

G2. Site Circulation Plan



KUNZMAN ASSOCIATES, INC.

NEWPORT CENTER VILLAS

CIRCULATION ANALYSIS

September 1, 2015



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NEWPORT CENTER ANACAPA ASSOCIATES, LLC
c/o Mr. Tod Ridgeway
2804 Lafayette Avenue
Newport Beach, CA 92663

Dear Mr. Ridgeway:

INTRODUCTION

The firm of Kunzman Associates, Inc. is pleased to provide this circulation analysis for the Newport Center Villas project in the City of Newport Beach. The 1.26 acre project site is located within the southwest corner of the Newport Center Drive to the north and Anacapa Drive intersection. The project location map is shown on Figure 1.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided within Appendix A.

DEVELOPMENT DESCRIPTION

The proposed project involves the demolition and removal of the existing 2,085 square foot single-story building that is operating as a car wash with ancillary gas station and asphalt/concrete parking area, preparation of the site for redevelopment, and the construction of one seven-story building with 49 condominium units, comprised of 10 residential townhomes, 35 residential flats (on levels 3 through 6), and 4 penthouses on level 7. Level 7 will also have a club room with an appointed kitchen allowing tenant catering, fitness room/spa, and a swimming pool.

MAIN DRIVEWAY ACCESS

The main driveway entry to Anacapa Drive shall have a porte-cochere (see Figure 2) and is approximately 26 feet wide at the property line and approximately 26 feet wide in front of the lobby entrance. The lobby shall have a concierge to provide services to residents such as U.S. mail delivery, package delivery, mailing, receiving food delivery, and meeting guests.

There shall be optional valet service for the residents and mandatory valet service for the guests at the Anacapa Drive main driveway entry. The valet service hours of operation will be set up by the Homeowners Association. It will likely operate 7 days a week and close from midnight to 6:00 AM.

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There shall be 24-hour concierge service at the front desk and guest keys can be retrieved from the front desk. Further, the concierge will direct guests to self-park between midnight and 6:00 AM. The guest parking spaces are accessed by the valet via a one-way internal ramp at the south end of the Anacapa Drive driveway and the parking spaces are at the B-1 level. Valet service shall return the vehicles to the front entry by exiting the parking structure driveway at the southerly property line to return to the main entry on Anacapa Drive. The valet service is illustrated on Figures 3 to 6.

RESIDENT DRIVEWAY ACCESS

The project is designed for three levels of parking below grade. Level B-1 would be partially at-grade on the southern edge to allow tenant access, moving van access, and general delivery. Each residential home will be provided with a private 2-vehicle subterranean garage within the parking structure. The residential driveway access is depicted on Figure 7.

DELIVERY DRIVEWAY ACCESS

The lobby shall have a concierge to provide services to residents such as U.S. mail delivery, package delivery, mailing, receiving food delivery, and meeting guests. The delivery driveway access is shown on Figure 8.

The move-in/out trucks are expected to temporarily park on the north side of the two-way drive aisle on the south side of the complex (see Figure 9). Adequate width shall be provided to allow vehicles to bypass the move-in/out trucks.

TRASH PICK-UP

The trash container storage and bins shall be located within the parking structure basement level in an area to be designed and engineered for odor control and for access for pick-up. Common trash bins provided shall be a minimum of 192 square feet for Trash and Recycling in accordance with Chapter 20.30.120 (Solid Waste and Recyclable Materials) of the NBMC. The trash bins will be brought by a scout truck from their regular storage areas in the parking structure basement levels to the southerly residential access drive for pick-up by regular trash trucks. Trash pick-up and staging shall not block vehicular access through the southerly access drive. Trash pick-up and loading is not permitted within the Anacapa Drive right-of-way.

CONCLUSIONS

A STOP sign should be installed to control outbound traffic on all site access driveways (see Figure 1).

With more than one driveway, good emergency access is assured because there are two ways of reaching any point within the site. Emergency access to the parking structure will be provided via the Anacapa Drive driveway. The emergency access has been vetted by the Fire Department.

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Landscape plantings and signs should be limited to 24 inches in height within 25 feet of the project driveways to assure good visibility. Sight distance at each project access shall comply with City of Newport Beach line of sight standard STD-110-L (see Appendix B). The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met.

As is the case for any roadway design, the City should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

It has been a pleasure to service your needs on this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 973-8383.

Sincerely,

KUNZMAN ASSOCIATES, INC.



Carl Ballard
Principal

#6225



KUNZMAN ASSOCIATES, INC.



William Kunzman, P.E.
Principal

**Figure 1
Project Location Map**

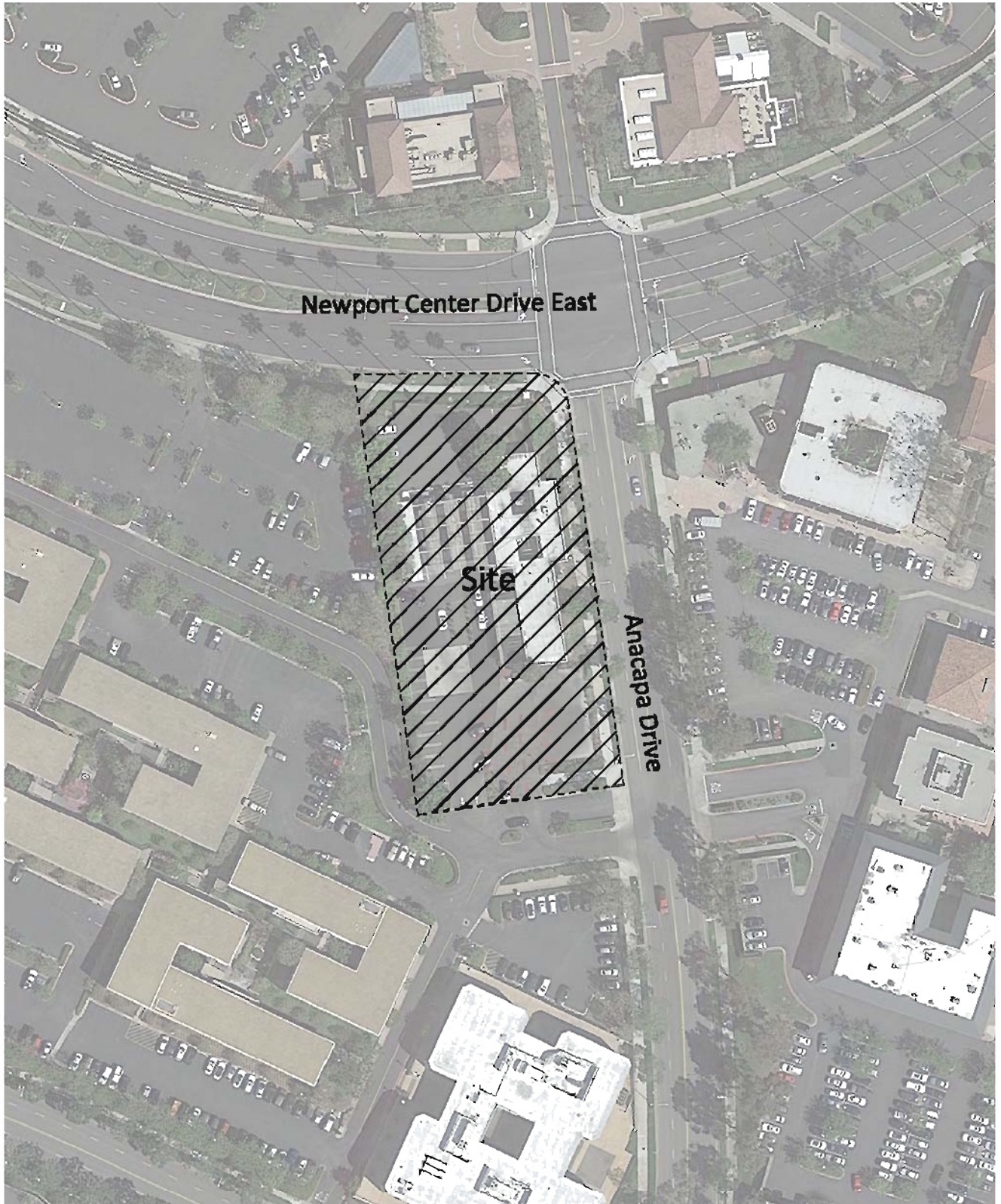


Figure 2
Site Plan

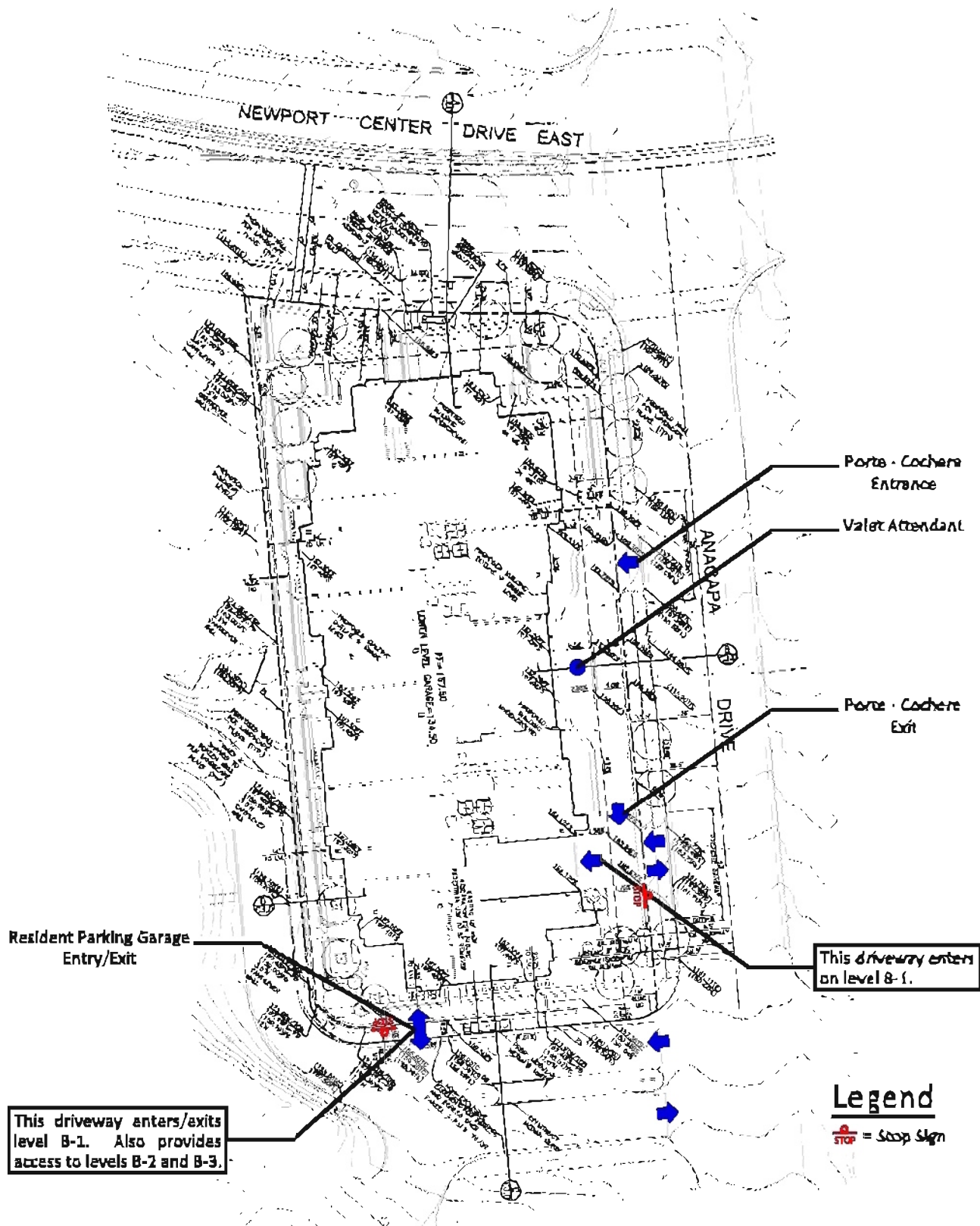
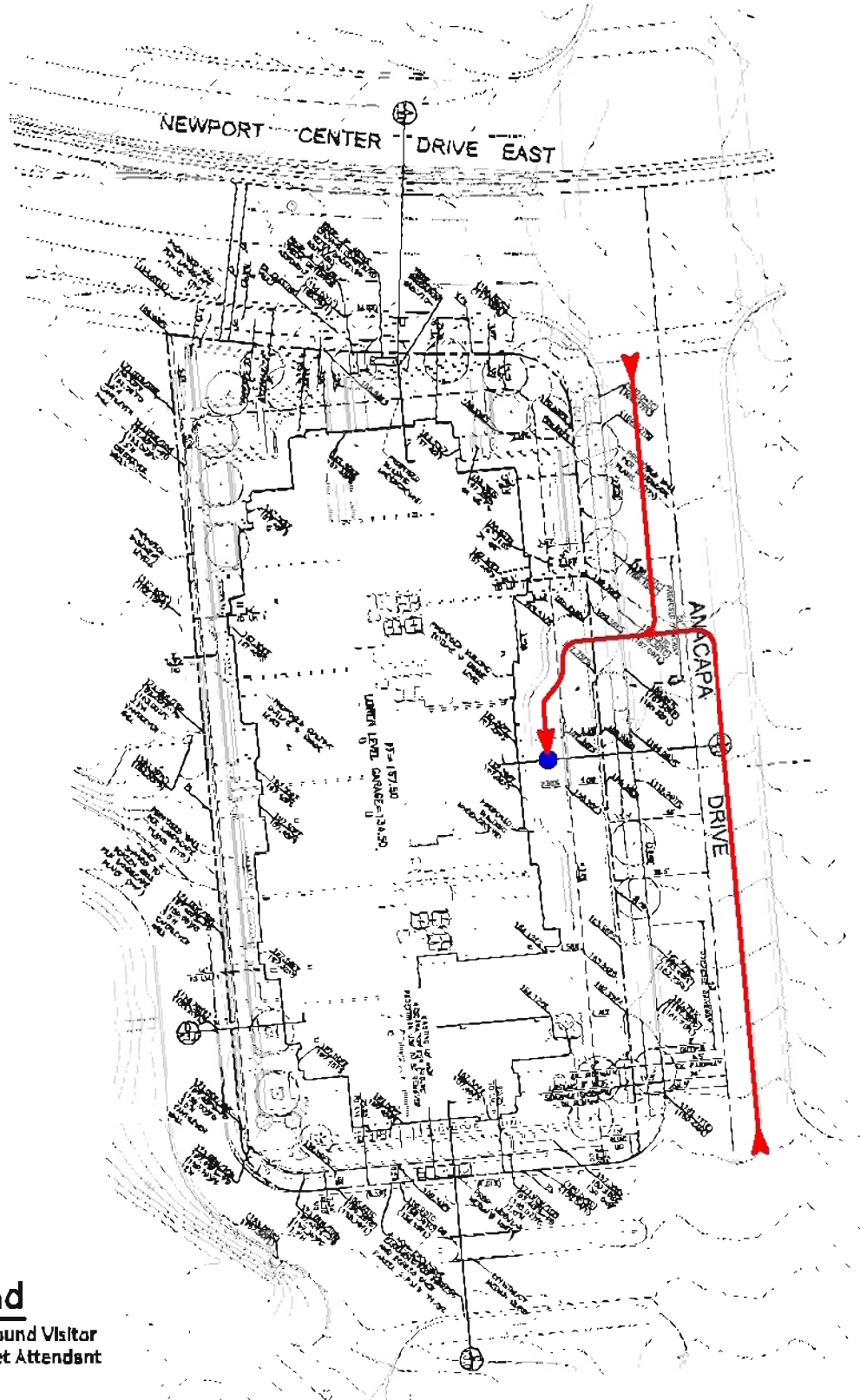


Figure 3
Visitor to Valet Drop-off Area

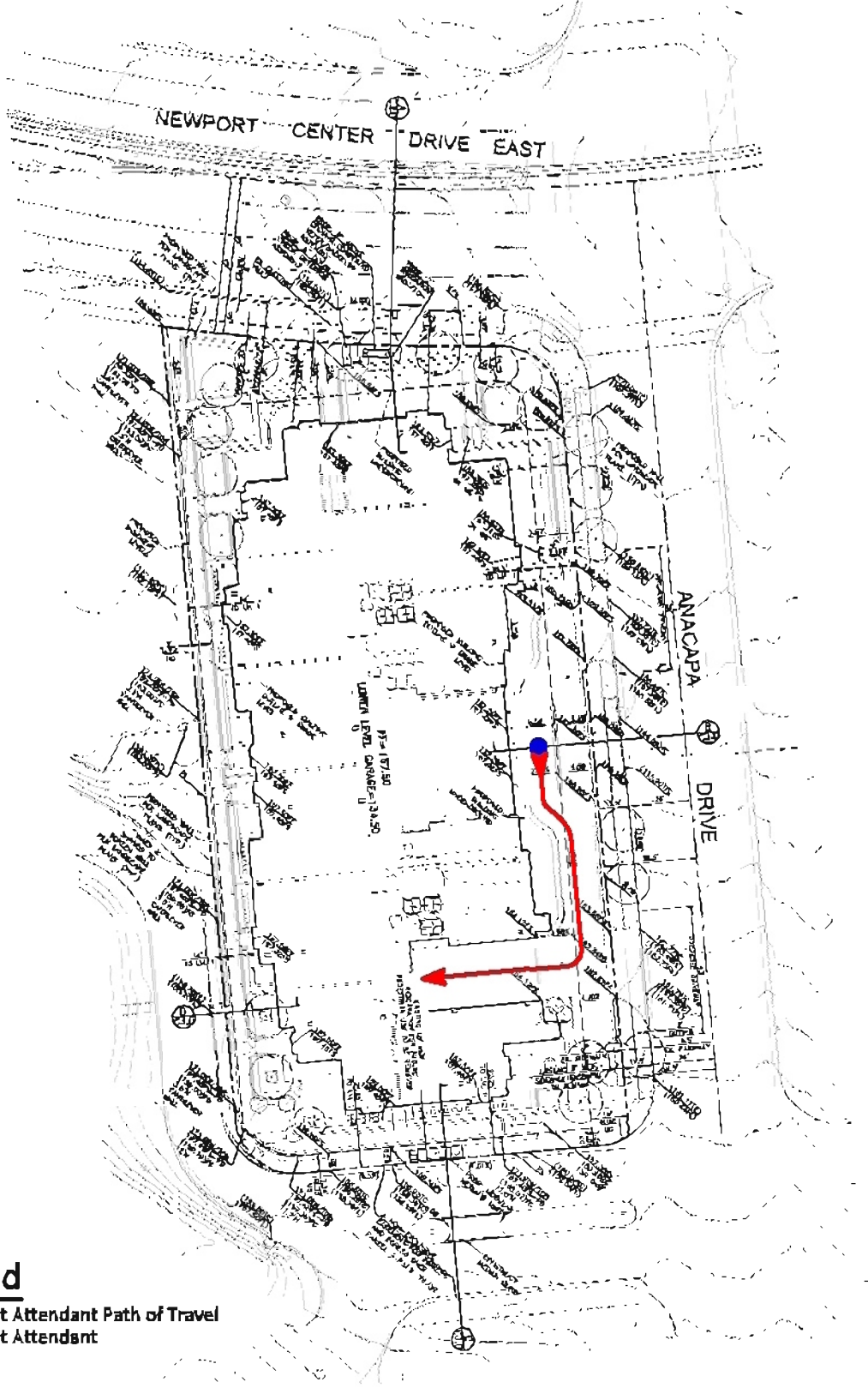


Legend

-  = Inbound Visitor
-  = Valet Attendant



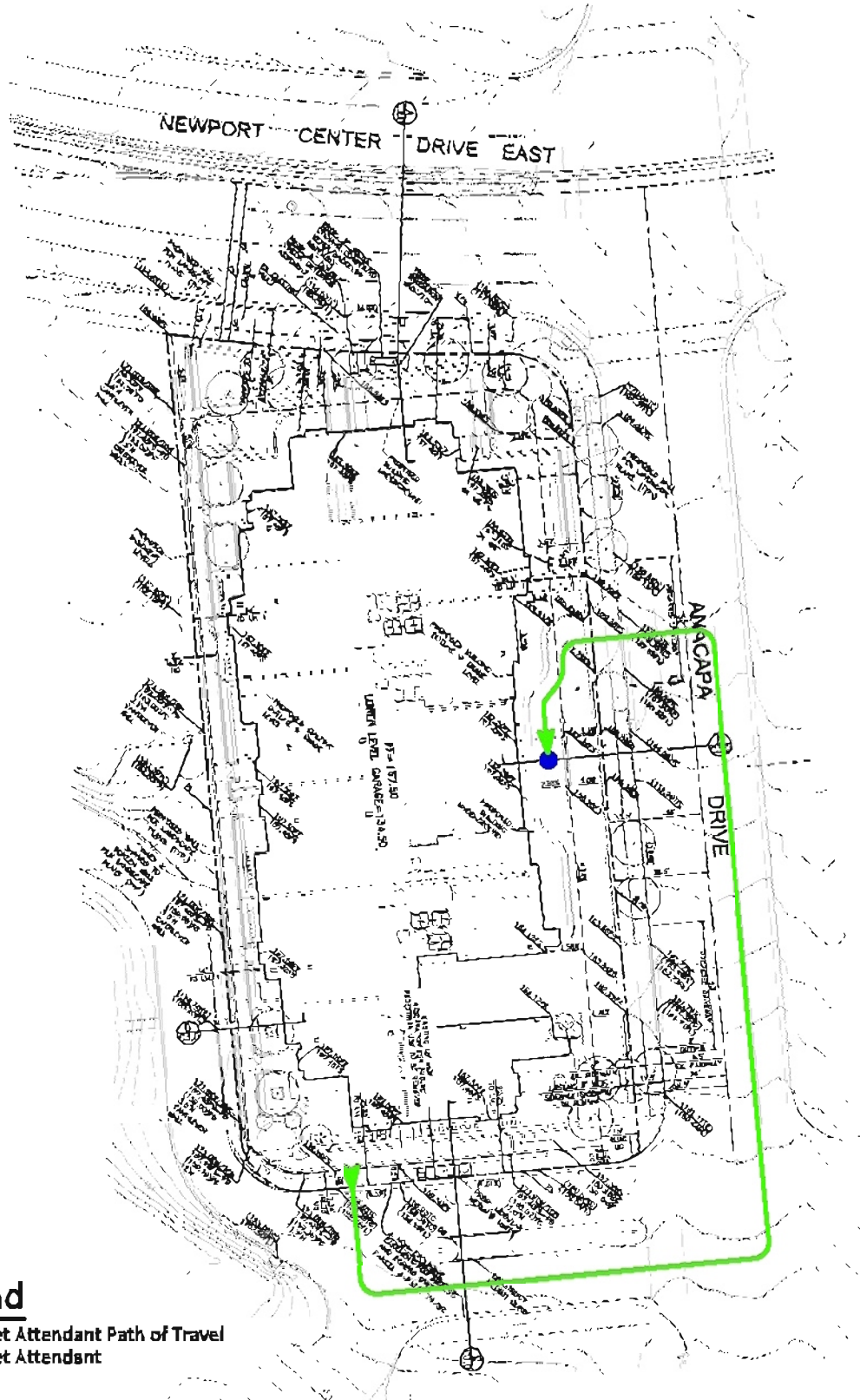
Figure 4
Valet Attendant to Parking Garage (Level B-1)



Legend

- = Valet Attendant Path of Travel
- = Valet Attendant

Figure 5
Valet Attendant From Parking Garage (Level B-1)

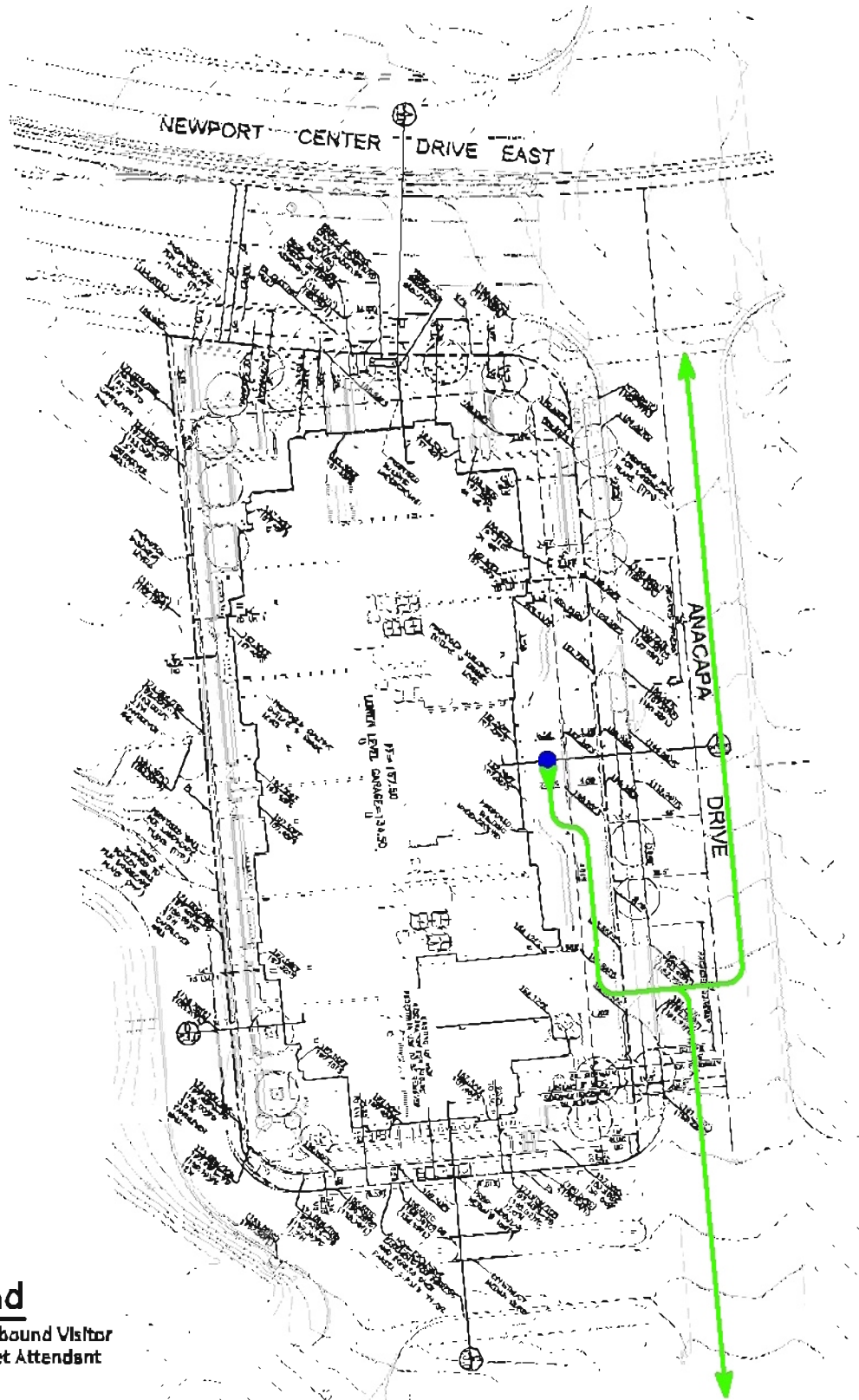


Legend

-  = Valet Attendant Path of Travel
-  = Valet Attendant



Figure 6
Visitor From Valet Pick-up Area

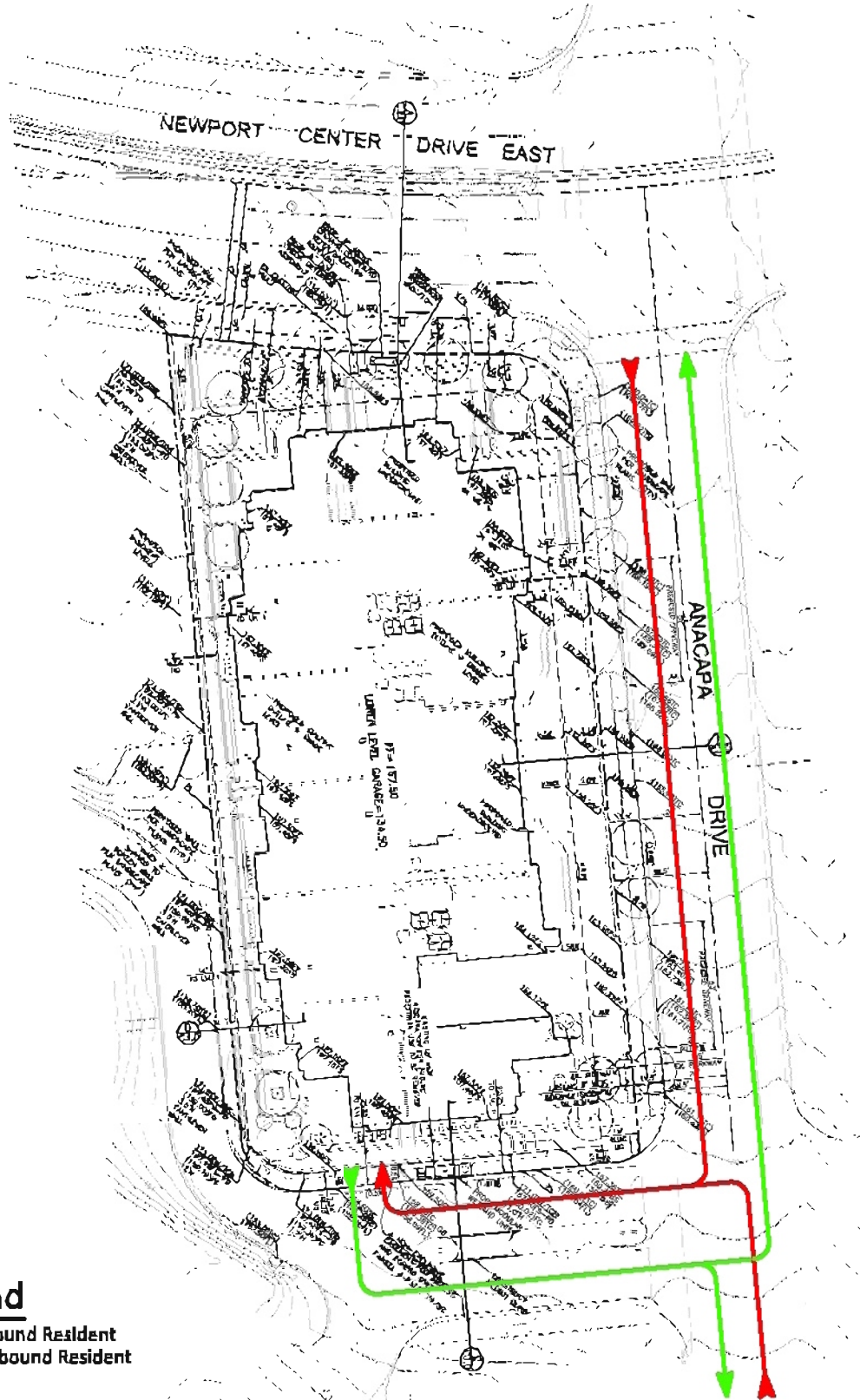


Legend

-  = Outbound Visitor
-  = Valet Attendant



Figure 7
Resident Path of Travel



Legend

- = Inbound Resident
- = Outbound Resident



Figure 8
Delivery Path of Travel



Legend

- = Inbound Delivery
- = Outbound Delivery

Figure 9
Move - In/Out Truck Path of Travel



Legend

- = Inbound Delivery
- = Outbound Delivery

APPENDIX A

GLOSSARY OF TRANSPORTATION TERMS

GLOSSARY OF TRANSPORTATION TERMS

COMMON ABBREVIATIONS

AC:	Acres
ADT:	Average Daily Traffic
Caltrans:	California Department of Transportation
DU:	Dwelling Unit
ICU:	Intersection Capacity Utilization
LOS:	Level of Service
TSF:	Thousand Square Feet
V/C:	Volume/Capacity
VMT:	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The total volume during a year divided by the number of days in a year. Usually only weekdays are included.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A constriction along a travelway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CYCLE LENGTH: The time period in seconds required for one complete signal cycle.

CUL-DE-SAC STREET: A local street open at one end only, and with special provisions for turning around.

DAILY CAPACITY: The daily volume of traffic that will result in a volume during the peak hour equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

ORIGIN-DESTINATION SURVEY: A survey to determine the point of origin and the point of destination for a given vehicle trip.

PASSENGER CAR EQUIVALENTS (PCE): One car is one Passenger Car Equivalent. A truck is equal to 2 or 3 Passenger Car Equivalents in that a truck requires longer to start, goes slower, and accelerates slower. Loaded trucks have a higher Passenger Car Equivalent than empty trucks.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination; i.e. each trip has two trip-ends. A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

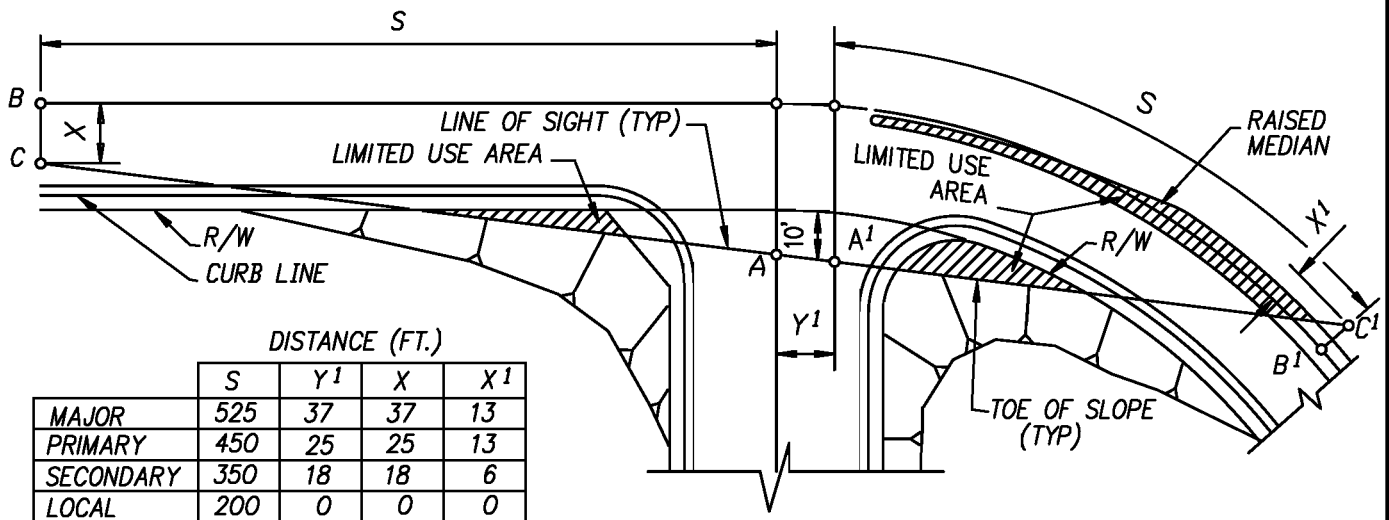
TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

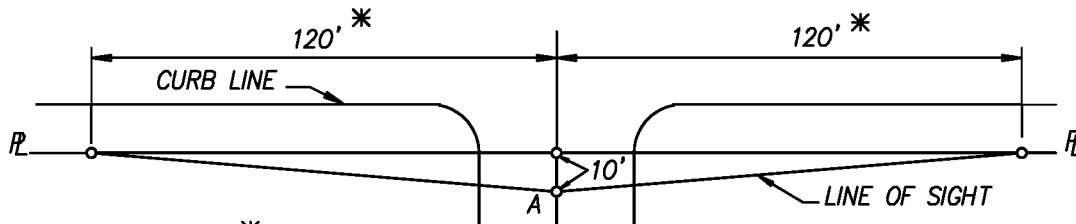
STD-110-L



	DISTANCE (FT.)			
	S	Y1	X	X1
MAJOR	525	37	37	13
PRIMARY	450	25	25	13
SECONDARY	350	18	18	6
LOCAL	200	0	0	0

NOTES:

1. THE "LIMITED USE AREA" IS DETERMINED BY THE GRAPHICAL METHOD USING THE APPROPRIATE DISTANCES GIVEN IN THE ABOVE TABLE. IT SHALL BE USED FOR THE PURPOSE OF PROHIBITING OR CLEARING OBSTRUCTIONS IN ORDER TO MAINTAIN ADEQUATE SIGHT DISTANCE AT INTERSECTIONS.
2. THE "LINE OF SIGHT" LINE SHALL BE SHOWN AT INTERSECTIONS ON ALL LANDSCAPING PLANS, GRADING PLANS, AND TENTATIVE TRACT PLANS WHERE SIGHT DISTANCE IS QUESTIONABLE. IN CASES WHERE AN INTERSECTION IS LOCATED ON A VERTICAL CURVE, A PROFILE OF THE SIGHT LINE MAY BE REQUIRED.
3. WALLS OR ANY OBSTRUCTIONS THAT COULD RESTRICT THE VIEW WITHIN THE "LIMITED USE AREA" SHALL NOT BE PERMITTED.
4. THE TOE OF THE SLOPE SHALL NOT ENCROACH INTO THE "LIMITED USE AREA".
5. THE "LIMITED USE AREA" SHALL BE AS NEAR LEVEL AS POSSIBLE YET MAINTAIN PROPER DRAINAGE.
6. PLANTS AND SHRUBS SHALL BE OF THE TYPE THAT WILL GROW NO HIGHER THAN 24 INCHES ABOVE THE GROUND WITHIN THE "LIMITED USE AREAS".
7. POINTS "A" AND "A 1" ARE THE LOCATIONS OF A DRIVER'S LINE OF SIGHT WHILE IN A VEHICLE AT AN INTERSECTION 10 FEET BACK FROM THE PROJECTION OF THE PROPERTY LINE. THIS DISTANCE MAY BE REDUCED BY THE PUBLIC WORKS DIRECTOR WHEN THE EDGE OF THE CLOSEST TRAVEL LANE IS 12' OR MORE FROM THE CURB. THE DISTANCE "Y 1" IS THE DISTANCE MEASURED FROM THE CENTERLINE OF THE ROAD TO FAR RIGHT THROUGH TRAFFIC LANE. THE DISTANCE "Y 1" IS EQUAL TO ZERO FOR T-INTERSECTIONS.
8. THE DISTANCE "S" REPRESENTS THE STOPPING SIGHT DISTANCE MEASURED ALONG THE CENTER LINE OF THE ROAD.
9. POINTS "C" AND "C 1" ARE THE LOCATIONS (CENTER LINE OF THE TRAVEL LANES) WHERE THE DRIVER OF VEHICLE, TRAVELING AT A GIVEN SPEED, HAS THE MINIMUM STOPPING SIGHT DISTANCE REQUIRED TO BRING HIS VEHICLE TO A STOP.



* REQUIRES DESIGN STUDY FOR GRADES IN EXCESS OF 4%

SIGHT DISTANCE FOR BICYCLE PATHS

REV. 6/2002 M. Wagner

**CITY OF NEWPORT BEACH
PUBLIC WORKS DEPARTMENT**

APPROVED:

RCE NO. 36106

PUBLIC WORKS DIRECTOR

Date: 2 Mar 1993

Scale: N.T.S.

Drawn by: M. GRACIA

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**INTERSECTION LINE OF
SIGHT REQUIREMENTS**

DRAWING NO.

STD-110-L



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