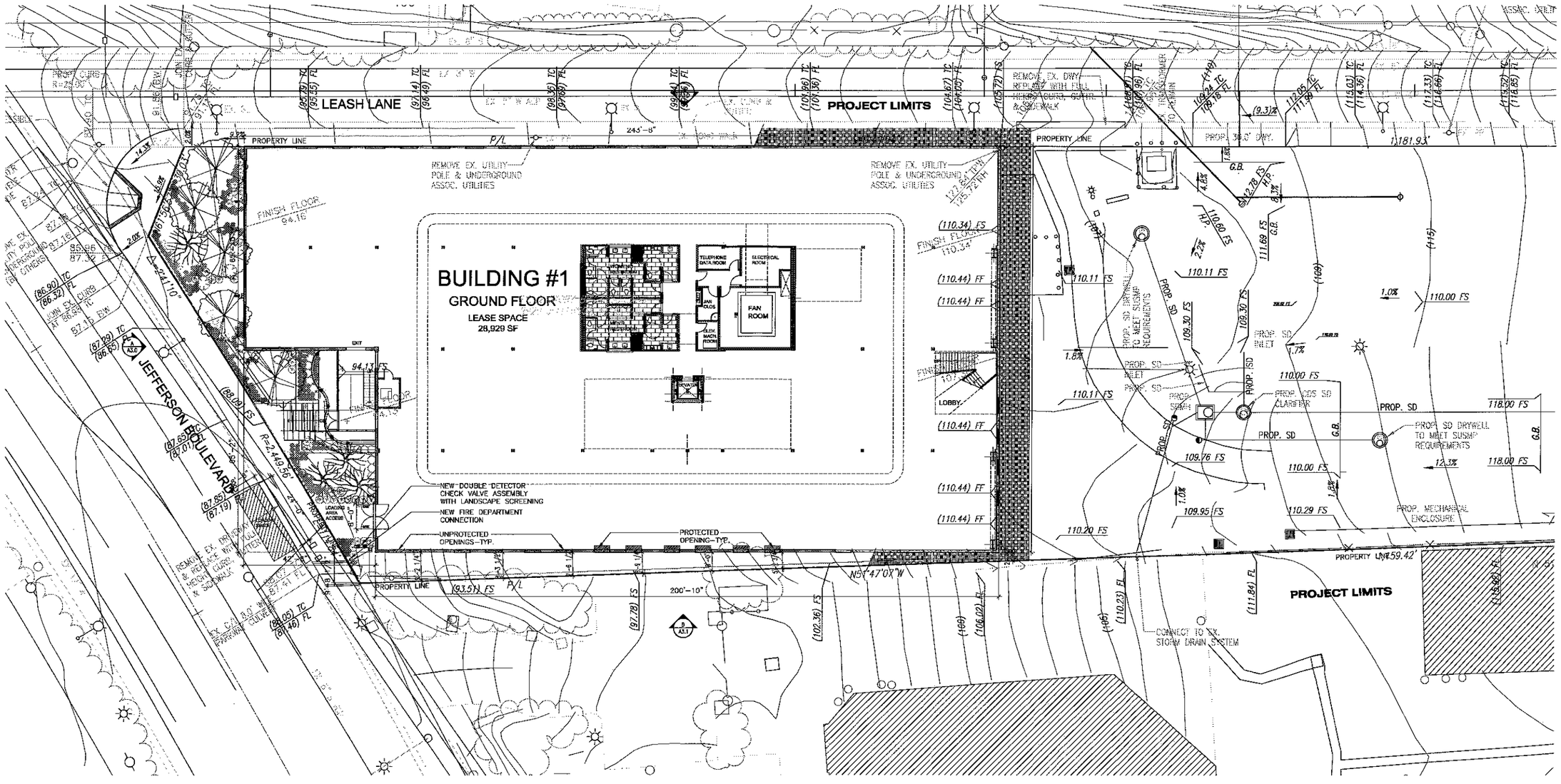
EXISTING SITE PHOTOS
JUNE 1, 2012

A0.2

#10048

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WWW . vtbs . com

SITE PLAN REVIEW SUBMITTAL
JUNE 01, 2012 (REVISIONS)



REFERENCE:

9920 Jefferson Boulevard
Culver City, California

AREA SUMMARY:

GROUND FLOOR	GROSS AREA:	NET AREA:
OFFICE LEASE SPACE:	28,929 SF	28,929 SF

PLAN NORTH
TRUE NORTH
SCALE: 1"=16'-0"
0 4' 8' 16' 32'

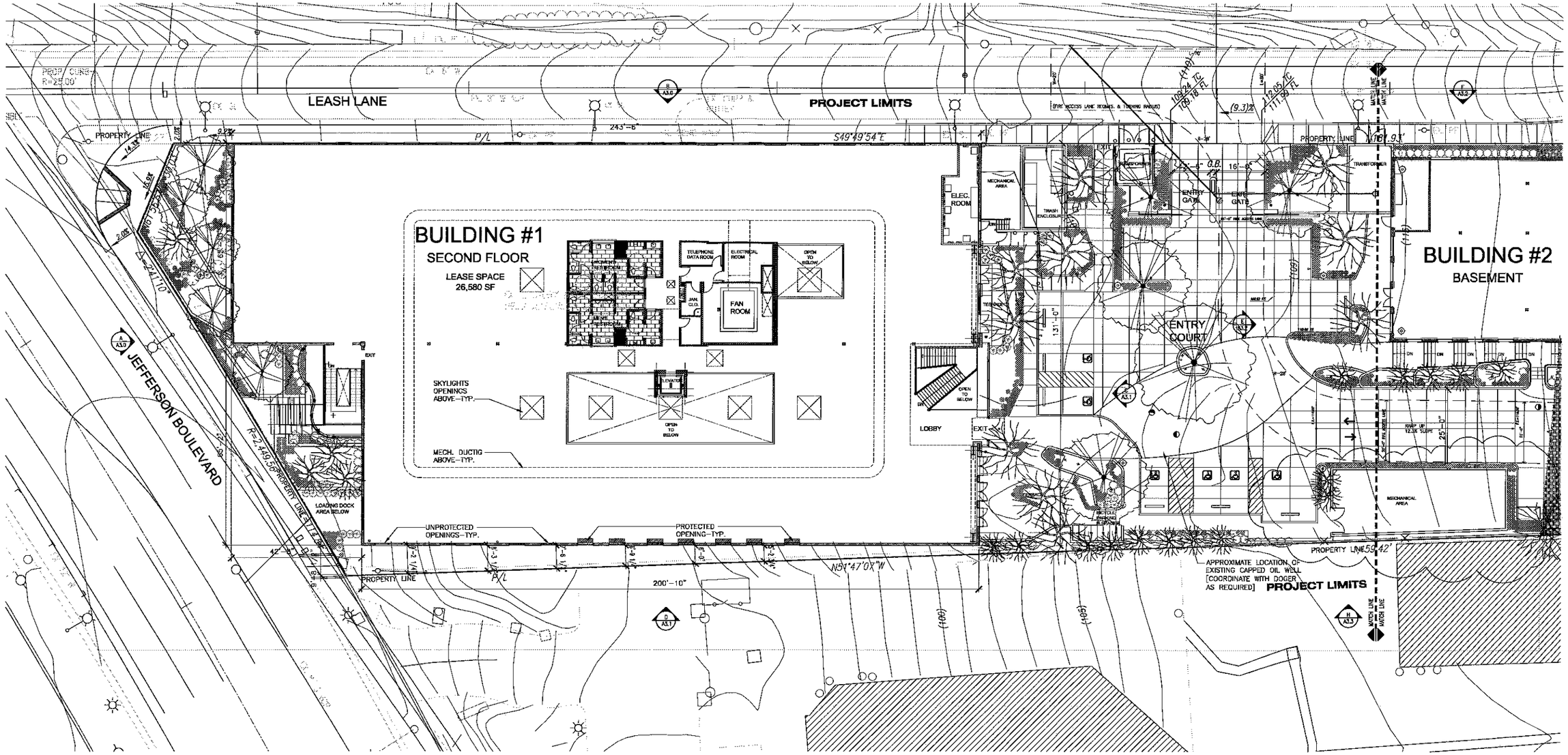
BUILDING #1 [NO CHANGE] GROUND FLOOR PLAN

A1.0

#10048

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SITE PLAN REVIEW SUBMITTAL
JUNE 01, 2012 (REVISIONS)



REFERENCE:

9920 Jefferson Boulevard
Culver City, California

AREA SUMMARY:

SECOND FLOOR	GROSS AREA:	NET AREA:
OFFICE LEASE SPACE:	28,929 SF	26,580 SF

PLAN NORTH
TRUE NORTH
SCALE: 1"=16'-0"
0 4' 8' 16' 32'

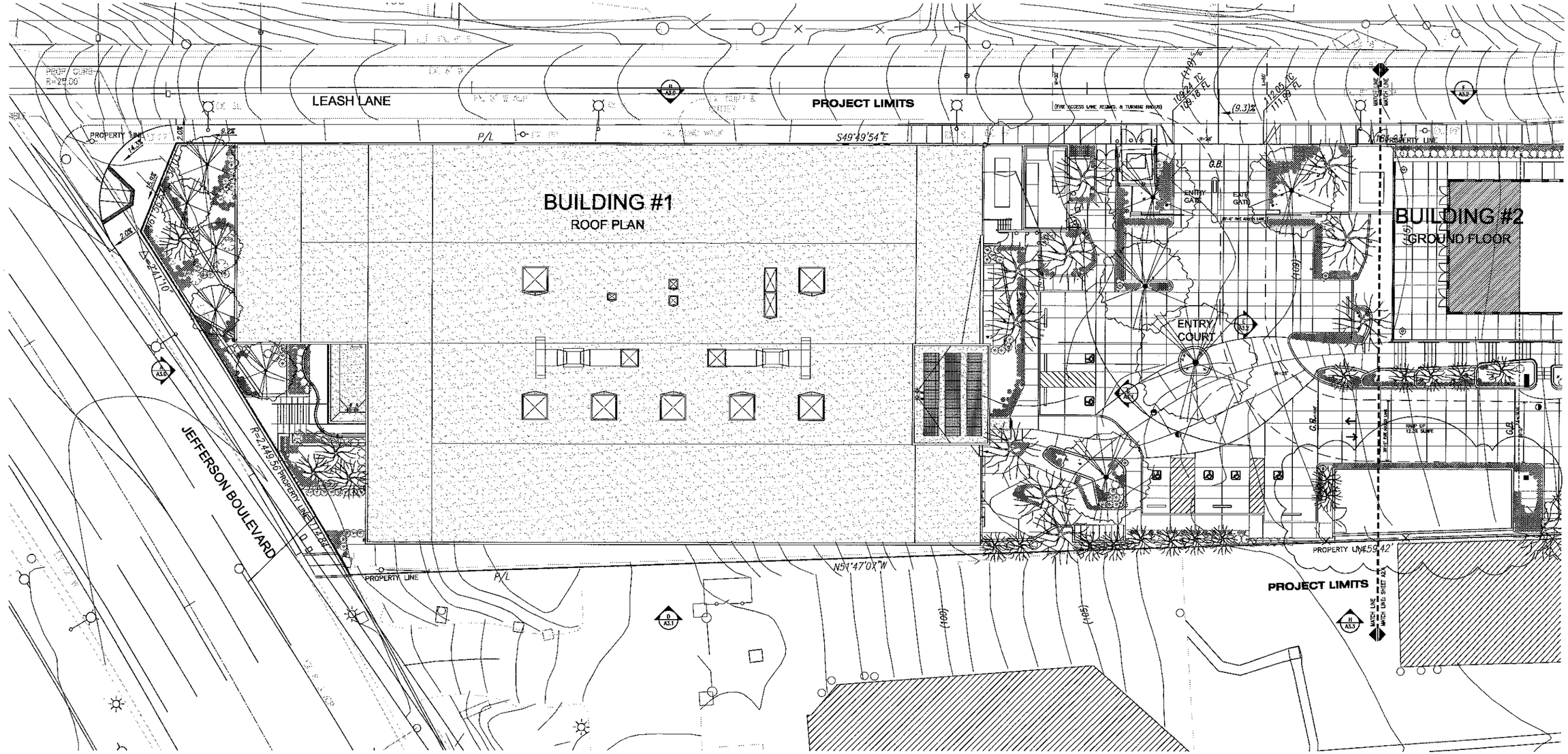
BUILDING #1 (NO CHANGE) SECOND FLOOR PLAN

A1.1

#10048

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JUNE 01, 2012 (REVISIONS)



REFERENCE:

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Culver City, California

BUILDING #1 ROOF PLAN

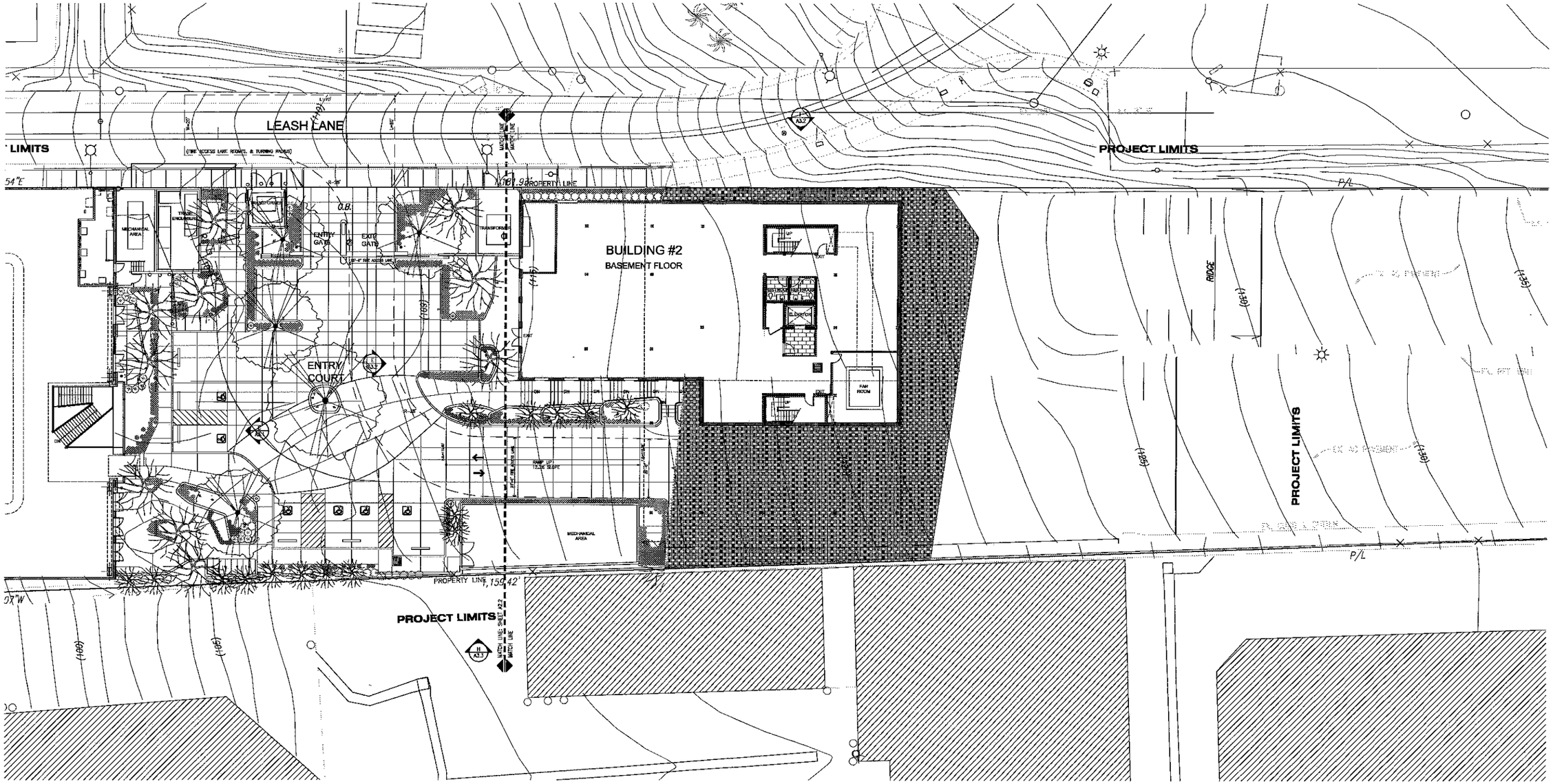
A1.2

#10048

PLAN NORTH
TRUE NORTH
SCALE: 1"=16'-0"
0 4' 8' 16' 32'

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ARCHITECTURE PLANNING INTERIORS
1738 BERKELEY STREET
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www . vtbs . com

SITE PLAN REVIEW SUBMITTAL
JUNE 01, 2012 (REVISIONS)



REFERENCE:

9920 Jefferson Boulevard
Culver City, California

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

AREA SUMMARY:

BASEMENT	GROSS AREA:	NET AREA:
OFFICE LEASE SPACE:	8,250 SF	8,250 SF

5,475 SF Addition to New Building
9822 Jefferson Boulevard
Culver City, California

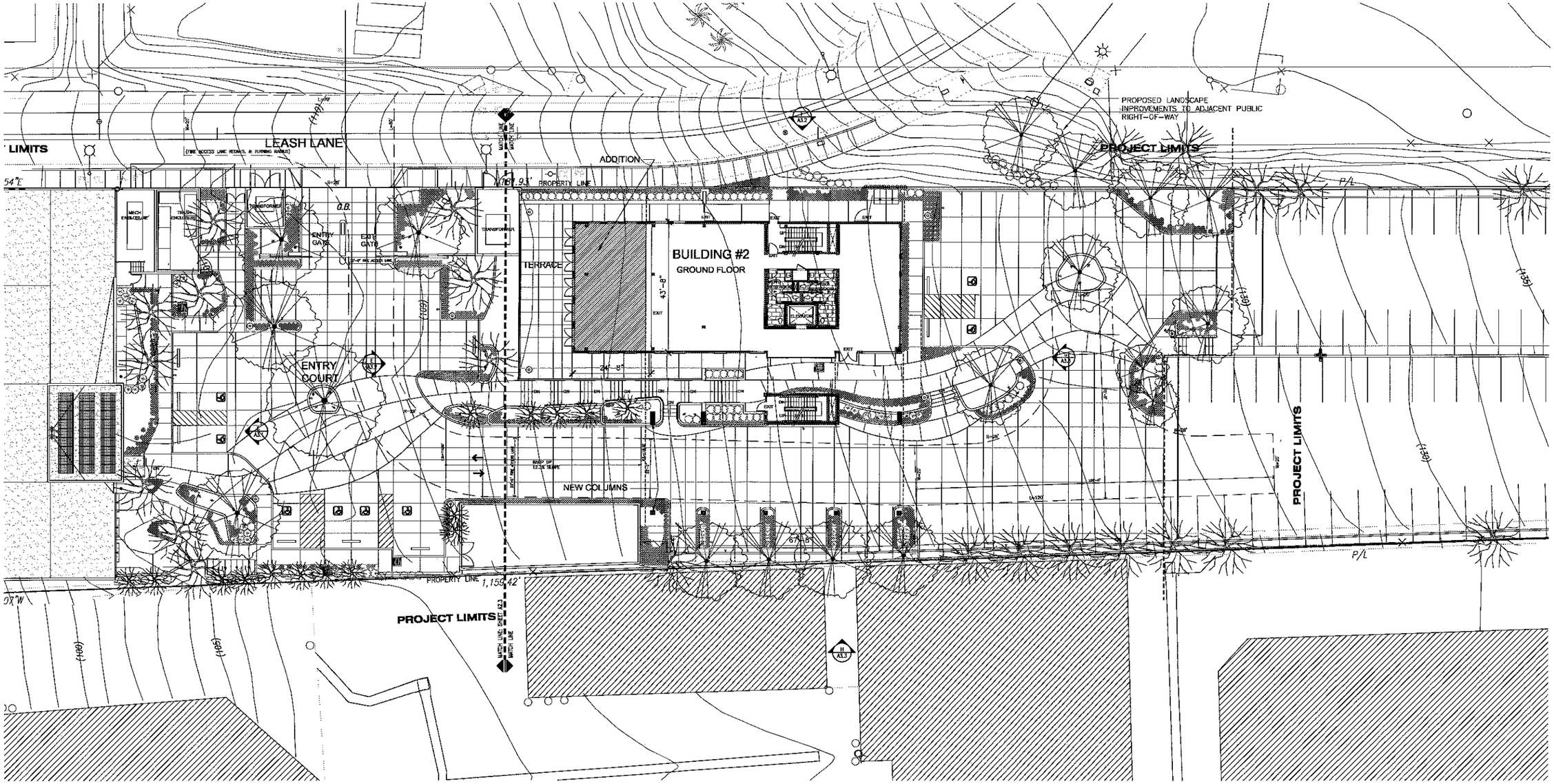
PLAN NORTH
TRUE NORTH
SCALE: 1"=16'-0"
0 4' 8' 16' 32'

BUILDING #2
BASEMENT PLAN

A2.0 #10048

VAN TILBURG BANVARD & SODERBERGH, AIA
ARCHITECTURE PLANNING INTERIORS
1736 BERKELEY STREET
SANTA MONICA, CALIFORNIA 90404
TEL: 310-394-0273 FAX: 310-394-2424
www.vtbs.com

SITE PLAN REVIEW SUBMITTAL
JUNE 01, 2012 (REVISIONS)



NOTE: REFER TO ARCHITECTURAL SITE PLAN, SHEET A0.2 FOR ADDITIONAL INFORMATION

BUILDING #2
GROUND FLOOR PLAN

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

AREA SUMMARY:

		PERMITTED:	ADDITION:		NEW GROUND FLOOR TOTAL:	
GROUND FLOOR	GROSS AREA:	NET AREA:	GROSS AREA:	NET AREA:	GROSS AREA:	NET AREA:
OFFICE LEASE SPACE:	3,464 SF	3,360 SF	+1,077 SF	+1,077 SF	4,541 SF	4,437 SF
TERRACE:	2,730 SF		1,052 SF		1,666 SF	

5,475 SF Addition to New Building
9922 Jefferson Boulevard

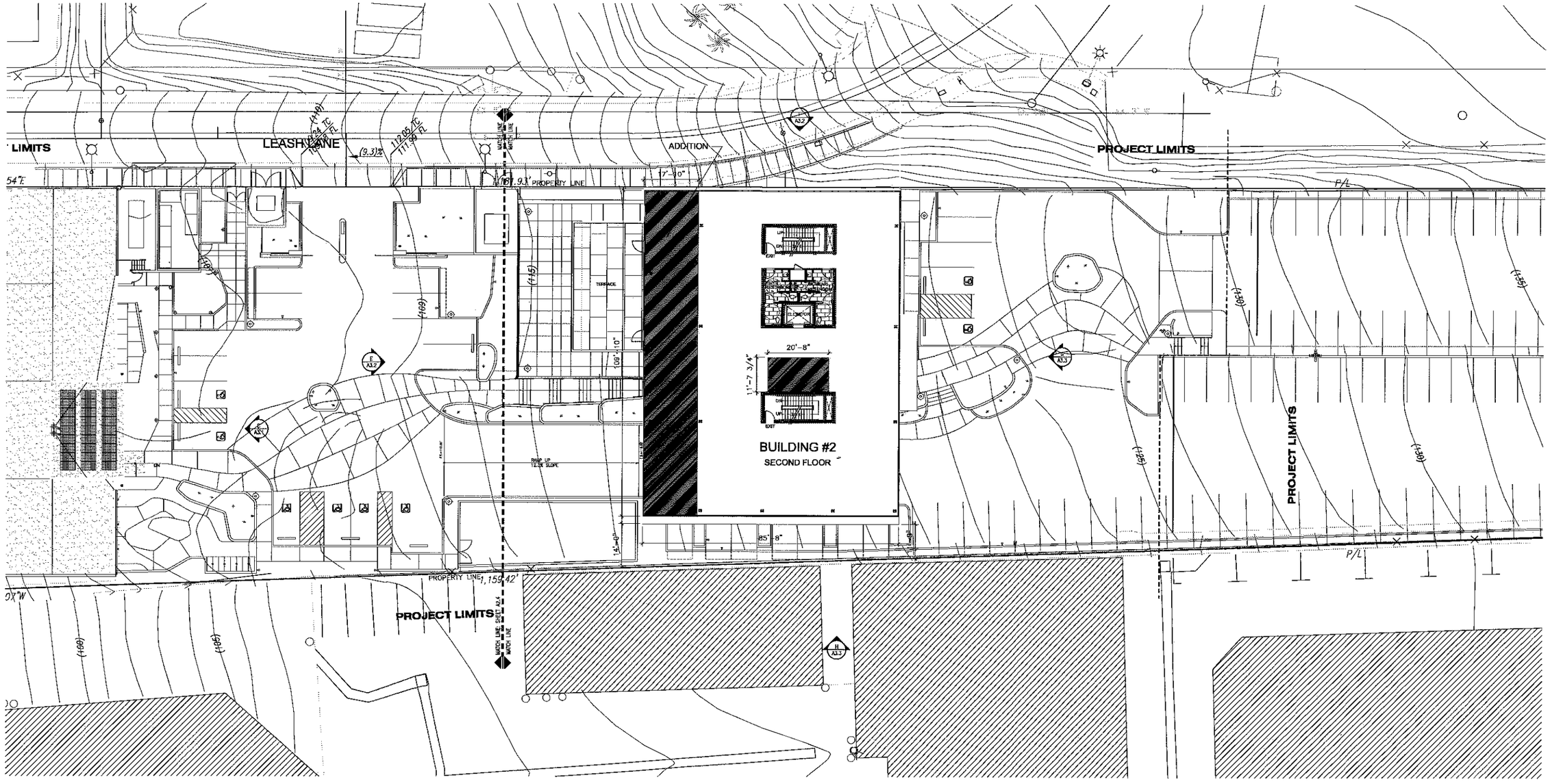
TRUE NORTH / PLAN NORTH

SCALE: 1"=16'-0"
0 4' 8' 16' 32'

A2.1
#10048

VAN TILBURG BANVARD & SODERBERGH, AIA
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SITE PLAN REVIEW SUBMITTAL
JUNE 01, 2012 (REVISIONS)



REFERENCE:

9920 Jefferson Boulevard
Culver City, California

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

AREA SUMMARY:

GROUND FLOOR	GROSS AREA:	NET AREA:
OFFICE LEASE SPACE:	7,292 SF	6,708 SF
TERRACE:	688 SF	

	PERMITTED:	ADDITION:		NEW SECOND FLOOR TOTAL:	
		GROSS AREA:	NET AREA:	GROSS AREA:	NET AREA:
		+2,199 SF	+2,199 SF	9,491 SF	8,907 SF
		508 SF		996 SF	

BUILDING #2
SECOND FLOOR PLAN

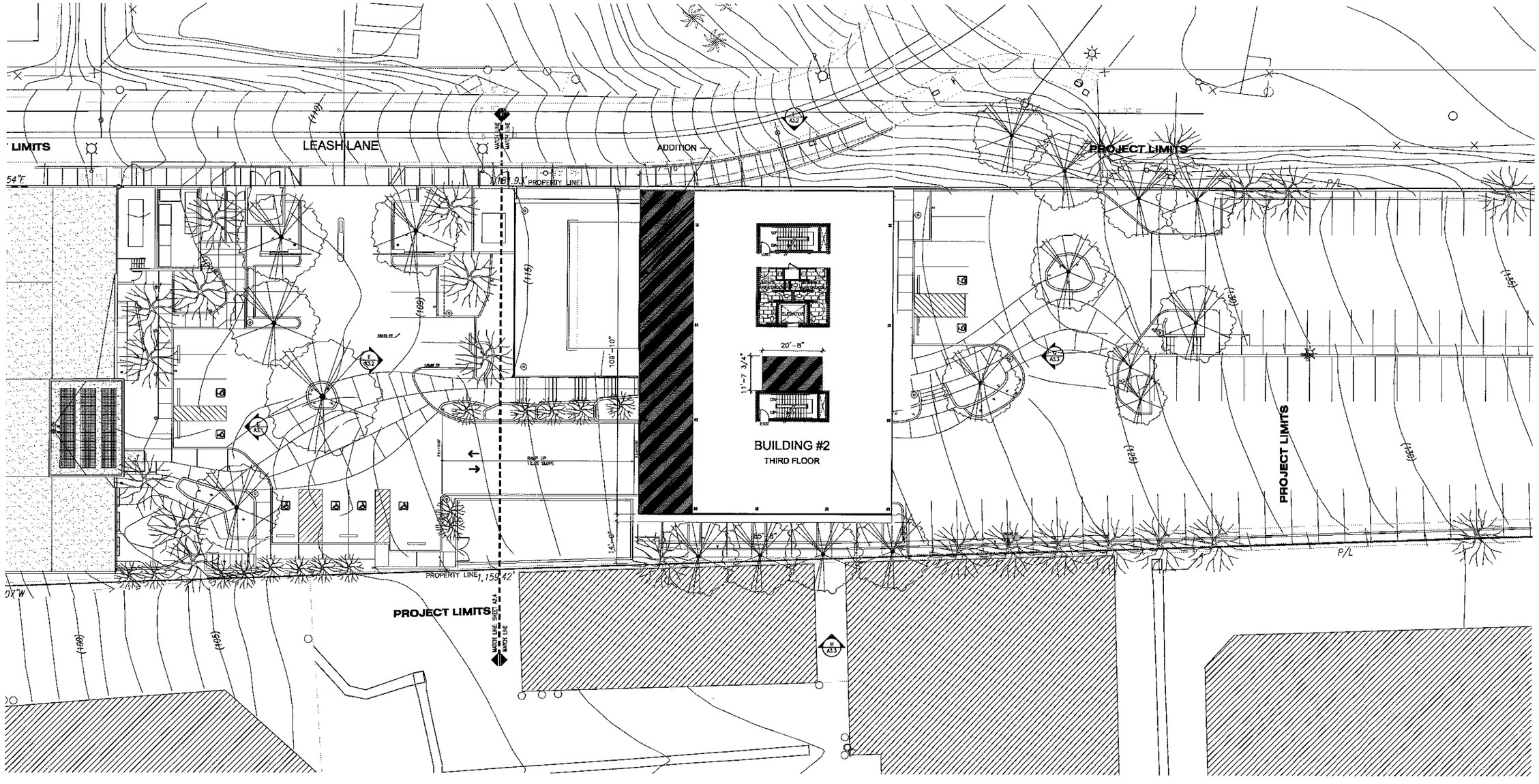
5,475 SF Addition to New Building
9922 Jefferson Boulevard
Culver City, California

PLAN NORTH
TRUE NORTH
SCALE: 1"=16'-0"
0 4' 8' 16' 32'

A2.2
#10048

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SITE PLAN REVIEW SUBMITTAL
JUNE 01, 2012 (REVISIONS)



REFERENCE:

9920 Jefferson Boulevard
Culver City, California

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

AREA SUMMARY:

		PERMITTED:		ADDITION:		NEW THIRD FLOOR TOTAL:	
				GROSS AREA:	NET AREA:	GROSS AREA:	NET AREA:
GROUND FLOOR	GROSS AREA:		NET AREA:				
OFFICE LEASE SPACE:	7,292 SF	6,708 SF		+2,199 SF	+2,199 SF	9,491 SF	8,907 SF

5,475 SF Addition to New Building
9922 Jefferson Boulevard
Culver City, California

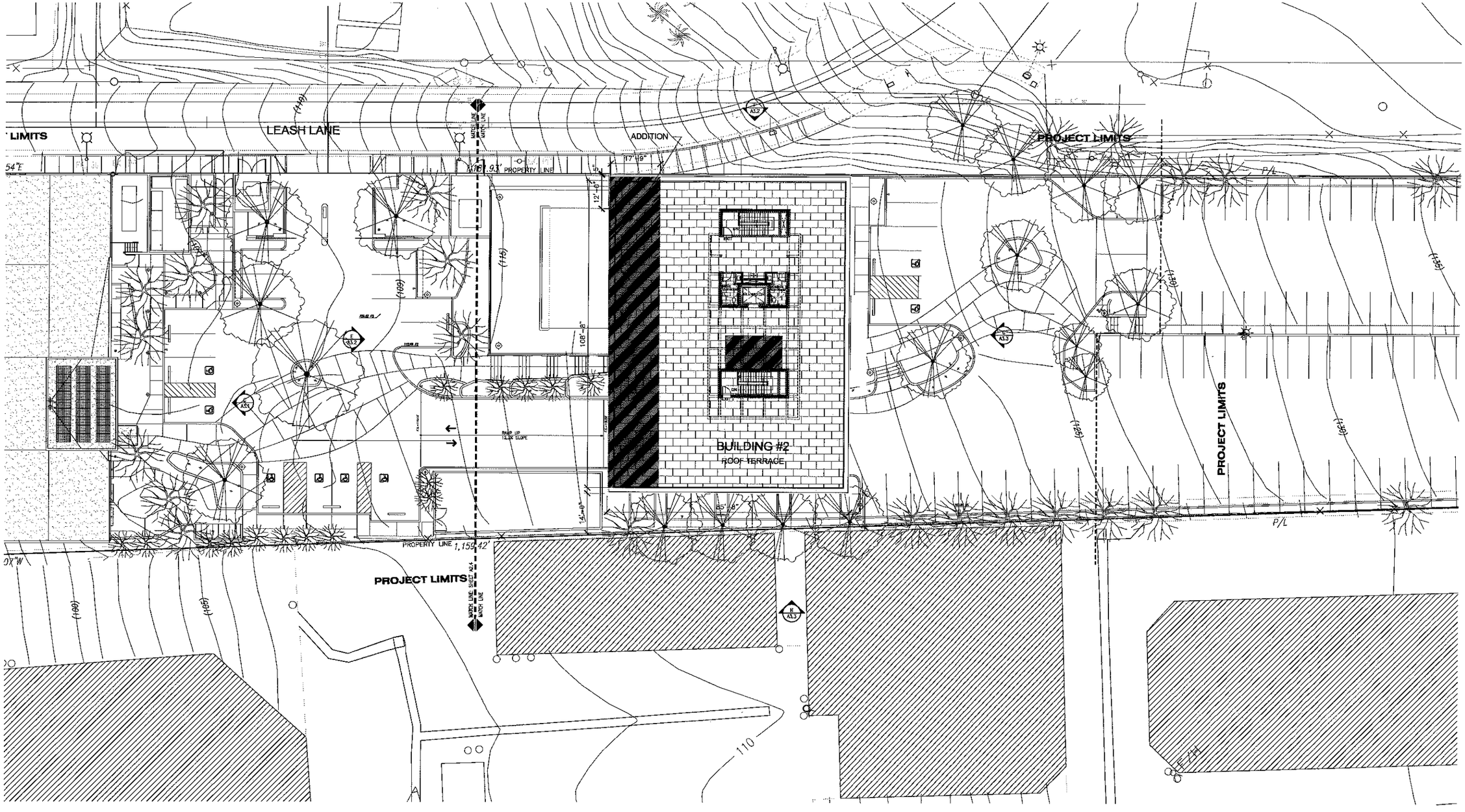
PLAN NORTH
TRUE NORTH
SCALE: 1"=16'-0"
0 4' 8' 16' 32'

BUILDING #2
THIRD FLOOR PLAN

A2.3
#10048

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JUNE 01, 2012 (REVISIONS)



REFERENCE:

9920 Jefferson Boulevard
Culver City, California

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

AREA SUMMARY:

		EXISTING:	ADDITION:		NEW ROOF TERRACE TOTAL:	
GROUND FLOOR	GROSS AREA:	NET AREA:	GROSS AREA:	NET AREA:	GROSS AREA:	NET AREA:
OFFICE LEASE SPACE:	224 SF	224 SF	–	–	224 SF	224 SF
TERRACE:		5,886 SF	1,928 SF		2,815 SF	

BUILDING #2
ROOF TERRACE PLAN

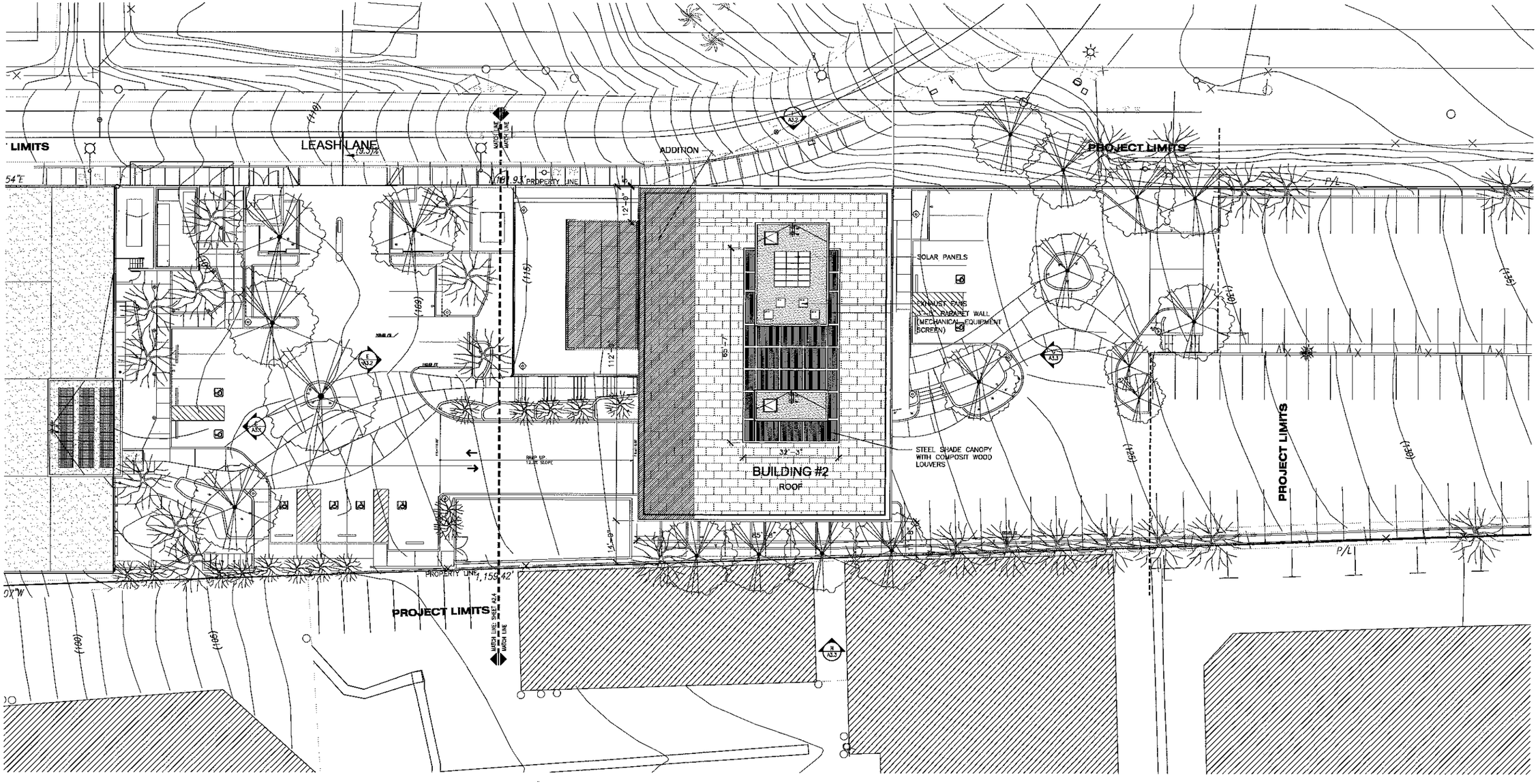
5,475 SF Addition to New Building
9922 Jefferson Boulevard
Culver City, California

PLAN NORTH
TRUE NORTH
SCALE: 1"=16'-0"
0 4' 8' 16' 32'

A2.4 #10048

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BUILDING #2
HIGH ROOF PLAN A2.5

#10048

5,475 SF Addition to New Building
9922 Jefferson Boulevard

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

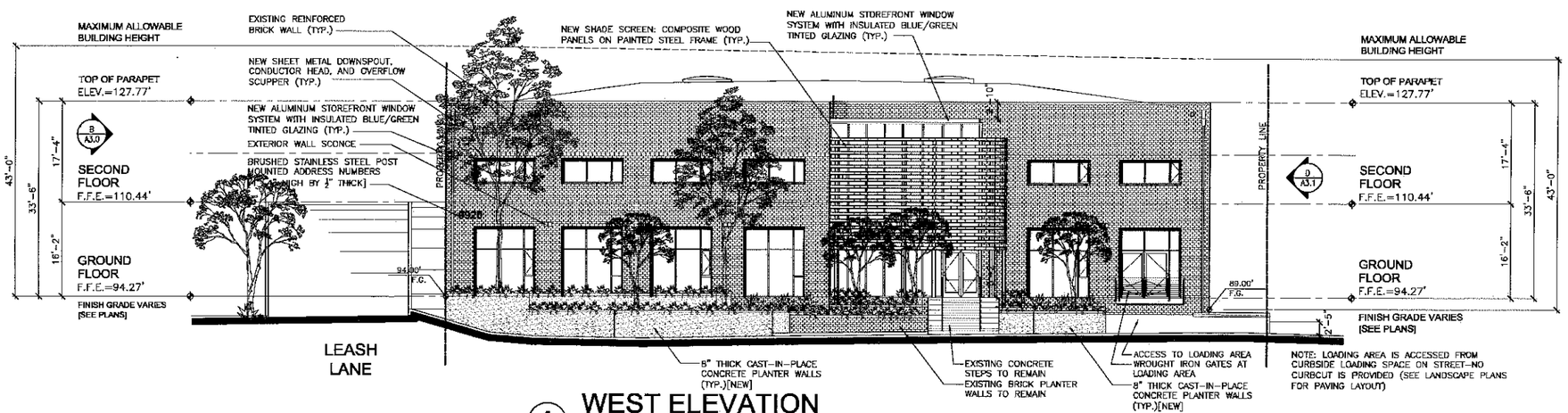
NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

PLAN NORTH
TRUE NORTH

SCALE: 1"=16'-0"
0 4' 8' 16' 32'

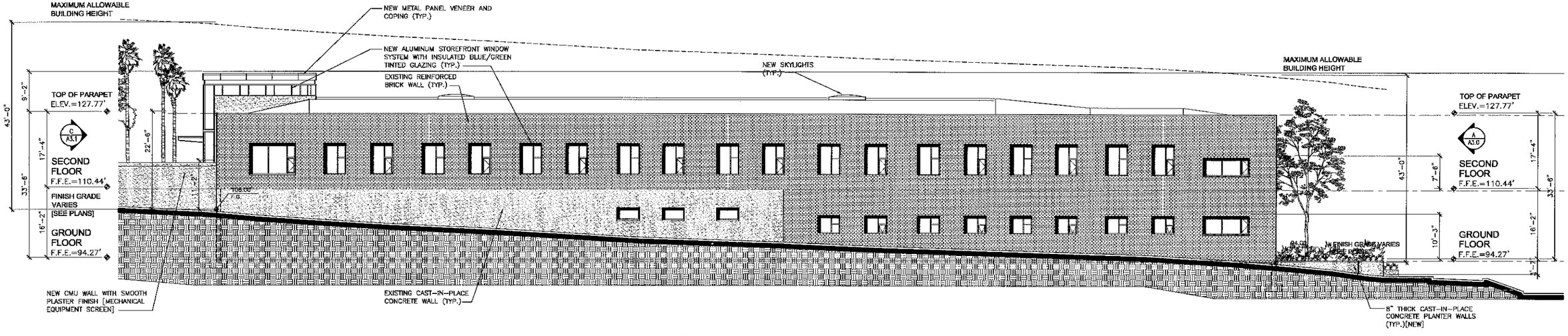
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A WEST ELEVATION

SCALE: 3/32"=1'-0"



B NORTH ELEVATION

SCALE: 3/32"=1'-0"

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

A3.0

#10048

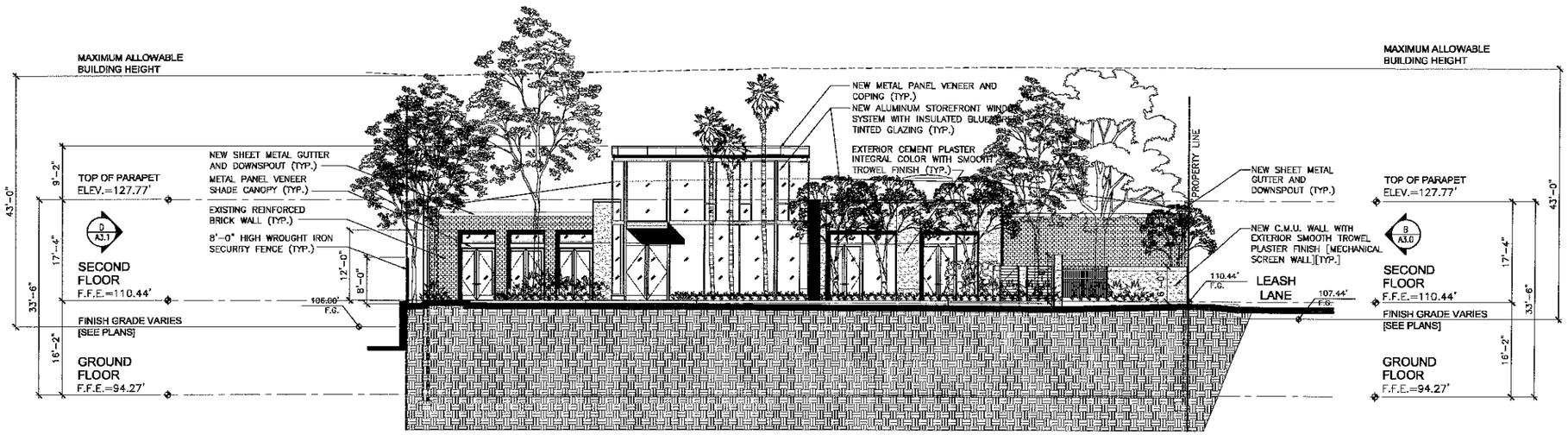
BUILDING #1 ELEVATIONS

(NO CHANGE)

SCALE: 3/32"=1'-0"
0 5' 10' 15' 20'

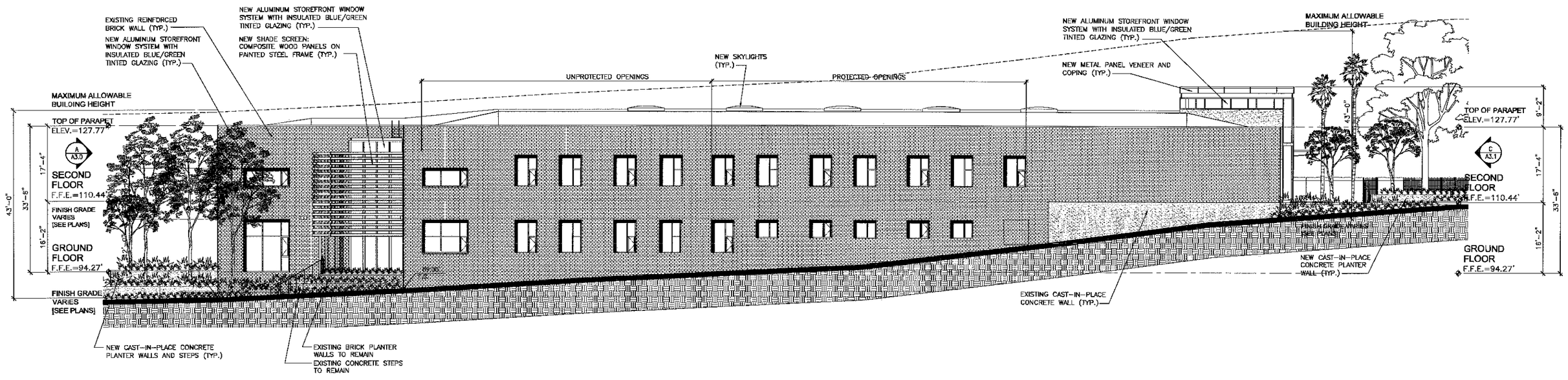
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C EAST ELEVATION

SCALE: 3/32"=1'-0"



D SOUTH ELEVATION

SCALE: 3/32"=1'-0"

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

BUILDING #1 ELEVATIONS

(NO CHANGE)

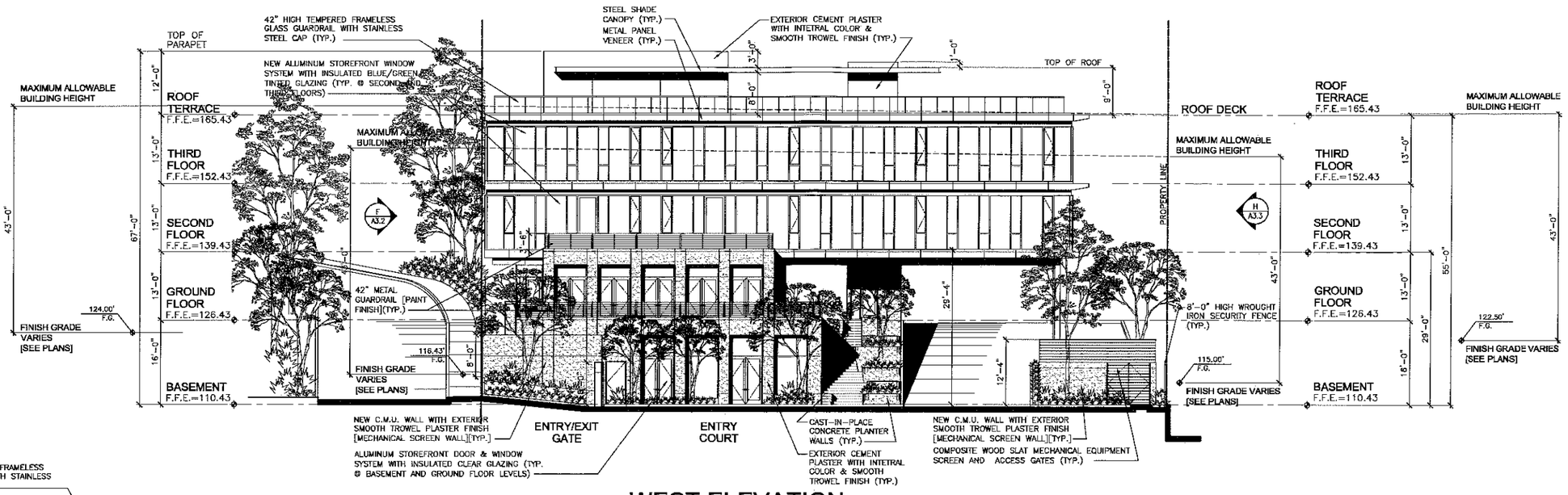
A3.1

#10048

SCALE: 3/32"=1'-0"
0 5' 10' 15' 20'

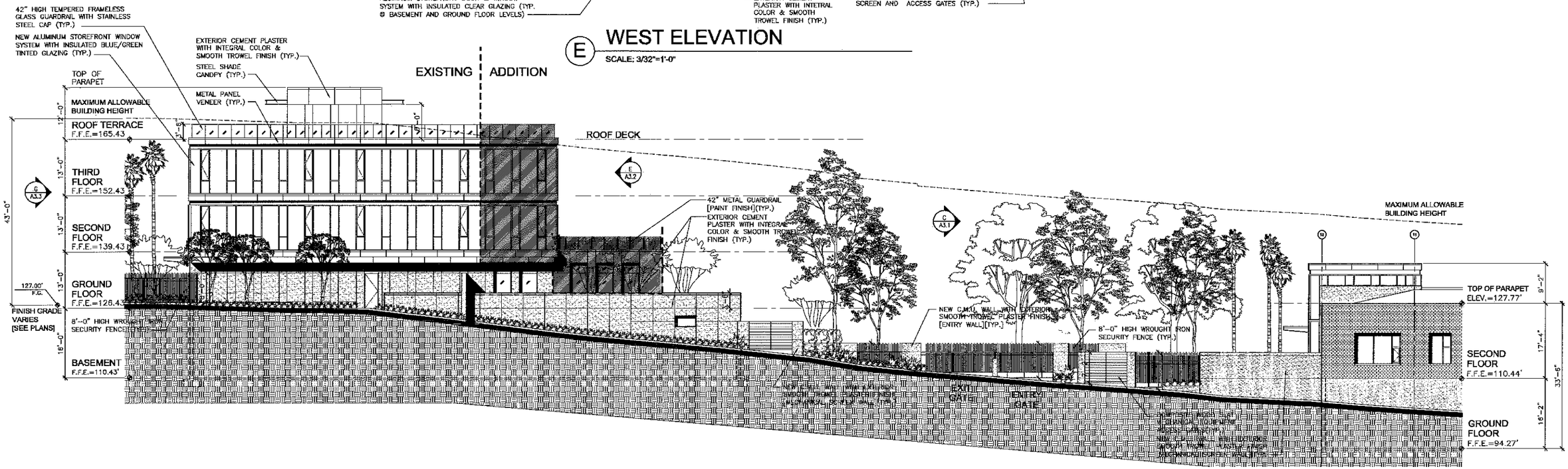
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E WEST ELEVATION

SCALE: 3/32"=1'-0"



F NORTH ELEVATION

SCALE: 3/32"=1'-0"

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

BUILDING #2 - ELEVATIONS

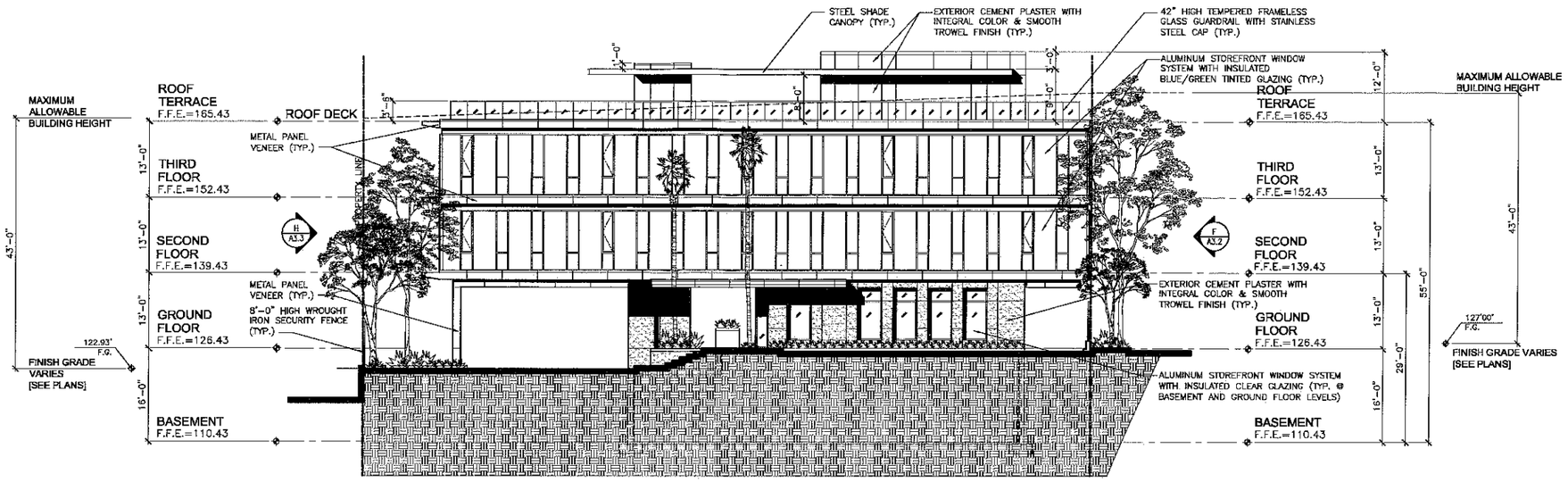
5,475 SF Addition to New Building
9922 Jefferson Boulevard

A3.2 #10048

SCALE: 3/32"=1'-0"
0 5' 10' 15' 20'

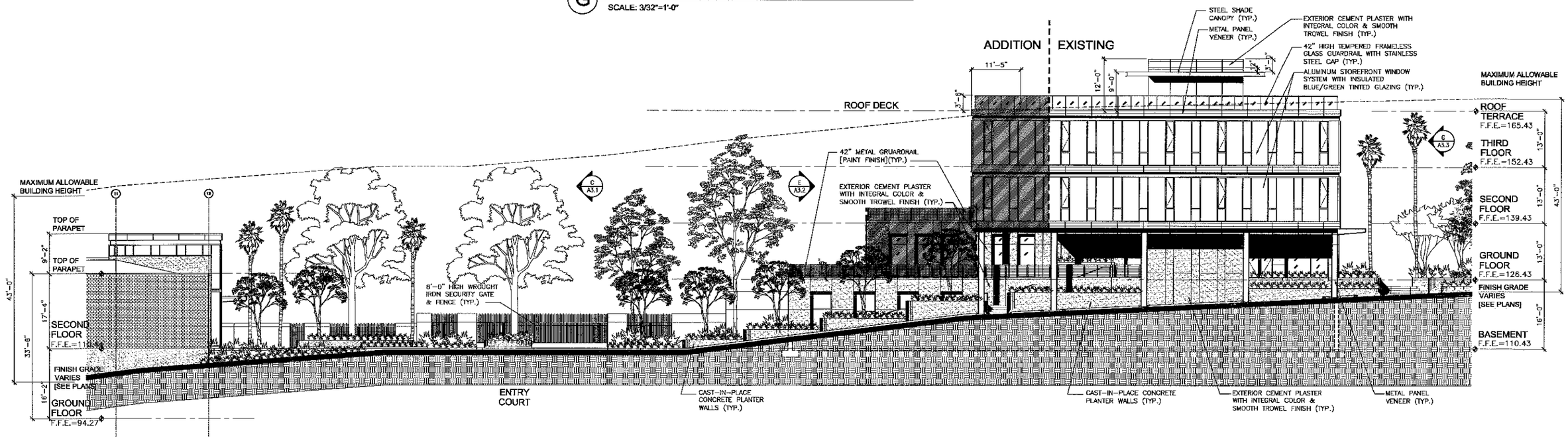
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G EAST ELEVATION

SCALE: 3/32"=1'-0"



H SOUTH ELEVATION

SCALE: 3/32"=1'-0"

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

BUILDING #2 - ELEVATIONS

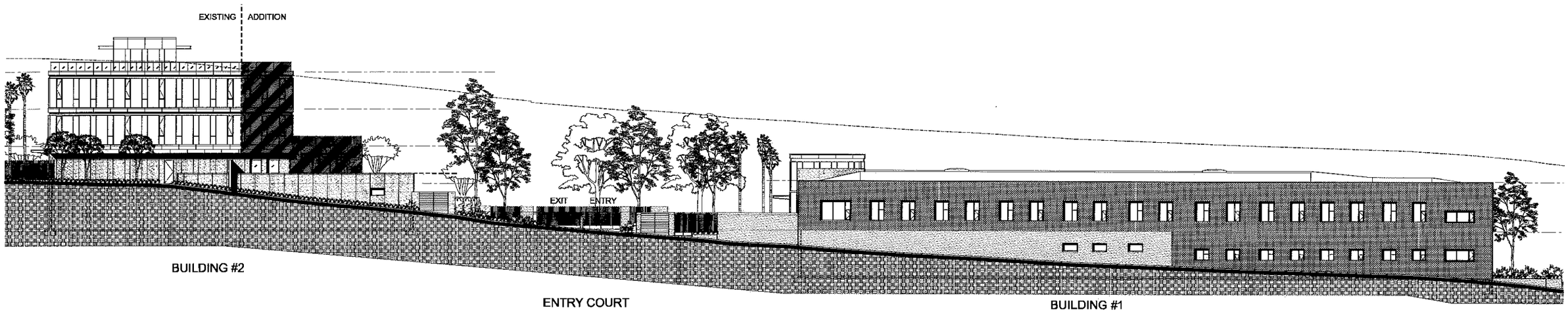
5,475 SF Addition to New Building
9922 Jefferson Boulevard
Culver City, California

SCALE: 3/32"=1'-0"
0 5' 10' 15' 20'

A3.3 #10048

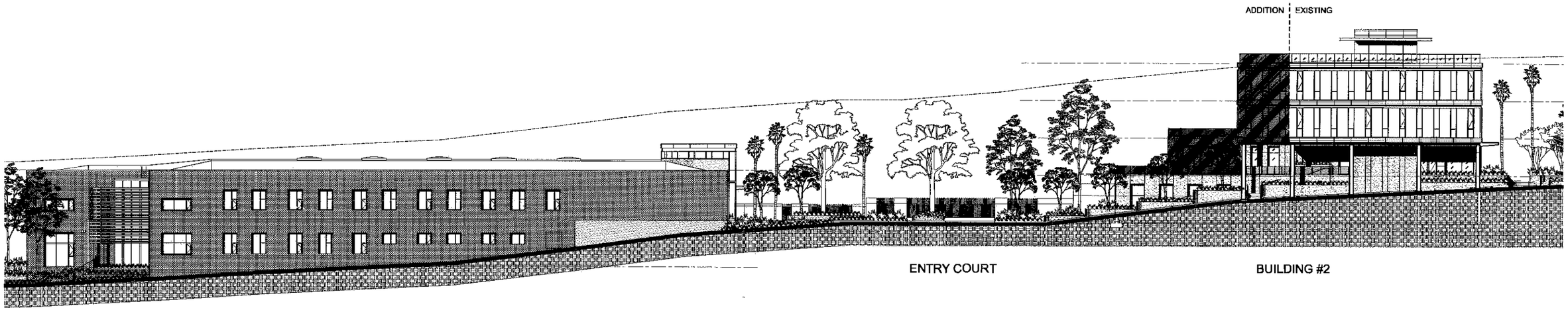
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JUNE 01, 2012 (REVISIONS)



M NORTH ELEVATION

SCALE: 1/16"=1'-0"



L SOUTH SITE ELEVATION

SCALE: 1/16"=1'-0"

REFERENCE:

9920 Jefferson Boulevard
Culver City, California

NOTE:
SHADED AREA INDICATES ADDITION TO NEW BUILDING

5,475 SF Addition to New Building
9922 Jefferson Boulevard

SITE ELEVATIONS A3.4

SCALE: 1/16"=1'-0"
0 4' 8' 16' 32'

#10048

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