Estrada Land Planning

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San Ysidro Mobility Strategy

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CD IN BACK POCKET

The CD in the back pocket contains all major large graphics included in the report as well as additional graphics and animated computer traffic simulations of the key intersections before and after proposed projects. In addition, pdf files of the report and the appendix are included.

San Ysidro Mobility Strategy

1. INTRODUCTION

Mobility within a community is much more than the movement of vehicles, people and goods. It is the basic framework upon which land uses are based. Without mobility, land uses are basically isolated "bubbles" without any inter-relationships. This San Ysidro Mobility Strategy (SYMS) measures and evaluates the existing and future vehicular, pedestrian, bicycle, and



transit travel patterns and needs for the San Ysidro Community. It is funded by the California Department of Transportation and administered by the City of San Diego, City Planning and Community Investment Department.

Purpose of the Strategy

- To utilize a public outreach strategy.
- To prepare a mobility assessment of vehicular traffic and parking, transit, pedestrians and bicycles.
- To develop a mobility plan that balances the needs of and integrates pedestrian, transit, vehicular, and bicycle travel along the major corridors of San Diego's San Ysidro community.
- To study traffic and pedestrian circulation and how it affects sustainable long-term economic growth, revitalization, mobility and parking throughout the community of San Ysidro.
- To identify strategies and improvement measures that improve traffic circulation, address parking demand, and promote walkability, bicycling and improved accessibility to

transit use for residents, visitors and business people.

• To prepare conceptual streetscape designs.

Goals and Objectives of the Strategy

• To propose a vehicular and pedestrian circulation system that provides for the smooth, efficient and convenient flow



of traffic while allowing for a response to the social and economic needs of the community.

- To engage the community to help determine values, opportunities, deficiencies and needs and obtain community support for any improvements proposed in this study.
- To provide for smooth traffic flow and good accessibility to and from San Ysidro and outlying communities, including Mexico.
- To develop parking strategies that support planned land uses.
- To eliminate the barriers to pedestrian activity and enhance the pedestrian environment.



- To provide for an increased use of bicycles as a major means of transportation throughout the community.
- To improve the mass transportation system and increase its accessibility for San Ysidro residents, visitors and business people.

To provide a Mobility Strategy that:

- Develops strategies and measures that will be used to promote and encourage alternative transportation modes for trips in the San Ysidro area.
- Will help implement the goals of the San Ysidro Community Plan and help implement the City's smart growth efforts in the San Ysidro Community.
- Capitalizes on current developments and the existing energy in the neighborhoods.
- Encourages more business investment and development.
- Benefits the community by providing a safe pedestrian and vehicular environment, encouraging jobs, housing, and attractive open spaces.
- Protects the historical and cultural identity of the neighborhood.
- Improves the aesthetics of the environment.
- Maintains community pride.
- Is supported by the residential and business community.
- Is economically and sociologically feasible.



Selected images from the community are shown above.

There are several key elements that are necessary to create a walkable environment. These are shown below. It is a goal to encourage as many of the following elements as possible into this strategy.

Element	Description
Sidewalk Design	In general a sidewalk should be wide enough to provide for four distinct zones: the edge zone that separates the roadway from the sidewalk; the <i>furnishing zone</i> providing space for street furnishing and landscape; the <i>throughway zone</i> that provides a minimum four foot width for ADA accessibility; and the <i>frontage zone</i> providing a "shy distance" between the throughway zone and building frontage/property line.
Access to Desired Uses	A successful pedestrian-oriented community or neighborhood should have a mix of complementary uses within convenient walking distance and connected with a comfortable pedestrian pathway network.
Access for Persons with Disabilities	Considerations must be made to ensure that persons with disabilities are provided with equal access to work, home, shops, and transit.
Ease of Crossing Street	Wide streets can be intimidating and more dangerous for pedestrians to cross. Methods for shortening crossing distances, providing a safer transition into the shared right-of-way, and building a stronger visual connection for pedestrians crossing the street must be employed.
Manageable Walking Distances	A typical comfortable walking distances from an origin to a destination is 1,200 feet to 2,000 feet or a 5 to 10 minute walking distance. Walking distances though are dictated by street patterns, and natural and man-made barriers. Provisions therefore should be made to provide passage through or across these barriers.
Scale	Pedestrian infrastructure such as signs, landscaping, paving, and building design detail should provide visual interest and be of human proportion.
Security	Pedestrian safety is greatly influenced by the amount, scale, intensity, and quality of lighting. Store fronts, office windows, and the windows of homes provide "eyes on the street."
Visual Interest and Community Identity	Good design should enhance the intimacy of the pedestrian environment, including open spaces such as plazas, courtyards, and squares, as well as the building facades that give shape to the space of the street.
Climate	Location and orientation of buildings, street trees, and architectural elements can make pedestrian areas more inviting by providing shade and protection from seasonal rains and winds.
Noise and Air Quality	Buffers between the roadway and sidewalks help to insulate the pedestrian from the harsher auto environment.
Efficient Parking	Sensitive planning and design of parking facilities can minimize the negative impacts of parking on the pedestrian realm while still providing good vehicular access to the community.

Elements of a Walkable Environment

San Ysidro Mobility Strategy

Community Participation

Extensive community meetings were held during the process of creating this Mobility Strategy. This included a bus tour of the entire study area. Every effort was made to accommodate the community's needs and desires. A written survey was prepared and the results of that survey are summarized in section 4 of this report. In addition, the community was asked to comment specifically on each of the proposed improvement projects. Those comments are reflected in this final report incorporating their issues and concerns. The following groups and organizations participated in the community input process.

- The San Ysidro Transportation Collaborative
- The San Ysidro Smart Border Coalition
- The San Ysidro Community Planning Group
- The Committee on Binational Regional Opportunities
- Casa Familiar

A typical meeting announcement is shown below.



San Ysidro Mobility Strategy

San Ysidro Mobility Strategy January 2009

2. EXISTING AND FUTURE CONDITIONS AND ANALYSIS

The community of San Ysidro is a diverse community located in the southernmost part of the city of San Diego. It is perhaps the most exciting community in the region as the energy from all of the commerce and the people from Mexico and the United States intersect here. The multi-modal trolley station is an incredible place that is buzzing with people and excitement on a Saturday morning as well as a Friday night. Many citizens within the San Ysidro community utilize walking as a primary means of mobility. In addition, a network of small shuttle buses transport people from the border to nearby shopping areas.

As shown in **Figures 2-1** and **2-2**, a bulk of the community is bounded by I-5, I-805 and SR-905. There are only 8 access points (shown in blue) where people within the subsequent triangle can travel to and from the community. In addition, the railroad/trolley right-of-way has created a large barrier that has split the community.





The existing circulation patterns make interconnectivity difficult due primarily to the freeways, the railroad/trolley right-of-way and the Tijuana River wetland area. In addition, the streets are not all designed to be appropriate for existing or projected traffic volumes. Many primary thoroughfares are without sidewalks, curbs and gutters, and many are much wider than they need to be.



Figure 2-2

A. BACKGROUND INFORMATION

Figure 2-3 depicts the location of the community in a regional context. A map showing the roadway network within the community is provided as **Figure 2-4**.

The San Ysidro community is approximately 1,800 acres. Due to its proximity to the international border with Mexico, there are unique characteristics to the area including significant Hispanic heritage, strong border commerce opportunities, as well as traffic and circulation issues resulting from the current freeway infrastructure configuration as noted above. These are discussed in further detail later in this report.

The latest General Plan update from the City of San Diego includes smart growth strategies, higher densities and mixed-use areas which will be implemented in the proposed San Ysidro Pilot Village. This pilot village will result in a project development

plan along San Ysidro Boulevard between Cottonwood Road and Interstate 805 (I-805), on the north side of Interstate 5 (I-5).





B. FORECAST METHODOLOGY

The following section describes the methodology used to forecast traffic volumes and complete the analysis process for this report.

Forecast Traffic Volumes

Forecast model runs were needed for the future year scenarios due to changes in the roadway network and on land use assumptions for the San Ysidro community area. Traffic models from SANDAG Series 10 were used for the analysis. These models included the full build-out of the San Ysidro community with the currently adopted land use designations and roadway network outlined in the San Ysidro Community Plan. Year 2030 forecast run is shown in **Appendix A**.

To estimate the future turning movement volumes (Year 2030) at the study intersections, the existing turning movements at each respective study intersection were factored up based on the forecast model's average daily traffic (ADT) volumes along each approach. Each respective movement would be derived using an iterative approach that balances the inflows and outflows for each approach. The input values include the existing turning movement volumes and future year peak-hour approach and departure volumes along each leg of the intersection. The future peak-hour approach volumes would be estimated by applying the existing peak-hour factor (K-factor) and directional distributional percentage (D-factor) to the future ADT volumes along each approach. A more detailed description of the methodology used to forecast turning movement volumes is contained in National Cooperative Highway Research Program (NCHRP) Report 255 Highway Traffic Data for Urbanized Area Project Planning and Design, Chapter 8.

Study Area Intersections

The study area was defined based on discussions with City staff and on input received from the community. The study area intersections selected for analysis are shown in **Table 2-1**.

TABLE 2-1 STUDY AREA INTERSECTIONS					
	Intersection	Traffic Control			
1	Dairy Mart Rd & I-5 SB ramps	Signal			
2	San Ysidro Blvd & Dairy Mart Rd	Signal			
3	San Ysidro Blvd & I-5 NB ramps	Signal			
4	Beyer Blvd & Smythe Ave	Signal			
5	San Ysidro Blvd & Cottonwood Rd	Signal			
6	San Ysidro Blvd & Via de San Ysidro	Signal			
7	Via de San Ysidro & I-5 NB ramps	TWSC			
8	Via de San Ysidro & I-5 SB ramps	Signal			
9	Via de San Ysidro & Calle Primera	Signal			
10	San Ysidro Blvd & I-805 SB Ramps	Signal			
11	San Ysidro Blvd & I-805 NB Ramps	Signal			
12	San Ysidro Blvd & Border Village Rd (north)	Signal			
13	San Ysidro Blvd & Border Village Rd (south)	Signal			
14	San Ysidro Blvd & Beyer Blvd	Signal			
15	E. San Ysidro Blvd & I-5 NB ramps	Signal			
16	16 Camino de la Plaza & Willow Rd Signal				
Notes: Signal = Traffic signal, TWSC = Two-Way Stop-Control					

As shown in the table, all intersections are currently signalized in the study area except for Intersection 7, which is the I-5 NB ramps/Via de San Ysidro intersection. **Figure 2-5** displays the location of the study intersections.



Existing and Future Conditions and Analysis

Analysis Process

The analysis process included determining the operations at the study intersections for the a.m. and p.m. peak-hours. Intersections were measured and quantified by using the Synchro traffic analysis software package.

Analysis Software

To analyze the operations of both signalized and unsignalized intersections, Synchro 6.0, a traffic software produced by Trafficware was used for the analysis. Synchro 6.0 uses the methodologies outlined in the 2000 *Highway Capacity Manual (HCM)*.

The peak-hour factor (PHF) was obtained from actual counts conducted in the field.

Intersections

The 2000 *HCM* published by the Transportation Research Board establishes a system whereby highway facilities are rated for their ability to process traffic volumes. The terminology "level of service" is used to provide a "qualitative" evaluation based on certain "quantitative" calculations, which are related to empirical values.

Level of service (LOS) for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. Specifically, LOS criteria are stated in terms of the average control delay per vehicle for the peak 15-minute period within the hour analyzed. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay. The LOS for unsignalized intersections is determined by the computed or measured control delay and is defined for each minor movement.

The criteria for the various levels of service designations are provided in Table 2-2.

TABLE 2-2 LOS CRITERIA FOR INTERSECTIONS					
LOS	Signalized Control Delay (sec/veh) (a)	Unsignalized Average Control Delay (sec/veh) (b)	Description		
А	<u><</u> 10.0	<u><</u> 10.0	Operations with very low delay and most vehicles do not stop.		
В	>10.0 and <u><</u> 20.0	>10.0 and <u><</u> 15.0	Operations with good progression but with some restricted movement.		
С	>20.0 and <u><</u> 35.0	>15.0 and <u><</u> 25.0	Operations where a significant number of vehicles are stopping with some backup and light congestion.		
D>35.0 and <55.0>25.0 and <35.0Operations where congestion is noticeal longer delays occur, and many vehicles The proportion of vehicles not stopping		Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines.			
E	>55.0 and <u><</u> 80.0	>35.0 and <u><</u> 50.0	Operations where there is significant delay, extensive queuing, and poor progression.		
F	>80.0	>50.0	Operations that are unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection.		
Notes: Delay represented in seconds per vehicle (sec/veh) (a) 2000 Highway Capacity Manual, Chapter 16, Page 2, Exhibit 16-2 (b) 2000 Highway Capacity Manual, Chapter 17, Page 2, Exhibit 17-2					

Within the city of San Diego, all signalized and unsignalized intersections are expected to operate at LOS D or better.

Roadway Segments

Table 2-3 has been developed by the City of San Diego and is used as a reference. The segment traffic volumes under LOS E as shown in this table are considered at capacity because at LOS E the v/c ratio is equal to 1.0.

TABLE 2-3 CITY OF SAN DIEGO ROADWAY SEGMENT CAPACITY AND LOS						
Road Classification	Lanes	А	Level B	of Servic C	e (LOS) D	E
Freeway	8	60,000	84,000	120,000	140,000	150,000
Freeway	6	45,000	63,000	90,000	110,000	120,000
Freeway	4	30,000	42,000	60,000	70,000	80,000
Expressway	6	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6	25,000	35,000	50,000	55,000	60,000
Major Arterial	6	20,000	28,000	40,000	45,000	50,000
Major Arterial	4	15,000	21,000	30,000	35,000	40,000
Collector	4	10,000	14,000	20,000	25,000	30,000
Collector (No center lane) (Continuous left- turn lane)	4 2	5,000	7,000	10,000	13,000	15,000
Collector (No fronting property) Collector	2	4,000	5,500	7,500	9,000	10,000
(Commercial/Industrial	2	2,500	3,500	5,000	6,500	8,000
fronting) Collector (Multi-family)	2	2,500	3,500	5,000	6,500	8,000
Sub-Collector (Single family)	2			2,200		

Notes:

The volumes and the average daily level of service listed above are only intended as a general planning guideline.

Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

Source: City of San Diego Traffic Impact Study Manual, Table 2, Page 8, July 1998.

A graphical representation of the LOS concepts for the different facilities is shown in **Figure 2-6**.



Source: 2000 HCM

Figure 2-6 Graphical Summary of LOS Concepts

C. EXISTING CONDITIONS

This section summarizes the existing roadway circulation network, peak-hour traffic volumes, and operations at the study intersections and roadway segments within the San Ysidro community.

Road Network

San Ysidro is located near and along two major freeway corridors – I-5 and I-805. Interstate 5 is a significant north-south interstate that traverses the United States from the international Mexican border to the Canadian border through the states of California, Oregon, and Washington. Within California, I-5 connects the following major metropolitan areas: San Diego, Los Angeles, Sacramento, and the eastern portion of the San Francisco Bay Area. In contrast, I-805 is largely contained within the San Diego metropolitan area and provides a parallel route for I-5. The I-805 termini are both located along I-5 – one near the US-Mexico border and the other near the Torrey Pines State Reserve and the University of California at San Diego. Within the San Ysidro study area, I-5 has three local interchanges at Camino de la Plaza, Via de San Ysidro, and Dairy Mart Road/San Ysidro Boulevard. Within the San Ysidro study area, I-805 has one local interchange at San Ysidro Boulevard and provides southbound travel an exit opportunity at Camino de la Plaza.

Major local streets within the area include San Ysidro Boulevard, Beyer Boulevard, Camino de la Plaza, Dairy Mart Road, Willow Road, and Park Avenue.

The following provides a description of the existing street system within the vicinity of the project study area. Ultimate roadway classifications are taken from the *San Ysidro Community Plan*, approved September 18, 1990 and functional classifications are based on the consultant's field observation.

San Ysidro Boulevard is the primary thoroughfare in the San Ysidro community. West San Ysidro Boulevard is classified as a 2-lane collector from Dairy Mart Road to Via de San Ysidro, then widens to a 4-lane major arterial from Via San Ysidro to the I-805 ramps. East San Ysidro Boulevard is classified as a 2-lane collector from the I-805 ramps to Border Village Road (south), then widens to a 4-lane major arterial from Border Village Road (south) to East Beyer Boulevard-Camino de la Plaza. There is a continuous left turn lane from Dairy Mart Road to Cottonwood Road and also from the I-805 ramps to Border Village Road (south). Curbs, gutters, sidewalks, and parking exist, but there are some areas without sidewalks. The posted speed limit is 25 mph.

Context

San Ysidro Boulevard terminates at the San Ysidro Intermodal Transit Center. This area is dominated by commercial uses, the transit center and the International Border Facility. It is a very busy pedestrian area. As the street travels northwest, it continues through a commercial area with numerous driveways. The area between I-805 and Dairy Mart Road

is also predominately commercial with multi-family residential uses becoming more dominant as it approaches Dairy Mart Road.

Beyer Boulevard is classified as a 4-lane major street that has an east-west alignment from Dairy Mart Road to East Beyer Boulevard. This major street runs parallel to the railroad then turns north into the Otay Mesa-Nestor community. Gutters, curbs, sidewalks, and on-street parking are present. The posted speed limit is 40 mph.

Context

Beyer Boulevard traverses a largely residential area. There are many multi-family projects northeast of the street. The area southwest of Beyer Boulevard and between the railroad/trolley tracks is fallow. Many residents of the multi-family developments park across the street adjacent to the railroad/trolley right-of-way and cross the street mid-block.

East Beyer Boulevard is classified as a two-lane collector that has a north-south alignment from Beyer Boulevard to East San Ysidro Boulevard. This street is located east of I-805 and I-5 and runs parallel to both of these facilities. Bike lanes and parking are available on both sides of the street. The east side of the street has a curb and gutter. The posted speed limit is 40 mph.

Context

East Beyer Boulevard is located within a largely single-family residential area in the western portion and then travels adjacent to the railroad/trolley tracks which are to the northeast. The street is single loaded with all access to the southwest in the eastern portion of the street.

Park Avenue is a one lane, one-way couplet that is oriented in the north–south direction. Both roads cross the trolley corridor. East Park Avenue runs north from East San Ysidro Boulevard and ends at East Seward Avenue. West Park Avenue runs south from East San Ysidro Boulevard and continues on past East Seward Avenue, becoming two-way and provides access to Beyer Boulevard. They are connected at midpoint by East Hall Avenue. West Park Avenue and East Park Avenue are separated by basketball courts, tennis courts, and a park. Pedestrian traffic is heavy as this road provides access to the library, senior center, the linear park and gymnasium as well as several residential neighborhoods. Both roads have curbs, gutters, and sidewalks. Parking exists on the curb side of both streets. The posted speed limit is 25 mph on both East Park Avenue and West Park Avenue.

Context

East Park Avenue and West Park Avenue are within a residential area with park uses in between the streets.

Camino de la Plaza is classified as a 4-lane collector that runs in the east-west direction. There are curb, gutter, and bike lanes on both sides of the street. A sidewalk

exists on the north side of the street. There is a wide painted median, and the posted speed limit is 45 mph.

Context

The easterly end of Camino de la Plaza is at San Ysidro Boulevard. Currently, one must cross Camino de la Plaza eastbound and go south on San Ysidro Boulevard to the trolley station to get on I-5 and I-805 northbound. The western portion of Camino de la Plaza serves as the principal access to the large retail and retail outlet areas.

Dairy Mart Road is classified as a 4-lane collector that runs in the north-south direction from West San Ysidro Boulevard to Vista Lane. This road provides access between San Ysidro and the Tijuana River Valley. There are curbs and gutters, but no parking. There is no posted speed limit.

Context

Dairy Mart Road south of the I-5 freeway is predominately free of driveways and access points. North of I-5, Dairy Mart Road travels through a single family and multi-family area before terminating at Beyer Boulevard.

Willow Road is classified as a 2-lane collector that runs in the north-south direction. A higher amount of trucks are present along this roadway due to the commercial crossing at Virginia Avenue. The northern part of the road has curbs, gutters, and sidewalks. On-street parking is available. The posted speed limit is 25 mph.

Context

Willow Road begins at Calle Primera adjacent to I-5 and travels south adjacent to an elementary school. As it travels southerly, it crosses a multi-family residential area before terminating at Camino de la Plaza.

Figures 2-7a and 2-7b show the existing geometrics of the study intersections within the study area, and **Figure 2-8** shows the existing number of lanes and functional classification for the roadway segments in the study area.



San Ysidro Mobility Strategy



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Transit Services

The San Ysidro community is served by a variety of public and private mass transit options, including the Metropolitan Transit System (MTS) with bus and trolley services, private jitneys, and Greyhound bus service.

MTS Bus Routes 929 and 932 directly serve the San Ysidro community. Route 929 services between downtown San Diego and the San Ysidro border crossing via the city of Chula Vista and the city of National City. Route 932 services between the 8th Street trolley station in the city of National City and the San Ysidro border crossing via the city of Chula Vista. Both routes generally run parallel to and east of I-5, with Route 932 running west of Route 929. In addition to Routes 929 and 932, Routes 901, 905, 933, and 934 serve the Iris Avenue Transit Center, which is just north of the San Ysidro community.

Figures 2-9 to 2-12 show the recent trends in transit ridership in the study area, based on the available data. As shown in the figures, ridership in the area has generally been increasing in recent years. Routes 929, 932, 933, and 934 have a daily ridership ranging between 7,000 and 8,000 passengers. Route 905 has been pretty constant over the last several years with a daily ridership of approximately 2,000 passengers.



Figure 2-9 Ridership for Route 905

Existing and Future Conditions and Analysis



Figure 2-10 Ridership for Route 929



Figure 2-11 Ridership for Route 933/934

San Ysidro Mobility Strategy



Figure 2-12 Ridership for Route 932

It should be noted that the San Ysidro station has the highest number of boardings in the County with 12,000 boardings per typical weekday. The strength of the San Ysidro station boardings is directly connected to the San Ysidro Port of Entry.

The Iris Avenue Station is ranked 10th in the County in the number of boardings with 3,100 boardings per typical weekday. The strengths of the boardings is explained by the fact that the Iris Avenue Station is a terminal for six different MTS routes (901, 905, 929, 932, 933, 934). The remaining station in the community, the Beyer Boulevard station is ranked 20th in the County with 1,500 boardings per typical weekday.

The MTS Trolley Blue Line terminates at the San Ysidro Transit Center near the international border. The line travels northward to the Old Town community of the city of San Diego, and offers transfer locations to the Orange and Green Lines, which serve a majority of the city of San Diego and adjacent cities such as the cities of Lemon Grove, La Mesa, El Cajon, and Santee. In addition to the stop at the San Ysidro Transit Center, the Blue Line has stops at the Beyer Avenue and Iris Avenue stations, which are also located with the San Ysidro community. **Appendix B** contains the data related to the transit ridership.

A Greyhound bus station is located on East San Ysidro Boulevard just south of Camino de la Plaza. The Greyhound bus system serves locations throughout the United States, Canada, and Mexico.

Existing and Future Conditions and Analysis

Jitneys are a popular private transportation option in the San Ysidro community. By definition, a jitney is a "*privately owned vehicle operated on a fixed or semi-fixed schedule for a fare.*" Within the San Ysidro community, there are various jitneys currently in operation. Kimley-Horn staff was able to observe the operations of the jitneys on Wednesday, July 18, 2007. The following paragraphs summarize the observations and research conducted on jitneys in the San Ysidro community.

The main purpose of the jitneys in the San Ysidro community is to provide transportation to and from the two swap meets. The first swap meet is the "Coronado The Coronado Swap Meet operates Wednesdays, Saturdays and Swap Meet." Sundays from 6 a.m. to 3 p.m. The swap meet takes place at the existing South Bay Triple Drive-In at 2170 Coronado Avenue. The cost for general admission is \$1.00 on a Wednesday and \$0.50 on Saturday and Sunday. The privately owned jitneys are the only transportation to and from this swap meet. The jitneys have a designated pick-up "jitney bus stop" in the San Ysidro Transit Station, just across San Ysidro Boulevard from the trolley line. As per the jitney definition, this type of transportation operates at a fixed or semi-fixed route and schedule. Once in the jitney, the driver will ask the passengers if everyone is going to the same place (Coronado Swap Meet). If the answer is "yes" then the driver will take San Ysidro Boulevard to Via De San Ysidro, enter northbound I-5, and exit at Coronado Avenue dropping the passengers off in front of the swap meet. If someone answers "no" and one of the passengers is going to an alternative destination, the driver will continue northbound along San Ysidro Boulevard and will take an alternative route trying to accommodate the passenger's destination.

The same drop-off location at the Coronado Swap Meet serves as the pick-up location for the return trip. Jitney drivers are allowed to wait at the pick-up location until the bus is full (approximately 13 to 15 passengers) or until a third bus arrives to the dropoff/pick-up location. When three or more jitneys are in line waiting for passengers, the jitney in the front of the line must start the return trip. The final destination for the jitney's return trip is a dedicated jitney drop-off spot along Camiones Way within the San Ysidro Border Crossing facilities. The majority of the passengers will then continue walking to the other side of the border. The jitney drivers will also pick-up and drop-off passengers at any of the MTS bus stops along the way both from and to the swap meet. According to one of the drivers, jitneys operate from 5 a.m. to 4 p.m. Wednesdays, Saturdays and Sundays. The typical headway for these types of jitneys is approximately five to ten minutes.

The second swap meet of importance in the San Ysidro community is the San Ysidro Swap Meet. The San Ysidro Swap Meet operates Wednesdays through Sundays. On Wednesday through Friday the swap meet operates from 8:30 a.m. to 8 p.m. and on Saturday and Sunday the swap meet operates from 8:30 a.m. to 6 p.m. This swap meet provides its own transportation to and from the swap meet. The swap meet provides a free shuttle that picks up passengers at a designated bus stop at the northwest corner of the East Beyer Boulevard at East San Ysidro Boulevard intersection. Approximately 30 to 40 passengers are able to fit in the bus, including

those standing. The bus continues along East San Ysidro Boulevard, turns left onto Via de San Ysidro, and turns right onto Calle Primera before approaching the back side of the San Ysidro Swap Meet. Inside the swap meet, there is a dedicated area for passengers to wait for the shuttle and return to San Ysidro Boulevard. On the return trip, the shuttle takes Calle Primera until Willow Road, then Camino de la Plaza to the drop-off location along Camiones Way, the same dedicated drop-off spot as the jitneys.

The frequency of the free shuttle to and from the San Ysidro Swap Meet is approximately 30 minutes. Since a higher number of jitneys operate along the San Ysidro area, some jitneys stop at the free shuttle pick-up spot and ask passengers if they want a ride to the San Ysidro Swap Meet. Typically passengers are tired of waiting for the free shuttle and decide to take the alternative jitney route. The jitneys then make a U-turn along San Ysidro Boulevard and turn right at Camino de la Plaza. Then the jitneys take Willow Road, continue along Camino de la Plaza and drop-off the passengers at the same location as the free shuttle. On the return trip, the jitneys take the same route as the free shuttle.

Although Kimley-Horn staff was not able to confirm this assumption, it is assumed that the jitneys have an alternative route to the north of the San Ysidro area, which is used when the swap meet is closed. The alternative route goes east along San Ysidro Boulevard, north along Dairy Mart Road, east along Beyer Boulevard, north along Del Sur Boulevard, east along Del Sol Boulevard, and north along Picador Boulevard to Palm Avenue.
Traffic Volumes

As part of the existing conditions evaluation, peak-hour turning movement counts were collected during the morning and evening peak periods at 16 key intersections within the study area by National Data Services. The majority of the traffic count data was collected in May and June 2007, but a few locations were counted in October 2007.

In addition to peak-hour turning movement counts at the intersections in the study area, daily traffic volumes were collected along roadway segments. These counts were all also obtained in May and June 2007. The counts are summarized in 15-minute increments and include directional distribution. **Table 2-4** summarizes the source and count dates of the intersections and segments in the study area. The existing traffic volume data is contained in **Appendix C**.

	TABLE 2-4 INTERSECTION AND SEGMENT COUNT	DATA SOUR	CE
	LOCATION	SOURCE (a)	DATE
	Intersections	(4)	DATE
1	Dairy Mart Rd & I-5 SB ramps	NDS	5/31/07
2	San Ysidro Blvd & Dairy Mart Rd	NDS	5/31/07
3	San Ysidro Blvd & I-5 NB ramps	NDS	6/05/07
4	Beyer Blvd & Smythe Ave	NDS	6/07/07
5	San Ysidro Blvd & Cottonwood Rd	NDS	5/31/07
6	San Ysidro Blvd & Via de San Ysidro	NDS	5/31/07
7	Via de San Ysidro & I-5 NB ramps	NDS	5/31/07
8	Via de San Ysidro & I-5 SB ramps	NDS	6/05/07
9	Via de San Ysidro & Calle Primera	NDS	6/05/07
10	San Ysidro Blvd & I-805 SB Ramps	NDS	5/31/07
11	San Ysidro Blvd & I-805 NB Ramps	NDS	6/05/07
12	San Ysidro Blvd & Border Village Rd (north)	NDS	5/31/07
13	San Ysidro Blvd & Border Village Rd (south)	NDS	5/31/07
14	San Ysidro Blvd & Beyer Blvd	NDS	6/05/07
15	E. San Ysidro Blvd & I-5 NB ramps	NDS	10/02/07
16	Camino de la Plaza & Willow Rd	NDS	10/02/07
	Roadway Segments		
	ry Mart Rd between W. San Ysidro Blvd and a Ln	NDS	5/31/07
	San Ysidro Blvd between Dairy Mart Rd and tonwood Rd	NDS	5/31/07
	San Ysidro Blvd between Cottonwood Rd and de San Ysidro	NDS	5/31/07

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W. San Ysidro Blvd between Via de San Ysidro and I-805 Ramps	NDS	5/31/07
E. San Ysidro Blvd between I-805 Ramps and Border Village Rd (south)	NDS	5/31/07
E. San Ysidro Blvd between Border Village Rd (south) and E.Beyer Blvd/Camino de la Plaza	NDS	5/31/07
W. Park Ave between W.San Ysidro Blvd and Beyer Blvd	NDS	5/31/07
E. Park Ave between W. San Ysidro Blvd and Beyer Blvd	NDS	5/31/07
Beyer Blvd between Dairy Mart Rd and E.Beyer Blvd	NDS	5/31/07
Via de San Ysidro between W. San Ysidro Blvd and Calle Primera	NDS	6/05/07
Camino de la Plaza between Dairy Mart Rd and I- 805 Ramps	NDS	5/31/07
Camino de la Plaza between I-805 Ramps and E. San Ysidro Blvd	NDS	6/05/07
Willow Rd between Calle Primera and Camino de la Plaza	NDS	6/05/07
Border Village Rd between E. San Ysidro Blvd	NDS	5/31/07
Note: (a) NDS = National Data & Surveying Services		

TABLE 2-4 (Continued)

Figures 2-13a and 2-13b illustrate the existing peak-hour traffic volumes at the study intersections and **Figure 2-14** illustrates the existing ADT volumes along the roadway segments.

2-24

San Ysidro Mobil	lity Strategy					
5992 5992 0 998 ⇔ 142 / 272 ∞ 73 / 207 Dalry Mart Rd	I-5 SB ramps	2 2 2 2 2 2 2 2 2 2 2 2 2 2	s 161 / 191 ⇔ 111 / 128 ∞ 61 / 176 W San Ysidro Blvd	3 © 253 / 398 © 366 / 345 W San Ysidro Blvd	4 240/127 240/128 240/142 240/142	s 152 / 87 ⇔ 344 / 266 Beyer Blvd
187 / 420 😒	575 /431 16 /33	174 / 158 ⇔ 55 / 115 ∿	133 /120 196 /233 515 /649	320 / 650 ↔ 567 / 392 ↔ 567 / 392 ↔ 567 / 392	365 / 229 👳	
2 45 / 45 ↔ 45 / 45 ↔ 2 / 2 ☆ 81 / 85 ↔ Cottonwood Rd	∾ 74 / 45 ⇔ 269 / 494 ⊉ 2 / 9 W San Ysidro Blvd	6	⇔ 168 / 320 ∞ 248 / 299 W San Ysidro Blvd	7 57 57 57 57 57 57 57 57 57 5	⇔ 241 / 529 Via de San Ysidro	
39/62 ∅ 228/526 ⇔ 3/8 ∿	5/2 0 2/1 0 6/4 0	195 / 459 👳 95 / 208 🐁	167 / 188 Ø	167 /330 ⊘ 402 /578 ⇔	147 / 406 🥏 90 / 332 🔩	545 / 516 🗢
 6 7 / 15 2 7 / 15 8 198 / 434 Via 68 / 434 Via 68 / 434 Via 67 / 434 	 S 311 / 304 ⇔ 46 / 34 ∞ 2 / 2 Via Calle Primera 	0 01 203 /200 ↔ 2/4 ↔ 2/11 /373 1-305 SB ramps	⇔ 287 / 434 ∞ 45 / 191 E San Ysidro Bivd	11 BZ SS SS SS SS SS SS SS SS SS S	12	⇔ 204 / 620 ♂ 0 / 2 E San Ysidro Blvd
140/234	4/3 2 30/46 5 2/8 2	411 / 575 ⇔ 118 / 318 ∿		226 / 262 Ø 9 1 Ø 365 / 656 Ø 96 1 / 72 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	265 / 560 ⇔ 200 / 464 ∿	116 / 353 @ 5 / 5 %
8 4 / 12 4 / 12 4 / 12 8 1 / 14 8 Border 1/ 14 8 Border 4 (south end)	∾ 1 / 0 ⇔ 171 / 420 ∞ 46 / 102 E San Ysidro Blvd	 56 /12 ⇔ 83 /77 ∞ 9 /10 E Beyer Bivd 	∿ 3 / 12 ⇔ 38 / 106 ∞ 18 / 90 E San Ysidro Blvd	15 86/ ¥6/ 15 87/ 50 87/ 50 13/13 87/ 50 13/13 13/13 13/13 15/ 50 15/ 50 10	91 8 / 36 9 / 123 9 / 16 / 190 Willow Rd	 S3 / 233 41 / 148 14 / 40 Camino de la Plaza
4 / 16	9/23 & 0/3 ⇔ 38/161 &	58 / 19	49 /389 Ø 53 /89 👳 14 /497 Ø	22 / 149	75/40	3 /21 @ 17 /77 # 4 /63 @



Figure 2-13a Existing Peak-Hour Traffic Volumes

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Existing Pedestrian Conditions

The Estrada Land Planning team conducted numerous site visits and photographic surveys to determine the condition of the existing streets and adjacent sidewalks. The overall study area was divided into three focus areas. These focus areas were determined by the degree of use and relative importance to the overall community. Within each focus area, numerous elements were evaluated. This analysis is summarized in Figure 2-15 through Figure 2-20. These included evaluating sidewalk conditions as follows:

CONCRETE SIDEWALK / CURB & GUTTER



Street condition evaluation included the following:

STREET

- S1 ACCEPTABLE STREET PAVING
- S2 ADEQUATE STREET PAVING (MINOR CRACKS, NEEDS CLEANING)
- S3 STREET RECOMMENDED FOR TRAFFIC CALMING
- S4 ALLEY / ACCESS DRIVEWAY
- S# w WIDE STREET (STREET WIDTH WIDER THAN REQUIRED)
- S# n NARROW STREET (STREET WIDTH NARROWER THAN REQUIRED)

Parking analysis included:



Crosswalk and pedestrian analysis included the following:

CROSSWALK - PEDESTRIAN RAMP



NO CROSSWALK

CROSSWALK WITH PEDESTRIAN RAMP

CROSSWALK WITHOUT PEDESTRIAN RAMP

PEDESTRIAN RAMP (MEETS CODE)

PEDESTRIAN RAMP (DOES NOT MEET CODE)

In addition, utility analysis indicated the following:

UTILITIES



OBSTRUCTS SIDEWALK/PEDESTRIAN FLOW -POSSIBLE TO RELOCATE



OBSTRUCTS SIDEWALK/PEDESTRIAN FLOW -UN-REASONABLE / UN-FEASIBLE TO RELOCATE



Figure 2-15 Focus Area 1 Key Map



STING TROLLEY STATION
ESTRIAN CIRCULATION
NCRETE SIDEWALK / CURB & GUTTER
CEPTABLE CONCRETE SIDEWALK / CURB AND GUTTER
CEPTABLE CONCRETE SIDEWALK / UNACCEPTABLE RB AND GUTTER
ACCEPTABLE CONCRETE SIDEWALK / CURB AND GUTTER
CCEPTABLE CONCRETE SIDEWALK /
SIDEWALK / NO CURB AND GUTTER
E CONCRETE SIDEWALK (MORE THAN 5' WIDE)
ROW CONCRETE SIDEWALK (LESS THAN 4' WIDE)
REET
EPTABLE STREET PAVING
QUATE STREET PAVING (MINOR CRACKS, DS CLEANING)
EET RECOMMENDED FOR TRAFFIC MING
EY / ACCESS DRIVEWAY
STREET (STREET WIDTH WIDER THAN REQUIRED)
ROW STREET (STREET WIDTH NARROWER THAN UIRED)
RKING
ALLEL ON STREET PARKING
GONAL ON STREET PARKING
STREET PARKING WITH TIME TRICTION
OSSWALK - PEDESTRIAN RAMP
CROSSWALK
SSWALK WITH PEDESTRIAN RAMP
SSWALK WITHOUT PEDESTRIAN RAMP
ESTRIAN RAMP (MEETS CODE)
ESTRIAN RAMP (DOES NOT MEET CODE)
ILITIES
STRUCTS SIDEWALK/PEDESTRIAN FLOW -
SIBLE TO RELOCATE TRUCTS SIDEWALK/PEDESTRIAN FLOW -
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Typical Focus Area 1 Photographs













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Figure 2-17 Focus Area 2 Key Map





Typical Focus Area 2 Photographs





Figure 2-19 Focus Area 3 Key Map



ISTING TROLLEY STATION	
DESTRIAN CIRCULATION	
ONCRETE SIDEWALK / CURB & GUTTER	C
CEPTABLE CONCRETE SIDEWALK / CURB AND GUTTER	
RB AND GUTTER	
ACCEPTABLE CONCRETE SIDEWALK / CURB AND GUTTER	
ACCEPTABLE CONCRETE SIDEWALK / CCEPTABLE CURB AND GUTTER	
SIDEWALK / NO CURB AND GUTTER	
DE CONCRETE SIDEWALK (MORE THAN 5' WIDE)	
RROW CONCRETE SIDEWALK (LESS THAN 4' WIDE)	
TREET	
CCEPTABLE STREET PAVING	
DEQUATE STREET PAVING (MINOR CRACKS, EDS CLEANING)	
REET RECOMMENDED FOR TRAFFIC	
LEY/ACCESS DRIVEWAY	
DE STREET (STREET WIDTH WIDER THAN REQUIRED)	
RROW STREET (STREET WIDTH NARROWER THAN EQUIRED)	
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RALLEL ON STREET PARKING	
AGONAL ON STREET PARKING	
N STREET PARKING WITH TIME STRICTION	
ROSSWALK - PEDESTRIAN RAMP	
OCROSSWALK	
ROSSWALK WITH PEDESTRIAN RAMP	
ROSSWALK WITHOUT PEDESTRIAN RAMP	
DESTRIAN RAMP (MEETS CODE)	
DESTRIAN RAMP (DOES NOT MEET CODE)	
TILITIES	
STRUCTS SIDEWALK/PEDESTRIAN FLOW -	
DSSIBLE TO RELOCATE BSTRUCTS SIDEWALK/PEDESTRIAN FLOW -	
-REASONABLE / UN-FEASIBLE TO RELOCATE	
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Typical Focus Area 3 Photographs













Pedestrian Volumes

A Pedestrian Priority Model (PPM) was prepared by Alta Planning Design for the San Ysidro Community. The PPM model was developed to determine the most probable areas within the community where pedestrians are likely to be. The PPM model is developed taking into account pedestrian attractors, pedestrian generators and pedestrian detractors within the community. A more detailed explanation of the methodology used to generate the model can be found in Chapter 5 of the San Diego Pedestrian Master Plan, dated December 2006.

Figure 2-21 indicates the PPM model results for the San Ysidro Community. As shown in the figure, the following are the areas where pedestrians are more likely to be found:

- The central area of the community surrounded by Sunset Lane to the north, Cottonwood Road to the west, West San Ysidro Boulevard to the south and Averil Road to the east.
- Along West San Ysidro Boulevard between Averil Drive and Interstate 805.
- Along Beyer Boulevard between Smythe Avenue and East Beyer Boulevard.
- At the intersection of East San Ysidro Boulevard and Camino de la Plaza.

Pedestrian counts were obtained at all study intersections during both peak periods. **Figure 2-22** shows a summary of the pedestrian volumes counted during the two hours in both peak periods. As shown in the figure, the number of pedestrians at the intersections generally increased with the proximity to the border crossing with approximately 1,100 pedestrians at the East San Ysidro Boulevard/I-5 NB ramps intersection.





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<u>Parking</u>

An on-street parking inventory was provided at key areas within the community. These areas were selected with collaboration from the City of San Diego and they represent the zones where parking changes would occur due to roadway segment improvements. These areas also represent a mixture of retail/commercial and residential uses. These areas included Beyer Boulevard, the Park Avenue couplet, East San Ysidro Boulevard, and Border Village Road. The available parking was calculated by dividing the existing available curb length along these segments by 25 feet (the assumed length needed by a vehicle to park along the side of the roadway). **Table 2-5** summarizes the available on-street parking in each of these areas. As shown in the table, a total of 309 parking spaces is provided along both sides of Beyer Boulevard. Most of the parking spaces along Bever Boulevard serve the residential uses on the north side of the street. Along both East and West Park Avenue, there are a total of 69 parking spaces, which also serve the existing single family residential units on both sides of the street. Along East San Ysidro Boulevard, there are 95 available spaces, while along Border Village Road, there are 124 available parking spaces. The parking spaces along East San Ysidro Boulevard and Border Village Road serve commercial land uses.

The on-street parking demand data collection was conducted on Thursday, January 15, 2009. Two time periods were selected for data collection to capture a snapshot of the on-street parking demand along the key areas within the San Ysidro Community. The first time period selected was between 12:00 p.m. and 1:00 p.m., and captured the peak retail/commercial parking demand. The second period selected was between 6:00 p.m. and 7:00 p.m. and captured the peak residential and retail/commercial parking demand as most people would be done with work.

Table 2-5 summarizes the results of the on-street parking demand survey. As shown in the tables, along Beyer Boulevard and Border Village Road, 30 percent or less of the available parking spaces are occupied during the peak demand times. The area surrounding Park Avenue has a parking demand rate of 85 percent during the mid-day peak period. The higher parking demand along Park Avenue is produced by the overflow of retail/commercial parking demand from West San Ysidro Boulevard and by the residential uses surrounding the area. The East San Ysidro Boulevard area experiences a parking demand of 60 percent during the afternoon peak-period. The afternoon peak periods represent the busier time for the retail/commercial uses along East San Ysidro Boulevard.

It should be noted that the parking spaces along Border Village Road are restricted to a two hour maximum between 8:00 a.m. and 6:00 p.m.

	EXISTING A	Table 2 AVAILABLE PARKIN	-	UDY AREAS	
Econo Anno	Existing Parking	Mid-day (12:00	Parking (o.m. to 1:00 p.m.)	Occupancy Afternoon (6:00	p.m. to 7:00 p.m.)
Focus Area	Inventory	# of Parked Vehicles	% of Occupancy	# of Parked Vehicles	% of Occupancy
Beyer Blvd	309	69	22.3%	95	30.7%
Park Ave	69	59	85.5%	53	76.8%
E. San Ysidro Blvd	95	36	37.9%	57	60.0%
Border Village Rd	124	20	16.1%	20	16.1%
Note: Available parking spaces were ca K:\TPTO\095661000\Excel\[661000PK02.xk		le curb length assuming a vehic	ular length of 25 feet.		

Accident Analysis

Tables 2-6 and 2-7 display the summary of accident data information obtained from the City of San Diego for the roadway segments analyzed in the San Ysidro area. The reports provide accident data from April 2005 until April 2008, indicating a total of 375 accidents. **Table 2-6** summarizes accident collision rates and compares them to the city-wide average collision rates for each location, based on the ADT and classification of the roadway segments. It should be noted that the accident rates are expressed in terms of accidents per million vehicle miles. These rates are based on statewide averages using state classifications as indicated on **Table 2-6**. **Table 2-7** summarizes the type of collisions while **Table 2-8** summarizes the cause of collisions.

As shown in **Table 2-6**, the collision rates in the San Ysidro area are above the citywide average collision rates except at the following places:

- Border Village Road (E. San Ysidro Boulevard to E. San Ysidro Boulevard)
- East Park Avenue (Seaward Drive to San Ysidro Boulevard)

As shown in **Table 2-7**, the most common collisions are broadside collisions and vehicles hitting objects, which resulted in 30 percent and 29 percent of the reported accidents, respectively. Other frequent collision types include rear end collisions representing 16 percent of the total number and sideswipe collisions representing 11 percent of the total number. It should be noted that 12 percent of collisions involved pedestrians.

Based on the data shown in **Table 2-8**, the highest reported causes of accidents are improper driver movements. Improper turns represent 31 percent of the reported accidents and improper driving represents 29 percent of the reported accidents. Together, 50 percent of the accidents were improper driver movements.

Appendix D contains types of collisions and collision factor data provided by the City.

Intersection Analysis

Table 2-9 displays the LOS analysis results for the study intersections under Existing Conditions. As shown in the table, all intersections would operate at LOS D or better during both peak periods, except for the following intersections:

- I-5 NB ramps & Via de San Ysidro (LOS F, p.m. peak)
- Camino de la Plaza & Willow Road (LOS E, a.m. and p.m. peaks)

Figure 2-23 graphically displays the LOS at the study intersections. **Appendix E** contains the LOS calculation worksheets.

Table 2-6

TRAFFIC COLLISION RATE COMPARISON

ROADWAY SEGMENT (BY CLASSIFICATION)	TOTAL NUMBER OF COLLISIONS	SEGMENT COLLISION RATE	CITY-WIDE COLLISION RATE
COLLECTOR MAJOR			
Smythe Ave (SR-905 to Beyer Blvd)	14	0.99	0.65
Via de San Ysidro (San Ysidro Blvd to south end)	30	15.74	0.65
W San Ysidro Blvd (E San Ysidro Blvd to end)	67	2.16	0.65
Calle Primera (Via Tercero to Willow Road)	11	1.52	0.65
E San Ysidro Blvd (W San Ysidro Blvd to end)	44	2.76	0.65
COLLECTOR MINOR			
East Beyer Blvd (Beyer Blvd to San Ysidro Blvd)	16	4.50	0.95
Dairy Mart Rd (SR-905 to Monument Road)	55	3.14	0.95
Willow Rd (Calle Primera to Camino de la Plaza)	22	2.95	0.95
Beyer Blvd (SR-905 to E. Beyer Blvd)	33	2.21	0.95
Camino de la Plaza (Dairy Mart Rd to E. San Ysidro Blvd)	61	1.85	0.95
Border Village Rd (E. San Ysidro Blvd to E. San Ysidro Blvd)	3	0.81	0.95
FEDERAL AID			
East Park Ave (Seaward to San Ysidro Blvd)	1	1.29	1.29
West Park Ave (Beyer Blvd to San Ysidro Blvd)	7	10.41	1.29
Otay Mesa Rd (SR-905 to Beyer Blvd)	11	5.65	1.29
TOTAL	375		_
Notes: The accident data was provided and compiled from the City of San Diego for April 2005 The rates are measured in per million vehicle miles and the statewide averages are based	÷ .	ndicated.	

K:\TPTO\095661000\Excel\[661000AC01.xls]Collision Rate Comparison

		Ta TYPE O	Table 2-7 TYPE OF COLLISIONS	s					
ROADWAY	TOTAL NUMBER	HEAD ON	SIDESWIPE	REAR END	BROADSIDE	BROADSIDE HIT OBJECT	OVERTURN	INVOLVED PEDESTRIAN	OTHER
Dairy Mart Rd (SR-905 to Monument Road)	55	_	7	6	22	14	_	_	0
Via de San Ysidro (San Ysidro Blvd to south end)	30	0	6	2	П	5	0	9	0
East Beyer Blvd (Beyer Blvd to San Ysidro Blvd)	16	0	2	3	3	2	0	9	0
Camino de la Plaza (Dairy Mart Rd to E. San Ysidro Blvd)	61	3	9	14	13	15	1	8	-
Willow Rd (Calle Primera to Camino de la Plaza)	22	0	1	4	3	10	0	3	1
Calle Primera (Via Tercero to Willow Road)	11	0	2	0	5	4	0	0	0
E San Ysidro Blvd (W San Ysidro Blvd to end)	44	0	6	7	6	6	1	6	0
W San Ysidro Blvd (E San Ysidro Blvd to end)	67	1	9	10	23	21	0	9	0
Beyer Blvd (SR-905 to E. Beyer Blvd)	33	0	0	9	11	12	1	3	0
Otay Mesa Rd (SR-905 to Beyer Blvd)	11	0	1	4	3	3	0	0	0
Smythe Ave (SR-905 to Beyer Blvd)	14	I	0	I	5	9	0	1	0
East Park Ave (Seaward to San Ysidro Blvd)	1	0	0	I	0	0	0	0	0
West Park Ave (Beyer Blvd to San Ysidro Blvd)	7	0	0	0	2	4	0	1	0
Border Village Rd (E. San Ysidro Blvd to E. San Ysidro Blvd)	3	0	0	0	1	2	0	0	0
TOTAL	375	9	40	19	III	107	4	44	2
PERCI	PERCENT OF TOTAL	2%	11%	16%	30%	29%	1%	12%	1%
Notes: The accident data was provided and compiled from the City of San Diego for April 2005 through April 2008 The rates are measured in per million vehicle miles.	5 through April 2008.								
KiTPTO0956610000Exed1(661000AC01.xlsJType of Califsion									

San Ysidro Mobility Strategy January 2009

		Tab	Table 2-8 collision FACTORS	~					
ROADWAY	TOTAL NUMBER	FOLLOW TOO CLOSE	FAILURE TO YIELD	IMPROPER TURN	SPEEDING	OTHER	IMPROPER DRIVING	OTHER THAN DRIVER	UNKNOWN
Dairy Mart Rd (SR-905 to Monument Road)	55	2	5	14	11	4	18	0	1
Via de San Ysidro (San Ysidro Blvd to south end)	30	0	5	6	5	2	8	-	0
East Beyer Blvd (Beyer Blvd to San Ysidro Blvd)	16	0	-	3	-	-	5	5	0
Camino de la Plaza (Dairy Mart Rd to E. San Ysidro Blvd)	61	3	г	18	12	5	19	3	0
Willow Rd (Calle Primera to Camino de la Plaza)	22	0	1	9	9	1	9	2	0
Calle Primera (Via Tercero to Willow Road)	=	0	2	5	0	2	2	0	0
E San Ysidro Blvd (W San Ysidro Blvd to end)	44	1	1	17	6	2	13	4	0
W San Ysidro Blvd (E San Ysidro Blvd to end)	67	3	8	23	10	3	19	1	0
Beyer Blvd (SR-905 to E. Beyer Blvd)	33	I	1	11	9	1	10	2	1
Otay Mesa Rd (SR-905 to Beyer Blvd)	11	0	1	2	5	2	1	0	0
Smythe Ave (SR-905 to Beyer Blvd)	14	I	0	3	4	1	3	2	0
East Park Ave (Seaward to San Ysidro Blvd)	1	0	0	0	1	0	0	0	0
West Park Ave (Beyer Blvd to San Ysidro Blvd)	7	0	0	4	0	0	3	0	0
Border Village Rd (E. San Ysidro Blvd to E. San Ysidro Blvd)	3	0	0	2	0	0	0	1	0
TOTAL	375	II	26	117	67	24	107	21	2
PERCI	PERCENT OF TOTAL	3%	7%	31%	18%	6%	29%	6%	1%
Notes: The accident data was provided and compiled from the City of San Diego for April 2005 through April 2008 The rates are measured in per million vehicle miles.	hrough April 2008.								
K.\TPT0/095661000Excelt[661000AC01.xb]Collision Factors									

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Table 2-9 EXISTING CONDITIONS PEAK-HOUR INTERSECTION LOS SUMMARY

			EXIST	ING
	INTERSECTION	PEAK-HOUR	DELAY (a)	LOS (b)
1	I-5 SB Ramps & Dairy Mart Rd	AM	22.7	С
đ.	1-9 5D Kallps & Daily Mart Ru	PM	32.5	C
2	W. San Ysidro Blvd & Dairy Mart Rd	AM	17.5	В
-	w. bait Isidio Bivu & Baity Mart Ru	PM	25.7	C
3	W. San Ysidro Blvd & I-5 NB Ramps	AM	15.4	В
Ĩ	W. San Tsicro Bive de 1-5 145 Kamps	PM	12.7	В
4	Beyer Blvd & Smyth Ave	AM	17.8	В
at .	Beyer Bive & Siliyin Ave	PM	11.2	В
5	W. San Ysidro Blvd & Cottonwood Rd	AM	6.3	А
9	W. San Tsidio Biva & Cononwood Rd	PM	5.8	A
6	W. San Ysidro Blvd & Via de San Ysidro	AM	10.3	В
0	W. San Tsidio Bivu & Via de San Tsidio	PM	16.7	В
7	I-5 NB Ramps & Via de San Ysidro	AM	16.6	C
1	1-5 NB Ramps & Via de San Tsidio	PM	91.7	F
8	I-5 SB off-ramp & Via de San Ysidro	AM	22.0	С
0	1-5 55 on-ramp & via de San Tsidio	PM	40.0	D
9	Calle Primera & Via de San Ysidro	AM	50.7	D
7	Cane Filinera & Via de San Tsidio	PM	43.0	D
10	E. San Ysidro Blvd & I-805 SB Ramps	AM	11.2	В
10	E. Sait 1sidio Bive & 1-805 5B Rallips	PM	15.0	В
11	E. San Ysidro Blvd & I-805 NB Ramps	AM	9.6	А
11	E. Sait Tsicro Bive & 1-805 IVB Kamps	PM	14.2	В
12	E. San Ysidro Blvd & Border Village Rd (N)	AM	6.5	А
12	E. Sait Isidio Bivu & Border Village Rd (IV)	PM	16.7	В
13	E. Son Vaidro Blud & Bordar Villoga Bd (S)	AM	10.8	В
15	E. San Ysidro Blvd & Border Village Rd (S)	PM	15.5	В
14	E. San Vaides Divid & F. Daver Divid	AM	14.1	В
14	E. San Ysidro Blvd & E. Beyer Blvd	PM	21.3	С
15	E. Son Voidro Dlud & 1.5 ND Domo	AM	12.5	В
15	E. San Ysidro Blvd & I-5 NB Ramp	PM	10.1	в
16	Camino de la Plaza & Willow Rd	AM	57.7	Е
10	Camino de la Plaza & Willow Kd	PM	59.2	E

Notes:

Bold values indicate intersections operating at LOS E or F.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the 2000 Highway Capacity Manual and performed using Synchro 6.0.

KATPTO095661000/Excel/661000IN01 xls]Existing



Roadway Segment Analysis

Table 2-10 displays the roadway segments analysis under Existing Conditions. As shown in the table, all roadway segments function at LOS D or better except for the following segments:

- San Ysidro Boulevard between Dairy Mart Road and Cottonwood Road (LOS E)
- San Ysidro Boulevard between Cottonwood Road and Via de San Ysidro (LOS F)
- San Ysidro Boulevard between I-805 ramps and Border Village Road (South) (LOS E)
- Willow Road between Calle Primera and Camino de la Plaza (LOS F)
- Border Village Road (LOS E)

Figure 2-24 graphically displays the LOS at the roadway segments.

EXISTING CONDITIONS DWAY SEGMENT LOS SUMMARY				
ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
(,)	0.11.10111		101110 (0)	200
4-Lane Collector	30,000	11,246	0.375	В
2-Lane Collector (continuous left-turn lane)	15,000	14,301	0.953	Е
2-Lane Collector (Multi-family)	8,000	14,756	1.845	F
4-Lane Major Arterial	40,000	20,645	0.516	В
2-Lane Collector (continuous left-turn lane)	15,000	13,348	0.890	Е
4-Lane Major Arterial	40,000	13,060	0.327	А
1-Lane Collector (one-way)	5,000	1,522	0.304	А
1-Lane Collector (one-way)	5,000	2,172	0.434	В
-				
4-Lane Collector (no center lane)	15,000	8,900	0.593	С
4-Lane Collector	30,000	10,046	0.335	В
2-Lane Collector (Multi-family)	8,000	3,009	0.376	В
_ _				
4-Lane Collector	30,000	15,191	0.506	С
4-Lane Collector	30,000	4,902	0.163	А
4-Lane Collector	30,000	19,962	0.665	С
-1				
2-Lane Collector (Multi-family)	8,000	10,846	1.356	F
2-Lane Collector (Multi-family)	8,000	7,527	0.941	E
	IDWAY SEGMENT LOS SUMMARY ROADWAY CLASSIFICATION (a) 4-Lane Collector 2-Lane Collector (continuous left-turn lane) 2-Lane Collector (Multi-family) 4-Lane Major Arterial 2-Lane Collector (continuous left-turn lane) 2-Lane Collector (continuous left-turn lane) 4-Lane Major Arterial 1-Lane Collector (one-way) 1-Lane Collector (one-way) 4-Lane Collector (no center lane) 4-Lane Collector (Multi-family) 2-Lane Collector (Multi-family) 4-Lane Collector 4-Lane Collector 2-Lane Collector (Multi-family) 2-Lane Collector (Multi-family)	IDWAY SEGMENT LOS SUMMARY ROADWAY CLASSIFICATION (a) LOS E CAPACITY 4-Lane Collector 30,000 2-Lane Collector (continuous left-turn lane) 15,000 4-Lane Major Arterial 40,000 1-Lane Collector (one-way) 5,000 1-Lane Collector (one-way) 5,000 1-Lane Collector (no center lane) 15,000 4-Lane Collector (Multi-family) 8,000 2-Lane Collector (Multi-family) 8,000 4-Lane Collector 30,000 4-Lane Collector (Multi-family) 8,000 2-Lane Collector (Multi-family) 8,000	ADWAY SEGMENT LOS SUMMARY ROADWAY CLASSIFICATION (a) LOS E CAPACITY ADT (b) 4-Lane Collector 30,000 11,246 2-Lane Collector (continuous left-turn lane) 15,000 14,301 2-Lane Collector (continuous left-turn lane) 15,000 14,756 4-Lane Major Arterial 40,000 20,645 2 1-Lane Collector (continuous left-turn lane) 15,000 13,348 4-Lane Major Arterial 40,000 13,060 1 1-Lane Collector (one-way) 5,000 1,522 1 1-Lane Collector (one-way) 5,000 2,172 4 1-Lane Collector (no center lane) 15,000 8,900 4 4-Lane Collector (mo center lane) 15,000 8,900 2 2-Lane Collector (Multi-family) 8,000 15,191 4 4-Lane Collector 30,000 15,191 4 4-Lane Collector 30,000 19,962 4 4-Lane Collector 30,000 19,962 4 2-Lane Collector (Multi-family) 8,000 10,846 <td>LOS SUMMARY ROADWAY CLASSIFICATION (a) LOS E CAPACITY ADT (b) RATIO (c) 4-Lane Collector 30,000 11,246 0.375 2-Lane Collector (continuous left-turn lane) 15,000 14,301 0.953 2-Lane Collector (continuous left-turn lane) 15,000 14,756 1.845 4-Lane Collector (continuous left-turn lane) 15,000 13,348 0.890 4-Lane Collector (continuous left-turn lane) 15,000 13,348 0.890 4-Lane Collector (continuous left-turn lane) 15,000 1,522 0.304 1 1-Lane Collector (one-way) 5,000 2,172 0.434 4 1-Lane Collector (no center lane) 15,000 8,900 0.593 4-Lane Collector (mo center lane) 15,000 8,900 0.376 4 Collector (Multi-family) 8,000 10,046 0.335 4 Collector (Multi-family) 8,000 15,191 0.506 4 Collector (Multi-family) 8,000 10,846 1.356 4 Collector (Multi-family)<!--</td--></td>	LOS SUMMARY ROADWAY CLASSIFICATION (a) LOS E CAPACITY ADT (b) RATIO (c) 4-Lane Collector 30,000 11,246 0.375 2-Lane Collector (continuous left-turn lane) 15,000 14,301 0.953 2-Lane Collector (continuous left-turn lane) 15,000 14,756 1.845 4-Lane Collector (continuous left-turn lane) 15,000 13,348 0.890 4-Lane Collector (continuous left-turn lane) 15,000 13,348 0.890 4-Lane Collector (continuous left-turn lane) 15,000 1,522 0.304 1 1-Lane Collector (one-way) 5,000 2,172 0.434 4 1-Lane Collector (no center lane) 15,000 8,900 0.593 4-Lane Collector (mo center lane) 15,000 8,900 0.376 4 Collector (Multi-family) 8,000 10,046 0.335 4 Collector (Multi-family) 8,000 15,191 0.506 4 Collector (Multi-family) 8,000 10,846 1.356 4 Collector (Multi-family) </td

(b) Average Daily Traffic GADT volumes for the roadway segments were provided by National Data & Surveying Services and measured in May and June 2007.
 (c) The v/c ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity at LOS E.



D. BUILD OUT CONDITIONS

This section provides a description of the Build Out conditions projected for the San Ysidro community for the Year 2030.

Road Network

Under the Build Out scenario or by the Year 2030, no infrastructure improvements have been assumed to be completed in the study area. As a result, the intersection and roadway geometrics are the same as Existing Conditions (see **Figures 2-7a, 2-7b and 2-8**).

Traffic Volumes

The Build Out traffic volumes for the roadway segments in the study area were obtained from SANDAG's Series 10 regional model for the Year 2030. To estimate the Build Out turning movement volumes at the study intersections, the existing turning movements at each respective study intersection were factored up based on the projected ADT volumes along each approach, as discussed previously. **Figure 2-25** shows the projected growth in the San Ysidro community for the Year 2030. As shown in the figure, the majority of the growth is anticipated to occur north of the study area with approximately 30 percent originating from the northwest and 27 percent originating from the northeast. Only five percent is anticipated to be originating from within the community. **Figure 2-26** displays the projected growth in daily traffic volumes along the roadway segments evaluated in the study area.

Figures 2-27 through **2-28** show the Build Out peak-hour and ADT volumes for the Year 2030.

Intersection Analysis

Table 2-11 displays the LOS analysis results for the study intersections under the Build Out condition. As shown in the table, all study intersections would operate at LOS D or better except for the following intersections:

- I-5 NB ramps & Via de San Ysidro (LOS F, a.m. and p.m. peaks)
- I-5 SB Off-Ramp & Via de San Ysidro (LOS E, p.m. peak)
- Calle Primera & Via de San Ysidro (LOS F, a.m. and p.m. peaks)
- East San Ysidro Boulevard & East Beyer Boulevard (LOS F, a.m. peak, LOS E, p.m. peak)
- Camino de la Plaza & Willow Road (LOS F, a.m. and p.m. peaks)

Figure 2-29 graphically displays the LOS at the study intersections. **Appendix E** contains the LOS calculation worksheets.




San Ysidro Mobility Strategy							
⇔ 161 /310 ∞ 83 /236 Dairy Mart Rd	I-5 SB ramps	 5 52 / 16 ⇔ 136 / 222 ⇔ 177 / 256 Dairy Mart Rd 	 № 168 / 196 ⇔ 115 / 129 ∞ 70 / 201 W San Ysidro Blvd 	3	⇔ 267 / 423 2 397 / 374 W San Ysidro Blvd	 8 141/93 8 301/182 8 mythe Ave 	 5 194 / 112 ⇒ 424 / 325 Beyer Blvd
288 / 615 🖉 200 / 447 💊	646 / 487 ⇔ 19 / 37 ∿	35/44 Ø 178/162 © 62/129 S	149 / 136 2 216 / 261 4 575 / 722 2	340 / 691 👳 613 / 424 💊	108 / 67 @ 98 / 88 %	124 / 64	
 16 / 12 2 / 2 125 / 137 cottonwood Rd 	∾ 108 / 96 ⇔ 339 / 588 ∞ 4 / 15 W San Ysidro Blvd	6	⇔ 182 / 379 ∞ 358 / 425 W San Ysidro Blvd	 276 / 163 290 / 593 Via de San Ysidro 	∾ 137 / 64 27 / 113 I-5 NB Ramps	⇔ 376/834 Via de San Ysidro	
14/19 ⊘ 295/687 ⇔ 2/3 ⊗	4/2 2 3/1 8 8/5 2	222 / 549 ⇔ 167 / 349 ⊗	276 / 315 @ 499 / 677 %		182 / 425 <i>o</i> 664 / 921 e	183 / 525 🧔	842 / 816 🗢
 % 87 / 376 ⇔ 87 / 376 ⇔ 8 / 15 ∞ 300 / 878 ∨ 3300 / 878 ∨ 3300 / 878 	 S 602 / 615 ⇒ 105 / 82 ≥ 11 / 10 Via Calle Primera 	0 218 / 197 2 2 / 3 2 2 / 3 2 2 / 3 2 2 / 3 1 905 SB ramps	⇔ 410 / 629 ⊘ 47 / 213 E San Ysidro Blvd	11 sduur BN 908-1	s 231 / 575 ⇔ 359 / 698 E San Ysidro Blvd	12	⇔ 298 / 905 ⊉ 0 / 3 E San Ysidro Blvd
106 / 193	8/8 & 35/59 & 11/22 &	587 / 855 🤛 119 / 316 📎		218 / 202	67 / 102 2 0 / 2 4 129 / 379 2	379 / 799 ⇔ 266 / 617 ∿	159 / 482 <i>o</i> 7 / 7 o
2 / 2 2 / 1 2 / 1 2 / 1 2 / 1 8 2 / 2 8 2 / 1 8 2	s, 3 / 0 ⇔ 259 / 638 ⊉ 76 / 165 E San Ysidro Blvd	 206 / 103 257 / 196 48 / 68 E Bøyer Blvd 	© 23 / 50 ⇔ 48 / 235 ⊉ 22 / 61 E San Ysidro Blvd	9 175 9 74 155 9 0 14 15 Ramps	© 0 / 2 ⇔ 21 / 18 ⊭ 7 / 2 E San Ysidro Bivd	8 70 / 84 ⇔ 48 / 224 ∞ 277 / 472 Willow Rd	 № 155 / 553 ⇔ 29 / 155 № 12 / 39 Camino de la Plaza
3 / 16	2/2 @ 0/4 # 72/289 \$	295 / 153	23 /583 @ 123 /231 @ 10 /569 @	101 / 164	112 / 184 ⊘ 59 / 20 ⇔ 7 / 1 ⊗	140 / 85	3/19 & 29/156 ⇔ 5/67 &



Figure 2-27a Build Out Peak-Hour Traffic Volumes





Table 2-11

BUILD OUT CONDITIONS PEAK-HOUR INTERSECTION LOS SUMMARY

			YEAR 2030 BASELINE		
	INTERSECTION	PEAK HOUR	DELAY (a)	LOS (b)	
1	I-5 SB Ramps & Dairy Mart Rd	AM	32.7	С	
1	1-5 5B Ramps & Dairy MarcRu	PM	44.2	D	
2	W. San Ysidro Blvd & Dairy Mart Rd	AM	19.2	В	
4	W. Sair Tsidio Bivu & Dairy Wait Ru	PM	39.9	D	
3	W. San Ysidro Blvd & I-5 NB Ramps	AM	19.6	В	
:::::	w. Sait 1sidio Bive & 1-5 NB Kalips	PM	13.7	В	
4	Beyer Blvd & Smyth Ave	AM	19.3	В	
	Beyer Bive & Sillyur Ave	PM	10.1	В	
5	W. San Ysidro Blvd & Cottonwood Rd	AM	7.4	А	
~	W. Jan Taldro Divi & Couoliwood Ru	PM	8.6	A	
6	W. San Ysidro Blvd & Via de San Ysidro	AM	17.1	В	
9	w. Sait Tsidio Bivu & via de Sait Tsidio	PM	42.9	D	
7	I-5 NB Ramps & Via de San Ysidro	AM	114.4	F	
1	1-5 NB Rallps & Via de Salt Tsidio	PM	ECL	F	
8	I-5 SB off-ramp & Via de San Ysidro	AM	29.6	C	
0	1-5 SB on-ramp & via de San Tsidio	PM	68.6	E	
9	Calle Primera & Via de San Ysidro	AM	83.3	F	
2	Calle Fillitera & Via de Salt Tsidio	PM	90.7	F	
10	E. San Ysidro Blvd & I-805 SB Ramps	AM	11.8	В	
10	E. San Tsidio Bivd & 1-805 SB Ramps	PM	16.9	В	
11	E. San Ysidro Blvd & I-805 NB Ramps	AM	9.8	Α	
	E. San Tsidro Bivd & 1-605 IVB Kamps	PM	25.1	С	
12	E. San Ysidro Blvd & Border Village Rd (N)	AM	7.6	А	
12	E. Sai Tsidio Bivi & Bolder Village Ru (N)	PM	46.6	D	
13	E. San Ysidro Blvd & Border Village Rd (S)	AM	10.2	В	
15	E. San Tstaro Biva a Border vinage Ra (3)	PM	33.8	С	
14	E. San Ysidro Blvd & E. Beyer Blvd	AM	ECL	F	
1.18	E. San Tstuto Brva & E. Deyer Brva	PM	56.1	Е	
15	E. San Ysidro Blvd & I-5 NB Ramp	AM	12.2	В	
10	L. oan Totalo biva ce 1-5 ivb Kamp	PM	45.5	D	
16	Camino de la Plaza & Willow Rd	AM	ECL	F	
10	Canano de la Flaza de Winow Ru	PM	ECL	F	

Notes:

Bold values indicate intersections operating at LOS E or F.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the 2000 Highway Capacity Manual and performed using Synchro 6.0

E-\TPTCk095661000\Excel\[661000D401.xis]Build-Cut



Roadway Segment Analysis

Table 2-12 displays the roadway segments analysis under the Build Outcondition. As shown in the table, all roadway segments function at LOS D orbetter except for the following segments:

- San Ysidro Boulevard between Dairy Mart Road and Cottonwood Road (LOS F)
- San Ysidro Boulevard between Cottonwood Road and Via de San Ysidro (LOS F)
- San Ysidro Boulevard between I-805 Ramps and Border Village Road (South) (LOS F)
- E. Beyer Boulevard between Beyer Boulevard and E. San Ysidro Boulevard (LOS F)
- Camino de la Plaza between I-805 ramps and San Ysidro Boulevard (LOS F)
- Willow Road between Calle Primera and Camino de la Plaza (LOS F)
- Border Village Road (LOS F)

Figure 2-30 graphically displays the LOS at the roadway segments.

Table 2-12 BUILD OUT CONDITIONS ROADWAY SEGMENT LOS SUMMARY					
ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Dairy Mart Rd					
W. San Ysidro Blvd to Vista Ln	4-Lane Collector	30,000	12,000	0.400	В
W. San Ysidro Blvd					
Dairy Mart Rd to Cottonwood Rd	2-Lane Collector (continuous left-turn lane)	15,000	16,000	1.067	F
Cottonwood Rd to Via de San Ysidro	2-Lane Collector (Multi-family)	8,000	20,000	2.500	F
Via de San Ysidro to I-805 Ramps	4-Lane Major Arterial	40,000	26,600	0.665	С
E. San Ysidro Blvd					
I-805 Ramps to Border Village Rd (south)	2-Lane Collector (continuous left-turn lane)	15,000	19,000	1.267	F
Border Village Rd (south) to E. Beyer Blvd/Camino de la Plaza	4-Lane Major Arterial	40,000	24,000	0.600	С
W. Park Ave					
W. San Ysidro Blvd to Beyer Blvd	1-Lane Collector (one-way)	5,000	3,300	0.660	С
E. Park Ave					
W. San Ysidro Blvd to E. Seaward Ave	1-Lane Collector (one-way)	5,000	4,000	0.800	D
Beyer Blvd					
Diary Mart Rd to Smythe Ave	4-Lane Collector (no center lane)	15,000	11,800	0.787	D
Smythe Ave to E. Beyer Blvd	4-Lane Collector	30,000	17,900	0.597	С
E. Beyer Blvd					
Beyer Blvd to E. San Ysidro Blvd	2-Lane Collector (Multi-family)	8,000	8,500	1.063	F
Via de San Ysidro					
Calle Primera to W. San Ysidro Blvd	4-Lane Collector	30,000	23,000	0.767	D
Camino de la Plaza					
Diary Mart Rd to I-805 Ramps	4-Lane Collector	30,000	8,000	0.267	А
I-805 Ramps to E. San Ysidro Blvd	4-Lane Collector	30,000	28,000	0.933	Е
Willow Rd					
Calle Primera to Camino de la Plaza	2-Lane Collector (Multi-family)	8,000	31,300	3.913	F
Border Village Rd					
E. San Ysidro Blvd to E. San Ysidro Blvd	2-Lane Collector (Multi-family)	8,000	10,000	1.250	F
Notes: Bold values indicate roadway segments operating at LOS E or F. (a) Future roads street classification is based on the San Ysidro Community Plan adop (b) Average Daily Traffic (ADT) volumes for the roadway segments were taken from					

(b) Average Daily Traffic (ADT) volumes for the roadway segments were taken from SANDAG's Series 10 Regiona (c) The v/c ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity at LOS E.



E. LAND USES

At the time of this writing, a Community Plan Update for San Ysidro is about 3 months from beginning. There will likely be some changes to the existing land uses when the update process is completed. However, it is important to understand the existing land uses in the preparation of any mobility strategy. **Figure 2-31** is the current Community Plan Existing Condition Land Use Map and **Figure 2-32** is the current Community Plan Existing Condition Transit and Bike Route map. Note that the existing Community Plan does not indicate many bike routes. No through routes are indicated and those bike routes that are shown are not located in areas likely to generate high bike traffic.

The community of San Ysidro contains a wide variety of land uses. As noted earlier, the bulk of the community is surrounded by a freeway system and bisected by a rail corridor with little access across it. As illustrated in **Figure 2-21**, many pedestrian intensive uses presently exist. It is imperative that mobility choices be maximized to take advantage of these high pedestrian generation areas.

San Ysidro Mobility Strategy January 2009





	Single Family Residential; Rural Residential
	Multi-Family Residential
	Residential (under construction)
	Group Quarters
	Mobile Home Park
	Commercial
	Commercial (under construction)
	Industrial; Warehouse/Storage
////	Industrial Under Construction
	Communication Utilities; Parking
	Institutional
	Schools
/////	Other Transportation
	Agriculture
	Park; Open Space
////	Private Recreation
	Undeveloped, Undevelopable Natural Areas

Single Family – single family detached housing units, on lots smaller than 1 sere. Multi-Family – Artached housing units, two or more units per structure – includes: uplexes, townhomes, condominums apartments, and SRO3 in Center City. Group Quarters – includes dominories, convolucional SRO3 in Center City. Commercial – includes, contramity, neighborhood, and specialty alooping enters Commercial – includes, contramity, neighborhood, and specialty alooping enters office buildings, hotels, motels, not doedarships, wholeale trates, and nore foot review which may include mixed-use i.e. residential on 50 of commercial, or residential un dincent to commercial establishments.

ent to commercial establishments. strial – heavy industry, light industry, which includes: industrial s'industrial uses clustered into a center. Light industry-general – a or dustered in certain areas, which includes manufacturing use ture, paper, rubber, stone, clay, and glass; as well as light industr nervices and recycling centers. Warehousing/public storage – use tring uses such as I

ated near freeways, manufan of stop ending the state of the stop of the state of th electrical power generating plants, water and sewage treatment

suit Centers included. churches, labraries, post offices, police and fire stations, an cludes public and private schools, colleges, and un

v parks with recre tation areas and

ate Recreation-May include clubhouses, re-

includes Golf Courses. Open Space – includes wildlife and nature preserves, lands set aside

includes women and access. and development and access. – Vacant land that is either graded or not graded. Und – Vacant land that is either graded or not graded. Und meas planned as open space easo in established park or preserve.

All land use designations may not occur in the area displayed on this may



Background contains 1999 black and white or 2001 color aetial orthophotograph.









3. IMPROVEMENT RECOMMENDATIONS

The design team evaluated the existing and future condition data. In addition, as described in Section 2, several meetings with the San Ysidro community occurred over a several month period. The community survey results also were analyzed. During these meetings, results of the traffic analysis were shared, which led to discussions related to potential improvements. These project ideas were correlated with the Mobility Strategy project goals and community needs. Many of the improvements discussed did not directly correlate with the traffic analysis conducted in the study area. However, these improvements would help to improve the mobility at some of the affected areas within the community and some were further developed as improvement projects. As a result of this process, the best improvement projects were selected and further developed and refined.

The following discussion summarizes the key findings and conclusions of the proposed improvement projects. It should be noted that in some cases, alternative design concepts were developed based on input from the community. This report presents all of the developed alternatives and makes recommendations on which alternative is preferred. The locations of the recommended improvements summarized below are illustrated in **Figure 3-1**.



Figure 3-1 Location of Recommended Improvement Projects

Project S-1: Improvements along Dairy Mart Road

This project involves widening Dairy Mart Road by 30 to 34 feet between West San Ysidro Boulevard and Camino de la Plaza to accommodate one additional travel lane in each direction, bike lanes, and expanded sidewalks. The project would also expand the existing Dairy Mart Road intersection with the I-5 southbound on- and off-ramps and widen the Dairy Mart Road Bridge over I-5. This improvement has been developed to improve connectivity between the northern and southern portions of the San Ysidro community for vehicular and non-motorized modes of travel. With the improvement, Dairy Mart Road would be considered a 4-lane collector street and is estimated to carry approximately 12,000 ADT. The improvements along Dairy Mart Road would shift some of the traffic that today uses Via de San Ysidro and Willow Road to access the southwest area of San Ysidro. By shifting traffic to Dairy Mart Road and eventually to Camino de la Plaza, the operations along Willow Road and Via de San Ysidro would be expected to improve. **Figure 3-2** is a conceptual sketch depicting the improvement.



Figure 3-2 Conceptual Layout of Project S-1



Figure 3-3 Project S-1 Typical Sections

Assessment of Improvement

Project S-1 will provide additional capacity for vehicular and pedestrian traffic and provide new Class II bike lanes. The additional through and turning lanes at the I-5 southbound/Dairy Mart Road intersection would be expected to reduce delay for all traffic passing through this intersection. The project is consistent with the Transportation and Circulation Element of the San Ysidro Community Plan. As part of the improvement, a new traffic signal and/or signal modifications have been assumed between West San Ysidro Boulevard and Camino de la Plaza. However, no additional right-of-way (ROW) would be required.

Estimated Construction Cost of Project S-1 in 2008 dollars = \$8,200,000

(See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-2A: Removal of Southbound Off-Ramp at Via de San Ysidro

This improvement project involves replacing the existing I-5 southbound off-ramp to Via de San Ysidro with a new off-ramp that would terminate at Calle Primera, to the west of Via de San Ysidro. The new off-ramp would be controlled by a traffic signal. This improvement has been identified to improve the operation of the five-legged I-5 southbound off-ramp/Via de San Ysidro/Calle Primera intersection. **Figure 3-4** presents a conceptual sketch of the improvement.



Figure 3-4 Conceptual Layout of Project 2A

Assessment of Improvement

Project S-2A will benefit local mobility in several ways. Removing the southbound off-ramp from the Via De San Ysidro/Calle Primera intersection is expected to reduce delay for all motorists passing through the intersection. The improvement would also remove the very short merge for traffic proceeding I-5 southbound to Calle Primera eastbound and increase storage available for southbound traffic on Via de San Ysidro, north of Calle Primera. While the new "T" intersection at I-5 southbound/Calle Primera will likely improve access for I-5 southbound traffic, it would be expected to slightly increase travel time for through traffic on Calle Primera, due to the installation of the new signal. Also, this improvement would require widening along Calle Primera between the new I-5 southbound off-ramp and Via de San Ysidro. The improvement is not identified as a recommended improvement in the Transportation and Circulation Element of the San Ysidro Community Plan. Further analysis of this particular project will

be required during subsequent phases of the overall Mobility Strategy as it could impact the development potential of the parcel that it traverses and the change in circulation patterns could also impact surrounding businesses.

Estimated Construction Cost of Project S-2A in 2008 dollars = \$5,700,000

(See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-2B: Removal of Southbound Off-Ramp at Via de San Ysidro and Construction of New Southbound On-Ramp

This improvement project involves removing the existing I-5 southbound off-ramp to Via de San Ysidro, and constructing a new "hook" type southbound on- and off-ramp at Calle Primera. The new on- and off-ramp would be controlled by a traffic signal. This improvement has been developed both to improve the operation of the I-5 southbound off-ramp/Via de San Ysidro/Calle Primera intersection and to complete the I-5/Via de San Ysidro interchange. **Figure 3-5** is a conceptual sketch of the improvement.



Figure 3-5 Conceptual Layout of Project S-2B

As with project S-2A, the removal of the southbound off-ramp from the Via De San Ysidro/Calle Primera intersection would likely reduce delay for all vehicles traversing the intersection. The improvement would improve gueue storage and merging for southbound traffic. Construction of the new signalized "T" intersection at I-5 southbound/Calle Primera will facilitate access to and from I-5 southbound but also slow down through traffic on Calle Primera. In addition, the project would provide a southbound on-ramp, which is not currently provided at the interchange. One key issue with respect to this improvement is the feasibility of the new southbound on-ramp. In addition to a steep upward slope from Calle Primera to I-5 southbound, the on-ramp would likely result in a short merging distance for traffic entering the freeway main lanes. It may be necessary to widen the I-5 bridge over Via de San Ysidro to provide additional merging distance for these vehicles. As with project S-2A, project S-2B is not identified as a recommended improvement in the Transportation and Circulation Element of the San Ysidro Community Plan. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy

Estimated Construction Cost of Project S-2B in 2008 dollars = \$11,000,000 (See section 3 of this report for cost summary and Appendix F for cost worksheets).

AS A RESULT OF COMMUNITY INPUT AND THE POTENTIAL CONSTRUCTION ISSUES WITH A NEW SOUTHBOUND ON-RAMP, PROJECT S-2A IS THE PREFERRED ALTERNATIVE.

Project S-3A: Connection from Calle Primera to Camino de la Plaza (via Bibler Drive)

This improvement project would extend Calle Primera to the east and construct Bibler Drive to the north and east from its existing intersection with Anelia Drive to form a "T" intersection with the extension of Calle Primera. The new roadway segment would be a two-lane collector, and a new traffic signal would be provided at the Calle Primera/Bibler Drive intersection. This improvement has been developed to provide an additional east/west linkage in the community and to provide a more direct connection between Camino de la Plaza and the I-5/Via de San Ysidro interchange. It is estimated that approximately 5,000 ADT would use the new connection from Calle Primera to Camino de la Plaza via Bibler Drive. **Figure 3-6** is a conceptual drawing of the improvement.



Figure 3-6 Conceptual Layout of Project S-3A

Assessment of Improvement

This improvement would provide a significant mobility benefit for those living in the residential community along the east side of Camino de la Plaza, west of Willow Road. Whereas access from I-5 northbound currently requires some outof-direction travel for the community, the new connection would provide a direct connection from I-5 to this area. One potential drawback for this improvement is that through traffic on Camino de la Plaza may divert to this connection, resulting in increased cut-through traffic in the community. If this improvement were to be implemented together with either project S-2A or S-2B, then two new closelyspaced traffic signals would be constructed on Calle Primera, west of Via de San Ysidro. In addition, since this improvement would go through environmentally sensitive areas, a major environmental study would be triggered and there could be significant unmitigated impacts. The concept for this improvement, although along a slightly different alignment, is identified in the Transportation and Circulation Element of the San Ysidro Community Plan. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy.

Estimated Construction Cost of Project S-3A in 2008 dollars = \$19,400,000 (See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-3B: Connection from Calle Primera to Camino de la Plaza (via new road north of Bibler Drive)

This improvement project would construct a new two-lane collector roadway between Camino de la Plaza and Via Tercero, to the north of the residential community. This improvement has the same premise as project S-3A: to provide an additional east/west linkage in the community and to provide a more direct connection between Camino de la Plaza and the I-5/Via de San Ysidro interchange. **Figure 3-7** and **Figure 3-8** present a conceptual sketch of the improvement.



Figure 3-7 Conceptual Layout of Project S-3B



Figure 3-8 Conceptual Layout Enlargement of Project S-3B

Similar to project S-3A, this improvement would reduce out-of-direction travel for I-5 northbound traffic en route to the residential area on the east side of Camino de la Plaza. Although the improvement would involve some additional travel distance along Calle Primera and Via Tercero, it would avoid cut-through traffic traversing the residential area. The concept for this improvement, though on a different alignment, is identified in the Transportation and Circulation Element of the San Ysidro Community Plan. It is estimated that approximately 5,000 ADT would use the new connection from Calle Primera to Camino de la Plaza via a new road north of Bibler Drive. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy.

Estimated Construction Cost of Project S-3B in 2008 dollars = \$19,000,000

(See section 3 of this report for cost summary and Appendix F for cost worksheets).

AS A RESULT OF COMMUNITY INPUT AND THE POTENTIAL FOR THE BRIDGE TO ACT AS AN ALTERNATIVE ENTRY/EXIT FOR A GREATER NUMBER OF PEOPLE, PROJECT S-3B IS THE PREFERRED ALTERNATIVE.

Project S-4: Improvements to Beyer Boulevard

This improvement project would reconfigure Beyer Boulevard between Dairy Mart Road and Smythe Avenue. The existing lane configuration is two through lanes in each direction with parallel parking along both sides of the roadway and no median. The revised layout would provide one lane in each direction, separated by a two-way center turn lane. Diagonal parking would be provided along the north side of the roadway only. This improvement has been developed to improve access to and from adjacent land uses and to improve the walkability along Beyer Boulevard. With the improvement, it is estimated that Beyer Boulevard would carry approximately 11,800 ADT. In addition, pedestrian improvements such as new sidewalks, trees, etc. along the south side of Beyer Boulevard would be provided as part of the improvement. **Figure 3-9** presents a conceptual sketch of the improvement.



Figure 3-9 Conceptual Layout of Project S-4

The existing rail corridor acts as a barrier. The concept of the Green Spine is discussed later in this section. The Green Spine would serve to connect the community, not separate it. As a result, Project S-4 also recommends that a landscaped bikeway/trail be located between the tracks and the Beyer Boulevard edge of paving. **Figure 3-11** illustrates this concept. In addition, **Figure 3-12** is a computer simulation indicating a before and after view of this corridor if the bikeway/trail were constructed.



Beyer Boulevard - Existing Geometry



Beyer Boulevard - Recommended Geometry

Figure 3-10 Project S-4 Typical Sections



Figure 3-11 Section of the Bikeway/Trail



BEFORE



AFTER

Figure 3-12 Before and After Simulation of the Bikeway/Trail

Although the existing configuration of Beyer Boulevard provides one additional through lane in each direction, the potential capacity of these lanes is reduced by various factors (including "friction" caused by narrow lane widths and parking maneuvers). Also, vehicles wishing to make left turns into driveways block the inner lanes while awaiting gaps in opposing traffic, and people who park on the south side must cross the street to access adjacent properties. Between Dairy Mart Road and Smythe Avenue, there are 17 driveways on the north side of the street. Project S-4 will improve mobility by separating left turn movements from through traffic and by providing wider through lanes. Access to and from land uses on the north side of the roadway will benefit since diagonal parking would be provided on the north side of Beyer Boulevard and pedestrians would not have to cross at mid-block locations from the south to the north. This improvement is not consistent with the classification shown in the Transportation and Circulation Element of the San Ysidro Community Plan.

With the diagonal parking stalls provided on the north side of Beyer Boulevard and the elimination of parallel parking on the south side of Beyer Boulevard, there would be approximately 289 stalls available between Dairy Mart Road and Smythe Avenue. Under Existing Conditions, there are 309 parking spaces available. As a result, there is a decrease of 20 parking spaces. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy as it will involve coordination with MTS and may impact access to the surrounding residential areas.

Estimated Construction Cost of Project S-4 in 2008 dollars = \$13,500,000

(See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-5: Improvements at Beyer Boulevard Trolley Station

This improvement project would construct a new signalized (already installed) intersection at the Beyer Boulevard trolley station driveway. A new driveway would be constructed in the parking lot opposite the trolley station, and Beyer Boulevard would be restriped to provide left turn pockets for both eastbound and westbound traffic. The existing crosswalk would be shifted from its current location to the new intersection. This improvement has been developed to facilitate access to and from the trolley station. **Figure 3-13** presents a conceptual sketch of the improvement.





Project S-5 would benefit both vehicular and pedestrian access to and from the station. The new signal would regulate traffic and pedestrian movements, stopping through traffic to allow left turns into and out of the site and pedestrians to cross the four-lane segment of Beyer Boulevard. This improvement is not identified as a recommended improvement in the Transportation and Circulation Element of the San Ysidro Community Plan. The striped crosswalk in the MTS parking lot should be removed or realigned to match the new Beyer Boulevard crosswalk of the recently installed traffic signal.

Estimated Construction Cost of Project S-5 in 2008 dollars = \$600,000

(See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-6A: Improvements on East Park Avenue and West Park Avenue (with Diagonal Parking)

This improvement project would re-stripe East Park Avenue and West Park Avenue from Hall Avenue to San Ysidro Boulevard. The current roadway design provides one 17-foot through lane and one 12-foot parallel parking lane. The proposed design would narrow the through lane to 12 feet and provide a 16-foot diagonal parking lane on both roadways adjacent to the San Ysidro Community Park recreational facilities. This improvement has been suggested in order to improve access to the park and to increase parking supply. **Figure 3-14** presents a conceptual sketch of the improvement.



Figure 3-14 Conceptual Layout of Project S-6A





West Park - Recommended Geometry





East Park - Recommended Geometry

Figure 3-15 Project S-6A Typical Sections

Project S-6A would eliminate pedestrian crossings from the existing parking lane to the park by shifting through traffic to the outer edge of the pavement and locating the diagonal parking on the same side of the street as the park. In addition, improvement 6A would widen existing sidewalks adjacent to the park, enhancing pedestrian mobility. This improvement is not identified as a recommended improvement in the Transportation and Circulation Element of the San Ysidro Community Plan.

With the diagonal parking stalls provided on the east side of West Park Avenue and on the west side of East Park Avenue, there would be approximately 158 stalls available between Hall Avenue and San Ysidro Boulevard. Under Existing Conditions, there are 69 parking spaces available. As a result, there is an increase of 89 parking spaces. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy.

Estimated Construction Cost of Project S-6A in 2008 dollars = \$3,200,000

(See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-6B: Improvements on East Park Avenue and West Park Avenue (with Parallel Parking)

This improvement project would re-stripe East Park Avenue and West Park Avenue from Hall Avenue to San Ysidro Boulevard. The current roadway design provides one 17-foot through lane and one 12-foot parallel parking lane. The proposed design would narrow both the through lanes and the parking lanes in order to provide wider sidewalks on both sides of the roadway. This improvement has been developed to enhance existing pedestrian facilities in the area. **Figure 3-16** presents a conceptual sketch of the improvement.



Figure 3-16 Conceptual Layout of Project S-6B



West Park - Existing Geometry



Figure 3-17 Project S-6B Typical Sections



Although project S-6B does not shift the parking lane from the outer edge of the roadway to the park, the reduced pavement width may act to slow traffic in this area, and improve the safety of pedestrian crossings from the parking lanes to the park. This improvement is not identified as a recommended improvement in the Transportation and Circulation Element of the San Ysidro Community Plan. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy.

Estimated Construction Cost of Project S-6B in 2008 dollars = \$3,200,000 (See section 3 of this report for cost summary and Appendix F for cost worksheets).

AS A RESULT OF COMMUNITY INPUT AND A BETTER PARK RELATIONSHIP, PROJECT S-6A IS THE PREFERRED ALTERNATIVE.

Project S-7: Improvements Along Hall Avenue

This improvement project would provide a curb "bulb-out" along the north side of Hall Avenue, between West Park Avenue and East Park Avenue, and an expanded sidewalk on the opposite side of the street. The bulb-out and expanded sidewalk would narrow this segment of Hall Avenue from 60 feet to 40 feet of pavement. Diagonal parking spaces would be placed within the bulb-out, and crosswalks would be provided parallel to East Park Avenue and West Park Avenue. This improvement has been suggested in order to facilitate pedestrian access in the vicinity of the San Ysidro Community Park recreational facilities. **Figure 3-18** presents a conceptual sketch of the improvement.



Figure 3-18 Conceptual Layout of Project S-7



Hall Ave - Recommended Geometry

Figure 3-19 Project S-7 Typical Sections

Assessment of Improvement

Project S-7 would benefit northbound and southbound pedestrian mobility by reducing Hall Avenue's width. The diagonal spaces within the bulb-out will also enhance parking supply in the vicinity of the park. The bulb-out is not expected to adversely impact east/west traffic flow, because the roadway alignment would match up with the segments to the east and to the west. This improvement is not identified as a recommended improvement in the Transportation and Circulation Element of the San Ysidro Community Plan. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy.

Estimated Construction Cost of Project S-7 in 2008 dollars = \$100,000

(See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-8A: One-Way Couplet: East San Ysidro Boulevard (Northbound and Border Village Road (Southbound)

This improvement would convert East San Ysidro Boulevard and Border Village Road from separate two-way streets into a pair (or "couplet") of one-way streets, with East San Ysidro Boulevard accommodating northbound traffic, and Border Village Road serving southbound movements. East San Ysidro Boulevard would accommodate normal two-way traffic to the north and south of its two intersections with Border Village Road. Southbound traffic approaching the northern intersection would be channeled onto the Border Village Road, which would be re-striped to provide two southbound through lanes, parking lanes and sidewalks on both sides of the street. Similarly, northbound motorists approaching the southern intersection would continue on East San Ysidro Boulevard, which would provide a similar lane configuration. Motorists wishing to reverse directions without completing a loop would be able to turn onto Virginia Avenue and then make a left turn onto either East San Ysidro Boulevard or Border Village Road. This improvement has been developed in order to alleviate traffic congestion in this area. Figure 3-20 illustrates this improvement concept.



Figure 3-20 Conceptual Layout of Project S-8A



Figure 3-21 Project S-8A Typical Sections

Project S-8A would improve local mobility by eliminating conflicting left turn movements for northbound and southbound motorists on the couplet. Movements at both East San Ysidro Boulevard/Border Village Road intersections would also be simplified. This would likely reduce vehicle delay at both signals. The couplet system would necessitate some out-of-direction travel for southbound through traffic on East San Ysidro Boulevard and for other motorists, depending on their directionality and the location of their destination. Couplet operations would also be expected to increase traffic on Virginia Avenue. This improvement is identified in the recommended street classifications map in the Transportation and Circulation Element of the San Ysidro Community Plan. However, the community was not in favor of this option. As a result, Project S-8B was developed. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy.

Estimated Construction Cost of Project S-8A in 2008 dollars = \$1,500,000 (See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-8B: East San Ysidro Boulevard Plazas and Pedestrian Improvements

This improvement would widen sidewalks throughout the commercial area, provide curb pop-outs and create 2 small pedestrian oriented plazas on either side of East San Ysidro Boulevard. The western portion of Bolton Hall Road would be closed off adjacent to East San Ysidro Boulevard while continuing to provide driveway access to the adjacent businesses. See **Figure 3-22** below.



Figure 3-22 Conceptual Layout of Project S-8B
Assessment of Improvement

The northern intersection of East San Ysidro Boulevard, Border Village Road and Bolton Hall Road creates a small triangle resulting in some driver confusion and an excessive amount of asphalt. This area generates a large amount of pedestrian traffic as a result of the commercial businesses in the immediate area. The commercial area generally lacks a central focus. The creation of these two small plazas will enhance the pedestrian experience, simplify the intersection by eliminating the island, and calm traffic resulting in greater retail sales. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy as more community input will be needed to verify the circulation

Estimated Construction Cost of Project S-8B in 2008 dollars = \$4,500,000 (See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-9A: Remove Connection From East San Ysidro Boulevard to I-5 Northbound

This improvement would remove the existing connection from East San Ysidro Boulevard to I-5 northbound immediately to the north of the US/Mexico International Border. This improvement assumes that other planned improvements associated with the border crossing, including a new northbound on-ramp from Camino de la Plaza to I-5 will be constructed and will accommodate diverted traffic. Project S-9A would also remove the existing median on East San Ysidro Boulevard in order to allow left turns in and out of an existing parking lot located south of Camino de la Plaza. The intent of this improvement is to reduce vehicle/pedestrian conflicts on this segment. This intersection presents many vehicular/pedestrian conflicts. See **Figure 3-23** for a pedestrian count within the intersection. **Figure 3-24** presents a conceptual sketch of project S-9A.



	Pedestrians	Vehicles	Trolley
AM Peak	763	357	9 NB per hour 9 SB per hour
PM Peak	1062	840	9 NB per hour 9 SB per hour

Figure 3-23 Pedestrian Traffic Analysis at Trolley Station Intersection



Figure 3-24 Conceptual Layout of Project S-9A

Assessment of Improvement

Project S-9A would improve pedestrian mobility by eliminating conflicts between vehicles and pedestrians on the roadway segment between East San Ysidro Boulevard and the I-5 northbound on-ramp. Data collection suggests this location has among the highest pedestrian volumes in San Diego County (excluding special events). Implementation of this improvement would result in some out-of-direction travel for vehicles leaving the parking lot; however, this distance will be relatively minor following construction of the new I-5 on-ramp at Camino de la Plaza. This improvement is not identified as a recommended improvement in the Transportation and Circulation Element of the San Ysidro Community Plan. However, the business community within this area felt very strongly that eliminating this off-ramp and on-ramp would affect business negatively. As a result, Project S-9B was developed. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy and the GSA Port of Entry project which is presently underway.

Estimated Construction Cost of Project S-9A in 2008 dollars = \$14,900,000

(See section 3 of this report for cost summary and Appendix F for cost worksheets).

Project S-9B: Maintain Connection From East San Ysidro Boulevard to I-5 Northbound and Construct a New Northbound I-5/I-805 On-ramp on Camino de la Plaza

This project would maintain the existing northbound on-ramp and off-ramp in the existing location but would construct a new northbound I-5 and I-805 on-ramp on the north side of the Camino de la Plaza bridge (same as Project S-9A). In addition, the bridge would need to be widened to provide for left turn lanes northbound onto I-5 and I-805. See **Figure 3-25**.



Figure 3-25 Conceptual Layout of Project S-9B

Assessment of Improvement

Much like Project S-9A, this project would improve the inherent conflicts between vehicles and pedestrians at the trolley station, but it would not eliminate them. However, the existing traffic would remain as an option thus minimizing impacts to the surrounding businesses. The GSA is planning a major re-design to the entire border crossing complex. At the time of preparing this report, the GSA plans had not been finalized making it difficult to fully analyze this area. Further analysis of this particular project will be required during subsequent phases of the overall Mobility Strategy.

Estimated Construction Cost of Project S-9B in 2008 dollars = \$40,100,000

Project S-10: Smythe Crossing

This improvement would construct traffic signals at both ends of Smythe Crossing (Beyer Boulevard and South Vista Avenue). Both new traffic signals would be coordinated with the Smythe Avenue and Beyer Boulevard traffic signal for optimum level of service. The intent of this improvement is to reduce the conflicts amongst the trolley, bicyclists, pedestrians, and vehicular traffic. In addition to the traffic signal constructions, the improvement would include the construction/repair of the existing sidewalk surrounding both intersections. **Figure 3-26** presents a conceptual sketch of improvement S-10.



Figure 3-26 Conceptual Layout of Project S-10

Assessment of Improvement

Project S-10 would improve pedestrian mobility by separating the vehicles, bicyclists, pedestrians, and trolley traffic. With the construction of the two new signals and proper coordination between the signals and trolley, the improvements would increase safety and operations at the intersections. This improvement is not identified as a recommended improvement in the Transportation and Circulation Element of the San Ysidro Community Plan.

Estimated Construction Cost of Project S-10 in 2008 dollars = \$600,000

Project S-11: Trolley Line Sidewalk

This improvement would construct and improve the sidewalk along Seaward Avenue just west of the trolley line and along the west side of the trolley line just south of Seaward Avenue. The intent of this improvement is to enhance the pedestrian connectivity between the Beyer trolley station and East and West Park. **Figure 3-27** presents a conceptual sketch of project S-11.



Figure 3-27 Conceptual Layout of Project S-11

Assessment of Improvement

Project S-11 would improve pedestrian mobility by enhancing the connection between Beyer Boulevard and East and West Park. A constraint with the improvement is the need for a retaining wall along the west side of the trolley line just south of Seaward Avenue. The construction of the retaining wall is needed in order to accommodate the new and expanded sidewalk. This improvement is not identified as a recommended improvement in the Transportation and Circulation Element of the San Ysidro Community Plan.

Estimated Construction Cost of Project S-11 in 2008 dollars = \$400,000

Project P-1: West San Ysidro Boulevard Pedestrian Improvements

This project will move the existing curb out to the edge of the traveled way and a new sidewalk will be constructed within the old pavement right-of-way. New popouts will be constructed on each side of the driveways but access to the driveways will remain. This will provide a sidewalk where currently one does not exist. **Figure 3-28** illustrates the concept.



Figure 3-28 Conceptual Layout of Project P-1

San Ysidro Mobility Strategy

Assessment of Improvement

This segment of West San Ysidro Boulevard is lacking in sidewalks and pedestrian amenities. The road is much wider than it needs to be and in fact, a rather large area of street paving is striped to not allow vehicular access. San Ysidro Boulevard is very important within the community and it is vital that a through and safe pedestrian route be available from Dairy Mart Road to the Border.

Construction costs have not been prepared for this project.

Project P-2: Otay Mesa Road Sidewalk Improvements

This project would construct a sidewalk on the north side of Otay Mesa Road. See **Figure 3-29** below.



Figure 3-29 Conceptual Layout of Project P-2

Assessment of Improvement

Although this project is out of the community plan area, it is critical to the pedestrian mobility of the San Ysidro residents. Currently, Otay Mesa Road from Beyer Boulevard north to just south of Crescent Drive does not have a sidewalk adjacent to it. This is a major route from San Ysidro to San Ysidro High School and students need a safe place to walk to and from school. The south side of the road is very steep and as such would require extensive grading and retaining walls to construct a sidewalk. Accordingly, a sidewalk is proposed for the north side of the road only.

Construction costs have not been prepared for this project.

Project P-3: Seward Avenue/West Park Sidewalk

This project is similar to project S-11. A much stronger and better connection needs to occur between the trolley station and the proposed East and West Park Avenue area and to the proposed Pilot Village area beyond. This project would widen the sidewalk along this corridor. See **Figure 3-30** below.



Figure 3-30 Conceptual Layout of Project P-3

Assessment of Improvement

This is a relatively simple improvement that would create a much safer and significant connection between the Trolley Station and the Park. The project will require coordination with MTS to construct.

Project P-4: New Pedestrian Bridge Over Tracks at Del Sur Boulevard

This project will provide a much needed pedestrian link between the north and south sides of the track at Del Sur Boulevard. The grades at this location are favorable for the construction of a pedestrian bridge as the grades on the north side of the tracks would allow for the bridge to meet the existing grade flush. The bridge would then turn southeastward and gradually ramp down to the existing grade at a vacant lot at Vista Lane south of the tracks. **Figure 3-31** below indicates the location of the proposed bridge.



Figure 3-31 Conceptual Layout of Project P-4

Project P-5: Various Street and Sidewalk improvements

There are numerous locations within the community that require sidewalk improvements such as new wheelchair ramps, new sidewalks, existing sidewalk repair, traffic lights, enhanced crosswalks and other pedestrian and street amenities. Below is a legend indicating the type of improvements that could occur and **Figure 3-32** illustrates where some of these improvements could be located. The page following indicates what some of these improvements might look like.

Focus Area 1 Estimated Construction Cost in 2008 dollars - \$6,112,000 Focus Area 2 Estimated Construction Cost in 2008 dollars - \$2,035,000 Focus Area 3 Estimated Construction Cost in 2008 dollars - \$3,142,000

San Ysidro Mobility Strategy January 2009







Examples of types of P-5 projects





The Green Spine

The existing rail and trolley corridor currently acts as a barrier between the north and south halves of the community as there are few places for pedestrians and vehicles to cross from one side to the other. Rather than act as a barrier, this corridor could act as a unifying element for the San Ysidro community. This green link adjacent to the railroad ROW and Beyer Boulevard would be a highly walkable natural space that would contain trees, wide walkways, bike paths and pedestrian amenities such as lighting and benches. This link potentially would extend from SR-905 to the Border.



Figure 3-33 The Green Spine

Proposed Bicycle Routes

The current community plan does not adequately address bicycle circulation. Bicycle use must be encouraged within the community. Aside from the major Type 1 (separated bike path) bikeway proposed within the green link, most bike paths depicted in the graphic below are Type 2 and 3 located within the street right-of-ways. Further analysis in subsequent phases will propose and evaluate potential specific improvements and bikeway types.



Figure 3-34 Proposed Bicycle Routes

Proposed Major Pedestrian Routes

In addition to the major bicycle routes, the key pedestrian routes have been identified below. Ideally, these routes would include wider sidewalks, trails and separated paths where possible. Further analysis in subsequent phases will propose and evaluate potential specific improvements and sidewalk and trail types.



Figure 3-35 Proposed Major Pedestrian Routes

Proposed Ceremonial Street – San Ysidro Boulevard

San Ysidro Boulevard should have a continuous sidewalk on both sides of the street (as wide as possible) from the border to Dairy Mart Road. See **Figure 3-36.** This street contains the central core and heartbeat of the community. As such, it should be treated differently as the other streets. It should be a grand boulevard with trees on both sides of the streets, side sidewalks, benches, adjacent mini-plazas, banners and public art. This street should receive high priority as improvements progress. Further analysis in subsequent phases will propose and evaluate potential specific improvements.



Figure 3-36 Proposed Ceremonial Street – San Ysidro Boulevard

Cost Estimate Summary of Projects

Cost estimates including construction and design costs have been prepared for the MAJOR improvements proposed above. It should be noted that the cost estimates at each location represent the probable construction cost and also include costs for preliminary engineering/environmental, design, and construction administration (each estimated to be 10 percent of construction costs). Also, costs have been rounded up to the nearest \$100,000. **Table 3-1** summarizes the cost estimates for each proposed improvement described above. As shown in the table, costs of the improvements range from \$100,000 to \$40,100,000. Costs on the lower end such as improvements at the Beyer Boulevard Trolley Station and along Hall Avenue would generally consist of minor earthwork and/or traffic signal modifications. Costs on the higher end such as improvements near the San Ysidro Border Crossing involve new bridge structures, retaining walls, and ROW acquisition.

TABLE 3-1 SUMMARY OF COST ESTIMATES FOR RECOMMENDED IMPROVEMENTS						
Improvement Focus Area Cost of Improvement (2008 \$)						
S-1	Dairy Mart Road	\$8,200,000				
S-2A	Via de San Ysidro	\$5,700,000				
S-2B	Via de San Ysidro	\$11,000,000				
S-3A	Calle Primera	\$19,400,000				
S-3B	Calle Primera	\$19,000,000				
S-4	Beyer Boulevard	\$13,500,000				
S-5	Beyer Boulevard Trolley Station	\$600,000				
S-6A &B	East and West Park Avenue	\$3,200,000				
S-7	Hall Avenue	\$100,000				
S-8A	San Ysidro/Border Village Couplet	\$1,500,000				
S-8B	San Ysidro/Border Village Couplet	\$4,500,000				
S-9A	Border Crossing	\$14,900,000				
S-9B	Border Crossing	\$40,100,000				
S-10	Smythe Crossing	\$600,000				
S-11	Trolley Line Sidewalk	\$400,000				
P-5	Focus Area 1	\$6,112,000				
P-5	Focus Area 2	\$2,035,000				
P-5	Focus Area 3	\$3,142,000				
	provements have been rounded up to the ets are provided in Appendix F.	nearest \$100,000. Detailed cost				

4. SURVEY RESPONSES

Two surveys were prepared to better understand the needs and issues that the local community deemed important. The first survey was conducted during the data gathering stage of the project. 223 responses were received. The results of these surveys follow and are summarized below. **Figure 4-1** indicates where the surveyed people live and work. The responses were very diverse but there were certain issues that were more popular than others.

THE INITIAL COMMUNITY SURVEY

Some of the more significant responses included the following:

- 65% never use the bus.
- 82% have never used local shuttles or jitneys.
- 54% use the trolley.
- Of those that use the trolley, 33% get to the station by car and 49% walk.
- The most popular streets to drive on were San Ysidro Boulevard and Beyer Boulevard.
- More people would use buses if there was a great frequency.
- 89% said that neither they nor their children use a bicycle.
- Of those that used a bicycle, 83% did not feel safe when riding.
- 61% never use the pedestrian overpasses over the freeway.
- 73% feel the existing freeway pedestrian overpasses are unpleasant.
- 75% feel more pedestrian connections are needed over the railroad/trolley tracks.

THE PROPOSED PROJECT EVALUATION

The second survey was done after the major improvement projects were developed to evaluate how the community valued each of the proposed improvement. Each project was evaluated from 1 to 10 with 10 being deemed most important and most desirable.

The four most important projects were creating pedestrian routes throughout the community, constructing the various pedestrian projects throughout the community (P-5), the Otay Mesa Road new sidewalk (P-2), and a new pedestrian bridge over the trolley tracks (P-4). The most desirable projects included the pedestrian bridge over the trolley tracks (P-4), and the various pedestrian projects throughout the community (P-5).

The least important projects were the Seward Avenue new sidewalk (P-3), and the creation of bicycle routes. The least desirable projects were (S-5) Street Improvements at Trolley Station, and the plaza at Hall Avenue (S-7).



Page 1

SAN YSIDRO MOBILITY STUDY COMMUNITY SURVEY - RESPONSES

Last Updated: 7/23/2007 # of Responses To Date: 223 223

How many work in Mexico How many live in Mexico	9 21 Total Responses 30	30% 70%
1a. What category most closely describes you	12	
Resident	142	51%
Community advocate	12	4%
Community group member	18	6%
Business owner	15	5%
Work for business in San Ysidro	60	22%
Pedestrian advocate	3	1%
Agency or department employee	9	3%
Other: Community property owner	1	0%
Other: Citizen	1	0%
Other: Student	15	5%
Other:	3	1%
	Total Responses 279	
1b. Into which of the following categories doe	s your age fall?	
Under age 18	1	0%
18 to 24	43	20%
25-34	32	15%
35-44	54	25%
45-54	48	22%
55-64	27	12%
65-74	9	4%
Age 75 or older	2	1%
Decline to answer	1	0%
	Total Responses 217	
2a. What form of transportation do you typica		
Car or vehicle (drive)	168	62%
Bike	2	1%
Bus	31	12%
Walk	39	14%
Carpool	6	2%
Vanpool	0	0%
Cab/taxi	2	1%
Jitney/shuttle	7	3%
Other: <u>Trolley</u>	13	5%
Other: <u>Wheelchair</u>	Total Responses 269	0%
Oh Da was averaged the burgh		
2b. Do you ever use the bus? Yes	74	35%
Nia	138	65%
No		
NO	Total Responses 212	
No 2c. Do you ever use local jitneys or shuttle bu		
		18%
2c. Do you ever use local jitneys or shuttle bu	ises?	18% 82%
2c. Do you ever use local jitneys or shuttle bu Yes	ises? 35	

2d.	If you use the bus, how often do you use it?			
	Every day		17	23%
	Several times a week		20	27%
	About once a week		15	20%
	Two or three times a month		9	12%
	Once a month		3	4%
	Less than once a month		11	15%
	Less than once a month	Total Responses	75	1070
		Total Responses	75	
2e	Do you ever use the trolley?			
20.	Yes		113	54%
	No		95	46%
		Total Responses	208	4070
		rotar nesponses	200	
2f.	If you use the trolley, how often do you use it?			
	Every day		20	17%
	Several times a week		22	19%
	About once a week		12	10%
	Two or three times a month		22	19%
	Once a month		8	7%
	Less than once a month		31	27%
	Less than once a month	Total Responses	115	2170
		rotar nesponses	110	
2a.	If you use the trolley, how do you get to and fro	om the trollev station	12	
-3.	Car or vehicle (drive)		50	33%
	Bike		0	0%
	Bus		21	14%
	Walk		75	49%
	Carpool		4	49%
	Vanpool		0	0%
			1	1%
	Cab/taxi		1	1%
	Jitney/shuttle			1%
	Other: <u>Wheelchair</u>	Total Despenses	153	1%
		Total Responses	155	
2h	If you use the trolley, how long does it typically	take you to		
	travel to/from the trolley station?			
	0-5 minutes		38	29%
	5-10 minutes		28	21%
	10-15 minutes		38	29%
	15-20 minutes		8	6%
	20-25 minutes		6	5%
	25-30 minutes		7	5%
	30 minutes to 1 hour		8	5% 6%
	So minutes to Thour	Total Responses	133	070
		Total Responses	155	
3a	Do you drive within the community?			
ou.	Yes		164	78%
	No		47	22%
	No	Total Responses	211	22 70
		rotar responses	211	
3b.	If so, where do you drive? (Check all that apply	()		
	To work	dio.	96	25.40%
	To school (attend or dropoff/pickup)		81	21.43%
	To go shopping		111	29.37%

To visit	friends and relatives		77	20.37%
Other:	For work related errands.		1	0.26%
Other:	To meetings		3	0.79%
Other:	To take my son to sport practice		1	0.26%
Other:	Beach		1	0.26%
Other:	Home		2	0.53%
Other:			5	1.32%
		Total Responses	378	

3c: Which streets do you drive on most often and what time of day or night?

All the streets	2	0.58%	
All the boulevards	1	0.29%	
All over San Ysidro	1	0.29%	
Athey Street	1	0.29%	
Beyer Blvd.	45	13.08%	
Beyer Blvd 2:45 AM & 3:20 PM	1	0.29%	
Beyer Blvd 5 AM	1	0.29%	
Beyer Blvd 8 AM	2	0.58%	
Beyer Blvd 7:30-8:00 AM & 12:20-12:40 PM	1	0.29%	
Beyer Blvd morning	3	0.87%	199
Beyer Blvd 8AM to 3:30PM	3	0.87%	197
Beyer Blvd 8AM & 8PM	1	0.29%	
Beyer Blvd 9 AM & 12:30 PM	1	0.29%	
Beyer Blvd 10AM-11AM	1	0.29%	
Beyer Blvd day and evening	3	0.87%	
Beyer Blvd all day	3	0.87%	
Border Vig. Road - later morning to mid-afternoon	1	0.29%	
Broadway - daytime	1	0.29%	
Calle Primera	2	0.58%	19
Calle Primera - all day	2	0.58%	12
Camino de la Plaza	10	2.91%	
Camino de la Plaza - morning	1	0.29%	5%
<u>Camino de la Plaza - all day, all night</u>	1	0.29%	
Camino de la Plaza - late morning to mid-afternoon	1	0.29%	
Camino de la Plaza - between 7AM-3PM	2	0.58%	
Camino de la Plaza - late afternoons and evenings	1	0.29%	
<u>Camino de la Plaza - weekends</u>	1	0.29%	
<u>Camino de la Plaza - all times</u>	1	0.29%	
<u>Camino de la Reina</u>	1	0.29%	
Camiones Way	1	0.29%	19
Camiones - late morning to mid-afternoon	1	0.29%	
Chula Vista	1	0.29%	
Coronado Blvd.	1	0.29%	19
Coronado Blvd 8 AM & 8 PM	1	0.29%	
Cottonwood	2	0.58%	
Cottonwood - 8 AM	1	0.29%	29
Cottonwood - 9 AM & 12:30 PM	1	0.29%	- /
Cottonwood - all day	2	0.58%	
Dairymart Road	8	2.33%	
Dairymart Rd 7 AM, 3 PM	1	0.29%	39
Dairymart Rd 8:30 AM & 5 PM	1	0.29%	
Dairymart Rd all day	1	0.29%	
<u>De La Plaza Blvd.</u>	1	0.29%	
Del Sol	3	0.87% 0.29%	
Del Sur Blvd day and night	1		

E. Beyer Blvd day	1	0.29%	1.70
E. H St.	1	0.29%	
E. San Ysidro Blvd.	5	1.45%	1
E. San Ysidro - 10 AM	1	0.29%	
E. San Ysidro Blvd during the day	2	0.58%	3%
E. San Ysidro Blvd all times	1	0.29%	
E. Park	1	0.29%	
Hall	1	0.29%	
Freeway	1	0.29%	
I-5 freeway from 7AM to 4PM	1	0.29%	
Iris Ave.	4	1.16%	
Major streets	1	0.29%	
La del Sol	1	0.29%	
La del Sol - 7AM & 4 PM	1	0.29%	1%
La Plaza Blvd.	1	0.29%	
National City - afternoon	1	0.29%	
North Lane	1	0.29%	
Oliver	1	0.29%	
Olympic	1	0.29%	
Olympic Parkway East	1	0.29%	
Orange	1	0.29%	
Otay Mesa Rd.	7	2.03%	
Otay Mesa Rd 9 AM & 12:15	1	0.29%	3%
Otay Mesa Rd 8:30 AM	1	0.29%	0,0
Otay SYH	1	0.29%	
Palm	2	0.58%	
Palm - day, night	1	0.29%	1%
Palomar	1	0.29%	0.002
Palomar - 8 AM & 8 PM	1	0.29%	1%
Paseo Camiones Way	1	0.29%	
Paseo de las Americas - noon - 3 PM	1	0.29%	
Picador	4	1.16%	
Picador - 7 AM & 4 PM	1	0.29%	2%
Picador - 8AM & 8 PM		0.29%	
Plaza maior	1	0.29%	
San Ysidro Blvd.	75	21.80%	
San Ysidro Blvd 7 AM	1	0.29%	
San Ysidro Blvd 7:30 AM - 3:30 PM	1	0.29%	
San Ysidro Blvd 7:30 AM	2	0.58%	
San Ysidro Blvd 8 AM	3	0.87%	
San Ysidro Blvd morning	4	1.16%	
San Ysidro Blvd 8 AM & 7 PM	1	0.29%	
San Ysidro Blvd 8:30 AM & 5 PM	1	0.29%	
San Ysidro Blvd 9AM & 3PM	1	0.29%	
San Ysidro Blvd 9AM & 9 PM	2	0.29%	
San Ysidro Blvd 9AM-2PM, 6PM	1	0.38%	
San Ysidro Blvd from 9AM-5PM every day	2	0.29%	34%
San Ysidro Blvd 10 AM	2	0.38%	34%
	1		
San Ysidro Blvd late morning to mid-afternoon	3	0.29%	
San Ysidro Blvd 11 AM-1PM		0.87%	
San Ysidro Blvd 12PM & 6PM	1	0.29%	
San Ysidro Blvd day	7	2.03%	
San Ysidro Blvd morning and afternoon	1	0.29%	
San Ysidro Blvd all day, all night	6	1.74%	
<u>San Ysidro Blvd morning, noon, evening</u> San Ysidro Blvd 3PM	1	0.29% 0.29%	

n Ysidro Blvd 4:30 PM		1	0.29%	
n Ysidro Blvd 6 PM		1	0.29%	
opping area		1	0.29%	
nithe		8	2.33%	
nythe - 7:00 AM - 3:30 PM		1	0.29%	3%
nythe Ave 8-9 AM		2	0.58%	3%
nithe - 5 AM		1	0.29%	
nset Lane		1	0.29%	
a de San Ysidro		7	2.03%	
a San Ysidro - 9AM-noon		1	0.29%	3%
a de San Ysidro - later morning to mid-aft	ernoon	1	0.29%	3%
a San Ysidro - all day		2	0.58%	
sta Lane		1	0.29%	
sta Lane - all hours		1	0.29%	
Hall - 7 AM		1	0.29%	
San Ysidro Blvd.		5	1.45%	
llow Rd.		6	1.74%	
llow Rd morning		1	0.29%	2%
llow Rd all day		1	0.29%	
Ave.		1	0.29%	
n St.		1	0.29%	
Freeway		1	0.29%	
5 Freeway		5	1.45%	2%
5 Freeway 8:20 AM & 5:00 PM		1	0.29%	2%
5 Freeway		1	0.29%	10/
5 freeway 9:00AM-4:00PM		1	0.29%	1%
<u>5 treeway 9:00AM-4:00PM</u>	Total Responses	1 344	0.29%	_

3d. Which streets do you tend to avoid?

nich streets do you tend to avoid?			
All the boulevards	2	1.40%	
All	3	2.10%	
Alleys	1	0.70%	
Beyer	1	0.70%	
Calle Primera	9	6.29%	
Camiones Way	2	1.40%	
Camino de la Plaza	12	8.39%	1
Camino de la Plaza - Friday afternoons	1	0.70%	400/
Camino de la Plaza - in the afternoon	1	0.70%	10%
Camino de la Plaza - 4:30-5:00 PM	1	0.70%	
Cypress Dr.	1	0.70%	
Dairy Mart Road	2	1.40%	
E. San Ysidro Blvd.	3	2.10%	
E San Ysidro Blvd on weekends	1	0.70%	10/
E. San Ysidro Blvd on Friday afternoons	1	0.70%	4%
E San Ysidro Blvd In the evening on Friday	1	0.70%	
Freeway	1	0.70%	100
Iris	1	0.70%	
Olive Drive	1	0.70%	
Olympic Parkway	1	0.70%	
Plaza major	1	0.70%	
San Ysidro Blvd.	41	28.67%	
San Ysidro Blvd Fridays	1	0.70%	
San Ysidro Blvd afternoons	3	2.10%	
San Ysidro Blvd between 4-6 PM	4	2.80%	
San Ysidro Blvd. & Via de SY - cars block intersection	1	0.70%	
San Ysidro Blvd. & Via de SY during holiday season	1	0.70%	39%

		104		
	San Ysidro Blvd. & Camino de la Plaza during holidays	1	0.70%	1
	San Ysd. Bl. btwn. Cam. de la Plaza/I-805, late afternoon	1	0.70%	
	San Ysidro Blvd. & Sunset	1	0.70%	
	San Ysidro Blvd. & Via San Ysidro	1	0.70%	
	San Ysidro Blvd westbound passing 805	1	0.70%	
	Sunset Lane	1	0.70%	
	Via de San Ysidro	17	11.89%	13%
	Via de San Ysidro - all day	1	0.70%	13%
	W. Calle Palmera	3	2.10%	10
	W. San Ysidro Blvd.	6	4.20%	
	Willow Road	6	4.20%	
	3rd Ave.	1	0.70%	
	905 Otay Mesa - 4 PM	1	0.70%	
	Main streets.			
	At any street where there's stop lights.	1	0.70%	
	By the post office	1	0.70%	
	Center part of the community	1	0.70%	
	The streets surrounding Plaza Las Americas shopping ctr	1	0.70%	
	- Total Responses	143	0.7070	
	Total Responses	145		
20	If you do not drive, what form of transportation do you use?			
3e.		22	29%	
	Walking			
	Trolley	20	27%	
	Bus	23	31%	
	<u>Bike</u>	3	4%	
	Jitney	3	4%	
	<u>Carpool</u>	4	5%	
	Total Responses	75		
3f.	Do you have difficulties driving in the community?			
	Yes	55	36%	
	No	96	64%	
	Total Responses	151		
2	and an entry of the second second second			
3g.	If yes, what kind of difficulties?			
	Traffic	41		
	<u>No bike lanes.</u>			
	A lot of people walking but not following traffic signs.			
	San Ysidro Blvd too narrow; too much traffic.			
	Smythe St. is too narrow			
	Not enough streets	2		
	Widen all the streets			
	Traffic and policemen chasing people at light.			
	A lot of traffic and one lane street.			
	On weekends and holidays.	4		
	Traffic lights take too long	2		
	Traffic lights are not coordinated	2		
	Traffic to border and or Las Americas	-		
	Need more streets; need more alternative routes			
	Too many cars after 4 PM down West San Ysidro			
	Lack of signs			
	People from Mexico don't respect traffic rules.			
	We need more organization in the street of San Ysidro			
	<u>That I can't drive.</u>			

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3h. What are the hours of greatest traffic congestion?
3-6 AM
6-9 AM
9AM-12 PM
1-3 PM
3-6 PM

 19

 1

 <u>1</u>

 <u>Weekends</u>

 <u>2</u>

 Total Responses

 230

7

44

19

25

112

3%

19%

11%

49%

8%

0%

0%

1%

8%

3i. What do you suggest to improve vehicle flow?

6-9 PM

Other

Other

Other

Traffic enforcement, do not block intersection. Mitigate overflow from I-5 and 805 Lighted crosswalks Streets with less traffic ma stop - Blvd.should flow traffic. Officers on the intersection that takes you into Tijuana by the outlets. More police, so that the law be respected. Better and more supervision from the police department. Police enforcement. Traffic control by SDPD on Paseo de Las Americas and freeway entrance. A police officer controlling traffic. Have police direct traffic so flow will be faster. 2 People that will direct traffic on weekends and holidays. Traffic police to assist at certain intersections such as Camino de la Plaza between Thanksgiving & Christmas. More security. Street or freeway maintenance should be done during low traffic hours. People should stop looking around when driving at SY, not everybody is shopping. Widen street, no parking. 11 Wider streets Widen San Ysidro Blvd. Widen San Ysidro Blvd. To 2 lanes each way Widen Beyer St. 2 Easier exits with less mergers into one lane 17 More streets 3 More routes to Mexico More access routes 2 More freeway on and off ramps More lanes 3 Add bridges where the trolley goes by. Add bridges on high traffic streets. Add bridges Pedestrian bridges between Tijuana and San Ysidro Another main street beside Willow Road. That buses will go by my school. Buses Better streets Better traffic signs 2 More transit/traffic signs. More signs on alternate streets so drivers get around faster. More traffic organization. Only allow public transportation through (trolley, shuttle). Shuttle services that drops me off at work. Stop driving and use more public transportation. 2 On one side of San Ysidro Blvd. There should be no parking; add more medians.

	At Cottonwood Rd. prohibit vehicles stop at side road.	
	Open Caliente St. 905 freeway	
	Add parking lot for people that work in San Ysidro	
	Consider one way streets.	
	More highway egress ingress/Promote Beyer Blvd./Design/Priv	rileges
	More traffic lights.	
	Coordinate stop signals/traffic lights	5
	Keep street lights working and maintenance	
	Better traffic signal synchronization at peak hours.	
	Lights should be faster	2
	Less stoplights.	50 75
	Better car flow	
	People to leave early for work so they don't have to drive so fas	st
	Streets maintenance.	<u>.</u>
	More crosswalks with lights to separate the amount of cars.	
	Add more time to the traffic lights and add more lanes.	
	Need signals at Alverson & Averil - both on W. San Ysidro Blvd	1
	Make the street as two lanes or more.	<u>.</u>
	More stop signs.	
	Better infrastructure	
	Carpool	
	Stop selling cars.	
	That you can't drive at a higher speed.	
	Less burs.	
	<u>That people stop using cell phones while driving.</u> I avoid going out and driving at these hours.	
	Tavola going out and anying at these hours.	
3j.	What would it take for you to take some form of mass transit other <u>Accessibility.</u> That all transit have wheelchair accessibility.	than drive your car?
	An act of God	3
	Cost and easy availability	3
	Lower price	7
	Bus pass.	
	More bus stops around San Ysidro	
	Direct route.	
	Bus rapid transit on freeways.	
	Greater frequency of buses	12
	That the bus at the border crossing will go by more often.	12
	More efficient public transportation	2
	More public transportation	2
	More public transportation info and and schedules	2
	More public transportation into and and scredules	
	More public transportation routes	
	Transportation more accessible, less bus transfers.	
	Better public transportation	
	Better auto and pedestrian flow.	
	Comfortable jitney ride	
	More jitney service hours	
	Public security.	
	Free safe parking structure to rest my car while I use public trai	<u>nspoπ.</u>
	Parking for my car/shuttle to work.	
	<u>Free mass transit.</u>	
	Trolley	
		0
	That the trolley would get closer to my house.	2
	That the trolley would get closer to my house. That public transp. would take me all the way to school.	2 5

Mass transit closer to home. Alternative st., more stores distributed outside of main street. Two lane street. Need my car always. Only if I didn't have a car. For my car to break down. Not possible for me. Not going to happen. Time 7 If other public transportation would be faster than driving. Live in the USA Retire Work or go to school outside my area. Job destiny is unique. Community involvement That I wouldn't have to pay for gas. More control. Lower price 8 Jitney takes a long time. There's a lot of delinquents on trolley Beyer Station Trolley station. Public restroom at trolley stations. Direct trolley route from San Ysidro to SDSU. Trolley to residential areas. More security at trolley stations Better schedule for the weekend. Faster services. Bus schedule should be more frequent 14 Better buses; times and shuttles available Nicer with maybe air conditioning Extend the hours of public transportation More public services and better services.

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3k. If you use transit (bus, jitneys (shuttle), and trolley), what would you improve and how? Bus that moves people through the San Ysidro Blvd. route from the east side of SY to west of SY Coordinate bus and trolley schedules. That the buses will get to their stops on time. Improve the street. Define and mark more clearly all the transit zones. Look into rubber tire trolley There's no public transportation for SY High - we should have! 3 More routes Bus drivers need to drive better, be polite; better shuttles. Bus drivers need to be more responsible Bus stops need to be posted with bus signs. The buses/jitney/shuttles need more personal control; they drive too aggressive. Cleaner freeways. Cleanliness 4 It's very good. 3I. Where do you park? Is parking a problem? 29 No Sometimes 3 Yes it's a problem. 28 At work, no problem 13 At business, yes a problem 2

3 At home School parking - no problem 6 3 At school - yes problem Park at Tijuana 3 Shopping center - no problem SDNB parking lot Outside the bank, no 2 Behind the Jack-in-the-Box In the street; the problem is that people who don't live there take the spaces. In front of Lucky Stores on SY Blvd. - yes, lots of cars for sale occupy parking along San Ysidro Blvd. Baja Mex Insurance parking lot, no 2 Parking lots - yes problem 2 On street, yes On the streets, no 2 Anyplace I can find. Parking is a problem all along San Ysidro Blvd. By San Ysidro Blvd. & Park - Yes E. San Ysidro Blvd. - yes, not big enough Sunset St. - there's not a lot of spaces. It's a problem because there's no security. Yes sometimes a problem, especially on Fridays No, but it's hard to find a space because they are limited. Yes, especially on West San Ysidro Blvd. Yes, you have to pay in some places, not enough space. Yes, there's no place to pickup someone. Yes, because streets are narrow and cars don't have room. Parking is a problem near the border area. 4a. Do you or your children ride a bicycle within San Ysidro? Yes 17 11% 89% No 140 Total Responses 157 4b. Do you feel safe when you ride a bike? 18 17% Yes No 87 83% Total Responses 105 4c. Would you like to see more bike lanes separated from streets? Yes 114 87% No 13% 17 Total Responses 131 4d. If so, where? Beyer Blvd. 9 Calle Primera Chula Vista Dairymart Road East Beyer Blvd. East San Ysidro Blvd. Las Americas Ave. Otay Road

San Ysidro Blvd.

Smythe

18

Page 11 West San Ysidro Blvd. Willow Road Vista Lane Side streets parallel to San Ysidro Blvd. Down the whole strip of San Ysidro. Via de San Ysidro Near Willow School area 3 Close to schools Trolley station At the DMV office Next to the trolley 2 7 Main street On the main street and add more lights. Next to the border crossing. On all commercial streets. By shopping center Around school and apartment area. 5 Everywhere Anywhere, preferably in all the streets. 2 In all the streets, it's safer for them and us. Anywhere, more is just better. In different spots, unless people who ride bikes can be safe. In safe places. Where there's a lot of traffic. 3 Where it is needed. In the parks. 4 They can use the alleys. On all major streets. Away from traffic streets. I would like to see the ones that are already there to be used and to stop bike riders on the sidewalks. On the right side of the street. More bikes will create less automobile traffic. 5a. If you walk in San Ysidro, what time of day do you usually walk? 3-6 AM 9 4% 6-9 AM 20% 47 9AM-12 PM 24% 57 1-3 PM 49 21% 3-6 PM 34 14% 6-9 PM 32 14% Other 7 3% Total Responses 235 5b. Do you have children that attend school in San Ysidro? Yes 45 24% No 139 76% Total Responses 184 5c. If you answered 'yes' to question 5b, how do your children typically get to school? (Check all that apply) Take a school bus 22% 22 Take a city bus 7 7% Take the trolley 9 9% Walk with a parent/guardian 12% 12 Walk with friends/siblings 7 7% Walk on their own 7 7%

San Ysidro Mobility Strategy

Driven by a parent/guardian		29	30%
Carpool with another family		1	1%
Other: Own car		1	1%
Other:		3	3%
	Total Responses	98	

5d. If you answered 'yes' to question 5b, how long does it typically take your children to get to and

5	11%
12	26%
13	28%
7	15%
3	7%
5	11%
1	2%
esponses 46	
e	12 13 7 3 5 1

5e. Please rate how safe you feel the following methods of getting to school are, on a scale from 1-5, where a '1' means unsafe and '5' means very safe:

-,,	Rating Avg. (calcs on separate page)
Take a school bus	4.13
Take a city bus	2.99
Take the trolley	3.16
Walk with a parent/guardian	4.01
Walk with friends/siblings	3.27
Walk on their own	1.98
Driven by a parent	4.48
Carpool with another family	3.90
Carpool with another family	3.90

 Please rate how well San Ysidro performs in the following areas using a scale from 1-5, where a '1' means poor and '5' means excellent:

	Poting Aug. (color on congrete page)
Public transportation frequency of service	Rating Avg. (calcs on separate page) a 3.34
Parking availability	2.66
Parking cost	2.77
Traffic flow (congestion)	2.12
Street signs (traffic, not names)	3.21
Walking safety	2.97
Walking convenience	3.08
Biking safety	2.49
Biking convenience	2.62
Biking/walking mix	2.85
Street cleanliness	3.01
Bus shelters/benches (availability)	2.65
a. How many times per week do you use the p	edestrian overpasses over the freeway?
Never	116 61%
0-5	47 25%
5-10	6 3%
Daily	21 11%
	Total Responses 190

7b. Do you feel that the pedestrian overpasses over the freeways in San Ysidro are (choose one):

Pleasant	19	27%
Unpleasant	51	73%

Total Responses 70 Safe 28 31% Unsafe 69% 61 Total Responses 89 Well lit 11 17% Not well lit 83% 53 Total Responses 64 Convenient pedestrian connections 22 39% Not appropriate as pedestrian connections 35 61% Total Responses 57 Require no improvements 6 10% Require improvements 57 90% Total Responses 63

 7c. Do you feel that more pedestrian connections are needed across the rail/trolley tracks?

 Yes
 128

 No
 128

 Total Responses
 170

 Please rate how important the following possible improvements in San Ysidro are to you using a scale from 1-5, where a '1' means not important and '5' means very important:

	Rating Avg. (calcs on separate page
Street Improvements and General Comments	
Add devices to control or warn drivers of their speed	4.19
Improve safety through driver education/law enforcement	4.03
Narrow the streets where they are too wide	2.36
Add more lanes on busy streets	4.10
Install medians where pedestrians can safely wait for signal to change	4.34
Street Intersection Improvements	
Make crosswalk markings more visible	4.48
Reduce pedestrian crossing distance at intersections (move curbs closer)	3.72
Increase pedestrian crossing time at signals	3.98
Install more marked crosswalks at intersections	4.17
Install more audible pedestrian signals at intersections	4.10
Install countdown pedestrian walk signals that show the time remaining to cross	4.06
Give pedestrians a head start at crossings before vehicles are allowed to go	4.15
Install more pedestrian crossing warning signs	4.22
Install more traffic signals to assist in safe pedestrian crossings	4.02
Install flashing lights in the crosswalk pavement to warn drivers of pedestrians	4.36
Install more curb ramps	3.95
Sidewalk Improvements	
Install sidewalks where they are missing from entire neighborhoods	4.45

Install mid-block crosswalks in areas of long commercial blocks	4.13
Make sidewalks continuous by filling in missing gaps	4.13
Repair damaged sidewalks and maintain them to be free of trip hazards	4.60
Remove obstacles blocking or crowding sidewalks	4.42
Improve sidewalk cleanliness	4.31
Increase street lighting levels	4.51
Install more benches, trash cans, drinking fountains, etc.	4.41
Plant more street trees	4.26
Install landscaping between sidewalks and install barriers to separate cars from pedestrians	4.00
Construct more sidewalks away from streets	3.90

Other comments:

I really liked the last part of the survey. Thanks.

Maybe add one safe central parking and provide convenient shuttle service, smooth and fast.

Find method to make pedestrians obey the "no pedestrian crossing" at entrance to freeway by Jack-In-The-Box

San Ysidro Blvd. needs to be wider 'til Coco's. Cottonwood & Smythe need to be wider too.

<u>All Beyer Blvd. need more clean up.</u> Sweeper need to pass by frequently not only by the boulevard, but by more San Ysidro Streets

<u>The street sweeper should clean the street more often (2 responses); and not only the main street.</u> <u>Re: 1st group above - too limited choices; misses entirely that few crossing points 2 freeways - what exist heavily impacted and closed; frequent gridlock associated with inadeguate/incomplete freeway access.</u>

There's a lot of trash at the bus stops. Cleaner street and green areas, focus more of the cleaning from Imperial Beach to down south.

That the main street be cleaner; it's necessary to have a cleaner community.

Cleanliness tends to be a problem.

San Ysidro is visited by many people around then world. It would be nice to make it look clean and restored. I would like to see San Ysidro as one of the best cities in San Diego.

Have 24 hour police enforcement; this will enforce people to follow the laws.

More security

More security around school due to traffic to border.

More public transportation routes that will go by school.

Improve schools, more security on the streets and trolley stops.

The price of buses and trolley is high. They should consider lowering the price.

I would like the trucks not to circulate on San Ysidro Blvd. - they slow down the traffic and damage street.

Include all the topics or what's most important in order to improve San Ysidro.

That pedestrians have priority.

Clean dry grass and clean graffiti.

We should add more stop signs to prevent accidents.

We need a sidewalk for the kids walking to and from San Ysidro High School.

We really need to improve on pedestrian crosswalks.

Put bus service at high schools that connect or also stop at San Ysidro Adult School (4 responses)

Put bus service at San Ysidro Adult School (13 responses)

Add public services in all the areas. No more buses.

This is very important and necessary because the children walking for the school.

More food stores, movies theater, etc. are needed.

Open Las Americas pedestrian bridge to Mexico.

Add stoplight on 117 W. San Ysidro Blvd. after the alley.

I don't think that all of these services are bad, that's why I think we should not focus or spend money on them. They are still good.

The trolley takes a long time to cross the street, my idea is to add bridges.

Add more lanes so traffic flow will go faster.

I would like to see a more beautiful SY with lots of security, and less drunks, drug addicts, and homeless under the bridges and bus benches.

<u>Add public transportation at Beyer Blvd.</u> <u>Need streetlights at Cesar Chavez Park and Coral Gate by Plaza Blvd (2 responses)</u> <u>Add a bridge from the swap meet to Dairymart so that the traffic will be less at Calle Primera.</u>



(Ranked 1-10: 10 being highest rated)

PROJECT	DESIRABILITY	IMPORTANCE
Greenway Spine	8.6	7.5
Bicycle Routes	7.4	6.4
Pedestrian Routes	9.0	8.9
Project S1 - Dairy Mart Road	7.25	7.0
Project S2 - Via San Ysidro Off-Ramp relocate	7.9	7.6
Project S3 - Via Tercero Bridge	7.75	7.75
Project S4 - Beyer Boulevard – Greenway	8.25	7.1
Project S5 - Street Improvements at Trolley Station	7.1	7.1
Project S6 - East and West Park Ave. Improvements	7.75	7.4

Project S7 - Plaza at Hall Avenue	7.1	6.2
Project S8 - East San Ysidro Blvd. / Border Village Sidewalk/Plaza	8.5	8.1
Project S9 - Camino de La Plaza / San Ysidro Blvd. New Ramp Configuration	8.8	8.6
Project S10 - New Beyer / Smythe Signals	8.0	8.0
Project S11 - Improve Trolley / Seward Ave. Sidewalk	8.2	6.8
Project P1 - San Ysidro Blvd. Pedestrian Improvements	8.5	7.4
Project P2 - Otay Mesa Road Sidewalk	8.8	8.7
Project P3- Seward Ave / West Park Ave Sidewalk	7.7	6.5
Project P4 - New Pedestrian Bridge over Beyer Blvd.	9.1	8.7
Project P5 - Various Sidewalk / Pop-out Improvements	9.5	8.8

ADDITIONAL COMMENTS FROM SURVEY RESPONDANTS:

- Any sidewalk improvements are high priority.
- Of most importance is connecting east to west.
- Great work, let's get this onto San Ysidro Community Plan Update. Project S8 great idea! Can really become nice plaza space! Project P4 – much needed for school access and seniors to get to grocery stores.
- Improve signal lights in San Ysidro.

- It will be important to show 4-way longitudinal crosswalks in plan. Need crosswalks for projects S7 & S8.
- Project S6 is fine if you can add an arrow to turn left on Border Village Road.

Community Presentations

Community presentations were made on the following dates:

- December 8, 2006
- January 26, 2007
- May 25, 2007
- June 15, 2007
- July 23, 2007
- September 28, 2007
- November 7, 2007
- January 10, 2008
- January 15, 2008
- January 16, 2008
- January 31, 2008
- June 17, 2008
- October 17, 2008

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5. CONCLUSION

The success of a mobility strategy is critical to the health and vitality of San Ysidro. This initial look at some of the potential improvements that could be made in the community of San Ysidro is only the beginning. Each of the potential projects needs to be further developed and designed at a greater level of detail. In addition the new GSA Point of Entry Plan will present major ramifications regarding mobility strategies near the border area. The upcoming Community Plan update will also have impacts on the potential projects. Land Use and Mobility are strongly linked and one cannot be evaluated without the other.

There are project proposals within this report that are critical to the overall Community Planning effort. In particular, The Green Spine, the Major Pedestrian Routes and the Major Bicycle Routes can become the framework from which the Community Plan vision is developed. **Figure 5-1** below illustrates these three major components together to help illustrate the significance and interrelationships between each component.



Figure 5-1 Combined Green Spine, Pedestrian and Bicycle Map

The data gathering, community value gathering and potential project portions of this strategy will become an excellent starting point for future phases of the San Ysidro Mobility Strategy.

The projects proposed within this report will require further field analysis and design refinement to verify their feasibility. This report is intended to be the first phase of a multi-phase effort.