4.12 TRANSPORTATION/TRAFFIC

This EIR section analyzes the potential for adverse impacts on existing transportation and traffic conditions resulting from implementation of the proposed project. The Initial Study/Notice of Preparation (IS/NOP [Appendix 1]) identified the potential for impacts associated with the following: increased number of vehicle trips and traffic congestion; exceeding established levels of service of the county congestion management agency; increased hazards due to design features; parking capacity; and the potential to conflict with adopted policies supporting alternative transportation. Issues scoped out from detailed analysis in the EIR include changes in air traffic patterns as a result of the proposed project and emergency access. Data used to prepare this section were taken from the City's General Plan Circulation Element and the Traffic Impact Analysis Report prepared for the project site (Appendix 10). Full bibliographic entries for all reference materials are provided in Section 4.12.5 (References), at the end of this section. Since the time of preparation of the IS/NOP was prepared for the proposed project, parking capacity as been removed from the CEQA Guidelines as an issue area for analysis. However, the issue area has been retained for analysis in this Subsequent EIR.

All comments received in response to the IS/NOP circulated for the proposed project were taken into consideration during preparation of this Draft EIR, and if relevant, have been addressed in this section or others within this document.

4.12.1 Environmental Setting

This section provides an assessment of existing conditions in the project study area at the time of preparation of the IS/NOP and Draft EIR, including a description of the street and highway system, traffic volumes on these facilities, and operating conditions of the selected intersections. Based on discussions with City Staff during the preparation of this Subsequent EIR (June and July 2011) it is understood that substantial changes and development have not occurred within the vicinity of the project such that traffic conditions would have changed substantially since preparation of the Traffic Impact Analysis and Draft EIR. As such, it is assumed that the existing and future conditions and analysis are sufficient for the preparation of this Subsequent EIR.

Regional Highway and Street Network

Freeways

The 5-acre project site located within an undeveloped 14-acre portion of Huntington Beach Central Park, southwest of the intersection of Goldenwest Street and Talbert Avenue approximately three miles north of the City of Huntington Beach's Downtown. The traffic study area extends along Goldenwest Avenue between Slater Avenue on the north and Ellis Avenue to the south. Regional access to the study area is available from Goldenwest Street, which extends northerly to connect with the I-405 Freeway and southerly to connect with Pacific Coast Highway.

Local Access

Local streets that serve the project site include Goldenwest Street, Slater Avenue, Talbert Avenue, and Ellis Avenue.

The key local area streets serving the project site are described below:

- Goldenwest Street is a six-lane divided north-south roadway in the study area, although north of the intersection with Slater Avenue, it is five lanes (three southbound, two northbound). In the General Plan, Goldenwest Street is classified as a six-lane divided Major arterial street south of Talbert Avenue and a four-lane Primary arterial street north of Talbert Avenue.
- Slater Avenue is a four-lane divided east-west roadway throughout the study area. It is classified as a four-lane Secondary arterial street in the General Plan.
- Talbert Avenue is a two-lane divided roadway providing access to the Huntington Central Park and Library. The west leg of Talbert Avenue will provide project site access. Talbert Avenue at Goldenwest Street is not shown on the City of Huntington Beach Circulation Plan.
- Ellis Avenue is a four-lane divided roadway east of Goldenwest Street. West of Goldenwest Street, Ellis Avenue has one lane westbound and two lanes eastbound. It is classified as a four-lane (divided) Primary arterial street in the General Plan.

Existing Traffic Volumes and Intersection Conditions

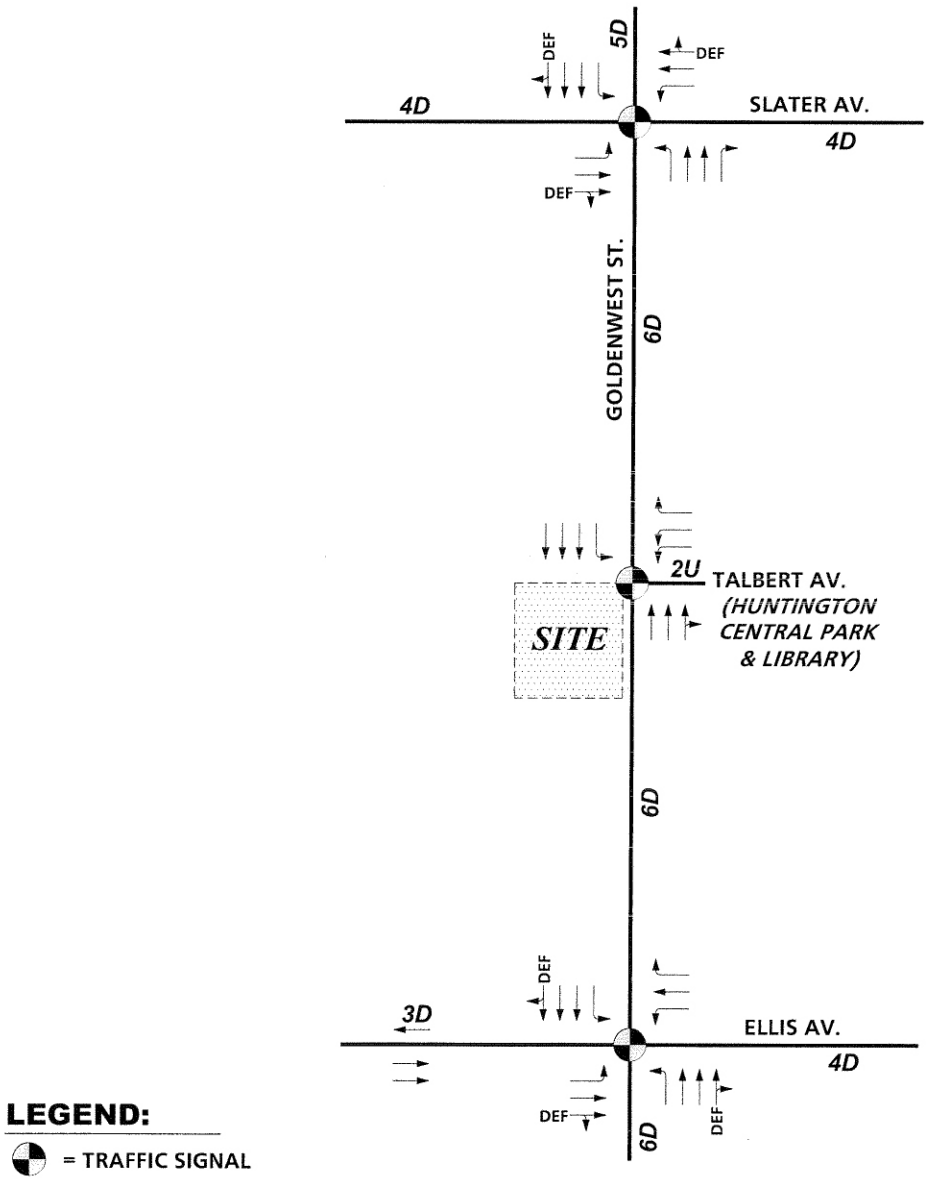
The traffic impact analysis evaluated intersection operations from the three access roadways to the project site:

- Goldenwest Street at Slater Avenue
- Goldenwest Street at Talbert Avenue
- Goldenwest Street at Ellis Avenue

Figure 4.12-1 (Existing Number of Through Lanes and Intersection Controls) presents the existing through lanes for study area roadways and intersection lane configurations and controls at existing intersection analysis locations.

Existing average daily traffic (ADT) on these arterial highways in the study area is shown on Figure 4.12-2 (Weekday Existing Average Daily Traffic [ADT]) for weekday, and Figure 4.12-3 (Weekend Existing Average Daily Traffic [ADT]), for weekend conditions. The highest daily traffic volumes in the study area occur at Goldenwest Street, north of Slater Avenue, which carries traffic in excess of 33,000 vehicles per day (vpd) on weekdays. Other roadway segments carrying more than 15,000 vpd in the study area include Slater Avenue and the rest of Goldenwest Street. The weekday traffic volumes are generally higher than the weekend traffic volumes.

Existing peak hour traffic operations have been evaluated for the study area intersections. Existing intersection level of service calculations are based upon manual AM and PM peak hour turning movement counts conducted in June 2007. Figure 4.12-4 (Weekday Existing AM Peak Hour Intersection Volumes) depicts the existing weekday AM peak hour traffic volumes and Figure 4.12-5 (Weekday Existing PM Peak Hour Intersection Volumes) depicts the existing weekday PM peak hour traffic volumes. Figure 4.12-6 (Weekday Existing Midday Peak Hour Intersection Volumes) represents the existing weekend (midday) peak hour traffic volumes.



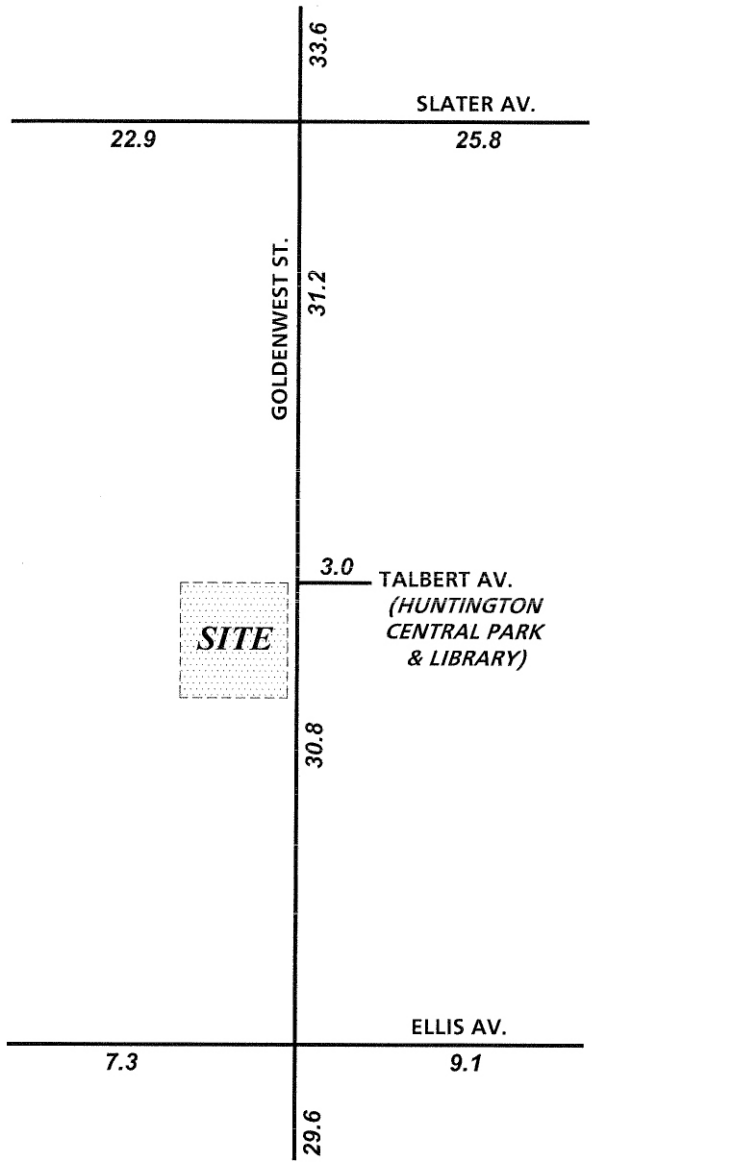
LEGEND:

- = TRAFFIC SIGNAL
- *4* = NUMBER OF LANES
- *D* = DIVIDED
- *U* = UNDIVIDED
- DEF = DEFACTO RIGHT TURN LANE

NORTH
NOT TO SCALE

***Source*:** Urban Crossroads, 2007.

Figure 4.12-1
Existing Number of Through Lanes and Intersection Controls



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***Source*:** Urban Crossroads, 2007.

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Figure 4.12-2
Weekday Existing Average Daily Traffic (ADT)

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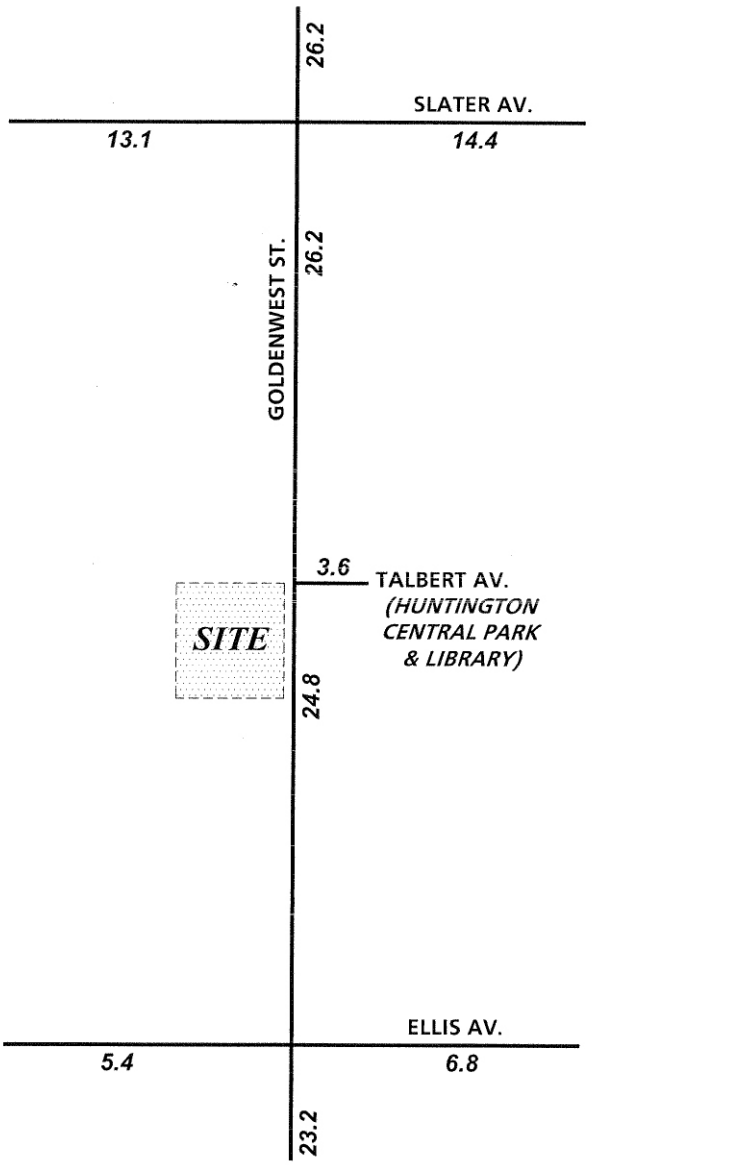
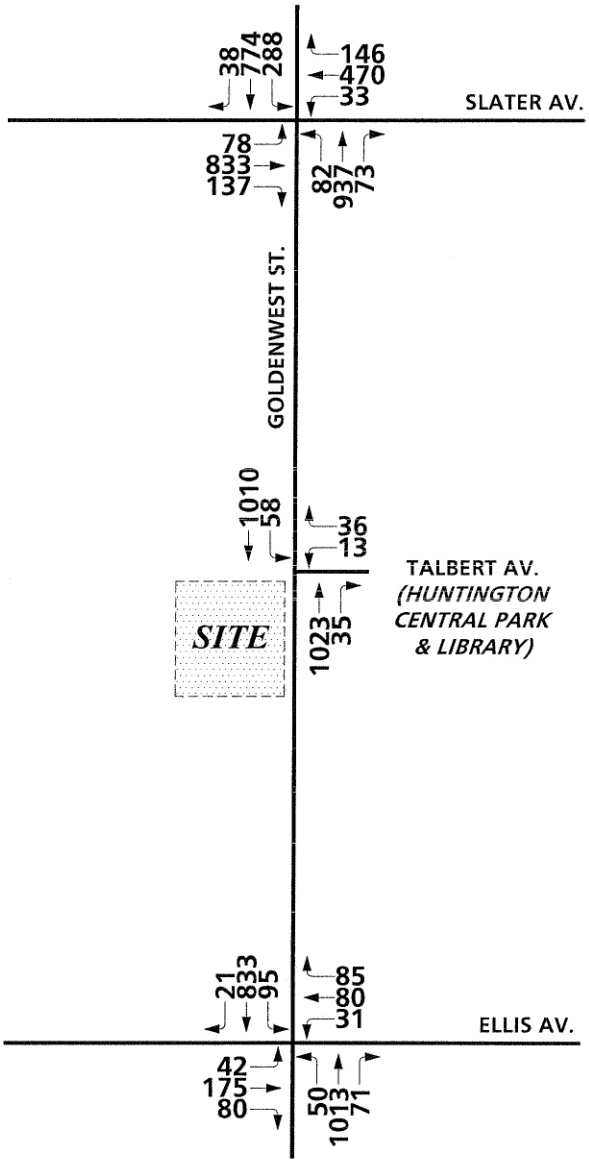


***Source*:** Urban Crossroads, 2007.

Figure 4.12-3
Weekend Existing Average Daily Traffic (ADT)



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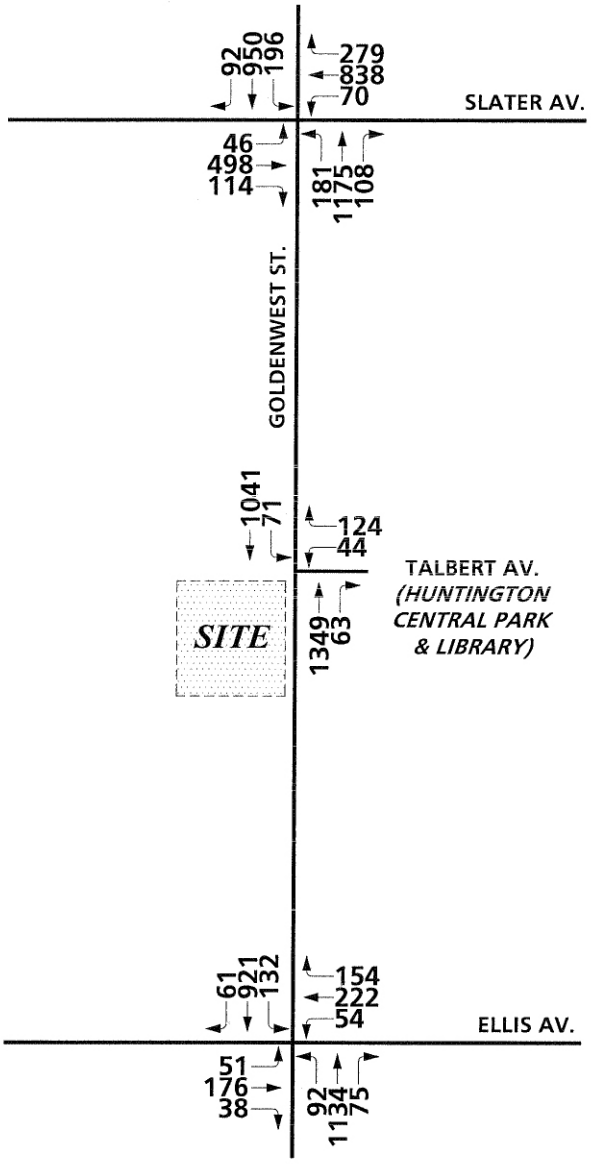
***Source*:** Urban Crossroads, 2007.

Figure 4.12-4
Weekday Existing AM Peak Hour Intersection Volumes

ATKINS



***Source*:** Urban Crossroads, 2007.

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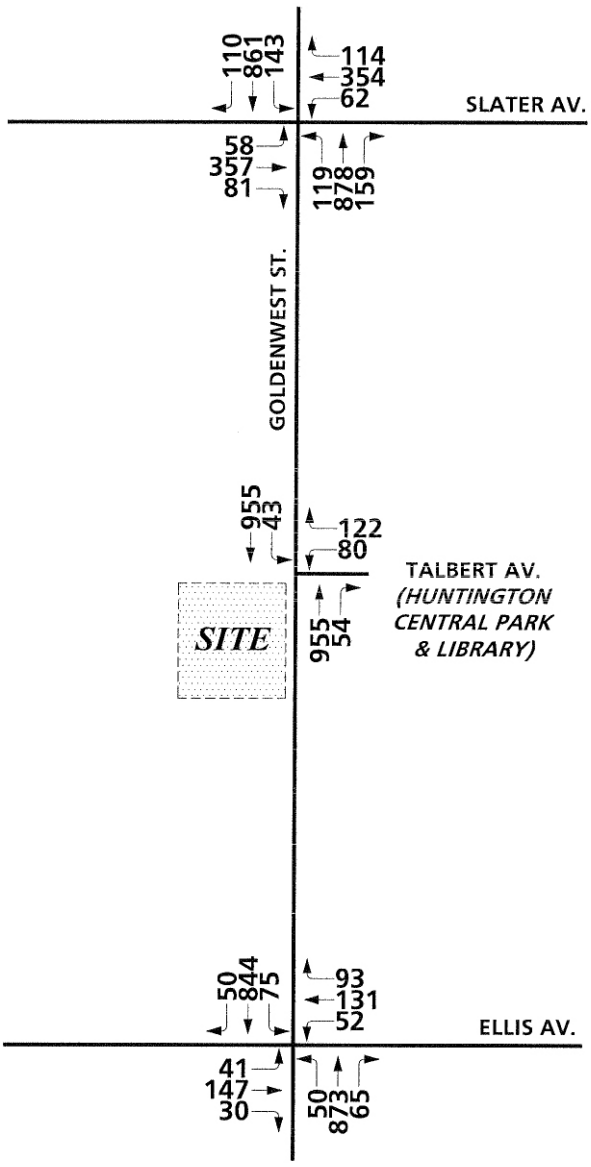
Figure 4.12-5
Weekday Existing PM Peak Hour Intersection Volumes



NORTH
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***Source*:** Urban Crossroads, 2007.

Figure 4.12-6
Weekend Existing Midday Peak Hour Intersection Volumes

In conformance with City of Huntington Beach criteria, an Intersection Capacity Utilization (ICU) analysis has been performed at all three signalized study area intersections. ICU values are used to determine levels of service at study area intersection locations during their morning, evening and weekend peak periods. The results of the existing intersection analysis are summarized in Table 4.12-1 (Intersection Analysis for Weekday Calculation) and Table 4.12-2 (Intersection Analysis for Weekend Calculation), along with the existing intersection geometrics and traffic control devices at the analysis locations.

Table 4.12-1 Intersection Analysis for Existing Weekday Conditions

Intersection Goldenwest St. (NS) at:	Traffic Control[c]	Intersection Approach Lanes[a]												Critical Vol/Capacity[b]		Level of Service	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.804	0.830	D	D
Talbert Avenue (EW)	TS	0	3	1	1	3	0	0	0	0	2	0	1	0.322	0.453	A	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	1	1	0.397	0.539	A	A

SOURCE: Urban Crossroads, *Huntington Beach Senior Center Project, Traffic Impact Analysis, City of Huntington Beach, California* (September 12, 2007).

TS = Traffic Signal

a. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside through lanes.

L = Left, T = Through, R = Right. 1 = Improvement, > = Right Turn Overlap Phase, >> = Free Right Turn

b. Critical volume/capacity ratio and level of service are calculated using the following analysis software: Traffix, Version 7.8 R5 (2007). Per the City of Huntington Beach standard, critical volume/capacity ratio and level of service are determined using the Intersection Capacity Utilization method for intersections with traffic signal control.

Table 4.12-2 Intersection Analysis for Existing Weekend Conditions

Intersection Goldenwest St. (NS) at:	Traffic Control	Intersection Approach Lanes[a]												Critical Vol/Capacity[b]	Level of Service
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Saturday	Saturday
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.561	A
Talbert Avenue (EW)	TS	0	3	1	1	3	0	0	0	0	2	0	1	0.352	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	1	1	0.386	A

SOURCE: Urban Crossroads, *Huntington Beach Senior Center Project, Traffic Impact Analysis, City of Huntington Beach, California* (September 12, 2007).

TS = Traffic Signal

a. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside through lanes.

L = Left, T = Through, R = Right. 1 = Improvement, > = Right Turn Overlap Phase, >> = Free Right Turn

b. Critical volume/capacity ratio and level of service are calculated using the following analysis software: Traffix, Version 7.8 R5 (2007). Per the City of Huntington Beach standard, critical volume/capacity ratio and level of service are determined using the Intersection Capacity Utilization method for intersections with traffic signal control.

For existing traffic conditions, all of the study area intersections operate at acceptable levels of operation operations.

Transit Service

The project site is served by OCTA bus route 25, which provides a connection between the cities of Fullerton and the City of Huntington Beach via Knott Avenue and Goldenwest Street, as well as connections to other OCTA bus routes, and the Buena Park Metrolink Station.[109] A northbound bus stop is located approximately 100 feet north of the intersection of Goldenwest Street at Talbert Avenue and a southbound bus stop is located approximately 100 feet south of this same intersection.

4.12.2 Regulatory Framework

Federal

Americans with Disabilities (ADA) Act of 1990

Titles I, II, III, and V of the ADA have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination on the basis of disability in "places of public accommodation" (businesses and non-profit agencies that serve the public) and "commercial facilities" (other businesses). The regulation includes Appendix A to Part 36 (Standards for Accessible Design) establishing minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility.

Examples of key guidelines include detectable warnings for pedestrians entering traffic where there is no curb, a clear zone of 48 inches for the pedestrian travelway, a vibration-free zone for pedestrians, etc.

State

Statewide Transportation Improvement Program (STIP)

The California Department of Transportation (Caltrans) administers transportation programming. Transportation programming is the public decision-making process that sets priorities and funds projects envisioned in long-range transportation plans. It commits expected revenues over a multiyear period to transportation projects. The STIP is a multiyear capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources.

Regional

Regional Comprehensive Plan and Guide

The Southern California Association of Governments (SCAG), which is the designated Metropolitan Planning Organization for six Southern California counties (Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles), is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. SCAG has prepared the RCPG in conjunction with its constituent members and other regional planning agencies. The RCPG is intended

[109] Orange County Transportation Authority, Route 25 Route Map and Schedule (effective June 12, 2011), http://www.octa.net/pdf/pdf/june2011/route025.pdf (accessed August 4, 2011).

to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated in the region through the year 2015. The Plan consists of five core chapters that contain goals, policies, implementation strategies, and technical data that support three overarching objectives for the region, including (1) improving the standard of living for all, (2) improving the quality of life for all, and (3) enhancing equity and access to government. Local governments are required to use the RCPG as the basis for their own plans.

Orange County Congestion Management Plan

The Orange County Congestion Management Plan (CMP) requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System (HS). Per the CMP guidelines, this number is based on the desire to analyze any impacts that will be three percent or more of the existing CMP highway system facilities' capacity. The CMPHS includes specific roadways, which include state highways and Super Streets, which are now known as Smart Streets, and CMP arterial monitoring locations/intersections. There are no CMP intersections near the proposed project site.

Orange County Growth Management Plan

In August 1988, Orange County adopted a Growth Management Plan, which presents a conceptual framework for coordinating traffic facilities and public facilities and services with new development. The Growth Management Plan also spawned several plans and programs, including the Development Monitoring Program, which evaluates the extent of new development and compliance with phasing requirements, and the Facilities Implementation Plans, which evaluate public facility needs and propose financing mechanisms.

The most comprehensive legislation affecting growth management is Measure M, approved by the County voters in November, 1990, and re-approved in 2006. The measure requires each jurisdiction in the County to adopt a Growth Management Element with specific contents and guidelines.

Local

The General Plan includes the Circulation Element within the Infrastructure and Community Services Chapter. The identified traffic-way network is designed to serve the future land use pattern and intensities of the General Plan. The Circulation Element also includes policies and programs to enhance the efficiency of the transportation system and to promote use of alternative modes. It recognizes that the automobile will continue to be the most frequently used mode of transportation in the foreseeable future, but it emphasizes transit, neighborhood quality, and bicycle/pedestrian safety. Relevant goals and policies are identified below.

General Plan Circulation Element

Goal CE 2 Provide a circulation system which supports existing, approved and planned land uses throughout the City while maintaining a desired level of service on all streets and at all intersections.

Objective CE 2.1 Comply with City's performance standards for acceptable levels of service.

Policy CE 2.1.1 Maintain a city-wide level of service (LOS) not to exceed LOS "D" for intersections during the peak hours.

Objective CE 2.3 Ensure that the location, intensity and timing of new development is consistent with the provision of adequate transportation infrastructure and standards as defined in the Land Use Element.

Policy CE 2.3.1 Require development projects to mitigate off-site traffic impacts and pedestrian, bicycle, and vehicular conflicts to the maximum extent feasible.

Policy CE 2.3.2 Limit driveway access points and require adequate driveway widths onto arterial roadways and require driveways be located to ensure the smooth and efficient flow of vehicles, bicycles, and pedestrians.

Policy CE 2.3.4 Require that new development mitigate its impact on City streets, including but not limited to, pedestrian, bicycle, and vehicular conflicts, to maintain adequate levels of service.

Objective CE 3.2 Encourage new development that promotes and expands the use of transit services.

Policy CE 3.2.1 Require developers to include transit facilities, such as park-and-ride sites, bus benches, shelters, pads or turn-outs in their development plans, where feasible as specified in the City's TDM ordinance.

Goal CE 4 Encourage and develop a transportation demand management (TDM) system to assist in mitigating traffic impacts and in maintaining a desired level of service on the circulation system.

Objective CE 4.1 Pursue transportation management strategies that can maximize vehicle occupancy, minimize average trip length, and reduce the number of vehicle trips.

Policy CE 4.1.3 Encourage the use of multiple-occupancy vehicle programs for shopping and other uses to reduce midday traffic.

Goal CE 5 Provide sufficient, well-designed, and convenient on and off-street parking facilities throughout the City.

Objective CE 5.1 Balance the supply with the demand for parking.

Policy CE 5.1.2 Provide safe and convenient parking that has minimal impacts on the natural environment, the community image, and the quality of life.

Goal CE 6 Provide a city-wide system of efficient and attractive pedestrian, equestrian, and waterway facilities for commuter, school, and recreational use.

Objective CE 6.1 Promote the safety of bicyclists and pedestrians by adhering to Caltrans and City-wide standards.

Policy CE 6.1.6 Maintain existing pedestrian facilities and require new development to provide pedestrian walkways and bicycle routes between developments, schools, and public facilities.

Policy CE 6.1.7 Require new development to provide accessible facilities to the elderly and disabled

Policy CE 6.1.10 Implement appropriate traffic devices and operational programs throughout the community to ensure that conflicts between pedestrians, bicycles, and vehicles are minimized and safety enhanced.

General Plan Growth Management Element

Goal 1 Reduce traffic congestion

Goal 2 Ensure that adequate transportation and public facilities and public services are provided for existing and future residents of the City.

Objective Provide a transportation system that ensures safe and efficient movement of people and goods.

Policy 5.3.4 Establish level of service (LOS) "D" as the minimum acceptable standard on arterial intersections except those intersections included on the Deficient Intersection List established by Public Works.

Goal 3 Provide a circulation system that meets the service demands of planned development and minimizes congestion.

Objective Establish minimum standards for traffic circulation and provide a means to ensure that those standards are met and maintained.

Policy 3.1.8 Promote traffic reduction strategies including alternate travel modes, alternate work hours, and a decrease in the number of vehicle trips throughout the city

Consistency Analysis

Access to the project site would be available from a new signalized driveway that would create the west leg of the intersection of Goldenwest Street at Talbert Avenue. The intersection would be designed to minimize confusion through signage, separation of turn lanes and other measures. Shuttle bus parking, sheltered drop off areas, and loading areas would be provided. The project would be designed consistent with the requirements of the ADA Act. As discussed in Section 4.12.3 (Project Impacts and Mitigation), the project would not result in any significant impacts that cannot be mitigated to less than significant levels. The new traffic signal at Goldenwest Street and Talbert Avenue would facilitate access to the project site, and would be sufficient to serve the project. As discussed under Impact 4.12-6, the project access intersection will be designed to avoid conflicts with nearby roadway operations. Access to the existing OCTA bus stops will be designed to encourage use of public transit. Consequently, implementation of the proposed project would not conflict with the above-listed policies.

4.12.3 Project Impacts and Mitigation

Analytic Method

Intersection Analysis

ICU analysis has been performed at all three signalized study area intersections. ICU values are used to determine levels of service at study area intersection locations and provide a means to quantitatively estimate incremental traffic impacts. To calculate the ICU value for an intersection, the volume of traffic using the intersection is compared with the capacity of the intersection. The ICU is usually expressed as a decimal percent (e.g., 0.86). The decimal percent represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The ICU-based level of service is defined below:

Table 4.12-3 ICU Level of Service

Level of Service	*Intersection Capacity Utilization (ICU) Value*
A	0–0.60
B	0.61–0.70
C	0.71–0.80
D	0.81–0.90
E	0.91–1.00
F	> 1.00

The definitions of level of service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- LOS "A" represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.

- LOS "B" is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
- LOS "C" is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes slightly affected by interactions with others in the traffic stream.
- LOS "D" represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- LOS "E" represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
- LOS "F" is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

The definitions of level of service for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control.

An acceptable level of service is LOS D as defined by City of Huntington Beach Traffic Study Guidelines (1996). Additionally, an intersection is impacted if the level of service is LOS E or LOS F and the ICU value changes by 0.01 or more.

Project Traffic

The traffic related to the project has been calculated in accordance with the following accepted procedural steps:

- Trip Generation
- Trip Distribution
- Trip Assignment

Project Trip Generation

Trip generation represents the amount of traffic attracted to and produced by a development. Because of the unique nature of a senior center, count data were collected at a similar facility in a nearby community (the Oasis Senior Center in Newport Beach) and at the existing Rodgers Senior Center in Huntington Beach. Peak hour trip rates have been calculated from the count data and the size of the center studied (22,500 square feet [sf]). The resulting trip generation rates are included in Table 4.12-4 (Project Trip Generation Rates).

As shown in Table 4.12-5 (Project Trip Generation), the proposed senior center is projected to generate a total of approximately 3,395 trip-ends per day on a typical weekday. On a typical weekend, the project is projected to generate a total of 1,577 trip-ends per day.

Table 4.12-4 Project Trip Generation Rates

Weekday Trip Generation Rates

		Peak Hour						
		AM			PM			
Land Use	*Units*	*In*	*Out*	*Total*	*In*	*Out*	*Total*	*Daily*[a]
Senior Center	TSF	5.60	1.40	7.00	0.89	2.44	3.33	75.45

Saturday Trip Generation Rates

		Midday Peak Hour			
Land Use	*Units*	*In*	*Out*	*Total*	*Daily*[a]
Senior Center—Saturday	TSF	0.4	4.53	4.93	35.05

SOURCE: Oasis Senior Center Count Data and Rodgers Senior Center Data
TSF = thousand square feet

Table 4.12-5 Project Trip Generation

Weekday Trip Generation Summary

			Peak Hour						
			AM			PM			
Land Use	*Quantity*	*Units*	*In*	*Out*	*Total*	*In*	*Out*	*Total*	*Daily*[a]
Senior Center	45.0	TSF	252	63	315	40	110	150	3,395

Saturday Trip Generation Summary

			Midday Peak Hour			
Land Use	*Quantity*	*Units*	*In*	*Out*	*Total*	*Daily*[a]
Senior Center—Saturday	45.0	TSF	18	204	222	1,577

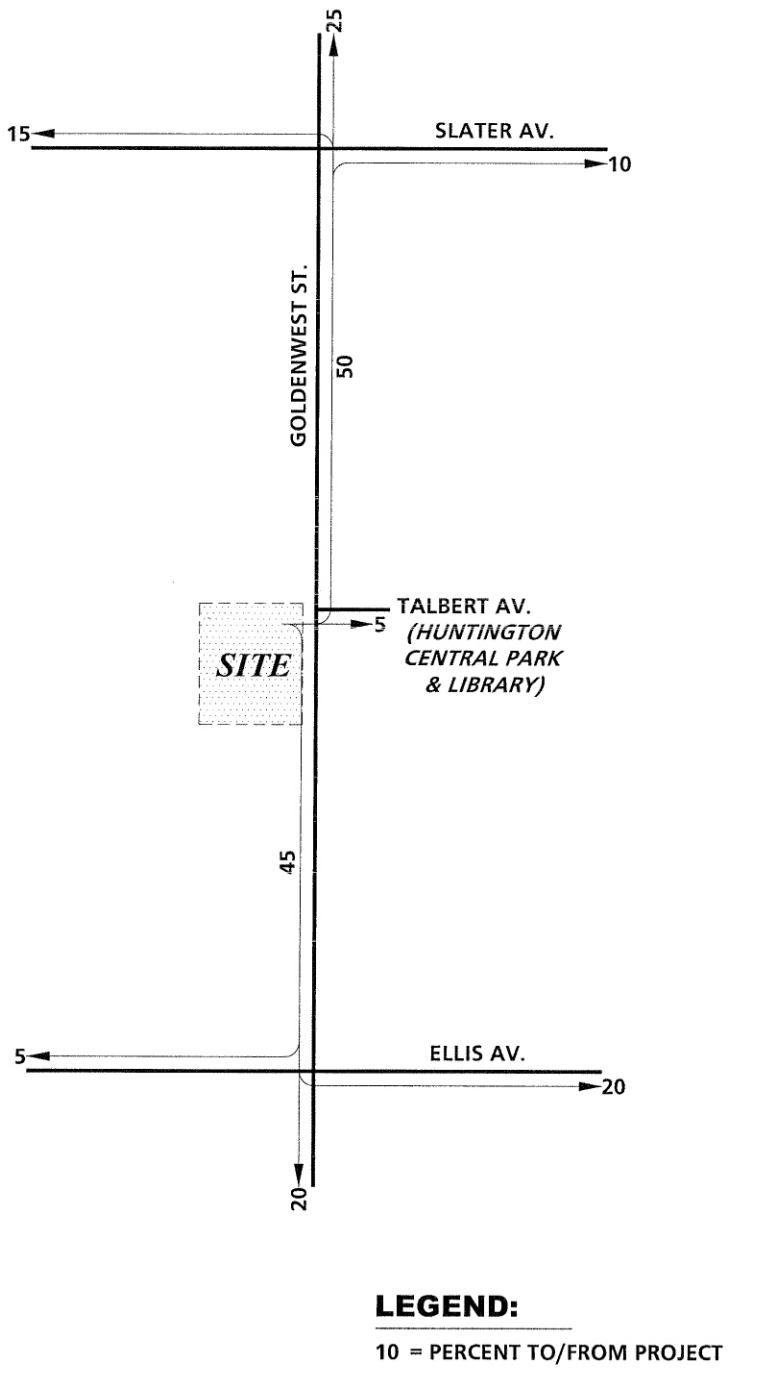
SOURCE: Oasis Senior Center Count Data and Rodgers Senior Center Data
TSF = thousand square feet

Project Trip Distribution

The trip distribution and assignment process represents the directional orientation of traffic to and from the project site. Trip distribution is influenced by existing travel patterns, the geographic location of the site, the location of residential areas (including senior housing where users of the proposed project might live), commercial and recreational opportunities, and the proximity of the regional freeway system. The anticipated project trip distribution has been developed based on these factors. The project trip distribution is shown on Figure 4.12-7 (Project Trip Distribution). As shown on Figure 4.12-7, 20 percent of the project traffic is expected to travel to/from the east, 55 percent will travel to/from the west and south, and 25 percent will travel to/from the north.

Project Traffic

Near term project only daily traffic volumes are shown on Figure 4.12-8 (Interim Year Project Only Average Daily Traffic (ADT)—Weekday) and Figure 4.12-9 (Interim Year Project Only Average Daily Traffic (ADT)—Saturday) for weekday and weekend conditions, respectively. Roadways carrying the highest project traffic volumes on a typical weekday include Goldenwest Avenue (north and south of Talbert Avenue) and the project access west of Goldenwest Avenue (each with more than 1,000 vehicles



NORTH
NOT TO SCALE

***Source*:** Urban Crossroads, 2007.

Figure 4.12-7
Project Trip Description

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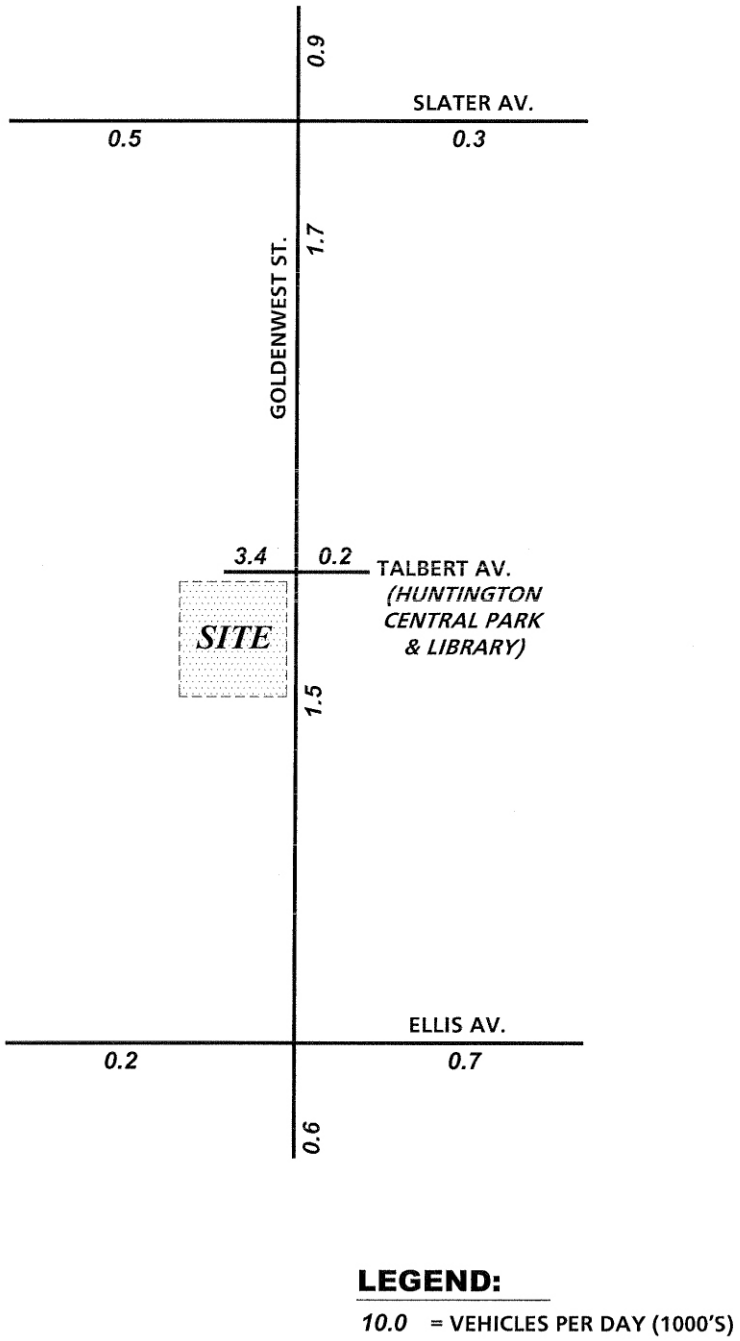
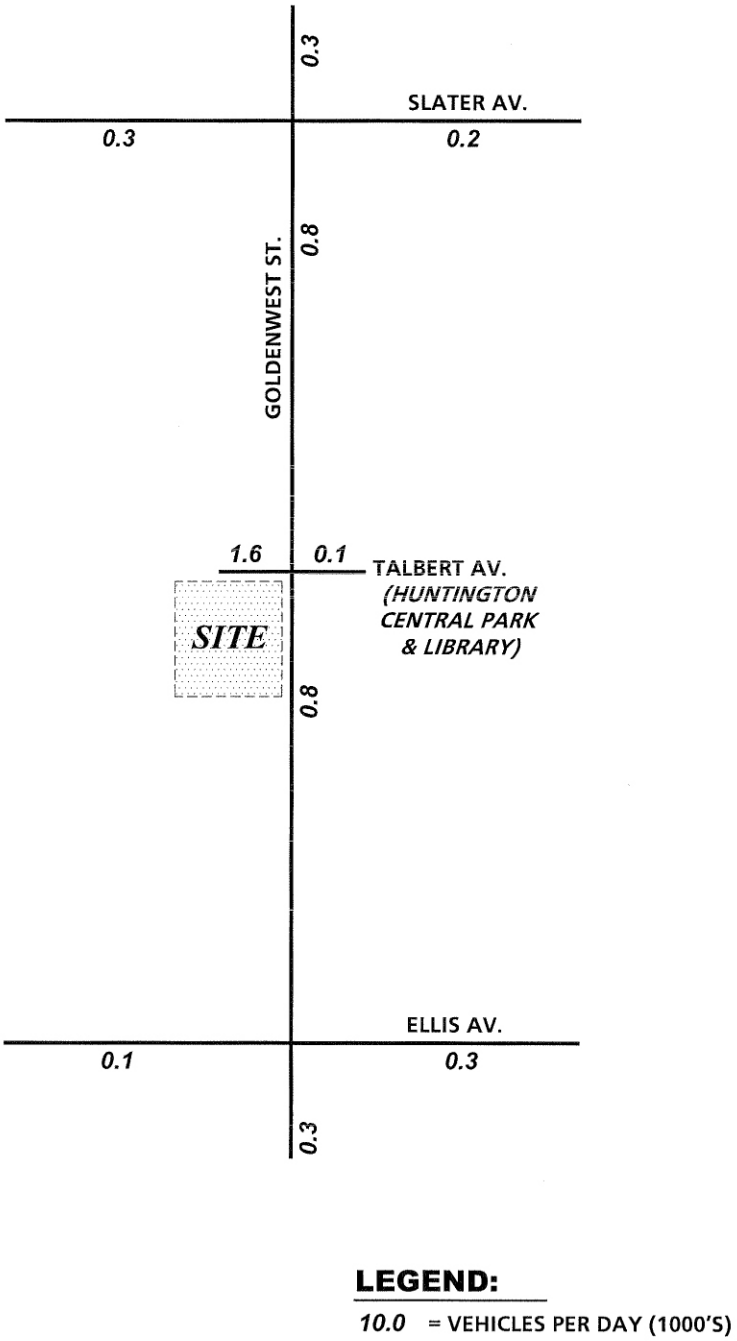


***Source*:** Urban Crossroads, 2007.

Figure 4.12-8

Interim Year Project Only Average Daily Traffic (ADT) – Weekday



***Source*:** Urban Crossroads, 2007.

Figure 4.12-9

Interim Year Project Only Average Daily Traffic (ADT) – Saturday

per day for some segments). On a typical weekend, these facilities also carry the most traffic, with approximately 1,600 vehicles per day using the project access. Near term project only peak hour turning movement volumes are included on Figure 4.12-10 (Weekday Project Only AM Peak Hour Intersection Volume)s and Figure 4.12-11 (Weekend Project Only PM Peak Hour Intersection Volumes) for weekday AM and PM peak hour conditions and Figure 4.12-12 (Weekend Project Only Midday Peak Hour Intersection Volumes) for midday weekend conditions.

Existing Plus Project Conditions

The purpose of the Existing plus Project analysis is to comply with CEQA, which requires that the baseline for assessing environmental impacts is the existing conditions at the time the NOP is prepared. As previously disclosed, the NOP for the proposed project, was released on April 5, 2007. Accordingly, the Existing plus Project analysis is based on existing year 2007 traffic volumes taken from the Traffic Study and provided in Table 4.13-2 for Weekday conditions and Table 4.13-3 for Saturday conditions, plus traffic generated by the proposed project (i.e., Senior Center), which represents Existing plus Project traffic volumes. However, it should be noted that this analysis is hypothetical because the actual buildout and occupancy of the project is anticipated to occur in the year 2015. To derive existing year 2007 with-project volumes, the project-only peak hour intersection volumes are added to the existing (no-project) intersection volumes (refer to Appendix 10b).

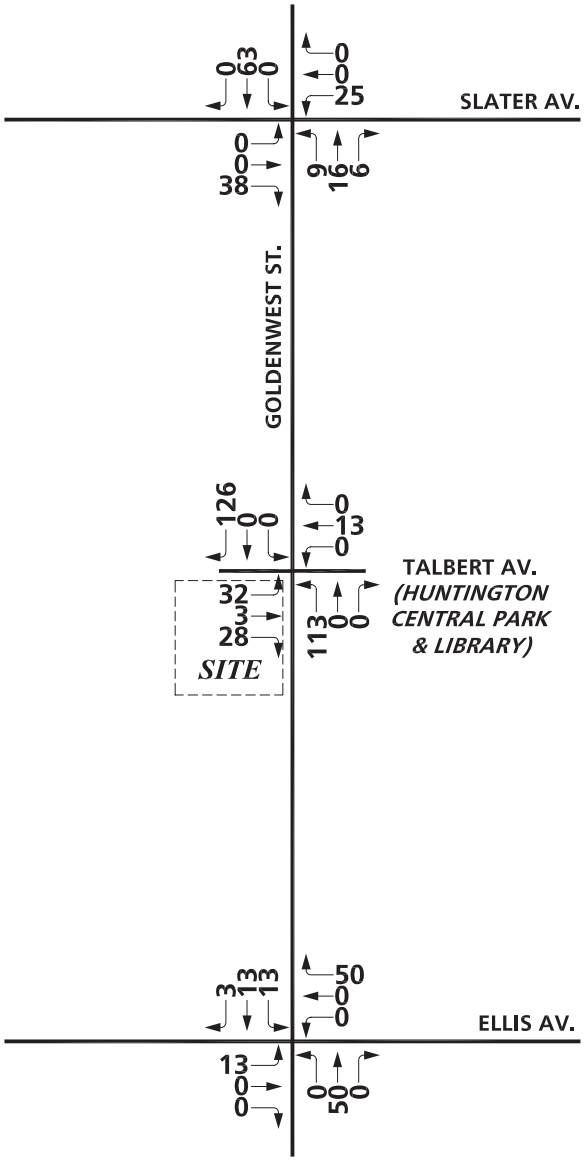
Intersection Level of Service - Weekday

Existing year intersection levels of service for with and without project weekday conditions are shown in Table 4.12-6 (Intersection Analysis for Existing Year [2007], With and Without Project Weekday Conditions). All study area intersections will experience acceptable levels of service with the existing lane configuration. Therefore, because the project does not contribute to the deficient traffic operations with a change in ICU of 0.01 or greater, the project would not be required to implement any traffic improvements at any intersection under the Weekday Existing Plus Project condition.

Existing year intersection levels of service for with and without project Saturday conditions are shown in Table 4.12-7 (Intersection Analysis for Existing Year [2007], With and Without Project Saturday Conditions). All study area intersections will experience acceptable levels of service with the existing lane configuration. Therefore, because the project does not contribute to the deficient traffic operations with a change in ICU of 0.01 or greater, the project would not be required to implement any traffic improvements at any intersection under the Saturday Existing Plus Project condition.

Near Term Conditions

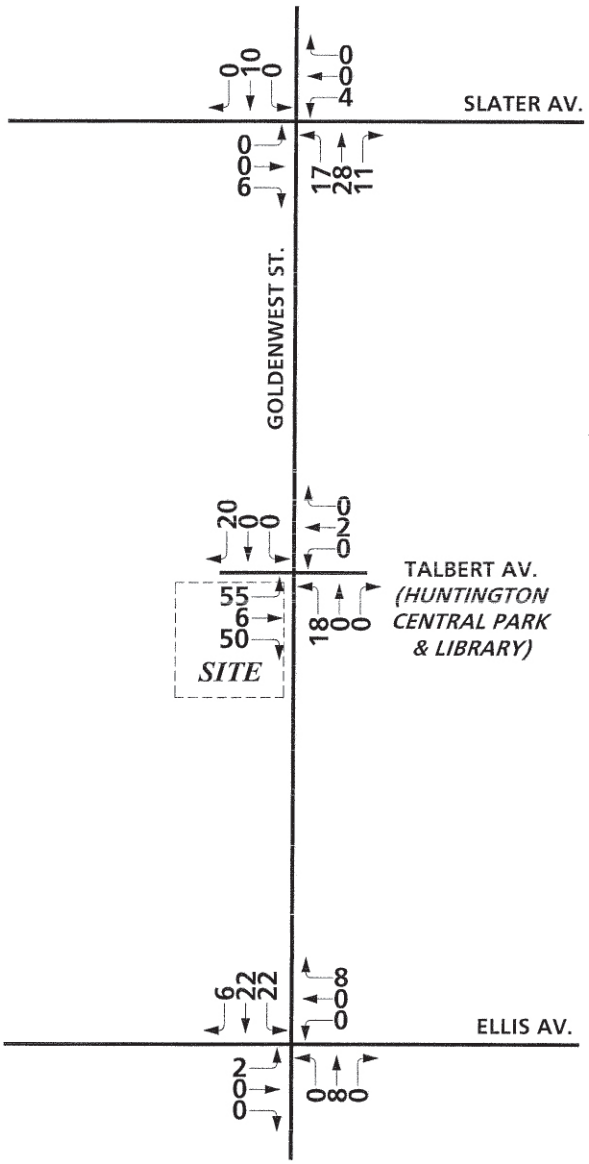
The near term analysis year for purposes of the traffic study is 2012. Due to the delay with the proposed project's approval as a result of the legal challenge and subsequent document preparation it is now understood that the senior center project would be occupied in 2015. However, based on discussions with city staff during preparation of this Subsequent EIR, it is understood that the traffic conditions in the vicinity of the project site have not changed substantially since the preparation of the traffic study for the proposed project (during preparation of the Draft EIR). Further, no significant or new information has been made available regarding traffic that would be necessary for inclusion in this Subsequent EIR.



***Source*:** Urban Crossroads, 2007.

Figure 4.12-10

Weekday Project Only AM Peak Hour Intersection Volumes

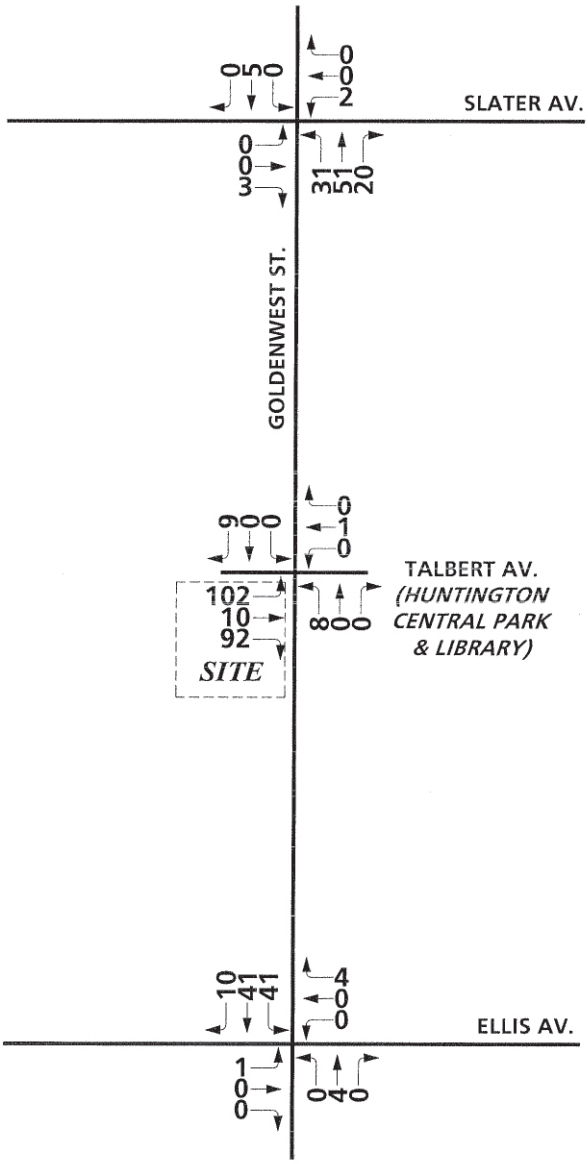


***Source*:** Urban Crossroads, 2007.

NORTH
NOT TO SCALE

Figure 4.12-11

Weekday Project Only PM Peak Hour Intersection Volumes



NORTH
NOT TO SCALE

***Source*:** Urban Crossroads, 2007.

Figure 4.12-12

Weekend Project Only Midday Peak Hour Intersection Volumes

Table 4.12-6 Intersection Analysis for Existing Year (2007), With and Without Project Weekday Conditions

Intersection Goldenwest St. (NS) at:	Traffic Control[c]	Intersection Approach Lanes[a]												Critical Vol/Capacity[b]		Level of Service	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
With Project Conditions																	
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.829	0.839	D	D
Talbert Avenue (EW)	TS	1	3	1	1	3	0	1	1	0	1	1	1	0.458	0.538	A	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	1	1	0.446	0.556	A	A
Without Project Conditions																	
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.804	0.830	D	D
Talbert Avenue (EW)	TS	0	3	1	1	3	0	0	0	0	2	0	1	0.322	0.453	A	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	1	1	0.397	0.539	A	A

SOURCE: Urban Crossroads, *Huntington Beach Senior Center Project, Traffic Impact Analysis, City of Huntington Beach, California* (September 12, 2007).

a. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside through lanes.

L = Left, T = Through, R = Right. 1 = Improvement, > = Right Turn Overlap Phase, >> = Free Right Turn

b. Critical volume/capacity ratio and level of service are calculated using the following analysis software: Traffix, Version 7.8 R5 (2007). Per the City of Huntington Beach standard, critical volume/capacity ratio and level of service are determined using the Intersection Capacity Utilization method for intersections with traffic signal control

c. TS = Traffic Signal

Table 4.12-7 Intersection Analysis for Interim Year (2007), With and Without Project Weekend Conditions

Intersection Goldenwest St. (NS) at:	Traffic Control[c]	Intersection Approach Lanes[a]												Critical Vol/Capacity[b]	Level of Service
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Saturday	Saturday
With Project Conditions															
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.577	A
Talbert Avenue (EW)	TS	0	3	1	1	3	0	0	0	0	2	0	1	0.466	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	1	1	0.413	A
Without Project Conditions															
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.561	A
Talbert Avenue (EW)	TS	0	3	1	1	3	0	0	0	0	2	0	1	0.352	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	1	1	0.386	A

SOURCE: Urban Crossroads, *Huntington Beach Senior Center Project, Traffic Impact Analysis, City of Huntington Beach, California* (September 12, 2007).

a. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside through lanes.

L = Left, T = Through, R = Right. **1** = Improvement, > = Right Turn Overlap Phase, >> = Free Right Turn

b. Critical volume/capacity ratio and level of service are calculated using the following analysis software: Traffix, Version 7.8 R5 (2007). Per the City of Huntington Beach standard, critical volume/capacity ratio and level of service are determined using the Intersection Capacity Utilization method for intersections with traffic signal control

c. TS = Traffic Signal

As such, the traffic analysis continues to be relevant and valid for the near term conditions and traffic study update is not required as part of this Subsequent EIR. The near term roadway network assumptions are based on existing conditions. For without project conditions, the site continues to be vacant.

Future Traffic Volumes

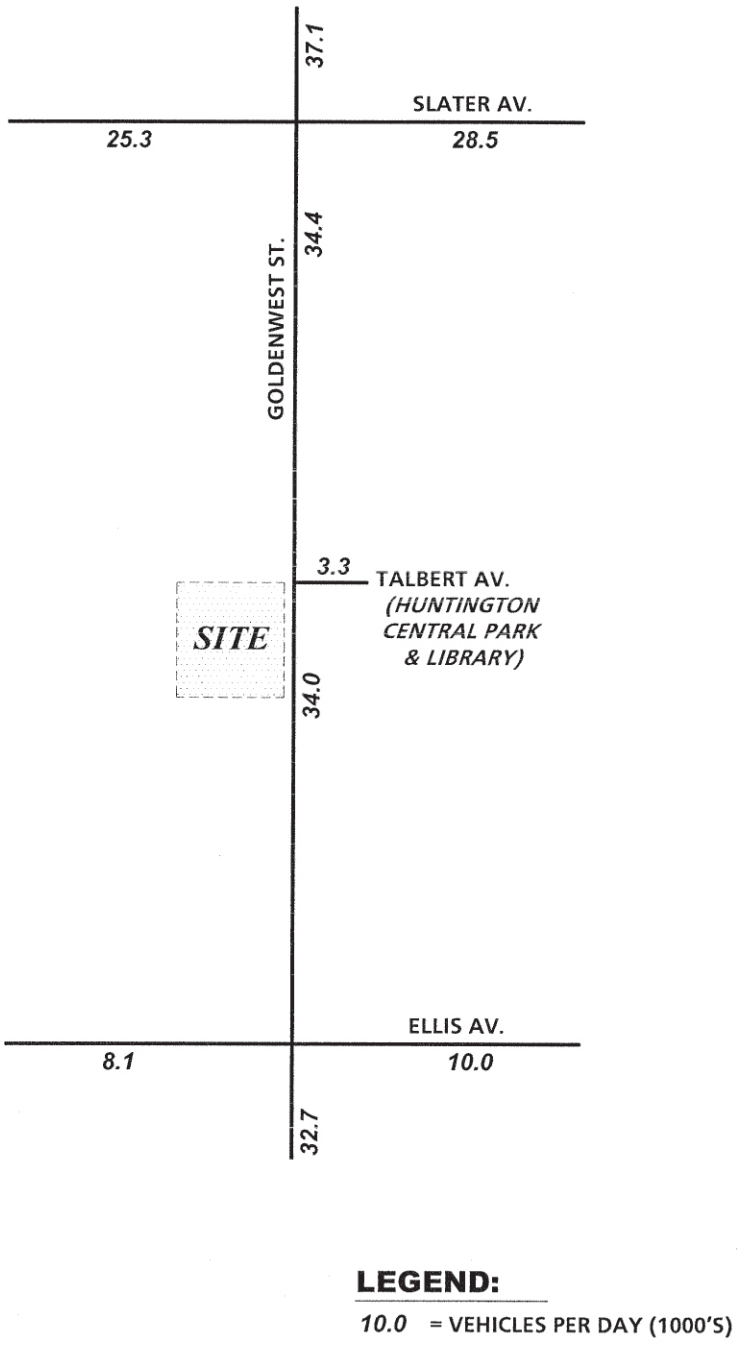
Near term forecasts have been developed from existing daily traffic volumes. Ambient growth at a rate of 2 percent has been added to existing volumes. Other development growth is negligible (i.e., the ambient growth rate include the minimal amount of other development traffic in the study area), and other development identified by the City were too small or too far away to significantly impact the study area.

Near term without project daily traffic volumes are shown on Figure 4.12-13 (Weekday Interim Year without Project Average Daily Traffic [ADT]) and Figure 4.12-14 (Weekend Interim Year without Project Average Daily Traffic [ADT]) for weekday and weekend conditions, respectively. The highest study area volumes occur on Goldenwest Street, north of Slater Avenue. AM and PM peak hour (weekday) intersection volumes are shown on Figure 4.12-15 (Weekday Near Term [2012] without Project AM Peak Hour Intersection Volumes) and Figure 4.12-16 (Weekday Near Term [2012] without Project PM Peak Hour Intersection Volumes), respectively. Midday weekend intersection volumes are shown on Figure 4.12-17 (Weekend Near Term [2012] without Project Midday Peak Hour Intersection Volumes).

For near term with project conditions, the resulting daily traffic volumes are included in Figure 4.12-18 (Weekday Interim Year with Project Average Daily Traffic [ADT]) and Figure 4.12-19 (Weekend Interim Year with Project Average Daily Traffic [ADT]) for weekday and weekend conditions, respectively. AM and PM peak hour (weekday) intersection volumes are shown on Figure 4.12-20 (Weekday Near Term [2012] with Project AM Peak Hour Intersection Volumes) and Figure 4.12-21 (Weekday Near Term [2012] with Project PM Peak Hour Intersection Volumes), respectively. Midday weekday intersection volumes are shown on Figure 4.12-22 (Weekday Near Term [2012] with Project PM Midday Peak Hour Intersection Volumes).

Intersection Level of Service

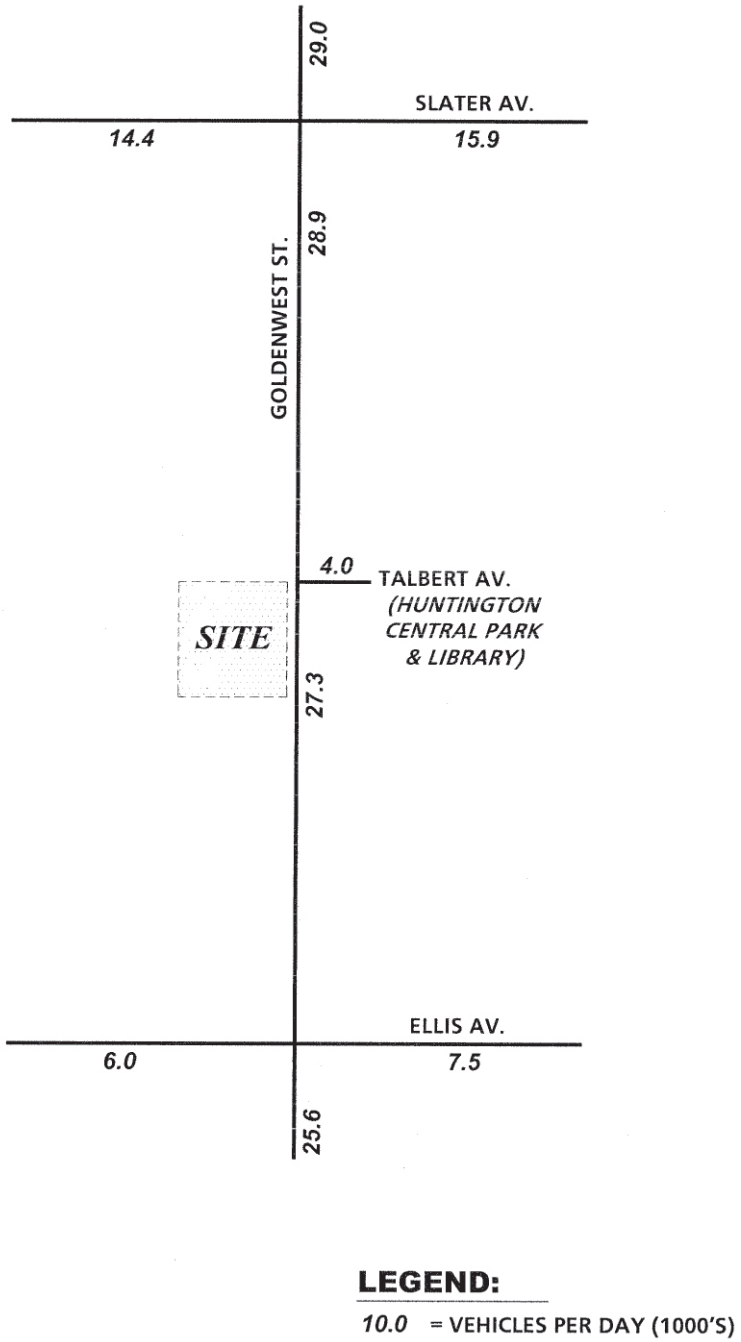
Near term intersection levels of service for with and without project weekday conditions are shown in Table 4.12-8 (Intersection Analysis for Interim Year [2012], With and Without Project Weekday Conditions). All study area intersections except Goldenwest Street at Slater Avenue will experience acceptable levels of service with the existing lane configuration. Although the intersection of Goldenwest Street at Slater Avenue will operate at LOS E conditions during the PM peak hour, this condition will occur even without the proposed project. Therefore, because the project does not contribute to the deficient traffic operations with a change in ICU of 0.01 or greater, the project would not be required to implement any traffic improvements at this intersection.



***Source*:** Urban Crossroads, 2007.

Figure 4.12-13

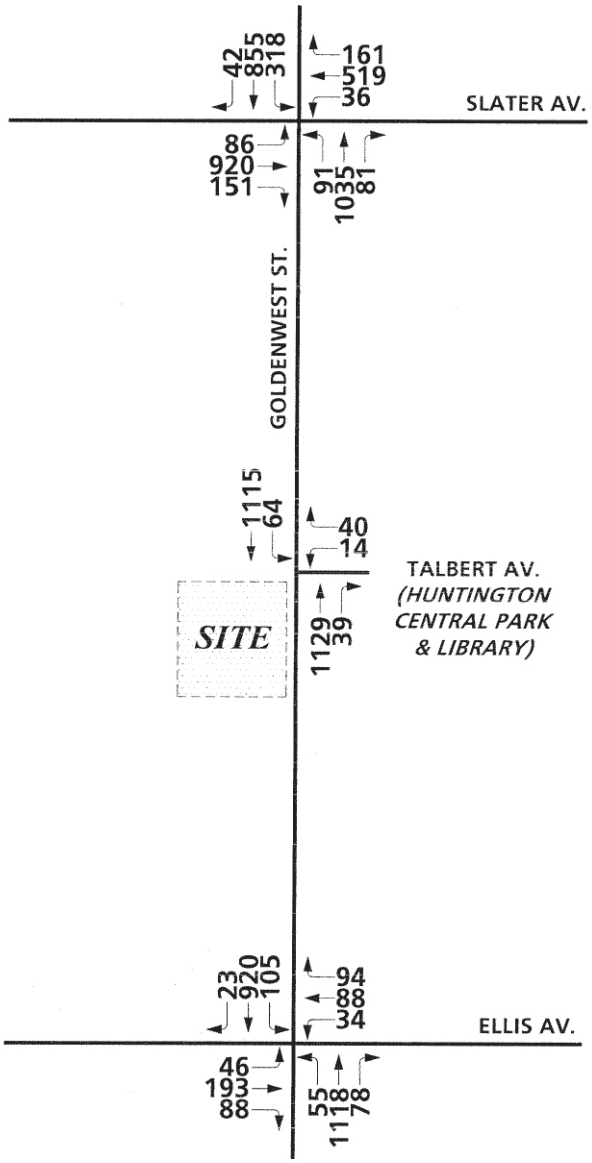
Weekday Interim Year without Project Average Daily Traffic (ADT)



***Source*:** Urban Crossroads, 2007.

Figure 4.12-14

Weekend Interim Year without Project Average Daily Traffic (ADT)

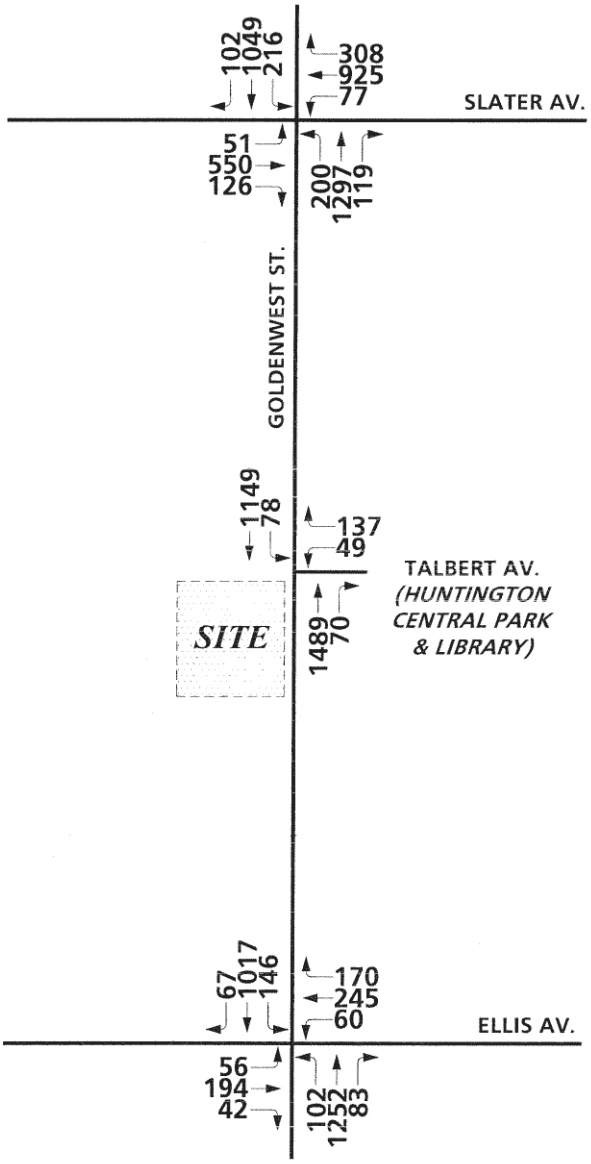


***Source*:** Urban Crossroads, 2007.

NORTH
NOT TO SCALE

Figure 4.12-15

Weekday Near Term (2012) without Project AM Peak Hour Intersection Volumes

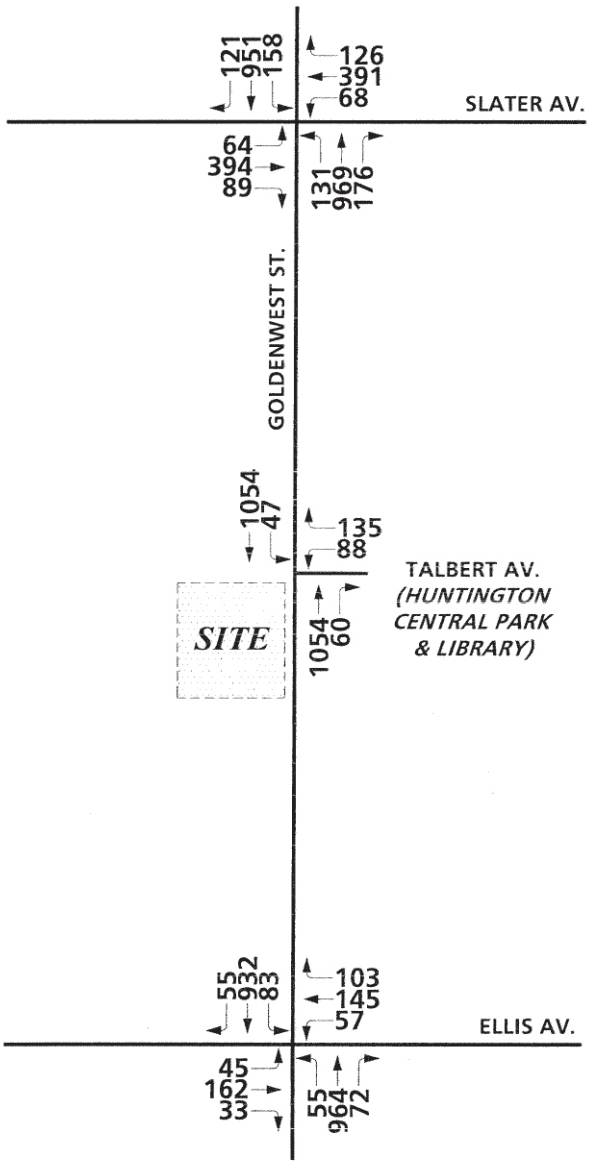


NORTH
NOT TO SCALE

***Source*:** Urban Crossroads, 2007.

Figure 4.12-16

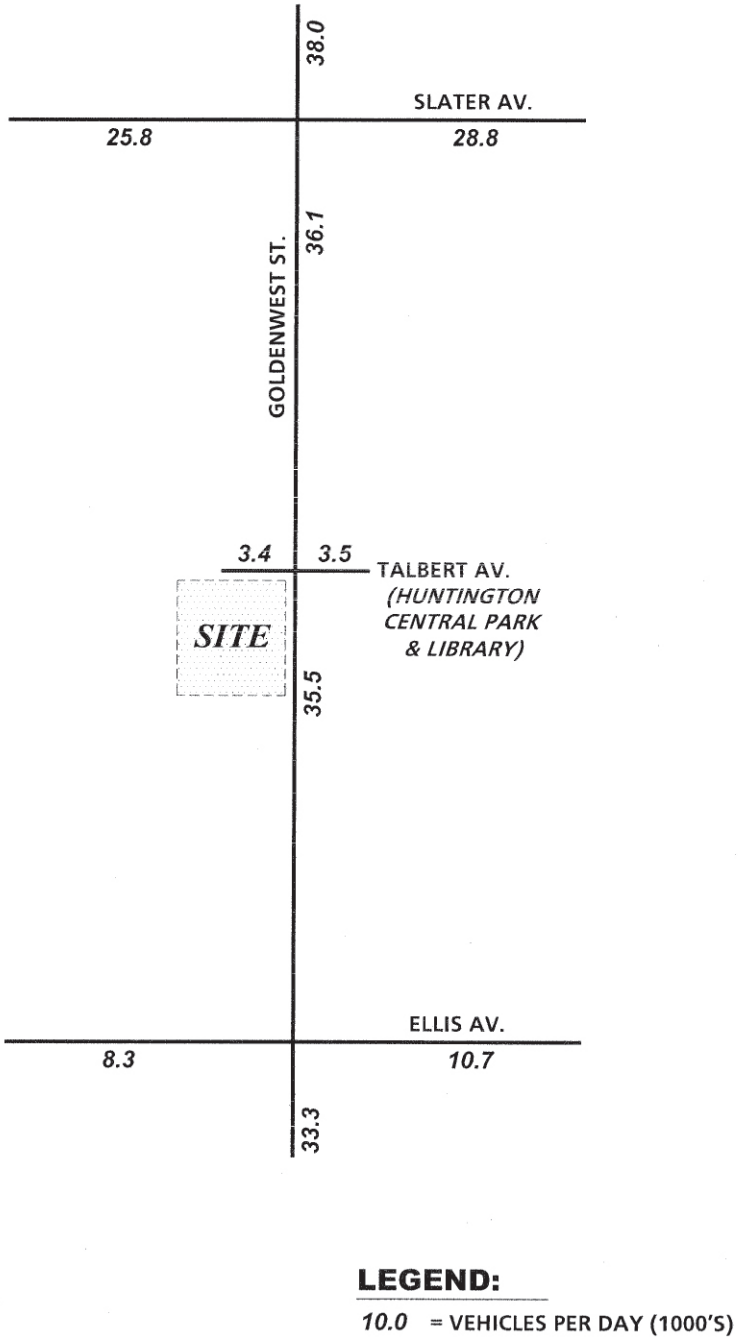
Weekday Near Term (2012) without Project PM Peak Hour Intersection Volumes



***Source*:** Urban Crossroads, 2007.

Figure 4.12-17

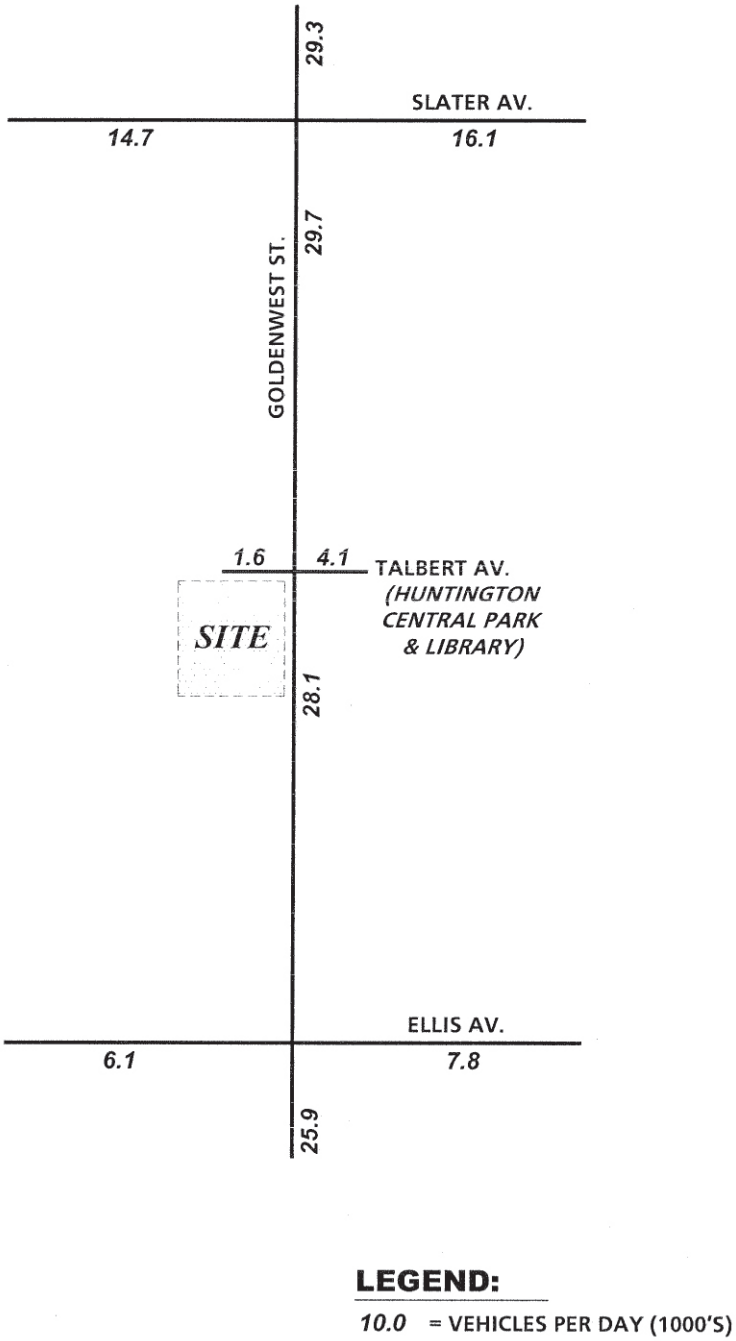
Weekend Near Term (2012) without Project Midday Peak Hour Intersection Volumes



***Source*:** Urban Crossroads, 2007.

Figure 4.12-18

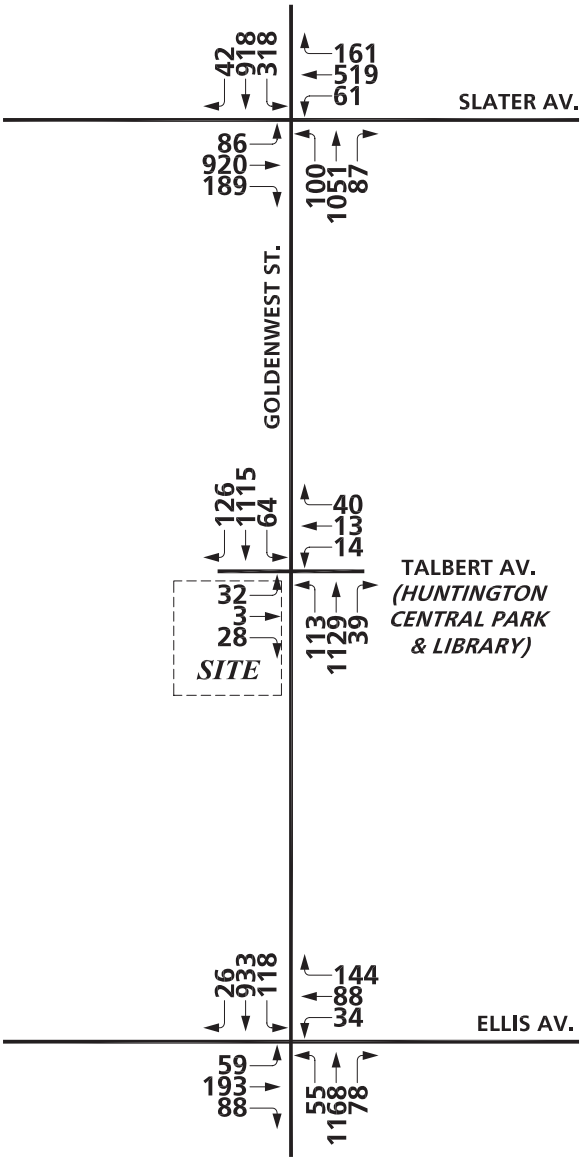
Weekday Interim Year with Project Average Daily Traffic (ADT)



***Source*:** Urban Crossroads, 2007.

Figure 4.12-19

Weekend Interim Year with Project Average Daily Traffic (ADT)



NORTH
NOT TO SCALE

***Source*:** Urban Crossroads, 2007.

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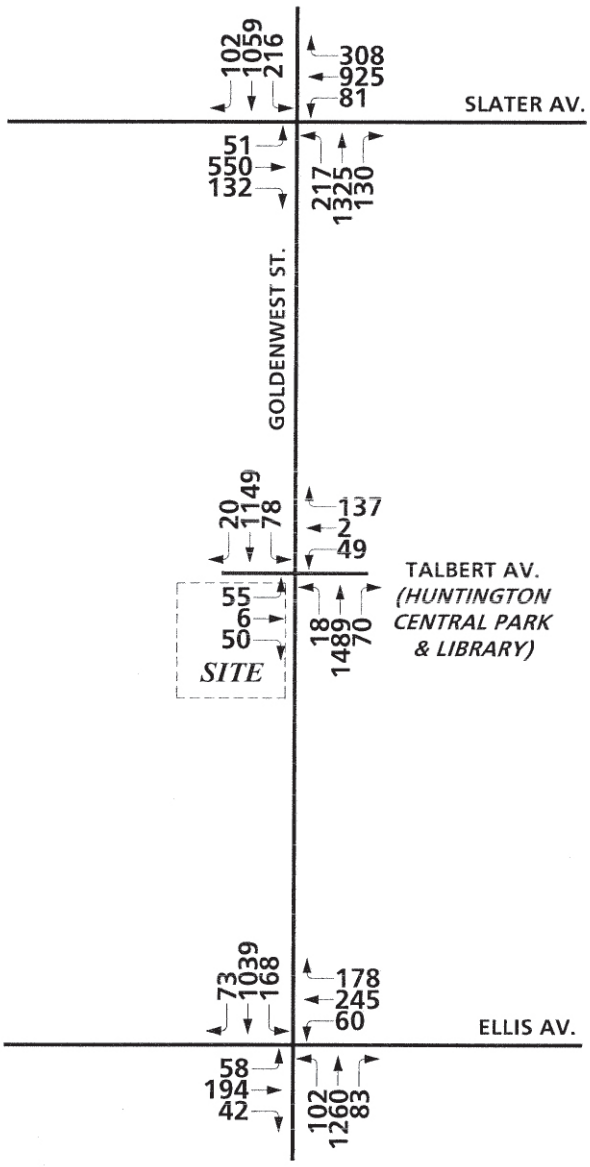
Figure 4.12-20

Weekday Near Term (2012) with Project AM Peak Hour Intersection Volumes

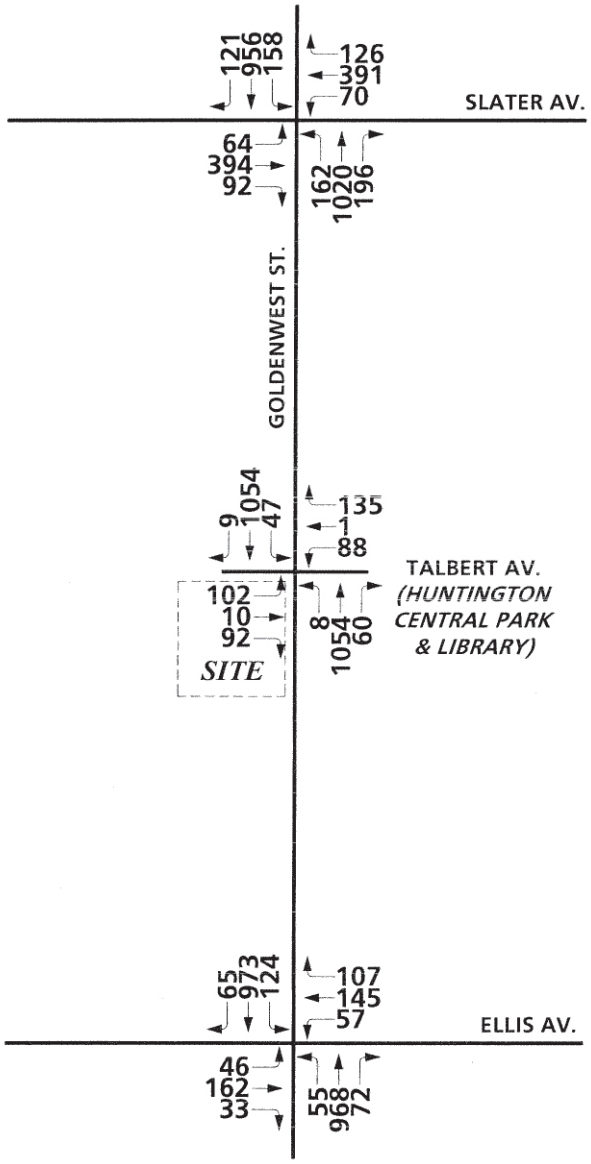
ATKINS



***Source*:** URBAN Crossroads, 2007.

Figure 4.12-21

Weekday Near Term (2012) with Project PM Peak Hour Intersection Volumes



NORTH
NOT TO SCALE

***Source*:** Urban Crossroads, 2007.

Figure 4.12-22

Weekend Near Term (2012) with Project Midday Peak Hour Intersection Volumes

Table 4.12-8 Intersection Analysis for Interim Year (2012), With and Without Project Weekday Conditions

Intersection Goldenwest St. (NS) at:	Traffic Control[c]	Intersection Approach Lanes[a]												Critical Vol/Capacity[b]		Level of Service	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
With Project Conditions																	
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.903	0.920	D	E
—with Improvements	TS	1	3	0	1	3	1	1	2	1	1	2	1	0.811	0.809	D	C
Talbert Avenue (EW)	TS	1	3	1	1	3	0	1	1	0	1	1	1	0.486	0.580	A	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	1	1	0.482	0.607	A	B
Without Project Conditions																	
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.882	0.912	D	E
—with improvements	TS	1	3	0	1	3	1	1	2	1	1	2	1	0.791	0.801	C	C
Talbert Avenue (EW)	TS	0	3	1	1	3	0	0	0	0	2	0	1	0.350	0.495	A	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	1	1	0.433	0.590	A	A

SOURCE: Urban Crossroads, *Huntington Beach Senior Center Project, Traffic Impact Analysis, City of Huntington Beach, California* (September 12, 2007).

a. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside through lanes.

L = Left, T = Through, R = Right. 1 = Improvement, > = Right Turn Overlap Phase, >> = Free Right Turn

b. Critical volume/capacity ratio and level of service are calculated using the following analysis software: Traffix, Version 7.8 R5 (2007). Per the City of Huntington Beach standard, critical volume/capacity ratio and level of service are determined using the Intersection Capacity Utilization method for intersections with traffic signal control

c. TS = Traffic Signal

Near term intersection levels of service for with and without project weekend conditions are shown in Table 4.12-9 (Intersection Analysis for Interim Year [2012], With and Without Project Weekend Conditions). All intersections operate acceptably for weekend conditions (for both with and without project conditions).

A project impact is defined as a change in ICU of 0.01 or greater, where deficient traffic operations are projected to occur. The project causes an increase of 0.021 (0.882 to 0.903) during the weekday AM peak hour, and an increase of 0.008 (0.912 to 0.920) during the weekday PM peak hour. The project therefore does not result in any potentially significant impacts.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2011 CEQA Guidelines. For the purposes of this EIR, implementation of the proposed project may result in a potentially significant impact if the proposed project would cause either of the following results:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation 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

Table 4.12-9 Intersection Analysis for Interim Year (2012), With and Without Project Weekend Conditions

Intersection Goldenwest St. (NS) at:	Traffic Control[c]	Intersection Approach Lanes[a]												Critical Vol/Capacity[b]	Level of Service
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Saturday	Saturday
With Project Conditions															
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.630	B
—with improvements	TS	1	**3**	0	1	3	1	1	2	1	1	2	1	0.564	A
Talbert Avenue (EW)	TS	1	3	1	1	3	0	1	1	0	1	1	1	0.497	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	1	1	0.448	A
Without Project Conditions															
Slater Avenue (EW)	TS	1	2	1	1	3	1	1	2	1	1	2	1	0.614	B
—with improvements	TS	1	**3**	0	1	3	1	1	2	1	1	2	1	0.549	A
Talbert Avenue (EW)	TS	0	3	1	1	3	0	0	0	0	2	0	1	0.384	A
Ellis Avenue (EW)	TS	1	3	1	1	3	1	1	2	1	1	2	1	0.421	A

SOURCE: Urban Crossroads, *Huntington Beach Senior Center Project, Traffic Impact Analysis, City of Huntington Beach, California* (September 12, 2007).

a. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside through lanes.

L = Left, T = Through, R = Right. **1** = Improvement, > = Right Turn Overlap Phase, >> = Free Right Turn

b. Critical volume/capacity ratio and level of service are calculated using the following analysis software: Traffix, Version 7.8 R5 (2007). Per the City of Huntington Beach standard, critical volume/capacity ratio and level of service are determined using the Intersection Capacity Utilization method for intersections with traffic signal control

c. TS = Traffic Signal

- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in locations that results in substantial safety risks
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

For the purposes of this analysis, an acceptable level of service (LOS) is LOS D as defined by City of Huntington Beach Traffic Study Guidelines (1996). Therefore, any intersection operating at LOS E or F is considered deficient/unsatisfactory. In addition, an intersection is also considered impacted if the LOS is E or F and the ICU value changes by 0.01 or more.

Effects Not Found to Be Significant

Threshold	Would the proposed project result in a change in air traffic patterns, including either an increase in traffic levels or a change in locations that results in substantial safety risks?

The project site is not located within 2 miles of a public or private airstrip and does not propose any structures of substantial height to interfere with existing airspace or flight patterns. No impact would occur, and no further analysis of this issue is required.

Threshold	Would the proposed project result in inadequate emergency access?

Emergency access to the site would be provided from the proposed main access point at Goldenwest Street and Talbert Avenue. The on-site roadway infrastructure would be designed to assist emergency access. Emergency access to and within the project site would be designed to meet City of Huntington Beach Police Department and City of Huntington Beach Fire Department requirements, as well as the City's general emergency access requirements. No impact would occur, and no further analysis of this issue is required.

Project Impacts and Mitigation

Threshold	Would the proposed project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation 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

Impact 4.12-1 **Construction of the proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. This impact is considered *less than significant*.**

Construction of the proposed project is anticipated to occur over approximately 18 months beginning in 2012. Grading is expected to generally consist of minor cut and fill operations to a depth of approximately 10 feet. After grading activities are completed, construction of wet and dry utilities would commence, and construction of curbs and gutters would follow. Construction of the senior center, open space, and parking areas would occur in one phase. It is anticipated that construction would be completed in 2014; however, full project occupancy is anticipated to occur by 2015.

It is not anticipated that construction activities would result in impacts to the performance of the existing circulation system as only minor cut and fill would occur, and thus minimal truck trips would be associated with soil import/export activities. Additionally, construction worker traffic generally occurs prior to the peak period, consistent with the typical construction work day of 7:00 AM to 3:00 PM. Further, Goldenwest Street, the project frontage street, is a designated truck route in the City General Plan Circulation Element (Figure CE-7) and provides direct access to I-405 to the north and Pacific Coast Highway to the south. Additionally, Talbert Avenue east of Gothard Street is also a designated

truck route. As such, truck trips associated with construction of the proposed project would utilize designated truck routes and would be able to access state highway facilities without utilizing surrounding arterial streets Therefore, construction activities would not result in conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, and construction-related traffic impacts would be ***less than significant***. No mitigation is required.

Impact 4.12-2 **Under Existing Plus Project conditions, implementation of the proposed project would not conflict with the City's acceptable LOS standard of D or better identified in Policy CE 2.1.1 of the General Plan for the performance of the project area roadway system. This impact is considered *less than significant*.**

A project impact is defined as a change in ICU of 0.01 or greater, where deficient traffic operations are projected to occur (i.e., LOS E or F). As illustrated in Table 4.12-6 and Table 4.12-7, the project would not result in a change in ICU of 0.01 or greater at any of the project intersections in either the AM or PM peak hour or during weekend conditions. As shown in Table 4.12-6 and Table 4.12-7, all study area roadways would operate at acceptable levels of service during the AM and PM peak hours. Thus, because the project would not contribute to the deficient traffic operations with a change in ICU of 0.01 or greater, and the project would not contribute to the existing performance of the project area roadway system, this is considered a ***less than significant*** impact. No mitigation would be required.

Impact 4.12-3 **Under near term conditions, implementation of the proposed project would not conflict with the City's acceptable LOS standard of D or better identified in Policy CE 2.1.1 of the General Plan for the performance of the project area roadway system. This impact is considered *less than significant*.**

As shown in Table 4.12-5, the proposed senior center is projected to generate a total of approximately 3,395 average daily trips (ADT) on a typical weekday. In the AM peak hour the project is projected to generate approximately 315 trips, while PM peak hour trip generation is estimated to be approximately 150 trips. On a typical Saturday, the project is projected to generate a total of 1,577 ADT, with 222 trips during the midday hour.

A project impact is defined as a change in ICU of 0.01 or greater, where deficient traffic operations are projected to occur (i.e., LOS E or F). As illustrated in Table 4.12-8 and Table 4.12-9, the project would not result in a change in ICU of 0.01 or greater at any of the project intersections where deficient traffic operations are projected to occur, in either the AM or PM peak hour or during weekend conditions. As shown in Table 4.12-8, the intersection of Goldenwest Street (NS) and Slater Avenue (EW) is anticipated to operate at LOS E conditions during the PM peak hour; however, this condition would occur even without the proposed project. Thus, because the project would not contribute to the deficient traffic operations with a change in ICU of 0.01 or greater, and the project would not contribute to the existing performance of the project area roadway system, this is considered a ***less than significant*** impact. No mitigation would be required.

Threshold	Would the proposed project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways.?

Impact 4.12-4 **Implementation of the proposed project would not 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. This would be a *less than significant* impact.**

The Orange County Transportation Authority is designated as the Congestion Management Agency (CMA) to oversee the Orange County CMP. The CMP requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System (HS). Per the CMP guidelines, this number is based on the desire to analyze any impacts that will be three percent or more of the existing CMP highway system facilities' capacity. The CMPHS includes specific roadways, which include State Highways and Smart Streets (formerly Super Streets), and CMP arterial monitoring locations/intersections. Therefore, the CMP traffic impact analysis (TIA) requirements relate to the potential impacts only on the specified CMPHS.

Implementation of the proposed project would include a GPA to re-designate the use of the project site from low intensity to high intensity, to accommodate the development of the proposed senior center on the project site. Implementation of the proposed GPA would result in a departure from the anticipated low-intensity, passive recreational uses and instead would result in a high-intensity use on the site. Under both designations, the existing undeveloped conditions of the project site would not remain. While the GPA itself would not result in direct physical environmental impacts to traffic or transportation, development of the senior center would result in physical changes to the project site, the effects of which are analyzed below.

As discussed above, the GPA itself would not generate any new vehicle trips; however, the proposed multi-purpose senior center is anticipated to generate approximately 3,395 trips per weekday and 1,577 trips per weekend. These generated trips from the proposed project would appear to trigger the requirement of a CMP TIA. However, the next step in the CMP analysis is to determine whether or not the project has the potential to impact any CMP facilities with an increase of 3 percent or more. As the proposed project would not result in an increase in ICU of 0.01 or greater at any study area intersection, any increase in traffic volumes resulting from the project are expected to dissipate prior to interaction with CMP intersections and would not result in an increase of three percent or more on CMP facilities capacity. Consequently, this impact would be ***less than significant***.

Threshold	Would the proposed project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact 4.12-5 The project would not substantially increase roadway hazards. This would be a *less than significant* impact.

For the purposes of this analysis, hazards are defined as changes to circulation patterns that could result in unsafe driving or pedestrian conditions. Examples include inadequate vision or stopping distance, sharp roadway curves where there is an inability to see oncoming traffic, or vehicular/pedestrian traffic conflicts. This situation is made more sensitive by the nature of the proposed use, a senior center, which will increase the number of elderly and potentially infirmed drivers in the area. The location of the senior center at the edge of the park provides an opportunity to incorporate the senior center use among other recreational uses. Design considerations have been identified for this environment where there are recreationists, pedestrians, and seniors, as well as substantial existing traffic volumes.

Safety and Driver Behavior

The driving behavior of an aging population has become a topic of increased visibility as the generation commonly known as "baby boomers" has begun to reach retirement age. Various organizations, including the American Association of Retired Persons (AARP), the Transportation Research Board (TRB), and the National Cooperative Highway Research Program (NCHRP) have published information on this topic in recent years.

In general, drivers' physical and mental skills diminish as the aging process occurs. A statistical correlation has been identified between accident rates and driver age, with both young (teenage) and older (over 70) drivers overrepresented in the accident statistics. Various practices can be implemented to reduce the potential for accidents involving older drivers. Recommended measures include increased letter sizes on signs to enhance legibility, as well as increased signal clearance intervals to accommodate reduced reaction and decision times on the part of older drivers.

Pedestrian Needs

Typical traffic signals are timed using a pedestrian walking speed of 4 feet per second (fps). In areas with a high concentration of senior citizens, a slower pedestrian walking speed (e.g., 2.8 fps) is recommended. Table 4.12-10 (Pedestrian Crossing Time Evaluation) shows the increase in loss time necessary to accommodate pedestrian activity, if such traffic signal timing were implemented for the proposed project. The minimum green time for pedestrians to cross Goldenwest Street at this walking speed is 44 seconds.

The senior center would need to comply with the current regulations related to the Americans with Disabilities Act (ADA). Examples of key guidelines include detectable warnings for pedestrians entering traffic where there is no curb, a clear zone of 48" for the pedestrian travelway, a vibration-free zone for pedestrians, among other things.

Table 4.12-10 Pedestrian Crossing Time Evaluation

Goldenwest Street Width (Curb-to-Curb)	104	Feet
Pedestrian Crossing Speed (Reduced)	2.8	Feet per Second
Required Crossing Time	37	Seconds
Initial Green Walk Time	7	Seconds
Total Required Time	***44***	***Seconds***
Assumed Cycle Length	120	Seconds
Percent of Cycle for Pedestrian Crossing	0.367	
Maximum Calculated ICU at Talbert Avenue	0.580	
ICU with Pedestrian All-Red Phase (Every Cycle)	0.947	
Resulting LOS (Pedestrians on Every Cycle)	"E"	
ICU with Pedestrian All-Red Phase (Every Other Cycle)	0.764	
Resulting LOS (Pedestrians on Every Other Cycle)	"C"	

SOURCE: Urban Crossroads, *Huntington Beach Senior Center Project, Traffic Impact Analysis, City of Huntington Beach, California* (September 12, 2007).

Atypical Design Features

Exiting the project site could result in potentially significant impacts related to vehicle safety. In order to address safety concerns related to exiting the project site, mitigation measures have been identified that would eliminate this potentially unsafe movement. These measures would also address the potential sight distance issue related to the uphill grade for southbound traffic on Goldenwest Street in this location. These mitigation measures would ensure that impacts remain less than significant.

MM4.12-4 *The intersection of Goldenwest Street at Talbert Avenue shall be modified to include the project driveway as the west leg, with appropriate corresponding signal modifications and intersection lane improvements. The City Transportation Manager shall determine the ultimate signal modifications that are most appropriate for the project site. Design recommendations include, but are not limited to, the following:*

- *Split phase operations for east-west movements*
- *Adequate pedestrian green to accommodate a slower walk speed (e.g., 2.8 feet per second)*
- *Address design site distance*
- *Increased letter sizes on roadway signs*
- *Increased signal clearance intervals*

The potential for roadway hazards also occurs as an inherent result of the placement of an additional access along public roadways. New intersections require adequate sight distance and intersection traffic control, to minimize potential hazards. In order to ensure safe construction of project intersections, the following code requirements would be required:

CR4.12-4(a) *On-site traffic signing and striping shall be implemented in conjunction with detailed construction plans for the project site.*

CR4.12-4(b) *Sight distance at each project access shall be reviewed with respect to standard Caltrans and City of Huntington Beach sight distance standards at the time of preparation of final grading, landscape and street improvement plans.*

Implementation of mitigation measure MM4.12-4 and CR4.12-1(a) and CR4.12-1(b) would reduce potential impacts associated with roadway hazards to a ***less than significant*** level.

Threshold	Would the proposed project result in inadequate parking capacity?

Impact 4.12-6 Implementation of the proposed project would not result in inadequate parking capacity.

The City has not removed the parking analysis from City's environmental impact checklist with the updates to the CEQA Guidelines in 2011. As such, a discussion of the proposed project's parking capacity is provided. The City parking requirement for the proposed senior center use is determined on a case-by-case basis and is specified by the Conditional Use Permit. LPA, the consultant for the Senior Center Feasibility Study, has extensive experience designing and constructing senior centers and uses a standard of 4 to 5 spaces per 1,000 sf of building space. Based upon these criteria, the proposed 45,000 sf senior center would provide between 180 and 225 spaces. For purposes of this analysis, Table 4.12-11 (Parking Calculation) uses the more conservative requirement of 5 spaces per 1,000 sf with a totally parking requirement of 225 parking spaces.

Table 4.12-11 Parking Calculation

Parking Requirement	*Calculation*	*No. of Spaces Required*	*No. of Spaces Provided*
5 parking spaces per 1,000 sf*	(45,000 sf/1,000) x 5	225	227
Additional parking provided			
Shuttle bus parking			6
Future/Overflow Parking			24
		Total Provided	***257***

* Based upon consultation between City and LPA, Inc.

As shown in Table 4.12-11, the proposed project would provide 227 parking spaces in three main parking lots, meeting the assumed parking requirement of 225 parking spaces. Additionally, six shuttle bus stalls and an area for future parking expansion that would be able to accommodate an additional 24 spaces would also be provided. Therefore, the proposed project would provide adequate parking to serve the proposed senior center and this impact is considered ***less than significant***.

Threshold	Would the proposed project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Impact 4.12-7 **Implementation of the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This would be a *less than significant* impact.**

As discussed above, project implementation is anticipated to be consistent with local policies related to transportation, including the City of Huntington Beach General Plan Land Use and Circulation Elements.

As Goldenwest Street is elevated above the site, the proposed project would provide ADA ramp access from the site to the Talbert Street intersection, as well as from the OCTA bus stops located approximately 100 feet north and south of the intersection of Goldenwest Street and Talbert Avenue intersection. This would be in conformance with Policy CE 6.1.6, which requires new development to provide pedestrian walkways and bicycle routes between developments, schools, and public facilities. In addition, six shuttle bus stalls would be provided on site.

Due to project compatibility with adopted policies regarding alternative transportation, this impact would be ***less than significant***.

4.12.4 Cumulative Impacts

The cumulative analysis considers cumulative projects identified to occur within the vicinity of the project site, in addition to General Plan buildout conditions identified to year 2030. The project-specific traffic analysis considers trips generated by cumulative projects in its development of future baseline conditions. Therefore, the cumulative impact analysis is incorporated into the near term analysis presented in Section 4.12.3. As identified above, impacts would not be cumulatively considerable at study intersections.

4.12.5 References

Huntington Beach, City of. *Huntington Beach General Plan*, May 13, 1996.

Orange County Transportation Authority. Route 25 Route Map and Schedule, effective June 12, 2011. http://www.octa.net/pdf/pdf/june2011/route025.pdf (accessed August 4, 2011).

Urban Crossroads. *Huntington Beach Senior Center Project, Traffic Impact Analysis, City of Huntington Beach, California*, September 12, 2007.