

## Harbor Drive Mobility Study

# HARBOR DRIVE MOBILITY STUDY

## Technical Report

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## CONTENTS

1	Executive Summary.....	1-1
2	Study Process .....	2-1
2.1	Process Design .....	2-1
2.2	Meeting Schedule.....	2-2
2.3	Conclusions.....	2-5
3	Cumulative Projects within the Study Area .....	3-1
4	North Harbor Drive Mobility Short Term Projects .....	4-1
4.1	On-Airport Entry Roadway .....	4-1
4.2	Bikeway and Pedestrian Improvements .....	4-3
4.3	Transit Improvements.....	4-9
4.4	Summary.....	4-1
5	North Harbor Drive Mobility Long Term Projects .....	5-2
5.1	Port Traffic Analysis.....	5-2
5.2	Future Studies.....	5-2
6	Conclusions / Next Steps.....	6-1

## FIGURES

Figure 1-1	Boundary Area .....	1-2
Figure 1-2	Policy Group and Stakeholder Process .....	1-3
Figure 3-1	North Harbor Drive Cumulative Projects.....	3-2
Figure 4-1	Existing North Harbor Drive Deficiencies.....	4-2
Figure 4-2	Proposed On-Airport Entry Roadway Concept .....	4-4
Figure 4-3	Proposed On-Airport Entry Road Entrance.....	4-5
Figure 4-4	Path of Travel from the West.....	4-6
Figure 4-5	On-Airport Entry Road and North Harbor Drive Cross Section .....	4-7
Figure 4-6	Exiting Paths of Travel .....	4-8

Figure 4–7 Proposed Bicycle and Pedestrian Connections .....	4–10
Figure 4–8 Proposed Bicycle Treatment at Airport Exit Ramp .....	4–11
Figure 5–1 Skyway Alignment .....	5–5

## APPENDICES

### **Appendix A** Working Group and Policy Group Agenda and Meeting Minutes

### **Appendix B** Briefing Book

#### **Appendix B1** Briefing Book – Downtown San Diego Mobility Plan Attachments

#### **Appendix B2** Briefing Book – Midway-Pacific and Old Town Communities Mobility Report Attachments

#### **Appendix B3** Briefing Book – Uptown Community Plan and Traffic Study Attachments

#### **Appendix B4** Briefing Book – City of San Diego Traffic Signal Communications Master Plan Attachments

#### **Appendix B5** Briefing Book – Interstate 8 Corridor Study Attachments

#### **Appendix B6** Briefing Book – I-5 ITC Ramps RSR-PSD Alternatives Attachments

#### **Appendix B7** Briefing Book – Mid-Coast Corridor Transportation Impacts and Mitigation Report Attachments

#### **Appendix B8** Briefing Book – San Diego Forward: The Regional Plan Attachments

### **Appendix C** List of Cumulative Projects

# 1 EXECUTIVE SUMMARY

The San Diego County Regional Airport Authority (SDCRAA) is seeking to modernize Terminal 1, and improve parking, recirculation, and access to the airport. The key goal of SDCRAA is to operate the airport in a safe, secure, environmentally sound, effective, and efficient manner. The Airport Development Plan (ADP), as part of the airport's master plan, identified these above-mentioned improvements to help the airport meet its commitments through the year 2035.

The Authority has made a commitment to the public, that traffic congestion would be addressed with the modernization of Terminal 1. Therefore, to meet their commitment, and before the Airport Roadway Access Concept can be included into the ADP, the Authority requested that a mobility study be conducted on how the proposed Airport Roadway Access Concept will impact the North Harbor Drive boundary area. The North Harbor Drive boundary area is displayed in **Figure 1-1**. As shown in the figure, the boundary study area encompasses freeways and primary roadways that include I-8, I-5, Pacific Highway, Rosecrans Street, North Harbor Drive, Harbor Island Drive, India Street, Kettner Boulevard, Grape, Hawthorn, Laurel, Palm, Sassafras, Washington, and Hancock Streets.

The authority authorized the formation of both a Policy Group and Working Group with a joint mission, in collaboration with key agencies and stakeholders, to improve traffic flow and reduce congestion wherever possible within the North Harbor Drive boundary area. The Policy Group was made up of the Board Chairs of; San Diego County Regional Airport Authority, SANDAG, Port of San Diego, SANDAG Transportation Committee Chair, and the City of San Diego, Office of the Mayor. The Working Group, consisting of following technical support staff; San Diego County Regional Airport Authority, SANDAG, Port of San Diego, City of San Diego, US Coast Guard, US Navy/Marine Corps, Caltrans, MTS, and Solar Turbine, was tasked by the Policy Group to work in a collaborative manor to study mobility issues and land use, and to develop a cumulative list of short term capital projects (0 to 12 years) and longer term capital projects (12 to 30 years) planned to be implemented within the North Harbor Drive Mobility Study area.

Several meetings took place between the Policy Group (3 meetings) and Working Group (4 meetings) to outline and discuss the cumulative project development process and future project needs of each agency. Using planning documents that were identified and reviewed by the Working Group, a briefing book was developed that created a baseline of existing conditions and proposed agency mobility improvements/needs within the North Harbor Drive Mobility Study area.

**Figure 1-2** displays the Policy Group and stakeholder process. The short-term list of projects included an exclusive eastbound access to the airport terminals, airport recirculation, bike/pedestrian and transit improvements. Longer term projects included the discussion of Port of San Diego Traffic study that will identify mobility and access issues and develop a list of short and long-term improvements, the skyway, and potential solutions to the westbound North Harbor Drive connections to the I-5 freeway. The outcome of the study when completed will be placed as an appendix to this study.

The Harbor Drive Mobility Study will conclude with documenting the need for short and longer term projects with the intent to improve traffic flow, reduce congestion and to not preclude impacts to future projects/land development within the North Harbor Drive footprint.



Figure 1-1  
Boundary Area

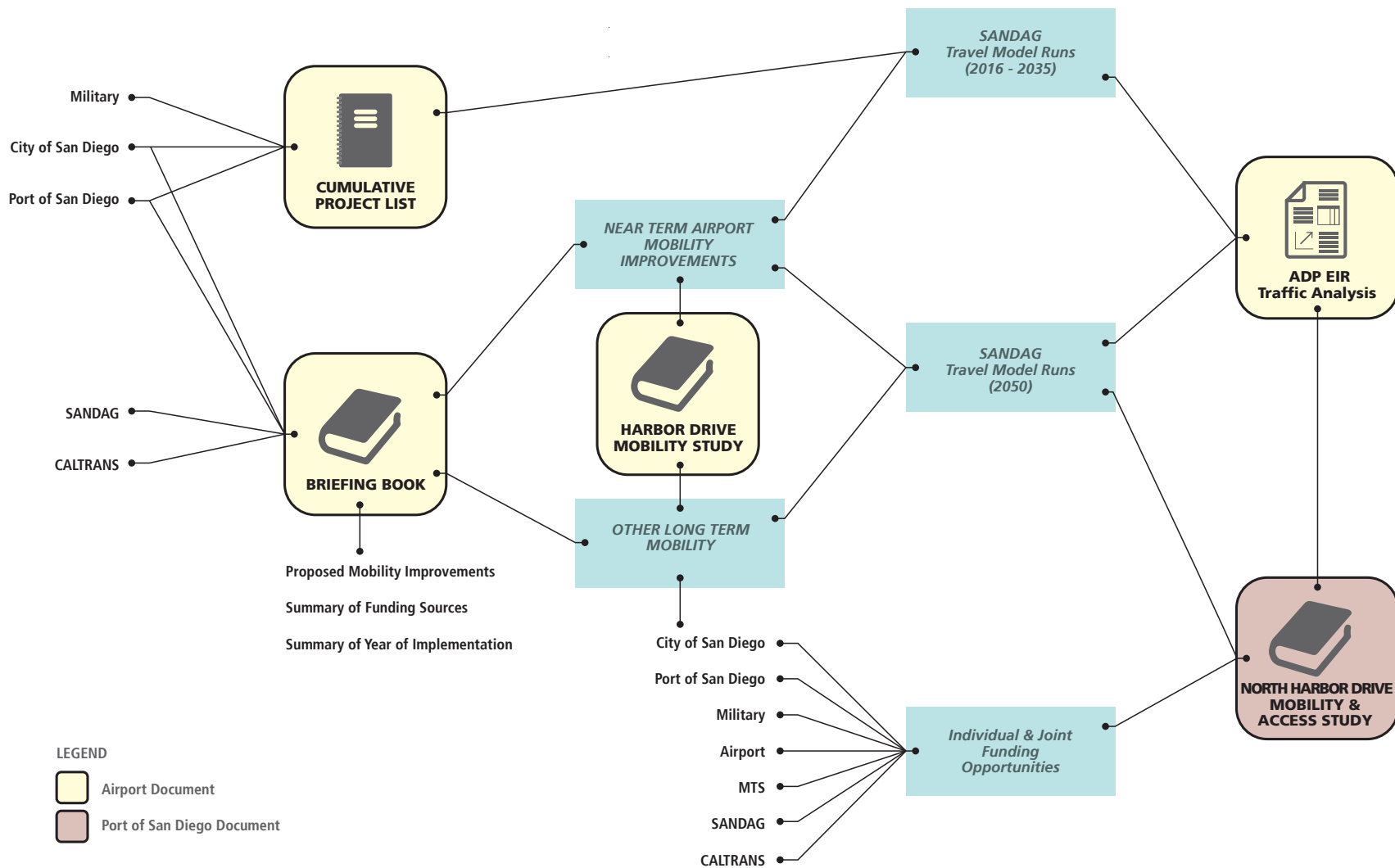


Figure 1-2  
Policy Group and Stakeholder Process

## 2 STUDY PROCESS

As stated previously, improving access to the SDCRAA is an important element of the ADP. The road system surrounding SDCRAA experiences significant vehicle congestion, including North Harbor Drive, primarily serving SDCRAA. However North Harbor Drive and the connecting streets to the airport are city-dedicated roads with multiple jurisdictions. The airport does not have planning jurisdiction over these roads, and must coordinate any improvements with multiple stakeholders, including the City of San Diego, the Port of San Diego, SANDAG, Caltrans, and Solar Turbine.

With a goal of working collaboratively to improve traffic flow and reduce congestion in the area surrounding SDCRAA, the Airport Authority invited key stakeholders to be part of a structured process that began in June of 2017. This process was designed to gather all relevant data about current and pending projects impacting the study area, review SDCRAA's suggested alternatives, determine North Harbor Drive mobility improvements, and share recommendations with the North Harbor Drive Policy Group.

### 2.1 PROCESS DESIGN

The Airport invited key stakeholders to participate in two related groups; the "Harbor Drive Mobility Policy Group" and the "Harbor Drive Mobility Working Group." Both groups included representatives of agencies and entities directly impacted by traffic around SDCRAA and those with a regional responsibility for transportation. Both groups, ultimately, were working towards the same goal: to address traffic and accessibility concerns and recommend mobility alternatives within each of the participating agencies' area of jurisdiction and in concert with each agency's initiative or master plan with the intent to not preclude future transportation improvements.

#### ***The Policy Group membership included:***

- The San Diego County Regional Airport Authority (SDCRAA) Board Chair
- The Port of San Diego Board Chair
- The City of San Diego (office of the Mayor)
- SANDAG
  - The SANDAG Board Chair
  - The SANDAG Transportation Committee Chair

The initial goal outlined for the Policy Group was to evaluate the technical analysis, policies, and implications and to provide direction and recommendations for traffic improvements in the affected corridor. The planned deliverable was to be a detailed report laying out the analysis and recommendations of the Policy Group, with a detailed plan for traffic and accessibility improvements and development in the study area that includes all relevant stakeholder agencies. This report would provide critical input and analysis for SDCRAA's planned EIR for the Airport Development Plan's roadway improvements.

***The Working Group membership included representatives of:***

- SDCRAA
- SANDAG
- Port of San Diego
- City of San Diego/Civic San Diego
- Caltrans
- US Coast Guard/ Military
- Solar Turbines
- Metropolitan Transit System (MTS)

The initial goals outlined for the working group included: identifying shared assumptions, developing a cumulative list of major projects planned or under discussion for the study area (divided between short term, or 0-12 years and long term, or 12-25 years), and the identification of possible areas for collaboration. In short, the technical working group was formed to advise the policy group on technical questions, and provide a more detailed analysis of proposed plans and impacts.

Both groups were chaired and facilitated by SDCRAA under the direction of Airport Planning Manager, Ted Anasis. The Policy Group was chaired and facilitated by Airport Board Chair April Boling and the Working Group by a professional facilitator, Heidi Gantwerk of H.G. Consulting Group. Airport Authority Staff and representatives of Kimley-Horn, a planning and design group working on ground access improvements for the ADP<sup>1</sup> and on traffic studies for the environmental review, served as technical consultants to both groups, and SDCRAA, as convener, provided all logistical and administrative support.

All stakeholders were committed participants in the process, demonstrated by perfect attendance at all of the Policy Group and all but one Working Group meetings. The agencies involved all expressed their great appreciation for the process and the collaborative effort, and worked together to create a detailed briefing book and a report that would be useful not just to the Airport Authority, but to all of the stakeholders involved.

## 2.2 MEETING SCHEDULE

The Policy Group and the Working group meetings alternated, beginning in June and concluding in January of 2018:

Policy Group Schedule	Working Group Schedule
June 8, 2017	July 18, 2017
August 31, 2017	July 28, 2017
October 16, 2017	September 25, 2017
TBD	November 13, 2017

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<sup>1</sup> Kimley-Horn serves as part of the AECOM-led terminal improvement design team, as well as the Jacobs & Leigh Fisher team developing environmental documents.

The North Harbor Drive Mobility Study process was iterative, with input from each meeting informing the following meetings. And as the groups met, the scope of the Harbor Drive Mobility Study expanded, at participants' recommendation, to include a thorough briefing book detailing current conditions and all planned and proposed improvements in the study area. In addition, at the Policy Group meeting on October 16<sup>th</sup>, the Port announced that it would be launching an in-depth traffic study to include the study area and surrounding streets, and enlisted additional continuing support from both the Policy and the Working groups to compile that report, which will be completed by the end of April, 2018 (at the earliest).

Detailed agendas and minutes for all meetings are included in this report in **Appendix A**.

### *Policy Group Meeting 1*

In the initial Policy Group meeting, Chair April Boling and Airport Authority Staff presented the mission and goals of the North Harbor Drive Mobility Committee and introduced the study area. The group together worked to identify top mobility issues in the subject area and potential areas for collaboration, and developed questions and ideas for the technical working group to explore.

### *Working Group Meeting 1*

At the first meeting of the Technical Working Group, once again the facilitator and Airport Staff presented the mission and goals, as well as the underlying assumptions, of the North Harbor Drive Mobility Committee. The group together began the process of developing a cumulative list of projects planned in (and around) the study area. And, building on the feedback from the Policy Group, they discussed the potential benefits, concerns, and risk of improvements as well as the potential for collaboration.

At this meeting, it was suggested that in addition to a list of projects, a more detailed matrix be developed to ensure coordinated efforts and an understanding of timing on all projects. The group also suggested that opportunities for collaboration should include potential for joint funding or grants. They agreed to a somewhat expanded list of deliverables for the HDMC, including growth forecasts, an inventory and phasing of major initiatives, a detailed technical memo outlining draft concepts evaluated and relevant feedback. Finally, the Working Group recommended that the Policy Group only consider projects that are foreseeable, feasible, realistic, and for each recommendation, identify the agencies involved in the necessary collaboration.

### *Working Group Meeting 2*

At the second Working Group meeting, members reviewed and updated the working cumulative project list. Kimley-Horn presented designs for the on-airport roadway alternative, including key parameters for design alternatives, ideas that had been considered and rejected as infeasible and key elements of the roadway plan.

The group suggested that a mobility/corridor study would be extremely helpful for members in order to provide substantive feedback on proposed improvements for the on-airport roadway plan. They also stressed the importance of including transit as well as bikers and pedestrians in final designs. The technical consultants made clear that the current plans would only impact inbound traffic, and the group noted that outbound congestion was still a significant concern and they would appreciate seeing more information about longer term plans to address this issue. And Kimley-Horn brought up a collaborative improvement for eastbound bike traffic that the group universally supported.

When identifying points they felt the Policy Group should consider, the group identified several:



- Examine how a preferred alternative aligns with the City's Climate Action Plan and other larger established policies and goals for the City and the region.
- Focus on multi-modal operations
- Consider the scope of the study area and whether it needs to be expanded to include problem areas and choke-points nearby

Participants raised no serious roadblocks to the project. Most agencies saw potential positives on a number of fronts and appreciated the opportunity to work together towards common solutions. However, the consensus among committee members was that they require more detailed mobility data and analysis (to include traffic, pedestrians and bicycles) before being able to support or make recommendations for the on-airport roadway project, or commenting on the EIR, to the Policy Group.

### *Policy Group Meeting 2*

The second meeting of the Policy Group provided an opportunity for members to review the Project inventory in two segments, shorter-term projects (from 0-12 years) and longer-term projects (from 12-25 years). Members of the Policy Group, along with Chair April Boling, agreed that a more detailed study and deeper understanding of specific improvements planned and how those improvements are to be funded will be a necessary tool for all agencies in the study area. The Port, by far the largest landowner in the area, outlined their extensive list of planned or proposed projects, and announced that they would be undertaking a major traffic impact study for an expanded study area. This study would identify current conditions, and include several scenarios for improvements in order to project the impacts on traffic. They asked for the support of all of the stakeholders involved the HDMC as the timeframe for the study is tight and will require ongoing collaboration and consultation. It was agreed that the working group could help the Port to determine the scope and the timeline for the study, which the Policy Group could then consider and, if appropriate, indicate their support for the plan. It was agreed that the working group would become an advisory committee for the Port Traffic Study.

### *Working Group Meeting 3*

At this meeting, the Working Group had the opportunity to provide feedback on a highly detailed "briefing book" (included in **Appendix B**) that provided detailed information on current planning documents and proposed projects for all stakeholders in the study area. In addition, the group focused on reviewing and adding to the existing Cumulative Projects List, including a request for information from SANDAG on proposed military growth in the affected area as well as a discussion of longer-term plans for an I-5 connector.

The Port then introduced its draft scope and timeline for the North Harbor Drive Mobility and Access Study, and asked the Working Group to participate as their technical advisory committee. They outlined in detail the elements of the proposed study, which encompasses a larger area than the Harbor Drive Mobility Study, and participants provided feedback on the scope and timeline.

### *Policy Group Meeting 3*

The technical staff presented a review of the updated briefing book, including a cumulative project list (including updated information about planned military growth) and existing conditions for the study area. They stressed that the goal of this process is to avoid precluding any potential development in the study area, and to identify all current or future traffic mitigation along with planned development.

The Port then reviewed the updated scope and timeline for its North Harbor Drive Mobility and Access Study, and in discussion participants clarified the relationship between the Port study and the Airport's ADP analysis. The group stressed the need for timely cooperation and accurate data, and suggested that the County be added to the Technical Working Group. They also suggested some additions to the study, including the intersection at Laurel and India as well as a proposed skyway project that is currently the subject of a feasibility study. Finally, members agreed that the timeline was ambitious, and dependent on a number of factors, including the release of SANDAG's new model.

#### *Working Group Meeting 4*

Participants in the final Working Group meeting began by reviewing and discussing the suggest format and content for the Harbor Drive Mobility Study, approving the plan and timeframe suggested by the Airport. The second part of the meeting served as a transition from the North Harbor Drive study to the Port Study, and members began to serve in their capacity as the Technical Working Group for the Port.

#### *Policy Group Meeting 4*

## 2.3 CONCLUSIONS

At the conclusion of the North Harbor Drive Mobility Study, two deliverables were produced:

- A detailed Briefing Book that used existing planning documents to create a baseline of existing conditions and proposed agency mobility improvements/needs within the Harbor Drive Mobility boundary area (Included as **Appendix B**).
- This Harbor Drive Mobility Study which details the work and conclusions of both the Working Group and the Policy Group, existing conditions and a cumulative project list (0-12 years and 12-25 years), proposed North Harbor Drive Mobility Improvements (on-airport entry roadway, bike and pedestrian and transit improvements) and long term projects.

Both the Working Group and the Policy Group agreed that they would reconvene upon the conclusion of the Port Traffic Study if necessary, and all appreciated the process and viewed the result and the continuing collaboration as beneficial to all stakeholders in the impacted area.

### 3 CUMULATIVE PROJECTS WITHIN THE STUDY AREA

An important outcome of the North Harbor Drive Mobility Committee process was an inventory of development projects that may affect area traffic conditions. Agencies with land use authority provided a list of development projects that are pending, as well as land plans that have been recently approved. The City of San Diego, Civic San Diego, the Port of San Diego, and the US Navy each provided such input. The City of San Diego cumulative projects are displayed in **Figure 3-1**.

The Port of San Diego has plans for growth for both land and water use designations. The Port has determined development ranges for its district tidelands. Note these development ranges are not yet contained within an approved land use plan. Within the next 10 years, the Port has plans to develop Harbor Island and the Embarcadero. After the next 10 years, the Port has plans to develop Shelter Island and further develop Harbor Island. The projected development growth planned by the Port of San Diego should be considered in the cumulative development projects.

In addition, two stakeholders within the study area also provided input. Solar Turbines indicated that they did not expect growth at their 2200 Pacific Highway facility. The US Coast Guard indicated that the government is considering locating another vessel at their North Harbor Drive facility. While this decision has not yet been made, such an intensification could double the amount of traffic to their base.

The cumulative development project list has been shared with the Port of San Diego for consideration in their study and will also be used in preparing the Traffic Study for the Airport Development Plan Environmental Impact Report.

City of San Diego and Port of San Diego cumulative projects are summarized in **Appendix C**

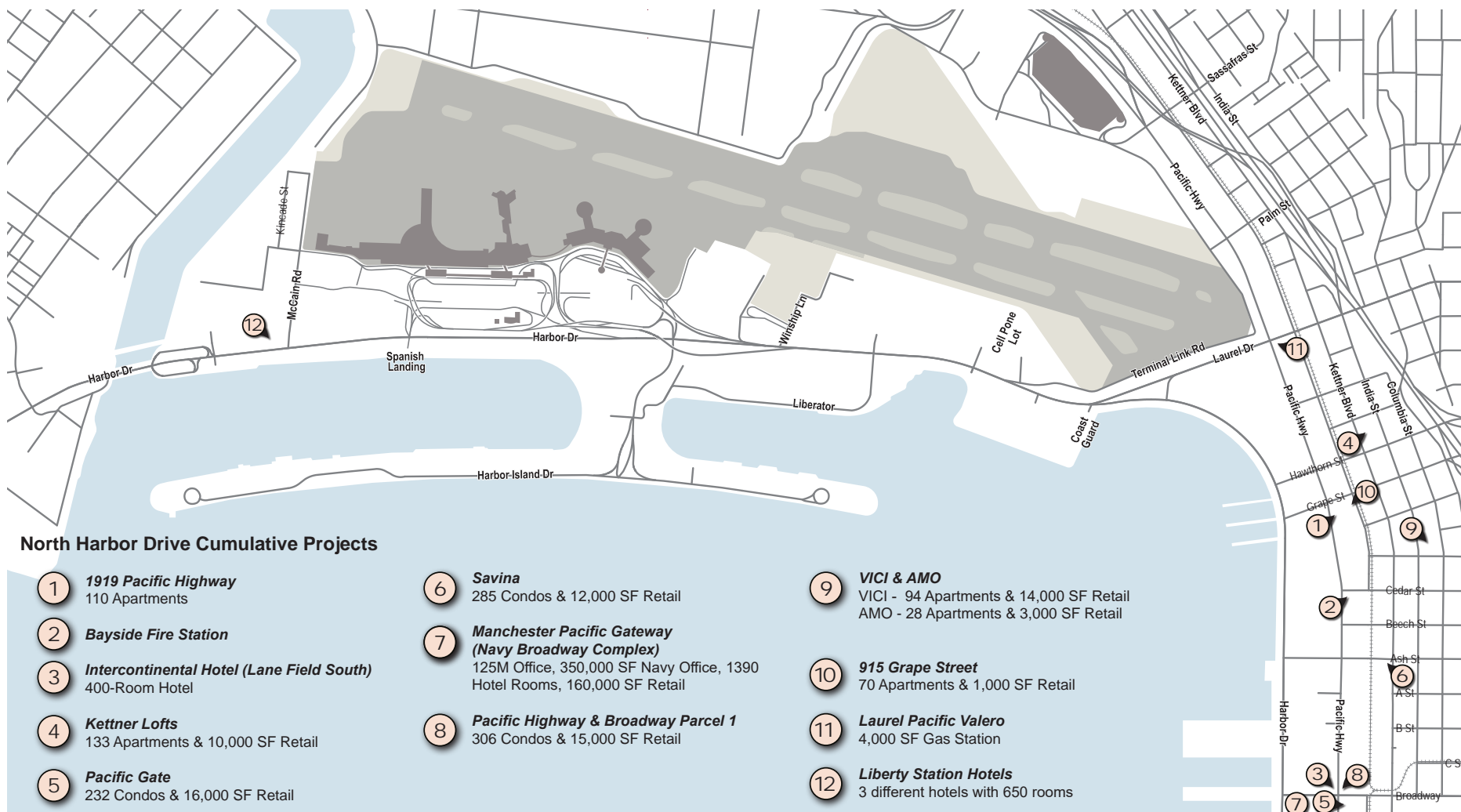


Figure 3-1  
Cumulative Projects

## 4 NORTH HARBOR DRIVE MOBILITY SHORT TERM PROJECTS

The airport roadway facilities must be integrated into the surrounding urban fabric. This includes transit, vehicular, freight, pedestrian, and bicycle transportation. By designing for connections with existing transit and pedestrian movements, the landside element can effectively bridge the off-airport and on-airport environments. The following chapter will present the short-term transportation projects (from 0-12 years) within the SDCRAA landside element.

### 4.1 ON-AIRPORT ENTRY ROADWAY

The airport road network includes the transportation facilities used to access the airport from the region, to urban core, to the airport approach. Today, access to the airport includes many local roadways and freeways. These include I-5, I-8, Pacific Highway, Rosecrans Street, North Harbor Drive, Harbor Island Drive, India Street, Kettner Boulevard, Grape Street, Hawthorn Street, Laurel Street, Palm Street, Sassafras Street, Washington Street, and Handcock Street. Several issues significantly impact the surrounding roadway facilities today. All vehicles entering and exiting the airport must travel along North Harbor Drive. 85 percent of airport traffic arrives from the east along North Harbor Drive; the remaining 15 percent arrives from the west. Additionally, all airport customers traveling west currently leave through one access point, at the intersection of Island Harbor Drive and North Harbor Drive. Today, North Harbor Drive has an average daily traffic volume of approximately 95,000 vehicles. **Figure 4-1** displays the existing deficiencies along North Harbor Drive. As shown in the figure, the existing airport merge and diverge points present a lot of difficulties for vehicles, bicycles, and pedestrians.

With these transportation facility issues in mind, the Airport Authority has identified three goals for the airport road network:

- Goal 1) Remove airport traffic from North Harbor Drive between the existing access to Terminal 2 and the existing Coast Guard Intersection.
- Goal 2) Maintain all existing airport access and egress movements at the existing North Harbor Drive and Harbor Island Drive intersection.
- Goal 3) Provide an on-airport network that serves landside airport functions.

To satisfy these goals, the Airport Authority has identified the on-airport entry roadway as a critical component of the landside surface transportation program. The on-airport roadway will help reduce congestion on off-airport/ local roads and eliminate some merge and diverge points all while facilitating a more efficient flow of traffic among airport campus facilities.

As indicated in Section 2 of this report, the Mobility Committee provided input on what functionality they desired from the on-airport roadway. This included:

- Reduce the traffic on North Harbor Drive,
- Increase the comfort level and safety for bicyclists and pedestrians on North Harbor Drive for people both going to or passing by the airport,
- Improve transit access to the airport,
- Can be implemented by the Airport Authority without relying on funding or major approvals from other agencies.



- 1 **Merge between westbound Laurel Drive and westbound North Harbor Drive**  
Difficult for vehicles, pedestrians and bicyclists as traffic backs up on both North Harbor Drive and Laurel Drive and is difficult for bicyclists and pedestrians to cross merging traffic.
- 2 **Merge between westbound Terminal Link Road and westbound North Harbor Drive**  
Difficult for vehicles, pedestrians and bicyclists as shuttle buses from the Rental Car Center and vehicles from the Pacific Highway parking have to merge onto a congested North Harbor Drive. Also difficult for bicyclists and pedestrians to cross merging traffic.
- 3 **Diverge from westbound North Harbor Drive to Terminal 1**  
Difficult for pedestrians and bicyclists to cross three lanes of traffic to continue westbound on North Harbor Drive.
- 4 **Diverge from westbound North Harbor Drive to Terminal 2**  
Difficult for pedestrians and bicyclists to cross two lanes of traffic to continue westbound on North Harbor Drive.
- 5 **Merge between eastbound North Harbor Drive and Airport Exit Ramp**  
Difficult for pedestrians and bicyclists to cross two lanes of traffic to continue eastbound on North Harbor Drive.
- 6 **Eastbound Terminal Link Road at North Harbor Drive**  
Difficult for shuttle buses going to the Rental Car Center and vehicles going to the Pacific Highway parking. Vehicles have to merge and cross three lanes of traffic on a congested North Harbor Drive to enter Terminal Link Road.
- 7 **Eastbound Airport Exit Road**  
Difficult for exiting vehicles as eastbound traffic backs up on several city arterials.

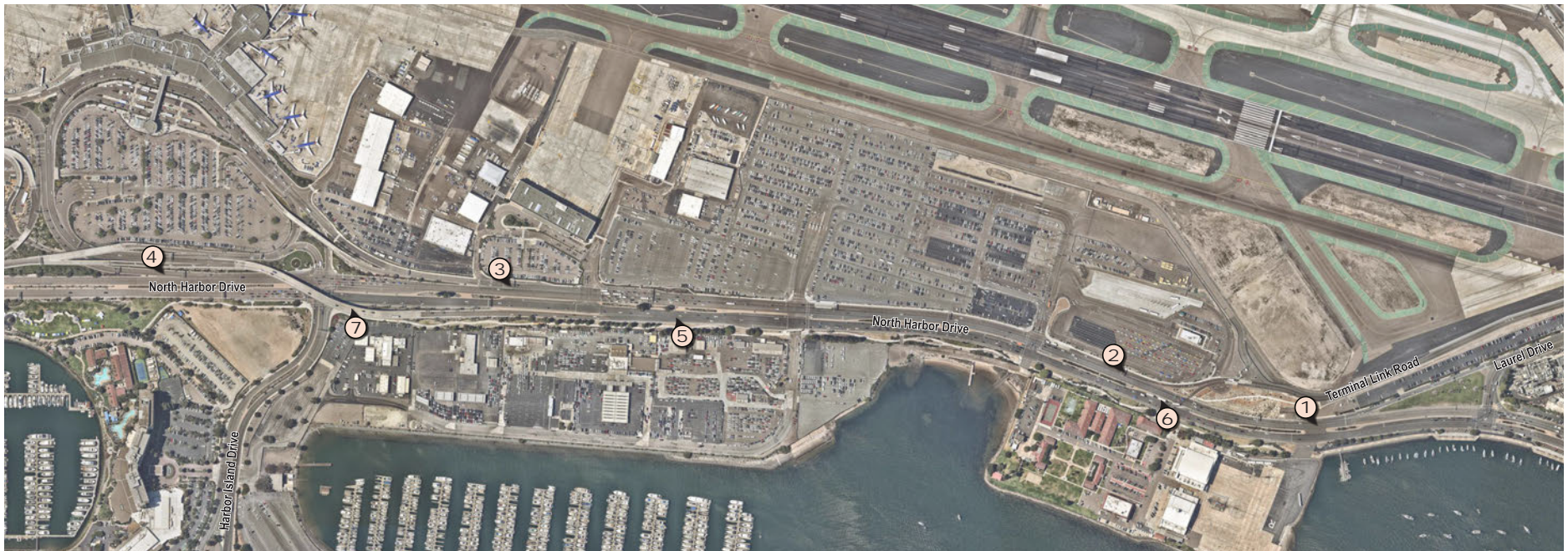


Figure 4-1  
Existing Harbor Drive Deficiencies

To satisfy the above conditions the following on-airport entry roadway concept, pictured in **Figure 4-2**, is proposed.

The entry to the proposed on-airport entry road is pictured in **Figure 4-3**. As shown in the figure, the on-airport entry roadway will begin at the intersection of Laurel Street and North Harbor Drive. From the east, vehicles on Laurel Drive will have the option to stay right to access the airport or stay left to access North Harbor Drive. Vehicles on North Harbor Drive will have the option to stay right to access the airport or stay left to stay on North Harbor Drive. After Laurel Street, all westbound vehicles accessing the airport will be off North Harbor Drive and on the airport facility. The on-airport entry facility will be three lanes. All vehicles traveling westbound along Terminal Link Road will have the option to stay right and merge onto the on-airport entry facility or stay left and merge onto North Harbor Drive. All vehicles exiting the Taxi Staging Area will also merge onto the on-airport entry facility. The on-airport entry facility will provide access to Terminal 1 Arrivals and Departures as well as the Terminal 1 parking garage structure and Terminal 2.

Access to Terminal 1 from the west will remain the same as it is today. Vehicles will turn left at the intersection of North Harbor Drive and Harbor Island Drive to access all Terminal 1 facilities. Once on airport facilities, these vehicles will travel along a single lane road eastbound where they will merge onto the on-airport entry facility at its junction with Terminal Link Road. **Figure 4-4** displays the path of travel for vehicles accessing the airport from the west.

The on-airport entry road and re-circulation road will improve access to the airport. All vehicles accessing Terminal 1 will now be on an uninterrupted, free-flow facility as they approach Terminal 1. Additionally, the proposed on-airport roadway concept will reduce vehicle congestion along North Harbor Drive as all airport activity from Harbor Island Drive to Laurel Street will be removed from the roadway facility. **Figure 4-5** displays the proposed cross section of the on-airport entry road and North Harbor Drive.

The path of travel for vehicles exiting the airport from Terminal 1 will remain the same as it is today. All vehicles traveling eastbound will use the existing two-lane exit ramp and merge onto North Harbor Drive just east of the intersection of North Harbor Drive and Harbor Island Drive. All vehicles traveling westbound can either exit at the intersection of North Harbor Drive and Harbor Island Drive or travel through Terminal 2 and exit onto McCain Road. **Figure 4-6** displays the path of travel for vehicles exiting Terminal 1.

## 4.2 BIKEWAY AND PEDESTRIAN IMPROVEMENTS

Pedestrian and bicycle facilities are important parts of the Terminal 1 landside transportation system. It is important to provide connections to downtown San Diego and the dense residential neighborhoods nearby. Today, there are Class II bicycle lanes in both directions on North Harbor Drive from Rosecrans Street to Airport Terminal Road. There is also a Class II bicycle lane on the south side of North Harbor Drive east of Airport Terminal Road. There is also a multi-use path system that can be used by both pedestrians and bicyclists along the south side of North Harbor Drive. The multi-use path continues from Point Loma to Park Drive, south of downtown, along the waterfront. There are sidewalks along the north side of North Harbor Drive from Liberator Way to the airport Terminals. There are also crosswalks at the intersections of Laurel Street, Lindbergh Field Way, Liberator Way, Harbor Island Drive, and Airport Terminal Road.



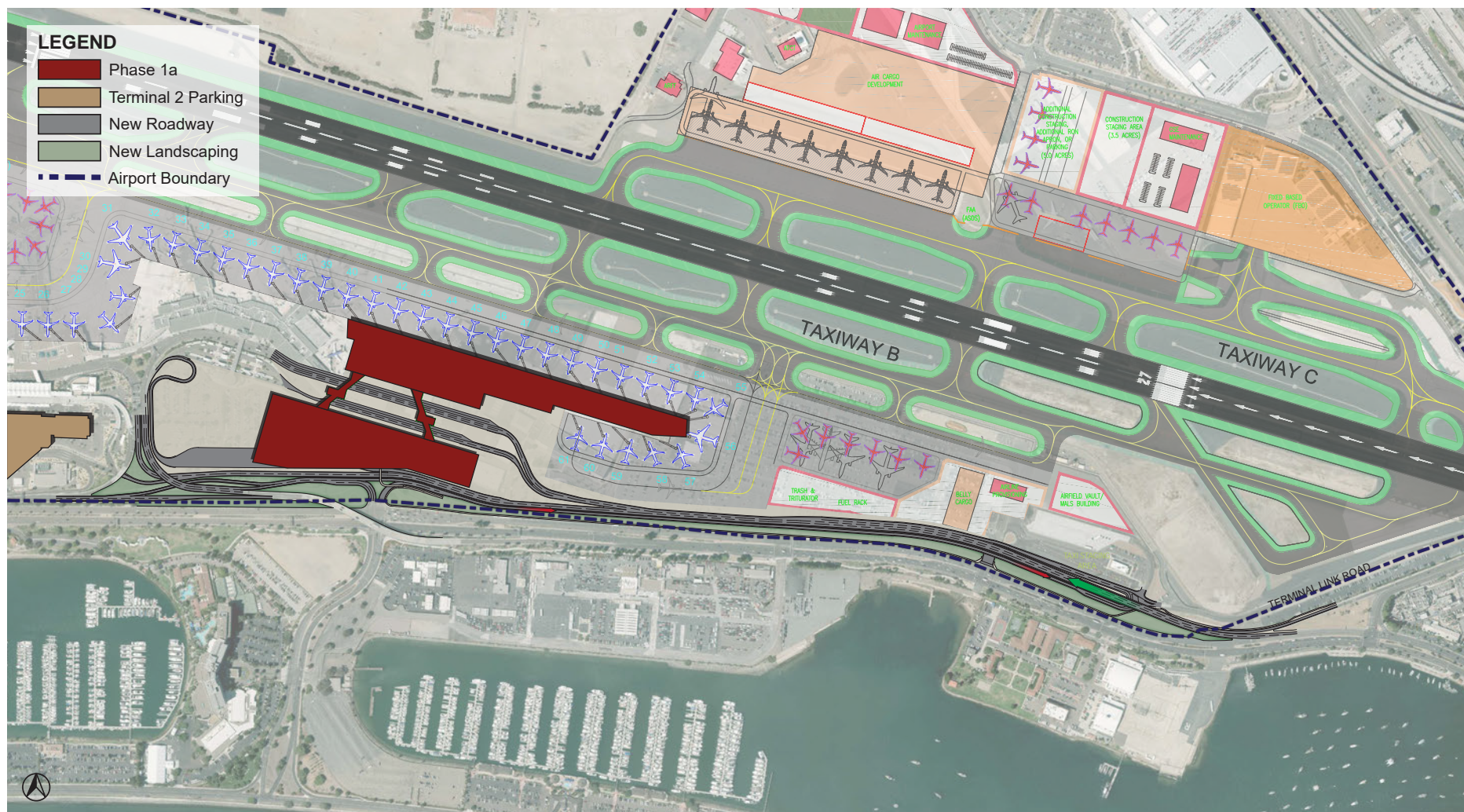






Figure 4-3  
Proposed On-Airport Entry Road Entrance



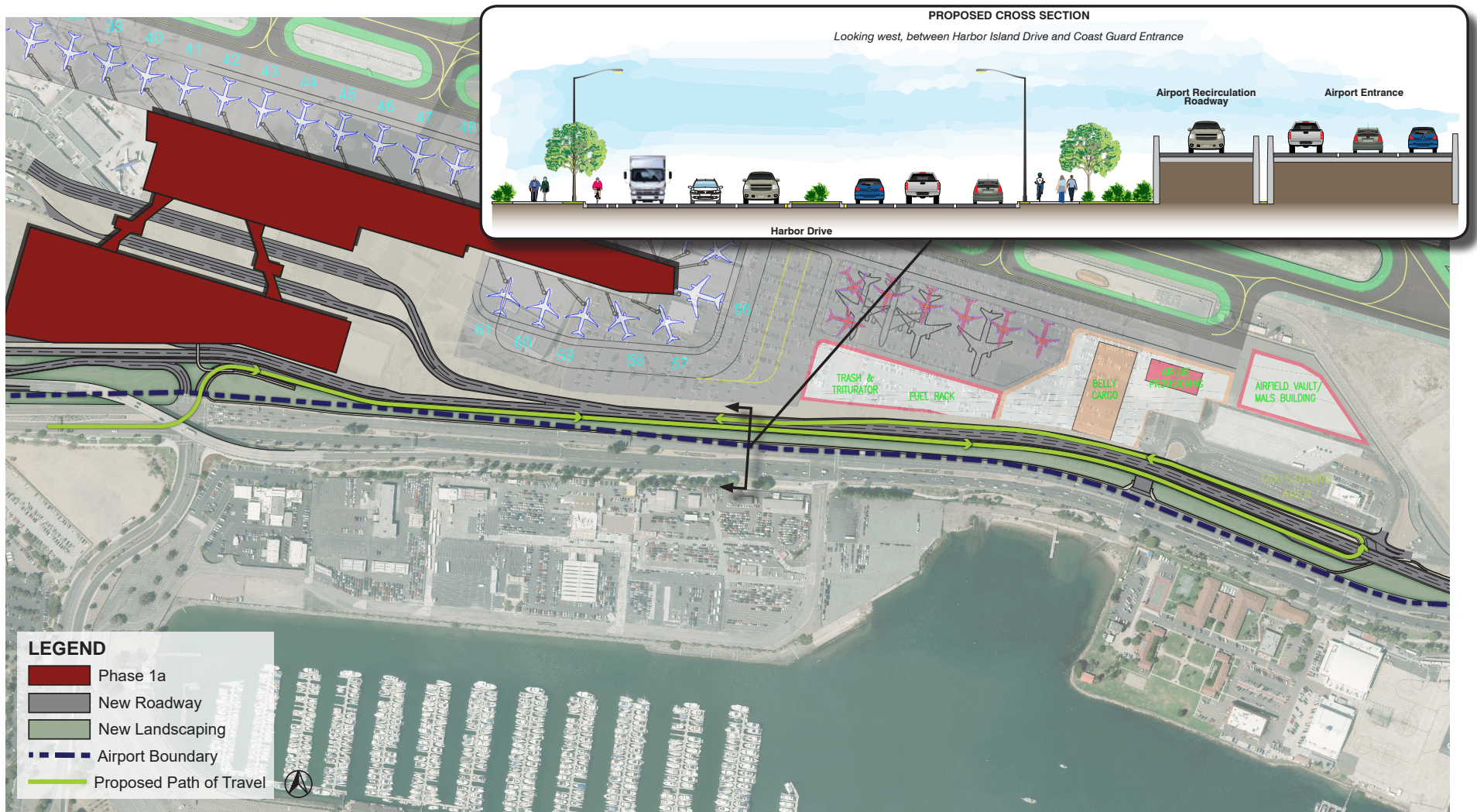


Figure 4-4  
Proposed Path of Travel from the West



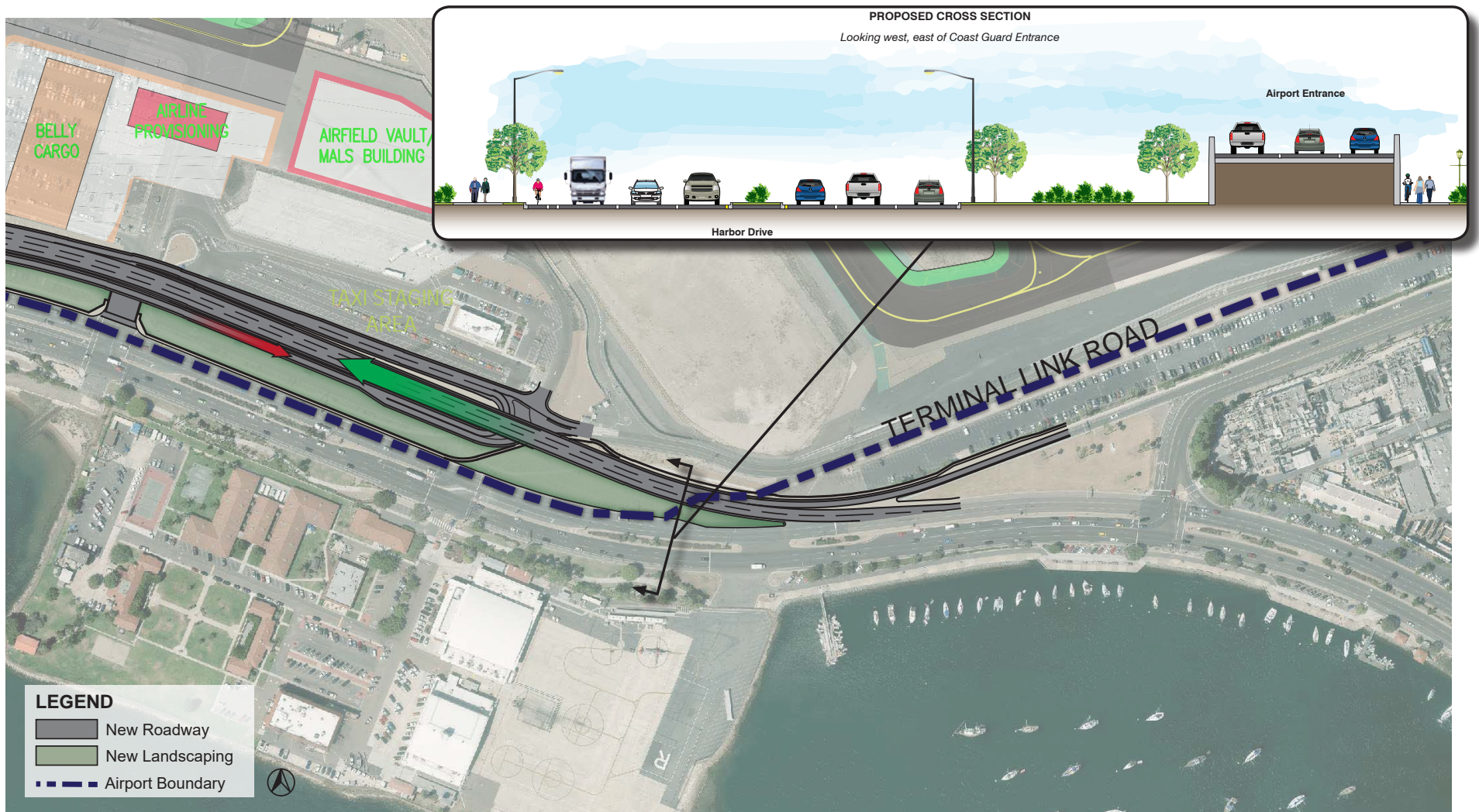


Figure 4-5  
On-Airport Entry Road and Harbor Drive Cross Section



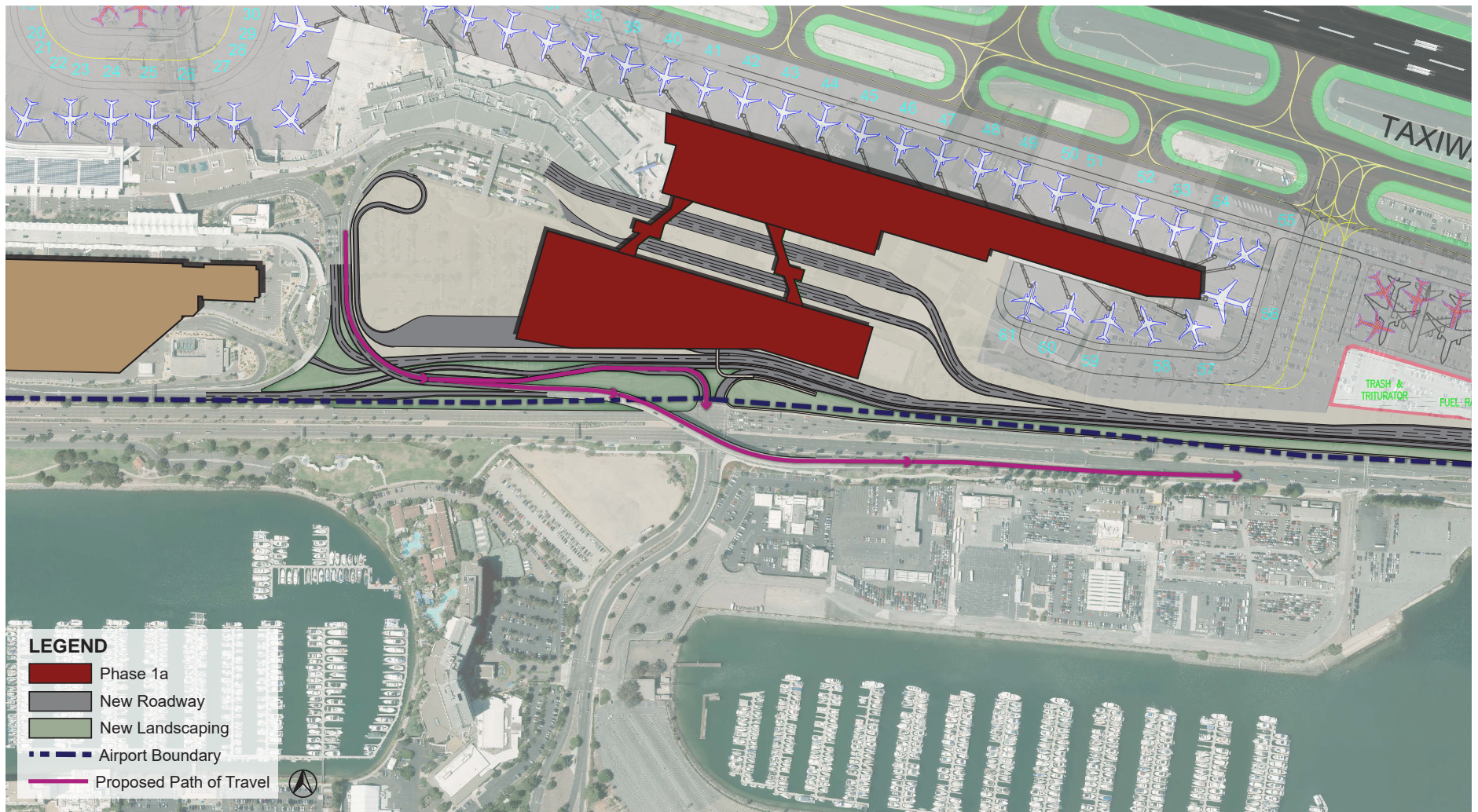


Figure 4-6  
Proposed Exiting Path of Travel

All existing pedestrian and bicycle connections will be maintained or improved with the proposed on-airport entry concept. **Figure 4-7** displays the proposed bicycle and pedestrian connections. For westbound passengers accessing the airport, at the intersection of North Harbor Drive and Laurel Street, it is recommended to provide a crossing along the on-airport entry ramp. From there, pedestrians and bicycles can travel on a multi-use path along the north side of the on-airport entry road. At the intersection of Terminal Link Road, the multi-use path will cross under the on-airport entry road where it will continue along the north side of North Harbor Drive. At the intersection of North Harbor Drive and Harbor Island Drive there will be a pedestrian bridge that will connect to the Terminal 1 parking structure. From there pedestrians and bicyclist can access all Terminal 1 facilities.

Currently, the eastbound bicycle lane on North Harbor Drive crosses at the merge of North Harbor Drive and the airport exit ramp. To improve the bicycle travel at this location, it is recommended to provide a one-way cycle track facility from the intersection of Harbor Island Drive to the intersection of Liberator Way. The cycle track will transition from the existing bicycle lane at Harbor Island Drive. It will then cross under the airport exit road, placing bicyclists in their own facility on the south side of North Harbor Drive. This potential improvement will eliminate the conflict point at the merge point of North Harbor Drive and the airport exit ramp and will allow bicyclists to continue to travel eastbound without having to worry about merging vehicles. The cycle track will transition back into a bicycle lane east of the airport exit roadway at the intersection of North Harbor Drive and Liberator Way. **Figure 4-8** displays the proposed bicycle facility and transition points. This potential improvement is located within City of San Diego and the Port of San Diego property. It is suggested that one of these agencies seek grant funding to implement the recommended improvement.

The recommended bicycle and pedestrian facilities will provide safe, recognizable, and continuous connections along North Harbor Drive and to the airport terminals.

### 4.3 TRANSIT IMPROVEMENTS

The new on-airport entry roadway will be used by public and airport provided transit services. Presently, buses traveling between the Rental Car Center (RCC) and the Pacific Highway Economy Lot are able to use Terminal Link Road, which travels around the eastern terminus of the runway. This allows the buses to avoid travelling on Pacific Highway or Laurel Drive, saving time and avoiding congested intersections. Today, Terminal Link Road terminates on North Harbor Drive at the U.S. Coast Guard Base signal. The new on-airport entry roadway will allow these shuttle buses to pass between the RCC area and the two terminals without using any public streets, including North Harbor Drive. Buses traveling from the terminals to the RCC area will also be removed from North Harbor Drive as they will be able to use the eastbound recirculation lane to reach Terminal Link Road and their destinations without using City streets.

This connection alleviates passing through up to four signalized intersections on North Harbor Drive. A transit route that doesn't need to pass through signalized intersections and roadways with heavy traffic will result in shorter and more predictable travel times, thus enhancing the customer experience.

Public transit will also benefit from the new on-airport entry roadway. The Airport Authority allows for free public use of the RCC and Economy Lot buses and has installed bus stops on Terminal Link Road near Palm Avenue. Included at this stop is an electronic display that informs passengers when the next bus will be arriving. The station is about a five-minute walk (900 feet) from the Midtown Light Rail Transit (LRT) Station. This allows for a relatively easy connection between the LRT network and the terminals.



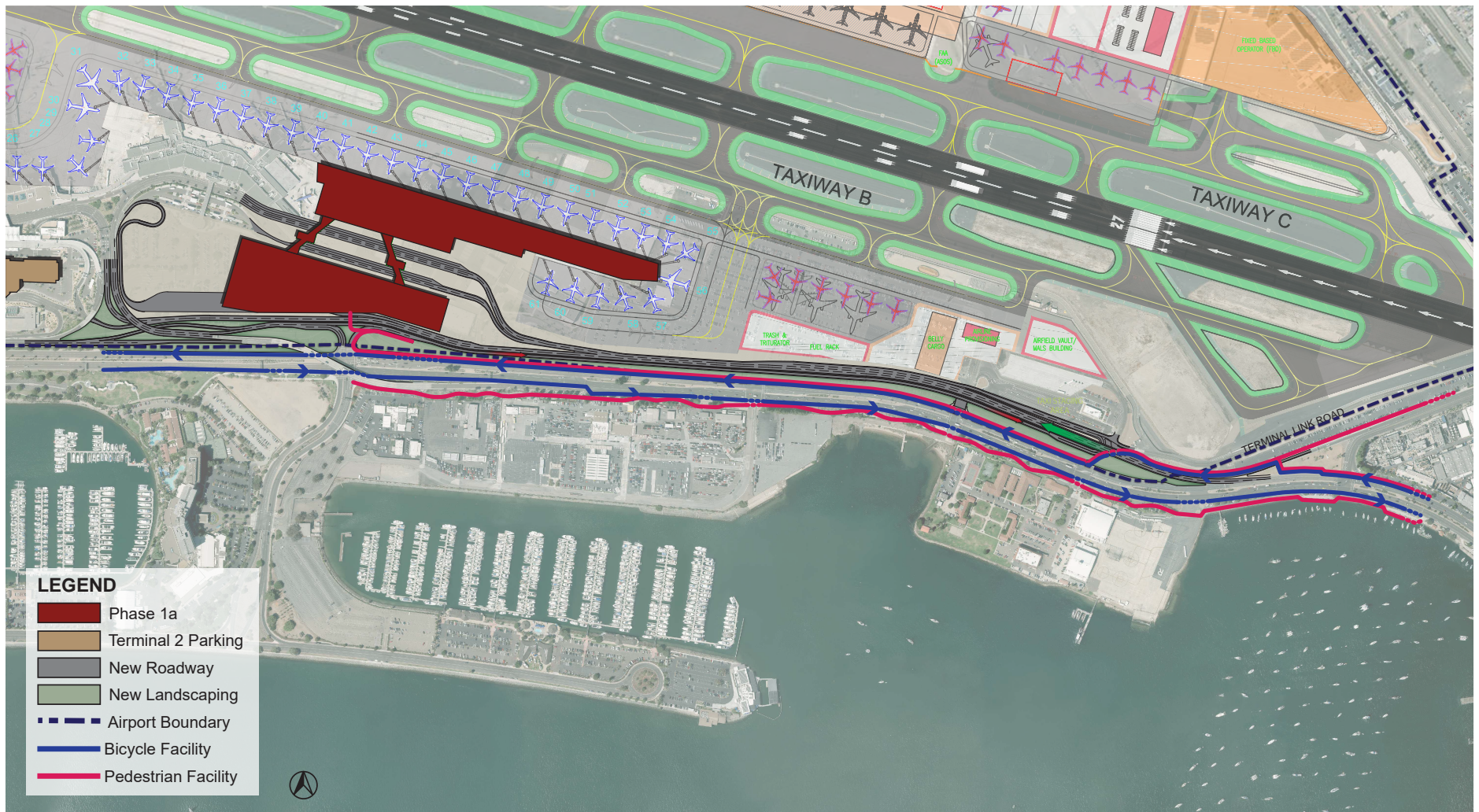


Figure 4-7  
Proposed Bicycle and Pedestrian Connections



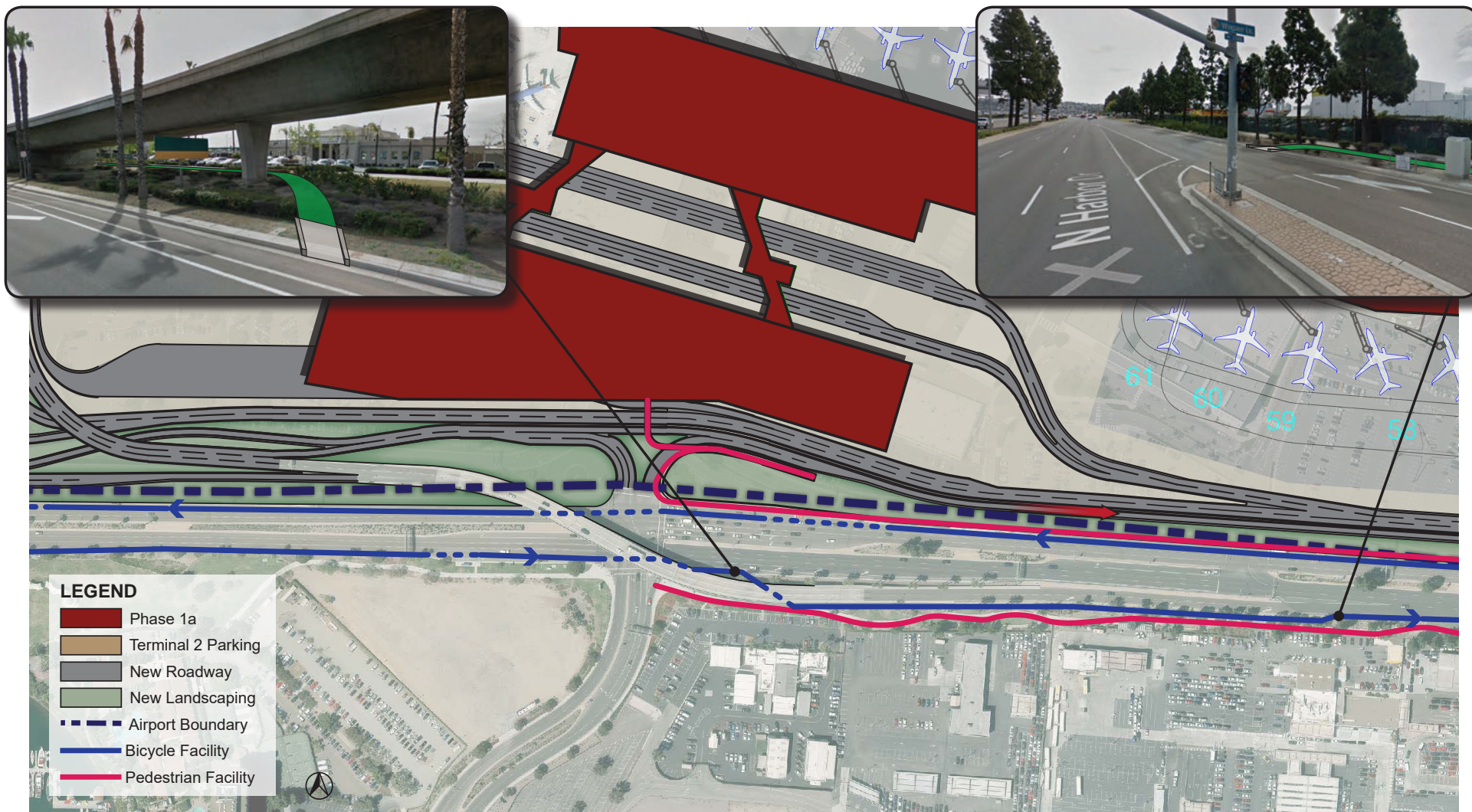


Figure 4-8  
Potential Bicycle Treatment at Airport Exit Ramp

Bus Route 992 (formerly known as the Airport Flyer) provides service between several downtown locations, including the Santa Fe Depot, and the two airport terminals. This route will be able to enter the airport access roadway from North Harbor Drive just west of Laurel Drive. The new on-airport entry roadway will allow the bus to avoid three traffic signals along North Harbor Drive. This will reduce the time required to reach the airport. No changes will occur for Route 992 as it leaves the airport.

In addition to public transit and airport provided shuttle buses, several private entities provide bus and shuttle service to the airport from hotels, remote parking lots, and other origins. These vehicles will also be able to use the on-airport entry roadway to reach their respective boarding and alighting areas near the terminals. Thus eliminating additional traffic on North Harbor Drive.

## 4.4 SUMMARY

The on-airport roadway will be implemented by the Airport Authority as part of the proposed ADP and will accomplish the following results:

- Improve the experience of airport customers driving to the airport by simplifying movements and improve parking and loading spaces,
- Improve the comfort and safety for pedestrians and bicyclist travel along North Harbor Drive, including those traveling to/from the airport,
- Reduce westbound traffic on North Harbor Drive between the Coast Guard Access and Harbor Island Drive by 2/3<sup>2</sup>.
- Improve transit service for airport shuttles, private shuttles and public transit by reducing the travel times to reach the terminals.
- Does not interfere or preclude future planned projects

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<sup>2</sup> Westbound traffic on North Harbor Drive is projected to decrease from an existing volume of approximately 2,600 vehicles per hour to approximately 900 vehicles per hour with the proposed on-airport entry roadway.



## 5 NORTH HARBOR DRIVE MOBILITY LONG TERM PROJECTS

The airport roadway facilities must be integrated into the surrounding urban fabric and must take into account all long-term planned projects within the boundary area.

### 5.1 PORT TRAFFIC ANALYSIS

The Port of San Diego has commissioned a mobility study for the area including Shelter Island, Harbor Island, and the Embarcadero. This study is being done in conjunction with the Port's Master Plan Update, and will consider land uses as identified in the Cumulative Project List. The Port study will leverage and build upon efforts undertaken in this study by the Airport Authority to ensure consistent assumptions, including:

- Shared traffic data (intersection count and traffic model projections)
- Overlap on technical advisory members
- Use of Briefing Book, Cumulative Project List, and this report as starting point
- Weekly coordination calls between agency consultants.

This study will focus first on long term solutions (Year 2050), and then look to implement mobility improvements phased over time, based upon logical funding assumptions. The Port's study area covers the entire airport study area and adds facilities near Shelter Island and the Embarcadero.

The Port study is expected to be completed in Spring/Summer of 2018. The Airport Authority will monitor the progress of the Port study and add appropriate information to the Airport Development Plan EIR, to the extent feasible.

### 5.2 FUTURE STUDIES

The City of San Diego and SANDAG have many long term plans to improve bike, pedestrian, and road facilities on North Harbor Drive and the surrounding streets.

#### *Midway Pacific Highway Preferred Plan*

The Midway Pacific Highway Preferred Plan proposes Class II (Bike Lanes) along Pacific Highway, north of Laurel Drive, and Kettner Boulevard, north of Laurel Drive. It also includes road segment mitigations, specifically the widening of Kettner Boulevard, between Washington Street and Laurel Street, the widening of Sassafras Street, between Pacific Highway and Kettner Boulevard to a 4-lane collector with a center left-turn lane.

#### *Downtown San Diego Mobility Plan*

The Downtown San Diego Mobility Plan proposes bicycle facilities, including a Class III (Bike Route) on Harbor Drive, from Laurel Street to Market Street, a Class IV (1-way Cycle Track) on Pacific Highway, south of Laurel Drive, on Hawthorn Street, from North Harbor Drive to State Street, and on Grape Street, from North Harbor Drive to State Street, and a Class IV (2-way Cycle Track) on State Street, from Interstate to Market Street, and on Beech Street, from Pacific Highway to Sixth Avenue.

A two-way cycle track will run along the west side of State Street from Interstate to the roadway's southern terminus at Market Street. Between West Fir Street and Broadway, State Street currently has three

northbound vehicular travel lanes, which will require a road diet resulting in two northbound lanes to accommodate the cycle track. To accommodate cycle tracks, one travel lane will be removed in each direction on Pacific Highway from Laurel Street to Harbor Drive. The existing median will remain and intermittent on-street parking will be preserved in most instances. The cycle track will intersect with east-west cycle tracks at Hawthorn Street, Grape Street, Beech Street, and Broadway.

A westbound one-way cycle track will run along the south side of Hawthorn Street from Harbor Drive to State Street. A parallel eastbound one-way cycle track will run along Grape Street from Harbor Drive to State Street. On-street parking along the south side will be removed to accommodate the cycle track, however, the three vehicle travel lanes will remain. The cycle track will intersect with north-south cycle tracks at State Street and Pacific Highway, and the existing multi-use path adjacent to Harbor Drive.

An eastbound one-way cycle track will run along the north side of Grape Street from Harbor Drive to State Street. A parallel westbound one-way cycle track will run along Hawthorn Street from Harbor Drive to State Street. On-street parking will be removed on both sides of Grape Street to accommodate the cycle track and an additional vehicular travel lane. The cycle track will intersect with north-south cycle tracks at State Street and Pacific Highway, and the existing multi-use path adjacent to Harbor Drive.

The plan also proposes road diets on Kettner Boulevard from Ivy Street to Grape Street and Columbia Street from Juniper Street to Broadway.

### *2050 Regional Transportation Plan*

The 2050 Regional Transportation Plan proposes a Coastal Rail Trail on Pacific Highway for the 2035 Regional Bike Network and a Central Coast Corridor on North Harbor Drive for the 2050 Regional Bike Network. It also proposes to create Grade Separated crossings at Laurel Drive, Hawthorn Street, and Grape Street.

The *Destination Lindbergh* report produced by the Airport Authority in 2009 included recommendations on the development of an Intermodal Transit Center (ITC). The center would connect the Airport to regional transit services, including trolley, rail, and bus stations. A passenger walkway would connect airline passengers from the airline passenger processing facility to the transit platforms, which would include two rail lines and station platforms for Amtrak/ COASTER, three trolley lines and station platforms. One additional rail line would allow for freight trains to bypass the ITC. A secure and automated people mover would link the ITC/ terminal complex to concourses south of the runway.

More information on these improvements are included in the Briefing Book in Appendix B.

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#### 5.2.1 SKYWAY STUDY

In June 2015, WSP USA completed a feasibility study for a two-mile skyway in Downtown San Diego, from the Gaslamp Quarter to Balboa Park, along Sixth Avenue. Through analyzing the potential operations, ridership, and location, they concluded that it would be feasible and would work well in San Diego. Benefits included it having lower infrastructure costs, being electrically powered, having a short travel time for the two-mile route, and being able to have fewer restrictions on where it could be constructed. A follow up study is being prepared for SANDAG by WSP that extends the potential skyway from the Gaslamp along the North Harbor Drive corridor with potential stations at Seaport Village, Broadway, the County Center and Harbor Island Drive (near Terminal 1). **Figure 5-1** displays the proposed skyway alignment.

If built, access to the airport would likely be via a pedestrian walkway through a new Terminal 1 parking structure.

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### 5.2.2 INTERMODAL TRANSIT CENTER

The *Destination Lindbergh* report produced by the Airport Authority in 2009 included recommendations on the development of an Intermodal Transit Center (ITC). The center would connect the Airport to regional transit services, including trolley, rail, and bus stations. A passenger walkway would connect airline passengers from the airline passenger processing facility to the transit platforms, which would include two rail lines and station platforms for Amtrak/ COASTER, three trolley lines and station platforms. One additional rail line would allow for freight trains to bypass the ITC. A secure and automated people mover would link the ITC/ terminal complex to concourses south of the runway.

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### 5.2.3 DIRECT I-5 CONNECTORS

As part of the *I-5 ITC Ramps PSR- PDS*, SANDAG proposed three different freeway alignment changes to connect I-5 to the airport. All three alternatives included new northbound and southbound freeway ramps that would connect to Pacific Highway. More information on these alternatives are included in the Briefing Book in Appendix B.



Figure 5-1  
Skyway Alignment



## 6 CONCLUSIONS / NEXT STEPS

This report is intended to document efforts undertaken by the Airport Authority staff and consultants to engage stakeholders prior to the preparation of an environmental assessment of the ADP. Through an active engagement process with policy makers and technical staff from agencies with an interest in multi-modal travel in the vicinity of the airport, the following outcomes have been achieved.

- Better understanding of desired mobility improvements extracted from long-range planning documents for the areas surrounding the airport.
- Suggestions for Cumulative Development Projects to be included in the ADP EIR analysis.
- Consensus that planned improvements need to be feasible and have a realistic expectation of being funded
- Refinements to the proposed on-airport access roadway have been made to reflect suggestions made by the mobility committee to better accommodate bicycle, pedestrian, and transit users.
- An improved situational awareness of mobility issues and constraints in the vicinity by all stakeholders, which will likely increase the effectiveness of future studies, reviews and solutions.

Specific work products that are documented in this report include:

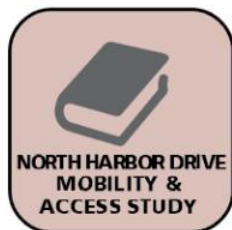


This listing of projects will be used by the Airport Authority and the Port of San Diego teams in preparing environment reports and analysis.



This document summarizes published planning documents that have been prepared within the study area.

Future studies that are underway that build upon the efforts summarized in this report include:



The Port of San Diego is preparing the North Harbor Drive Mobility and Access Study in conjunction with the Port's Master Plan Update. This document will analyze updates to land and water use designations. It will include development growth scenarios for District tidelands project to occur over the next 30 years.



The Airport Authority is preparing the ADP EIR. The document will analyze and evaluate the airport facility alternatives' effect on the study area roadway network.

## APPENDICES

**Appendix A** Working Group and Policy Group Agenda and Meeting Minutes

**Appendix B** Briefing Book

**Appendix C** List of Cumulative Projects

## APPENDIX A

### WORKING GROUP AND POLICY GROUP AGENDA AND MEETING MINUTES

**Harbor Drive Mobility Committee**  
**Agenda: Policy Group Meeting #1**  
**June 8, 2017 – 9:00 am to 11:00 am**  
Wright Conference Room – 2<sup>nd</sup> Floor  
Airport Authority Administrative Offices  
(former Commuter Terminal)  
3225 North Harbor Drive  
San Diego, CA 92101

*Parking available directly in front of building; please bring your parking voucher to meeting to be validated.*

9:00 Welcome – Chair April Boling

9:05 Introductions –

SDCRAA  
Port of San Diego  
City of San Diego  
SANDAG

9:10 Mission of Harbor Drive Mobility Committee

- Discuss Subject Area
  - Brief overview of major initiatives by each agency
- Goals
- Overview of process
- Deliverables
- Schedule

9:40 Discussion

- Identify top mobility issues in subject area
- Potential benefits, concerns
- Identification of questions and ideas for the Technical Working Committee to explore
- Deliverables and outcomes

10:50 Schedule review and closing remarks



**MEETING SUMMARY**  
**Harbor Drive Mobility Committee**  
**Policy Group Meeting**  
**June 8, 2017**

**ATTENDEES**

**City of San Diego** – Patrick Bouteller, Mike Hansen

**Kimley-Horn** – Jack Boda, David Sorenson

**Port of San Diego** – Rafael Castellanos, Jason Giffen, Lesley Nishihira, Stephen Shafer

**San Diego County Regional Airport Authority** – Ted Anasis, April Boling, Mike Kulis

**SANDAG** – Coleen Clementson, Jim Desmond, Adrian Granda

**INTRODUCTION**

Chairwoman April Boling welcomed the Harbor Drive Mobility Committee Policy Group members and each member of the Policy Group introduced themselves and stated their role in the agency they represent.

**MEETING PURPOSE**

Ms. Boling highlighted that the purpose of this meeting is to have each agency report on the current plans or activities they have that will affect ground transportation and mobility for the study area. The study area includes North Harbor Drive, Laurel Street, Grape Street, Hawthorne Street, and Pacific Highway. The study area extends east to I-5 at India Street and west to Rosecrans Street. Ms. Boling mentioned that all agency plans and visions for this area should dovetail and be realistic solutions. She stated that we should all know how each agency's plans affect North Harbor Drive and the study area.

**AGENCY UPDATES**

***SANDAG***

- Current Plans
  - Improvements for MTS bus route #992 service.
  - The airport operates a shuttle from Palm Street and Pacific Highway to the airport terminals.
  - Improvement of sidewalks/pedestrian access on Palm Street to light rail station.
  - Beginning a military/land use authority planning effort to look at the naval base access points to improve traffic load (18 months).
- Long Range Plans
  - Improvements to ramps to and from I-5.
  - Building an intermodal transit center to connect the trolley and buses (currently looking at funding sources for this project).
  - Collaborating on a TIGER grant application to improve goods movement.
  - Collaborate with military working group on base accessibility/commutes.

***CITY OF SAN DIEGO***

- Uptown – Community Plan was updated in 2016 and includes a mobility element.
- Downtown – Community Plan was updated in 2006.
- Midway Pacific Highway – Currently working to update Community Plan that will include transportation circulation elements.
- Peninsula – No plans to amend Community Plan at this time.

- All Areas
  - Amending CEQA process to comply with state law (SB 743 Traffic Analysis Mandates).
  - Updating parking standards (18 months).
  - Climate Action Plan is being implemented and will include ambitious targets for bicycle and ride-share goals.
  - Created a working group to look at autonomous vehicles.
  - Updated Capital Improvement Projects (CIP).

Mike Hansen mentioned that Senate Bill (SB) 743 may have an impact on all projects and that is being reviewed at this time. SB 743 changes the mechanics of transportation impact assessment to Vehicle Miles Traveled (VMT), replacing the typical Level of Service (LOS) measurement with the intent to reduce greenhouse gas (GHG) emissions.

Mr. Hansen said that he would look into whether there are any projects that are planned in the area of the airport and report back to the committee.

#### **PORT OF SAN DIEGO**

- The comprehensive update to the Port Master Plan is underway and a series of policy focused discussions with the Board of Port Commissioners is anticipated over the coming months. The Port Master Plan Update will include a mobility element, which is planned to be discussed in August. The programmatic Draft EIR is expected to be circulated in 2018 with the Final EIR out in 2019.
- Harbor Island – there are two major development projects being contemplated at this time (proposed by Sunroad and Oliver McMillan). The descriptions and timelines for these projects are being worked on presently but higher density and parking areas are expected.
- South Harbor Drive – this area is included in Phase 2 of the initial plan for the North Embarcadero project. One of the design alternatives considers closing the portion of Harbor Drive between Grape Street and Ash Street.
- Central Embarcadero – There is currently a \$1.1 billion project being proposed that will include 2,700 underground parking spaces. This redevelopment will include hotel, retail and water-dependent office space, but no residential space.
- The Manchester Pacific Gateway Project must also be considered.

#### **SAN DIEGO INTERNATIONAL AIRPORT**

- Airfield and Terminal Improvements
  - 47 acres of land acquired from Teledyne Ryan will be integrated along with current terminal and ground transportation projects into a T1 replacement in the Airport Development Plan.
  - Terminal 1 replacement project is proposed to include 30 gates and jet bridges, a modernized passenger check-in area, and dual-level arrival/departure roads.
- A new airport entrance roadway has been proposed that will serve inbound traffic. This roadway would remove inbound airport traffic from North Harbor Drive and put it on airport property. Outbound traffic would still use the existing fly-over ramp and existing city street. The Airport Draft EIR is expected to be circulated in fall 2017.

Ted Anasis reported that the Authority Board approved the plan for the Harbor Drive Mobility Committee in March 2017 so we can collaborate with other agencies going forward.

Ms. Boling asked the Port representatives whether the Port's Master Plan would affect the airport's Environmental Impact Report (being circulated in the fall). Mr. Castellanos responded that the Port and Airport Authority planning departments meet on a regular basis and hold stakeholder meetings and the timing of an ADP presentation to the Port Commissioners in August is well-timed.

Ms. Boling asked the committee if they agree on the geographical area being studied, or if there are any suggestions for changes. The committee is in agreement on the study area.

Ms. Boling suggested that the HDMC Policy Group and Working Group meetings occur in alternate months. If staff on the Working Group has an issue, they can provide input on the issue to the Policy Group, which will address the issue. Ms. Boling mentioned that she would like the work of this committee completed by year-end.

Jack Boda commented that these first meetings are discovery time; the Working Group is a technical group that in reviewing projects and goals will see opportunities and will bring them back to the Policy Group. He felt that the Working Group will need to get together more than once before they will have anything to report to the Policy Group.

Ms. Boling reported that the groups will alternate with the Working Group meeting twice per month and then report back to the Policy Group.

Ms. Boling then opened the floor to any questions or comments for the Policy Group.

### **QUESTIONS/COMMENTS**

Jim Desmond commented that in having a regional mobility plan so that everyone can use their land in the most effective way, we should have a concept that is workable and realistic.

April Boling commented that in discussions of roadways and access, all means of transportation (including parking) should be included.

Jason Giffen commented that what is missing is prioritization and guidelines of plans – the Policy Group should set priorities for the Working Group for the non-consensus areas.

Rafael Castellanos commented that there is a need to understand the number of people that need to be moved around in this area and that the Port is considering a mobility hub for this area.

Ms. Boling commented that she would like to see areas of agreement for changes from the Working Group.

Adrian Granda commented that it would be valuable to have an inventory of projects for each agency and to include the timing for each. Ms. Boling agreed that this type of inventory would be very helpful.

Coleen Clementson commented that there would be a benefit for the committee to include Marine Corps Recruit Depot (MCRD) as part of the Working Group. Ms. Clementson also commented that the use of public transportation should also be considered by the Working Group. Ms. Boling agreed that the Working Group can obtain input from MCRD and others and asked the Committee if any other agency should be added at this time. Mr. Giffen suggested that Caltrans be represented.

Ms. Boling suggested that a doodle poll be conducted for the two meetings for the Working Group. Lesley Nishihira suggested rotating agencies for the meetings and said the Port would be happy to host the two working group meetings if the dates work out for them.

With no further questions, Ms. Boling adjourned the meeting.

**Harbor Drive Mobility Committee  
Working Group Meeting #1  
July 18, 2017 – 9:00 a.m. to 11:00 a.m.**

Board Room – 3rd Floor  
Airport Authority Administrative Offices  
3225 North Harbor Drive  
San Diego, CA 92101

*Parking available directly in front of building;  
please bring your parking voucher to meeting for validation*

**AGENDA**

- 9:00 a.m. Welcome and Introductions
- 9:10 a.m. Mission of Harbor Drive Mobility Committee
- Background
  - Discuss Subject Area
  - Goals
  - Overview of Process
  - Deliverables
  - Schedule
- 9:20 a.m. Inventory/Overview of Major Projects/Plans
- San Diego International Airport
  - San Diego Unified Port District
  - City of San Diego
  - San Diego Association of Governments
  - California Department of Transportation
  - Metropolitan Transit System
  - Solar Turbines
  - U.S. Coast Guard
- 10:20 a.m. Discussion
- Identify Top Mobility Issues in Subject Area
  - Potential Benefits, Concerns, Risk of Improvements
  - Potential for Collaboration
  - Deliverables and Outcomes
  - Feedback for the Policy Working Group
- 10:45 a.m. Review Agenda for Working Group Meeting #2
- 10:55 a.m. Wrap-Up / Next Meeting – July 28, 2017

**MEETING SUMMARY**  
**Harbor Drive Mobility Committee**  
**Working Group Meeting**  
**July 18, 2017**

**ATTENDEES**

**Caltrans** – Ann Fox

**City of San Diego** – Vic Bienes, Tait Galloway

**HG Consulting** – Heidi Gantwerk (Facilitator)

**Jacobsen Daniels** – Jacob Sotsky

**Kimley-Horn** – Jack Boda, Dave Sorenson

**Metropolitan Transit System** – Mark Thomsen

**Port of San Diego** –Garry Bonelli, Jason Giffen, Lesley Nishihira, Stephen Shafer, Stephen Cook (Chen Ryan)

**San Diego County Regional Airport Authority** – Ted Anasis, Mike Kulis, Brian Roeh

**SANDAG** – Seth Litchney

**Solar Turbines** – Craig Anderson

**United States Coast Guard** – Dennis Amerson, Chanel Lee

**INTRODUCTION**

Heidi Gantwerk (facilitator) welcomed the Harbor Drive Mobility Committee (HDMC) Working Group members, reviewed the overall objective for the Working Group and the meeting agenda. The members of the Working Group introduced themselves and stated their role in the agency they represent.

**MEETING PURPOSE**

Ted Anasis reviewed the background on the formation of the HDMC. Mr. Anasis stated that the mission of the HDMC is to collaborate on roadway access and improvements in the study area surrounding the airport and that any changes/improvements are well coordinated with other users and agencies. The goals for the Working Group include, but are not limited to: identifying shared common assumptions, developing a cumulative inventory of major projects in the study area, or impacting the study area, (that could be useful for all agencies' EIRs), use of a 5 - 10 year planning horizon, and identifying potential areas for collaboration. Mr. Anasis identified the study area, which includes North Harbor Drive, Laurel Street, Grape Street, Hawthorne Street, and Pacific Highway. The study area extends east to I-5 at India Street and west to Rosecrans Street.

**AGENCY UPDATES**

***SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY***

- Airport Development Plan (ADP)
  - 47 acres of leased land (former Teledyne Ryan property) will be integrated along with current terminal and ground transportation projects, into a T1 replacement.
  - Terminal 1 replacement project is proposed to include 30 gates and jet bridges, a modernized passenger check-in area, and dual-level arrival/departure roads and curbsfronts.
- A new airport entrance roadway has been proposed that will serve inbound traffic. This roadway would remove inbound airport traffic from North Harbor Drive and put it on airport property. Outbound traffic would still use the existing fly-over ramp and existing city streets. The ADP Draft EIR is expected to be circulated in fall 2017. The Authority would like to ensure this project aligns with SANDAG's Regional Transportation Plan and wants to coordinate this effort with other agencies. This on-airport roadway would close several existing access points into the airport. There are no dedicated lanes for outbound traffic. The Authority would need to complete an environmental analysis to move forward with the project.

- **Discussion**

- Tait Galloway asked about timing of the phases for the ADP. Mr. Anasis responded that Phase 1A (which includes the on-airport roadway) is due to be completed and operational as soon as 2022 and Phase 1B is due to be completed by 2026.
- Mr. Galloway asked if the predicted increase in gate capacity also assumes an increase in vehicle trips beyond the SANDAG forecast. Mr. Anasis responded that the EIR forecasts that there will be a 1 – 2% growth in passengers and operations.
- Vic Bienes asked if the Authority has looked at the utility impacts to this expansion. Mr. Anasis responded that the Authority is studying utility needs and options as part of the improvement plan and is assessing needs with City and SDG&E representatives.

#### **PORT OF SAN DIEGO**

- The Port Master Plan update was reviewed, which focuses on current land use (6,000 acres), vision for the new Bayfront, redevelopment of Harbor Island, the Seaport Village project, and opening of two new hotels at the former Lane Field site.
- Commissioners will be meeting on August 8<sup>th</sup> to discuss Master Plan elements (including mobility issues) and key policy concepts for the Port Master Plan.
- The discussion draft of the Master Port Plan will be completed by year-end. The EIR includes a 30-year plan projection for the Port and the EIR review process will begin at the end of 2017.
- Port staff hopes the HDMC provides priorities and strategies for improvements involving the north part of the San Diego bay.
- The intersections at Laurel and Grape Streets along North Harbor Drive are challenging and require coordinated planning.

#### **CITY OF SAN DIEGO**

- The number one priority is the resurfacing and repair of roads. Overlay work on North Harbor Drive is scheduled for this fall. Because there will be a five-year moratorium on digging once the overlay is complete, any work on Harbor Drive needs to be completed prior to the overlay. A schedule will be set after coordinating with the Airport Authority. Staff is also obtaining accident data for Harbor Drive.
- Smart streetlights are being installed. These streetlights will capture safety and traffic data. Vic Bienes will look into whether these streetlights will be installed in the study area.
- The Uptown Community Plan was updated in 2016 and includes a mobility element.
- Updating the plans for Old Town and Midway/Pacific Highway are in the final stages.
- The City is planning for 9,000 new housing units as part of the Midway Pacific Highway community plan update.

#### **Discussion**

- Ted Anasis asked if standards for autonomous vehicles are being included in the City plans. Vic Bienes responded that the City is considering a partnership with industry, universities and SANDAG to develop a regional approach to autonomous vehicles and that the Airport Authority will be added to the dialogue.
- Jason Giffen requested more detail on the specifics of the planned overlay project. Mr. Bienes responded he will look into the work being done in the study area and report back on opportunities and restraints.
- Dennis Amerson and Craig Anderson asked if there are currently plans to address Stormwater drainage issues as they are challenged with flooding at their locations. The City representatives will speak to these agencies separately to address the issues they are having.

#### **SANDAG**

- **Current Plans**
  - A coordinated multi-modal access plan was completed and is part of the Transportation Regional Plan.
  - Improvements for MTS bus route #992 service.
  - The airport operates a shuttle from Palm Street and Pacific Highway to the airport terminals.

- Improvement of sidewalks/pedestrian access on Palm Street to the light rail station.
- Beginning a military/land use authority planning effort to look at the naval base access points to improve traffic load (18 months).
- Long Range Plans
  - Construct ramps to directly connect the airport and I-5.
  - Build an intermodal transit center to connect the trolley and buses to the airport (currently looking at funding sources for this project).
  - Collaborate on a TIGER grant application to improve goods movement.
  - Collaborate with military working group on base accessibility/commutes.

#### **Discussion**

- Seth Litchney mentioned that the Regional Transportation Plan is being updated to include focus on autonomous vehicles.
- Mr. Litchney also said that the sharing and coordination of all agency plans is helpful to SANDAG.
- Jack Boda asked if it is possible to get additional detail on the military installation plans. Mr. Litchney responded that SANDAG will provide detail on anticipated increases in military presence and traffic on bases. Garry Bonelli mentioned that while the number of ships in San Diego is scheduled to increase, the base population is not expected to rise by too much.

#### **METROPOLITAN TRANSIT SYSTEM**

- The Mid-Coast trolley light rail expansion along I-5 will be completed by 2021. The expansion will include five park and ride stops (which can intercept north county passengers).
- There is a potential to improve access to public transit for airport travelers and employees via the Santa Fe Depot.

#### **Discussion**

- Ted Anasis spoke about the Airport Transit Plan which includes updating websites to include information on transportation connections to the airport, adding ticket machines in the airport terminals and the City and SANDAG improving the pedestrian path to the Palm Street stop (expected to commence this week). Mr. Anasis reported that 600 passengers used the Palm Street connector shuttle last month. There was also discussion on the potential for 992 route rapid service and bussing between Old Town trolley and airport terminals.
- Garry Bonelli asked about the expected trends for the ride-sharing services. Mr. Anasis responded that the use of Uber and Lyft has increased rapidly, and is compounding congestion on Harbor Drive. Lyft and Uber capture 30% of the for-hire rides and that number is expected to be 50% by 2020. Jack Boda mentioned that Lyft and Uber are impacting all transit systems and will compound traffic issues on Harbor Drive as they grow.
- Seth Litchney asked if it is part of the mission of the HDMC to determine whether it makes sense to prioritize one trolley location as the key link to SDIA or is the goal about improving access at all transit stops to give people more choices. Mr. Anasis responded that looking at access for transit was certainly part of the mission of the HDMC and that improving connectivity to transit and increasing ridership would be an excellent outcome, but acknowledged that transit ridership to SDIA is very limited, and that increasing that even to 3% - 5% of airport passengers would be a significant achievement.

#### **CALTRANS**

- There are currently only a few projects in study area.
- Focus is on rehabilitation/maintenance of roadways and increasing/improving technology and working with SANDAG to identify gaps.

#### **Discussion**

- Jack Boda asked if the increase in gas/sales taxes will allow additional funds for improvements. Ann Fox responded that there is an aggressive schedule for improving pavements, culverts and bridges. Ms. Fox also mentioned that, at this time, congestion is only being addressed from a safety perspective.

- Ms. Fox said that Caltrans would like to see a focus on attractive lighting and public art incorporated into planning around major intersections.

## **UNITED STATES COAST GUARD**

### **Discussion**

- Dennis Amerson mentioned how appreciative the USCG staff is for the streetlight at Liberator Way but would like Stormwater runoff considered.
- Mr. Amerson mentioned that the Coast Guard would like to speak with Authority staff regarding the potential to use the large gate crossing on Harbor Drive in case of an emergency. Ted Anasis responded that he will put Mr. Amerson in touch with the appropriate Authority Airport Operations staff to discuss.
- Garry Bonelli asked if Mr. Amerson could confirm the base is no longer a fixed-wing facility and that only helicopters fly in and out of the base. Mr. Amerson confirmed that the base handles only helicopters.
- Mr. Bonelli asked if it would be at all feasible in the future for the Coast Guard to move to North Island.

## **SOLAR TURBINES**

Mr. Anderson gave an overview of Solar Turbines (the San Diego location is the corporate headquarters), highlighting that they have been at the Harbor Drive site for 90 years, have 2,000 employees at this site, manufacture gas turbines (jet engines), and have approximately 15,000 visitors each year. Solar Turbines has a land lease with the Port through 2035 with two 5-year extensions.

- Access to Laurel Street is critical to Solar Turbine employees.
- They would like to focus on infrastructure issues; the flooding at Laurel Street & Harbor Drive has shut down business in the past; Stormwater drainage is a critical issue.
- Because their parking facilities are across the street from the Solar Turbines site, changes made to Harbor Drive will affect their employees.

### **Discussion**

- Jason Giffen mentioned that the flooding at Harbor Drive and Laurel Street is influenced by the tide as well as Stormwater drainage.

## **GENERAL DISCUSSION**

- Tait Galloway suggested that going forward it might make sense to include the Marine Corps Recruit Depot (MCRD) in the HDMC meetings.
- Garry Bonelli said that data sharing and phasing will be important and should be coordinated. Mr. Bonelli also mentioned that this information is important for local officials.
- Vic Bienes said that one of the benefits of this committee would be to coordinate and bundle work happening in a particular area.
- In addition to an inventory of projects, it is suggested that the group develops a "master project matrix" that includes phasing and coordination of efforts in order to reduce having to do things over, i.e. digging the same area multiple times, etc. The ideal would be to coordinate a "one dig strategy" for projects.
- Tait Galloway mentioned the last time a coordinated stakeholder group was convened around the previous Airport Master Plan, they identified a number of desirable improvements but there was no way to pay for them. Mr. Galloway wants to make sure this effort does not repeat that outcome. The question then is what meaningful improvements can the Airport Authority pay for?
- The Working Group should recommend to the Policy Group opportunities for collaboration and suggestions for phasing and funding options.
- The Working Group agreed that whatever recommendations emerge from the HDMC should be realistic, fundable, etc. No "non-starters" or major unfunded initiatives.
- It will be important, in looking at the master inventory, to prioritize what the group wants to move forward on with in a set timeframe.
- Any recommendations should keep in mind potential future projects under consideration for that area and not preclude them.



- What does the group need from the Authority?
  - Anticipated traffic implications of ADP; any staging of road closures, etc. Mr. Bienes suggested the Airport Authority initiate meetings early in the process with the City to expedite permit processing.
  - As the number of new markets increase, the group would appreciate information on air service development to help coordinate with cruise ship terminal and other tourism organizations. Mr. Anasis agreed to provide forecasts, as well as the results of the passenger surveys that provide information on travel characteristics and where in the region passengers visit in the county.
- One outcome of HDMC might be to identify potential sources of revenue, including the gas tax, a congressional infrastructure bill, and the Airport and Airways Trust Fund (although Ted Anasis suggested that there had been no movement on the federal trust fund and that he did not anticipate that as a source of funding in the near or even medium term).
- It was suggested that recent grant opportunities for agencies around the county may lead to a simultaneous uptick in construction, and that competition for commodities and contractors could drive up prices of construction.
- The HDMC needs to think about the role of private development and dollars. What can/should the contributions of developers of large projects in and around the study area be towards supporting infrastructure improvements?

### **CONCERNS**

- What are the desired deliverables of the HDMC process?
  - To maintain the status quo in terms of mobility and congestion as vehicle, bike, pedestrian and transit trips increase.
  - To significantly improve mobility and access in the face of increased passenger trips.
- Minimizing impact of ADP project is a goal.
- Improving safety for drivers, bikers and pedestrians should be a stated goal.
- The HDMC Group can identify off-airport improvements, but these will have to be coordinated with other agencies and always keeping funding in mind.
- One key question: what can the Airport Authority pay for that would mitigate the impact of their projects (need to include projects in the RTP)?
- The traffic study on this will be challenging; balancing the needs of users is complex.
- The EIR will include bike and pedestrian access and plans for consistency of access.

### **BENEFITS**

- The potential is there for this group to find grant funding and possibly for a pilot project to identify operational solutions as opposed to facility improvements.

### **POTENTIAL FOR COLLABORATION**

- Stormwater
- Parking
- Direct freeway connection ramps to SDIA

### **DELIVERABLES AND OUTCOMES**

- Shared forecast of growth.
- Inventory and phasing of major initiatives.
  - Between 2018 to 2035
  - Between 2035 to 2050
  - General criteria acknowledging funding status.
- Need to inform the Policy Group of the coordination that will be required.
- Final report: a technical memo outlining draft concepts evaluated.
- Coordinated plan around overlay project.
- Timing around stormwater; requires brainstorming with Solar Turbines.

- Water harvesting by Airport Authority.
- Recommend that the Policy Group only consider projects that are foreseeable, feasible, realistic, and for each recommendation, identify the agencies involved in the necessary collaboration.
- The next Working Group meeting will be held on July 28<sup>th</sup> at 9:00 a.m.

**MEETING SUMMARY**  
**Harbor Drive Mobility Committee**  
**Working Group Meeting**  
**July 28, 2017**

**ATTENDEES**

**Caltrans** – Jesus Vargas  
**City of San Diego** – Vic Bienes, Tait Galloway, Maureen Gardiner  
**HG Consulting** – Heidi Gantwerk (Facilitator)  
**Jacobsen Daniels** – Jacob Sotsky  
**Kimley-Horn** – Jack Boda, Dave Sorenson  
**Metropolitan Transit System** – Mark Thomsen  
**Port of San Diego** – Lesley Nishihira, Stephen Shafer, Monique Chen (Chen Ryan)  
**San Diego County Regional Airport Authority** – Ted Anasis, Rebecca Bloomfield, Mike Kulis, Brian Roeh  
**SANDAG** – Seth Litchney  
**Solar Turbines** – Craig Anderson, Jim Garegnani  
**United States Coast Guard** – Dennis Amerson

**INTRODUCTION**

Heidi Gantwerk (facilitator) welcomed the Harbor Drive Mobility Committee (HDMC) Working Group members to the second meeting, reviewed the overall objective for the Working Group and the day's meeting agenda. The members of the Working Group introduced themselves and stated their role in the agency they represent.

**MEETING PURPOSE**

Initiated by a question from Tait Galloway, Ted Anasis explained to the group that the purpose of the Working Group meetings are to discuss mobility issues on North Harbor Drive to see what improvements can be made for the mobility/flow of traffic in the study area, and how the mobility in the study area impacts coastal and land use for the various agencies within this group. Dave Sorensen added that they are also looking for feedback for the on-airport roadway as part of the Authority's Airport Development Plan (ADP); ensuring that it would not preclude future improvements (e.g. direct ramps to I-5, inter-modal transit center).

**REVIEW FROM THE JULY 18<sup>TH</sup> MEETING**

Heidi Gantwerk recapped the focus points from the July 18<sup>th</sup> Working Group meeting, which included coordinated phasing, using a one-dig strategy for resurfacing by City of San Diego, completing a matrix of projects/priorities, funding potentials, potential for private development, safety improvements, and potential for collaboration.

- Tait Galloway advised that it would be helpful to have a mobility/corridor study conducted to give the group members more detailed information to consider the concepts for the on-airport roadway before they can make decisions on plans for the study area.
- Dennis Amerson noted that the Coast Guard plans to stay in its present location for the foreseeable future.
- Maureen Gardiner asked if the Authority will prepare an Environmental Impact Report (EIR) for the ADP. Ted Anasis responded that a draft EIR will be prepared at the end of this process.
- Mark Thomsen discussed the benefits of converting Bus Route 992 into a Bus Rapid Transit route. Mark also mentioned that a key element of the Rapid Transit Plan is the Transit Signal Priority (TSP) initiative which would improve efficiency and traffic flow. The TSP allows traffic signals to remain green longer as a bus approaches the traffic light. Mark would like the TSP to be included in the improvements for North Harbor Drive. Another group member asked if the TSP could also be used for freight trucks.

- Seth Litchney advised that SANDAG's forecast will be taking military issues into account. Potential base realignment/closures in the future could lead to an increase in the number of military personnel stationed in San Diego. They are also looking into ingress/egress traffic issues at the San Diego military bases.

### **DISCUSSION OF INITIAL ALTERNATIVES**

Jacob Sotsky reviewed the various roadway alternatives that were analyzed to mitigate traffic in and around the airport. These initial ideas included one way streets around Laurel Street, a flyover ramp closer to the terminals, a flyover at Anchor Island, a small traffic circle at Anchor Island, and a stacked roadway. A second family of ideas included airport access on Laurel Street connected at Sassafras Street, a connector at Washington Street, and a stacked roadway on Laurel Street. Many of these ideas had reasons/issues why they were not likely to be deemed feasible.

A high level analysis focused on the Anchor Island area. The ideas of a stacked roadway, a flyover ramp, and a new intersection in that area were presented to the Board. The Board requested further study for the roadway that includes preservation of access to Laurel Street and to form this multi-agency committee. It was also clarified that all of the improvements in the on-airport roadway concept would be located on airport property.

The Authority recommended:

- An on-airport access roadway (inbound only).
- Kimley-Horn refine the process to include benefits to the area.
- The scope be limited to what the airport could do now.

### **PRESENTATION OF PREFERRED ALTERNATIVE**

Dave Sorenson presented the suggested design and location for the new on-airport roadway.

- The roadway starts at the Laurel Street and Harbor Drive meeting point.
- The roadway would separate airport traffic from North Harbor Drive-bound traffic and would gradually elevate.
- Traffic for both terminals would use the on-airport roadway entrance at Laurel Street and Harbor Drive. From Laurel Street, traffic would come down Laurel Street and bear right onto the on-airport roadway. From Harbor Drive, there will be two exit lanes to access the on-airport roadway at Laurel Street.
- The design will include pedestrian and bicycle paths at a signalized crosswalk (the HOC signals will be used in those areas).
- The traffic signal at the Commuter Terminal (Winship Lane) will be removed.
- The on-airport roadway will eventually split into two roadways; one roadway will turn into the parking facility for Terminal 1 and the other roadway will continue on to Terminal 2.
- An on-airport roadway will be easier to sign to assist drivers where to go.
- All exiting movement would stay the same and the signals will remain.
- Buses and shuttles would be on the on-airport roadway. Having no signals to slow or stop them would be more timely and efficient.
  - Ted Anasis mentioned that there would eventually be a phase-in of geo-fencing so taxi and ride-share services won't have to check in in a physical staging lot.

### **DISCUSSION OF PREFERRED ALTERNATIVE**

- Stephen Shafer asked why no northbound roadway addition was included in the design. Jacob Sotsky responded that Marine Court Recruiting Depot (MCRD) is in the way. Ted Anasis mentioned that 85% of airport traffic approaches from the East. Jason also noted that 68% of airport traffic comes from the North County (north of the 8).
- Vic Bienes asked if this roadway is in the airport right-of-way. Jason Sotsky responded yes.

- Vic Bienes wanted to confirm that the Authority would be responsible for maintaining the new roadway. Ted Anasis responded yes.
- Dennis Amerson asked if helicopter approaches were considered for the stacked roadway design. Jason Sotsky confirmed that the height of a stacked roadway would not interfere with helicopter flight.
- Jacob Sotsky mentioned the possibility of a new outbound lane, in the future, that would eliminate the need for busses to use North Harbor Drive.
- Jim Garegnani mentioned that there is a signal crossing at Laurel Street and Anchor Island to allow Solar Turbine employees to cross Laurel Street. Dave Sorenson responded that a HOC signal would replace that existing signal. Monique Chen asked if a forecast on movement that would trigger the HOC light in that area has been done. Jason Sotsky responded that only one lane will be affected. Jim said he believes the HOC light may be an issue going off hundreds of time for the Solar employees to cross Laurel Street. Dave responded that a HOC light would be better and safer for the employees.
- Vic Bienes asked if it would be possible for the transition to happen on the roadway sooner than shown in the plan. Ted Anasis responded that we can look into the roadway climb happening sooner so that the pedestrians can go under the roadway rather than crossing it. Vic mentioned that the pedestrians going under the roadway rather than crossing it would avoid accidents.
- Tait Galloway asked if there would be enough lanes on North Harbor Drive to handle the remaining traffic. Dave Sorenson responded that one of the reclaimed lanes will be used for a buffered bike lane and that the remaining lanes should be enough to handle the non-airport traffic on North Harbor Drive.
- It was mentioned that bike lanes will be added to North Harbor Drive when the road repaving occurs.

#### **AGENCY COMMENTS ON PREFERRED ROADWAY ALTERNATIVE:**

##### **Solar Turbines**

- Craig Anderson said he would like to see pedestrian/bicycle pathway access information included in the mobility study.
- Jim Garegnani asked if the Airport's proposed improvements will impact the North Embarcadero Visionary Plan. Dave Sorenson responded that those improvements will be considered in the upcoming traffic study.

##### **Port of San Diego**

- Lesley Nishihira stated that although the Port Board has considered concepts, the Board has not yet approved any potential plans on Harbor Drive. Ted Anasis asked Lesley her thoughts on the use of Anchor Island. Lesley responded that the on-airport roadway is a good solution if it helps their tenants. She is not sure if the Port has full control of the Anchor Island land, but will check on that and let the committee know.
- Jacob Sotsky asked if the Port's plan included maintaining the traffic light at Liberator Way. Lesley Nishihira confirmed that the Liberator Way light would stay and there are no new intersections planned right now to access the Harbor Island development.
- The Port would like more data, including an understanding of predicted traffic volumes, before offering any type of support for the on-airport roadway plan.
- The Port would like to maintain two airport access points off of North Harbor Drive.

##### **City of San Diego**

- Monique Chen requested that any potential study look at Laurel Street and the crossing at the tracks; she is concerned about potential back-up with heavy rail.
- Maureen Gardiner said that she would like to see projected traffic volumes and movement information to better understand the effect of the new on-airport roadway.
- Maureen Gardiner also asked if the Airport Authority is using the SANDAG Model 13, like the Port. Ted Anasis responded that it was.

- Vic Bienes stated that he will share this information with other City staff and asked if surface drainage on the new roadway had been included in the plans. Ted Anasis confirmed that drainage is included.
- Tait Galloway reiterated the need for a mobility/corridor study in order for the City to feel comfortable with the project and to address questions that might otherwise be raised in comments on the EIR. He raised concerns that the study area and the EIR does not address the concerns that will arise on city streets, and the impacts at intersections like Grape Street and Harbor Drive, that are not controlled by the Airport Authority. More study/attention to how people move from the freeway to the airport and the impact on city streets is needed.
- Craig Anderson asked Vic Bienes if he could provide status of the upcoming North Harbor Drive overlay project. Vic responded that the project will run from the bridge at the Navy Training Center to Grape Street. The City is currently working with the Authority on utility connection information. The project is still being put together, but is scheduled for sometime this fall.

#### **CALTRANS**

- Jesus Vargas stated that the on-airport roadway does not conflict with any of their potential projects.

#### **SANDAG**

- Seth Litchney asked what would happen if someone misses the entrance to the new on-airport roadway; would there still be access to the Airport off of North Harbor Drive. Dave Sorenson responded that the turn-around at Spanish Landing would be available and there would still be two entrances off of North Harbor Drive to allow for redundant entry points.
- Seth Litchney asked if the planners believe North Harbor Drive could become a cut-through into the airport because it will be faster. Dave Sorensen responded that the on-airport roadway would be faster, providing direct access to the terminals with no traffic lights.
- Seth Litchney asked how bus routes would be affected; is there a way to speed up queuing and potential for better access to trolley stations. Ted Anasis responded that the Terminal Link Road is available.

#### **COAST GUARD**

- Dennis Amerson said that the plan doesn't seem to interfere with Coast Guard functions.
- Dennis Amerson asked about access to the large gate in case of emergencies; if the Laurel Street grade starts earlier, would that be an issue for Coast Guard planes in emergency situations. Dave Sorenson responded that getting planes across the street in emergencies would not be available. Ted Anasis mentioned that people, supplies and equipment could move across through the gate, but not planes. Dennis said he will speak to his command for input.

#### **MTS**

- Mark Thomsen said that the new on-airport roadway would speed up access to the airport, which is positive, but he would like to see traffic analysis information.
- Mark Thomsen asked if the new Terminal 1 would require two bus stops. Jake Sotsky explained that the passenger operations were fairly centralized and that one stop would be sufficient.

#### **DISCUSSION OF OTHER POTENTIAL IMPROVEMENTS**

- Dave Sorensen suggested an improvement for eastbound bicycle traffic at the Terminal 1 North Harbor Drive intersection area. The bike lane currently crosses a high speed lane on North Harbor Drive. He suggested taking the bike path under the bridge to avoid the high speed merge area. The bike path falls under the City and Port jurisdictions. Dave also suggested looking at grant applications for this improvement.
- Outbound congestion on North Harbor Drive will speed up some with the elimination of two signals, but is still a major concern. It is critical to look at the Grape Street and Hawthorne Street intersections for ways to improve flow.

- Direct connection to I-5 is an important piece of a long-term solution:
  - In addressing whether that direct connection could be sped up, CALTRANS said that any acceleration prior to 2050 would be unlikely, as it also impacts the S-curve and the 8 intersection. In addition, funding has not been identified.
  - SANDAG agreed; no funding is currently available, perhaps in the next update a change might be possible.
- The group discussed the mobility study and its potential utility, and agreed that it would both:
  - Inform their response to the EIR, as part of a joint development of a long-term solution and alternatives.
  - Be useful in their planning, especially for the Port.
- Mark Thomsen asked what are the funding sources and the timeline for major aspects of the projects (on-airport roadway and I-5 ramps). Ted Anasis responded that 2022 is the projection for the roadway.
- Tait Galloway asked if we should prioritize the I-5 ramps over ITC, transit projects.
- Maureen Gardiner asked how much the Airport is advocating transit use.

#### **FOR THE POLICY GROUP**

- Must examine how a preferred alternative aligns with the City's Climate Action Plan and other larger established policies and goals for the City and the region.
- Focus on multi-modal operations and ask questions about prioritizing vehicular access over transit improvements.
- Does the study area need to be expanded to include problem areas (access to I-5), and address bus routes that could feed the airport?
- It is critical to address choke-points.
- All agencies appreciate the opportunity to work together towards common solutions.
- Working group may request additional data from agencies in advance of the EIR, which will reduce the need for comments and level of concern.
- There was universal support for the bike improvements under the ramp to Terminal 1 (something that can be completed now – seen as a “win” for agency collaboration).

#### **OVERALL FEEDBACK**

The group raised no serious roadblocks to the project; they identified no obvious no non-starters. Most agencies saw potential positives on a number of fronts. However, the consensus among committee members is that they require more detailed mobility data and analysis (to include traffic, pedestrians and bicycles) before being able to support or make recommendations for the on-airport roadway project, or commenting on the EIR, to the Policy Group.

**Harbor Drive Mobility Committee  
Policy Group Meeting #2  
August 31, 2017 – 9:00 a.m. to 11:00 a.m.**

Wright Conference Room – 2<sup>nd</sup> Floor  
Airport Authority Administrative Offices  
3225 North Harbor Drive  
San Diego, CA 92101

*Parking available directly in front of building;  
please bring your parking voucher to meeting for validation*

**AGENDA**

- 9:00 a.m. Welcome and Introductions
- 9:05 a.m. Recap of Study Area, Committee Mission and Progress
- 9:15 a.m. Identify Specific Projects and Actions Envisioned

***0 – 10 Years, Potential Projects***

- Airport Terminal Entry Road
- Transit Improvements
- Pedestrian and Bicycle Improvements
- \_\_\_\_\_?

***10+ Years, Potential Projects***

- Outbound Airport Road
- Direct Connectors to Interstate 5
- Intermodal Transportation Center –  
CA High Speed Rail Station
- \_\_\_\_\_?

- 10:30 a.m. Review Feedback and Requests for Working Group
- 10:45 a.m. Review Schedule and Agenda for Policy Group #3



**MEETING SUMMARY**  
**Harbor Drive Mobility Committee**  
**Policy Group Meeting #2**  
**August 31, 2017**

**ATTENDEES**

**City of San Diego** – Tait Galloway, Mike Hansen

**HG Consulting** – Heidi Gantwerk

**Jacobsen Daniels** – Jacob Sotsky

**Kimley-Horn** – Jack Boda, David Sorenson

**Port of San Diego** – Garry Bonelli, Rafael Castellanos, Jason Giffen, Lesley Nishihira, Stephen Cook (Chen Ryan)

**San Diego County Regional Airport Authority** – Ted Anasis, Rebecca Bloomfield, April Boling, Mike Kulis, Marc Nichols, Brendan Reed

**SANDAG** – Coleen Clementson, Jim Desmond, Adrian Granda

**INTRODUCTION**

Chairman April Boling welcomed the Harbor Drive Mobility Committee Policy Group (Policy Group) members and each member of the Policy Group introduced themselves and stated their role in the agency they represent. Chairman Boling reviewed the roles of the Harbor Drive Mobility Committee Working Group (Working Group) members and the Policy Group members.

Chairman Boling and Ted Anasis recapped the study area, which includes North Harbor Drive, Laurel Street, Grape Street, Hawthorne Street, and Pacific Highway. The study area extends east to I-5 at India Street and west to Rosecrans Street.

**MISSION**

Chairman Boling reviewed the mission of the Harbor Drive Mobility Committee:

- Collaborate with transportation agencies and community partners to improve traffic flow and reduce congestion.
- Establish a process by which:
  - Data is gathered and alternatives are evaluated.
  - Solutions and recommendations are presented to decision-makers.
  - Collaborative process to vet proposed solutions that may be implemented to the benefit of all participating stakeholders.

Chairman Boling stated that the mission of the Harbor Drive Mobility Committee is the overall improvement and development of the study area; not just the airport's impact on Harbor Drive. It is in the best interest of all agencies to work collaboratively on development/improvements; working independently on the future of the study area will not lead to success.

**REVIEW OF PROGRESS**

Chairman Boling reviewed the progress of the Working Group:

- The Working Group met on July 18 and July 28.
- The Working Group is developing a draft of a cumulative projects list for the upcoming meeting on September 25<sup>th</sup>.
- The projects list will include the Airport Authority's preferred roadway alternative concept.

## **SPECIFIC PROJECTS OR ACTIONS ENVISIONED**

Chairman Boling highlighted the projects that were discussed for 0 – 10 years and those projects 10 years and beyond.

- 0 – 10 Years
  - Airport Terminal Entry Road
  - Transit Improvements
  - Pedestrian and Bicycle Improvements
- 10+ Years
  - Outbound Airport Road
  - Direct Connectors to I-5
  - Intermodal Transportation Center / CA High Speed Rail Station

Chairman Boling said that the Committee wants to identify the crucial projects for all agencies; not just the airport. There are two key questions that need to be considered:

- What specific projects should be included in the study?
- Which members will participate in studying the suggested improvements?

Chairman Boling said that currently the information from the Working Group feels disjointed and that although the airport is further along due to the timing of projects, the airport shouldn't lead the effort. There needs to be more in-depth detail on other agency's projects to put together a comprehensive list, before a study can be ordered. Chairman Boling asked if it is possible for the Port to take the lead on the projects list as they have more future projects than any other agency.

Rafael Castellanos responded with his concerns and a proposal. From a policy and planning standpoint, he said the group needs to know what specific improvements are being planned and what can be paid for, individually as a single entity, and together as a group. In order to figure that out, the group needs data that takes into account all projects, for all agencies.

Mr. Castellanos highlighted the upcoming Port projects:

### ***Port Master Plan Update - Potential Program-Level Development Ranges (0 – 10 Years)***

- **Harbor Island**  
Potential growth within the District's Harbor Island Planning District may include the following:
  - 750 - 1,500 hotel rooms
  - 40,000 - 140,000 sf of retail, restaurants, services, and aquaculture/bluetech uses
  - 15% - 20% (150 - 200 slips) increase in vessel berthing
  - Final access points to East Harbor Island off of North Harbor Drive have not yet been determined, although it is likely that future development will continue to utilize the two existing intersections at Liberator Way and Harbor Island Drive
- **Embarcadero**  
Potential growth and/or major projects within the District's Embarcadero Planning District may include the following:
  - *North Embarcadero Sub-District*
    - 450 - 550 hotel rooms
    - 8,500 - 17,000 sf of retail, restaurants and services
    - 10 - 15 acres of additional public space areas, including potential realignments of portions of Harbor Drive between Laurel Street and G Street that may involve roadway width reductions
    - 600,000 - 1,000,000 additional cruise passengers per year

- *Central Embarcadero Sub-District*
  - 400 - 500 hotel rooms
  - 150,000 - 215,000 sf of retail, restaurants, services, and aquaculture uses – including a major attraction and/or event center
  - 22% - 31% (25 - 35 slips) increase in vessel berthing
- *South Embarcadero Sub-District*
  - 550 - 650 hotel rooms
  - 24,000 - 26,000 sf of retail, restaurants and services
  - 960,000 sf of convention center exhibit area, meeting rooms, ballrooms and support spaces
  - 3% - 5% (16 - 23 slips) increase in vessel berthing

***Port Master Plan Update - Potential Program-Level Development Ranges (10+ Years)***

- **Shelter Island**

Potential growth within the Port's Shelter Island Planning District may include the following:

- 1,000 - 2,000 hotel rooms
- 50,000 - 240,000 sf of retail, restaurants and services
- 40,000 - 50,000 sf of commercial fishing, marine sales and services, and aquaculture/bluetech uses
- 15% - 20% (430 - 575) increase in vessel berthing slips

- **Harbor Island**

Potential growth within the Port's Harbor Island Planning District may include the following:

- 1,100 - 2,200 additional hotel rooms
- 60,000 - 210,000 sf of additional retail, restaurants, services, and aquaculture/bluetech uses
- 15% - 20% (150 - 200 slips) increase in vessel berthing
- Final access points to East Harbor Island off of North Harbor Drive have not yet been determined, although it is likely that future development will continue to utilize the two existing intersections at Liberator Way and Harbor Island Drive

- **Embarcadero**

Potential growth within the District's Embarcadero Planning District may include the following:

- *North Embarcadero Sub-District*
  - 950 - 1,150 hotel rooms
  - 1,650 - 33,000 sf of retail, restaurants and services
- *Central Embarcadero Sub-District*
  - 800 - 1,000 hotel rooms
  - 300,000 - 435,000 sf of retail, restaurants, services, and aquaculture uses – including a major attraction and/or event center
  - 35% - 50% (50 - 75 slips) increase in vessel berthing
- *South Embarcadero Sub-District*
  - 1,150 - 1,350 hotel rooms
  - 3,000 - 6,000 sf of retail, restaurants and services
  - 6% - 9% (34 - 47 slips) increase in vessel berthing

## **PORT PROPOSAL**

Rafael Castellanos presented a proposal to the Policy Group – The Port will take the lead on a study to identify traffic impacts for all stakeholders. The study will show current conditions not engineering solutions. Once the study is completed, agencies can discuss what is feasible and who can pay for solutions. The Port has authorized up to \$175,000 for the study to be completed.

### **Questions/Comments on the Proposal**

- Chairman Boling agreed that we need data on all development that is going to impact Harbor Drive. She pointed out that even if the airport did nothing, Harbor Drive would be greatly impacted by Port projects and she stated that a range of impacts can be developed. Chairman Boling asked how long the study would take to be completed. Jason Giffen responded that it would be months, not weeks, for completion.
- Chairman Boling asked if the Port had someone already under contract that has some knowledge of their upcoming projects and this area. Jason Giffen replied that the Port does have a consultant that can help with this study.
- Rafael Castellanos commented that the timing of the study would depend on how quickly all stakeholders can provide information required for the study. Coleen Clementson commented that while SANDAG does not have a lot of projects planned right now, they are happy to participate in the study and can provide forecasted resident information quickly. Mike Hansen commented that the City could help provide planning information and building permit data.
- Garry Bonelli commented that the geographic area should be defined for the study and that an overlay can be used to develop projections. Jim Desmond commented that SANDAG is looking at impacts county-wide and that the study area can be expanded. Rafael Castellanos responded that plans for Harbor Drive have to include a broader scope that will affect the area and all stakeholder projects.
- Jim Desmond questioned whether 0 – 10 year projects, that have funding, should be studied; should any effort be put into the study for 10+ year projects? Rafael Castellanos replied that he believes the study should look at the “big picture” then hone in on immediate projects. Chairman Boling commented that she agrees with Mr. Castellanos; the study should look at the longer picture needs first, then the group can look for engineering solutions and this is where money would need to be considered. She also stated that the solutions don’t conflict with long-term plans.
- Garry Bonelli asked if this study is “doable” because we need the project to move forward. Mr. Bonelli agrees that the addition of hotels, residents, vessels, etc. need to be looked at in terms of increased people and traffic and what roads will be closed or changed. Rafael Castellanos replied that all of that information will be included in the study.
- Tait Galloway commented that the study needs to include the military. Chairman Boling agreed that the base gates and increase in vessels/people need to be included.
- Coleen Clementson commented that from a transportation perspective, changes in ride-sharing, the transit network, and advanced technologies need to be included in the study and that SANDAG is performing the military study in the next few months.
- Garry Bonelli commented that looking at how to move vehicles and people up and down the bay is the Port’s priority.

### **Timeline/Mechanics for the Proposal**

- Rafael Castellanos commented that the Working Group could work with the consultant and Policy Group to set the scope of the study. Chairman Boling commented that the Working Group could come up with the scope and the Policy Group could approve it. Jason Giffen commented that the Port could draft the scope and then get buy-in on the content of the scope from other committee members.

- Chairman Boling said that the Working Group should see the draft before it goes to the Policy Group. Ted Anasis questioned whether the scope draft could be discussed by the Working Group at the September 25<sup>th</sup> meeting. Chairman Boling asked if the Port could have the scope draft ready by September 25<sup>th</sup>. Chairman Boling added that the September 25<sup>th</sup> Working Group meeting could be completely dedicated to reviewing the draft scope of the study and then the Policy Group would review the scope of the study at the October Policy Group meeting.
- Lesley Nishihira commented that a few months would be needed to ensure collaboration. Chairman Boling responded that the “guts” should be done in a short time-frame. Chairman Boling commented that the Authority’s EIR needs to go out, but the Authority could agree to delay that a bit for good estimated traffic volumes.
- Dave Sorenson asked if a Working Group sub-committee should be formed to review the scope items. Jason Giffen suggested the scope be discussed with Ted Anasis, Dave Sorenson, and Tait Galloway for an early review.
- Jim Desmond asked if it has been determined what should be included in the study. Ted Anasis responded that important overlays influencing trips can be fed into the study. Mr. Desmond asked about the City’s area to be included in the study. Mike Hansen responded that their Community Update Plan will share all project information. Mr. Hansen also mentioned that he hopes the study can handle that some City plans are already in the final design or that improvement analysis/approvals have been completed.
- Coleen Clementson asked what type of plans the City had for transportation improvement. Mike Hansen replied that none are currently planned. They are looking at bike lanes throughout downtown. Jack Boda commented that the City plans were incorporated into the Briefing Book that had been sent to all agencies for review.
- Jim Desmond asked if Harbor Drive is eventually going to be closed down and what the future looks like for Harbor Drive. Rafael Castellanos replied that they are looking at alternatives including closing part of Harbor Drive to traffic, and that this study will be key in deciding the future of Harbor Drive. They want to see the impacts and consequences of projections for the future.
- Jason Giffen mentioned that the study will show where the Harbor Drive right-of-way was granted to the City, the Port, etc. and will show who is responsible for each part of the roadway.
- Adrian Granda stated that he expects Chairman Roberts to attend the next Policy Group meeting.

Chairman Boling suggested a Doodle Poll be sent out to plan the next Policy Group meeting for the first two weeks of October.

With no further comments or questions, Chairman Boling adjourned the meeting.

**MEETING SUMMARY**  
**Harbor Drive Mobility Committee**  
**Working Group Meeting #3**  
**September 25, 2017**

**ATTENDEES**

**Caltrans** – Jesus Vargas  
**City of San Diego** – Vic Bienes, Tait Galloway, Maureen Gardiner  
**HG Consulting** – Heidi Gantwerk (Facilitator)  
**Kimley-Horn** – Jack Boda, Dave Sorenson  
**Metropolitan Transit System** – Mark Thomsen  
**Port of San Diego** – Lesley Nishihira, Stephen Shafer, Stephen Cook (Chen Ryan)  
**San Diego County Regional Airport Authority** – Ted Anasis, Rebecca Bloomfield  
**SANDAG** – Seth Litchney  
**Solar Turbines** – Jim Garegnani  
**United States Coast Guard** – Michael Frawley

**INTRODUCTION**

Heidi Gantwerk (facilitator) welcomed the Harbor Drive Mobility Committee (HDMC) Working Group members to the third meeting, reviewed the overall objective for the Working Group and the day's meeting agenda. The members of the Working Group introduced themselves and stated their role in the agency they represent.

**MOBILITY STUDY – BRIEFING BOOK**

Dave Sorenson confirmed with the Working Group that everyone has received a copy of the Briefing Book. Dave mentioned that one of the members suggested that the existing information be summarized. Dave suggested that everyone review the first four pages of the Briefing Book. He would like the Working Group members to let him know, 1) did we get it right, 2) did we miss anything, and 3) are there any projects agency representatives missed that we should be looking at?

**CUMULATIVE PROJECTS**

A slide (attachment A) was reviewed that showed the current status of project information provided to Kimley-Horn that will be included in the study. Dave Sorenson wanted to focus on the "others" column (which included military, Solar Turbines, and any other entity with information that could impact the study area). Dave mentioned that he wants to understand what's happening in their areas and the potential for future growth. Heidi Gantwerk asked if any agency had any comments or additions regarding the cumulative projects list.

Seth Litchney said that SANDAG is working with a regional military working group on a 12 – 18 month study. The purpose of the group is to ensure where there is an increase in growth of military personnel that a multi-modal transportation plan is in place to ease the increase in traffic in the area and improve traffic flow. The concept is to look at mobility at any installation in the county to improve overall transportation networks for those moving to this area. The group will work to prioritize operational improvements at base entrances, but has not yet determined where they will start; North County or the San Diego Naval Base.

- Jack Boda asked if SANDAG had any growth figures or trends to see what the increased personnel impact would be to this area. Seth responded that part of the process will be to include how many and where for expected personnel increases, but at this point all they know is that the number of military and associated personnel will expand.
- Ted Anasis suggested that because the Mobility Study project is expected to be completed in 6 – 12 months, a placeholder be added to the study deliverable for the outcome of SANDAG's military working group study.

- Vic Bienes asked if SANDAG is working with anyone from the City on the project. Seth responded that there is a City representative involved, but he did not know the name of the representative.
- Chi Vargas asked if they were looking for funding for the I-5 connector project. Seth responded that the I-5 Connector project is a long-term project; 10 – 15 years as listed in the regional plan is the best case scenario. He said they needed funding for a study. Dave Sorenson asked that SANDAG and CALTRANS share any additional information about proposed approaches to the I-5 connector, as it will inform the planning for both the Airport Authority and the Port. Chi said both Old Town and Washington/Sassafras are options under consideration, and SANDAG agreed to share additional information on these with the Airport Authority.

Michael Frawley advised that there will be future military growth in the San Diego area that will include both assets and personnel. Michael mentioned that the Coast Guard is looking at basing two cutters in San Diego and that the Navy is planning to add 16 ships to the area in the next 10 years. He mentioned that there are no definitive numbers yet and that this area is a challenge because there is no federal land available to build out to accommodate the growth. However he anticipates the possibility of up to a 100% increase in personnel.

- Jack Boda asked Michael to confirm that the numbers would not be decreasing in the future. Michael responded that the numbers would not be decreasing.

Jim Garegnani advised that Solar Turbines is growing, but it is difficult to grow at the Harbor Drive site because there is no land available. Solar Turbines currently employs 2,200 people and that number is not expected to grow. The land and personnel growth is currently happening at the Kearny Mesa site. Jim mentioned that parking is a major concern for Solar Turbines; they are currently short 800 – 900 parking spots, and feel constant pressure on the spots they currently control.

Heidi Gantwerk advised that a summary of cumulative projects will be presented to the Policy Group meeting on October 16<sup>th</sup>.

#### **NORTH HARBOR DRIVE MOBILITY AND ACCESS STUDY**

Stephen Cook introduced the Port's plan for a Mobility Study and the Draft Scope of Work Summary. The idea for this study came out of the Policy Group meeting. The Port will capitalize on the work started by the Working Group. The initial scope and study area will be expanded and necessary improvements will be identified and ideas shared on how to get that work done. The Port would like to form a technical working group to get a consensus and feedback on the study to present information to the Policy Group on October 16<sup>th</sup>.

#### ***Background & Purpose***

Stephen Cook said the purpose of the Mobility and Access study is to set a vision for the corridor. Harbor Drive is the main connection point of growth and improvements for all agencies. The study will focus on intersection operations in the study area and provide a comprehensive transportation assessment of North Harbor Drive between Shelter Island Drive and Park Boulevard.

#### ***Potential Technical Working Group Members***

Stephen advised that the agencies who should potentially participate in the technical working group are the Port District, San Diego International Airport, City of San Diego, Civic San Diego, SANDAG, Caltrans, Solar Turbines, MTS, The California Coastal Commission, U.S. Navy and U.S. Coast Guard. From the study, the agencies can develop strategies and improvements to accommodate the projected growth.

#### ***Proposed Scope of Work***

Stephen reviewed the tasks under the Proposed Scope of Work:

- Project Management / Meetings
  - The meeting schedule will be aggressive, with monthly meetings of the technical working group and updates to the Port Commissioners



- Input / Outreach
  - Making sure the scope of work fits the vision of all involved agencies
- Existing Conditions
  - Look at the issues and needs of the corridor
  - Have one unified vision statement from all agencies (what we want)
  - Develop alternatives
  - Assess the existing transportation
    - Transportation facility inventory
    - Traffic operations and demand
    - Multimodal quality and connectivity analysis
    - Multimodal demand assessment
    - Safety assessment
    - Corridor truck demand
    - Relevant policy language
    - Current and planned CIP projects
    - Proposed improvements and mitigation
    - Cruise ship operations
- Project Scenarios
  - Scenarios will be segments of the corridor
  - Scenario Testing
    - Traffic Analysis
    - Environmental Benefits
    - Engineering Feasibility
    - Cost
    - Funding Eligibility
- Preferred Scenario
  - Quantification of Benefits
    - Look at the detailed benefits of the preferred scenario
- Near-Term Assessment
  - Develop a full vision, then look at 2030
  - Develop near-term improvements that would have no conflict with future vision
    - Feasibly constructed within the next 12 months
    - Compatible with preferred scenario
    - Ideally phased improvements of the preferred scenario
- Documentation
  - Develop a draft Mobility Access Study to be reviewed by the Port and the technical working group, and then presented to the HDMC Policy Group
- Next Steps
  - Develop next steps based on direction from the HDMC Policy Group
- Project Finalization
  - Produce a final version of the study to be presented to the appropriate Boards and Councils

#### **QUESTIONS/COMMENTS ON THE NORTH HARBOR DRIVE MOBILITY AND ACCESS STUDY**

- Maureen Gardiner suggested that the study area might be enlarged to the North, up to I-8 and I-5 at Rosecrans. She also observed that the schedule is aggressive, in particular around the timing of the development and testing of scenarios.
- She also discussed the possibility of the need for a new methodology based on the Series 13 model. Stephen Cook responded that the modeling would not be in-depth on the scenarios, and he did not think it would be necessary, but that the advisory group would be looking at all of these issues.
- Vic Bienes asked if the purpose of the study is to look at future growth within the study area. Lesley Nishihira responded that the study will look at all potential growth on a cumulative basis for all agencies.

- Vic Bienes asked if the study will include the convention center expansion. Stephen Cook responded that one of the reasons the study area was widened is to cover that expansion.
- Vic Bienes asked if this study is being funded by the Port. Lesley Nishihira responded that the Port has been authorized to conduct the study to a certain dollar amount. If the study exceeds that amount, Rafael Castellanos may reach out to the Policy Group for assistance.
- Tait Galloway acknowledged the work put into this project by the Airport Authority and the Port; this information will help with the Authority's ADP EIR and the Port Master Plan EIR.
- Vic Bienes asked about the time commitment for the technical working group. Stephen Cook responded that the meetings will be monthly and in order to keep the project moving, if you can't attend a meeting, please send a representative from your agency. Lesley Nishihira acknowledged that the schedule to have the Study finalized by April 2018 is extremely aggressive.
- Dave Sorenson asked about the participation of the Coastal Commission and whether that was a common practice. Lesley Nishihira explained that the Coastal Commission had expressed interest in this process and therefore the Port planned to extend an invitation, although they might not actively participate.
- Tait Galloway asked if the Airport Authority and the Port would be willing to hold off on their EIRs for this work to be completed. Lesley responded that the Port's EIR would not be going out until late-summer or fall of next year. Ted Anasis responded that for the Airport Authority, this would be addressed by the Policy Group and the Board.
- Tait Galloway asked if there is flexibility related to alternatives or to revise ideas. Ted Anasis responded that there is flexibility to test ideas for benefits and flaws.

Ted Anasis reviewed the upcoming HDMC schedule. The Policy Group will be meeting on October 16<sup>th</sup> and a Doodle Poll will be sent out to set up the next Working Group meeting for some time in November.

### 3. Review Cumulative Projects

#### Cumulative Development Project Research Status

City of San Diego	Civic San Diego	Port of San Diego	Others
<ul style="list-style-type: none"> <li>Use regional growth rates to reflect growth in Midway, Old Town and Uptown communities</li> </ul>	<ul style="list-style-type: none"> <li>Downtown Development Status Log (7/2017)</li> </ul>	<ul style="list-style-type: none"> <li>Growth projections for Shelter Island, Harbor Island and Embarcadero</li> </ul>	<ul style="list-style-type: none"> <li>Military personnel growth?</li> <li>Solar Turbines growth?</li> <li>Other?</li> </ul>
Meetings with Tait Galloway & Maureen Gardiner	Provided by Brad Richter	9/7/17 letter from Leslie Nishihira	More information needed

**Harbor Drive Mobility Committee  
Policy Group Meeting #3  
October 16, 2017 – 10:00 a.m. to 12:00 p.m.**

Wright Conference Room – 2<sup>nd</sup> Floor  
Airport Authority Administrative Offices  
3225 North Harbor Drive  
San Diego, CA 92101

*Parking available directly in front of building;  
please bring your parking voucher to meeting for validation*

**AGENDA**

10:00 a.m. Welcome and Introductions

10:05 a.m. Review Harbor Drive Mobility Study – Briefing Book

***Speaking Notes: A briefing book documenting existing traffic conditions was requested by the City of San Diego, Planning and Traffic Engineering staff. The Airport's traffic consultant compiled the briefing book and it was sent to the Working Group for use as a resource.***

10:10 a.m. Review Cumulative Projects List in Study Area

**Speaking Notes:**

***The Airport's traffic consultant has compiled a cumulative projects list based on proposed projects/data provided by the Port of San Diego, City of San Diego/Civic San Diego, and SANDAG, with additional information to be provided regarding military base growth.***

***The Policy Group has asked for the list of cumulative projects. This list of cumulative projects should be referenced in each respective agency's environmental review documents.***

10:40 a.m. Review Traffic Study Scope – Port of San Diego

***Speaking Notes:***

***The Port of San Diego will present their scope of work for their traffic study and ask for the Policy Group's input. The Port of San Diego would like to extend the study area to correlate to the Port Master Plan Update boundaries along North Harbor Drive including Shelter Island to the west and the Convention Center/proposed Park Boulevard intersection to the east. The Port of San Diego is anticipating taking 6-8 months to complete the traffic study and report at intervals to the Harbor Drive Mobility Committee and referencing the traffic analysis in their Port Master Plan Update EIR when it is released in Fall 2018.***

***The Airport would like to include its proposed inbound airport roadway concept in the Port's analysis.***

***Supervisor Ron Roberts has indicated he will be attending (as SANDAG's Board Chair) and asked if the Port was funding this traffic study (yes) and asked for a copy of the traffic study scope (we have put him in touch with the Port of San Diego staff).***

11:30 a.m. Review Schedule and Agenda for Policy Group #4

***Speaking Notes:***

***The Harbor Drive Mobility Committee will sunset in December 2017 but members of the Working Group will be coordinated with at milestones/intervals to provide input to the Port of San Diego as they continue on their traffic analysis. The Port stated they would then release their PMPU EIR in Fall 2018.***

***The following question has been asked by the City of San Diego staff: Will the Airport wait for the results of the Port's traffic study before releasing its ADP EIR?***

**MEETING SUMMARY**  
**Harbor Drive Mobility Committee**  
**Policy Group Meeting #3**  
**October 16, 2017**

**ATTENDEES**

**City of San Diego** – Mike Hansen

**HG Consulting** – Heidi Gantwerk

**Jacobsen Daniels** – Jacob Sotsky

**Kimley-Horn** – Jack Boda, David Sorenson

**Port of San Diego** – Garry Bonelli, Jason Giffen, Lesley Nishihira, Stephen Cook (Chen Ryan)

**San Diego County Regional Airport Authority** – Ted Anasis, April Boling, Mike Kulis, Marc Nichols, Brendan Reed

**SANDAG** – Coleen Clementson, Jim Desmond, Adrian Granda, Ron Roberts

**INTRODUCTION**

Chairman April Boling welcomed the Harbor Drive Mobility Committee Policy Group (Policy Group) members and each member of the Policy Group introduced themselves and stated their role in the agency they represent.

**HARBOR DRIVE MOBILITY STUDY – BRIEFING BOOK**

Chairman Boling and Ted Anasis provided a review of the Harbor Drive Mobility Study Briefing Book, which includes a cumulative projects list and existing conditions for the study area. This Briefing Book, which is available to all Committee members, will allow agencies and developers to reference the information in any analyses or Environmental Impact Report (EIR) for planning within the study area.

Dave Sorenson reviewed the cumulative development projects list, which includes:

- Civic San Diego – downtown hotels will be built.
- Port of San Diego – provided growth projections for Shelter Island, Harbor Island and the Embarcadero.
- Solar Turbines – advised there is no growth planned for the Harbor Drive location.
- Coast Guard – advised that there is potential to double both assets and personnel.
- Naval Facilities Southwest – There is expected to be growth at the 32<sup>nd</sup> Street base. There may be an increase in the number of ships by 33% (this increase will require capital improvements be made first). There may also be an increase of 15,000 – 20,000 people that will include military personnel, as well as support personnel and dependents.
  - Dave mentioned that while the 32<sup>nd</sup> Street base is outside of the study area, the expected increases should be considered as part of the Port's study.

**Questions/Comments on the Briefing Book**

- Ron Roberts asked if the study information will include items that reduce vehicle traffic (e.g. bike lanes) also, not just additions planned for the study area. Dave Sorenson replied that the Briefing Book includes subtractions and that the mission of this process is not to preclude anything going on in the study area.
- Mike Hansen asked if the study will include traffic mitigation that is already planned or only future plans. Dave Sorenson replied that the Working Group has identified all planning that the Group is aware of, however, the plan will be sent to all agencies for comment and review.

- Chairman Boling asked when the Working Group received the Briefing Book. Ted Anasis replied that the Briefing Book was sent to the Working Group members prior to the September 25<sup>th</sup> HDMC Working Group meeting and that we have not yet heard back from the Working Group members.
- Chairman Boling commented that it would be a good idea to send an e-mail again to all members of the Policy Group to gather comments/questions from all agencies before proceeding with the study to make sure everyone is in agreement on this final version.

#### **NORTH HARBOR DRIVE MOBILITY & ACCESS STUDY – Draft Scope of Work Summary**

Stephen Cook and Lesley Nishihira introduced the Port's plan for a Mobility Study and the Draft Scope of Work Summary. This information was presented to the Working Group on September 25<sup>th</sup>. A Technical Working Group (TWG), comprised of representatives from all stakeholders, will build on the progress made by the HDMC Working Group. The TWG will expand on the initial scope and study area. The Mobility Study will be a collaborative effort for use in other planning, CEQA and design efforts being conducted in the corridor. The TWG will meet monthly to track the progress of the Mobility Study. The TWG will confirm that all parties have a say in the project and that the project will serve everyone.

In response to Jim Desmond's question, Stephen highlighted that the Mobility Study will look at all traffic in the expanded study area, focusing on Harbor Drive, which is the main connection road, but going beyond Harbor Drive. The idea is that the Mobility Study will allow the design of one master plan that all agencies can use for future planning and development. Stephen said the Mobility Study will look at routes to and from the freeway and how people access downtown San Diego. The study area will include Park Boulevard to Shelter Island Drive; Grape, Hawthorne, and Laurel Streets; and I-5 access roads - Pacific Highway, Kettner Boulevard, and India Street.

While standard traffic pattern information gathering tools will be used to obtain information for the Mobility Study, Stephen presented information on a Port and City of San Diego pilot program for "Intelligent Lighting". The pilot program will test 23 sensor modes over a three month period. These sensor models will be attached to street lights along Harbor Drive from the Convention Center up to Laurel Street. These sensors will provide real time verified information on traffic along Harbor Drive, allowing staff to identify "hot spots".

#### **Questions/Comments on "Intelligent Lighting"**

- Mike Hansen asked why the sensors would stop at Laurel Street. Jason Giffen responded that along Harbor Drive is the first area where the lights will be deployed. The sensors will be deployed beginning in late-October through December. Jason also mentioned that contracts and other procedures are in the works to add sensors to other areas; the plan is to eventually add 1,000 light sensors. Mike stated that the City is coordinating the City's portion of this project and will see if the project can be expedited so we get more sensors in the initial phase.
- Ron Roberts commented that the Policy Group needs to install more sensors north of Ash Street to understand what goes on north of Ash Street. Jason responded that the sensors are being installed on land that belongs to the Port tidelands; the other areas belong to the City. Ron asked Mike Hansen what the City can do to expedite the installation of sensors north of Ash Street. Mike responded that he will see what he can do to push for additional sensors within the study area.
- Lesley Nishihira commented that the TWG will be gathering and analyzing data for all areas within the study area, but light sensors is one way to get the information faster. It would be great if the City of San Diego can help. Jason mentioned that the sensors can help fill in the gaps; they can supplement traditional traffic counts and tracking that is done only during certain

times of the day. The City and Port can work on looking at right-of-way locations and where there are cross-over lines.

- Chairman Boling stated that data needs to be gathered in all locations using the same method. Ron commented that it is wise to use the best technology where you have the biggest problem.
- Garry Bonelli asked about the potential impacts of the 10<sup>th</sup> Avenue Marine Redevelopment Plan. Stephen Cook responded that the Port is considering the 10<sup>th</sup> Avenue project in future plans.

### **PROPOSED SCOPE OF WORK**

Stephen Cook presented the list of tasks that will make up the scope of work for the Mobility Study.

- Task 1 – Project Management
- Task 2 – Input/Outreach
- Task 3 – Existing Conditions
- Task 4 – Project Scenarios
- Task 5 – Preferred Scenario (Quantification of Benefits)
- Task 6 – Near-Term Assessment
- Task 7 – Documentation
- Task 8 – Next Steps
- Task 9 – Finalize Study

### **Questions/Comments on Tasks**

- Regarding Task 2, Chairman Boling asked when the group envisions updating the Port Commissioners. Lesley Nishihira responded that they need to figure out how to calibrate this update with other updates to the Commissioners. The idea is to update the Commissioners with issues and needs and again when alternatives are developed; but those dates will depend on the progress of the TWG.
- Regarding Task 2, Jim Desmond asked if the update is on the EIR or on the Mobility Study. Stephen Cook responded that the update would be on this study.
- Regarding Task 2, Jim asked when an update would be given to stakeholder agencies. He mentioned that the SANDAG Transportation Committee would be a great place for an update. Stephen responded that all agencies will have a representative on the TWG, who will keep their agency updated.
- Regarding Task 3, Stephen commented that the literature review will summarize everything the TWG finds, will finalize the study area and will include all modes of transportation.
- Regarding Task 3, Stephen commented that it will be important for everyone to agree on the Vision Statement, which will be the guiding principles of the project. He stated that the study is a quick moving project with a 2050 planning horizon. Stephen also said that the TWG will need insight and approvals from the HDMC Policy Group.
- Regarding Task 4, Stephen said the Airport, Port, City of San Diego, and Civic San Diego will be included in the No Build Assessment. In response to questions about exactly what the No Build Assessment is, Stephen responded that the study will look at all planned projects for the Study Area, except for improvements on Harbor Drive. The assessment will show what the future will look like and what the affects to Harbor Drive will be. The group can then look at scenarios to decide what the best options are for improvements to Harbor Drive.
- Regarding Task 4, Chairman Boling asked about the timing on the No Build Analysis. Stephen responded that the Mobility Study is on a six-month schedule. The group is looking to have the No Build Assessment completed by January 15, 2018. However, that date is based on whether the SANDAG traffic model is calibrated and ready to use. Jim Desmond replied that the model can only be completed if everyone gets their information into SANDAG as quickly as possible.



- Regarding Task 4, Chairman Boling commented that once the No Improvement Analysis is complete, we will know the problems and can look for the solutions. She also commented that it is important to keep to the timeline and would like to be notified if the TWG sees an issue with keeping to the posted schedule for the study.
- Regarding Task 4, Stephen explained that the TWG would then develop three scenarios for various sections of the study area. Those scenarios would be tested. The testing would include a traffic analysis, transit analysis and bike/pedestrian analysis. A matrix would be built showing all pros and cons for each scenario. The group would then choose the best scenario.
- Regarding Task 5, Stephen said this task would be a deep dive into the preferred plan to find problems, pinch points or gaps not found earlier; this would allow the group to make small tweaks as necessary to the plan. Visual simulations would be communicated to the agencies and the public to show what is planned.
- Regarding Task 5, Mike Hansen commented that the City is working on amending traffic CEQA thresholds and wanted to know if that is included. Stephen responded that this study is operational only and will look at level of service or at travel time, not vehicle miles traveled (VMT).
- Regarding Task 6, Stephen said that the Near-Term Assessment will confirm that the improvements will work and won't affect long-term plans.

#### **QUESTIONS/COMMENTS ON THE PORT'S MOBILITY STUDY**

- Mike Hansen asked if the Mobility Study is wrapped into the Airport Authority's ADP analysis. Ted Anasis responded that the Authority's ADP will reference the Study only for the plans on the Airport property (the Authority's 661 acres).
- Mike asked if the timing of the Study lines up with the Authority's ADP analysis. Ted responded that the Authority will work with the Board on timing as necessary.
- Brendan Reed asked what made 2030 the year chosen for the near-term assessment. Stephen Cook responded that SANDAG forecasts for every five years. Ted commented that the Authority forecasted through 2035.
- Coleen Clementson asked if all agencies provided near- and long-term projections. Stephen responded that all agencies have provided that information.
- Coleen commented that traffic/transportation around the airport is unique, and asked if that is being look at as part of the study (i.e. shuttles). Stephen responded that yes, that it being included and that is why the Port needs the TWG as a sounding board and for guidance/input from all agencies.
- Coleen commented that SANDAG looks at transportation regionally, but this study will need to look at smaller needs (i.e. the Port and the Airport). Stephen said that looking at all of the needs regionally and individually will be part of the process.
- Coleen commented that a tremendous amount of work is being done to look at the assumptions and each agency needs to make sure their information is accurate.
- Lesley Nishihira commented that the Port/TWG may need to report out to the HDMC Policy Group if the model dates need to change. Ted mentioned that the plans included a Policy Group meeting in December. Chairman Boling said it would be better to meet in late January, after the No Assessment Analysis is complete.
- Lesley asked if there are any other agencies that should be included in the analysis. Ron Roberts responded that the County should be represented on the TWG. Stephen said that the TWG was mirrored from the HDMC Working Group, but he will add the County to the participant list. Ron said he would follow up to find out who would be the appropriate County representative for the TWG.

- Mike commented that it may be premature, but asked if the study should include community outreach. Chairman Boling responded that the group needs to understand the problem before we reach out to the public. The group needs to be able to advise if we don't do anything, this is what is going to happen.
- Ron commented that the pedestrian crossing at Laurel Street and India Street is dangerous and asked if that intersection could be added to the study. Stephen responded that the intersection will be added to the study.
- Ron mentioned SANDAG plans for a Skyway walkway that may have a positive impact to the study area and asked if that could be added to the study. Dave Sorenson said he would follow up for additional information and will add that project to the Briefing Book. Lesley asked Ron if there is a timeframe for that project. Adrian Granda responded that there is a feasibility study underway that should be completed in five months.

#### **NEXT STEPS**

- The HDMC Working Group will meet on November 13<sup>th</sup>.
- The Port will begin working on the Mobility Study in late-October.
- The Port Mobility Study Technical Working Group will meet in mid- to late-November.
- A Doodle Poll will go out to plan a late-January meeting of the HDMC Policy Group.

With no further comments or questions, Chairman Boling adjourned the meeting.

**MEETING SUMMARY**  
**Harbor Drive Mobility Committee**  
**Working Group Meeting #4**  
**November 13, 2017**

**ATTENDEES**

**California Coastal Commission** – Melody Lasiter, Kanani Leslie

**Caltrans** – Keri Robinson, Jesus Vargas

**City of San Diego** – Gary Chui, Tait Galloway, Maureen Gardiner

**County of San Diego** – Jill Bankston, Mark Slovick

**HG Consulting** – Heidi Gantwerk (Facilitator)

**Kimley-Horn** – Jack Boda, Dave Sorenson

**Port of San Diego** – Jason Giffen, Larry Hofreiter, Lesley Nishihira, Stephen Shafer, Stephen Cook (Chen Ryan), Andrew Prescott (Chen Ryan)

**San Diego County Regional Airport Authority** – Ted Anasis, Mike Kulis

**SANDAG** – Coleen Clementson

**Solar Turbines** – Craig Anderson

**United States Coast Guard** – Michael Frawley

**INTRODUCTION**

Heidi Gantwerk (facilitator) welcomed the Harbor Drive Mobility Committee Working Group (Working Group) members to the fourth meeting, reviewed the overall objective for the Working Group and the day's meeting agenda. The members of the Working Group introduced themselves and stated their role in the agency they represent.

**HARBOR DRIVE DRAFT MOBILITY STUDY**

Because there were new agency representatives attending this Working Group meeting, Ted Anasis reviewed the mission of the Harbor Drive Mobility Committee and the process being used to prepare the Draft Harbor Drive Mobility Study (Draft Mobility Study). Ted then presented an update on the Draft Mobility Study, which will be routed to committee members on December 13<sup>th</sup>. The Draft Mobility Study will include:

- Executive Summary
- Process, Roles and Outcome for the Policy and Working Groups
- Multi-Agency Cumulative Projects List Within the Study Area, to Include
  - Near-Term Projects, 0 – 12 Years
  - Long-Term Projects, 12 – 30 Years
- Harbor Drive Mobility Improvements, to Include
  - Refinements to On-Airport Entry Roadway
  - Bikeway and Pedestrian Improvements
  - Transit Improvements
- Long-Term Projects
  - Port of San Diego Traffic Analysis
  - Future Studies, to Include the Skyway Study and Director I-5 Connectors
  - Updated SANDAG Series 13 Model
- Conclusions/Next Steps
- Appendix, to Include
  - Meeting Agendas, Presentations and Meeting Summaries
  - Frequently Asked Questions/Public Information Process
  - Project Alternatives

- Maureen Gardiner asked how pedestrians would be separated on the elevated access road. Dave Sorenson responded that they are still working on that issue.
- Tait Galloway commented that in the original configuration, there was nothing planned for eastbound traffic. Dave Sorenson responded that the eastbound configuration is new. The new plan allows buses to get back to the Rental Car Center using the on-airport access road and staying off of Harbor Drive.
- Stephen Cook asked, under the initial phase for Terminal 1, if all traffic would be elevated off of Harbor Drive. Ted Anasis responded that there are no proposed changes for outbound airport traffic in the initial phase, those vehicles will continue to use the flyover to Harbor Drive. However, environmental documents will include preservation of space for future improvements on airport property.
- Ted Anasis commented that the Airport Authority plans to release draft environmental documents in 2018.
- Tait Galloway asked if there is a future phase that includes outbound traffic being removed from Harbor Drive. Ted Anasis responded that removing outbound traffic from Harbor Drive is not a current concept, and a solution would need to be found that is acceptable to the other agencies and stakeholders.
- Lesley Nishihira asked about the timeframe for the Airport Authority's Draft EIR. Ted Anasis responded that the Authority is working with Kimley-Horn on how the Authority can use the SANDAG model 13. Kimley-Horn anticipates more clarity on this matter within the next 30 – 60 days.
- Tait Galloway suggested including the future concept for the outbound on-airport roadway in the EIR, so when those plans come to fruition, the Authority would only need to submit a supplemental EIR. Ted Anasis responded that the suggestion is a good concept, but the Authority is still working on how to tie an outbound on-airport roadway to the freeway. Tait commented that his concern is if the Authority doesn't put the outbound on-airport roadway in the initial EIR, the Authority would need to start from scratch for a future project. Dave Sorenson responded that the Authority and Kimley-Horn will look at the Port Draft Traffic Study to see what comes out of it for all agency future work.
- Chi Vargas stated that he was able to locate the July 2010 I-5 Mid-Coast Study. Ted Anasis thanked Chi Vargas for supplying the Caltrans studies on the I-5 Connector and the I-5 Conceptual Improvement Program.
- Tait Galloway commented that SANDAG is looking at work on ramps and asked if the study on I-5 northbound connector ramps was found. Dave Sorenson responded that the Authority has three ramp concepts in the Briefing Book that have not been finalized.
- Chi Vargas asked if the Inter-Model Transportation Center is included in the Draft Mobility Study draft. Dave Sorenson responded that the Palm Avenue Transportation Center is included in the Draft Mobility Study. Jack Boda commented that the MTS projects are also included in the Draft Mobility Study.

#### **PORT DRAFT TRAFFIC STUDY (North Harbor Drive Mobility & Access Study)**

Lesley Nishihira welcomed the group to the first meeting of the Port's Technical Working Group (TWG). The TWG will be working on the Draft North Harbor Drive Mobility & Access Study (Draft Traffic Study). The Draft Traffic Study will be one unifying document to set a vision for the Harbor Drive corridor.

Stephen Cook reviewed all of the documents that were included in the comprehensive literature review for all involved agencies. The literature review highlighted five efforts:

- San Diego Airport Development Plan
- Harbor Island Redevelopment Project
- North Embarcadero Visionary Plan (Phase 2)
- Barrio Logan Community Plan
- Port Master Plan

Lesley Nishihira commented that the December 13<sup>th</sup> meeting (being held from 1:30 p.m. – 3:30 p.m. at the Port offices) is very important because the group will develop a vision statement for the Draft Traffic Study. Lesley also mentioned that the Draft Traffic Study, as well as the Draft Mobility Study, will be presented to the Harbor Drive Mobility Committee Policy Group (Policy Group) at the January 29<sup>th</sup> Policy Group meeting.

#### **WRAP UP / NEXT MEETINGS**

Heidi Gantwerk commented that the HDMC Working Group has now transitioned to the Port Technical Working Group. The next meeting of the TWG will be December 13<sup>th</sup>, and monthly thereafter through April 2018.

- The Draft Mobility Study report will be routed to the group by December 13<sup>th</sup>.
- Comments on the Draft Mobility Study should be provided by January 16<sup>th</sup>.
- HDMC Policy Group Meeting #4 will meet January/February 2018 after SANDAG Series 13 Model is calibrated (the meeting is currently set for January 29<sup>th</sup>).

Ted Anasis thanked everyone for their participation; the collaboration of this group has been very collegial and informative. Ted also thanked the Port for being a great partner and taking over leadership for the Draft Traffic Study.

# Harbor Drive Mobility Committee

## *Opportunities and Constraints*

# BRIEFING BOOK

**December 2017**

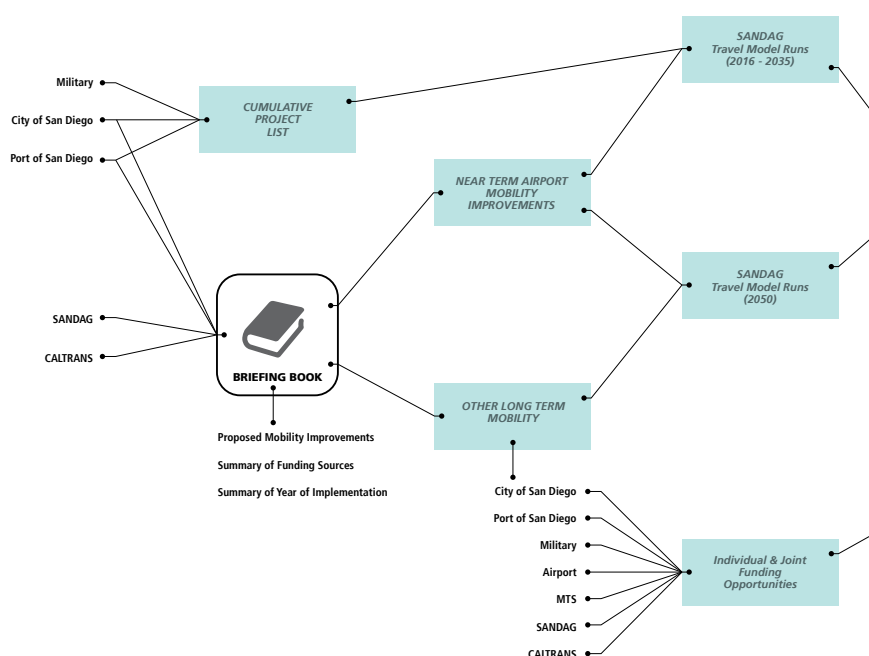
Prepared By:

**Kimley»Horn**

## Table of Contents

1. Downtown San Diego Mobility Plan
2. Midway-Pacific Highway and Old Town Communities Mobility Report
3. Uptown Community Plan and Traffic Impact Study
4. City of San Diego Traffic Signal Communications Master Plan
5. Interstate 8 Corridor Study
6. Preliminary I-5 ITC Ramps PSR-PSD Alternatives (included as an attachment)
7. Mid-Coast Corridor Transportation Impacts and Mitigation Report
8. SANDAG 2050 Regional Transportation Plan

## Guide to This Document



This **Briefing Book** has been prepared as part of the San Diego Airport Development Plan Project to document the existing conditions and proposed mobility improvements within the study area. The book contains a synopsis of relevant portions of planning documents that have been identified by the Harbor Drive Mobility Committee. Relevant portions are focused on mobility improvements, analysis, and constraints within the study area; including intersection, roadway, freeway, ITS, bicycle, pedestrian, transit and parking improvements.

The **Briefing Book** will be used to identify near-term mobility improvements and other longer term mobility elements to be incorporated into the SANDAG future travel model runs.

## Study Area

The study area reflects the primary roadways and freeways that have the potential to be affected by the San Diego Airport Development Plan Project. Study area roadways and freeways include Interstate 5 (I-5), Interstate 8 (I-8), Rosecrans Street, Harbor Drive, Harbor Island Drive, Pacific Highway, Hancock Street, Kettner Boulevard, India Street, Washington Street, Sassafras Street, Palm Street, Laurel Street, Hawthorn Street, and Grape Street.



## Document Organization

This **Briefing Book** is organized into the following elements:

### Summary Map & Table

At the beginning of the book is a summary map and table. The summary map documents the location of each proposed mobility improvement that has the potential to be affected by the San Diego Airport Development Plan Project. The summary table documents status of each improvement including the funding source and construction year.

To help identify the type of improvement, icons have been created for each mobility improvement type (intersection, roadway, freeway, ITS, bicycle, pedestrian, transit and parking). Each planning document has also been assigned a color to distinguish where the improvement was recommended. The summary map and table are intended to supplement the planning document fact sheets to display how the proposed improvements interact with each other.

### Fact Sheet

For each of the planning documents listed in the Table of Contents, a fact sheet is included that documents proposed mobility policies, improvements, and analysis within the study area.

### Related Attachments

After all of the fact sheets, all related figures, tables, and pages from each planning document are included.

#### Mobility Improvement Categories



Intersections



Roadway Segments



Freeway



ITS



Pedestrian



Bicycle




Transit



Parking

#### Sources of Mobility Improvements

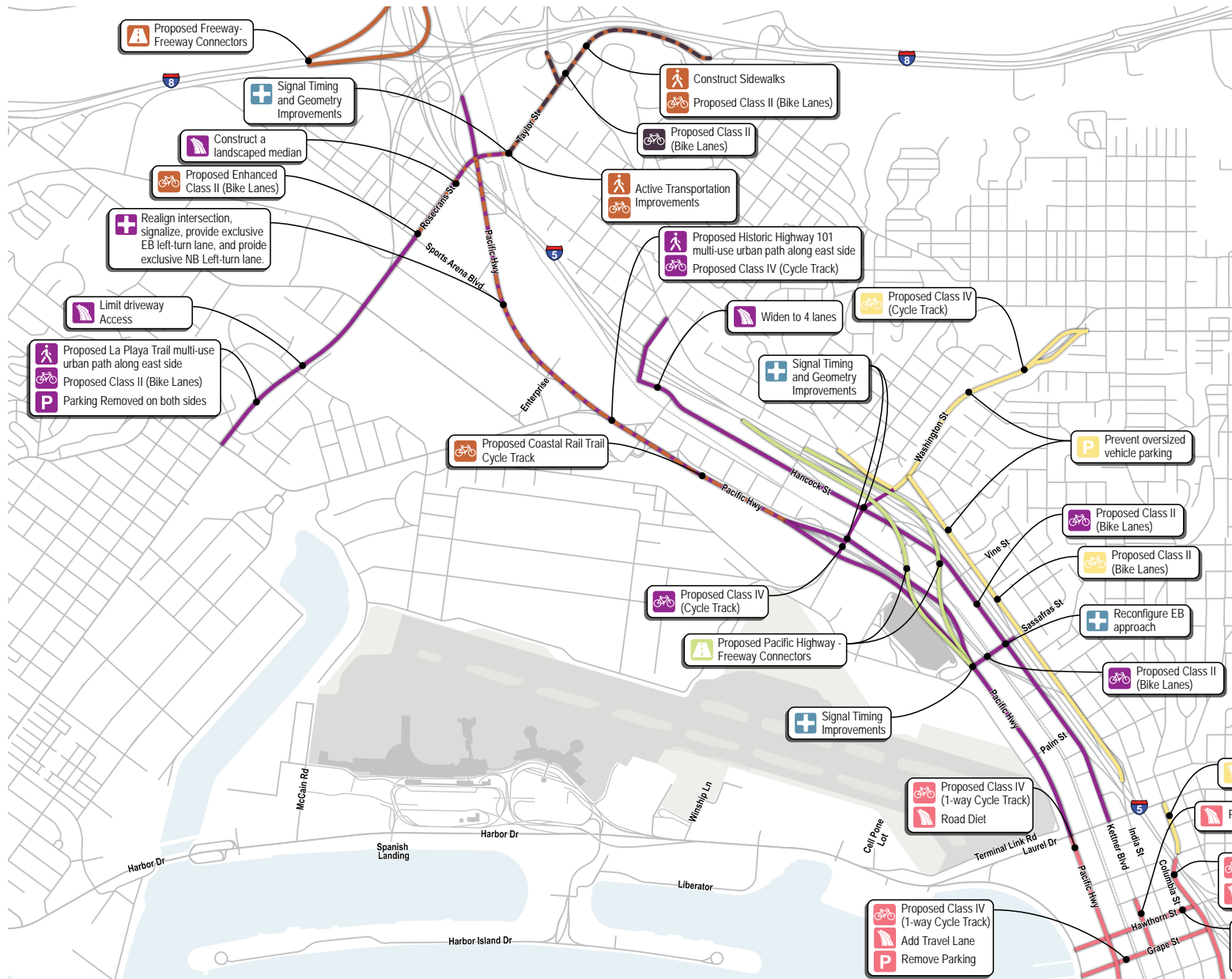
1.  Downtown San Diego Mobility Plan (June 2016)
2.  Midway-Pacific Highway and  Old Town Communities Mobility Report (March 2017)
3.  Uptown Community Plan and Traffic Impact Study (August 2016)
4.  City of San Diego Traffic Signal Communications Master Plan (December 2014)
5.  Preliminary Draft Report Interstate 8 Corridor Study (August 2016)
6.  Preliminary I-5 ITC Ramps PSR-PSD Alternatives
7.  Mid-Coast Corridor Transportation Impacts and Mitigation Report (September 2014)
8.  San Diego Forward: The Regional Plan (October 2015)

## Documents Reviewed But Not Included









The following documents were identified by the Harbor Drive Mobility Committee for review but not included in this book because no relevant mobility improvements were identified:

- **Mission Valley Community Plan Update Final Mobility Existing Conditions Report:** Recommendations are outside of the study area
- **Peninsula Community Plan:** The plan is old and most of the recommendations have since been implemented
- **Central Interstate 5 Corridor Study**














## IMPROVEMENTS

-  Intersections
-  Roadway Segments
-  Freeway
-  ITS
-  Pedestrian
-  Bicycle
-  Transit
-  Parking

## DOCUMENTS

-  Downtown San Diego Mobility Plan
-  Midway Pacific Highway Preferred Plan
-  Old Town Community Preferred Plan
-  Uptown Community Plan & TIS
-  City of San Diego Traffic Signal Communications Master Plan
-  Interstate 8 Corridor Study
-  Preliminary I-5 ITC Ramps PSR-PSD Alternatives
-  Transportation Impacts and Mitigation Report Mid-Coast Corridor Transit Project
-  San Diego Forward: The Regional Plan

Main Facility	Extents	Improvement Type	Improvement	Source	Funding		Year of Implementation							
					Yes	No	2020	2025	2030	2035	2040	2045	2050	
Columbia St	Ivy St to Broadway	Bicycle	Proposed Class III (Bicycle Route)	Downtown										
Grape St	Harbor Dr to State St	Bicycle, Parking, Roadway Segments	Proposed Cycle Track (Class IV): Eastbound one-way cycle track along north side of Grape St with on-street parking on both sides and a vehicular travel lane removed	Downtown										
Harbor Dr	South of Laurel St	Bicycle	Proposed Class III (Bicycle Route)	Downtown										
Hawthorn St	Harbor Dr to State St	Bicycle, Parking	Proposed Class IV (Cycle Track): Westbound one-way cycle track along south side of Hawthorn St with on-street parking along south side removed	Downtown										
India St	Laurel St to Kalmia St	Bicycle	Proposed Class III (Bicycle Route)	Downtown										
Kettner Blvd	Laurel St to Kalmia St	Bicycle	Proposed Class III (Bicycle Route)	Downtown										
Kettner Blvd	Ivy St to Grape St	Roadway Segments	Proposed road diet	Downtown										
Laurel St	Harbor Dr to Pacific Hwy	Bicycle	Proposed Class III (Bicycle Route)	Downtown										
Pacific Hwy	Laurel St to Harbor Dr	Bicycle, Roadway Segments	Proposed Cycle Track (Class IV): One travel lane removed in each direction	Downtown										
State St	West Juniper St to Market St	Bicycle, Roadway Segments	Proposed Cycle Track (Class IV): Two-way cycle track and road diet from three to two northbound lanes to accommodate cycle track	Downtown										
Green Line	I-8	Transit	Alternatives to upgrade Green Line LRT to 5-minute peak frequency or add an I-8 Express Bus Route 170 with the planned improvements from the 2050 RTP/SCS	I-8										
I-8	to I-5	Freeway	Alternative to build missing connector between I-8 and I-5 (EB to NB and SB to WB) and to be considered in the next Regional Plan update	I-8		✓								
Rosecrans St	Sports Arena Blvd to Taylor St	Bicycle	Enhance Class II bike lanes	I-8										
Taylor St	Pacific Hwy and Hotel Circle	Bicycle, Pedestrian	Construct sidewalk and Class II (Bike Lanes)	I-8										
Pacific Hwy	Coastal Rail Trail, Fiesta Island to Santa Fe Depot Station	Bicycle	Cycle track facilities	I-9										
Blue Line	Santa Fe Depot to UTC Transit Center	Transit	Extension of the Trolley, 10.9 miles of new double track, eight new project stations, upgrades to existing system facilities, and the acquisition of new trolley vehicles	Mid-Coast		✓	✓							
Blue Line	Santa Fe Depot to UTC Transit Center	Transit	7.5 minute service during peak periods and off-peak midday periods	Mid-Coast					✓					
Sassafras St	at Pacific Hwy	Intersections	Mitigation: Signal phasing changes	Mid-Coast										
Sassafras St	at Kettner Blvd	Intersections	Mitigation: Reconfigure EB approach to have right-turn lane become a shared through/right-turn lane	Mid-Coast										
Taylor St/ Rosecrans St	at Pacific Hwy	Intersections	Mitigation: Geometric improvements for NB and EB approach legs and signal phasing changes	Mid-Coast										
Washington St	Pacific Hwy/ NB Frontage Rd	Intersections	Mitigation: Signal phasing changes and reconfiguration of the NB approach to mitigate queues	Mid-Coast										
Washington St	at Hancock St	Intersections	Mitigation: Signal phasing changes	Mid-Coast										
Hancock St	Old Town Ave to Witherby St	Roadway Segments	Mitigation: Widen to four-lane collector	Midway										
Hancock St	at Washington St	Intersections	Mitigation: restripe SB approach to include second SB right-turn lane	Midway										
Hancock St/ Kettner Blvd	Noell St to Laurel St	Bicycle	Class II (Bike Lanes)	Midway										

Main Facility	Extents	Improvement Type	Improvement	Source	Funding		Year of Implementation						
					Yes	No	2020	2025	2030	2035	2040	2045	2050
Kettner Blvd	Washington St to Laurel St	Roadway Segments	Mitigation: widen roadway to 4-lane major (one-way) arterial	Midway									
Kettner Blvd	at Laurel St	Intersections	Mitigation: widen EB approach to include third thru lane	Midway									
Pacific Hwy	Taylor St to Laurel St	Pedestrian, Bicycle	Multi-use urban path that will be 12' wide and replace sidewalk on east side of roadway and potential acquiring ROW	Midway									
Pacific Hwy	Barnett Ave and Witherby St	Roadway Segments	Bring Barnett Ave and Witherby St intersections to grade to downgrade segment from an expressway to a 6-lane major arterial	Midway									
Pacific Hwy	Taylor St to Laurel St	Bicycle	Class IV (One-Way Cycle Tracks) in both directions continuing through Old Town community	Midway									
Pacific Hwy		Transit	Transit priority measures, such as queue jumper lanes and transit priority signals, implemented at all signalized intersections	Midway									
Pacific Hwy	at Sassafras St	Intersections	Mitigation: add second SB left-turn lane	Midway									
Pacific Hwy	at Laurel St	Intersections	Mitigation: widen EB, WB, and NB to include third thru lane, second EB left-turn lane, second B left-turn lane, and exclusive NB right-turn Lane	Midway									
Rosecrans St	Lytton St to Sports Arena Blvd	Roadway Segments	Improve from a six-lane major to a six-lane prime arterial, limiting driveway access	Midway									
Rosecrans St	Sports Arena Blvd to Taylor St	Roadway Segments	Construct landscaped median to improve segment to a four-lane major	Midway									
Rosecrans St	La Playa Trail, between Lytton St and Pacific Hwy	Pedestrian, Bicycle, Parking	Multi-use urban path that will be 12' wide and replace sidewalks on southern side of roadway, with parking removed on both sides of the street and potential acquiring ROW	Midway									
Rosecrans St	Lytton St to Pacific Hwy	Bicycle	Class II (Buffered Bike Lanes)	Midway									
Sassafras St	Pacific Hwy to I-5	Bicycle	Class II (Bike Lanes)	Midway									
Sassafras St	Pacific Hwy to Kettner Blvd	Roadway Segments	Mitigation: widen roadway to a 4-lane collector with center left-turn lane	Midway									
Sports Arena Blvd	at Pacific Hwy	Intersections	Realign intersection 500' to the north, re-align to make a right-angle, signalized, and provide exclusive EB and NB left-turn lanes	Midway									
Washington St	Pacific Hwy to I-5	Bicycle	Class IV (Cycle Track)	Midway									
Nimitz Blvd/ Lowell St	at Rosecrans St	Intersections	Mitigation: widen NB and SB approaches to include third thru lane and second SB left-turn lane	Old Town									
Taylor St	Pacific Hwy to Community Boundary	Bicycle	Class II (Bike Lanes) in both directions and bicycle boxes at intersections in I-8 Corridor Study	Old Town									
Taylor St		Transit	Transit signal priority treatment implementation	Old Town									
Taylor St	Morena Blvd to I-8 Ramps	Roadway Segments	Mitigation: widen roadway to a 4-lane collector with center left-turn lane	Old Town									
I-5	McClellan-Palomar Airport to San Diego International Airport	Transit	Airport Express	RTP			✓						
I-15	Escondido Transit Center to San Diego International Airport	Transit	Airport Express	RTP			✓						
Route 90	El Cajon Transit Center to Airport Intermodal Transit Center	Transit	Rapid Bus Route	RTP							✓		
I-5	at Airport	Transit	Airport Intermodal Transit Center and I-5 Direct Connector Ramps	RTP							✓		
Pacific Hwy	Coastal Rail Trail Bicycle Network	Bicycle	Proposed Class IV (Cycle Track)	RTP							✓		

Summary Table (Cont.)

Main Facility	Extents	Improvement Type	Improvement	Source	Funding		Year of Implementation								
					Yes	No	2020	2025	2030	2035	2040	2045	2050		
N Harbor Dr	Central Coast Corridor Bicycle Network	Bicycle	Proposed Class I (Bike Path).	RTP											✓
India St	at Palm St	ITS	Phase 1: TS communication gap	TSC											
Kettner Blvd	at Palm St	ITS	Phase 1: TS communication gap	TSC											
N Harbor Dr	at Laurel St	ITS	Phase 1: TS communication repair issue	TSC											
Pacific Hwy	at Sassafras St	ITS	Phase 1: TS communication gap	TSC											
Multiple Locations	Grape St, Harbor Dr, Hawthorn St, Kettner Blvd, Laurel St, N Harbor Dr, Pacific Hwy, Rosecrans St, Sassafras St	ITS	Phase 2: Conversion signals	TSC											
Hawthorn St	India St to 6th Ave	Pedestrian	Designated Pedestrian Connector Path	Uptown											
India St	Union St to W Washington St	Pedestrian	Designated Pedestrian Corridor Path	Uptown											
India St	Laurel St to Union St	Pedestrian	Designated Pedestrian Connector Path	Uptown											
India St	East of I-5	Bicycle	Proposed Class II (Bicycle Lanes)	Uptown											
India St	Washington St to Winder St	Roadway Segments	Mitigation: restripe to a 2-lane collector with continuous left-turn lane	Uptown											
India St	Glenwood Dr to Sassafras St	Roadway Segments	Mitigation: widen roadway to 4-lane one-way collector	Uptown											
India St	Sassafras St to Redwood St	Roadway Segments	Mitigation: widen roadway to 4-lane one-way collector	Uptown											
Laurel St	India St to 6th Ave	Pedestrian	Designated Pedestrian Connector Path	Uptown											
Laurel St	East of I-5	Bicycle	Proposed Class III (Bicycle Route)	Uptown											
Laurel St	Columbia St to Sixth Ave	Roadway Segments	Mitigation: widen roadway to 4-lane collector	Uptown											
State St	Laurel St to Juniper St	Roadway Segments	Mitigation: restripe the roadway to a 2-lane collector with continuous left-turn lane	Uptown	✓										
W Washington St	East of San Diego Ave	Bicycle	Proposed Class IV (Cycle Track)	Uptown											
W Washington St	India St	Parking	Utilize signage and striping to prevent oversized vehicles from parking overnight	Uptown											
Washington St	Hawk St to India St	Pedestrian	Support pedestrian improvements that promote a safe connection	Uptown											
Multiple Locations	Washington St, Laurel St, Juniper St, San Diego Ave, Third Ave, Fourth Ave, Fifth Ave, Sixth Ave, Bachman Pl	Bicycle	Support bicycle facilities	Uptown											
Washington St	La Mesa and Ocean Beach	Transit	Convert Route 10 to Rapid Bus Route	Uptown							✓				

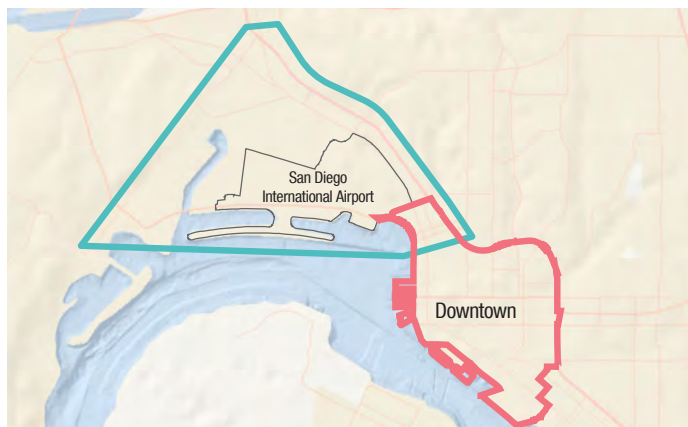
Summary Table (Cont.)

## Plan Information

The Mobility Plan was completed in June 2016.

## Agency

City of San Diego  
Civic San Diego



## Overlapping Improvements from Mobility Plan

### Bicycle

#### Proposed Bicycle Routes (Class III)

- Harbor Drive, south of Laurel Street
- Laurel Street from Harbor Drive to Pacific Highway
- Columbia Street from Ivy Street to Broadway
- Kettner Boulevard, from Laurel Street to Kalmia Street
- India Street from Laurel Street to Kalmia Street



#### Proposed Cycle Track (Class IV)

- Hawthorn Street, from Harbor Drive to State Street
- Grape Street, from Harbor Drive to State Street
- Pacific Highway, from Laurel Street to Harbor Drive
- State Street, from West Juniper Street to Market Street



#### State Street from West Juniper Street to Market Street: A



two-way cycle track will run along the west side of State Street from Interstate to the roadway's southern terminus at Market Street. Between West Fir Street and Broadway, State Street currently has three northbound vehicular travel lanes, which will require a road diet resulting in two northbound lanes to accommodate the cycle track.



#### Pacific Highway from Laurel Street to Harbor Drive: To



accommodate cycle tracks, one travel lane will be removed in each direction. The existing median will remain and intermittent on-street parking will be preserved in most instances. The cycle track will intersect with east-west cycle tracks at Hawthorn Street, Grape Street, Beech Street, and Broadway.



#### Hawthorn Street from Harbor Drive to State Street: A



westbound one-way cycle track will run along the south side of Hawthorn Street from Harbor Drive to State Street. A parallel eastbound one-way cycle track will run along Grape Street from Harbor Drive to State Street. On-street parking along the south side will be removed to accommodate the cycle track,

## Related Attachments

### Attached Mobility Plan Sections

- Section 5.3 Bicycle Recommendations
- Section 7.3 Street Recommendations
- Section 13.3 Design Concepts
- Appendix F Intersection Design Concepts

### Attached Mobility Plan Figures

- Figure 3-2 Planned Downtown Mobility Network
- Figure 3-3 Complete Streets Recommendations
- Figure 3-4 Road Diets Accommodating Complete Streets
- Figure 5-2 Proposed Bicycle Network
- Figure 5-7 Proposed Cycle Track Network
- Figure 6-2 2050 Revenue Constrained Transit Network
- Figure 6-3 Proposed Transitways
- Figure 7-2 Proposed Autoways

### Attached Mobility Plan Tables

- Table 7-1 Proposed Road Diets
- Table 13-1 Short-Range Projects
- Table 13-2 Long-Range Projects
- Table 13-5 Funding Sources

however, the three vehicle travel lanes will remain. The cycle track will intersect with north-south cycle tracks at State Street and Pacific Highway, and the existing multi-use path adjacent to Harbor Drive.



**Grape Street from Harbor Drive to State Street:** An eastbound one-way cycle track will run along the north side of Grape Street from Harbor Drive to State Street. A parallel westbound one-way cycle track will run along Hawthorn Street from Harbor Drive to State Street. On-street parking will be removed on both sides of Grape Street to accommodate the cycle track and an additional vehicular travel lane. The cycle track will intersect with north-south cycle tracks at State Street and Pacific Highway, and the existing multi-use path adjacent to Harbor Drive.

### Roadway Segments



#### Proposed Road Diets

- Pacific Highway from Laurel Street to Harbor Drive
- Kettner Boulevard from Ivy Street to Grape Street
- Columbia Street from Juniper Street to Broadway



## Plan Information

The Mobility Report was completed in March 2017. It is expected to be adopted in the Spring of 2018.




## Agency

City of San Diego




## Overlapping Improvements from Midway-Pacific Mobility Report

### Roadway Segments



-  **Rosecrans Street, between Lytton Street and Sports Arena Boulevard:** Improve from a six-lane major to a six-lane prime arterial, would require limiting driveway access.
-  **Rosecrans Street, between Sports Arena Boulevard and Taylor Street:** Construct a landscaped median, this will improve the segment to a four-lane major.
-  **Hancock Street, between Old Town Avenue and Witherby Street:** Widen to a four-lane collector.

**Pacific Highway, between Barnett Avenue and Witherby Street:** Downgrade from an expressway to a 6-lane major arterial, would require bringing the Barnett Avenue and Witherby Street intersections to grade. Improvement not included in the technical analysis of the Preferred Plan.

### Intersections

-  **Sports Arena Boulevard at Pacific Highway:** Realign intersection approximately 500' to the north, re-align to make a right-angle, signalize, provide an exclusive EB left-turn lane, and provide an exclusive NB left-turn lane.

### Pedestrian

-  **La Playa Trail:** The multi-use urban path will run along the south side of Rosecrans Street between Lytton Street and Pacific Highway. The path will be approximately 12' wide and replace the sidewalks on the southern side of the roadway. Parking along both sides of the street will need to be removed. The implementation of these improvements may necessitate acquiring additional ROW.
-  **Historic Highway 101:** The multi-use urban path will run along the east side of Pacific Highway between Taylor Street and Laurel Street. The path will be 12' wide and will replace the existing sidewalk on the east side of the roadway. The implementation of these improvements may necessitate acquiring additional ROW.

## Related Attachments

### Attached Mobility Report Sections

Section 3.6 Currently Planned Improvements






### Attached Mobility Report Figures

Figure 3-3 Barnett Avenue and Witherby Street/ Pacific Highway at-Grade Intersection Concepts  
Figure 3-5 Multi-Use Paths Systems  
Figure 3-6 Rosecrans Street with La Playa Trail - West of Midway Drive  
Figure 3-7 Rosecrans Street with Lay Playa Trail - East of Sports Arena Boulevard

### Attached Mobility Report Tables

Table 3.1 Summary of Roadway Improvements  
Table 3.2 Summary of Intersection Improvements

## Bicycle

-  • Class IV (One-Way Cycle Tracks) in both directions along Pacific Highway between Taylor Street and Laurel Street. This cycle track continues through the Old Town community, north to Sea World Drive
-  • Class II (Buffered Bike Lanes) in both directions along Rosecrans Street between Lytton Street and Pacific Highway
-  • Class II (Bike Lanes) along the south side of Hancock Street/ Kettner Boulevard between Noell Street and Laurel Street.
-  • Class IV (Cycle Track) on the north side of Washington Street between Pacific Highway and I-5
-  • Class II (Bike Lanes) in both directions along Sassafras Street between Pacific Highway and I-5

## Transit

**Pacific Highway:** As Pacific Highway is redeveloped, transit priority measures such as queue jumper lanes and transit priority signals should be implemented at all signalized intersections.

## Preferred Plan Analysis Recommendations

### Road Segment Mitigations

**Kettner Boulevard, between Washington Street and Laurel Street:** Widen roadway to a 4-lane Major (One-Way) Arterial

**Sassafras Street, between Pacific Highway and Kettner Boulevard:** Widen roadway to a 4-lane Collector with Center Left-Turn lane

### Intersection Mitigations

**Hancock Street and Washington Street:** Restripe the SB approach to include a second SB right-turn lane

**Kettner Boulevard and Laurel Street:** Widen the EB approach to include a third thru lane

**Pacific Highway and Sassafras Street:** Add a second SB left-turn lane

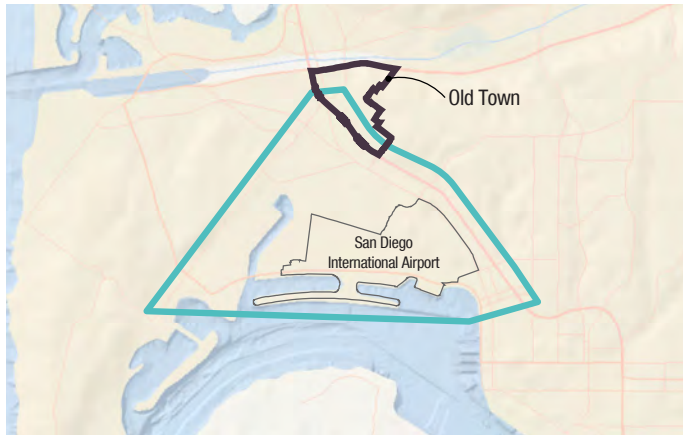
**Pacific Highway and Laurel Street:** Widen the eastbound, westbound, and northbound approaches to include a third thru lane, second EB left-turn lane, second NB left-turn lane, and an exclusive NB right-turn lane

## Plan Information

The Mobility Report was completed in March 2017. It is expected to be adopted in the Spring of 2018.

## Agency

City of San Diego



## Overlapping Improvements from Old Town Mobility Report

### Bicycle



- Complete the Class II (Bike Lanes) in both directions along Taylor Street between Pacific Highway and the community boundary and bicycle boxes at appropriate intersections, as identified in the I-8 Corridor Study

### Transit

**Taylor Street:** Transit signal priority treatments should be implemented along Taylor Street.

## Preferred Plan Analysis Recommendations

### Road Segment Mitigations

**Taylor Street, between Morena Boulevard and I-8 Ramps:**  
Widen roadway to a 4-Lane Collector with Center Left-Turn Lane

### Outside Community Mitigations

**Nimitz Boulevard/ Lowell Street and Rosecrans Street:**  
Widen the NB and SB approaches to include a third thru lane and a second SB left-turn lane

## Related Attachments

### Attached Mobility Report Sections

Section 4.6 Currently Planned Improvements

### Attached Mobility Report Figures

Figure 6-2 Daily Roadway Segment Traffic Volumes and LOS - Preferred Plan Conditions

Figure 6-5 Peak Hour Intersection LOS - Preferred Plan Conditions

Figure 6-10 Bicycle Network - Preferred Plan Conditions

### Attached Mobility Report Tables

Table 6.1 Daily Roadway Segment Analysis - Preferred Plan Conditions

Table 6.2 Peak Hour Intersection LOS and Delay Results - Preferred Plan Conditions

Table 6.5 Freeway Segment LOS Results - Preferred Plan Conditions

Table 6.6 Freeway Ramp Metering Analysis - Preferred Plan Conditions

Table 6.10 Arterial Speed Analysis Along Transit Corridors - Preferred Plan Conditions

## Plan Information

The Community Plan was approved October 6, 2016 and adopted November 14, 2016. The Traffic Impact Study was finalized June of 2015 and revised August 18, 2016.

## Agency

City of San Diego



## Overlapping Policies from Community Plan

### Pedestrian

Designated Pedestrian Corridor Paths (moderate pedestrian levels in moderate density business and shopping districts)

- Along India Street from Union Street to W Washington Street

Designated Pedestrian Connector Paths (low pedestrian levels along roads with institutional or business complexes)

- Along India Street from Laurel Street to Union Street
- Along Laurel Street from India Street to 6th Avenue
- Along Hawthorn Street from India Street to 6th Avenue

**MO-1.4:** Support pedestrian improvements that promote a safe connection along Washington Street between Hawk Street and India Street.

### Bicycle

- Proposed Class III (Bicycle Route) on Laurel Street, East of I-5
- Proposed Class II (Bicycle Lanes) on India Street, East of I-5
- Proposed Class IV (Cycle Track) on W Washington Street, East of San Diego Avenue

**MO-1.4:** Support bicycle facilities on Washington Street, Laurel Street, Juniper Street, San Diego Avenue, Third Avenue, Fourth Avenue, Fifth Avenue, Sixth Avenue, and Bachman Place.

### Transit:

**Route 10:** will convert to a Rapid bus Route with improvements to include expanding services to La Mesa and Ocean Beach. Route 10 currently travels along University Avenue and Washington Street in the Uptown Corridor. The expected year of completion of this improvement in 2035.

**MO-3.1:** Coordinate with SANDAG to provide convenient public transit connections to Downtown and the San Diego International Airport from the Uptown community.

## Related Attachments

### Attached Community Plan Figures

- Figure 3-1 Pedestrian Routes
- Figure 3-2 Existing and Planned Bicycle Networks
- Figure 3-3 Planned Transit Facilities
- Figure 3-5 Planned Street Classifications

### Attached Traffic Impact Analysis Information

- Tables 4-1 to 4-3 Future Year Summary of Intersection Analysis
- Tables 4-4 to 4-10 Future Year Summary of Roadway Segment Analysis
- Tables 4-11 to 4-12 Future Year Freeway Segment Analysis Summary
- Table 4-13 Future Year Summary of Ramp Metering Analysis
- Chapter 5 Significance of Impacts and Mitigation Measures
- Table 6-1 Post Mitigation Summary of Intersection Analysis
- Tables 6-2 to 6-7 Post Mitigation Summary of Roadway Segment Analysis

### Freeway

**MO-4.7:** Coordinate with Caltrans and SANDAG to identify and implement needed freeway and interchange improvements along State Route 163 and Interstate 5 to improve community accessibility to regional facilities and enhance active transportation modes along freeway interchanges.

### ITS

**MO-5.1:** Deployment of ITS improvements should be targeted along Park Boulevard, Washington Street, University Avenue, Fifth Avenue, and Sixth Avenue.

### Parking

**MO-7.21:** Utilize signage and striping to prevent oversized vehicles from parking overnight along West Washington Street and India Street.

## Future Community Buildout Analysis Recommendations

### Roadway Segment Mitigations

#### India Street from Washington Street to Winder Street:

Restripe the roadway to a 2-lane collector with a continuous left-turn lane. This improvement is not identified in the Uptown IFS.

**India Street from Glenwood Drive to Sassafras Street:** Widen the roadway to a 4-lane one-way collector. This improvement is not identified in the Uptown IFS.

**India Street from Sassafras Street to Redwood Street:** Widen the roadway to a 4-lane one-way collector. This improvement is not identified in the Uptown IFS.



**Laurel Street from Columbia Street to Sixth Avenue:** Widen the roadway to a 4-lane collector. This improvement is not identified in the Uptown IFS.

**State Street from Laurel Street to Juniper Street:** Restripe the roadway to a 2-lane collector with continuous left-turn lane. This improvement project is identified in the Uptown IFS.

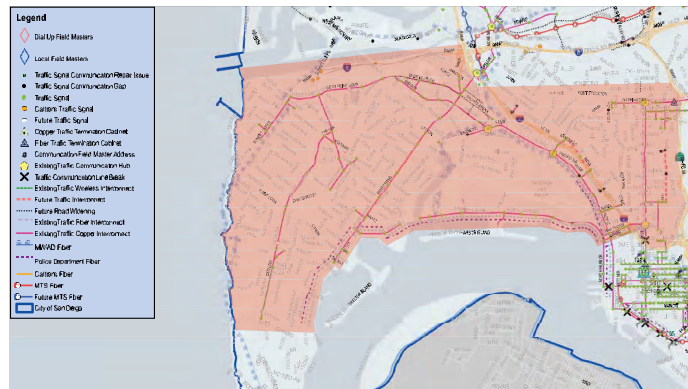


## Plan Information

The Master Plan was completed in December 2014.

## Agency

City of San Diego



Source: Mid-Coast Corridor Transit Project Fact Sheet

## Related Attachments

### Attached Master Plan Sections

Appendix D Subarea 17 Subarea Location, Order of Magnitude Cost Estimate, Intersection Summary

### Attached Master Plan Figures

Figure 3-1 Subareas

Figure 7-1 Implementation Phasing Plan

## Overlapping Improvements from Master Plan

### ITS

**Subarea 17 (Airport/ Point Loma) Phase 1:** Resolve communication deficiencies and implement TMC.

#### TS Communication Gap

- India Street at Palm Street
- Kettner Boulevard at Palm Street
- Pacific Highway at Sassafras Street

#### TS Communication Repair Issue

- North Harbor Drive at Laurel Street

**Subarea 17 (Airport/ Point Loma) Phase 2:** Implement TSCMP communications architecture downtown and implement ITS element recommendations downtown.

#### Conversion Signals

- Grape Street
- Harbor Drive
- Hawthorn Street
- Kettner Boulevard
- Laurel Street
- N Harbor Drive
- Pacific Highway
- Rosecrans Street
- Sassafras Street

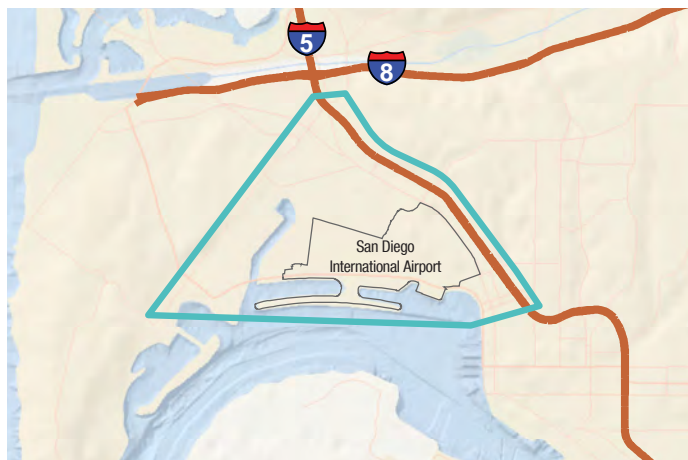
**Phase 3:** Implement TSCMP communications architecture on peripheral network and implement ITS element recommendations on the peripheral.

## Plan Information

The Preliminary Draft Report was completed in August of 2016.

## Agencies

SANDAG and Caltrans



## Related Attachments

### Attached Corridor Study Sections

Section 3.3.4 Engineering Feasibility

### Attached Corridor Study Figures

Figure 7-5 I-5 and I-8 Connection  
 Figure 7-6 Old Town Transit Center Roadway Facilities  
 Figure B-6 Alternative B Concept (I-8 Express Bus - Route 170)  
 Appendix C Page 103 Old Town Focus Area: High Priority Projects  
 Appendix C Page 127 Alternative 1: Enhanced Class II Bike Lanes on Taylor St  
 Appendix C Page 128 Alternative 2: Two-Way Cycle Track on Taylor St

### Attached Corridor Study Tables

Table 3-1 City of San Diego Planned Roadway Capacity Improvements  
 Table 3-5 Projected 2050 Transit Ridership  
 Appendix C Page 102 Old Town Focus Area: High Priority Projects  
 Appendix C I-8 Corridor Study Recommended Active Transportation Improvements


## Overlapping Improvements from Corridor Study

### Transit

**Alternative A (2050 RTP Improvements Plus Multimodal Enhancements):** Planned improvements from the 2050 RTP/SCS, plus upgrading the green Line LRT to a 5-minute peak frequency (versus 7.5-minutes in the 2050 RTP/SCS). Increasing the frequency showed the best improvements in ridership in 2050.

**Alternative B (Additional Multimodal Improvements):** Planned improvements from the 2050 RTP/SCS, plus I-8 Express Bus (Route 170). The proposed I-8 Peak Express Bus did not perform well, which is most likely a result of its relatively slow speed.

### Freeway




 **I-5 and I-8 Connection:** I-5 SB to I-8 WB and I-8 EB to I-5 NB freeway-to-freeway connectors. Modeled results show benefits in reducing demand for Sea World Drive, however estimated capital costs were very high and environmental concerns persist. The project concept is recommended to be considered in the next Regional Plan update.

### Intersection

 **2a, 2.1, 2.2, 2.3 Old Town Transit Center Roadway Facilities:** Intersection active transportation project concept to enhance bicycle and pedestrian facilities, including buffered bike lanes and bike boxes. Included as a high priority project. It is recommended that this project concept be considered in the next Regional Bike Plan Update.

### Bicycle

#### High Priority Projects

-  • **2.1 Rosecrans Street:** Enhanced Class-II (bike lanes) from Sports Arena Boulevard to Taylor Street (Old Town Transit Center)
-  • **2.2 Coastal Rail Trail:** Cycle track facilities on Pacific Highway from Fiesta Island Road to Santa Fe Depot Station in Downtown San Diego
-  • **2.3 Taylor Street between Pacific Highway and Hotel Circle:** Construct sidewalks and Class II (bike lanes)



## Plan Information

The Impacts and Mitigation Report was completed in September 2014.

## Agency

SANDAG



Source: Mid-Coast Corridor Transit Project Fact Sheet

## Related Attachments

### Attached Report Figures

- Figure 1-6 Mid-Coast Corridor Transit Project
- Figure 1-22 Mid-Coast Corridor Transit Project Opening Year Trolley Operating Plan
- Figure 1-23 Mid-Coast Corridor Transit Project 2030 Operating Plan
- Figure 6-4 Signal Phasing at Sassafras Street
- Figure 6-5 Intersection Reconfiguration at the Sassafras Street Grade Crossing
- Figure 6-7 Signal Phasing at Washington Street
- Figure 6-8 Proposed Intersection Reconfiguration at Taylor Street Grade Crossing
- Figure 6-10 Signal Phasing at Taylor Street
- Figure 6-17 Intersection Reconfiguration at the Washington Street and Pacific Highway NB Frontage Road
- Figure 6-23 Intersection Mitigation Measures for the Build Alternative (2030)

### Attached Report Tables

- Table 1-4 Trolley Operating Plans
- Table 1-5 Build Alternative Bus Routes Serving Trolley Stations
- Table 4-13 Transit Operating Plan
- Table 6-1 2030 Peak-Hour Traffic Level of Service and Delay
- Table 6-4 Traffic Mitigation Measures by Location

## Overlapping Improvements from Corridor Study

### Transit

- Extension of the Trolley Blue Line from the Santa Fe Depot in Downtown San Diego to the UTC Transit Center in University City. The extension will provide for continuous service on the Trolley Blue Line from the San Ysidro Transit Center at US-Mexico International Border to University City.
- 10.9 miles of new double track extending to the terminus at the UTC Transit Center in University City
- Eight new project stations, upgrades to existing system facilities between the Santa Fe Depot and the UTC, and the acquisition of new Trolley vehicles for the extended project operations
- At the startup of revenue operations, the project is expected to require 15-minute service during peak and off-peak periods
- Weekday Trolley Blue Line service in 2030 would operate every 7.5 minutes during peak periods and during the off-peak midday period
- Bus Route 150 would be eliminated with implementation of the Mid-Coast project
- Revenue service is expected to start by the end of 2018

### Intersection Mitigations

- Sassafras Street and Pacific Highway:** To mitigate the impact, it is proposed that the existing permitted left-turn phasing on Sassafras Street approaching Pacific Highway be converted to protected phasing.

- Sassafras Street and Kettner Boulevard:** It is proposed to reconfigure the eastbound approach at Sassafras Street and Kettner Boulevard so that the right-turn lane becomes a shared through/right-turn lane.
- Washington Street at Pacific Highway and Hancock Street:** It is proposed that the through movements on Washington Street operate as preemption exit phases at the Pacific Highway NB Frontage Road and Hancock Street intersections. It is also proposed to modify the sequence of the westbound left-turn from Washington Street to Hancock Street during the permitted dwell phases to be served after the southbound through movement. It is also proposed to reconfigure the NB approach to include one dedicated left-turn lane, one shared left and through lane, and one dedicated right-turn lane.
- Taylor Street/Rosecrans Street and Pacific Highway:** Geometric improvements are proposed for the northbound and eastbound approach legs. It is also proposed that the through movements on Taylor Street be operated as preemption exit phases.

## Plan Information

The Regional Plan was completed in October 2015.

## Agency

SANDAG



Source: San Diego Forward: The Regional Plan

## Related Attachments

### Attached Regional Plan Sections

Appendix A - Transportation Projects, Costs, and Phasing

### Attached Regional Plan Figures

Figure 2.10 Southern California Intercity/ Commuter Rail and San Diego Region Airport Locations

Figure 2.13 2050 Revenue Constrained Transit Network

Figure 2.14 2050 Revenue Constrained Regional Bike Network

Figure 2.15 2050 Regional Bike Network Corridor Alignments

Figure 2.16 2050 Revenue Constrained Managed Lanes and Highway Network

### Attached Regional Plan Tables

Table A.2 Phased Revenue Constrained Projects

## Overlapping Policies from the Regional Plan

- **Actions to Implement the Plan:** Move forward on the International Transit Center adjacent to the San Diego International Airport, ground access plans, and direct connector ramps to improve access to and from the San Diego International Airport.

### Bicycle

2035 Regional Bike Network

- Coastal Rail Trail on Pacific Highway

2050 Regional Bike Network

- Central Coast Corridor on North Harbor Drive

### Freeway

2050 Revenue Constrained Managed Lanes and Highway Network

- Operational Improvements on I-5 from I-15 to I-8
- Operational Improvements on I-8 from I-5 to SR-125

### Transit

- **New Airport Services:** Includes premium bus transit from select stations along the I-5 and I-15 corridors directly to San Diego International Airport. All funding for these services is assumed to come from other sources, such as the San Diego Regional Airport Authority and other agencies.
- **High-Speed Train Service:** In San Diego, high-speed trains will arrive at the future Intermodal Transportation Center. This project is funded by the state of California

2020 Revenue Constrained Projects

- Airport Express Routes

2035 Revenue Constrained Plan

- **Rapid (Route 90):** El Cajon Transit Center to San Diego International Airport ITC via SR 94, City College (peak only)
- **ITC:** San Diego International Airport ITC and I-5 Direct Connector Ramps

## Downtown San Diego Mobility Plan Attachments



Cycle tracks are proposed along the following segments:

### North-South Cycle Tracks

#### Pacific Highway

One-way cycle tracks will span the length of Pacific Highway through Downtown, extending from Laurel Street to the roadway's southern terminus at Harbor Drive. This will connect the Midway/Pacific Highway Corridor Community and Little Italy to the Waterfront Park, Santa Fe Depot, San Diego Bay, Seaport Village and the Headquarters. Pacific Highway is currently a six-lane roadway with a raised median and intermittent on-street parking. To accommodate cycle tracks, one travel lane will be removed in each direction. The existing median will remain and intermittent on-street parking will be preserved in most instances. The cycle track will intersect with east-west cycle tracks at Hawthorn Street, Grape Street, Beech Street, and Broadway.

#### State Street

A two-way cycle track will run along the west side of State Street from Interstate 5 to the roadway's southern terminus at Market Street. This will connect the Uptown community to Downtown, and will provide a protected north-south bicycle facility for the Little Italy, Columbia and Marina neighborhoods. Between West Fir Street and Broadway, State Street currently has three northbound vehicular travel lanes, which will require a road diet resulting in two northbound lanes to accommodate the cycle track. South of Broadway, State Street currently has one vehicular travel lane in each direction. The wide southbound lane along this segment will be reduced to implement the cycle track and angled parking at the south end, where it exists, will be converted to parallel parking. The cycle track will intersect with east-west cycle tracks at Hawthorn Street, Grape Street, Beech Street, and Broadway. **Appendix G** includes a conceptual plan view depicting a potential alignment of the State Street cycle track, between Date Street and Cedar Street, with parking located curbside and the buffer located between the parking lane and the counter flow (southbound) Cycleway.

#### Third Avenue

A two-way cycle track will run along the west side of Third Avenue from B Street to Broadway. Third Avenue currently has a single vehicular travel lane in each direction along this segment. A lane diet will be implemented from B Street to C Street to accommodate on-street parking and the cycle track. Additionally, the lane widths will be reduced from C Street to Broadway. This segment serves to provide a connection to east-west facilities at Broadway and B Street.

#### Fourth Avenue

A southbound one-way cycle track will run along the east side of Fourth Avenue from Date Street to B Street. A parallel northbound one-way cycle track will run along the west side of Fifth Avenue from Date Street to B Street. This cycle track will connect the Uptown community north of Interstate 5 to Downtown and intersect with east-west cycle tracks at Beech Street and B Street. Fourth Avenue currently has three southbound vehicular travel lanes along this segment. One lane will be removed to accommodate the cycle track.



*Green paint can be used to emphasize conflict zones as shown in this image of Broadway in Seattle.*

### Fifth Avenue

A northbound one-way cycle track will run along the west side of Fifth Avenue from Date Street to B Street. A parallel southbound one-way cycle track will run along Fourth Avenue from Date Street to B Street. This cycle track will connect the Uptown community north of Interstate 5 to Downtown and intersect with east-west cycle tracks at Beech Street and B Street. Fifth Avenue currently has three northbound vehicular travel lanes along this segment. One lane will be removed to accommodate the cycle track. The cycle track will intersect with east-west cycle tracks at Beech Street and B Street.

### Sixth Avenue

A two-way cycle track will run along the east side of Sixth Avenue from Beech Street to its southern terminus at L Street. This will provide a north-south connection through Downtown's central neighborhoods and access to the Blue and Orange Lines at C Street, as well as the Green Line's Gaslamp Quarter Station. Sixth Avenue currently has three southbound vehicular travel lanes. One lane will be removed to accommodate the cycle track. The cycle track will intersect with east-west cycle tracks at Beech Street, B Street, C Street, and J Street.

### Park Boulevard

One-way cycle tracks will run along each side of Park Boulevard from Interstate 5 to C Street. North of C Street, the intermittent on-street parking will be removed to accommodate the cycle-tracks. South of C Street it will be a two-way cycle track on the east side of Park Boulevard on the widened sidewalk to E Street. At the E Street intersection the cycle track will transition to the west side of Park Boulevard and will convert the single southbound lane into two-way bicycle travel only through the prohibition of vehicular travel, with the exception of the segment between Market Street and Island Avenue where Park Boulevard will remain open to vehicular traffic. As shown in **Appendix G**, along the Park Boulevard segment between Market Street and Island Avenue northbound bicycle travel will be accommodated by

a contraflow cycle track, while a Class III bicycle route marked by sharrows will provide for southbound bicycle travel. The existing on-street parking will be maintained along this segment. In addition to providing north-south connections for the East Village neighborhood this cycle track will also serve to improve safety conditions for cyclists near San Diego High School and San Diego City College where, historically, relatively higher bicycle collisions were recorded. The cycle track will run parallel to portions of the Blue and Orange Lines, and provide access to stations at Smart Corner and Market Street. The cycle track will intersect with east-west cycle tracks at C Street and J Street.

## East-West Cycle Tracks

### Hawthorn Street

A westbound one-way cycle track will run along the south side of Hawthorn Street from Harbor Drive to State Street. A parallel eastbound one-way cycle track will run along Grape Street from Harbor Drive to State Street. The cycle track will connect Little Italy and the Uptown community to the San Diego Bay. On-street parking along the south side will be removed to accommodate the cycle track, however, the three vehicle travel lanes will remain. The cycle track will intersect with north-south cycle tracks at State Street and Pacific Highway, and the existing multi-use path adjacent to Harbor Drive.

### Grape Street

An eastbound one-way cycle track will run along the north side of Grape Street from Harbor Drive to State Street. A parallel westbound one-way cycle track will run along Hawthorn Street from Harbor Drive to State Street. The cycle track will connect Little Italy and the Uptown community to the San Diego Bay. On-street parking will be removed on both sides of Grape Street to accommodate the cycle track and an additional vehicular travel lane. The cycle track will intersect with north-south cycle tracks at State Street and Pacific Highway, and the existing multi-use path adjacent to Harbor Drive.

### Beech Street

A two-way cycle track will run along the south side of Beech Street from Pacific Highway to Sixth

Avenue. The cycle track will provide an east-west connection for the Little Italy and Cortez Hill neighborhoods and access to the Green Line Trolley between Pacific Highway and Kettner Boulevard. Both vehicular travel lanes will be maintained. In some instances angled parking will be converted to parallel parking to accommodate the cycle track. The cycle track will intersect with north-south cycle tracks at Pacific Highway, State Street, Fourth Avenue, Fifth Avenue, and Sixth Avenue.

### B Street

A two-way cycle track will run along the south side of B Street from Third Avenue to Sixth Avenue. This segment serves to continue the east-west connection through the center of Downtown with Broadway serving the western side of the community and C Street serving the east. B Street currently has three westbound vehicular travel lanes. One lane will be removed to accommodate the cycle track. The cycle track will intersect with north-south cycle tracks at Third Avenue, Fourth Avenue, Fifth Avenue, and Sixth Avenue.

### C Street

A two-way cycle track will run along the north side of C Street from Sixth Avenue to Interstate 5. This segment serves to continue the east-west connection through the center of Downtown with Broadway and B Street providing connections west of Sixth Avenue. Similar to Park Boulevard, the C Street cycle track will also serve to improve safety conditions for cyclists near San Diego High School and San Diego City College where, historically, relatively higher bicycle collisions were recorded. C Street, from 6<sup>th</sup> Avenue to 10<sup>th</sup> Avenue, will be closed to vehicular traffic to accommodate the cycle track. Additionally, between 10<sup>th</sup> Avenue and Interstate 5 one of the three eastbound vehicular travel lanes will be removed. The cycle track will intersect with north-south cycle tracks at Sixth Avenue and Park Boulevard. On the block between Seventh Avenue and Eighth Avenue, explore an alternative alignment to place a one-way or two-way cycle track along the south side of the Trolley tracks as shown in **Appendix G**.

### Broadway (west of Third Avenue)

One-way cycle tracks will run along each side of Broadway from Harbor Drive to Third Avenue. This segment serves to continue the east-west connection through the center of Downtown, with B Street and C Street providing connections east of Third Avenue. This bicycle facility will improve cyclist safety along a main transit corridor with high vehicular volumes. Lane diets will be required the length of the segment to accommodate the cycle track. The cycle track will intersect with north-south cycle tracks at Pacific Highway, State Street and Third Avenue. On-going evaluation will consider the feasibility to continue this bicycle facility east to Sixth Avenue.

### J Street

A two-way cycle track will run along the south side of J Street from First Avenue to Interstate 5. The cycle track will provide an east-west connection in the southern part of Downtown through the East Village, Horton Plaza/Gaslamp Quarter, and Marina neighborhoods. Additionally, the J Street cycle track will provide access to the San Diego Central Library, Petco Park, San Diego Convention Center, and the Green Line. Both vehicular travel lanes will be maintained. In some instances angled parking will be converted to parallel parking to accommodate the cycle track and parking will be eliminated on the south side of J Street, between Seventh and Tenth avenues. The cycle track will intersect with north-south cycle tracks at Sixth Avenue and Park Boulevard.

### Future Considerations

Market Street and the entire length of Broadway were also considered for cycle tracks, however, after discussing the roadway modifications required to implement cycle tracks on these roadways with community members and other stakeholders, these facilities were ultimately left out of the recommended network. Potential cycle tracks along Market Street and Broadway were analyzed in the Downtown Mobility Plan Technical Report. These analyses provide flexibility for future implementation should community attitudes shift regarding mobility along these corridors.



## 7.2 Goals & Policies

### Street System Goals

- SS-G-1 A street typology based on functional and urban design considerations, emphasizing connections and linkages, pedestrian and cyclist comfort, transit movement, and compatibility with adjacent land uses.
- SS-G-2 An enhanced street grid that promotes flexibility of movement, preserves and/or opens view corridors, and retains the historic scale of the streets.

### Street System Policies

- SS-P-1 Implement the street typology shown in Figure 4-1 when carrying out streetscape improvements.
- SS-P-2 Prohibit and discourage any interruption of the street grid.
- SS-P-3 Forge new connections and view corridors as larger sites are redeveloped, opening rights-of-way at the waterfront, through the Civic Center and along Cedar Street, among others. Require full vehicle and pedestrian access in new connections except where precluded by existing plans and projects.
- SS-P-4 Work with appropriate transportation agencies on freeway improvements in and near the Downtown area.
- SS-P-5 Implement the proposed improvements within this Mobility Plan, with specific reductions in vehicular travel lanes on certain streets, which can then facilitate enhanced bicycle and pedestrian facilities.
- SS-P-6 Evaluate and provide specific vehicular travel lane configurations for all streets (number of travel lanes, one-way vs. two-way circulation).

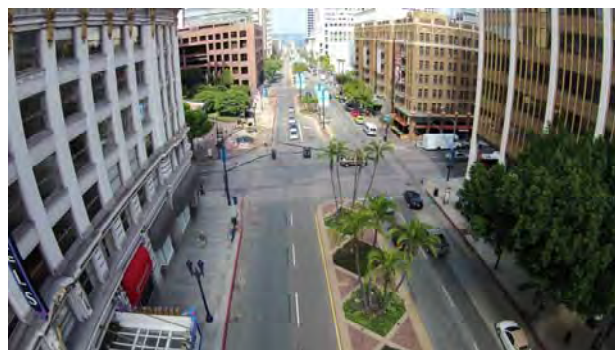
SS-P-7 Provide for sustainable street designs including storm water infiltration and reduction in storm water runoff as well as flooding.

SS-P-8 Encourage street designs that allow for temporary street closures for public and community events.

## 7.3 Street Recommendations

The street system should provide for the efficient movement of vehicles along specific corridors with enhancements to pedestrian, cycling, and parking facilities. Autoways identify Downtown streets where driving is prioritized. These roadways typically provide for high volume automobile and transit flows into, out of, and through Downtown. Autoways are intended to support these high volumes by providing maximum efficiency while also considering safety.

Figure 7-2 presents the proposed Autoways, while Figure 7-3 displays a typical Autoway cross-section.



The Downtown street system currently consists of both one- and two-way streets, with some streets alternating the permitted directions of travel.

**Figure 7-4** identifies one-way street segments proposed for conversion to two-way streets to provide for increased vehicular mobility.

Each of the street segments proposed for conversion are identified below, including the rationale for the modification:

### Third Avenue

#### (Date Street to A Street)

This segment will be modified to better align with Third Avenue south of A Street and north of Fir Street. Converting the three-lane northbound segment to two-lanes with bidirectional travel will also provide additional right-of-way needed to accommodate angled parking which will increase overall supply along this segment.

### Eighth Avenue

#### (Ash Street to G Street)

This segment of Eighth Avenue will be altered to be consistent with Eighth Avenue south of G Street. The three-lane southbound segment will be modified to provide a single lane in each direction, which will provide additional right-of-way to implement enhanced Greenway features, such as expanded sidewalk widths and increased landscaping.

### Ninth Avenue

#### (Ash Street to Market Street)

The three northbound travel lanes along this segment of Ninth Avenue will be modified to a single lane in each direction, to be consistent with the alignment south of Market Street. The modification will allow for the implementation of angled parking which will increase street parking capacity.

### E Street

#### (Fourth Avenue to 13<sup>th</sup> Street)

The three eastbound travel lanes along this segment of E Street will be modified to a single lane in each direction, to be consistent with the

alignment east of 13<sup>th</sup> Street. The modification will provide additional right-of-way to implement enhanced Greenway features, such as expanded sidewalk widths and increased landscaping.

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*The street system should provide for the efficient movement of vehicles along specific corridors with enhancements to pedestrian, cycling, and parking facilities.*

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### Road Diets

As described in Chapter 3 one of the key drivers of the mobility network development was to create a feasible system that can be implemented by repurposing and reconfiguring the existing public right-of-way to better accommodate all modes of travel. A system wide traffic operational analysis was conducted to determine which Downtown streets have excess capacity and where an auto travel lane may be removed to accommodate a Greenway, a separated bicycle facility, or angled (from parallel) on-street parking to off-set the potential parking losses associated with the implementation of cycle tracks and Greenways. The proposed road diets are displayed in Figure 3-3 and summarized in **Table 7-1**.



**Table 7-1 Proposed Road Diets**

Segment	From	To
<b>North-South Road Diets</b>		
Pacific Highway	Laurel Street	Harbor Drive
Kettner Boulevard	Ivy Street	Grape Street
Kettner Boulevard	Cedar Street	Ash Street
India Street	Beech Street	Broadway
Columbia Street	Juniper Street	Broadway
State Street	West Fir Street	Broadway
Second Avenue	Cedar Street	A Street
Third Avenue	Date Street	C Street
Fourth Avenue	Date Street	B Street
Fifth Avenue	Date Street	B Street
Sixth Avenue	Elm Street	J Street
Seventh Avenue	Ash Street	K Street
Eighth Avenue	Ash Street	J Street
Ninth Avenue	A Street	Market Street
14 <sup>th</sup> Street	E Street	Market Street
17 <sup>th</sup> Street	Market Street	J Street
<b>East-West Road Diets</b>		
Cedar Street	Second Avenue	Seventh Avenue
B Street	Third Avenue	Sixth Avenue
C Street	Tenth Avenue	Interstate 5
E Street	Fourth Avenue	14 <sup>th</sup> Street

## Road Closures

In addition to above road diets, a couple of roadway closures to vehicular traffic are also proposed to accommodate the implementation of continuous separated bicycle facilities along C Street and Park Boulevard.

- Sections of C Street, from Sixth Avenue to Tenth Avenue, will be closed to vehicular traffic. This segment currently provides a single eastbound lane. Vehicular traffic is currently prohibited west of this segment, on C Street from Second Avenue to Sixth Avenue.
- Sections of Park Boulevard, from E Street to Market Street, and Island Avenue to K Street, will be closed to vehicular traffic. These segments currently provide a single

southbound lane. Park Boulevard, from Market Street to Island Avenue, will remain open to vehicular traffic to facilitate commercial deliveries and maintain on-street parking. **Appendix G** includes a plan view graphic of this segment demonstrating the proposed alignment.

## Lane Diets

In some instances repurposing an entire vehicular travel lane is not necessary, rather a lane diet or narrowing the lanes will provide sufficient width to accommodate the recommended improvement. The proposed lane diets are listed in **Table 7-2**.

**Table 7-2 Proposed Lane Diets**

Segment	From	To
<b>North-South Lane Diets</b>		
Union Street	Date Street	Island Avenue
Third Avenue	C Street	Broadway
Eighth Avenue	Date Street	Ash Street
Ninth Avenue	Market Street	J Street
Park Boulevard	Interstate 5	C Street
Park Boulevard	Market Street	Island Avenue
13 <sup>th</sup> Street	C Street	E Street
14 <sup>th</sup> Street	C Street	E Street
14 <sup>th</sup> Street	Market Street	Commercial Street
15 <sup>th</sup> Street	C Street	Broadway
17 <sup>th</sup> Street	F Street	Market Street
17 <sup>th</sup> Street	J Street	Imperial Avenue
<b>East-West Lane Diets</b>		
Cedar Street	Pacific Highway	First Avenue
Cedar Street	Seventh Avenue	Tenth Avenue
Beech Street	Pacific Highway	Sixth Avenue
B Street	Kettner Boulevard	State Street
Broadway	Harbor Drive	Third Avenue
E Street	14 <sup>th</sup> Street	17 <sup>th</sup> Street
Island Avenue	Union Street	Interstate 5
J Street	First Avenue	Interstate 5
K Street	Third Avenue	Seventh Avenue
K Street	Park Boulevard	17 <sup>th</sup> Street

Table 13-1 Short-Range Projects

Segment	From	To
<b>Cycleways</b>		
Pacific Highway One-Way Cycle Tracks	Laurel Street	Harbor Drive
State Street Two-Way Cycle Track	Interstate 5	Market Street
Third Avenue Two-Way Cycle Track	B Street	Broadway
Fourth Avenue One-Way Cycle Track	Date Street	B Street
Fifth Avenue One-Way Cycle Track	Date Street	B Street
Sixth Avenue Two-Way Cycle Track	Beech Street	Southern Terminus
Park Boulevard One-Way Cycle Tracks	Interstate 5	C Street
Park Boulevard Two-Way Cycle Track	C Street	K Street
Beech Street Two-Way Cycle Track	Pacific Highway	Sixth Avenue
B Street Two-Way Cycle Track	Third Avenue	Sixth Avenue
C Street Two-Way Cycle Track	Sixth Avenue	Interstate 5
Broadway One-Way Cycle Tracks	Harbor Drive	Third Avenue
J Street Two-Way Cycle Track	First Avenue	Interstate 5
<b>Greenways</b>		
14 <sup>th</sup> Street Greenway	C Street	Commercial Street
6 <sup>th</sup> Avenue Greenway	Elm Street	Cedar Street
E Street Greenway	Fourth Avenue	17 <sup>th</sup> Street
<b>One-Way to Two-Way Street Conversions</b>		
Third Avenue	Interstate 5	A Street
E Street	Fourth Avenue	13 <sup>th</sup> Street
<b>Road Diets</b>		
Pacific Highway	Laurel Street	Harbor Drive
Kettner Boulevard	Ivy Street	Grape Street
Kettner Boulevard	Cedar Street	Ash Street
India Street	Beech Street	Broadway
Columbia Street	Juniper Street	Broadway
State Street	W. Fir Street	Broadway
Second Avenue	Cedar Street	A Street
Third Avenue	Date Street	C Street
Fourth Avenue	Date Street	B Street
Fifth Avenue	Date Street	B Street
Sixth Avenue	Elm Street	J Street
Seventh Avenue	Ash Street	K Street
Eighth Avenue	Ash Street	J Street
Ninth Avenue	A Street	Market Street
14 <sup>th</sup> Street	E Street	Market Street
17 <sup>th</sup> Street	Market Street	J Street
Cedar Street	Second Avenue	Seventh Avenue
B Street	Third Avenue	Sixth Avenue

Table 13-1 Short-Range Projects

Segment	From	To
C Street	Tenth Avenue	Interstate-5
E Street	Fourth Avenue	14 <sup>th</sup> Street
<b>Lane Diets</b>		
State Street	Broadway	Market Street
Union Street	Date Street	Broadway
Union Street	W. F Street	Island Avenue
Third Avenue	C Street	Broadway
Eighth Avenue	Date Street	Ash Street
Ninth Avenue	Market Street	J Street
Park Boulevard	Interstate-5	C Street
13 <sup>th</sup> Street	C Street	E Street
14 <sup>th</sup> Street	C Street	E Street
14 <sup>th</sup> Street	Market Street	Commercial Street
15 <sup>th</sup> Street	C Street	Broadway
17 <sup>th</sup> Street	F Street	Market Street
17 <sup>th</sup> Street	J Street	Imperial Avenue
Kalmia Street	Kettner Boulevard	India Street
Juniper Street	India Street	Columbia Street
Cedar Street	Pacific Highway	First Avenue
Cedar Street	Seventh Avenue	Tenth Avenue
Beech Street	Pacific Highway	Sixth Avenue
B Street	Kettner Boulevard	State Street
Broadway	Harbor Drive	Third Avenue
E Street	14 <sup>th</sup> Street	17 <sup>th</sup> Street
Island Avenue	Union Street	Interstate 5
J Street	First Avenue	Interstate 5
K Street	Third Avenue	Seventh Avenue
K Street	Park Boulevard	17 <sup>th</sup> Street
<b>Road Closures to Vehicular Traffic</b>		
C Street	Sixth Avenue	Tenth Avenue
Park Boulevard	E Street	K Street

Table 13-2 Long-Range Projects

Segment	From	To
<b>Cycleways</b>		
Hawthorn Street One-Way Cycle Track	Harbor Drive	State Street
Grape Street One-Way Cycle Track	Harbor Drive	State Street
<b>Greenways</b>		
Union Street	Date Street	Island Avenue
Cedar Street	Pacific Highway	Tenth Avenue
Island Avenue	Union Street	Interstate 5
Eighth Avenue	Date Street	J Street
<b>One-Way to Two-Way Street Conversions</b>		
Eighth Avenue	Ash Street	G Street
Ninth Avenue	Ash Street	Market Street

### 13.3 Design Concepts

This section serves to demonstrate how the planned improvements will be accommodated along each roadway. Additional emphasis is placed on intersection operations along Cycleways to help ensure safety for roadway users where a cycle track crosses through an intersection.

#### Cycleway Conceptual Designs

Intersections require additional consideration when evaluating and designing bicycle facilities. Intersection designs along Cycleways should serve to reduce conflicts between bicyclists and vehicles by providing for improved visibility, a clearly defined right-of-way for each mode, and by facilitating predictable movements.

A variety of intersection treatments can be used to help facilitate safe operations at intersections, including bicycle signalization, lead bicycle intervals at signalized intersections, bike boxes, intersection crossing markings, and two-stage turn queue boxes.

Acknowledging the varying characteristics related to intersections and intersection approaches within Downtown, an in depth inventory analysis and intersection design guide was created to facilitate Cycleway implementation. Each intersection with a cycle track was grouped into one of twenty categories, identified based on the type of cycle

track (one-way or two-way), roadway and intersecting roadway vehicle direction of travel (one-way or two-way), presence of a cycle track on the intersecting roadway, and the traffic control.

**Table 13-3** presents each of the intersection types along with the frequency of its occurrence Downtown. The intersection IDs presented in **Figure 13-1** correspond with Table 13-3, categorizing each intersection where a cycle track is found.

Additionally, Figure 13-1 identifies intersections, denoted in red, that provide conceptual designs, which are provided in **Appendix F**. Typical roadway cross-sections are also included in the Downtown San Diego Mobility Plan Technical Report.

---

*Intersection designs along Cycleways should serve to reduce conflicts between bicyclists and vehicles by providing for improved visibility, a clearly defined right-of-way for each mode, and by facilitating predictable movements.*

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Table 13-3 Cycle Track Intersection Types

ID	Type of Cycle Track	Primary Roadway	Intersecting Roadway	Cycle Track on Intersecting Roadway	Cycle Track Traffic Control	Frequency
A	One-Way / One-Direction	One-Way	One-Way	Two-Way	Signalized	4
B	One-Way / Two-Directions	Two-Way	One-Way	One-Way / One Direction	Signalized	2
C	One-Way / One-Direction	One-Way	One-Way	None	Signalized	11
D	Two-Way	One-Way	Two-Way	None	All-Way Stop	4
E	One-Way / One-Direction	One-Way	Two-Way	None	Signalized	5
F	Two-Way	Two-Way	One-Way	None	All-Way Stop	7
G	Two-Way	One-Way	Two-Way	Two-Way	All-Way Stop	2
H	Two-Way	Two-Way	Two-Way	None	All-Way Stop	8
I	Two-Way	Two-Way	One-Way	None	Signalized	7
J	One-Way / One-Direction	One-Way	Two-Way	Two-Way	Signalized	2
K	Two-Way	One-Way	Two-Way	Two-Way	Signalized	2
L	Two-Way	One-Way	One-Way	Two-Way	Signalized	2
M	Two-Way	Transit-Only	One-Way	None	Signalized	3
N	Two-Way	One-Way	One-Way / Two-Way	One-Way / Two-Directions & Two-Way	Signalized	1
O	One-Way / Two Directions	Two-Way	Two-Way	One-Way / Two – Directions	Signalized	1
P	One-Way / Two-Directions	Two-Way	One-Way / Two-Way	Two-Way	Signalized	1
Q	One-Way / Two-Directions	Two-Way	One-Way	None	Signalized	5
R	One-Way / Two-Directions	Two-Way	Two-Way	None	Signalized	7
S	One-Way / Two-Directions	Two-Way	Two-Way	Two-Way	Signalized	1
T	Two-Way	One-Way	Two-Way	None	Signalized	6
U	Two-Way	One-Way	One-Way	None	Signalized	11
V	Two-Way	One-Way	One-Way	None	All-Way Stop	2



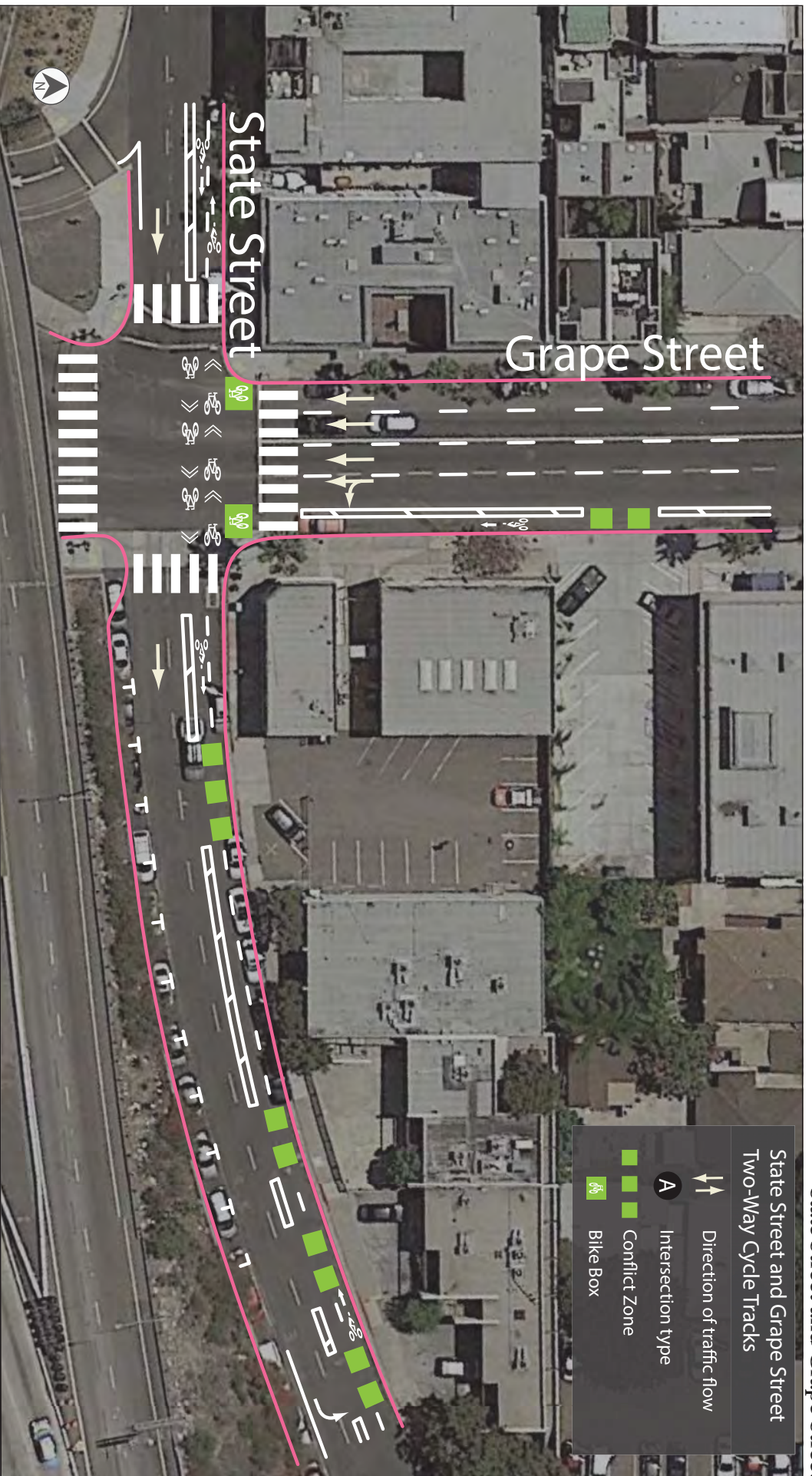


Project Description

- Hawthorne Street: One-way cycle track on the left side of the vehicular travel lanes.
- State Street: Two-way cycle track along the westside.
- Signal modifications are proposed to accommodate cyclists.
- Curb extensions are proposed where feasible.

Note that conceptual plan illustrations are provided to demonstrate general feasibility of the subject proposal only. Actual improvements will require additional engineering studies and design work and shall be to the satisfaction of the City Engineer.





### Project Description

- Grape Street: One-way cycle track on the left side of the vehicular travel lanes.
- State Street: Two-way cycle track along the westside of State Street.
- Signal modifications are proposed to accommodate cyclists.
- Curb extensions are proposed where feasible.

Note that conceptual plan illustrations are provided to demonstrate general feasibility of the subject proposal only. Actual improvements will require additional engineering studies and design work and shall be to the satisfaction of the City Engineer.

State Street and Grape Street  
Intersection Concept Design



## Pacific Highway and Grape Street



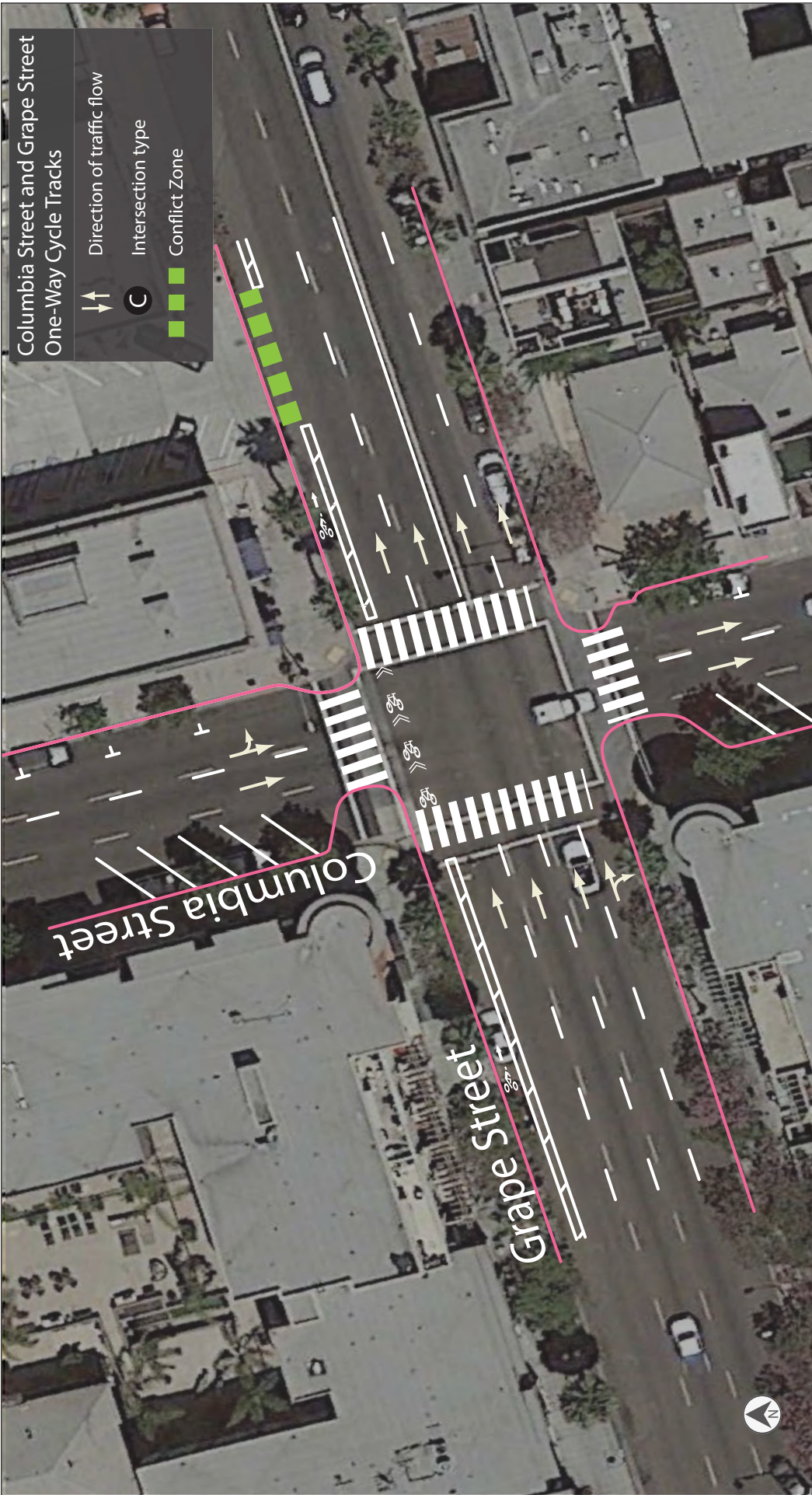
### Project Description

- Grape Street: Eastbound one-way cycle on the north side of the roadway.
- Pacific Highway: One-way cycle tracks, separated by parallel parking in both directions.
- Signal modifications are proposed to accommodate cyclists.

Note that conceptual plan illustrations are provided to demonstrate general feasibility of the subject proposal only. Actual improvements will require additional engineering studies and design work and shall be to the satisfaction of the City Engineer.

### Pacific Highway and Grape Street Intersection Concept Design





Project Description

- Grape Street: One-way cycle track on the left side of the vehicular travel lanes.
- Signal modifications are proposed to accommodate cyclists.
- Curb extensions are proposed where feasible.

Note that conceptual plan illustrations are provided to demonstrate general feasibility of the subject proposal only. Actual improvements will require additional engineering studies and design work and shall be to the satisfaction of the City Engineer.

Figure 3-2 Planned Downtown Mobility Network



Figure 3-3 Complete Streets Recommendations





Figure 3-4 Road Diets Accommodating Complete Streets

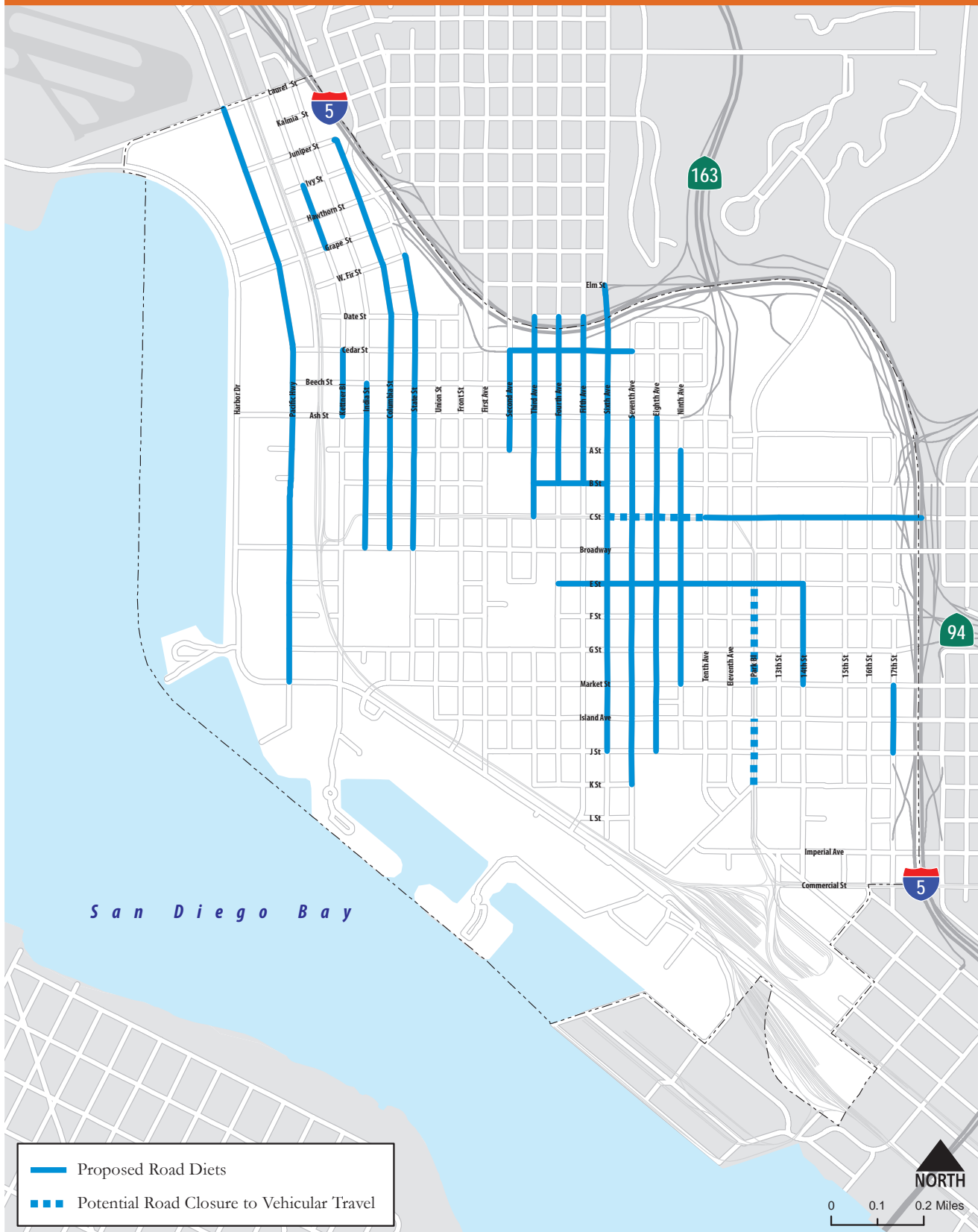


Figure 5-2 Proposed Bicycle Network





Figure 5-7 Proposed Cycle Track Network

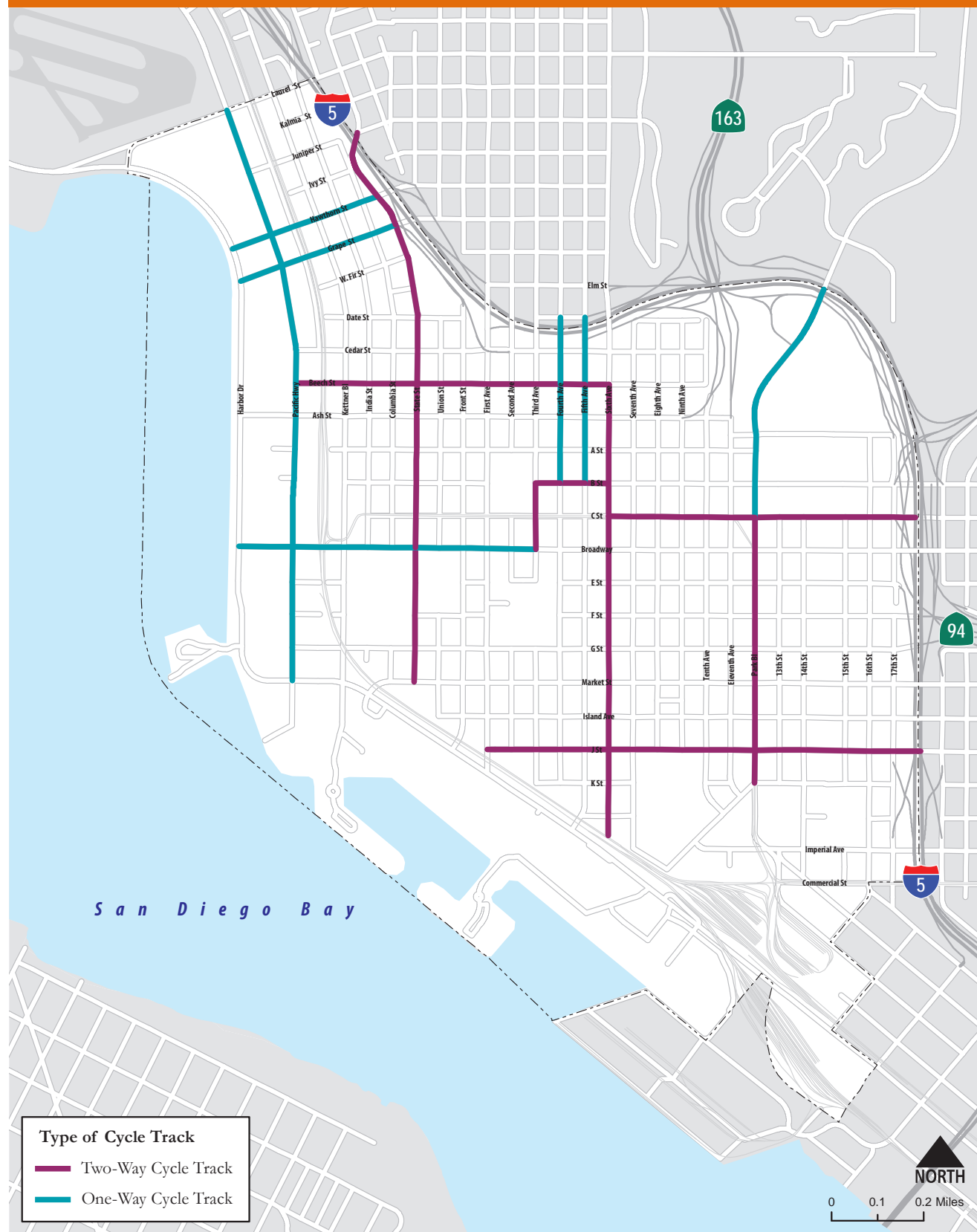


Figure 6-2 2050 Revenue Constrained Transit Network

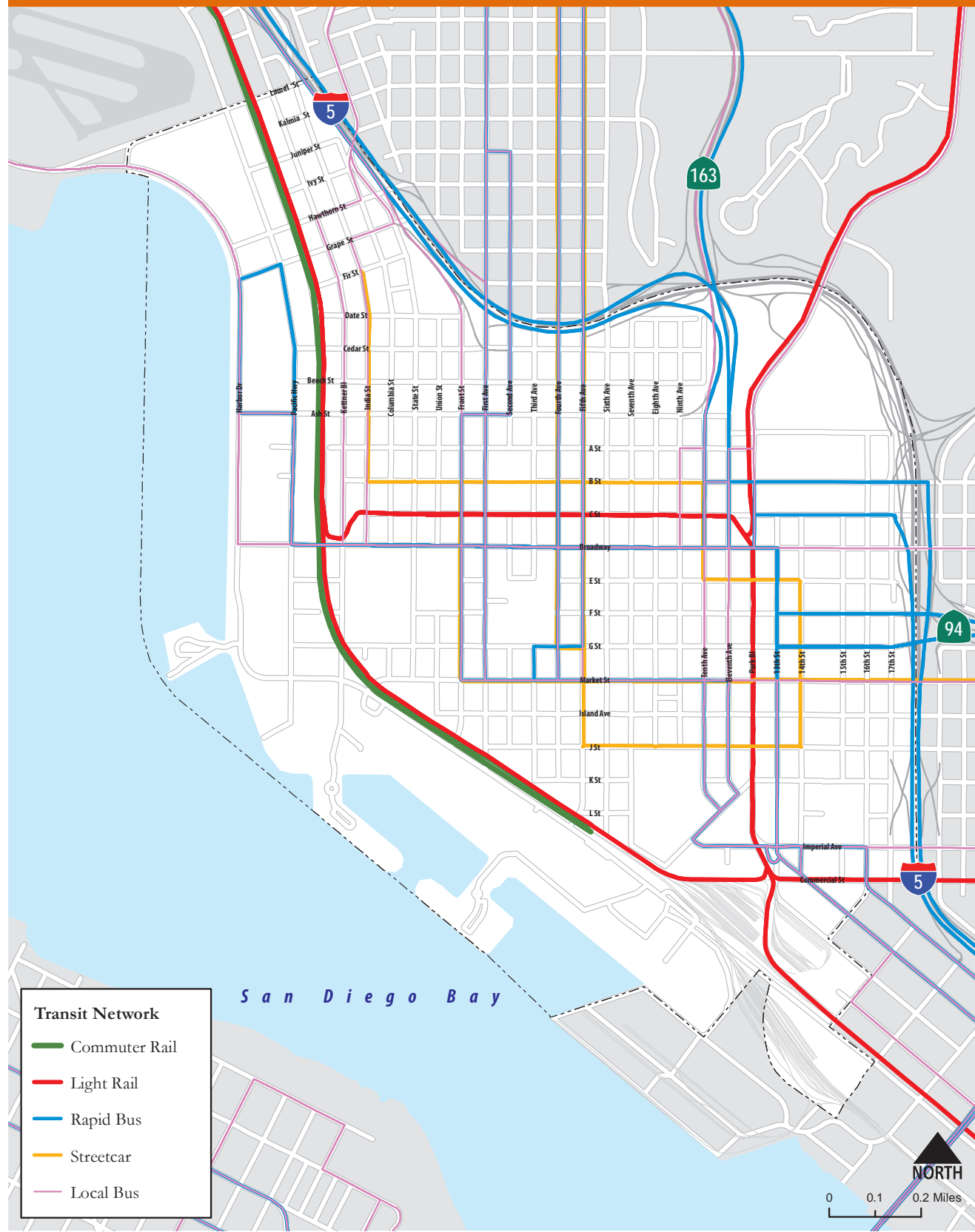


Figure 6-3 Proposed Transitways



Figure 7-2 Proposed Autoways



**Table 7-1 Proposed Road Diets**

Segment	From	To
<b>North-South Road Diets</b>		
Pacific Highway	Laurel Street	Harbor Drive
Kettner Boulevard	Ivy Street	Grape Street
Kettner Boulevard	Cedar Street	Ash Street
India Street	Beech Street	Broadway
Columbia Street	Juniper Street	Broadway
State Street	West Fir Street	Broadway
Second Avenue	Cedar Street	A Street
Third Avenue	Date Street	C Street
Fourth Avenue	Date Street	B Street
Fifth Avenue	Date Street	B Street
Sixth Avenue	Elm Street	J Street
Seventh Avenue	Ash Street	K Street
Eighth Avenue	Ash Street	J Street
Ninth Avenue	A Street	Market Street
14 <sup>th</sup> Street	E Street	Market Street
17 <sup>th</sup> Street	Market Street	J Street
<b>East-West Road Diets</b>		
Cedar Street	Second Avenue	Seventh Avenue
B Street	Third Avenue	Sixth Avenue
C Street	Tenth Avenue	Interstate 5
E Street	Fourth Avenue	14 <sup>th</sup> Street

## Road Closures

In addition to above road diets, a couple of roadway closures to vehicular traffic are also proposed to accommodate the implementation of continuous separated bicycle facilities along C Street and Park Boulevard.

- Sections of C Street, from Sixth Avenue to Tenth Avenue, will be closed to vehicular traffic. This segment currently provides a single eastbound lane. Vehicular traffic is currently prohibited west of this segment, on C Street from Second Avenue to Sixth Avenue.
- Sections of Park Boulevard, from E Street to Market Street, and Island Avenue to K Street, will be closed to vehicular traffic. These segments currently provide a single

southbound lane. Park Boulevard, from Market Street to Island Avenue, will remain open to vehicular traffic to facilitate commercial deliveries and maintain on-street parking. **Appendix G** includes a plan view graphic of this segment demonstrating the proposed alignment.

## Lane Diets

In some instances repurposing an entire vehicular travel lane is not necessary, rather a lane diet or narrowing the lanes will provide sufficient width to accommodate the recommended improvement. The proposed lane diets are listed in **Table 7-2**.

Table 13-1 Short-Range Projects

Segment	From	To
<b>Cycleways</b>		
Pacific Highway One-Way Cycle Tracks	Laurel Street	Harbor Drive
State Street Two-Way Cycle Track	Interstate 5	Market Street
Third Avenue Two-Way Cycle Track	B Street	Broadway
Fourth Avenue One-Way Cycle Track	Date Street	B Street
Fifth Avenue One-Way Cycle Track	Date Street	B Street
Sixth Avenue Two-Way Cycle Track	Beech Street	Southern Terminus
Park Boulevard One-Way Cycle Tracks	Interstate 5	C Street
Park Boulevard Two-Way Cycle Track	C Street	K Street
Beech Street Two-Way Cycle Track	Pacific Highway	Sixth Avenue
B Street Two-Way Cycle Track	Third Avenue	Sixth Avenue
C Street Two-Way Cycle Track	Sixth Avenue	Interstate 5
Broadway One-Way Cycle Tracks	Harbor Drive	Third Avenue
J Street Two-Way Cycle Track	First Avenue	Interstate 5
<b>Greenways</b>		
14 <sup>th</sup> Street Greenway	C Street	Commercial Street
6 <sup>th</sup> Avenue Greenway	Elm Street	Cedar Street
E Street Greenway	Fourth Avenue	17 <sup>th</sup> Street
<b>One-Way to Two-Way Street Conversions</b>		
Third Avenue	Interstate 5	A Street
E Street	Fourth Avenue	13 <sup>th</sup> Street
<b>Road Diets</b>		
Pacific Highway	Laurel Street	Harbor Drive
Kettner Boulevard	Ivy Street	Grape Street
Kettner Boulevard	Cedar Street	Ash Street
India Street	Beech Street	Broadway
Columbia Street	Juniper Street	Broadway
State Street	W. Fir Street	Broadway
Second Avenue	Cedar Street	A Street
Third Avenue	Date Street	C Street
Fourth Avenue	Date Street	B Street
Fifth Avenue	Date Street	B Street
Sixth Avenue	Elm Street	J Street
Seventh Avenue	Ash Street	K Street
Eighth Avenue	Ash Street	J Street
Ninth Avenue	A Street	Market Street
14 <sup>th</sup> Street	E Street	Market Street
17 <sup>th</sup> Street	Market Street	J Street
Cedar Street	Second Avenue	Seventh Avenue
B Street	Third Avenue	Sixth Avenue

**Table 13-1 Short-Range Projects**

Segment	From	To
C Street	Tenth Avenue	Interstate-5
E Street	Fourth Avenue	14 <sup>th</sup> Street
<b>Lane Diets</b>		
State Street	Broadway	Market Street
Union Street	Date Street	Broadway
Union Street	W. F Street	Island Avenue
Third Avenue	C Street	Broadway
Eighth Avenue	Date Street	Ash Street
Ninth Avenue	Market Street	J Street
Park Boulevard	Interstate-5	C Street
13 <sup>th</sup> Street	C Street	E Street
14 <sup>th</sup> Street	C Street	E Street
14 <sup>th</sup> Street	Market Street	Commercial Street
15 <sup>th</sup> Street	C Street	Broadway
17 <sup>th</sup> Street	F Street	Market Street
17 <sup>th</sup> Street	J Street	Imperial Avenue
Kalmia Street	Kettner Boulevard	India Street
Juniper Street	India Street	Columbia Street
Cedar Street	Pacific Highway	First Avenue
Cedar Street	Seventh Avenue	Tenth Avenue
Beech Street	Pacific Highway	Sixth Avenue
B Street	Kettner Boulevard	State Street
Broadway	Harbor Drive	Third Avenue
E Street	14 <sup>th</sup> Street	17 <sup>th</sup> Street
Island Avenue	Union Street	Interstate 5
J Street	First Avenue	Interstate 5
K Street	Third Avenue	Seventh Avenue
K Street	Park Boulevard	17 <sup>th</sup> Street
<b>Road Closures to Vehicular Traffic</b>		
C Street	Sixth Avenue	Tenth Avenue
Park Boulevard	E Street	K Street



Table 13-2 Long-Range Projects

Segment	From	To
<b>Cycleways</b>		
Hawthorn Street One-Way Cycle Track	Harbor Drive	State Street
Grape Street One-Way Cycle Track	Harbor Drive	State Street
<b>Greenways</b>		
Union Street	Date Street	Island Avenue
Cedar Street	Pacific Highway	Tenth Avenue
Island Avenue	Union Street	Interstate 5
Eighth Avenue	Date Street	J Street
<b>One-Way to Two-Way Street Conversions</b>		
Eighth Avenue	Ash Street	G Street
Ninth Avenue	Ash Street	Market Street

### 13.3 Design Concepts

This section serves to demonstrate how the planned improvements will be accommodated along each roadway. Additional emphasis is placed on intersection operations along Cycleways to help ensure safety for roadway users where a cycle track crosses through an intersection.

#### Cycleway Conceptual Designs

Intersections require additional consideration when evaluating and designing bicycle facilities. Intersection designs along Cycleways should serve to reduce conflicts between bicyclists and vehicles by providing for improved visibility, a clearly defined right-of-way for each mode, and by facilitating predictable movements.

A variety of intersection treatments can be used to help facilitate safe operations at intersections, including bicycle signalization, lead bicycle intervals at signalized intersections, bike boxes, intersection crossing markings, and two-stage turn queue boxes.

Acknowledging the varying characteristics related to intersections and intersection approaches within Downtown, an in depth inventory analysis and intersection design guide was created to facilitate Cycleway implementation. Each intersection with a cycle track was grouped into one of twenty categories, identified based on the type of cycle

track (one-way or two-way), roadway and intersecting roadway vehicle direction of travel (one-way or two-way), presence of a cycle track on the intersecting roadway, and the traffic control.

**Table 13-3** presents each of the intersection types along with the frequency of its occurrence Downtown. The intersection IDs presented in **Figure 13-1** correspond with Table 13-3, categorizing each intersection where a cycle track is found.

Additionally, Figure 13-1 identifies intersections, denoted in red, that provide conceptual designs, which are provided in **Appendix F**. Typical roadway cross-sections are also included in the Downtown San Diego Mobility Plan Technical Report.

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*Intersection designs along Cycleways should serve to reduce conflicts between bicyclists and vehicles by providing for improved visibility, a clearly defined right-of-way for each mode, and by facilitating predictable movements.*

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Table 13-5 Funding Sources

Funding Sources & Agency	Funding Requirements	Relevant Eligible Activities
<b>Transportation Alternatives Program USDOT FHWA</b> Administered by Caltrans	20% local match required.	Construction, planning, and design of on-road and off-road trail facilities for non-motorized users, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting, ADA projects, and other safety-related infrastructure.
<b>Active Transportation Program</b> Caltrans	Local match not required.	Capital improvements, including the environmental, design, right-of-way, and construction phases of a capital project.
<b>TransNet Active Transportation Program</b> SANDAG	All applications must include a Resolution passed by the local city council or governing board. The resolution must detail the source(s) of matching funds.	Bicycle facilities and connectivity improvements, pedestrian and walkable community projects, bicycle and pedestrian safety projects and programs, and traffic calming projects.
<b>TransNet Smart Growth Incentive Program</b> SANDAG	All applications must include a Resolution passed by the local city council or governing board. The resolution must detail the source(s) of matching funds.	Local agency salaries, professional services, preliminary engineering, right-of-way acquisition, construction, project management costs, and other direct expenses incurred on behalf of the project.
<b>Storm Water Grant Program (SWGPP)</b> California Environmental Protection Agency – State Water Resources Control Board	Water Code section 10563 requires public agencies to develop a Storm Water Resource Plan as a condition of receiving grant funds for storm water and dry weather runoff capture projects.	Implementation – Multi-benefit storm water management projects such as green infrastructure, rainwater and storm water capture projects. Planning – Develop Storm Water Resource Plans.
<b>Downtown Parking District</b> City of San Diego / Civic San Diego	Council Policy 100-18 provides direction on Community Parking Districts and the allocation of collected revenues.	Parking District revenues may be used to implement parking lots and structures, related landscaping, and mobility enhancements facilitating the use of alternative forms of transportation to reduce parking demand including, but not limited to, bike parking, bike facilities, pedestrian ramps, crossings, pop-outs, sidewalks, countdown indicators, signage, and shuttle stops.
<b>General Fund</b> City of San Diego / Civic San Diego	The City of San Diego adopts a budget each June including allocations for General Fund expenditures.	The FY 2016 Adopted General Fund expenditures budget includes allocations to repairing streets and investing in infrastructure such as parks, sidewalks, street lights, bicycle facilities, roads, ADA access, traffic signals, and storm water.
<b>Development Impact Fees</b> City of San Diego / Civic San Diego	Improvement must be identified in the Public Facilities Financing Plan.	Development Impact Fees (DIF) are collected to mitigate development impacts through financing provisions for public facilities, such as street, transit, bicycle and pedestrian improvements, promenades, and below grade parking structures.
<b>Developer Obligations</b> City of San Diego / Civic San Diego	Project must be the result of a direct impact or a frontage improvement imposed by a development project.	Facilities directly impacted by, or fronting, a development project.

## **Midway-Pacific Highway and Old Town Communities Mobility Report Attachments**

### **Transit Priority Improvements**

*Pacific Highway* - Pacific Highway serves several express bus routes that link multiple communities. It is recommended that, as Pacific Highway is redeveloped, transit priority measures such as queue jumper lanes and transit priority signals be implemented at all signalized intersections along Pacific Highway between Taylor Street and Laurel Street.

*Rosecrans Street* – Rosecrans Street east of Camino Del Rio West currently serves four MTS bus Routes (8, 9, 28 and 35). A queue jumper lane and transit signal have already been implemented on the eastbound approach at the Taylor Street / Rosecrans Street and Pacific Highway intersection. Similar transit priority improvements should also be examined for feasibility at the Rosecrans Street / Camino Del Rio West / Sports Arena Boulevard intersection to allow westbound buses (Routes 8, 9 and 35) to turn right onto Sports Arena Boulevard and avoid congestion.

*New Roadway Connections* – The proposed new roadway connections can serve as alternative east/west routes for busses traveling through the community. Rerouting to these new facilities, if possible, may help avoid the congestion on Rosecrans Street. It is recommended that after the construction of any of the new roadways, the City of San Diego coordinate with MTS to examine opportunities for bus rerouting.

## **3.6 Currently Planned Improvements**

The following section outlines the mobility improvements that are currently planned within the Midway-Pacific Highway community. Some improvements were too minor to incorporate at the community plan level, while others are mitigation measures from projects within the area and are not the responsibility of the community plan. Additionally, the pending improvements contained within the existing community Public Facilities Financing Plan are outlined and identified whether they are consistent with the Preferred Plan.

### **3.6.1 Auto**

*West Mission Bay Drive Bridge over San Diego River, CIP Project S00871* – the proposed City project will replace the existing bridge with a 6-lane bridge having a northbound and southbound Class I bicycle facility and pedestrian sidewalks. The project is in the final design phase and construction is estimated to start in July 2017. Improvements from this project were analyzed and its design was considered to develop recommendations in this study.

*Midway/Pacific Highway Corridor Public Facilities Financing Plan, 2004* – this document contains several roadway improvements that have not yet been completed. It should be noted that all of these improvements are unfunded and currently not scheduled for implementation.

*Signal Modifications:*

- Barnett Avenue / Midway Drive (Project T7) – *Improvement has been completed and is consistent with the Preferred Plan.*

- Pacific Highway / West Washington Street (Project T29) – *Improvement is consistent the Preferred Plan.*

#### *Extensions/New Streets:*

- Extension of Barnett Avenue from Pacific Highway to Old Town Avenue (Project T8) – *Improvement is no longer recommended under the Preferred Plan.*
- Extension of Kemper Street as a four-lane collector from Sports Arena Boulevard to Hancock Street (Project T14) – *Improvement changed under the Preferred Plan.*
- New four-lane collector street connecting Sports Arena Boulevard and Midway Drive (Project T13) – *Improvement changed under the Preferred Plan.*

#### *Street Widening:*

- Improve Kurtz Street to a four-lane major between Rosecrans Street and Pacific Highway (Project T15) – *Improvement changed under the Preferred Plan.*
- Improve Sports Arena Boulevard to a four-lane collector between Rosecrans Street and Pacific Highway (Project T16) – *Improvement changed under the Preferred Plan.*
- *Add Project T23 and state whether improvement has changed under the Preferred Plan (we did not assumed it has in our cost estimating).*

#### *Intersection Improvements*

- Midway Drive / Sports Arena Boulevard (Project T17) – *Improvement changed under the Preferred Plan.*

Several roadway facility projects have been identified by the City of San Diego and are included on their Unfunded Transportation Needs List (8/5/2014). A list of the roadway related improvements located in the Midway-Pacific Highway Community is included in **Appendix B**. It should be noted that this list is updated on a regular basis and **Appendix B** only reflects a snapshot of the needs and planned improvements throughout the community at the time when this report was prepared.

### **3.6.2 Pedestrian**

#### **Public Facilities Financing Plans**

The adopted Public Facilities Financing Plan for the Midway-Pacific Highway community currently contains planned pedestrian improvements that have not yet been completed, as follows:

- Install / upgrade 169 curb ramps to meet ADA standards (T25) – These improvements are currently not scheduled or funded. *Improvement is consistent with the Preferred Plan.*

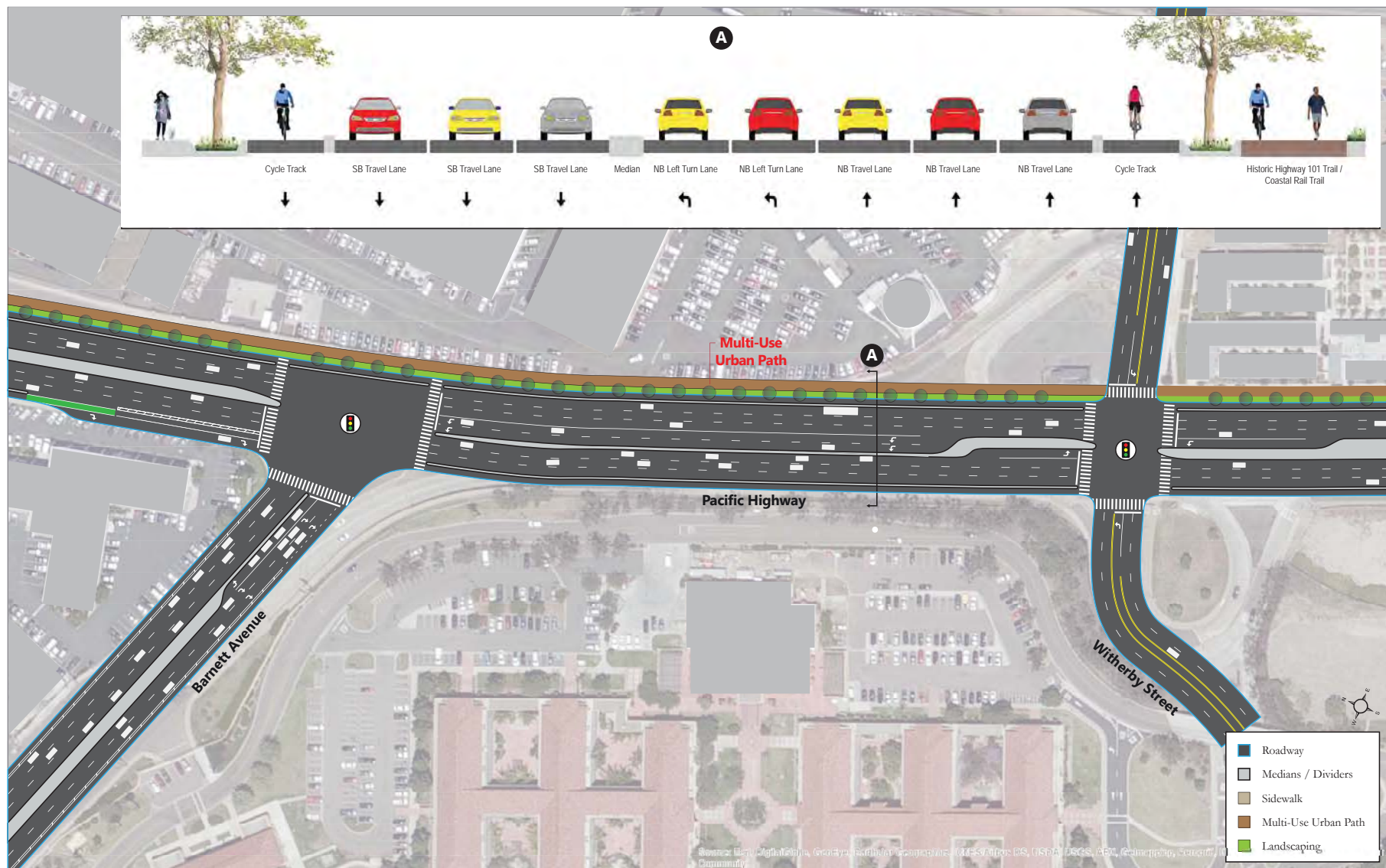
Several pedestrian facility projects have been identified by the City of San Diego and are included on their Unfunded Transportation Needs List (8/5/2014). A list of the pedestrian improvements located in the Midway-Pacific Highway Community is included in **Appendix B**. It should be noted that this list is updated on a regular basis and **Appendix B** only reflects a snapshot of the needs and planned improvements throughout the community at the time when this report was prepared.

### **3.6.3 Bicycle**

The City of San Diego's Transportation and Stormwater Department is currently resurfacing Barnett Avenue between Midway Drive and Pacific Coast Highway. The resurfaced pavement will include striping for a new Class II bicycle lane along the north side of Barnett Avenue between Pacific Highway and Midway Drive and green paint in areas of potential conflict zones between vehicular and bicycle traffic. The resurfacing project maintains the existing Class II bicycle facilities in this area on both sides of Barnett Avenue and enhances each facility with a 2' buffer on both sides of the roadway.

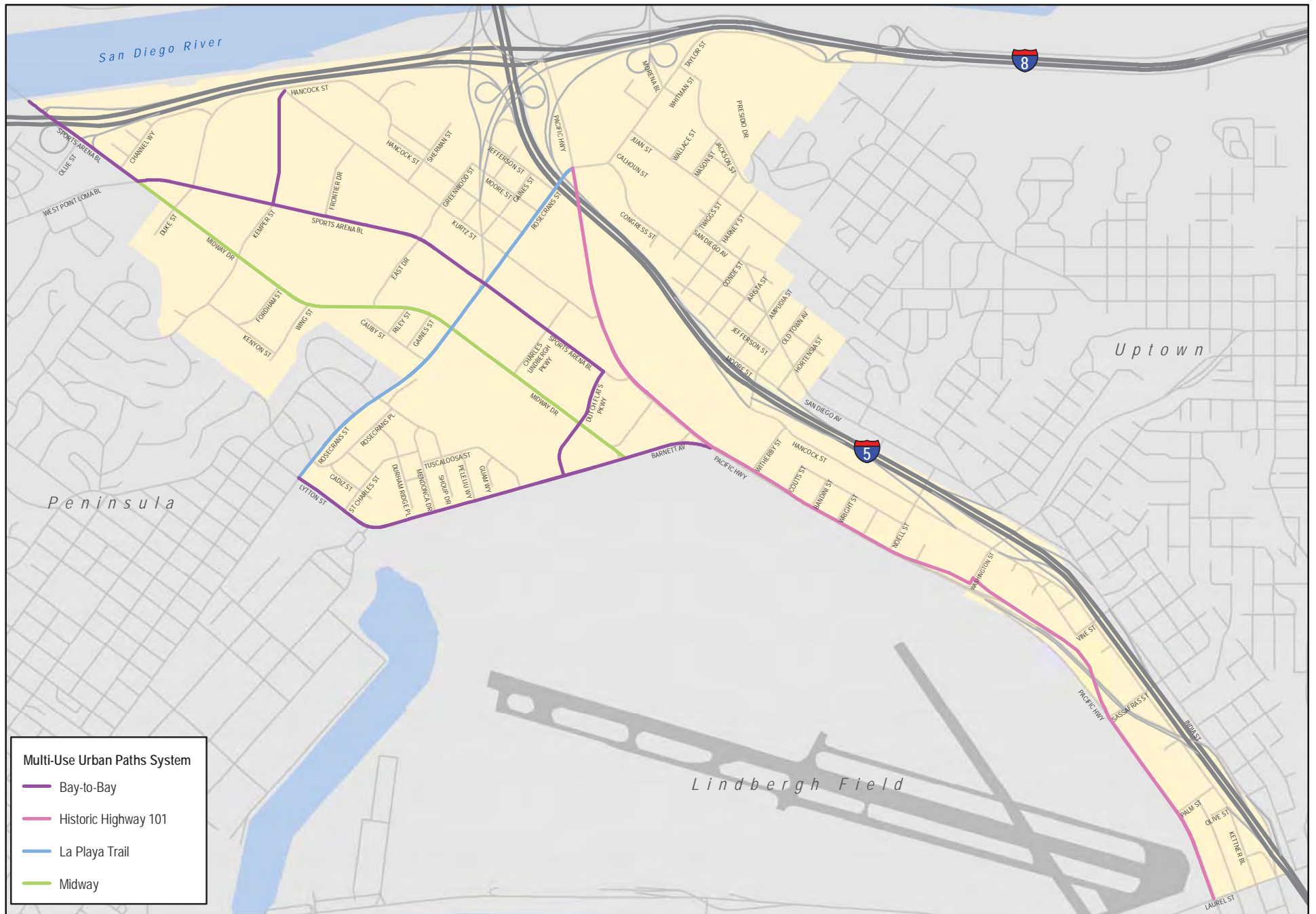
### **3.6.4 Transit**

As noted in section 3.5.2 the Preferred Plan is consistent with SANDAG's *San Diego Forward, The Regional Plan* (Adopted October 2015).



This graphic is for conceptual purposes only. Further engineering study would be required at the project level prior to implementation.

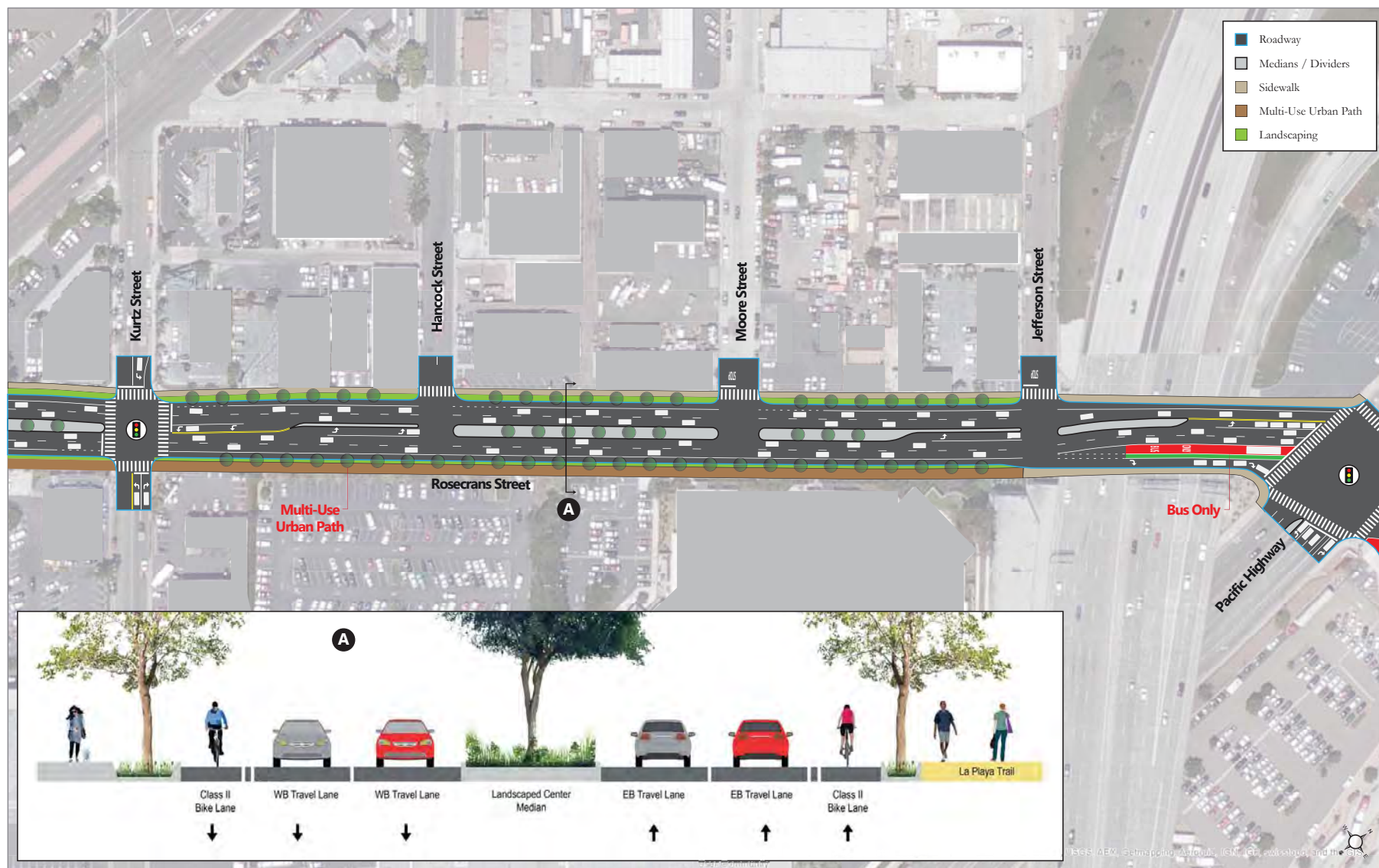






This graphic is for conceptual purposes only. Further engineering study would be required at the project level prior to implementation.





This graphic is for conceptual purposes only. Further engineering study would be required at the project level prior to implementation.

Figure 3-7  
Rosecrans Street with La Playa Trail -  
East of Sports Arena Boulevard

the new Charles Lindbergh Parkway and Enterprise Street. Dutch Flats Parkway will be constructed as a two-lane collector with a continuous left-turn lane.

It should be noted that implementation of these new roadway segments would necessitate additional right-of-way and most likely require the redevelopment of adjacent properties. All roadways will be designed in accordance with the *City of San Diego Street Design Manual* and their corresponding classification. A summary of the roadway improvements in the Midway-Pacific Highway community is presented in **Table 3.1**.

**Table 3.1 Summary of Roadway Improvements**

Roadway	Segment	Existing Configuration	Recommended Classification
<b>Segment Modifications</b>			
Lytton St / Barnett Ave	Rosecrans St and Midway Dr	4-Lane Collector W/ CLTL	4-Lane Major
Sports Arena Blvd	Interstate 8 and Rosecrans St	5-Lane Major	6-Lane Major
Sports Arena Blvd	Rosecrans St and Pacific Hwy	Sub-Collector	2-Lane Collector W/ CLTL
Kurtz St	Rosecrans St and Pacific Hwy	2-Lane Collector	2-Lane Collector W/ CLTL
Rosecrans St	Lytton St and Sports Arena Blvd	6-Lane Major	6-Lane Prime
Rosecrans St	Sports Arena Blvd and Taylor St	4-Lane Collector W/ CLTL	4-Lane Major
Hancock St	Kurtz St and Rosecrans St	2-Lane Collector (One-Way)	3-Lane Major (One-Way)
Hancock St	Old Town Ave and Witherby St	2-Lane Collector	4-Lane Collector
Barnett Ave	Midway Dr and Pacific Hwy	4-Lane Major	6-Lane Prime
W. Mission Bay Dr	I-8 WB Ramps and I-8 EB Ramps	5-Lane Prime	6-Lane Prime
<b>New Roadways</b>			
Kemper St	Sports Arena Blvd and Kurtz St	Does Not Exist	2-Lane Collector W/CLTL
Frontier Dr	Sports Arena Blvd and Kurtz St	Does Not Exist	2-Lane Collector W/ CLTL
Greenwood St	Kurtz St and Sports Arena Blvd	Does Not Exist	2-Lane Collector
Charles Lindbergh Pkwy	Kurtz St and Midway Dr	Does Not Exist	2-Lane Collector W/ CLTL
Dutch Flats Pkwy	Sports Arena Blvd and Barnett Ave	Does Not Exist	2-Lane Collector W/ CLTL

Source: Chen Ryan Associates (June 2016)

## Intersections

### *Rosecrans Street / Sports Arena Boulevard / Camino Del Rio West:*

- Remove the southbound free right-turn movement from Camino Del Rio West onto Sports Arena Boulevard and replace it with an exclusive right-turn lane.
- Allow southbound movements to continue on Sports Arena Boulevard through the intersection. It should be noted that vehicles would still not be able to access the southern leg of Sports Arena Boulevard from westbound Rosecrans Street or southwest bound Camino del Rio West.

**Table 3.2 Summary of Intersection Improvements**

No.	Intersection	Improvement	Preferred Plan Control
8	Midway Drive / Charles Lindbergh Parkway	New intersection	Roundabout/Signalized
12	Kemper Street / Sports Arena Boulevard	Add north leg	Signalized
13	Sports Arena Boulevard / Frontier Drive	Add north leg	Signalized
14	Sports Arena Boulevard / Greenwood Street	Add north leg	Signalized
16	Sports Arena Boulevard / Charles Lindbergh Parkway	New intersection	Roundabout/Signalized
17	Sports Arena Boulevard / Pacific Highway	Relocate intersection and signalize	Signalized
18	Kurtz Street / Hancock Street / Kemper Street	Add south leg and signalize	Signalized
21	Kurtz Street / Pacific Highway	Signalize	Signalized
61	Kurtz Street / Frontier Drive	New intersection	Roundabout/SSSC
62	Kurtz Street / Greenwood Street	Add south leg and signalize	Signalized
63	Kurtz Street / Charles Lindbergh Parkway	New intersection	Roundabout/Signalized
64	Barnett Avenue / Dutch Flats Parkway	New intersection	Roundabout/Signalized
65	Midway Drive / Dutch Flats Parkway	New intersection	Roundabout/Signalized
66	Sports Arena Boulevard / Dutch Flats Parkway	New intersection	Roundabout/Signalized
N/A	Hancock Street / Greenwood Street	Signalize	Signalized

Source: Chen Ryan Associates (June 2016)

### **Freeway Improvements**

There are no freeway improvements included in the Revenue Constrained alternative of SANDAG's *San Diego Forward, The Regional Plan (Adopted October 2015)* within the vicinity of the Midway-Pacific Highway community to be completed before this plan's horizon year (Year 2035).

*I-8 / I-5 Ramp Connection* – It should be noted that the missing I-8 East to I-5 North, and I-5 South to I-8 West ramps are included in the Unconstrained Revenue scenario of the Regional Transportation Plan (RTP); therefore, there is currently no funding mechanism for these ramps and they are not included in the Preferred Plan assessment. However, these ramps are needed to enhance the regional access for the community. A policy statement should be included in the Mobility Element recommending that the City of San Diego work with SANDAG and Caltrans to implement these ramps.

*I-5 to Pacific Highway Ramps* – Ramps connecting Interstate 5 to Pacific Highway are included in the RTP; however, since there is currently no funding mechanism for these ramps they are not included in the Preferred Plan assessment. These ramps are needed to enhance the regional access for the community. A policy should be included in the Mobility Element recommending that the City of San Diego work with SANDAG and Caltrans to implement these ramps.

## **4.5.2 Transit Improvements**

SANDAG's *San Diego Forward, The Regional Plan* (Adopted October 2015), indicates that a number of transit improvements are planned for the Old Town Community, prior to this plan's Year 2035 Horizon Year, as described below.

*COASTER* – By the Year 2020, the frequency of the COASTER will be increased to every 20 minutes during peak periods and every 120 minutes during off-peak periods. The COASTER provides a commuter rail connection between the Old Town Transit Center and North County communities including Solana Beach, Encinitas and Oceanside.

*COASTER* – by the Year 2020, the COASTER line will be extended to the south and include stations at both Petco Park and the Convention Center.

*Mid-Coast Trolley Line* – The Mid-Coast Trolley will extend service from Santa Fe Depot in Downtown San Diego to the University City community, serving major activity centers such as Old Town, the University of California, San Diego (UCSD), and Westfield UTC. Construction of the Mid-Coast Trolley line is anticipated to be completed by the Year 2021.

*Local Bus Service* – Increase local bus service in key corridors to 10 minute headways programmed and scheduled for Year 2035.

*Rapid Bus Route 28* – By the Year 2035, a new rapid bus route will be implemented providing service between Point Loma and Kearny Mesa via the Old Town Transit Center.

*Rapid Bus Route 30* – By the Year 2035, a new rapid bus route will be implemented providing service between the Old Town Transit Center and Sorrento Mesa via Pacific Beach, La Jolla and UTC.

*Rapid Bus Routes 640A* – By the Year 2035, a new rapid bus route will be implemented providing service along I-5 between San Ysidro and the Old Town Transit Center, via City College downtown.

### **Transit Priority Treatments**

Taylor Street serves several regional bus routes connecting multiple communities. Therefore, it is recommended that transit priority treatments be implemented along Taylor Street to help increase transit performance. It is recommended to implement queue jumper lanes and transit priority signals in either direction at both the Taylor Street / Juan Street and Taylor Street / Morena Boulevard intersections.

## **4.6 Currently Planned Improvements**

The following section outlines the mobility improvements that are currently planned within the Old Town community. Some improvements were too minor to incorporate at the community plan level, while others are mitigation measures from projects within the area and are not the responsibility of the community plan. Additionally, the pending improvements contained within

the existing community Public Facilities Financing Plan are also outlined and identified if they are consistent with the Preferred Plan.

#### **4.6.1 Auto**

*Mid-Coast Corridor Transit Project* – The Mid-Coast Corridor and Transit Project Transportation Impacts and Mitigation Report; September 2014, identifies the following project related improvements at the Taylor Street / Rosecrans Street and Pacific Highway intersection:

- Provide second northbound right-turn lane
- Provide third eastbound through lane
- Provide second southbound left-turn lane

These improvements are designed to handle excess queuing at the intersection during gate down times. These improvements do not conflict with any improvements recommended by the Preferred Plan and have been incorporated into the future year analysis. However, since these improvements are mitigation measures for the Mid-Coast Corridor Transit Project they are not considered to be part of the Preferred Plan and should not be included in the IFS.

*Old Town Public Facilities Financing Plan, 2004* – This plan identifies the widening of Presidio Drive to allow for a right-turn lane on Taylor Street (Project T10). This improvement is unfunded and is not currently scheduled for implementation. – *The Preferred Plan does not include this improvement as a recommendation.*

#### **4.6.2 Pedestrian**

*Old Town Public Facilities Financing Plan, 2004* – Contains the following planned pedestrian improvements that have not yet been completed.

- Install / upgrade 20 curb ramps to meet ADA standards (Project T12) – These improvements are currently not scheduled or funded. – *Improvement is consistent with the Preferred Plan.*

Several pedestrian facility projects have been identified by the City of San Diego and are included on their Unfunded Transportation Needs List (8/5/2014). A list of the pedestrian improvements located in the Old Town Community are included in **Appendix B**. It should be noted that this list is updated on a regular basis and **Appendix B** only reflects a snapshot of the needs and planned improvements throughout the community at the time when this report was prepared.

*SANDAG Uptown Bikeways Project* – Phase 4 of the Uptown Bikeways project will include treatments to improve pedestrian safety (e.g., high visibility crosswalks, dual pedestrian ramps, bulb-outs). The project is located along Congress Street (from Taylor Street to San Diego Avenue) and San Diego Avenue (from Congress Street to south of Hortensia Avenue). The project is entering final design and is funded through construction. Since these improvements are funded through the Uptown Bikeways project, they should not be included in the IFS. – *Improvements are consistent with the Preferred Plan.*



### Wayfinding Signage Program

The Old Town Chamber of Commerce is currently developing a wayfinding signage program in the Old Town Community. The wayfinding signage program will standardize and brand the various wayfinding signs currently within the community and highlight paths and links for pedestrians to access the various parks and attractions within the community.

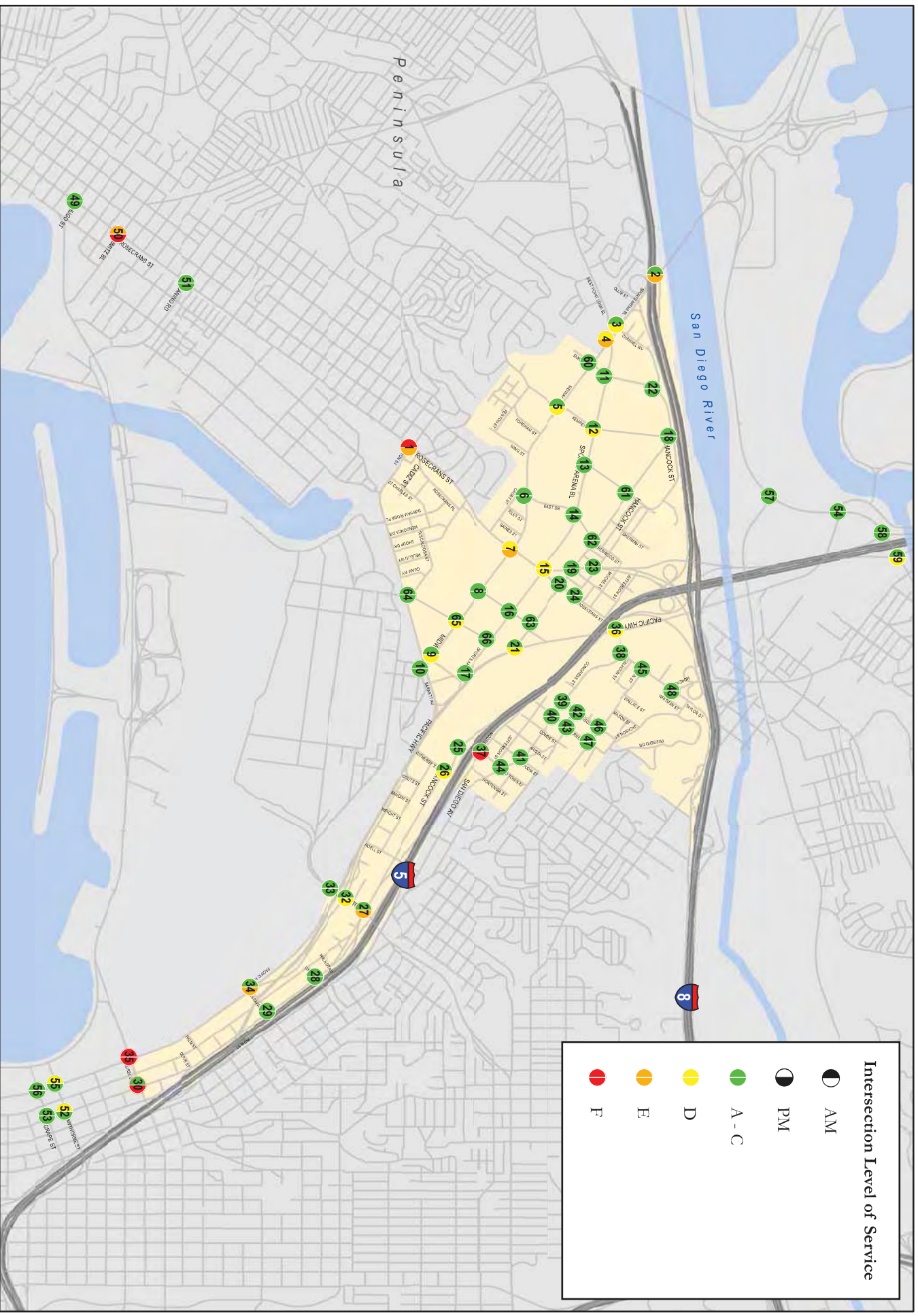
### **4.6.3 Bicycle**

*SANDAG Uptown Bikeways Project* – Phase 4 of the Uptown Bikeways project will include a mix of buffered bike lanes and shared lane markings along Congress Street (from Taylor Street to Mason Street) and shared lane markings, where not already marked (from Mason Street to San Diego Avenue). The project is currently in the design phase with specifications still being determined, therefore, it was not included as a recommendation in the Preferred Plan. Congress Street is currently designated as a Class III bicycle route, identifiable by vertical signage and shared lane markings. The Preferred Plan does not propose any modifications to the existing bicycle facility, nor does it include any recommendations that would prevent the Uptown Bikeways project from being implemented.

### **4.6.4 Transit**

As noted in section 4.5.2 the Preferred Plan is consistent with *SANDAG's San Diego Forward, The Regional Plan (Adopted October 2015)*.







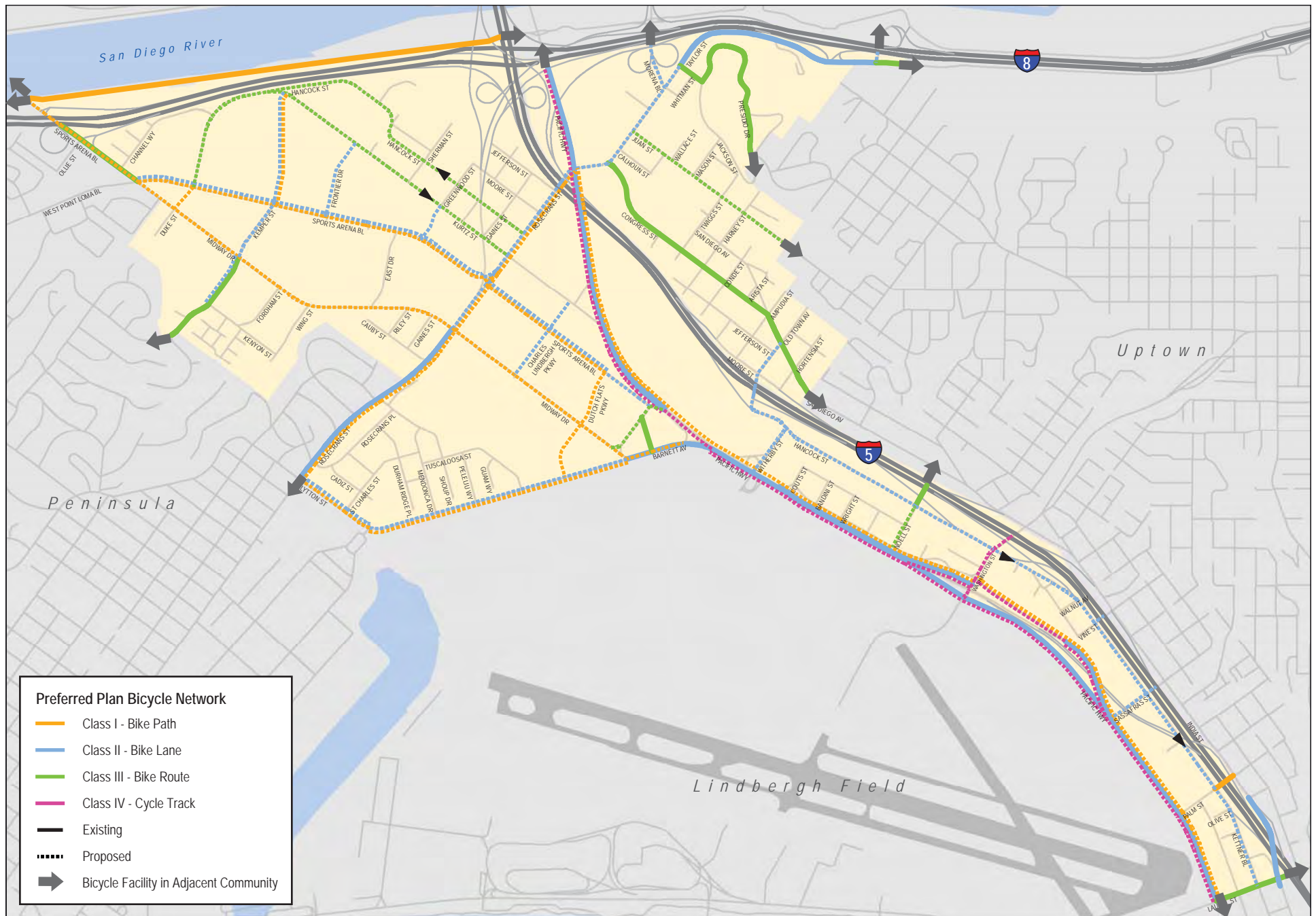


Table 6.1 Daily Roadway Segment Analysis - Preferred Plan Conditions

Roadway	From	To	Classification	Maximum Capacity at LOS E	ADT	V/C	LOS
North-South							
Midway Pacific Highway							
Lytton Street/ Barnett Ave	Rosecrans St	Midway Dr	4-Lane Major Arterial	40,000	24,400	0.61	C
Midway Dr	W. Point Loma Blvd/ Sports Arena Blvd	Kemper St	4-Lane Collector (CLTL)	30,000	23,200	0.77	D
	Kemper St	East Dr	4-Lane Collector (CLTL)	30,000	20,200	0.67	D
	East Dr	Rosecrans St	4-Lane Collector (CLTL)	30,000	26,800	0.89	E
	Rosecrans St	Barnett Ave	4-Lane Collector (CLTL)	30,000	28,300	0.94	E
	I-8 WB Ramps	I-8 EB Ramps	6-Lane Prime Arterial	60,000	45,800	0.76	C
Sports Arena Blvd	I-8 EB Ramps	W. Point Loma Blvd	6-Lane Major Arterial	50,000	39,500	0.79	C
	W. Point Loma Blvd/Midway Dr	Kemper St	6-Lane Major Arterial	50,000	20,100	0.4	B
	Kemper St	East Dr	6-Lane Major Arterial	50,000	25,800	0.52	B
	East Dr	Rosecrans St	6-Lane Major Arterial	50,000	17,800	0.36	A
	Rosecrans St	Pacific Hwy	2-Lane Collector (CLTL)	15,000	10,700	0.71	D
Kurtz St	Hancock St	Rosecrans St	2-Lane Collector (One-Way)	15,000	12,800	0.85	E
	Rosecrans St	Pacific Hwy	2-Lane Collector (CLTL)	15,000	7,100	0.47	C
	Sports Arena Blvd	Kurtz St	4-Lane Collector	15,000	1,100	0.07	A
Hancock St	Kurtz St	Camino Del Rio West	3-Lane Major (One-Way)	30,000	14,700	0.49	B
	Camino Del Rio West	Rosecrans St	3-Lane Major (One-Way)	30,000	7,500	0.25	A
	Old Town Ave	Witherby St	4-Lane Collector	15,000	11,400	0.76	D
	Witherby St	Washington St	2-Lane Collector	8,000	6,300	0.79	D
	Washington St	Vine St	3-Lane Major (One-Way)	30,000	34,800	1.16	F
Kettner Blvd	Vine St	Sassafras St	3-Lane Major (One-Way)	30,000	34,700	1.16	F
	Sassafras St	Laurel St	3-Lane Major (One-Way)	30,000	33,200	1.11	F
Pacific Hwy	Sea World Dr	Taylor St	2-Lane Collector (CLTL)	15,000	10,600	0.71	D



Table 6.1 Daily Roadway Segment Analysis - Preferred Plan Conditions

Roadway	From	To	Classification	Maximum Capacity at LOS E	ADT	V/C	LOS
Pacific Hwy	Taylor St	Kurtz St	6-Lane Major Arterial	50,000	19,500	0.39	A
	Kurtz St	Sports Arena Blvd	6-Lane Major Arterial	50,000	24,100	0.48	B
	Sports Arena Blvd	Barnett Ave	5-Lane Major Arterial	50,000	17,600	0.35	A
	Barnett Ave	Washington St	Expressway	80,000	50,400	0.63	C
	Washington St	Sassafras St	6-Lane Prime Arterial	60,000	19,100	0.38	A
	Sassafras St	Laurel St	6-Lane Major Arterial	50,000	31,000	0.62	C
Old Town							
Congress St <sup>1</sup>	Taylor St	Twiggs St	2-Lane Collector	8,000	7,700	0.96	E
	Twiggs St	Harney St	2-Lane Collector	8,000	6,300	0.79	D
	Harney St	San Diego Ave/ Ampudia St	2-Lane Collector	8,000	6,200	0.78	D
	Twiggs St	Harney St	2-Lane Collector	8,000	4,900	0.61	C
San Diego Ave <sup>1</sup>	Conde St	Arista Ave	2-Lane Collector	8,000	4,500	0.56	C
	Ampudia St	Old Town Ave	2-Lane Collector	8,000	12,100	1.51	F
	Old Town Ave	Hortensia St	2-Lane Collector	8,000	6,700	0.84	E
	Taylor St	Twiggs St	2-Lane Collector	8,000	7,000	0.88	E
Juan St <sup>1</sup>	Twiggs St	Harney St	2-Lane Collector	8,000	6,600	0.83	E
	Harney St	San Juan Rd	2-Lane Collector	8,000	3,700	0.46	C
East-West							
Midway Pacific Highway							
Channel Wy	W. Mission Bay Dr	Hancock St	4-Lane Collector	15,000	7,200	0.48	C
Kemper St	Kenyon St	Midway Dr	4-Lane Collector	15,000	9,700	0.65	C
	Midway Dr	Sports Arena Blvd	4-Lane Collector	15,000	9,800	0.65	C
	Sports Arena Blvd	Hancock St	2-Lane Collector (CLTL)	15,000	9,400	0.63	C
Frontier St	Sports Arena Blvd	Kurtz St	2-Lane Collector (CLTL)	15,000	12,200	0.81	D

Table 6.1 Daily Roadway Segment Analysis - Preferred Plan Conditions

Roadway	From	To	Classification	Maximum Capacity at LOS E	ADT	V/C	LOS
Greenwood St	Sports Arena Blvd	Kurtz St	2-Lane Collector	8,000	7,000	0.88	E
Camino Del Rio West	Rosecrans St	I-5/I-8 Ramps	6-Lane Prime Arterial	60,000	67,300	1.12	F
Rosecrans St	Lytton St	Midway Dr	6-Lane Prime Arterial	60,000	54,200	0.9	D
	Midway Dr	Sports Arena Blvd	6-Lane Prime Arterial	60,000	56,900	0.95	E
	Sports Arena Blvd	Pacific Hwy/Taylor St	4- Lane Major Arterial	40,000	22,000	0.55	C
Charles Lindbergh Pkwy	Midway Dr	Sports Arena Blvd	2-Lane Collector (CLTL)	15,000	5,900	0.39	B
	Sports Arena Blvd	Kurtz Street	2-Lane Collector (CLTL)	15,000	7,800	0.52	C
	Barnett Avenue	Midway Dr	2-Lane Collector (CLTL)	15,000	13,400	0.89	E
Dutch Flats Pkwy	Midway Dr	Sports Arena Blvd	2-Lane Collector (CLTL)	15,000	8,800	0.59	C
Barnett Ave	Midway Dr	Pacific Hwy	6-Lane Prime Arterial	60,000	51,600	0.86	D
Washington St	Frontage Rd	Pacific St	4- Lane Major Arterial	40,000	15,500	0.39	B
	Pacific St	Hancock St	4- Lane Major Arterial	40,000	22,700	0.57	C
Vine St	California St	Kettner Blvd	2-Lane Collector	8,000	2,000	0.25	A
Sassafras St	Pacific Hwy	Kettner Blvd	3-Lane Collector	11,500	21,100	1.83	F
Laurel St	Pacific Hwy	Kettner Blvd	4- Lane Major Arterial	40,000	29,500	0.74	C
Old Town							
Taylor St <sup>1</sup>	Pacific Hwy/ Rosecrans St	Congress St	4- Lane Major Arterial	40,000	30,500	0.76	D
	Congress St	Juan St	5-Lane Major Arterial	45,000	21,300	0.47	B
	Juan St	Morena Blvd	4- Lane Major Arterial	40,000	25,700	0.64	C
	Morena Blvd	I-8 EB Ramps	2-Lane Collector	8,000	15,300	1.91	F
Twiggs St <sup>1</sup>	Congress St	San Diego Ave	2-Lane Collector	8,000	2,600	0.33	B
	San Diego Ave	Juan St	2-Lane Collector	8,000	3,600	0.45	C
	Congress St	San Diego Ave	2-Lane Collector	8,000	1,800	0.23	A
Harney St <sup>1</sup>	San Diego Ave	Juan St	2-Lane Collector	8,000	3,400	0.43	B

Table 6.1 Daily Roadway Segment Analysis - Preferred Plan Conditions

Roadway	From	To	Classification	Maximum Capacity at LOS E	ADT	V/C	LOS
Old Town Ave <sup>1</sup>	Hancock St	Moore St	2-Lane Collector	8,000	12,200	1.53	F
	Moore St	San Diego Ave	2-Lane Collector	8,000	6,500	0.81	E

Source: Chen Ryan Associates (May 2017)

Note: **Bold** letter indicates LOS E or F

**Table 6.2 Peak Hour Intersection LOS and Delay Results – Preferred Plan Conditions**

			AM			PM		
No.	Intersection	Control	Delay (Sec)	LOS	Existing LOS	Delay (Sec)	LOS	Existing LOS
Midway-Pacific Highway								
1	Lytton St and Rosecrans St	Signal	96.9	F	E	55.2	E	D
2	W Mission Bay Dr and I-8 WB Off-Ramp	Signal	15.4	B	B	70.2	E	E
3	Sports Arena Blvd and Channel Way	SSSC	12.3	B	B	30.6	D	B
4	Midway Dr and Sports Arena/W Point Loma Blvd	Signal	52.2	D	D	75.8	E	D
5	Midway Dr and Kemper St	Signal	31.6	C	C	39.1	D	D
6	Midway Dr and East Dr	Signal	7.0	A	A	17.8	B	B
7	Midway Dr and Rosecrans St	Signal	40.5	D	C	76.0	E	D
8	Midway Dr and Charles Lindbergh Pkwy	Signal	11.2	B	(1)	28.7	C	(1)
9	Midway Dr and Enterprise St	SSSC	13.4	B	B	26.5	D	C
10	Midway Dr and Barnett Ave	Signal	13.7	B	B	12.3	B	B
11	Sports Arena Blvd and Hancock St	Signal	14.4	B	A	17.4	B	B
12	Sports Arena Blvd and Kemper St	Signal	37.6	D	B	43.9	D	B
13	Sports Arena Blvd and Sports Arena Driveway	Signal	18.4	B	B	27.0	C	C
14	Sports Arena Blvd and East Dr	Signal	7.8	A	C	25.6	C	B
15	Sports Arena Blvd and Rosecrans St	Signal	37.6	D	D	53.5	D	D
16	Sports Arena Blvd and Charles Lindbergh Pkwy	Signal	13.9	B	(1)	17.8	B	(1)
17	Sports Arena Blvd and Pacific Hwy	Signal	25.8	C	B	17.9	B	B
18	Kurtz St and Hancock St	Signal	12.3	B	(2)	12.0	B	(2)
19	Kurtz St and Camino Del Rio West	Signal	26.6	C	A	43.5	D	C
20	Kurtz St and Rosecrans St	Signal	29.8	C	B	37.0	D	C
21	Kurtz St and Pacific Hwy	Signal	31.0	C	B	48.3	D	B
22	Hancock St and Channel Wy	SSSC	10.0	B	A	12.9	B	B
23	Hancock St and Camino Del Rio West	Signal	35.3	D	C	39.5	D	C
24	Hancock St and Rosecrans St	No Conflicting Movements						
25	Hancock St and Old Town Ave	AWSC	24.8	C	C	20.9	C	B
26	Hancock St and Witherby St	AWSC	13.9	B	C	34.9	D	C
27	Hancock St and Washington St	Signal	23.1	C	C	77.8	E	C
28	Kettner Blvd and Vine St	SSSC	16.5	C	B	19.9	C	C
29	Kettner Blvd and Sassafras St	Signal	15.0	B	B	15.3	B	B
30	Kettner Blvd and West Laurel St	Signal	19.3	B	B	96.5	F	C
31	Pacific Hwy and Barnett Ave	No Conflicting Movements						
32	Pacific Hwy and Washington St @ Frontage Rd	Signal	20.4	C	B	47.5	D	D
33	Pacific Hwy and Washington St	Signal	20.5	C	B	27.7	C	C

**Table 6.2 Peak Hour Intersection LOS and Delay Results – Preferred Plan Conditions**

No.	Intersection	Control	AM			PM		
			Delay (Sec)	LOS	Existing LOS	Delay (Sec)	LOS	Existing LOS
34	Pacific Hwy and Sassafras St	Signal	32.9	C	B	75.9	E	C
35	Pacific Hwy and West Laurel St	Signal	91.3	F	D	141.3	F	D
<b>Old Town</b>								
36	Pacific Hwy and Taylor St	Signal	31.1	C	E	51.2	D	C
37	Moore St and Old Town Ave	Signal	23.2	C	B	96.5	F	B
38	Congress St and Taylor St	Signal	13.8	B	B	19.2	B	C
39	Congress St and Twiggs St	AWSC	9.7	A	A	10.8	B	A
40	Congress St and Harney St	AWSC	9.1	A	A	9.4	A	A
41	Congress St and San Diego Ave/Ampudia St	SSSC	16.7	C	B	15.8	C	B
42	San Diego Ave and Twiggs St	AWSC	8.0	A	A	8.1	A	A
43	San Diego Ave and Harney St	AWSC	9.0	A	A	10.8	B	A
44	San Diego Ave and Old Town Ave	Signal	17.4	B	B	13.7	B	B
45	Juan St and Taylor St	Signal	14.6	B	B	18.6	B	B
46	Juan St and Twiggs St	AWSC	9.7	A	A	10.1	B	A
47	Juan St and Harney St	AWSC	9.0	A	A	8.9	A	A
48	Morena Blvd and Taylor St	Signal	21.9	C	C	24.8	C	B
<b>Intersections Outside of Study Communities</b>								
49	Hugo St/N. Harbor Dr and Rosecrans St	Signal	29.0	C	B	31.6	C	C
50	Lowell St/Nimitz Blvd and Rosecrans St	Signal	60.4	E	D	111.6	F	E
51	Laning Rd and Rosecrans St	Signal	25.5	C	B	23.2	C	B
52	Kettner Blvd and West Hawthorn St	Signal	34.7	C	B	13.3	B	B
53	Kettner Blvd and West Grape St	Signal	10.1	B	A	9.4	A	A
54	Pacific Hwy and Sea World Dr	Signal	24.0	C	B	34.1	C	C
55	Pacific Hwy and West Hawthorn St	Signal	34.4	C	D	31.7	C	C
56	Pacific Hwy and West Grape St	Signal	17.9	B	B	31.4	C	C
57	Friars Rd and Sea World Dr	Signal	15.4	B	B	26.0	C	B
58	I-5 SB Ramps and Sea World Dr	Signal	17.8	B	B	20.0	C	E
59	I-5 NB Ramps and Sea World Dr	Signal	29.3	C	C	43.3	D	C
<b>New Intersections (Midway-Pacific Highway Community)</b>								
60	Midway Dr & Duke Street / Hancock St	Signal	27.0	C	(1)	32.1	C	(1)
61	Kurtz St & Frontier Dr	SSSC	9.9	A	(1)	19.0	C	(1)
62	Kurtz St & Greenwood St	Signal	11.9	B	(1)	16.9	B	(1)
63	Kurtz St & Charles Lindbergh Pkwy	Signal	8.3	A	(1)	22.1	C	(1)
64	Barnett Ave & Dutch Flats Pkwy	Signal	24.6	C	(1)	14.5	B	(1)



**Table 6.2 Peak Hour Intersection LOS and Delay Results – Preferred Plan Conditions**

No.	Intersection	Control	AM			PM		
			Delay (Sec)	LOS	Existing LOS	Delay (Sec)	LOS	Existing LOS
65	Midway Dr & Dutch Flats Pkwy	Signal	48.5	D	(1)	53.7	D	(1)
66	Dutch Flats Pkwy & Sports Arena Bl	Signal	10.9	B	(1)	21.5	C	(1)

Source: Chen Ryan Associates (May 2017)

Notes:

**Bold** letter indicates LOS E or F.<sup>1</sup> Significant Impact<sup>2</sup> Single Side Stop Controlled<sup>3</sup> All Way Stop Controlled

The following mitigation measures were identified for the two communities:

**Midway-Pacific Highway Community**

1. *Lytton Street and Rosecrans Street (LOS F: AM Peak Hour and LOS E PM Peak Hour)* – The westbound through movement, as well as the southbound left-turn and through movements are projected to be over capacity, under implementation of the Preferred Plan. Implementing the following improvements would allow the intersection to operate at LOS D or better during both peak hours.
  - Add a second southbound left-turn lane
  - Add an additional westbound through movement lane on Rosecrans Street (three total)
  - Implement right-turn overlap (RTOL) phases at all legs of the intersection

The identified significant traffic related impact to this intersection would be fully mitigated with the implementation of this improvement.

*Partial Mitigation:* If the second southbound left-turn and RTOL phase are implemented (feasible improvements) the overall intersection delay would be reduced to the following:

AM: LOS E

PM: LOS D

Implementation of this improvement will partially mitigate the traffic related impact at the intersection.

2. *Sports Arena Boulevard / West Mission Bay and I-8 WB Off-Ramp (LOS E: PM Peak Hour)* – The westbound right-turn movement at this intersection is projected to be over capacity during the PM peak hour, under the implementation of the Preferred Plan. Providing a third exclusive westbound right-turn lane or converting the movement to free-right-turn movement would improve the intersection operations to LOS D. The identified significant traffic related impact to this intersection would be fully mitigated with the implementation of this improvement.

Table 6.5 Freeway Segment LOS Results – Preferred Plan Conditions

Freeway	To	From	Daily		HVF	Lanes		AM			PM							
			Dir	Volume		K	D	Peak Volume	V/C	LOS	K	D	Peak Volume	V/C	LOS			
I-8	Beginning of Freeway	Sports Arena Boulevard	EB	61,200	1.2%	2	0	6.3%	61%	2,600	0.55	B	8.6%	71%	3,100	0.66	C	
			WB			2	0		39%	1,700	0.36	A		29%	2,800	0.60	B	
	Sports Arena Boulevard	I-5	EB	122,400	2.8%	3	1	6.4%	61%	5,400	0.64	C	7.8%	62%	5,500	0.65	C	
			WB			3	1		39%	3,500	0.41	B		38%	5,400	0.64	C	
	I-5	Morena Boulevard	EB	183,300	2.8%	4	1	6.4%	42%	5,500	0.51	B	7.2%	50%	6,600	0.61	B	
			WB			5	0		58%	7,700	0.66	C		50%	8,300	0.71	C	
	Morena Boulevard	Hotel Circle	EB	217,200	2.8%	4	1	6.5%	47%	7,600	0.70	C	8.2%	55%	11,000	1.02	F	
			WB			5	0		53%	8,400	0.71	C		45%	9,000	0.77	C	
	I-5	Clairemont Drive	Sea World Drive	NB	241,500	4.5%	5	0	6.4%	61%	11,000	0.94	E	8.3%	51%	11,700	1.00	E
				SB			5	0		39%	6,900	0.59	B		49%	11,300	0.96	E
Sea World Drive		I-8	NB	231,800	4.5%	4	1	6.4%	62%	10,500	0.97	E	8.4%	52%	11,600	1.07	F	
			SB			4	2		38%	6,400	0.52	B		48%	10,700	0.88	D	
I-8		Old Town Avenue	NB	243,000	4.1%	4	1	6.9%	49%	9,400	0.87	D	8.2%	39%	8,900	0.82	D	
			SB			5	0		51%	9,700	0.83	D		61%	13,900	1.18	F	
Old Town Avenue		Washington Avenue	NB	227,800	4.1%	4	0	6.9%	49%	8,800	0.94	E	8.0%	51%	10,700	1.14	F	
			SB			5	0		51%	9,300	0.79	D		49%	10,200	0.87	D	
Washington Avenue		Pacific Highway	NB	171,500	4.1%	4	0	6.9%	53%	7,100	0.76	C	8.1%	36%	5,700	0.61	B	
			SB			4	0		47%	6,400	0.68	C		64%	10,200	1.09	F	
Pacific Highway		Laurel Street	NB	216,500	4.1%	4	1	6.8%	57%	9,600	0.89	D	7.1%	50%	8,400	0.78	C	
			SB			4	1		43%	7,200	0.67	C		50%	9,300	0.86	D	
Laurel Street	Hawthorne Avenue	NB	222,200	4.1%	4	1	6.9%	57%	9,900	0.92	D	7.3%	47%	8,300	0.77	C		
		SB			4	1		43%	7,600	0.70	C		53%	10,400	0.96	E		

Source: Chen Ryan Associates (May 2017)

Note:  
**Bold** letter indicates LOS E or F

As shown, all mainline freeway segments are projected to operate at LOS D or better under Preferred Plan conditions, with the exception of the following:

- I-8 EB, between Morena Boulevard and Hotel Circle Drive (LOS F: PM Peak Hour)
- I-5 NB, between Clairemont Drive and Sea World Drive (LOS E: AM & PM Peak Hours)
- I-5 SB, between Clairemont Drive and Sea World Drive (LOS E: PM Peak Hour)
- I-5 NB, between Sea World Drive and I-8 (LOS E: AM Peak Hour, LOS F PM Peak Hour)
- I-5 SB, between I-8 and Old Town Avenue (LOS F: PM Peak Hour)
- I-5 NB, between Old Town Avenue and Washington Avenue (LOS E: AM Peak Hour and LOS F: PM Peak Hour)
- I-5 SB, between Washington Avenue and Pacific Highway (LOS F: PM Peak Hour)
- I-5 SB, between Laurel Street and Hawthorne Avenue (LOS E: PM Peak Hour)

### 6.1.5 Meter Analysis

Table 6.6 summarizes the freeway ramp metering analysis results under implementation of the Preferred Plan for all ramp meter locations within both study communities. The volumes were derived using the outputs for the modeling described in Section 5.0. Existing ramp meter flow rates were assumed under Preferred Plan conditions.

**Table 6.6 Freeway Ramp Metering Analysis – Preferred Plan Conditions**

Ramp	Peak	Lanes		Flow Rate	Volume	Excess Demand	Delay (Minutes)	Queue (Feet)
		SOV	HOV					
I-8 EB / Sports Arena Boulevard	PM	2	1	641	920	279	26.1	8,091
I-5 SB / Sea World Drive	AM	1	1	444	530	86	11.6	2,494
	PM	1	1	444	670	226	30.5	6,554
I-5 NB / Sea World Drive	AM	2	0	1,555	1,530	0	0.0	0
	PM	2	0	1,656	1,250	0	0.0	0
I-5 SB / Old Town Avenue	PM	1	0	461	410	0	0.0	0
I-5 NB / Old Town Avenue	AM	2	0	905	370	0	0.0	0
	PM	2	0	888	690	0	0.0	0

Source: Chen Ryan Associates (May 2017)

Notes:

SOV = Single Occupancy Vehicle; HOV = High Occupancy Vehicle.

<sup>1</sup> Demand is the peak hour demand expected to use the on-ramp.

<sup>2</sup> Meter Rate is the peak hour capacity expected to be processed through the ramp meter. This value was obtained from Caltrans.

<sup>3</sup> Excess Demand = (Demand) – (Meter Rate) or zero, whichever is greater.

<sup>4</sup> Delay = (Excess Demand / Meter Rate) X 60 min/hr.

<sup>5</sup> Queue = (Excess Demand) X 29 ft/veh.

### Midway-Pacific Highway Community

- Sports Arena Boulevard, between Hancock Street and Kemper Street (Clockwise) – Bench
- Sports Arena Boulevard and East Drive (Clockwise) – Shelter
- Rosecrans Street and Midway Drive (Westbound) – Shelter

### Old Town

- None

## **6.6.2 Arterial Speed Analysis Along Roadways Serving Transit Routes**

An HCM peak hour arterial speed analysis was conducted along all roadway corridors where transit routes are projected to operate in order to identify future roadway congestion that could potentially impact transit route travel times and on-time performance. Transit priority measures such as queue jumper lanes and transit priority signal timing should be implemented in locations where future roadway congestion is anticipated.

**Table 6.10** displays peak hour arterial speed analyses for all roadway facilities where a transit route operates under implementation of the Preferred Plan. Peak hour arterial analysis worksheets are provided in **Appendix G**.

**Table 6.10 Arterial Speed Analysis Along Transit Corridors – Preferred Plan Conditions**

Roadway		Segment	Posted Speed (MPH)	AM				PM			
				EB/NB		WB/SB		EB/NB		WB/SB	
				Speed	LOS	Speed	LOS	Speed	LOS	Speed	LOS
Midway-Pacific Highway Community											
Camino Del Rio West	Sports Arena Blvd to Kurtz Street	35	5.7	F	6.8	F	4.7	F	5.1	F	
	Kurtz Street to Hancock Street	35	10.8	D	24.2	B	10.9	D	23.1	C	
Rosecrans Street	Barnett Avenue to Midway Drive	35	22.2	C	9.5	F	12.9	F	19.1	D	
	Midway Drive to Sports Arena Blvd	35	31.2	B	9.3	F	31.2	B	8.3	F	
	Sports Arena Blvd to Kurtz Street	35	9.8	F	2.9	F	7.2	F	2.7	F	
	Kurtz Street to Pacific Highway	35	16.9	E	20.5	D	14.5	E	20.4	D	
Midway Drive	Sports Arena Blvd to Duke Street/Hancock Street	35	6	F	10.4	E	5.1	F	9.2	F	
	Duke Street/Hancock Street to Kemper Street	35	20.5	C	17.7	D	16.1	D	13.4	E	
	Kemper Street to East Drive	35	19.1	C	24.9	B	15.6	D	23.7	C	
	East Drive to Rosecrans Street	35	23	C	12.3	E	20	C	8.4	F	
Sports Arena Boulevard	I-8 WB Off-Ramp to W Point Loma Blvd	35	21	C	8.1	F	8.8	F	7.5	F	
	W Point Loma Blvd to Hancock Street	35	11.7	E	21.1	C	4.8	F	23.1	C	
	Hancock Street to Kemper Street	35	15.1	D	13.7	E	18.2	C	9.5	F	
	Kemper Street to Frontier Drive	35	10.9	E	14.3	D	14.4	D	17.7	D	
	Frontier Drive to Greenwood Street	35	12	E	20.6	C	12.3	E	11.7	E	
	Greenwood Street to Rosecrans Street	35	26.2	B	6.4	F	23.7	C	6.1	F	
Pacific Highway	Taylor Street to Kurtz Street	45	24.9	C	21.9	D	22.7	C	15.5	E	
	Kurtz Street to Sports Arena Blvd	45	23	C	16.5	E	13.2	E	23	C	

Table 6.10 Arterial Speed Analysis Along Transit Corridors – Preferred Plan Conditions

Roadway	Segment	Posted Speed (MPH)	AM				PM			
			EB/NB		WB/SB		EB/NB		WB/SB	
			Speed	LOS	Speed	LOS	Speed	LOS	Speed	LOS
Pacific Highway	Sports Arena Blvd to Barnett Avenue	45	11.7	F	11.7	F	9.4	F	4.8	F
	Washington Street to Sassafras Street	45	9.5	F	28	B	5.4	F	28.1	B
	Sassafras Street to W Laurel Street	45	31.6	B	15.3	E	27.9	C	13.2	E
<b>Old Town Community</b>										
Taylor Street	Pacific Highway to Congress Street	35	12.5	D	9	E	9.1	D	8.6	E
	Congress Street to Juan Street	35	9.7	D	12.9	D	6.7	F	13.8	C
	Juan Street to Whitman Street	35	17.5	C	14.3	C	15.4	C	15.3	C

Source: Chen Ryan Associates (March 2017)

Note:

**Bold** letter indicates LOS E or F

As shown, several segments within both communities are projected to operate at LOS E or F during both the AM and PM Peak hours:

#### Midway-Pacific Highway

- Camino del Rio West, between Sports Arena Boulevard and Kurtz Street
  - LOS F: AM & PM peak hours, westbound & eastbound directions
- Rosecrans Street, between Barnett Avenue and Midway Drive
  - LOS F: AM peak hour, westbound direction
  - LOS F: PM peak hour, eastbound direction
- Rosecrans Street, between Midway Drive and Sports Arena Boulevard
  - LOS F: AM & PM peak hours, westbound direction
- Rosecrans Street, between Sports Arena Boulevard and Kurtz Street
  - LOS F: AM & PM peak hours, westbound & eastbound directions
- Rosecrans Street, between Kurtz Street and Pacific Highway
  - LOS E: AM & PM peak hours, eastbound direction
- Midway Drive, between Sports Arena Boulevard and Hancock Street
  - LOS F: AM & PM peak hours, northbound direction
  - LOS E: AM peak hour, southbound direction
  - LOS F: PM peak hour, southbound direction
- Midway Driveway, between Hancock Street and Kemper Street
  - LOS E: PM peak hour, southbound direction
- Midway Drive, between East Drive and Rosecrans Street
  - LOS E: AM peak hour southbound direction
  - LOS F: PM peak hour southbound direction
- Sports Arena Boulevard, between I-8 Westbound Ramps and West Point Loma Boulevard
  - LOS F: AM peak hour, southbound direction
  - LOS F: PM peak hour, northbound & southbound directions
- Sports Arena Boulevard, between West Point Loma Boulevard and Hancock Street
  - LOS E: AM peak hour, northbound direction



## **Uptown Community Plan and Traffic Impact Study Attachments**

FIGURE 3-1: PEDESTRIAN ROUTES

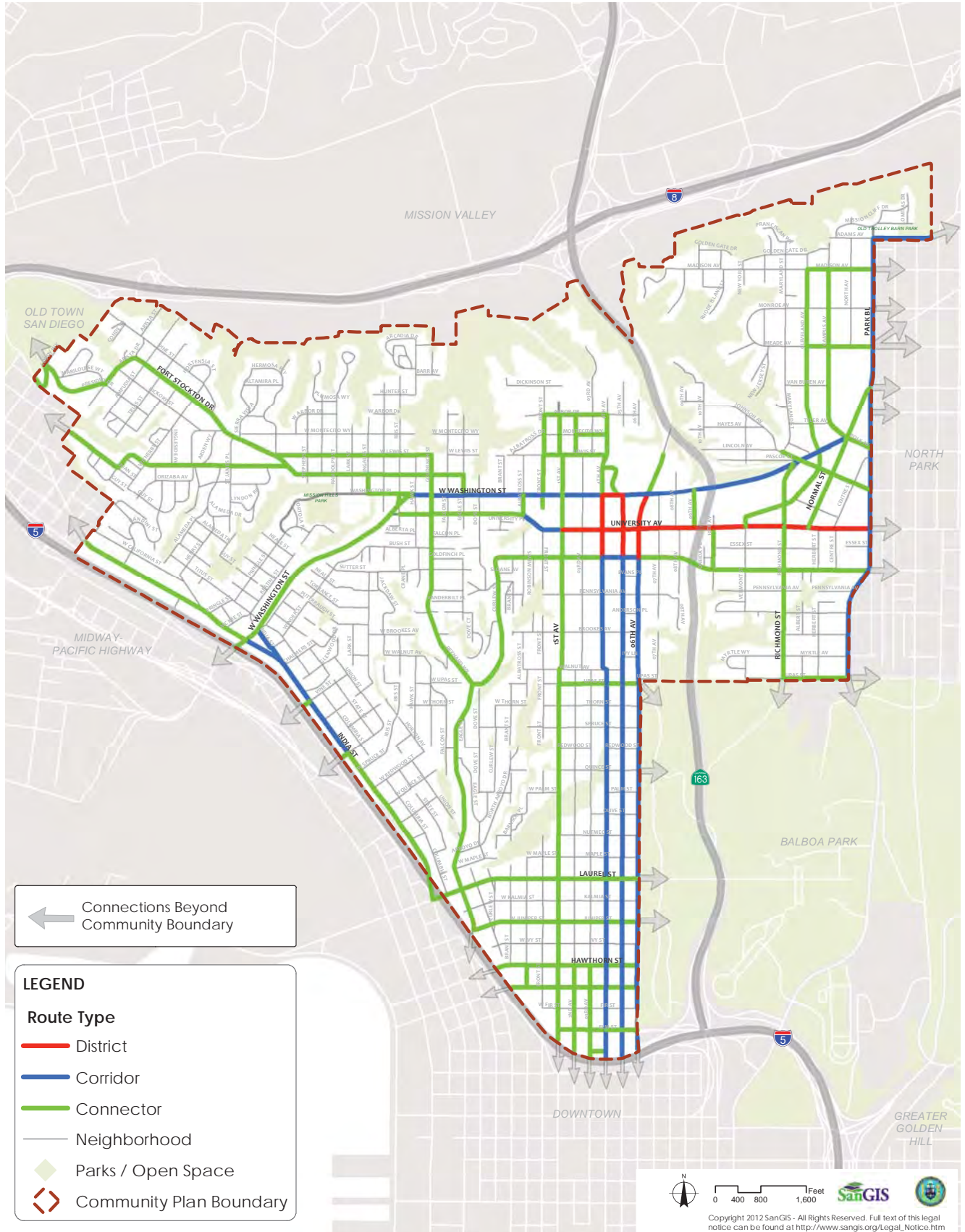


FIGURE 3-2: EXISTING AND PLANNED BICYCLE NETWORKS

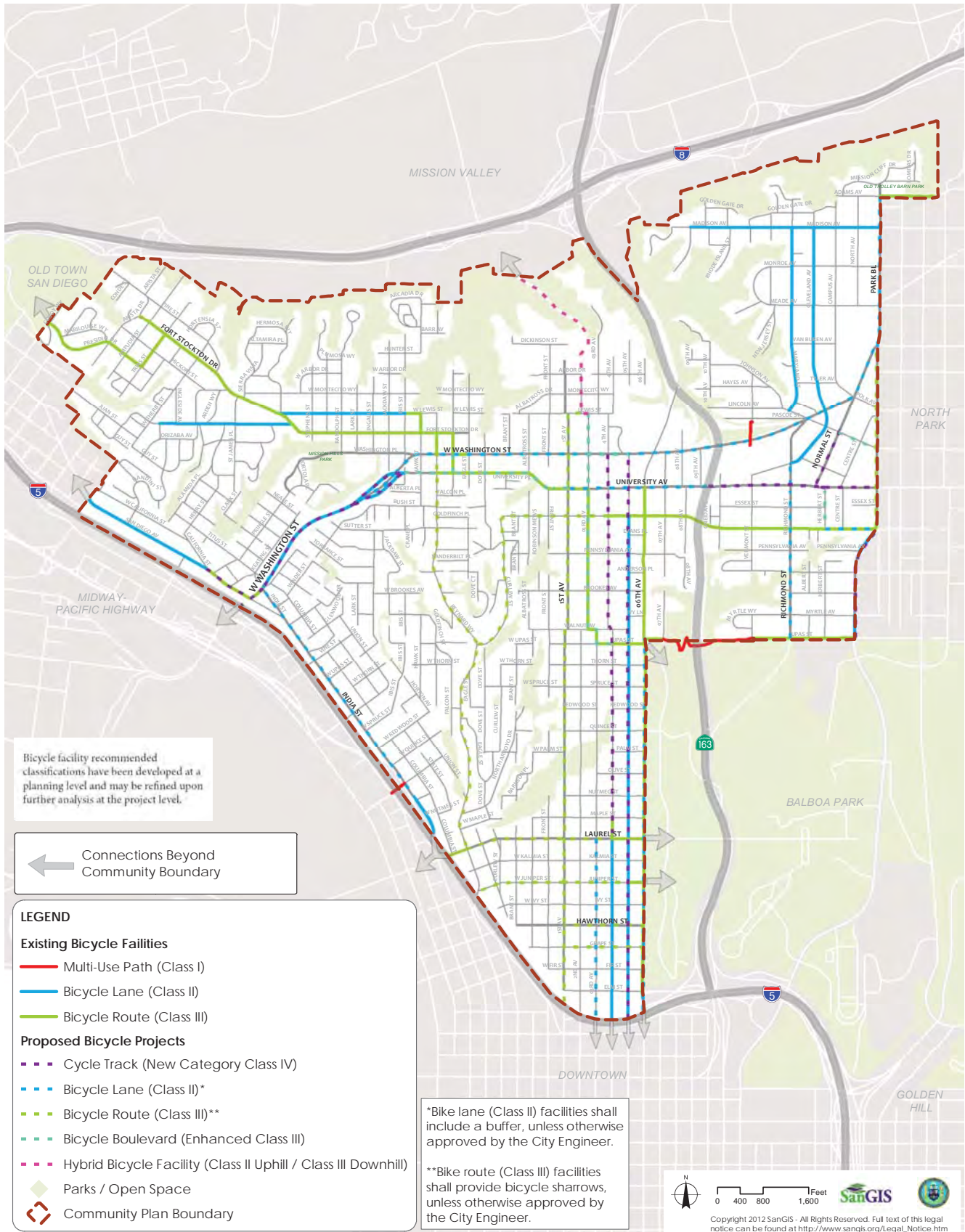




FIGURE 3-3: PLANNED TRANSIT FACILITIES

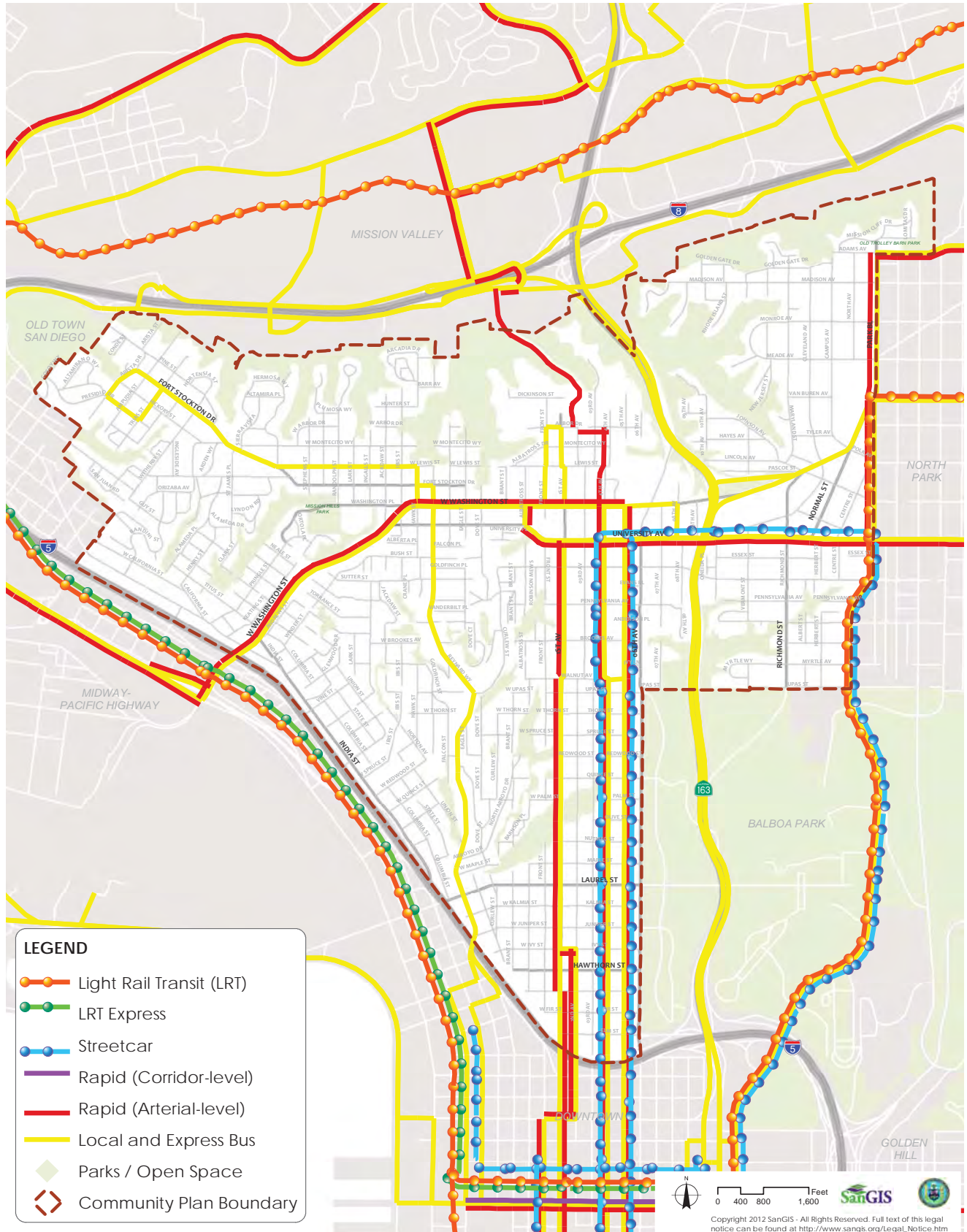
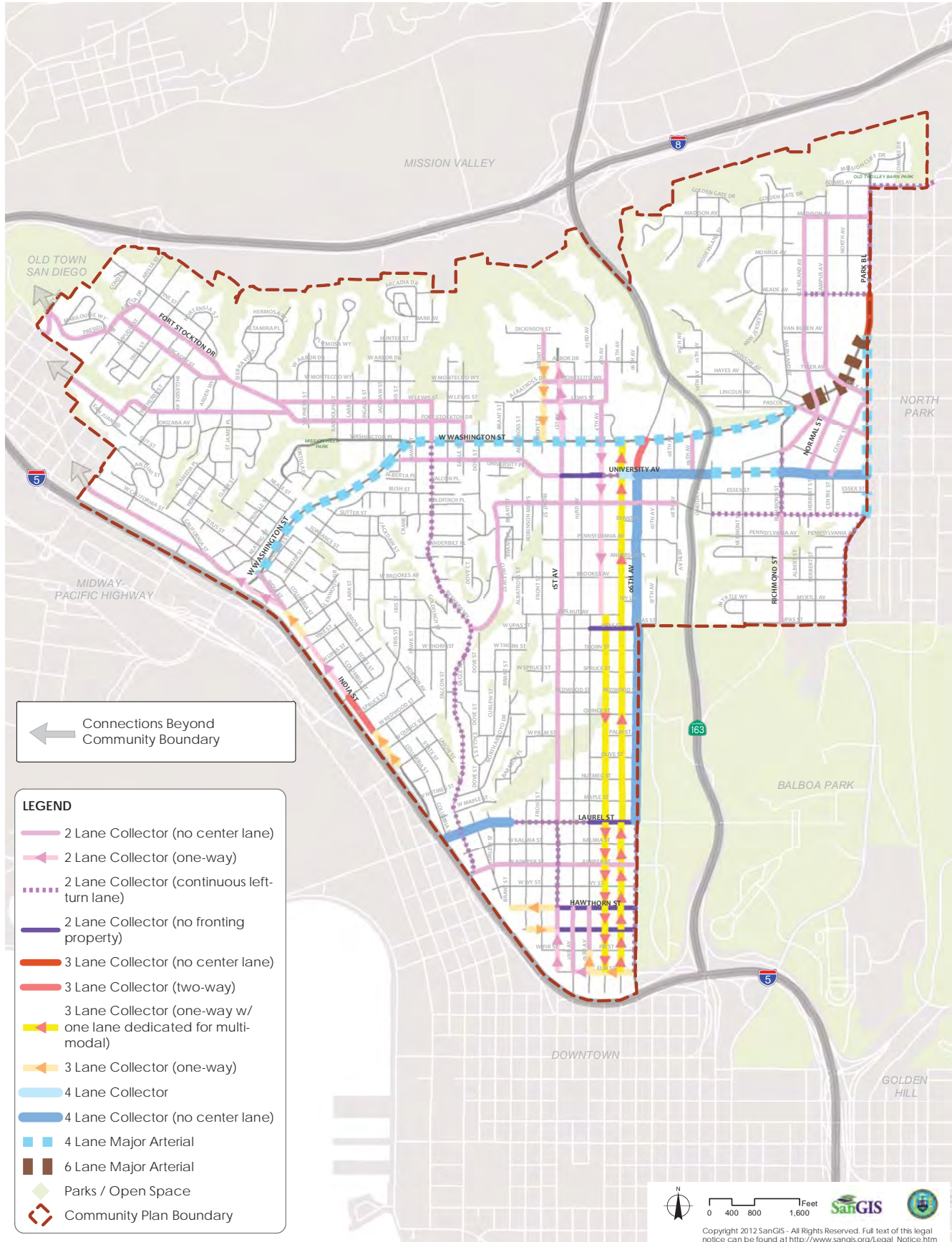


FIGURE 3-5: PLANNED STREET CLASSIFICATIONS





**Table 4-1 Future Year Summary of Intersection Analysis**

INTERSECTION		TRAFFIC CONTROL	PEAK HOUR	Existing		Future Year		Δ (c)	SIGNIFICANT?
				DELAY (a)	LOS (b)	DELAY (a)	LOS (b)		
UPTOWN									
1	Washington St & Hancock St	Signal	AM	24.9	C	33.2	C	8.3	NO
			PM	28.2	C	51.6	D	23.4	NO
2	Washington St & San Diego Ave	Signal	AM	19.7	B	15.4	B	-4.3	NO
			PM	17.6	B	21.9	C	4.3	NO
3	Washington St & India St	Signal	AM	11.7	B	15.8	B	4.1	NO
			PM	14.2	B	20.3	C	6.1	NO
4	Washington St & Fourth Ave	Signal	AM	25.2	C	31.8	C	6.6	NO
			PM	37.3	D	59.9	E	22.6	YES
5	Washington St & Fifth Ave	Signal	AM	15.2	B	14.1	B	-1.1	NO
			PM	16.3	B	19.2	B	2.9	NO
6	Washington St & Eighth Ave/SR-163 Off-Ramp	Signal	AM	42.6	D	71.5	E	28.9	YES
			PM	333.0	F	331.7	F	-1.3	NO
7	Washington St & Richmond St/SR-163 On-Ramp	Signal	AM	18.6	B	51.4	D	32.8	NO
			PM	13.2	B	33.9	C	20.7	NO
8	Washington St/Normal St & Campus Ave/Polk Ave	Signal	AM	43.0	D	62.7	E	19.7	YES
			PM	50.0	D	57.3	E	7.3	YES
9	Normal St/El Cajon Blvd & Park Blvd	Signal	AM	25.2	C	26.6	C	1.4	NO
			PM	34.3	C	43.8	D	9.5	NO
10	University Ave & Fourth Ave	Signal	AM	29.1	C	31.8	C	2.7	NO
			PM	28.2	C	30.3	C	2.1	NO
11	University Ave & Fifth Ave	Signal	AM	12.9	B	13.7	B	0.8	NO
			PM	25.3	C	28.0	C	2.7	NO
12	University Ave & Sixth Ave	Signal	AM	32.9	C	38.7	D	5.8	NO
			PM	54.8	D	55.3	E	0.5	YES
13	University Ave & Tenth St	Signal	AM	18.6	B	17.5	B	-1.1	NO
			PM	20.6	C	37.0	D	16.4	NO
14	University Ave & Normal St	Signal	AM	5.6	A	6.3	A	0.7	NO
			PM	10.6	B	13.3	B	2.7	NO
15	University Ave & Park Blvd	Signal	AM	24.5	C	25.2	C	0.7	NO
			PM	39.4	D	42.1	D	2.7	NO
16	Robinson Ave & Fourth Ave	Signal	AM	21.4	C	27.0	C	5.6	NO
			PM	18.4	B	20.8	C	2.4	NO
17	Robinson Ave & Fifth Ave	Signal	AM	10.8	B	12.5	B	1.7	NO
			PM	15.0	B	17.5	B	2.5	NO
18	Robinson Ave & Sixth Ave	Signal	AM	21.6	C	22.7	C	1.1	NO
			PM	27.6	C	30.9	C	3.3	NO
19	Vine St & India St	Signal	AM	5.6	A	5.9	A	0.3	NO
			PM	7.3	A	8.5	A	1.2	NO
20	Sassafras St & Kettner Blvd	Signal	AM	10.4	B	13.2	B	2.8	NO
			PM	12.5	B	43.6	D	31.1	NO
21	Sassafras St & India St	Signal	AM	6.3	A	8.4	A	2.1	NO
			PM	20.9	C	47.4	D	26.5	NO

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 one-way or 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 8

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**Table 4-2 Future Year Summary of Intersection Analysis (Cont.)**

INTERSECTION		TRAFFIC CONTROL	PEAK HOUR	Existing		Future Year			
				DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	Δ (c)	SIGNIFICANT?
UPTOWN (cont.)									
22	Laurel St & India St/I-5 NB On-Ramp	Signal	AM	17.0	B	19.7	B	2.7	NO
			PM	21.4	C	29.5	C	8.1	NO
23	Laurel St & Fourth Ave	Signal	AM	12.2	B	13.8	B	1.6	NO
			PM	14.9	B	23.8	C	8.9	NO
24	Laurel St & Fifth Ave	Signal	AM	12.3	B	13.3	B	1.0	NO
			PM	12.7	B	17.8	B	5.1	NO
25	Laurel St & Sixth Ave	Signal	AM	13.7	B	15.8	B	2.1	NO
			PM	20.5	C	27.9	C	7.4	NO
26	Hawthorn St & Brant St	Two-Way Stop	AM	9.9	A (SB R)	10.0	B (SB R)	0.1	NO
			PM	12.9	B (SB R)	12.9	B (SB R)	0.0	NO
27	Grape St & State St	Signal	AM	15.7	B	12.6	B	-3.1	NO
			PM	18.7	B	41.7	D	23.0	NO
28	Elm St & First Ave	Signal	AM	13.3	B	17.8	B	4.5	NO
			PM	21.6	C	21.0	C	-0.6	NO
29	Elm St & Sixth Ave	Signal	AM	54.4	D	153.6	F	99.2	YES
			PM	14.8	B	18.8	B	4.0	NO
30	Cedar St & Second Ave	Two-Way Stop	AM	31.8	D (SB R)	459.3	F (SB L)	427.5	YES
			PM	18.0	C (SB R)	43.0	E (SB L)	25.0	YES
NORTH PARK									
31	Madison Ave & Texas St	Signal	AM	77.4	E	144.4	F	67.0	YES
			PM	34.7	C	63.9	E	29.2	YES
32	El Cajon Blvd & Texas St	Signal	AM	35.9	D	37.6	D	1.7	NO
			PM	106.8	F	85.3	F	-21.5	NO
33	El Cajon Blvd & 30th St	Signal	AM	26.0	C	29.7	C	3.7	NO
			PM	50.2	D	68.1	E	17.9	YES
34	El Cajon Blvd & I-805 SB Ramps	Signal	AM	18.4	B	21.9	C	3.5	NO
			PM	80.9	F	96.8	F	15.9	YES
35	El Cajon Blvd & I-805 NB Ramps	Signal	AM	27.9	C	30.1	C	2.2	NO
			PM	19.2	B	24.7	C	5.5	NO
36	University Ave & Texas St	Signal	AM	19.5	B	25.5	C	6.0	NO
			PM	72.7	E	49.5	D	-23.2	NO
37	University Ave & 30th St	Signal	AM	25.0	C	26.5	C	1.5	NO
			PM	49.2	D	57.8	E	8.6	YES
38	University Ave & Boundary St	Signal	AM	23.0	C	26.0	C	3.0	NO
			PM	42.1	D	50.0	D	7.9	NO
39	University Ave & I-805 NB Ramps	Signal	AM	29.0	C	45.5	D	16.5	NO
			PM	35.6	D	80.9	F	45.3	YES
40	North Park Way/I-805 SB Ramps & Boundary St/33rd St	All-Way Stop	AM	18.1	C	18.1	C	0.0	NO
			PM	10.6	B	134.8	F	124.2	YES
41	Upas St & 30th St (W)	All-Way Stop	AM	24.4	C	40.1	E	15.7	YES
			PM	25.9	D	54.8	F	28.9	YES

**Notes:**

**Bold** values indicate intersections operating at LOS E or F.

ECL = Exceeds Calculable Limit.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a one-way or 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 8

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**Table 4-3** Future Year Summary of Intersection Analysis (Cont.)

INTERSECTION		TRAFFIC CONTROL	PEAK HOUR	Existing		Future Year		Δ (c)	SIGNIFICANT?
				DELAY (a)	LOS (b)	DELAY (a)	LOS (b)		
GOLDEN HILL									
42	B St & 17th St/I-5 SB Off-Ramp	One-Way Stop	AM	130.7	<b>F (SB TR)</b>	ECL	<b>F (SB TR)</b>	-	<b>YES</b>
			PM	29.3	D (SB TR)	20.4	C (SB TR)	-8.9	NO
43	B St & I-5 NB Off-Ramp	No Conflicting Movements	AM	N/A	N/A	N/A	N/A	N/A	N/A
			PM	N/A	N/A	N/A	N/A	N/A	N/A
44	B St & 19th St/I-5 NB On-Ramp	Signal	AM	9.4	A	11.2	B	1.8	NO
			PM	6.8	A	7.1	A	0.3	NO
45	C St & 17 St	One-Way Stop	AM	13.7	B (SB TR)	14.3	B (SB TL)	0.6	NO
			PM	23.3	C (SB TR)	32.6	D (SB TL)	9.3	NO
46	Broadway & 30th St	Signal	AM	14.2	B	14.6	B	0.4	NO
			PM	11.9	B	14.3	B	2.4	NO
47	SR-94 WB Ramps & Broadway	One-Way Stop	AM	63.0	<b>F (WB L)</b>	187.5	<b>F (WB L)</b>	124.5	<b>YES</b>
			PM	55.3	<b>F (WB L)</b>	185.9	<b>F (WB L)</b>	130.6	<b>YES</b>
48	SR-94 WB Ramps & 28th St	Two-Way Stop	AM	46.6	<b>E (WB LT)</b>	ECL	<b>F (WB LT)</b>	-	<b>YES</b>
			PM	370.9	<b>F (WB LT)</b>	883.9	<b>F (WB LT)</b>	513.0	<b>YES</b>
49	SR-94 EB Ramps & 28th St	One-Way Stop	AM	26.7	D (WB L)	245.3	<b>F (WB L)</b>	218.6	<b>YES</b>
			PM	507.0	<b>F (WB L)</b>	ECL	<b>F (WB L)</b>	-	<b>YES</b>
50	F St & 22nd St	All-Way Stop	AM	13.6	B	17.4	C	3.8	NO
			PM	8.6	A	8.7	A	0.1	NO
51	F St & 25th St	All-Way Stop	AM	20.8	C	82.3	<b>F</b>	61.5	<b>YES</b>
			PM	16.2	C	39.4	<b>E</b>	23.2	<b>YES</b>
52	G St & 22nd St	All-Way Stop	AM	9.6	A	10.4	B	0.8	NO
			PM	9.4	A	10.1	B	0.7	NO
53	G St & 25th St	All-Way Stop	AM	12.4	B	55.2	<b>F</b>	42.8	<b>YES</b>
			PM	16.0	C	68.0	<b>F</b>	52.0	<b>YES</b>
Notes: <b>Bold</b> values indicate intersections operating at LOS E or F. ECL = Exceeds Calculable Limit. (a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a one-way or two-way stop-controlled intersection, delay refers to the worst movement. (b) LOS calculations are based on the methodology outlined in the <i>2000 Highway Capacity Manual</i> and performed using Synchro 8 K:\SND_TPTO\095240042_Future\240042IN02_Future_Without Reduction.xlsm\Future1									

**Table 4-4 Future Year Summary of Roadway Segment Analysis**

ROADWAY SEGMENT	ROADWAY FUNCTIONAL CLASSIFICATION	LOS E CAPACITY	EXISTING				FUTURE YEAR				Δ In V/C	SIGNIFICANT?
			ADT	V/C RATIO (a)	LOS	ADT	V/C RATIO (a)	LOS				
UPTOWN												
First Ave												
Arbor Dr to Washington St	2 Lane Collector (one-way)	17,500	5,240	0.299	A	7,500	0.429	B	2260	0.130	NO	
Washington St to University Ave	2 Lane Collector (no center lane)	8,000	7,400	0.925	E	9,100	1.138	F	1700	0.213	YES	
University Ave to Robinson Ave	2 Lane Collector (no center lane)	8,000	10,100	1.263	F	16,300	2.038	F	6000	0.775	YES	
Robinson Ave to Pennsylvania Ave	2 Lane Collector (no center lane)	8,000	7,500	0.938	E	11,500	1.438	F	4000	0.500	YES	
Pennsylvania Ave to Walnut Ave	2 Lane Collector (no center lane)	8,000	7,261	0.908	E	12,800	1.600	F	5539	0.692	YES	
Walnut Ave to Laurel St	2 Lane Collector (no center lane)	8,000	4,695	0.587	C	11,900	1.488	F	7205	0.901	YES	
Laurel St to Hawthorn St	2 Lane Collector (no center lane)	8,000	7,290	0.911	E	8,400	1.050	F	1110	0.319	YES	
Hawthorn St to Grape St	2 Lane Collector (no center lane)	8,000	3,810	0.476	C	6,800	0.850	E	2990	0.374	YES	
Grape St to Elm St	2 Lane Collector (one-way)	17,500	3,285	0.188	A	4,500	0.257	A	1215	0.069	NO	
Fourth Ave												
Arbor Dr to Washington St	2 Lane Collector (no center lane)	8,000	12,390	1.549	F	14,900	1.863	F	2510	0.314	YES	
Washington St to University Ave	2 Lane Collector (one-way)	17,500	10,400	0.594	C	10,400	0.594	C	0	0.000	NO	
University Ave to Robinson Ave	2 Lane Collector (one-way)	17,500	11,800	0.674	C	12,900	0.737	D	1100	0.063	NO	
Robinson Ave to Walnut Ave	2 Lane Collector (one-way)	17,500	6,946	0.397	A	11,400	0.651	C	4454	0.254	NO	
Walnut Ave to Laurel St	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	8,492	0.485	B	15,100	0.863	E	6608	0.378	YES	
Laurel St to Grape St	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	7,790	0.445	B	13,700	0.783	D	5910	0.338	NO	
Grape St to Elm St	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	7,570	0.433	B	9,700	0.554	C	2130	0.121	NO	
Fifth Ave												
Washington St to University Ave	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	11,700	0.669	C	11,800	0.674	C	100	0.005	NO	
University Ave to Robinson Ave	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	10,300	0.589	C	14,000	0.800	D	3700	0.211	NO	
Robinson Ave to Walnut Ave	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	12,209	0.698	C	15,800	0.903	E	3591	0.205	YES	
Walnut Ave to Laurel St	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	11,400	0.651	C	14,800	0.846	D	3400	0.195	NO	
Laurel St to Hawthorn St	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	9,260	0.529	B	14,400	0.823	D	5140	0.294	NO	
Hawthorn St to Grape St	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	10,045	0.574	C	14,300	0.817	D	4255	0.243	NO	
Grape St to Elm St	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	9,220	0.527	B	10,100	0.577	C	880	0.050	NO	
Sixth Ave												
Washington St to University Ave	4 Lane Collector (no center lane)	15,000	16,877	0.844	D	45,100	3.007	F	28223	2.163	YES	
University Ave to Robinson Ave	4 Lane Collector (no center lane)	15,000	24,900	1.660	F	32,600	2.173	F	7700	0.513	YES	
Robinson Ave to Uptown St	4 Lane Collector (no center lane)	15,000	15,000	1.000	F	29,900	1.993	F	14900	0.993	YES	
Uptown St to Laurel St	4 Lane Collector (no center lane)	15,000	15,128	1.009	F	25,900	1.727	F	10772	0.718	YES	
Laurel St to Juniper St	2 Lane Collector (continuous left-turn lane)	15,000	10,140	0.676	D	16,600	1.107	F	6460	0.431	YES	
Juniper St to Grape St	2 Lane Collector (continuous left-turn lane)	15,000	10,915	0.728	D	18,700	1.247	F	7785	0.519	YES	
Grape St to Elm St	2 Lane Collector (continuous left-turn lane)	15,000	10,650	0.710	D	20,300	1.353	F	9650	0.643	YES	
Ninth Ave												
Washington St to University Ave	2 Lane Collector (no center lane)	8,000	5,204	0.651	D	8,000	1.000	F	2796	0.349	YES	
Campus Ave/Polk Ave												
Madison Ave to Washington St	2 Lane Collector (no center lane)	8,000	3,175	0.397	B	5,800	0.725	D	2625	0.328	NO	
Washington St to Park Blvd	2 Lane Collector (no center lane)	8,000	5,610	0.701	D	7,400	0.925	E	1790	0.224	YES	
Cleveland Ave												
Tyler St to Lincoln Ave	2 Lane Collector (no center lane)	8,000	4,865	0.608	C	7,200	0.900	E	2335	0.292	YES	
Lincoln Ave to Richmond St	2 Lane Collector (no center lane)	8,000	7,775	0.972	E	9,600	1.200	F	1825	0.228	YES	
Curlew St												
Robinson Ave to Reppard Wy	2 Lane Collector (no center lane)	8,000	1,720	0.215	A	4,600	0.575	C	2880	0.360	NO	
Elm St												
Second Ave to Third Ave	2 Lane Collector (one-way)	17,500	7,889	0.451	B	8,500	0.486	B	611	0.035	NO	
Third Ave to Fifth Ave	3 Lane Collector (one-way)	26,000	8,179	0.315	A	9,100	0.350	A	921	0.035	NO	
Fifth Ave to Sixth Ave	3 Lane Collector (one-way)	26,000	6,720	0.258	A	8,100	0.312	A	1380	0.054	NO	

Notes:  
**Bold** values indicate roadway segments operating at LOS E or F.  
 Capacity for non-standard roadway classifications were provided by City of San Diego as it  
 (a) The V/C Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.



**Table 4-5 Future Year Summary of Roadway Segment Analysis (cont.)**

ROADWAY SEGMENT	ROADWAY FUNCTIONAL CLASSIFICATION	LOS E CAPACITY	EXISTING			FUTURE YEAR			Δ in V/C	SIGNIFICANT?	
			ADT	V/C RATIO (a)	LOS	ADT	V/C RATIO (a)	LOS			
UPTOWN											
Fort Stockton Dr											
Arlisa St to Sunset Blvd	2 Lane Collector (no center lane)	8,000	3,290	0.411	B	4,900	0.613	C	1610	0.202	NO
Sunset Blvd to Hawk St	2 Lane Collector (no center lane)	8,000	6,100	0.763	D	7,900	0.988	E	1800	0.225	YES
Hawk St to Goldfinch St	2 Lane Collector (no center lane)	8,000	8,450	1.056	F	8,900	1.113	F	450	0.057	YES
Goldfinch St to Falcon St	2 Lane Collector (no center lane)	8,000	2,910	0.364	B	3,300	0.413	B	350	0.049	NO
Front St											
Dickinson St to Arbor Dr	2 Lane Collector (no center lane)	8,000	3,790	0.474	C	4,600	0.575	C	810	0.101	NO
Arbor Dr to Washington St	2 Lane Collector (one-way)	17,500	5,510	0.315	A	7,900	0.451	B	2390	0.136	NO
Grape St											
Albion St to First Ave	3 Lane Collector (one-way)	26,000	2,082	0.080	A	7,300	0.281	A	5218	0.201	NO
First Ave to Third Ave	2 Lane Collector (no center lane)	8,000	4,239	0.536	C	7,300	0.913	E	3011	0.377	YES
Third Ave to Sixth Ave	2 Lane Collector (no center lane)	8,000	2,097	0.262	A	9,000	1.125	F	6903	0.863	YES
Hawthorn St											
Brant St to First Ave	3 Lane Collector (one-way)	26,000	11,558	0.445	B	15,000	0.577	C	3442	0.132	NO
First Ave to Third Ave	2 Lane Collector (no center lane)	8,000	3,634	0.454	C	7,300	0.913	E	3666	0.459	YES
Third Ave to Sixth Ave	2 Lane Collector (no center lane)	8,000	3,577	0.447	C	8,700	1.088	F	5123	0.641	YES
India St											
Washington St to Winder St	2 Lane Collector (no center lane)	8,000				11,000	1.375	F		-	-
Winder St to Glenwood Dr	3 Lane Collector (one-way)	26,000	8,345	0.321	A	10,700	0.412	A	2355	0.091	NO
Glenwood Dr to Sassafras St	2 Lane Collector (one-way)	17,500	26,178	1.496	F	30,000	1.714	F	3822	0.218	YES
Sassafras St to Redwood St	3 Lane Collector (two-way)	20,000	18,676	0.934	E	21,300	1.065	F	2624	0.131	YES
Redwood St to Palm St	3 Lane Collector (one-way)	26,000	16,705	0.643	C	20,300	0.781	D	3595	0.138	NO
Juan St											
Harney St to Witherby St	2 Lane Collector (no center lane)	8,000	2,345	0.293	A	4,600	0.575	C	2255	0.282	NO
Laurel St											
Columbia St to Union St	4 Lane Collector (no center lane)	15,000	13,691	0.913	E	21,100	1.407	F	7409	0.494	YES
Union St to First Ave	2 Lane Collector (continuous left-turn lane)	15,000	11,128	0.742	D	17,900	1.193	F	6772	0.451	YES
First Ave to Third Ave	2 Lane Collector (continuous left-turn lane)	15,000	11,326	0.755	D	16,100	1.073	F	4774	0.318	YES
Third Ave to Sixth Ave	2 Lane Collector (continuous left-turn lane)	15,000	11,516	0.768	D	20,200	1.347	F	8684	0.579	YES
Lewis St											
Fort Stockton Dr to Goldfinch St	2 Lane Collector (no center lane)	8,000	3,720	0.465	C	4,100	0.513	C	380	0.048	NO
Lincoln Ave											
Washington St to Park Blvd	2 Lane Collector (no center lane)	8,000	8,155	1.019	F	11,100	1.388	F	2945	0.369	YES
Madison Ave											
Cleveland Ave to Park Blvd	2 Lane Collector (no center lane)	8,000	3,750	0.469	C	6,100	0.763	D	2350	0.294	NO
Mende Ave											
Cleveland Ave to Park Blvd	2 Lane Collector (continuous left-turn lane)	15,000	3,290	0.219	A	3,500	0.233	A	210	0.014	NO
Normal St											
Park Blvd to Washington St	6 Lane Major Arterial	50,000	22,296	0.446	B	28,300	0.566	C	6004	0.120	NO
Washington St to University Ave	4 Lane Major Arterial	40,000	4,974	0.124	A						NO

Notes:

**Bold** values indicate roadway segments operating at LOS E or F

\*Normal Street will be classified as a two lane collector with no continuous center left turn lane to accommodate future bicycle boulevard pending further project level analysis

Capacity for non-standard roadway classifications were provided by City of San Diego staff

(a) The v/c ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity



**Table 4-6 Future Year Summary of Roadway Segment Analysis (cont.)**

ROADWAY SEGMENT	ROADWAY FUNCTIONAL CLASSIFICATION	LOS E CAPACITY	EXISTING			FUTURE YEAR			Δ In V/C	SIGNIFICANT?
			ADT	V/C RATIO (a)	LOS	ADT	V/C RATIO (a)	LOS		
UPTOWN										
Park Blvd										
Adams Ave to Mission Ave	2 Lane Collector (continuous left-turn lane)	15,000	14,839	0.989	E	14,060	0.937	E	-779	NO
Mission Ave to El Cajon Blvd	3 Lane Collector (no center lane)	11,500	11,806	1.027	F	15,467	1.345	F	3661	YES
El Cajon Blvd to Polk Ave	4 Lane Major Arterial	40,000	11,524	0.288	A	18,600	0.465	B	7076	NO
Polk Ave to University Ave	4 Lane Major Arterial	40,000	13,936	0.348	A	22,500	0.563	C	8564	NO
University Ave to Robinson Ave	4 Lane Major Arterial	40,000	14,400	0.360	A	19,800	0.495	B	5400	NO
Robinson Ave to Upas St	2 Lane Collector (continuous left-turn lane)	15,000	12,501	0.833	D	17,200	1.147	F	4699	YES
Upas St to Zoo Pl	4 Lane Major Arterial	40,000	13,807	0.345	A	17,700	0.443	B	3893	NO
Bernard Wy										
Torrance St to Curlew St	2 Lane Collector (continuous left-turn lane)	15,000	1,955	0.130	A	5,300	0.353	B	3345	NO
Curlew St to Laurel St	2 Lane Collector (continuous left-turn lane)	15,000	7,200	0.480	C	8,600	0.573	C	1400	NO
Richmond St										
Cleveland Ave to University Ave	2 Lane Collector (no center lane)	8,000	7,085	0.886	E	9,000	1.125	F	1915	YES
University Ave to Robinson Ave	2 Lane Collector (no center lane)	8,000	5,345	0.668	D	6,700	0.838	E	1355	YES
Robinson Ave to Upas St	2 Lane Collector (no center lane)	8,000	5,015	0.627	D	8,100	1.013	F	3085	YES
Robinson Ave										
Brant St to First Ave	2 Lane Collector (no center lane)	8,000	1,995	0.249	A	4,600	0.575	C	2605	NO
First Ave to Third Ave	2 Lane Collector (no center lane)	8,000	5,800	0.725	D	11,500	1.438	F	5700	YES
Third Ave to Eighth Ave	2 Lane Collector (no center lane)	8,000	11,022	1.378	F	14,400	1.800	F	3378	YES
Tenth Ave to Richmond St	2 Lane Collector (continuous left-turn lane)	15,000	10,120	0.675	D	12,300	0.920	D	2180	NO
Richmond St to Park Blvd	2 Lane Collector (continuous left-turn lane)	15,000	7,269	0.485	C	9,200	0.613	C	1941	NO
San Diego Ave										
Hortencia St to Bringle St	2 Lane Collector (no center lane)	8,000	5,830	0.729	D	10,500	1.313	F	4670	YES
McKee St to Washington St	3 Lane Collector (one-way)	26,000	13,920	0.535	B	18,200	0.700	C	4280	NO
Washington St to India St	2 Lane Collector (one-way)	17,500	4,920	0.281	A	7,100	0.406	A	2180	NO
State St										
Laurel St to Juniper St	2 Lane Collector (no center lane)	8,000	4,140	0.518	C	8,200	1.025	F	4060	YES
Sunset Blvd										
Witherby St to Fort Stockton Dr	2 Lane Collector (no center lane)	8,000	2,595	0.324	B	4,600	0.575	C	2005	NO
University Ave										
This St to Albatross St	2 Lane Collector (no center lane)	8,000	10,527	1.316	F	14,700	1.838	F	4173	YES
Albatross St to First Ave	2 Lane Collector (no center lane)	8,000	16,851	2.106	F	20,800	2.600	F	3949	YES
First Ave to Fourth Ave	2 Lane Collector (no center lane)	10,000	11,750	1.175	F	14,100	1.410	F	2350	YES
Fourth Ave to Fifth Ave	2 Lane Collector (continuous left-turn lane)	15,000	20,250	1.350	F	21,600	1.440	F	1350	YES
Fifth Ave to Sixth Ave	4 Lane Collector	30,000	21,184	0.706	D	24,900	0.830	D	3716	NO
Sixth Ave to Eighth Ave	4 Lane Collector (no center lane)	15,000	24,400	1.627	F	29,300	1.953	F	4900	YES
Vermont St to Normal St	4 Lane Major Arterial	40,000	23,238	0.598	C	25,600	0.640	C	1662	NO
Normal St to Park Blvd	4 Lane Collector (no center lane)	15,000	16,275	1.065	F	21,200	1.413	F	4925	YES
Upas St										
Third Ave to Sixth Ave	2 Lane Collector (no center lane)	10,000	4,475	0.448	B	8,500	0.850	D	4025	NO
Washington St										
India St to University Ave	4 Lane Major Arterial	40,000	27,929	0.698	C	34,800	0.870	D	6871	NO
University Ave to First Ave	4 Lane Major Arterial	40,000	20,477	0.512	B	25,400	0.635	C	4923	NO
First Ave to Fourth Ave	4 Lane Major Arterial	40,000	25,745	0.644	C	25,745	0.644	C	0	NO
Fourth Ave to Fifth Ave	4 Lane Major Arterial	40,000	30,900	0.773	D	37,300	0.933	E	6400	YES
Fifth Ave to Sixth Ave	4 Lane Major Arterial	40,000	38,428	0.961	E	41,100	1.028	F	2672	YES
Sixth Ave to Richmond St	4 Lane Major Arterial	40,000	41,778	1.044	F	41,778	1.044	F	0	NO
Richmond St to Normal St	6 Lane Major Arterial	50,000	38,725	0.775	C	47,100	0.942	E	8375	YES

Notes:  
**Bold** values indicate roadway segments operating at LOS E or F.  
 Capacity for non-standard roadway classifications were provided by City of San Diego staff.  
 (a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

**Table 4-7 Future Year Summary of Roadway Segment Analysis (cont.)**

ROADWAY SEGMENT	ROADWAY FUNCTIONAL CLASSIFICATION	LOS E CAPACITY	EXISTING		FUTURE YEAR		Δ in ADT	Δ in V/C	SIGNIFICANT?
			V/C RATIO (a)	ADT	V/C RATIO (a)	ADT			
NORTH PARK									
30th St									
Adams Ave to Meade Ave	2 Lane Collector (continuous left-turn lane)	15,000	0.422	6,325	B	10,400	D	4,075	NO
Meade Ave to El Cajon Blvd	2 Lane Collector (continuous left-turn lane)	15,000	0.727	10,912	D	14,400	E	3,488	YES
El Cajon Blvd to Howard Ave	2 Lane Collector (continuous left-turn lane)	15,000	0.846	12,684	D	12,684	D	0	NO
Howard Ave to Lincoln Ave	2 Lane Collector (continuous left-turn lane)	15,000	0.847	12,703	D	17,900	F	5,197	YES
Lincoln Ave to University Ave	2 Lane Collector (continuous left-turn lane)	15,000	0.833	12,500	D	14,000	E	1,500	YES
University Ave to North Park Way	2 Lane Collector (continuous left-turn lane)	15,000	0.810	12,150	D	12,500	D	350	NO
North Park Way Ave to Upas St	2 Lane Collector (continuous left-turn lane)	15,000	0.816	12,241	D	16,500	F	4,259	YES
Upas St to Redwood St	2 Lane Collector (no center lane)	8,000	1.103	8,824	F	11,900	F	3,076	YES
Redwood St to Juniper St	2 Lane Collector (no center lane)	8,000	1.013	10,013	F	12,100	F	2,087	YES
32nd St									
Howard Ave to Lincoln Ave	2 Lane Collector (no center lane)	8,000	0.231	1,845	A	4,400	C	2,555	NO
Lincoln Ave to University Ave	2 Lane Collector (no center lane)	8,000	0.413	3,300	B	3,300	B	0	NO
University Ave to Myrtle Ave	2 Lane Collector (no center lane)	8,000	0.625	5,000	D	11,200	F	6,200	YES
Myrtle Ave to Upas St	2 Lane Collector (no center lane)	8,000	0.873	6,985	E	7,900	E	915	YES
Upas St to Redwood St	2 Lane Collector (no center lane)	8,000	0.650	5,200	D	5,200	D	0	NO
Redwood St to Juniper St	2 Lane Collector (no center lane)	8,000	0.277	2,218	A	2,600	B	382	NO
Adams Ave									
Park Blvd to Alabama St	2 Lane Collector (continuous left-turn lane)	15,000	0.451	6,758	B	7,400	C	642	NO
Alabama St to Texas St	2 Lane Collector (continuous left-turn lane)	15,000	0.598	8,966	C	8,966	C	0	NO
Texas St to 30th St	2 Lane Collector (continuous left-turn lane)	15,000	0.713	10,700	D	13,800	E	3,100	YES
30th St to W Mountain View Dr	2 Lane Collector (continuous left-turn lane)	15,000	1.329	19,929	F	19,929	F	0	NO
Boundary St									
University Ave to North Park Way	2 Lane Collector (no center lane)	8,000	1.578	12,620	F	16,000	F	3,380	YES
North Park Way to Myrtle Ave	1 Lane Collector (one-way)	7,500	0.364	2,730	B	3,300	B	570	NO
Myrtle Ave to Redwood St	2 Lane Collector (no center lane)	8,000	0.584	4,670	C	6,000	D	1,330	NO
Redwood St to Commonwealth Ave	2 Lane Collector (no center lane)	8,000	0.444	3,350	C	3,900	C	350	NO
Commonwealth Ave									
Boundary St to Juniper St	2 Lane Collector (no center lane)	8,000	0.185	1,480	A	2,800	B	1,320	NO
El Cajon Blvd									
Park Blvd to Florida St	6 Lane Major Arterial	50,000	0.388	19,407	A	27,100	B	7,693	NO
Florida St to Texas St	6 Lane Major Arterial	50,000	0.467	23,366	B	34,600	C	11,234	NO
Texas St to Oregon St	6 Lane Major Arterial	50,000	0.490	24,479	B	34,800	C	10,321	NO
Oregon St to Utah St	6 Lane Major Arterial	50,000	0.649	32,468	C	42,800	D	10,332	NO
Utah St to 30th St	6 Lane Major Arterial	50,000	0.644	32,191	C	39,800	C	7,609	NO
30th St to Illinois St	6 Lane Major Arterial	50,000	0.782	39,116	C	48,800	E	9,684	YES
Illinois St to I-805 Ramps	6 Lane Major Arterial	50,000	0.921	46,062	E	58,900	F	12,838	YES
Florida St									
El Cajon Blvd to University Ave	2 Lane Collector (no center lane)	8,000	0.422	3,375	B	7,400	E	4,025	YES
University Ave to Robinson Ave	2 Lane Collector (no center lane)	8,000	0.631	5,450	D	8,800	F	3,350	YES
Robinson Ave to Upas St	2 Lane Collector (no center lane)	8,000	0.760	5,600	D	6,800	F	1,200	YES
Florida Dr									
Upas St to Money Field Dr	2 Lane Collector (no fronting property)	10,000	0.350	5,498	B	6,700	C	1,202	NO

Notes:

**Bold** values indicate roadway segments operating at LOS E or F.

Capacity for non-standard roadway classifications were provided by City of San Diego staff.

(a) The V/C Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.



**Table 4-8 Future Year Summary of Roadway Segment Analysis (cont.)**

ROADWAY SEGMENT	ROADWAY FUNCTIONAL CLASSIFICATION	LOS E CAPACITY	EXISTING			FUTURE YEAR			Δ In V/C	SIGNIFICANT?
			ADT	V/C RATIO (g)	LOS	ADT	V/C RATIO (g)	LOS		
NORTH PARK										
Howard Ave										
Park Blvd to Florida St	2 Lane Collector (continuous left-turn lane)	15,000	3,000	0.200	A	4,800	0.600	C	1800	NO
	2 Lane Collector (no center lane)*	8,000								
Florida St to Texas St	2 Lane Collector (continuous left-turn lane)	15,000	3,566	0.238	A	3,900	0.488	C	334	NO
	2 Lane Collector (no center lane)*	8,000								
Texas St to Utah St	2 Lane Collector (continuous left-turn lane)	15,000	4,815	0.321	A	11,300	1.413	F	6485	YES
	2 Lane Collector (no center lane)*	8,000								
Utah St to 30th St	2 Lane Collector (continuous left-turn lane)	15,000	6,137	0.409	B	10,200	1.275	F	4063	YES
	2 Lane Collector (no center lane)*	8,000								
30th St to 32nd St	2 Lane Collector (continuous left-turn lane)	15,000	7,187	0.479	C	10,500	1.313	F	3313	YES
	2 Lane Collector (no center lane)*	8,000								
Juniper St										
30th St to 32nd St	2 Lane Collector (no center lane)	8,000	3,646	0.456	C	6,200	0.775	D	2554	NO
32nd St to Commonwealth Ave	2 Lane Collector (no center lane)	8,000	2,826	0.353	B	4,400	0.550	C	1574	NO
Landis St										
Boundary St to Nile St	2 Lane Collector (no center lane)	8,000	3,790	0.474	C	4,000	0.500	C	210	NO
Lincoln Ave										
Florida St to Texas St	2 Lane Collector (no center lane)	8,000	990	0.124	A	4,300	0.538	C	3310	NO
	2 Lane Collector (no center lane)	8,000	2,400	0.300	A	3,200	0.400	B	800	NO
Utah St to 30th St	2 Lane Collector (continuous left-turn lane)	15,000	4,550	0.303	A	7,500	0.500	C	2950	NO
	2 Lane Collector (no center lane)*	8,000								
30th St to 32nd St	2 Lane Collector (continuous left-turn lane)	15,000	5,563	0.371	B	9,200	0.613	C	3637	NO
	2 Lane Collector (no center lane)*	8,000								
32nd St to Boundary St	2 Lane Collector (continuous left-turn lane)	15,000	5,473	0.365	B	9,800	0.653	C	4327	NO
Madison Ave										
Park Blvd to Mission Ave	2 Lane Collector (continuous left-turn lane)	15,000	6,110	0.407	B	8,100	0.540	C	1990	NO
	2 Lane Collector (no center lane)	8,000								
Mission Ave to Texas St	2 Lane Collector (continuous left-turn lane)	15,000	8,040	0.536	C	10,300	0.687	D	2260	NO
	2 Lane Collector (no center lane)	8,000	5,295	0.662	D	12,200	1.525	F	6905	YES
Texas St to Ohio St	2 Lane Collector (no center lane)	8,000								
Meade Ave										
Park Blvd to Texas St	2 Lane Collector (continuous left-turn lane)	15,000	4,060	0.271	A	8,200	1.025	F	4140	YES
	2 Lane Collector (no center lane)*	8,000								
Texas St to 30th St	2 Lane Collector (continuous left-turn lane)	15,000	5,280	0.352	B	9,900	1.238	F	4620	YES
	2 Lane Collector (no center lane)*	8,000								
30th St to Illinois Ave	2 Lane Collector (continuous left-turn lane)	15,000	8,576	0.572	C	11,500	1.438	F	2924	YES
	2 Lane Collector (no center lane)*	8,000								
Illinois St to Iowa St	2 Lane Collector (continuous left-turn lane)	15,000	8,651	0.577	C	11,900	1.488	F	3249	YES
	2 Lane Collector (no center lane)*	8,000								
Mission Ave										
Park Blvd to Mississippi St	2 Lane Collector (one-way)	17,500	1,497	0.086	A	3,700	0.211	A	2203	NO
Monroe Ave										
Park Blvd to Mission Ave	2 Lane Collector (no center lane)	8,000	1,200	0.150	A	3,200	0.400	B	2000	NO
	2 Lane Collector (no center lane)	8,000	1,500	0.188	A	5,500	0.688	D	4000	NO
Mission Ave to Texas St	2 Lane Collector (no center lane)	8,000	2,158	0.270	A	5,700	0.713	D	3542	NO
Texas St to 30th St	2 Lane Collector (no center lane)	8,000								
Nile St										
Landis St to Thorn St	2 Lane Collector (no center lane)	8,000	4,305	0.538	C	5,000	0.625	D	695	NO

Notes:  
**Bold** values indicate roadway segments operating at LOS E or F.  
 \*Howard Avenue and Meade Avenue will be classified as a two lane collector with no continuous left turn lane to accommodate future bicycle boulevard pending further project level analysis.  
 Capacity for non-standard roadway classifications were provided by City of San Diego staff.  
 (g) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

**Table 4-9 Future Year Summary of Roadway Segment Analysis (cont.)**

ROADWAY SEGMENT	ROADWAY FUNCTIONAL CLASSIFICATION	LOS E CAPACITY	EXISTING			FUTURE YEAR			Δ in ADT	Δ in V/C	SIGNIFICANT? Y7
			ADT	V/C RATIO (g)	LOS	ADT	V/C RATIO (h)	LOS			
NORTH PARK											
North Park Way											
30th St to 32nd St	2 Lane Collector (no fronting property)	10,000	6,737	0.674	C	8,500	0.850	D	1763	0.176	NO
32nd St to Boundary St	2 Lane Collector (no fronting property)	10,000	-	-	-	10,600	1.060	F	-	-	-
Orange Ave/Howard Ave											
Iowa St to I-805	2 Lane Collector (continuous left-turn lane)	15,000	5,938	0.396	B	-	-	-	-	-	NO
	2 Lane Collector (no center lane)*	8,000	-	-	-	8,200	0.547	C	2262	0.151	NO
Pennuckett Ave											
Juniper St to Fir St	2 Lane Collector (no center lane)	8,000	2,225	0.278	A	2,300	0.288	A	75	0.010	NO
Pershing Dr											
Upas St to Redwood St	2 Lane Collector (continuous left-turn lane)	15,000	6,439	0.429	B	10,500	0.700	D	4061	0.271	NO
Redwood St											
28th St to 30th St	2 Lane Collector (no center lane)	8,000	5,988	0.749	D	7,200	0.900	E	1212	0.151	YES
30th St to 32nd St	2 Lane Collector (no center lane)	8,000	4,912	0.614	C	4,912	0.614	C	0	0.000	NO
32nd St to Boundary St	2 Lane Collector (no center lane)	8,000	1,650	0.206	A	4,400	0.550	C	2750	0.344	NO
Robinson Ave											
Park Blvd to Florida St	2 Lane Collector (no center lane)	8,000	4,160	0.520	C	5,900	0.738	D	1740	0.218	NO
Texas St											
Adams Ave to Mission Ave	3 Lane Major Arterial	30,000	27,532	0.918	E	39,100	1.303	F	11568	0.385	YES
Mission Ave to El Cajon Blvd	2 Lane Collector (continuous left-turn lane)	15,000	16,563	1.104	F	-	-	-	21737	0.173	YES
El Cajon Blvd to Howard Ave	4 Lane Collector	30,000	-	-	-	38,300	1.277	F	-	-	NO
Howard Ave to University Ave	2 Lane Collector (continuous left-turn lane)	15,000	10,404	0.694	D	12,700	0.847	D	2286	0.153	NO
University Ave to Myrtle Ave	2 Lane Collector (continuous left-turn lane)	15,000	9,461	0.631	C	14,400	0.960	E	4939	0.329	YES
Myrtle Ave to Upas St	2 Lane Collector (no center lane)	8,000	3,821	0.478	C	5,700	0.713	D	1879	0.235	NO
University Ave	2 Lane Collector (no center lane)	8,000	2,814	0.352	B	4,100	0.513	C	1286	0.161	NO
University Ave											
Park Blvd to Florida St	4 Lane Collector (no center lane)	15,000	19,200	1.280	F	23,900	1.593	F	4700	0.313	YES
Florida St to Texas St	4 Lane Collector (no center lane)	15,000	21,611	1.441	F	21,611	1.441	F	0	0.000	NO
Texas St to Oregon St	4 Lane Collector (no center lane)	15,000	20,058	1.337	F	23,700	1.580	F	3642	0.243	YES
Oregon St to Utah St	4 Lane Collector (no center lane)	15,000	20,361	1.357	F	22,900	1.527	F	2539	0.170	YES
Utah St to 30th St	4 Lane Collector (no center lane)	15,000	19,173	1.278	F	20,800	1.387	F	1627	0.109	YES
30th St to Illinois St	3 Lane Collector (no center lane)	11,500	21,100	1.835	F	22,800	1.983	F	1700	0.148	YES
Illinois St to 32nd St	3 Lane Collector (no center lane)	11,500	19,644	1.708	F	22,600	1.965	F	2956	0.257	YES
32nd St to Boundary St	4 Lane Collector (no center lane)	15,000	25,568	1.705	F	29,600	1.973	F	4032	0.268	YES
Upas St											
Alabama St to Texas St	2 Lane Collector (no center lane)	8,000	7,100	0.888	E	8,600	1.075	F	1500	0.187	YES
Texas St to Pershing Rd	2 Lane Collector (no center lane)	8,000	7,160	0.895	E	11,500	1.438	F	4340	0.343	YES
Pershing Rd to 30th St	2 Lane Collector (continuous left-turn lane)	15,000	9,374	0.638	C	16,300	1.087	F	6726	0.449	YES
30th St to 32nd St	2 Lane Collector (no center lane)	8,000	4,347	0.543	C	6,100	0.763	D	1753	0.220	YES
32nd St to Boundary St	2 Lane Collector (no center lane)	8,000	2,600	0.325	B	2,700	0.338	B	100	0.013	NO
Utah St											
Adams Ave to Monroe Ave	2 Lane Collector (no center lane)	8,000	992	0.124	A	5,000	0.625	D	4008	0.501	NO
Monroe Ave to El Cajon Blvd	2 Lane Collector (no center lane)	8,000	2,841	0.355	B	5,300	0.663	D	2459	0.308	NO
El Cajon Blvd to Howard Ave	2 Lane Collector (no center lane)	8,000	4,362	0.545	C	6,400	0.800	D	2038	0.255	NO
Howard Ave to Lincoln Ave	2 Lane Collector (no center lane)	8,000	2,535	0.317	B	7,300	0.913	E	4765	0.596	YES
Lincoln Ave to University Ave	3 Lane Collector (no center lane)	11,500	2,900	0.252	A	4,700	0.409	B	1800	0.197	NO
University Ave to North Park Way	2 Lane Collector (no center lane)	8,000	4,740	0.593	C	5,100	0.638	D	360	0.045	NO
North Park Way	2 Lane Collector (no center lane)	8,000	1,919	0.240	A	7,500	0.938	E	5581	0.698	NO

Notes:

**Bold** values indicate roadway segments operating at LOS E or F.

\*Orange/Howard Avenue will be classified as a two lane collector with no continuous left turn lane to accommodate future bicycle boulevard pending further project level analysis

Capacity for non-standard roadway classifications were provided by City of San Diego staff

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity



**Table 4-10 Future Year Summary of Roadway Segment Analysis (cont.)**

ROADWAY SEGMENT	ROADWAY FUNCTIONAL CLASSIFICATION	LOS E CAPACITY	EXISTING			FUTURE YEAR			Δ In V/C	SIGNIFICANT?	
			ADT	V/C RATIO (g)	LOS	ADT	V/C RATIO (g)	LOS			
GOLDEN HILL											
25th St											
Russ Blvd to B St	2 Lane Collector (continuous left-turn lane)	15,000	7,550	0.503	C	7,800	0.520	C	250	0.017	NO
B St to Broadway	4 Lane Collector (no center lane)	15,000	9,409	0.627	C				1491	0.100	NO
	2 Lane Collector (continuous left-turn lane)	15,000				10,900	0.727	D			
Broadway to F St	4 Lane Collector (no center lane)	15,000	12,105	0.807	D				5295	0.353	YES
	2 Lane Collector (continuous left-turn lane)	15,000				17,400	1.160	F			
26th St											
Russ Blvd to B St	2 Lane Collector (no center lane)	8,000	9,152	1.144	F	9,152	1.144	F	0	0.000	NO
B St to C St	2 Lane Collector (no center lane)	8,000	2,146	0.268	A	5,100	0.638	D	2954	0.370	NO
28th St											
Russ Blvd to C St	2 Lane Collector (no center lane)	8,000	4,888	0.611	C	8,800	1.100	F	3912	0.489	YES
C St to Broadway	2 Lane Collector (no center lane)	8,000	8,150	1.019	F	10,500	1.313	F	2350	0.294	YES
	2 Lane Collector (no center lane)	8,000	10,697	1.337	F	19,100	2.388	F	8403	1.051	YES
30th St											
Grape St to Ash St	2 Lane Collector (no center lane)	8,000	3,865	0.483	C	6,900	0.863	E	3035	0.380	YES
A St to Broadway	2 Lane Collector (no center lane)	8,000	16,610	2.076	F	19,800	2.475	F	3190	0.399	YES
Broadway to SR-94	2 Lane Collector (no center lane)	8,000	4,210	0.526	C	9,500	1.188	F	5290	0.662	YES
31st St											
Juniper St to Grape St	2 Lane Collector (no center lane)	8,000	2,299	0.287	A	4,700	0.588	C	2401	0.301	NO
B St											
19th St to 20th St	4 Lane Collector (no center lane)	15,000	5,372	0.358	B	6,500	0.433	B	1128	0.075	NO
20th St to 25th St	2 Lane Collector (no center lane)	8,000	3,708	0.464	C	5,400	0.675	D	1692	0.211	NO
25th St to 26th St	2 Lane Collector (no center lane)	8,000	4,600	0.575	C	7,500	0.958	E	2900	0.363	YES
26th St to 28th St	2 Lane Collector (no center lane)	8,000	6,200	0.775	D	7,100	0.888	E	900	0.113	YES
28th St to 30th St	2 Lane Collector (no center lane)	8,000	2,713	0.339	B	5,700	0.713	D	2987	0.374	NO
Beech St											
28th St to Fern St	2 Lane Collector (no center lane)	8,000	1,770	0.221	A	6,200	0.775	D	4430	0.554	NO
Broadway											
19th St to 20th St	2 Lane Collector (continuous left-turn lane)	15,000	5,788	0.386	B	6,000	0.400	B	212	0.014	NO
20th St to 25th St	2 Lane Collector (continuous left-turn lane)	15,000	4,867	0.324	A	8,000	0.533	C	3153	0.209	NO
25th St to 26th St	2 Lane Collector (continuous left-turn lane)	15,000	4,165	0.278	A	5,500	0.367	B	1335	0.089	NO
26th St to 30th St	2 Lane Collector (continuous left-turn lane)	15,000	3,279	0.219	A	4,900	0.327	A	1621	0.108	NO
30th St to SR-94	2 Lane Collector (no center lane)	8,000	15,881	1.985	F	15,811	1.976	F	-70	-0.009	NO
C St											
19th St to 20th St	1 Lane Collector (one-way)	7,500	3,827	0.510	C	6,100	0.813	D	2273	0.303	NO
20th St to 25th St	2 Lane Collector (continuous left-turn lane)	15,000	3,923	0.26	A	4,500	0.300	A	377	0.038	NO
25th St to 28th St	2 Lane Collector (continuous left-turn lane)	15,000				5,500	0.367	B	-	-	
28th St to 30th St	2 Lane Collector (continuous left-turn lane)	15,000	2,658	0.177	A	4,100	0.273	A	1442	0.096	NO
30th St to 34th St	2 Lane Collector (no center lane)	8,000	4,230	0.53	C	7,900	0.988	E	3670	0.459	YES
Cedar St											
Fern St to Felton St	2 Lane Collector (no center lane)	8,000	2,815	0.352	B	3,400	0.425	B	585	0.073	NO
Fern St											
Juniper St to Grape St	2 Lane Collector (no center lane)	8,000	8,350	1.044	F	8,900	1.113	F	550	0.069	YES
Grape St to A St	2 Lane Collector (no center lane)	8,000	8,082	1.010	F	15,000	1.875	F	6918	0.865	YES
Grape St											
30th St to 31st St	2 Lane Collector (no center lane)	8,000	2,614	0.327	B	9,000	1.125	F	-250	0.708	YES

Notes:  
**Bold** values indicate roadway segments operating at LOS E or F.  
 \*Orange/Eward Avenue will be classified as a two lane collector with no continuous left turn lane to accommodate future bicycle boulevard pending further project level analysis  
 Capacity for non-standard roadway classifications were provided by City of San Diego staff.  
 (a) The V/C Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.



**Table 4-11 Future Year Freeway Segment Analysis Summary**

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	EXISTING		FUTURE YEAR		A (c)	SIGNIFICANT?	
				V/C RATIO	LOS	V/C RATIO	LOS			
AM PEAK										
I-5										
Old Town Ave to Washington St	NB	4 M + 1 A	9,200	0.950	E	1.183	F0	0.234	YES	
	SB	4 M + 1 A	9,200	0.746	C	0.798	C	0.052	NO	
	NB	4 M	8,000	0.840	D	1.096	F0	0.256	YES	
	SB	4 M	8,000	0.660	C	0.739	C	0.079	NO	
Washington St to Pacific Highway	NB	4 M + 1 A	9,200	1.264	F1	1.341	F1	0.078	YES	
	SB	5 M + 1 A	11,200	0.346	A	0.743	C	0.397	NO	
	NB	5 M + 1 A	11,200	1.085	F0	1.149	F0	0.064	YES	
	SB	5 M + 1 A	11,200	0.362	A	0.901	D	0.540	NO	
SR-163 to SR-94	NB	4 M + 1 A	9,200	1.035	F0	1.064	F0	0.029	YES	
	SB	4 M + 1 A	9,200	0.345	A	0.835	D	0.490	NO	
	I-8									
Hotel Circle (W) to Hotel Circle (E)	WB	4 M + 1 A	9,200	1.022	F0	1.333	F1	0.311	YES	
	EB	4 M	8,000	0.887	D	0.763	C	-0.124	NO	
	WB	4 M + 1 A	9,200	1.109	F0	1.366	F2	0.257	YES	
	EB	4 M + 1 A	9,200	0.837	D	0.680	C	-0.157	NO	
Mission Center Rd to Qualcomm Wy	WB	4 M + 1 A	9,200	1.349	F1	1.545	F2	0.196	YES	
	EB	4 M + 1 A	9,200	0.727	C	0.766	C	0.040	NO	
	SR-15									
I-805 to SR-94	NB	3 M + 1 A	7,200	0.532	B	0.772	C	0.241	NO	
	SB	2 M + 1 A	5,200	0.976	E	1.283	F1	0.307	YES	
I-805										
I-8 to Adams Ave	NB	4 M + 1 A	9,200	1.262	F1	1.515	F2	0.253	YES	
	SB	5 M + 1 A	11,200	0.383	A	0.458	B	0.074	NO	
	NB	4 M	8,000	0.602	B	1.427	F2	0.825	YES	
	SB	4 M + 1 A	9,200	1.063	F0	0.457	B	-0.607	NO	
El Cajon Blvd to University Ave	NB	4 M + 1 A	9,200	0.466	B	1.207	F0	0.740	YES	
	SB	4 M + 1 A	9,200	0.947	E	0.421	B	-0.526	NO	
	SR-94									
University Ave to SR-15	WB	4 M	8,000	0.976	E	1.241	F0	0.264	YES	
	EB	4 M	8,000	0.361	A	0.470	B	0.109	NO	
	WB	4 M	8,000	1.095	F0	1.303	F1	0.208	YES	
	EB	4 M	8,000	0.405	A	0.494	B	0.089	NO	
Broadway to SR-15	WB	4 M	8,000	1.214	F0	1.414	F2	0.200	YES	
	EB	4 M + 1 A	9,200	0.390	A	0.466	B	0.075	NO	
	SR-163									
I-8 to Washington St	NB	3 M + 1 A	7,200	0.575	B	1.121	F0	0.546	YES	
	SB	3 M + 1 A	7,200	0.828	D	0.950	E	0.122	YES	
	NB	2 M	4,000	0.800	C	0.830	D	0.031	NO	
	SB	2 M	4,000	1.151	F0	1.846	F2	0.696	YES	
Washington St to Robinson Ave	NB	2 M	4,000	0.884	D	0.914	D	0.030	NO	
	SB	2 M	4,000	1.641	F2	2.032	F3	0.391	YES	
	Notes:									
Bold values indicate freeway segments operating at LOS E or F.										
(a) The capacity is calculated as 2,000 ADT per lane and 1,200 ADT per auxiliary lane										
(b) Traffic volumes provided by City of San Diego model										
(c) Peak-hour volume calculated by: (ADT*K*D)/Truck Factor										

Notes:

**Bold** values indicate freeway segments operating at LOS E or F.

(a) The capacity is calculated as 2,000 ADT per lane and 1,200 ADT per auxiliary lane

(b) Traffic volumes provided by City of San Diego model

(c) Peak-hour volume calculated by:  $(ADT \times K \times D) / \text{Truck Factor}$

**Table 4-12 Future Year Freeway Segment Analysis Summary (Cont.)**

FREEWAY SEGMENT	DIRECTION	NUMBER OF LANES	CAPACITY (a)	EXISTING		FUTURE YEAR		SIGNIFICANT?	
				V/C RATIO	LOS	V/C RATIO	LOS		A (c)
PM PEAK									
I-5									
Old Town Ave to Washington St	NB	4 M + 1 A	9,200	0.780	C	1.000	E	0.220	YES
	SB	4 M + 1 A	9,200	0.916	D	1.187	F0	0.271	YES
Washington St to Pacific Highway	NB	4 M	8,000	0.690	C	0.926	E	0.236	YES
	SB	4 M	8,000	0.810	D	1.100	F0	0.290	YES
First Ave to Sixth Ave	NB	4 M + 1 A	9,200	1.078	F0	1.133	F0	0.055	YES
	SB	5 M + 1 A	11,200	0.498	B	1.105	F0	0.607	YES
SR-163 to SR-94	NB	5 M + 1 A	11,200	0.926	E	1.091	F0	0.166	YES
	SB	5 M + 1 A	11,200	0.521	B	1.213	F0	0.693	YES
SR-94 to Imperial Ave	NB	4 M + 1 A	9,200	0.883	D	1.011	F0	0.127	YES
	SB	4 M + 1 A	9,200	0.497	B	1.124	F0	0.627	YES
I-8									
Hotel Circle (W) to Hotel Circle (E)	WB	4 M + 1 A	9,200	0.807	D	0.889	D	0.082	NO
	EB	4 M	8,000	1.134	F0	1.449	F2	0.315	YES
Mission Center Rd to Qualcomm Wy	WB	4 M + 1 A	9,200	0.876	D	0.910	D	0.035	NO
	EB	4 M + 1 A	9,200	1.070	F0	1.291	F1	0.221	YES
I-805 to SR-15	WB	4 M + 1 A	9,200	0.893	D	0.920	E	0.027	YES
	EB	4 M + 1 A	9,200	1.183	F0	1.511	F2	0.327	YES
SR-15									
I-805 to SR-94	NB	3 M + 1 A	7,200	0.532	B	1.120	F0	0.589	YES
	SB	2 M + 1 A	5,200	0.976	E	1.367	F2	0.391	YES
I-805									
I-8 to Adams Ave	NB	4 M + 1 A	9,200	0.588	B	1.063	F0	0.475	YES
	SB	5 M + 1 A	11,200	0.937	E	1.297	F1	0.360	YES
El Cajon Blvd to University Ave	NB	4 M	8,000	1.095	F0	1.001	F0	-0.094	NO
	SB	4 M + 1 A	9,200	0.635	C	1.293	F1	0.659	YES
University Ave to SR-15	NB	4 M + 1 A	9,200	0.848	D	0.867	D	0.019	NO
	SB	4 M + 1 A	9,200	0.565	B	1.203	F0	0.637	YES
SR-94									
25th St to 28th St	WB	4 M	8,000	0.401	A	0.612	B	0.210	NO
	EB	4 M	8,000	0.936	E	1.482	F2	0.545	YES
28th St to 30th St	WB	4 M	8,000	0.450	B	0.642	C	0.192	NO
	EB	4 M	8,000	1.050	F0	1.556	F2	0.506	YES
Broadway to SR-15	WB	4 M	8,000	0.499	B	0.697	C	0.198	NO
	EB	4 M + 1 A	9,200	1.012	F0	1.468	F2	0.456	YES
SR-163									
I-8 to Washington St	NB	3 M + 1 A	7,200	0.870	D	1.301	F1	0.431	YES
	SB	3 M + 1 A	7,200	0.533	B	0.797	C	0.264	NO
Washington St to Robinson Ave	NB	2 M	4,000	1.209	F0	1.658	F2	0.449	YES
	SB	2 M	4,000	0.741	C	1.016	F0	0.275	YES
Quince Dr to I-5	NB	2 M	4,000	1.364	F2	1.362	F2	-0.001	NO
	SB	2 M	4,000	1.162	F0	1.160	F0	-0.001	NO
Notes:									
Bold values indicate freeway segments operating at LOS E or F.									
(a) The capacity is calculated as 2,000 ADT per lane and 1,200 ADT per auxiliary lane.									
(b) Traffic volumes provided by City of San Diego model.									
(c) Peak-hour volume calculated by: (ADT*(K*D)/Truck Factor									

Notes:

**Bold** values indicate freeway segments operating at LOS E or F.

(a) The capacity is calculated as 2,000 ADT per lane and 1,200 ADT per auxiliary lane

(b) Traffic volumes provided by City of San Diego model

(c) Peak-hour volume calculated by:  $(ADT \times K \times D) / \text{Truck Factor}$

**Table 4-13** Future Year Summary of Ramp Metering Analysis

ON-RAMP	PEAK PERIOD	METER RATE <sup>1</sup> (veh/hr)	EXISTING DEMAND <sup>2</sup> (veh/hr)	EXCESS EXISTING DEMAND (veh/hr)	AVERAGE EXISTING DELAY (min)	FUTURE DEMAND <sup>2</sup> (veh/hr)	EXCESS FUTURE DEMAND (veh/hr)	AVERAGE FUTURE DELAY (min)	Δ IN DELAY WITH PROJECT (min)	SIGNIFICANT ?	AVERAGE WITH PROJECT QUEUE
INTERSTATE 5											
Washington St to I-5 NB	AM	996	1020	24	1.4	1241	245	14.8	13.3	NO	6,125 ft
	PM	996	1034	38	2.3	1227	231	13.9	11.6	NO	5,775 ft
India St to I-5 NB	AM	996	915	0	0.0	1007	11	0.6	0.6	NO	263 ft
	PM	996	1066	70	4.2	1173	177	10.6	6.4	NO	4,415 ft
Hawthorn St to I-5 NB	AM	996	454	0	0.0	460	0	0.0	0.0	NO	0 ft
	PM	996	842	0	0.0	825	0	0.0	0.0	NO	0 ft
Hancock St to I-5 SB	AM	Ramp not metered in the a.m. peak							0.0	NO	0 ft
	PM	1140	1287	147	7.7	1542	402	21.2	13.4	YES	10,050 ft
Kettner Blvd to I-5 SB	AM	Ramp not metered in the a.m. peak							0.0	NO	0 ft
	PM	498	269	0	0.0	861	363	43.7	43.7	YES	9,070 ft
Fifth Ave to I-5 SB	AM	Ramp not metered in the a.m. peak							0.0	NO	0 ft
	PM	996	1087	91	5.5	1894	898	54.1	48.6	YES	22,462 ft
INTERSTATE 8											
NB Texas St to I-8 EB	AM	Ramp not metered in the a.m. peak							0.0	NO	0 ft
	PM	498	465	0	0.0	579	81	9.8	9.8	NO	2,026 ft
SB Texas St to I-8 EB	AM	Ramp not metered in the a.m. peak							0.0	NO	0 ft
	PM	1140	866	0	0.0	888	0	0.0	0.0	NO	0 ft
INTERSTATE 8											
El Cajon Blvd to I-805 NB	AM	1140	860	0	0.0	1118	0	0.0	0.0	NO	0 ft
	PM	Ramp not metered in the p.m. peak							0.0	NO	0 ft
University Ave to I-805 NB	AM	1140	998	0	0.0	1132	0	0.0	0.0	NO	0 ft
	PM	Ramp not metered in the p.m. peak							0.0	NO	0 ft
INTERSTATE 94											
28th St to SR-94 WB	AM	534	100	0	0.0	205	0	0.0	0.0	NO	0 ft
	PM	Ramp not metered in the p.m. peak							0.0	NO	0 ft
32nd St/Broadway to SR-94 WB	AM	570	99	0	0.0	173	0	0.0	0.0	NO	0 ft
	PM	Ramp not metered in the p.m. peak							0.0	NO	0 ft
25th St to SR-94 EB	AM	Ramp not metered in the a.m. peak							0.0	NO	0 ft
	PM	960	785	0	0.0	935	0	0.0	0.0	NO	0 ft
28th St to SR-94 EB	AM	Ramp not metered in the a.m. peak							0.0	NO	0 ft
	PM	960	732	0	0.0	870	0	0.0	0.0	NO	0 ft
32nd St/Broadway to SR-94 EB	AM	Ramp not metered in the a.m. peak							0.0	NO	0 ft
	PM	570	464	0	0.0	558	0	0.0	0.0	NO	0 ft
INTERSTATE 163											
Washington St to SR-163 SB	AM	498	373	0	0.0	615	117	14.2	14.2	NO	2,936 ft
	PM	Ramp not metered in the p.m. peak							0.0	NO	0 ft

Notes:

1) Meter rate is the assumed peak hour capacity expected to be processed through the ramp meter (using Caltrans fast rate)

2) Demand is the peak hour demand using the on-ramp

## 5 SIGNIFICANCE OF IMPACTS AND MITIGATION MEASURES

This chapter addresses the project impacts for each of the three communities based on a comparison between the Future Year conditions and the Existing conditions. Per the City's significance thresholds and the analysis methodology presented in this report, the following cumulative impacts to intersections and roadway segments were determined:

### 5.1 UPTOWN

#### 5.1.1 SIGNIFICANCE OF IMPACTS

##### INTERSECTIONS

- Washington Street & Fourth Avenue
- Washington Street & Eighth Avenue/ SR-163 Off-Ramp
- Washington Street/ Normal Street & Campus Avenue/ Polk Avenue
- University Avenue & Sixth Avenue
- Elm Street & Sixth Avenue
- Cedar Street & Second Avenue

##### SEGMENTS

- First Avenue: Washington Street to University Avenue
- First Avenue: University Avenue to Robinson Avenue
- First Avenue: Robinson Avenue to Grape Street
- Fourth Avenue: Arbor Drive to Washington Street
- Fourth Avenue: Walnut Avenue to Laurel Street
- Fifth Avenue: Robinson Avenue to Walnut Avenue
- Sixth Avenue: Washington Street to University Avenue
- Sixth Avenue: University Avenue to Laurel Street
- Sixth Avenue: Laurel Street to Elm Street
- Ninth Avenue: Washington Street to University Avenue
- Campus Avenue/ Polk Avenue: Washington Street to Park Boulevard
- Cleveland Avenue: Tyler Street to Richmond Street
- Fort Stockton Drive: Sunset Boulevard to Goldfinch Street
- Grape Street: First Avenue to Third Avenue
- Grape Street: Third Avenue to Sixth Avenue
- Hawthorn Street: First Avenue to Third Avenue
- Hawthorn Street: Third Avenue to Sixth Avenue
- India Street: Washington Street to Winder Street
- India Street: Glenwood Drive to Sassafrass Street
- India Street: Sassafrass Street to Redwood Street
- Laurel Street: Columbia Street to Sixth Avenue
- Lincoln Avenue: Washington Street to Park Boulevard
- Park Boulevard: Mission Avenue to El Cajon Boulevard
- Park Boulevard: Robinson Avenue to Upas Street
- Richmond Street: Cleveland Avenue to Upas Street
- Robinson Avenue: First Avenue to Third Avenue

- Robinson Avenue: Third Avenue to Eighth Avenue
- San Diego Avenue: Hortensia Street to Pringle Street
- State Street: Laurel Street to Juniper Street
- University Avenue: Ibis Street to Fifth Avenue
- University Avenue: Sixth Avenue to Eighth Avenue
- University Avenue: Normal Street to Park Boulevard
- Washington Street: Fourth Avenue to Sixth Avenue
- Washington Street: Richmond Street to Normal Street

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## 5.1.2 MITIGATION MEASURES

### INTERSECTIONS

- **Washington Street & Fourth Avenue:** Widen Fourth Avenue in the southbound direction to add a second left-turn lane. Restripe the southbound approach to be two left-turn lanes, one through lane, and one right-turn lane. Uptown CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.
- **Washington Street & Eighth Avenue/ SR-163 Off-Ramp:** Widen Washington Street in the eastbound direction to four lanes and the eastbound direction to three lanes. Widen the SR-163 Off-ramp to two lanes. Uptown CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.
- **Washington Street/ Normal Street & Campus Avenue/ Polk Avenue:** Widen Washington Street in the northeast direction to add an exclusive right-turn lane. Uptown CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.
- **University Avenue & Sixth Avenue:** Widen 6th Avenue in the southbound to add a second left-turn lane. Uptown CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.
- **Elm Street & Sixth Avenue:** Widen Elm Street in the westbound direction to add second right-turn lane. Uptown CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.
- **Cedar Street & Second Avenue:** Install a traffic signal at this intersection. Uptown CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.

### SEGMENTS

- **First Avenue from Washington Street to University Avenue:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **First Avenue from University Avenue to Robinson Avenue:** Widen the roadway to a 4 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.



- **First Avenue from Robinson Avenue to Laurel Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **First Avenue from Laurel Street to Hawthorn Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure. This improvement project is identified in the Uptown IFS.
- **First Avenue from Hawthorn Street to Grape Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Fourth Avenue from Arbor Drive to Washington Street:** Widen the roadway to a 4 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Fourth Avenue from Walnut Avenue to Laurel Street:** Restore the roadway to a 3 lane one-way collector for vehicles and remove the dedicated multi-modal lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Fifth Avenue from Robinson Avenue to Walnut Avenue:** Restore the roadway to a 3 lane one-way collector for vehicles and remove the dedicated multi-modal lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Sixth Avenue from Washington Street to University Avenue:** Widen the roadway to a 6 lane prime arterial. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Sixth Avenue from University Avenue to Laurel Street:** Widen the roadway to a 4 lane major arterial. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Sixth Avenue from Laurel Street to Elm Street:** Widen the roadway to a 4 lane collector. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Ninth Avenue from Washington Street to University Avenue:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Campus Avenue/ Polk Avenue from Washington Street to Park Boulevard:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Cleveland Avenue from Tyler Street to Richmond Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Fort Stockton Drive from Sunset Boulevard to Goldfinch Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.

- **Grape Street from First Avenue to Sixth Avenue:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Hawthorn Street from First Avenue to Sixth Avenue:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **India Street from Washington Street to Winder Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **India Street from Glenwood Drive to Sassafrass Street:** Widen the roadway to a 4 lane one-way collector. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **India Street from Sassafrass Street to Redwood Street:** Widen the roadway to a 3 lane one-way collector. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Laurel Street from Columbia Street to Sixth Avenue:** Widen the roadway to a 4 lane collector. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Lincoln Avenue from Washington Street to Park Boulevard:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Park Boulevard from Mission Avenue to El Cajon Boulevard:** Widen the roadway to a 4 lane one-way collector. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Park Boulevard from Robinson Avenue to Upas Street:** Widen the roadway to a 4 lane one-way collector. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Richmond Street from Cleveland Avenue to Robinson Avenue:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure. This improvement project is identified in the Uptown IFS.
- **Richmond Street from Robinson Avenue to Upas Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Robinson Avenue from First Avenue to Third Ave:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Robinson Avenue from Third to Eighth Avenue:** Widen the roadway to a 4 lane collector. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.

- **San Diego Avenue from Hortensia Street to Pringle Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **State Street from Laurel Street to Juniper Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure. This improvement project is identified in the Uptown IFS.
- **University Avenue from Ibis Street to Fifth Avenue:** Widen the roadway to a 4 lane collector. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **University Avenue from Sixth Avenue to Eighth Avenue:** Widen the roadway to a 4 lane major arterial and install a raised median. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **University Avenue from Normal Street to Park Boulevard:** Widen the roadway to a 4 lane collector. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Washington Street from Fourth Avenue to Sixth Avenue:** Widen the roadway to a 6 lane major arterial. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Washington Street from Richmond Street to Normal Street:** Restripe the roadway to a 6 lane prime arterial and remove on-street parking. Uptown CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.

## CORRIDORS

Intelligent Transportation Systems (ITS) is the application of technology to transportation systems to maximize efficiency of services. Applying ITS technology to a corridor can improve capacity and operations along the individual segments within the corridor. In the Uptown community, the following corridors would benefit from ITS technology integration:

- Sixth Avenue
- University Avenue
- Washington Avenue

## TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) combines marketing and incentive programs to reduce dependence on automobiles. TDM measures within the Uptown community should be encouraged and supported to help prevent or minimize congestion and parking issues.

## 5.2 NORTH PARK

### 5.2.1 SIGNIFICANCE OF IMPACTS

#### INTERSECTIONS

- Madison Avenue & Texas Street
- El Cajon Boulevard & 30<sup>th</sup> Street
- El Cajon Boulevard & I-805 SB Ramps
- University Avenue & 30<sup>th</sup> Street
- University Avenue, Wabash Avenue & I-805 NB Ramps
- North Park Way/ I-805 SB Ramps & Boundary Street/33<sup>rd</sup> Street
- Upas Street & 30<sup>th</sup> Street (W)

#### SEGMENTS

- 30<sup>th</sup> Street: Meade Avenue to El Cajon Boulevard
- 30<sup>th</sup> Street: Howard Avenue to University Avenue
- 30<sup>th</sup> Street: North Park Way to Upas Street
- 30<sup>th</sup> Street: Upas Street to Juniper Street
- 32<sup>nd</sup> Street: University Avenue to Upas Street
- Adams Avenue: Texas Street to 30<sup>th</sup> Street
- Boundary Street: University Avenue to North Park Way
- El Cajon Boulevard: 30<sup>th</sup> Street to I-805 Ramps
- Florida Street: El Cajon Boulevard to Upas Street
- Howard Avenue: Texas Street to 32<sup>nd</sup> Street
- Madison Avenue: Texas Street to Ohio Street
- Meade Avenue: Park Boulevard to Iowa Street
- Redwood Street: 28<sup>th</sup> Street to 30<sup>th</sup> Street
- Texas Street: Adams Avenue to El Cajon Boulevard
- Texas Street: Howard Avenue to University Avenue
- University Avenue: Park Boulevard to Florida Street
- University Avenue: Texas Street to 32<sup>nd</sup> Street
- University Avenue: 32<sup>nd</sup> Street to Boundary Street
- Upas Street: Alabama Street to Pershing Road
- Upas Street: Pershing Road to 30<sup>th</sup> Street
- Utah Street: Howard Avenue to Lincoln Avenue
- Utah Street: North Park Way to Upas Street

### 5.2.2 MITIGATION MEASURES

#### INTERSECTIONS

- **Madison Avenue & Texas Street:** Widen Texas Street in the northbound direction to add a second through lane. Widen Madison Avenue in the westbound direction to add a second right-turn lane. North Park CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.
- **El Cajon Boulevard & 30<sup>th</sup> Street:** Restripe 30<sup>th</sup> Street in the southbound direction to add a second left-turn lane and remove parking. Restripe El Cajon Boulevard in the westbound direction

to add a second WB left-turn lane and remove parking. North Park CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.

- **El Cajon Boulevard & I-805 SB Ramps:** Widen the I-805 SB off-ramp to add a second right-turn lane. North Park CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.
- **University Avenue & 30<sup>th</sup> Street:** Restripe 30<sup>th</sup> street in the southbound direction to add a second through lane and remove parking. North Park CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.
- **University Avenue, Wabash Avenue & I-805 NB Ramps:** Widen University Avenue in the eastbound direction to add an exclusive right-turn lane. Widen University Avenue in the westbound direction to add a shared through right-turn lane. Restripe and reconstruct medians on the I-805 northbound ramps to have dual left-turn lanes and an exclusive through lane and right-turn lane. North Park CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.
- **North Park Way/ I-805 SB Ramps & Boundary Street/33<sup>rd</sup> Street:** Signalize intersection and add a second left-turn lane in the southbound direction on Boundary Street. Widen the I-805 southbound on-ramp to add an additional receiving lane. North Park CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure. Perform Intersection Control Evaluation (ICE) per Caltrans Traffic Operations Policy Directive #13-02 to verify mitigation.
- **Upas Street & 30<sup>th</sup> Street (W):** Restripe Upas Street in the westbound direction to add an exclusive right-turn lane. North Park CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure.

## SEGMENTS

- **30<sup>th</sup> Street from Meade Avenue to El Cajon Boulevard:** Widen the roadway to a 4 lane collector. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **30<sup>th</sup> Street from Howard Avenue to University Avenue:** Widen the roadway to a 4 lane collector. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **30<sup>th</sup> Street from North Park Way to Upas Street:** Widen the roadway to a 4 lane collector. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **30<sup>th</sup> Street from Upas Street to Juniper Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **32<sup>nd</sup> Street from University Avenue to Upas Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Adams Avenue from Texas Street to 30<sup>th</sup> Street:** Widen the roadway to a 4 lane collector. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.



- **Boundary Street from University Avenue to North Park Way:** Widen the roadway to a 4 lane collector. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure. This improvement project is identified in the North Park Impact Fee Study (IFS).
- **El Cajon Boulevard from 30<sup>th</sup> Street to I-805 Ramps:** Widen the roadway to an 8 lane major arterial. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Florida Street from El Cajon Boulevard to Upas Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Howard Avenue from Texas Street to 32<sup>nd</sup> Street:** Remove proposed bicycle boulevard and provide a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Madison Avenue from Texas Street to Ohio Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure. This improvement project is identified in the North Park Impact Fee Study (IFS).
- **Meade Avenue from Park Boulevard to Iowa Street:** Remove proposed bicycle boulevard and provide a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Redwood Street from 28<sup>th</sup> Street to 30<sup>th</sup> Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Texas Street from Adams Avenue to El Cajon Boulevard:** Widen the roadway to a 6 lane major arterial. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure. However, partial mitigation has been proposed with the construction of a 4 lane collector with continuous center left-turn lane between Madison Avenue and El Cajon Boulevard.
- **Texas Street from Howard Avenue to University Avenue:** Widen the roadway to a 4 lane collector. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **University Avenue from Park Boulevard to Florida Street:** Widen the roadway to a 4 lane collector. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **University Avenue from Texas Street to 32<sup>nd</sup> Street:** Widen the roadway to a 4 lane collector. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **University Avenue from 32<sup>nd</sup> Street to Boundary Street:** Widen the roadway to a 4 lane major arterial and add a raised median. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.

- **Upas Street from Alabama Street to Pershing Road:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Upas Street: Pershing Road to 30<sup>th</sup> Street:** Widen the roadway to a 4 lane collector. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Utah Street from Howard Avenue to Lincoln Avenue:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Utah Street from North Park Way to Upas Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. North Park CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.

## CORRIDORS

Intelligent Transportation Systems (ITS) is the application of technology to transportation systems to maximize efficiency of services. Applying ITS technology to a corridor can improve capacity and operations along the individual segments within the corridor. In the North Park community, the following corridors would benefit from ITS technology integration:

- University Avenue
- El Cajon Boulevard

## TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) combines marketing and incentive programs to reduce dependence on automobiles. TDM measures within the North Park community should be encouraged and supported to help prevent or minimize congestion and parking issues.

### 5.3 GOLDEN HILL

#### 5.3.1 SIGNIFICANCE OF IMPACTS

## INTERSECTIONS

- B Street & 17<sup>th</sup> Street/ I-5 SB Off-Ramp
- SR-94 WB Ramps & Broadway
- SR-94 WB Ramp & 28<sup>th</sup> Street
- SR-94 EB Ramp & 28<sup>th</sup> Street
- F Street & 25<sup>th</sup> Street
- G Street & 25<sup>th</sup> Street

## SEGMENTS

- 25<sup>th</sup> Street: Broadway to F Street
- 28<sup>th</sup> Street: Russ Boulevard to SR-94
- 30<sup>th</sup> Street: Grape Street to SR-94

- B Street: 25<sup>th</sup> Street to 28<sup>th</sup> Street
- C Street: 30<sup>th</sup> Street to 34<sup>th</sup> Street
- Fern Street: Juniper Street to A Street
- Grape Street: 30<sup>th</sup> Street to 31<sup>st</sup> Street

### 5.3.2 MITIGATION MEASURES

#### INTERSECTIONS

- **B Street & 17<sup>th</sup> Street/ I-5 SB Off-Ramp:** Install traffic signal control at the intersection. Golden Hill CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure. This improvement project is identified in the Golden Hill Impact Fee Study (IFS).
- **SR-94 WB Ramps & Broadway:** Install traffic signal control at the intersection. Golden Hill CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure. However, signal warrants are not met for the signalization of this location. This improvement will be placed on the watch list for future signalization in the Golden Hill IFS.
- **SR-94 WB Ramps & 28<sup>th</sup> Street:** Install traffic signal control at the intersection. Golden Hill CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure. This improvement project is identified in the Golden Hill IFS.
- **SR-94 EB Ramps & 28<sup>th</sup> Street:** Install traffic signal control at the intersection. Restripe the southbound approach to have an exclusive left-turn lane and a through lane. Golden Hill CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure. This improvement project is identified in the Golden Hill IFS.
- **F Street & 25<sup>th</sup> Street:** Install traffic signal control at the intersection. Golden Hill CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure. However, signal warrants are not met for the signalization of this location. This improvement will be placed on the watch list for future signalization in the Golden Hill IFS.
- **G Street & 25<sup>th</sup> Street:** Install traffic signal control at the intersection. Golden Hill CPU significant traffic impact to this intersection would be fully mitigated with the implementation of this mitigation measure. However, signal warrants are not met for the signalization of this location. This improvement will be placed on the watch list for future signalization in the Golden Hill IFS.

#### SEGMENTS

- **25<sup>th</sup> Street from Broadway to F Street:** Widen the roadway to a 4 lane collector. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **28<sup>th</sup> Street from Russ Boulevard to Broadway:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **28<sup>th</sup> Street from Broadway to SR-94:** Widen the roadway to a 4 lane collector. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation

of this mitigation measure. However, partial mitigation is proposed at this location with the widening of the roadway to a two lane collector with continuous left-turn lane. This improvement project is identified on the Golden Hill IFS.

- **30<sup>th</sup> Street from Grape Street to Ash Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **30<sup>th</sup> Street from A Street to Broadway:** Widen the roadway to a 4 lane collector. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure. However, partial mitigation is proposed at this location with the widening of the roadway to a two lane collector with continuous left-turn lane. This improvement project is identified on the Golden Hill IFS.
- **30<sup>th</sup> Street from Broadway to SR-94:** Widen roadway to a 2 lane collector with continuous left-turn lane. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure. This improvement project is identified on the Golden Hill IFS.
- **B Street from 25<sup>th</sup> Street to 28<sup>th</sup> Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **C Street from 30<sup>th</sup> Street to 34<sup>th</sup> Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Fern Street from Juniper Street to Grape Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Fern Street from Grape Street to A Street:** Widen the roadway to a 4 lane collector. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.
- **Grape Street from 30<sup>th</sup> Street to 31<sup>st</sup> Street:** Restripe the roadway to a 2 lane collector with continuous left-turn lane. Golden Hill CPU significant traffic impact to this roadway segment would be fully mitigated with the implementation of this mitigation measure.

## TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) combines marketing and incentive programs to reduce dependence on automobiles. TDM measures within the Golden Hill community should be encouraged and supported to help prevent or minimize congestion and parking issues.

### 5.4 FREEWAYS

As shown in Chapter 4, the evaluated CPU land uses would have a cumulative traffic related impact at the following mainline freeway segments:

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#### 5.4.1 SIGNIFICANCE OF IMPACTS

##### MAINLINE SEGMENTS

- I-5 NB: Old Town Avenue to Imperial Avenue
- I-5 SB: Old Town Avenue to Imperial Avenue
- I-8 WB: Hotel Circle (W) to SR-15
- I-8 EB: Hotel Circle (W) to SR-15
- SR-15 NB: I-805 to SR-94
- SR-15 SB: I-805 to SR-94
- I-805 NB: I-8 to SR-15
- I-805 SB: I-8 to SR-15
- SR-94 WB: 25th Street to SR-15
- SR-94 EB: 25th Street to SR-15
- SR-163 NB: I-8 to Robinson Avenue
- SR-163: SB: I-8 to I-5

##### INTERCHANGE RAMPS

- Hancock St to I-5 SB
- Kettner Boulevard to I-5 SB
- Fifth Avenue to I-5 SB

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#### 5.4.2 MITIGATION MEASURES

##### MAINLINE SEGMENTS

- **I-5 NB from Old Town Avenue to Imperial Avenue:** No improvements are identified for this freeway segment in SANDAG's 2050 RTP.
- **I-5 SB from Old Town Avenue to Imperial Avenue:** No improvements are identified for this freeway segment in SANDAG's 2050 RTP.
- **I-8 WB from Hotel Circle (W) to SR-15:** SANDAG's 2050 Revenue Constrained RTP includes operational improvements along I-8 between I-5 and SR-125. Between I-15 and SR-125, the project is expected to be constructed by 2040. In 2050, the project is expected to be constructed between I-5 and I-15. This measure provides partial mitigation since it improves freeway operation in the vicinity of the project.
- **I-8 EB from Hotel Circle (W) to SR-15:** SANDAG's 2050 Revenue Constrained RTP includes operational improvements along I-8 between I-5 and SR-125. Between I-15 and SR-125, the project is expected to be constructed by 2040. In 2050, the project is expected to be constructed between I-5 and I-15. This measure provides partial mitigation since it improves freeway operation in the vicinity of the project.
- **SR-15 NB from I-805 to SR-94:** SANDAG's 2050 Revenue Constrained RTP proposes the construction of managed lanes along SR-15 from I-5 to I-805 and from I-8 to SR-163. Between I-8 and SR-163, the project is expected to be constructed by 2020; between SR-94 and I-805, the project is expected to be constructed by 2035; and between I-5 and SR-94, the project is expected to be constructed by 2050. This measure provides partial mitigation since it reduces the traffic demand on the freeway general purpose lane.



- **SR-15 SB from I-805 to SR-94:** SANDAG's 2050 Revenue Constrained RTP proposes the construction of managed lanes along SR-15 from I-5 to I-805 and from I-8 to SR-163. Between I-8 and SR-163, the project is expected to be constructed by 2020; between SR-94 and I-805, the project is expected to be constructed by 2035; and between I-5 and SR-94, the project is expected to be constructed by 2050. This measure provides partial mitigation since it reduces the traffic demand on the freeway general purpose lane.
- **I-805 NB from I-8 to SR-15:** SANDAG's 2050 Revenue Constrained RTP proposes the construction of managed lanes along I-805 between SR-15 and SR-52. This project is expected to be constructed by year 2030. This measure provides partial mitigation since it reduces the traffic demand on the freeway general purpose lane. Caltrans is also studying buses on shoulder options along the I-805 corridor on an interim basis.
- **I-805 SB from I-8 to SR-15:** SANDAG's 2050 Revenue Constrained RTP proposes the construction of managed lanes along I-805 between SR-15 and SR-52. This project is expected to be constructed by year 2030. This measure provides partial mitigation since it reduces the traffic demand on the freeway general purpose lane. Caltrans is also studying buses on shoulder options along the I-805 corridor on an interim basis.
- **SR-94 WB from 25th Street to SR-15:** SANDAG's 2050 Revenue Constrained RTP proposes the construction of managed lanes along SR-94 between I-5 and SR-125. Between I-5 and I-805, this project is expected to be constructed by year 2020. In 2040 the project is expected to be constructed between I-805 and SR-125. This measure provides partial mitigation since it reduces the traffic demand on the freeway general purpose lanes. Caltrans is also studying buses on shoulder options, general purpose lane conversions and access to transit from local communities along SR-94.
- **SR-94 EB from 25th Street to SR-15:** SANDAG's 2050 Revenue Constrained RTP proposes the construction of managed lanes along SR-94 between I-5 and SR-125. Between I-5 and I-805, this project is expected to be constructed by year 2020. In 2040 the project is expected to be constructed between I-805 and SR-125. This measure provides partial mitigation since it reduces the traffic demand on the freeway general purpose lane. Caltrans is also studying buses on shoulder options, general purpose lane conversions and access to transit from local communities along SR-94.
- **SR-163 NB from I-8 to Robinson Avenue:** No improvements are identified for this state route segment in SANDAG's 2050 RTP.
- **SR-163: SB from I-8 to I-5:** No improvements are identified for this state route segment in SANDAG's 2050 RTP.

## INTERCHANGE RAMPS

- **Hancock St On-Ramp to I-5 SB:** SANDAG's 2050 Revenue Constrained RTP includes operational improvements along I-5 between SR-15 and I-8. This project is expected to be constructed by year 2050. This measure provides partial mitigation since it improves freeway operation in the vicinity of the project.
- **Kettner Boulevard On-Ramp to I-5 SB:** SANDAG's 2050 Revenue Constrained RTP includes operational improvements along I-5 between SR-15 and I-8. This project is expected to be constructed by year 2050. This measure provides partial mitigation since it improves freeway operation in the vicinity of the project.

- **Fifth Avenue to On-Ramp I-5 SB:** SANDAG's 2050 Revenue Constrained RTP includes operational improvements along I-5 between SR-15 and I-8. This project is expected to be constructed by year 2050. This measure provides partial mitigation since it improves freeway operation in the vicinity of the project.

**Table 6-1** Post Mitigation Summary of Intersection Analysis

INTERSECTIONS	PEAK HOUR	FUTURE YEAR		POST-MITIGATION	
		DELAY (a)	LOS (b)	DELAY (a)	LOS (b)
UPTOWN					
Washington St & Fourth Ave	AM	31.8	C	27.3	C
	PM	59.9	E	42.7	D
Washington St & Eighth Ave/SR-163 Off Ramp	AM	71.5	E	22.3	C
	PM	331.7	F	49.5	D
Washington St/Normal St & Campus Ave/Polk Ave	AM	62.7	E	49.9	D
	PM	57.3	E	39.5	D
University Ave & Sixth Ave	AM	38.7	D	40	D
	PM	55.3	E	50.8	D
Elm St & Sixth Ave	AM	153.6	F	20.6	C
	PM	18.8	B	12.5	B
Cedar St & Second Ave	AM	ECL	F	25.9	C
	PM	43	E	10.1	B
NORTH PARK					
Madison Ave & Texas St	AM	144.4	F	36.2	D
	PM	63.9	E	35	D
El Cajon Blvd & 30th St	AM	29.7	C	26.1	C
	PM	68.1	E	52	D
El Cajon Blvd & I-805 SB Ramps	AM	21.9	C	15.5	B
	PM	96.8	F	37.7	D
University Ave & 30th St	AM	26.5	C	25.9	C
	PM	57.8	E	44.3	D
University Ave & I-805 NB Ramps	AM	45.5	D	52.6	D
	PM	80.9	F	54.9	D
North Park Way, I-805 SB Ramps, & Boundary St	AM	18.1	C	15.6	B
	PM	134.8	F	47.2	D
Upas St & 30th St	AM	40.1	E	14.5	B
	PM	54.8	F	34.1	D
GOLDEN HILL					
B St & 17th St/ I-5 SB Off-Ramp	AM	ECL	F	25.1	C
	PM	20.4	C	7.2	A
SR-94 WB Ramps & Broadway	AM	ECL	F	11.1	B
	PM	ECL	F	13.2	B
SR-94 WB Ramps & 28th St	AM	ECL	F	15.4	B
	PM	ECL	F	14.6	B
SR-94 EB Ramps & 28th St	AM	ECL	F	13.8	A
	PM	ECL	F	18.4	B
F St & 25th St	AM	82.3	F	12.5	B
	PM	39.4	E	7.5	A
G St & 25th St	AM	55.2	F	19.8	B
	PM	68	F	16.5	B

Notes:

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 8

**Table 6-2** Post Mitigation Summary of Roadway Segment Analysis

ROADWAY SEGMENT	FUTURE YEAR ADT	ROADWAY FUNCTIONAL CLASSIFICATION			LOS E CAPACITY	V/C RATIO (a)	LOS
First Ave							
Washington St to University Ave	9,100	Future Year	2 Lane Collector (No center lane)	8,000	1.138	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.607	C	
University Ave to Robinson Ave	16,300	Future Year	2 Lane Collector (No center lane)	8,000	2.038	F	
		Post Mitigation	4 Lane Collector	30,000	0.543	C	
Robinson Ave to Pennsylvania Ave	11,500	Future Year	2 Lane Collector (No center lane)	8,000	1.438	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.767	D	
Pennsylvania Ave to Walnut Ave	12,800	Future Year	2 Lane Collector (No center lane)	8,000	1.600	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.853	D	
Walnut Ave to Laurel St	11,900	Future Year	2 Lane Collector (No center lane)	8,000	1.488	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.793	D	
Laurel St to Hawthorn St	8,400	Future Year	2 Lane Collector (No center lane)	8,000	1.050	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.560	C	
Hawthorn St to Grape St	6,800	Future Year	2 Lane Collector (No center lane)	8,000	0.850	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.453	B	
Fourth Ave							
Arbor Dr to Washington St	14,900	Future Year	2 Lane Collector (No center lane)	8,000	1.863	F	
		Post Mitigation	4 Lane Collector	30,000	0.497	C	
Walnut Ave to Laurel St	15,100	Future Year	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	0.863	E	
		Post Mitigation	3 Lane Collector (one-way)	26,000	0.581	C	
Fifth Ave							
Robinson Ave to Walnut Ave	15,800	Future Year	3 Lane Collector (one-way w/ one lane dedicated for multi-modal)	17,500	0.903	E	
		Post Mitigation	3 Lane Collector (one-way)	26,000	0.608	C	
Sixth Ave							
Washington St to University Ave	45,100	Future Year	3 Lane Collector (two-way)	20,000	2.255	F	
		Post Mitigation	6 Lane Prime Arterial	60,000	0.752	C	
University Ave to Robinson Ave	32,600	Future Year	4 Lane Collector (no center lane)	15,000	2.173	F	
		Post Mitigation	4 Lane Major Arterial	40,000	0.815	D	
Robinson Ave to Upas St	29,900	Future Year	4 Lane Collector (no center lane)	15,000	1.993	F	
		Post Mitigation	4 Lane Major Arterial	40,000	0.748	C	
Upas St to Laurel St	25,900	Future Year	4 Lane Collector (no center lane)	15,000	1.727	F	
		Post Mitigation	4 Lane Major Arterial	40,000	0.648	C	
Laurel St to Juniper St	16,600	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.107	F	
		Post Mitigation	4 Lane Collector	30,000	0.553	C	
Juniper St to Grape St	18,700	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.247	F	
		Post Mitigation	4 Lane Collector	30,000	0.623	C	
Grape St to Elm St	20,300	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.353	F	
		Post Mitigation	4 Lane Collector	30,000	0.677	D	

Notes:

Capacity for non-standard roadway classifications were provided by City of San Diego staff.

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

**Table 6-3 Post Mitigation Summary of Roadway Segment Analysis**

ROADWAY SEGMENT	FUTURE YEAR ADT	ROADWAY FUNCTIONAL CLASSIFICATION			LOSE CAPACITY	V/C RATIO (a)	LOS
Ninth Ave							
Washington St to University Ave	8,000	Future Year	2 Lane Collector (No center lane)	8,000	1.000	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.533	C	
Campus Ave/Polk Ave							
Washington St to Park Blvd	7,400	Future Year	2 Lane Collector (No center lane)	8,000	0.925	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.493	C	
Cleveland Ave							
Tyler St to Lincoln Ave	7,200	Future Year	2 Lane Collector (No center lane)	8,000	0.900	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.480	C	
Lincoln Ave to Richmond St	9,600	Future Year	2 Lane Collector (No center lane)	8,000	1.200	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.640	C	
Fort Stockton Dr							
Sunset Blvd to Hawk St	7,900	Future Year	2 Lane Collector (No center lane)	8,000	0.988	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.527	C	
Hawk St to Goldfinch St	8,900	Future Year	2 Lane Collector (No center lane)	8,000	1.113	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.593	C	
Grape St							
First Ave to Third Ave	7,300	Future Year	2 Lane Collector (No center lane)	8,000	0.913	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.487	C	
Third Ave to Sixth Ave	9,000	Future Year	2 Lane Collector (No center lane)	8,000	1.125	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.600	C	
Hawthorn St							
First Ave to Third Ave	7,300	Future Year	2 Lane Collector (No center lane)	8,000	0.913	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.487	C	
Third Ave to Sixth Ave	8,700	Future Year	2 Lane Collector (No center lane)	8,000	1.088	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.580	C	
India St							
Washington St to Winder St	11,000	Future Year	2 Lane Collector (No center lane)	8,000	1.375	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.733	D	
Glenwood Dr to Sassafras St	30,000	Future Year	2 Lane Collector (one-way)	17,500	1.714	F	
		Post Mitigation	4 Lane Collector (one-way)	35,000	0.857	D	
Sassafras St to Redwood St	21,300	Future Year	2 Lane Collector (one-way)	17,500	1.217	F	
		Post Mitigation	3 Lane Collector (one-way)	26,000	0.819	D	
Laurel St							
Columbia St to Union St	21,100	Future Year	4 Lane Collector (no center lane)	15,000	1.407	F	
		Post Mitigation	4 Lane Collector	30,000	0.703	D	
Union St to First Ave	17,900	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.193	F	
		Post Mitigation	4 Lane Collector	30,000	0.597	C	
First Ave to Third Ave	16,100	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.073	F	
		Post Mitigation	4 Lane Collector	30,000	0.537	C	
Third Ave to Sixth Ave	20,200	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.347	F	
		Post Mitigation	4 Lane Collector	30,000	0.673	D	
Lincoln Ave							
Washington St to Park Blvd	11,100	Future Year	2 Lane Collector (No center lane)	8,000	1.388	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.740	D	

Notes:  
Capacity for non-standard roadway classifications were provided by City of San Diego staff.  
(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.



**Table 6-4 Post Mitigation Summary of Roadway Segment Analysis**

ROADWAY SEGMENT	FUTURE YEAR ADT	ROADWAY FUNCTIONAL CLASSIFICATION			LOS E CAPACITY	V/C RATIO (a)	LOS
Park Blvd							
Mission Ave to El Cajon Blvd	16,300	Future Year	3 Lane Collector (no center lane)	11,500	1.417	F	
		Post Mitigation	4 Lane Collector (one-way)	30,000	0.543	C	
Robinson Ave to Upas St	17,200	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.147	F	
		Post Mitigation	4 Lane Collector (one-way)	30,000	0.573	C	
Richmond St							
Cleveland Ave to University Ave	9,000	Future Year	2 Lane Collector (No center lane)	8,000	1.125	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.600	C	
		Future Year	2 Lane Collector (No center lane)	8,000	0.838	E	
University Ave to Robinson Ave	6,700	Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.447	B	
		Future Year	2 Lane Collector (No center lane)	8,000	1.013	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.540	C	
Robinson Ave							
First Ave to Third Ave	11,500	Future Year	2 Lane Collector (No center lane)	8,000	1.438	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.767	D	
		Future Year	2 Lane Collector (No center lane)	8,000	1.800	F	
Third Ave to Eighth Ave	14,400	Post Mitigation	4 Lane Collector	30,000	0.480	C	
San Diego Ave							
Hortensia St to Pringle St	10,500	Future Year	2 Lane Collector (No center lane)	8,000	1.313	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.700	D	
State St							
Laurel St to Juniper St	8,200	Future Year	2 Lane Collector (No center lane)	8,000	1.025	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.547	C	
University Ave							
Ibis St to Albatross St	14,700	Future Year	2 Lane Collector (No center lane)	8,000	1.838	F	
		Post Mitigation	4 Lane Collector	30,000	0.490	C	
		Future Year	2 Lane Collector (No center lane)	8,000	2.600	F	
Albatross St to First Ave	20,800	Post Mitigation	4 Lane Collector	30,000	0.693	D	
		Future Year	2 Lane Collector (no fronting property)	10,000	1.410	F	
		Post Mitigation	4 Lane Collector	30,000	0.470	C	
First Ave to Fourth Ave	14,100	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.440	F	
		Post Mitigation	4 Lane Collector	30,000	0.720	D	
		Future Year	4 Lane Collector (no center lane)	15,000	1.953	F	
Fourth Ave to Fifth Ave	21,600	Post Mitigation	4 Lane Major Arterial	40,000	0.733	C	
		Future Year	4 Lane Collector (no center lane)	15,000	1.413	F	
		Post Mitigation	4 Lane Collector	30,000	0.707	D	
Sixth Ave to Eighth Ave	29,300	Future Year	4 Lane Collector	30,000	0.720	D	
		Post Mitigation	4 Lane Collector (no center lane)	15,000	1.953	F	
		Future Year	4 Lane Major Arterial	40,000	0.733	C	
Normal St to Park Blvd	21,200	Future Year	4 Lane Collector (no center lane)	15,000	1.413	F	
		Post Mitigation	4 Lane Collector	30,000	0.707	D	
Washington St							
Fourth Ave to Fifth Ave	37,300	Future Year	4 Lane Major Arterial	40,000	0.933	E	
		Post Mitigation	6 Lane Major Arterial	50,000	0.746	C	
		Future Year	4 Lane Major Arterial	40,000	1.028	F	
Fifth Ave to Sixth Ave	41,100	Post Mitigation	6 Lane Major Arterial	50,000	0.822	D	
		Future Year	6 Lane Major Arterial	50,000	0.942	E	
		Post Mitigation	6 Lane Prime Arterial	60,000	0.785	C	
Richmond St to Normal St	47,100	Future Year	6 Lane Major Arterial	50,000	0.942	E	
		Post Mitigation	6 Lane Prime Arterial	60,000	0.785	C	

Notes:

Capacity for non-standard roadway classifications were provided by City of San Diego staff.

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

**Table 6-5** Post Mitigation Summary of Roadway Segment Analysis

ROADWAY SEGMENT	FUTURE YEAR ADT	ROADWAY FUNCTIONAL CLASSIFICATION			LOSE CAPACITY	V/C RATIO (a)	LOS
30th St							
Mende Ave to El Cajon Blvd	14,400	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	0.960	E	
		Post Mitigation	4 Lane Collector	30,000	0.480	C	
	17,900	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.193	F	
Howard Ave to Lincoln Ave		Post Mitigation	4 Lane Collector	30,000	0.597	C	
	14,000	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	0.933	E	
			Post Mitigation	4 Lane Collector	30,000	0.467	C
North Park Way Ave to Upas St		16,500	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.100	F
		Post Mitigation	4 Lane Collector	30,000	0.550	C	
	Upas St to Redwood St	11,900	Future Year	2 Lane Collector (No center lane)	8,000	1.488	F
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.793	D	
Redwood St to Juniper St		12,100	Future Year	2 Lane Collector (No center lane)	8,000	1.513	F
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.807	D	
	32nd St						
University Ave to Myrtle Ave	11,200	Future Year	2 Lane Collector (No center lane)	8,000	1.400	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.747	D	
	7,900	Future Year	2 Lane Collector (No center lane)	8,000	0.988	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.527	C	
Adams Ave							
Texas St to 30th St	13,800	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	0.920	E	
		Post Mitigation	4 Lane Collector	30,000	0.460	B	
Boundary St							
University Ave to North Park Way	16,000	Future Year	2 Lane Collector (No center lane)	8,000	2.000	F	
		Post Mitigation	4 Lane Collector	30,000	0.533	C	
El Cajon Blvd							
30th St to Illinois St	48,800	Future Year	6 Lane Major Arterial	50,000	0.976	E	
		Post Mitigation	8 Lane Major Arterial	60,000	0.813	C	
	58,900	Future Year	6 Lane Major Arterial	50,000	1.178	F	
		Post Mitigation	8 Lane Major Arterial	60,000	0.982	E	
Florida St							
El Cajon Blvd to University Ave	7,400	Future Year	2 Lane Collector (No center lane)	8,000	0.925	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.493	C	
	8,800	Future Year	2 Lane Collector (No center lane)	8,000	1.100	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.587	C	
Robinson Ave to Upas St		6,800	Future Year	2 Lane Collector (No center lane)	8,000	0.850	E
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.453	B	
Howard Ave							
Texas St to Utah St	11,300	Future Year	2 Lane Collector (No center lane)**	8,000	1.413	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.753	D	
Utah St to 30th St	10,200	Future Year	2 Lane Collector (No center lane)**	8,000	1.275	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.680	D	
	30th St to 32nd St	10,500	Future Year	2 Lane Collector (No center lane)**	8,000	1.313	F
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.700	D	
Madison Ave							
Texas St to Ohio St	12,200	Future Year	2 Lane Collector (No center lane)	8,000	1.525	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.813	D	

Notes:

Capacity for non-standard roadway classifications were provided by City of San Diego staff.

(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

**Table 6-6** Post Mitigation Summary of Roadway Segment Analysis

ROADWAY SEGMENT	FUTURE YEAR ADT	ROADWAY FUNCTIONAL CLASSIFICATION			LOSE CAPACITY	V/C RATIO (a)	LOS
<b>Meade Ave</b>							
Park Blvd to Texas St	8,200	Future Year	2 Lane Collector (No center lane)	8,000	1.025	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.547	C	
Texas St to 30th St	9,900	Future Year	2 Lane Collector (No center lane)	8,000	1.238	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.660	C	
30th St to Illinois St	11,500	Future Year	2 Lane Collector (No center lane)	8,000	1.438	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.767	D	
Illinois St to Iowa St	11,900	Future Year	2 Lane Collector (No center lane)	8,000	1.488	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.793	D	
<b>North Park Way</b>							
32nd St to Boundary St	10,600	Future Year	2 Lane Collector (no fronting property)	10,000	1.060	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.707	D	
<b>Redwood St</b>							
28th St to 30th St	7,200	Future Year	2 Lane Collector (No center lane)	8,000	0.900	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.480	C	
<b>Texas St</b>							
Adams Ave to Mission Ave	39,100	Future Year	3 Lane Major Arterial	30,000	1.303	F	
		Post Mitigation	6 Lane Major Arterial	50,000	0.782	C	
Mission Ave to El Cajon Blvd	38,300	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	2.553	F	
		Partial Mitigation	4 Lane Collector	30,000	1.277	F	
		Post Mitigation	6 Lane Major Arterial	50,000	0.766	C	
Howard Ave to University Ave	14,400	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	0.960	E	
		Post Mitigation	4 Lane Collector	30,000	0.480	C	
<b>University Ave</b>							
Park Blvd to Florida St	23,900	Future Year	4 Lane Collector (no center lane)	15,000	1.593	F	
		Post Mitigation	4 Lane Collector	30,000	0.797	D	
Texas St to Oregon St	23,700	Future Year	4 Lane Collector (no center lane)	15,000	1.580	F	
		Post Mitigation	4 Lane Collector	30,000	0.790	D	
Oregon St to Utah St	22,900	Future Year	4 Lane Collector (no center lane)	15,000	1.527	F	
		Post Mitigation	4 Lane Collector	30,000	0.763	D	
		Future Year	4 Lane Collector (no center lane)	15,000	1.387	F	
Utah St to 30th St	20,800	Post Mitigation	4 Lane Collector	30,000	0.693	D	
30th St to Illinois St	22,800	Future Year	3 Lane Collector (no center lane)	11,500	1.983	F	
		Post Mitigation	4 Lane Collector	30,000	0.760	D	
Illinois St to 32nd St	22,600	Future Year	3 Lane Collector (no center lane)	11,500	1.965	F	
		Post Mitigation	4 Lane Collector	30,000	0.753	D	
		Future Year	4 Lane Collector (no center lane)	15,000	1.973	F	
32nd St to Boundary St	29,600	Post Mitigation	4 Lane Major Arterial	40,000	0.740	C	
<b>Upas St</b>							
Alabama St to Texas St	8,600	Future Year	2 Lane Collector (No center lane)	8,000	1.075	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.573	C	
Texas St to Pershing Rd	11,500	Future Year	2 Lane Collector (No center lane)	8,000	1.438	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.767	D	
Pershing Rd to 30th St	16,300	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.087	F	
		Post Mitigation	4 Lane Collector	30,000	0.543	C	
<b>Utah St</b>							
Howard Ave to Lincoln Ave	7,300	Future Year	2 Lane Collector (No center lane)	8,000	0.913	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.487	C	
North Park Way to Upas St	7,500	Future Year	2 Lane Collector (No center lane)	8,000	0.938	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.500	C	

Notes:  
Capacity for non-standard roadway classifications were provided by City of San Diego staff.  
(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

**Table 6-7** Post Mitigation Summary of Roadway Segment Analysis

ROADWAY SEGMENT	FUTURE YEAR ADT	ROADWAY FUNCTIONAL CLASSIFICATION			LOS E CAPACITY	V/C RATIO (a)	LOS
25th St  Broadway to F St	17,400	Future Year	2 Lane Collector (continuous left-turn lane)	15,000	1.160	F	
		Post Mitigation	4 Lane Collector	30,000	0.580	C	
28th St  Russ Blvd to C St	8,800	Future Year	2 Lane Collector (No center lane)	8,000	1.100	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.587	C	
C St to Broadway	10,500	Future Year	2 Lane Collector (No center lane)	8,000	1.313	F	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.700	D	
Broadway to SR-94	19,100	Future Year	2 Lane Collector (No center lane)	8,000	2.388	F	
		Partial Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	1.273	F	
		Post Mitigation	4 Lane Collector	30,000	0.637	C	
30th St  Grape St to Ash St	6,900	Future Year	2 Lane Collector (No center lane)	8,000	0.863	E	
		Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.460	B	
A St to Broadway	19,800	Future Year	2 Lane Collector (No center lane)	8,000	2.475	F	
		Partial Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	1.320	F	
Broadway to SR-94	9,500	Post Mitigation	4 Lane Collector	30,000	0.660	C	
		Future Year	2 Lane Collector (no fronting property)	10,000	0.950	E	
B St  25th St to 26th St	7,500	Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.633	C	
		Future Year	2 Lane Collector (No center lane)	8,000	0.938	E	
26th St to 28th St	7,100	Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.500	C	
		Future Year	2 Lane Collector (No center lane)	8,000	0.888	E	
C St  30th St to 34th St	7,900	Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.473	C	
		Future Year	2 Lane Collector (No center lane)	8,000	0.988	E	
Fern St  Juniper St to Grape St	8,900	Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.527	C	
		Future Year	2 Lane Collector (No center lane)	8,000	1.113	F	
Grape St to A St	15,000	Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.593	C	
		Future Year	2 Lane Collector (No center lane)	8,000	1.875	F	
Grape St	9,000	Post Mitigation	4 Lane Collector	30,000	0.500	C	
		Future Year	2 Lane Collector (No center lane)	8,000	1.125	F	
30th St to 31st St	9,000	Post Mitigation	2 Lane Collector (continuous left-turn lane)	15,000	0.600	C	
		Future Year	2 Lane Collector (continuous left-turn lane)	8,000	1.125	F	

Notes:  
Capacity for non-standard roadway classifications were provided by City of San Diego staff.  
(a) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.



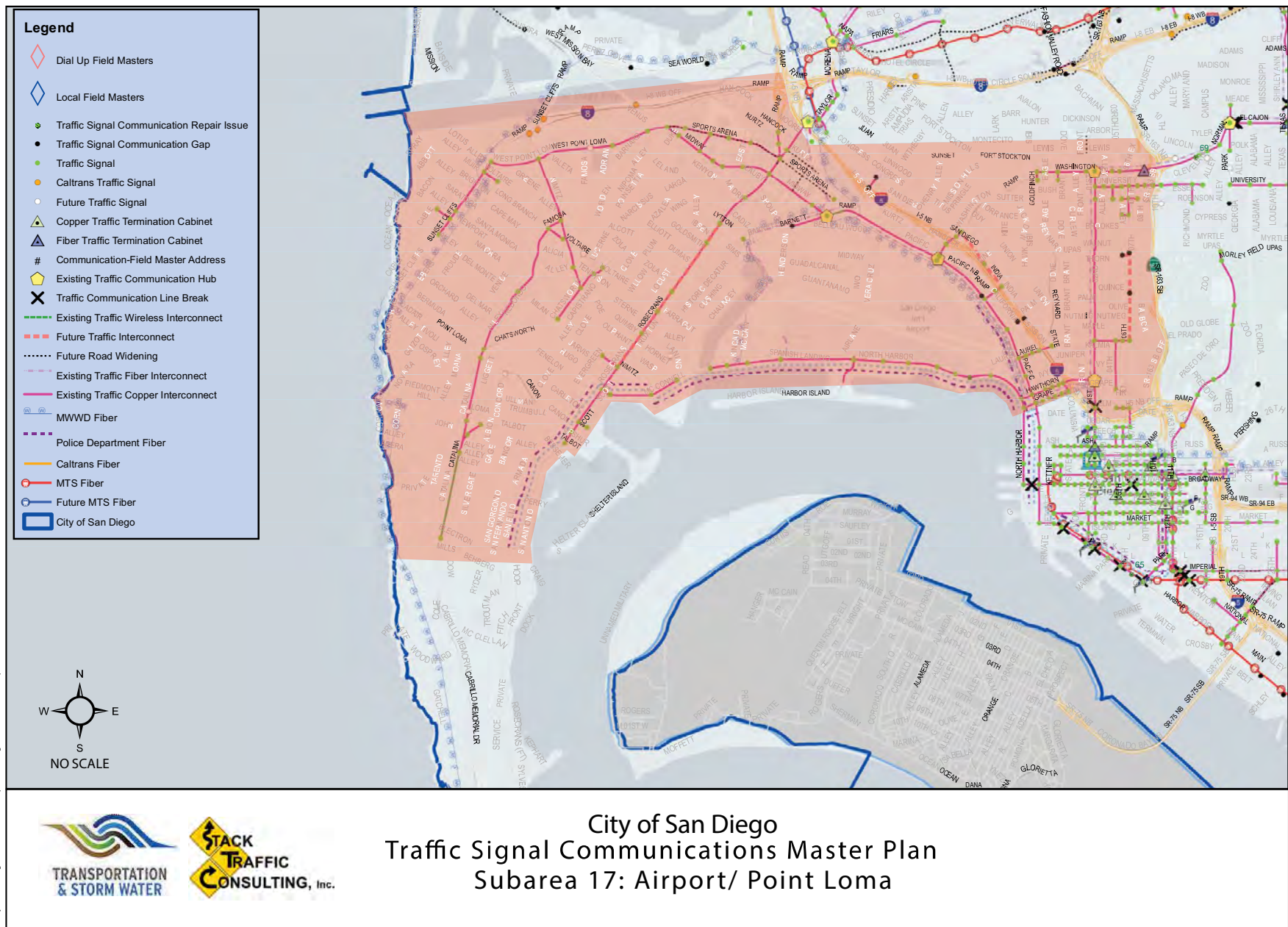
# City of San Diego Traffic Signal Communications Master Plan Attachments



# SUBAREA 17

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AIRPORT/ POINT LOMA



# **TRAFFIC SIGNAL COMMUNICATION MASTER PLAN** **ORDER OF MAGNITUDE COST ESTIMATE**

**Subarea:** Airport/ Point Loma (10 Signals)  
**Scenario:** TSCMP Phase 1  
**Prepared By:** Stack Traffic Consulting- YF, AA  
**Date:** 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	6	EA	\$5,000.00	\$30,000.00
2	Furnish and Install Dual Radio	4	EA	\$7,500.00	\$30,000.00
3	Furnish and Install Sectoral Antenna for Dual Radios	4	EA	\$2,000.00	\$8,000.00
4	Furnish and Install 170E Serial to Ethernet cards	10	EA	\$500.00	\$5,000.00
5	Furnish and Install VDSL Layer 2 Switch	1	EA	\$5,000.00	\$5,000.00
6	Furnish and Install Layer 2 Switch	9	EA	\$2,000.00	\$18,000.00
7	Furnish and Install 96 SMFO Cable	0	LF	\$10.00	\$0.00
8	Furnish and Install 12 SMFO Cable	0	LF	\$5.00	\$0.00
9	Replace Copper Interconnect (20% of Overall Length)	15,000	LF	\$10.00	\$150,000.00
10	Furnish and Install Cellular Modem (Option A)	1	EA	\$2,000.00	\$2,000.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	4	EA	\$100,000.00	\$400,000.00
<b>Option A Sub Total:</b>					<b>\$218,000.00</b>
<b>Soft Costs (25%):</b>					<b>\$54,500.00</b>
<b>Construction Contingency (25%):</b>					<b>\$54,500.00</b>
<b>Option A Total:</b>					<b>\$327,000.00</b>
<b>Option B Sub Total:</b>					<b>\$646,000.00</b>
<b>Soft Costs (25%):</b>					<b>\$161,500.00</b>
<b>Construction Contingency (25%):</b>					<b>\$161,500.00</b>
<b>Option B Total:</b>					<b>\$969,000.00</b>

# **TRAFFIC SIGNAL COMMUNICATION MASTER PLAN** **ORDER OF MAGNITUDE COST ESTIMATE**

**Subarea:** Airport/ Point Loma (128 Signals)  
**Scenario:** TSCMP Phase 2  
**Prepared By:** Stack Traffic Consulting- YF, AA  
**Date:** 12/2/2014

Item #	Item Description	Quantity	Unit	Unit Price	Amount
1	Furnish and Install Single Radio	0	EA	\$5,000.00	\$0.00
2	Furnish and Install Dual Radio	0	EA	\$7,500.00	\$0.00
3	Furnish and Install Sectoral Antenna for Dual Radios	0	EA	\$2,000.00	\$0.00
4	Furnish and Install 170E Serial to Ethernet cards	128	EA	\$500.00	\$64,000.00
5	Furnish and Install VDSL Layer 2 Switch	128	EA	\$5,000.00	\$640,000.00
6	Furnish and Install Layer 2 Switch	0	EA	\$2,000.00	\$0.00
7	Furnish and Install 96 SMFO Cable	30,000	LF	\$10.00	\$300,000.00
8	Furnish and Install 12 SMFO Cable	800	LF	\$5.00	\$4,000.00
9	Replace Copper Interconnect (20% of Overall Length)	0	LF	\$10.00	\$0.00
10	Furnish and Install Cellular Modem (Option A)	0	EA	\$2,000.00	\$0.00
11	Furnish and Install Layer 3 Communication Hub (Option B)	4	EA	\$100,000.00	\$400,000.00
<b>Sub Total:</b>					<b>\$1,408,000.00</b>
<b>Soft Costs (25%):</b>					<b>\$352,000.00</b>
<b>Construction Contingency (25%):</b>					<b>\$352,000.00</b>
<b>Total:</b>					<b>\$2,112,000.00</b>

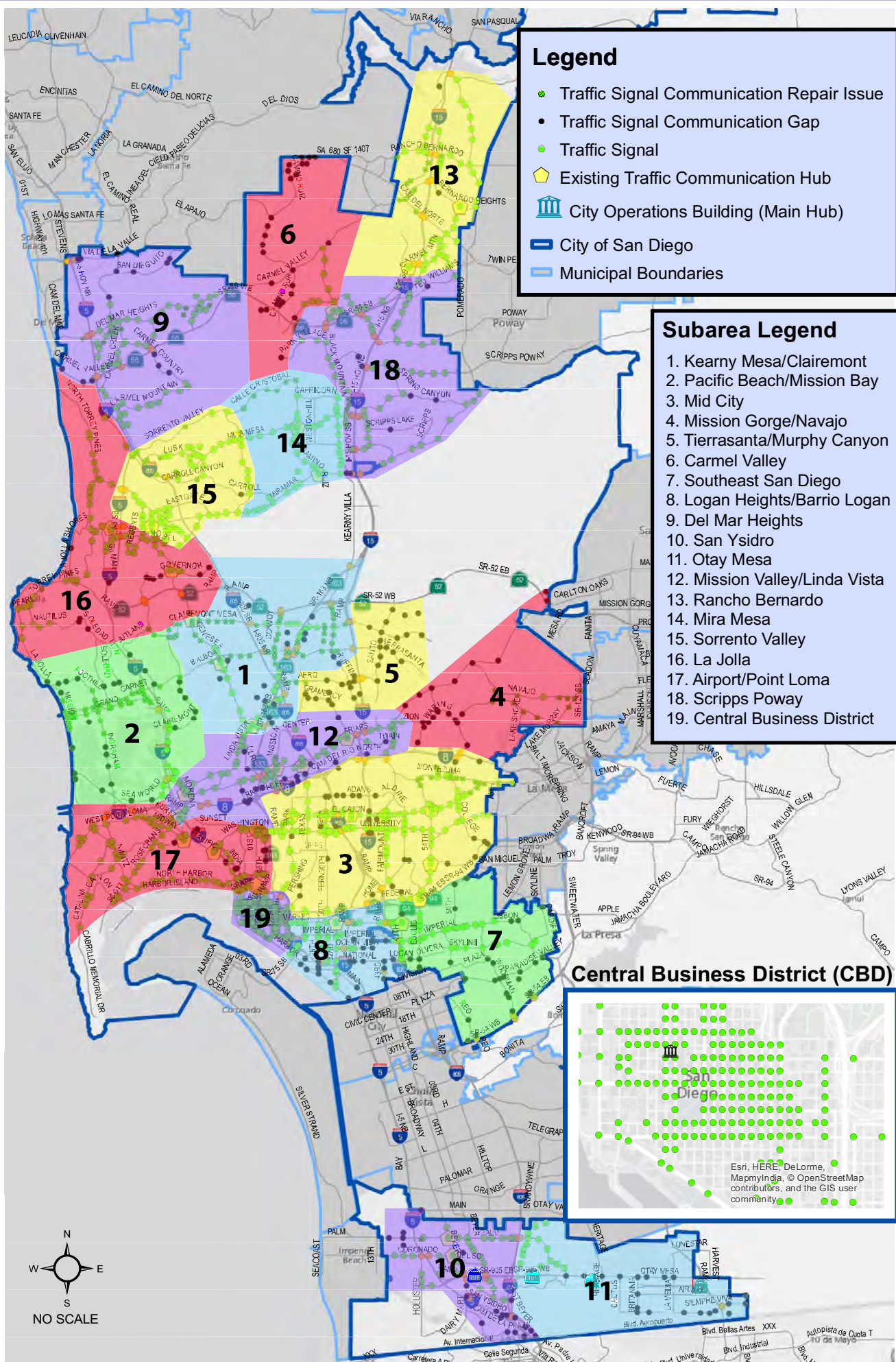
<b>AREA 17 - Airport/Point Loma</b>	
<b>9 TS Communication Gap</b>	
Number	Intersection
1	6th Ave & Quince Dr
2	6th Ave & Upas St
3	Barnett Ave & Tuscaloosa St
4	India St & Palm St
5	Kettner Blvd & Palm St
6	Old Town Ave & Moore St
7	Pacific Highway & Sassafras St
8	San Diego Ave & Old Town Ave
9	Upas St & 5th Ave
<b>1 TS Communication Repair Issue</b>	
Number	Intersection
1	North Harbor Dr & Laurel St
<b>0 Maintenance Locations</b>	
<b>Maintenance Summary</b>	



128 Conversion Signals	
Number	Intersection
1	1st Avenue & University Avenue
2	3rd Avenue & University Avenue
3	4th Avenue & University Avenue
4	5th Avenue & University Avenue
5	6th Avenue & University Avenue
6	7th Avenue & University Avenue
7	8th Avenue & University Avenue
8	9th Avenue & University Avenue
9	Barnett Avenue & Lytton Street
10	California Street & Grape Street
11	California Street & Laurel Street
12	Camino del Rio W & Hancock Street
13	Camino del Rio W & Kurtz Street/Gaines Street
14	Canon Street & Talbot Street
15	Catalina Boulevard & Canon Street
16	Catalina Boulevard & Chatsworth Boulevard
17	Catalina Boulevard & Electron Drive
18	Catalina Boulevard & Narragansett Avenue
19	Catalina Boulevard & Talbot Street
20	Catalina Boulevard & Voltaire Street
21	Catalina Boulevard & Wilcox Street
22	Chatsworth Boulevard & Narragansett Avenue
23	Chatsworth Boulevard & Poinsettia Drive
24	Chatsworth Boulevard & Voltaire Street
25	Grape Street & 4th Avenue
26	Grape Street & Columbia Street
27	Grape Street & India Street
28	Grape Street & Kettner Boulevard
29	Grape Street & Pacific Highway
30	Grape Street & State Street
31	Harbor Dr & Spanish Landing/Lee Ct
32	Harbor Drive & Grape Street
33	Harbor Drive & Hawthorn Street
34	Hawthorn Street & Columbia Street
35	Hawthorn Street & India Street
36	Hawthorn Street & Kettner Boulevard
37	Hawthorn Street & Pacific Highway
38	Hawthorn Street & State Street
39	India Street & Vine Street
40	Kettner Boulevard & Sassafras Street
41	Laurel Street & 1st Avenue
42	Laurel Street & 4th Avenue
43	Laurel Street & 5th Avenue
44	Laurel Street & 6th Avenue
45	Laurel Street & India Street

<b>128 Conversion Signals Contd.</b>	
46	Laurel Street & Kettner Boulevard
47	Laurel Street & State Street
48	Midway Drive & Barnett Avenue
49	Midway Drive & Duke Street
50	Midway Drive & East Drive
51	Midway Drive & Fordham Street
52	Midway Drive & Kemper Street
53	Midway Drive & US Post Office
54	Midway Drive & Wing Street
55	N. Harbor Drive & Coastguard
56	N. Harbor Drive & Harbor Island Drive
57	N. Harbor Drive & Laning Road
58	N. Harbor Drive & Laurel Street
59	N. Harbor Drive & Lee Court
60	N. Harbor Drive & McCain Road
61	N. Harbor Drive & Rental Car Access
62	N. Harbor Drive & Ryan Gate 2
63	N. Harbor Drive & Scott Street
64	N. Harbor Drive & Spanish Landing
65	N. Harbor Drive & Winship Lane
66	Newport Avenue & Cable Street
67	Nimitz Boulevard & Atascadero Drive
68	Nimitz Boulevard & Chatsworth Boulevard
69	Nimitz Boulevard & Evergreen Street
70	Nimitz Boulevard & Famosa Boulevard
71	Nimitz Boulevard & N. Harbor Drive
72	Nimitz Boulevard & Rosecrans Street
73	Nimitz Boulevard & W. Point Loma Boulevard
74	Pacific Highway & Enterprise Street
75	Pacific Highway & Juniper Street
76	Pacific Highway & Laurel Street
77	Pacific Highway & Palm Street
78	Pacific Highway & Sassafra Street
79	Pacific Highway SB & Washington Street
80	Pennsylvania Avenue & 5th Avenue
81	Pennsylvania Avenue & 6th Avenue
82	Point Loma Avenue & Catalina Boulevard
83	Robinson Avenue & 1st Avenue
84	Robinson Avenue & 4th Avenue
85	Robinson Avenue & 5th Avenue
86	Robinson Avenue & 6th Avenue
87	Robinson Avenue & 7th Avenue
88	Rosecrans Street & Canon Street
89	Rosecrans Street & Farragut Road
90	Rosecrans Street & Kurtz Street
91	Rosecrans Street & Lytton Street

<b>128 Conversion Signals Contd.</b>	
92	Rosecrans Street & Midway Drive
93	Rosecrans Street & N. Evergreen Street
94	Rosecrans Street & N. Harbor Drive
95	Rosecrans Street & NTC Gate 3
96	Rosecrans Street & Russell Street
97	Rosecrans Street & Shelter Island Drive
98	Rosecrans Street & Sports Arena Boulevard
99	Rosecrans Street & Talbot Street
100	Rosecrans Street & Womble Road
101	Sassafras Street & India Street
102	Shelter Island Drive & Scott Street
103	Sports Arena Boulevard & Hancock Street
104	Sports Arena Boulevard & Kemper Street
105	Sports Arena Boulevard & Midway Drive
106	Sports Arena Boulevard & Ralph's Driveway
107	Sports Arena Boulevard & Target Driveway
108	Sunset Cliffs Boulevard & Narragansett Avenue
109	Sunset Cliffs Boulevard & Newport Avenue
110	Sunset Cliffs Boulevard & Santa Monica Avenue
111	Sunset Cliffs Boulevard & Voltaire Street
112	Sunset Cliffs Boulevard & W. Point Loma Blvd
113	University Avenue & Dove Street
114	University Avenue & Goldfinch Street
115	Voltaire Street & Ebers Street
116	Voltaire Street & Wabaska Drive
117	W. Point Loma Boulevard & Adrian Street
118	W. Point Loma Boulevard & Groton Street
119	Washington Street & 1st Avenue
120	Washington Street & 4th Avenue
121	Washington Street & 5th Avenue
122	Washington Street & Dove Street
123	Washington Street & Falcon Street
124	Washington Street & Front Street
125	Washington Street & Goldfinch Street
126	Washington Street & Hancock Street
127	Washington Street & India Street
128	Washington Street & San Diego Avenue



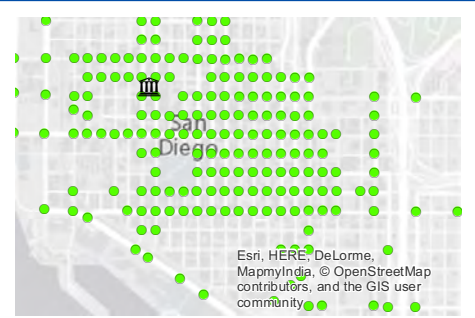
**Legend**

- Traffic Signal Communication Repair Issue
- Traffic Signal Communication Gap
- Traffic Signal
- ◈ Existing Traffic Communication Hub
- 🏛 City Operations Building (Main Hub)
- ▬ City of San Diego
- ▬ Municipal Boundaries

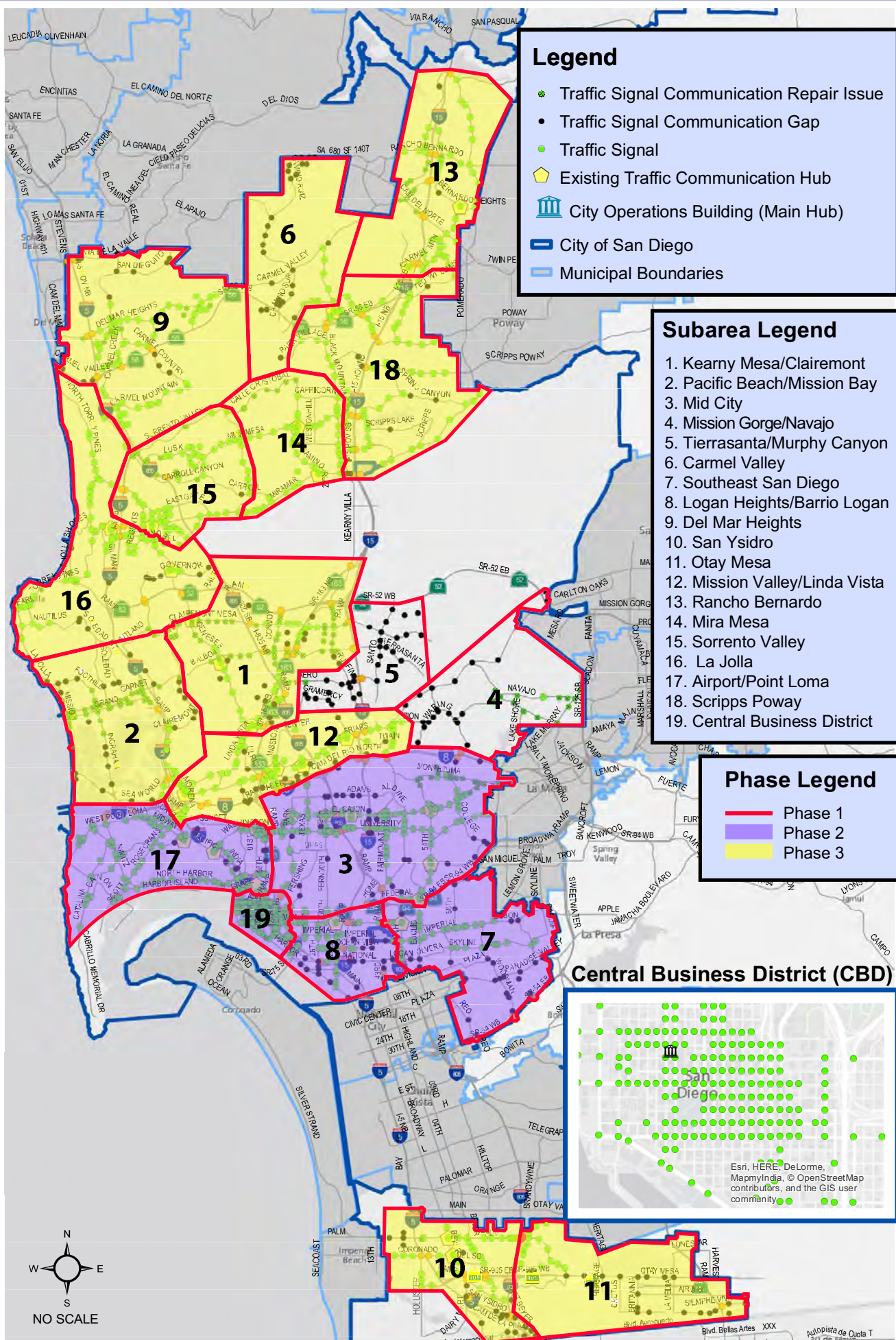
**Subarea Legend**

1. Kearny Mesa/Clairemont
2. Pacific Beach/Mission Bay
3. Mid City
4. Mission Gorge/Navajo
5. Tierrasanta/Murphy Canyon
6. Carmel Valley
7. Southeast San Diego
8. Logan Heights/Barrio Logan
9. Del Mar Heights
10. San Ysidro
11. Otay Mesa
12. Mission Valley/Linda Vista
13. Rancho Bernardo
14. Mira Mesa
15. Sorrento Valley
16. La Jolla
17. Airport/Point Loma
18. Scripps Poway
19. Central Business District

**Central Business District (CBD)**









## **Interstate 8 Corridor Study Attachments**

### 3.3.4 Engineering Feasibility

This section provides an initial engineering feasibility and cost assessment of the key features associated with the two corridor improvement alternatives, with a primary focus on the transit improvements and freeway interchange enhancements. These concepts were developed for the purpose of analyzing the I-8 Corridor Study area at a planning-level utilizing the SANDAG Series 12 Transportation Model. In the event any of these concepts illustrate estimated benefits outweighing rough order of magnitude cost estimates, further project implementation processes are necessary prior to implementation such as Project Study Reports (PSRs), California Environmental Quality Act (CEQA) environmental analysis, and design. These further implementation steps will require more rigorous testing of alternatives and their impacts.

#### 3.3.4.1 Transit Improvement Feasibility

The feasibility of the planned transit improvements is discussed below.

##### 3.3.4.1.1 Alternative A: Green Line Integration with LRT System

The key transit improvement in Alternative A—increasing the Green Line LRT service to 5-minute frequency all day—provides the greatest ridership benefits, but also poses a significant compatibility issue with the rest of the planned LRT system. In order for the Green Line to provide its planned service from East County to Downtown San Diego, it must share some track segments with other LRT routes, each of which is planned to operate at seven-and-a-half-minute peak frequencies in 2050:

- **Old Town to Santa Fe Depot:** Shared with the Blue Line.
- **Mission San Diego to Grossmont:** Shared with a planned new LRT line connecting Pacific Beach and Kearny Mesa to El Cajon.
- **Grossmont to El Cajon:** Shared with both the Orange Line and the planned new LRT line above.

As the shared segments are all two-track alignments, they will be operating at or near their operational capacities in 2050. In these cases where utilization of available capacity would be maximized, it is vital for all lines to have service frequencies that are mathematical multiples, otherwise, bottlenecks will form and the system will fail to achieve its planned frequencies. In essence, this means that the 5-minute Green Line cannot physically share a two-track alignment with any 7.5-minute lines.

There are several possible solutions to the systemwide compatibility problem posed by Alternative A. However, all carry significant operational or cost implications:

- Construct additional track to allow the Green Line to operate independently of other lines. This would require massive capital investment in several constrained LRT corridors, and is likely infeasible for engineering and cost reasons.
- Change the service frequencies of the other lines from 7.5 to 5 minutes. As every line in the 2050 LRT system will share at least some two-track segments with other lines, this change would

be likely to require a systemwide change in LRT service frequencies. This is infeasible for two significant reasons:

- Exceeds Track Capacity: Operating two LRT lines at 5-minute frequencies equates to 48 bi-directional trains per hour, which exceeds the capacity of a two-track alignment by 50 percent. This would occur in multiple locations throughout the system, most notably Downtown San Diego.
- High O&M Cost: Upgrading the frequency of the entire LRT system would carry major O&M cost.
- Change the service frequencies of the other lines from 7.5 to 10 minutes. This would largely eliminate capacity constraints and significantly decrease O&M costs, but would also degrade the quality of LRT service throughout the system. The implications to ridership and regional mode share would be significant, and would likely render this option infeasible.
- Operate the Green Line at a service frequency of 3.75 minutes. This equates to 32 bi-directional trains per hour on the Green Line alone. As this is the maximum capacity of a two-track alignment, this option would exceed the capacity of all shared segments and therefore would also be infeasible.
- Operate the Green Line at the originally planned 7.5-minute frequency, and overlay a new 7.5-minute “Mission Valley Shuttle” LRT service on the exclusive track segment. This would allow LRT service to operate at an effective 3.75-minute frequency on the exclusive track segment between Old Town and Mission San Diego, while preserving the 7.5-minute frequency on the Green Line’s shared track segments. However, this is likely to have additional effects on both ridership and cost:
  - Ridership Implications: Under this option the Green Line’s frequency would remain unchanged from the No-Build scenario, essentially eliminating the 25 percent ridership increase found in Alternative A. Instead, any gains in ridership would be achieved entirely by the new shuttle service, whose 6-mile alignment between Old Town and Mission San Diego is only one-fourth of the Green Line’s 24-mile length. Therefore the new service would be likely to serve a small portion of the Green Line’s overall travel demand.
  - Additional Capital Cost: A new shuttle service would require LRT turnback infrastructure to be constructed at both termini (Old Town and Mission San Diego). These two stations are highly constrained, and therefore any capacity expansions would carry significant capital cost.

The most feasible scenario above is the last one: Operating a 7.5-minute LRT shuttle on the Green Line’s exclusive track alignment in Mission Valley. Coupled with improvements to the accessibility of Mission Valley’s LRT stations, this shuttle could have significant value as local circulator. However, assessing its overall costs and benefits will require further study.

#### **3.3.4.1.2 Alternative B: Bus-Based Improvements**

The two bus-based services envisioned in Alternative B are both feasible at the planning level. They would require moderate capital investments in roadway and station infrastructure, with associated

implications to right-of-way—but no apparent engineering constraints that would make them infeasible. A full evaluation of feasibility will require detailed study of the planned alignment.

### 3.3.4.2 Interchange Improvement Feasibility

As noted previously, two sets of interchange improvements were identified for the study corridor. Alternative A includes the planned improvements from the 2050 RTP/SCS, with a moderate number of proposed freeway interchange improvements. Alternative B builds upon improvements from both the 2050 RTP/SCS and Alternative A with a more extensive set of proposed freeway interchange improvements. A detailed narrative comparing concepts is included in Appendix B-4; this includes updated concept drawings, Figures B-41 through B-53.

Table 3-10 through Table 3-18 summarize the key benefits and constraints associated with the proposed improvements at the interchange locations.

**Table 3-10: Sunset Cliffs Blvd/ Nimitz Blvd (Alternatives A and B – Pros/Cons)**

Pros		Cons	
Alternative A: No Improvements			
No improvements planned in Alternative A			
Alternative B: Grade Separations for Autos and Bike/Ped			
+ Proposed grade separations eliminate 2 of 3 failing at-grade intersections		- I-8 WB off-ramp continues to fail due to high approach volumes from I-8 WB and southbound Sunset Cliffs Blvd.	
+ Improves bike/pedestrian safety with new grade-separated connection		- Potential visual impacts/community concerns	
		- Moderate to high construction costs	
		- Potential increase in vehicle speeds	

**Table 3-11: Sports Arena Blvd/W Mission Bay Dr (Alternatives A and B – Pros/Cons)**

Pros		Cons	
Alternative A: "T-up" both I-8 On-Ramps			
<div>+ Improves bike/pedestrian safety by "T-ing up" both I-8 EB ramps</div> <div>+ "T-ing up" of ramps calms traffic</div> <div>+ Relatively low cost/easy implementation</div>			
Alternative B: Eliminate I-8 Loop On-Ramp; "T-up" Other I-8 On-Ramp			
<div>+ Improves bike/ped safety by "T-ing up" 1 ramp and eliminating loop ramp</div> <div>+ "T-ing up" of ramp calms traffic</div> <div>+ Removal of existing loop ramp would free up right-of-way and could create opportunities for new development near the interchange.</div>		<div>- Closure of loop ramp to I-8 EB causes significant left-turn delays at new signalized intersection (2500-3200 peak hour)</div> <div>- Closure of loop ramp overloads the remaining on-ramp</div>	

**Table 3-12: I-8/I-5 Interchange (Alternatives A and B – Pros/Cons)**

Pros		Cons	
Alternative A: No Improvements			
No improvements planned in Alternative A			
Alternative B: Build Missing Connectors Between I-8 and I-5 (EB to NB; SB to WB)			
+ Relieves congestion on Sea World Drive (10-20% decrease in volumes)		- High construction cost - Potential environmental impacts	

**Table 3-13: Morena Boulevard (Alternatives A and B – Pros/Cons)**

Pros		Cons	
Alternative A: No Improvements			
No improvements planned in Alternative A			
Alternative B: Construct Diamond Ramps (North); Eliminate Loop Ramps (South)			
<ul style="list-style-type: none"><li>+ Improves access to/from Old Town from I-8</li><li>+ Improves I-5 NB to I-8 EB weave by removing conflicts at Morena Blvd interchange</li><li>+ Relieves congestion on Taylor Street between Morena and I-8 EB on-ramp</li></ul>		<ul style="list-style-type: none"><li>- Pushes congestion on I-8 EB from the weave point at Morena to the weave between Morena and the Taylor Street off-ramp</li><li>- Potential for sight distance issues along the proposed ramps and at the intersections with Morena Blvd</li><li>- Ramp intersections likely require signalization.</li><li>- Impacts to existing bike/pedestrian paths between I-8 and the San Diego River.</li></ul>	



**Table 3-14: Hotel Circle Drive/Via Las Cumbres (Alternatives A and B – Pros/Cons)**

Pros		Cons	
Alternative A: Via Las Cumbres Large Interchange			
<ul style="list-style-type: none"><li>+ Improves local circulation with addition of Via Las Cumbres interchange and connection to Friars Road (20-40% lower volumes on Friars Rd and Fashion Valley Rd)</li><li>+ Improves access to I-8 with the addition of the Via Las Cumbres interchange</li><li>+ Performance of new intersections is acceptable</li><li>+ No net change in I-8 on/off ramps; eliminates poorly functioning hook ramps at Taylor St</li></ul>		<ul style="list-style-type: none"><li>- Heavy volumes result in 1 LOS F ramp and 2 LOS D ramps (of 4 ramps total)</li><li>- Significant right-of-way impacts and cost</li></ul>	
Alternative B: Hotel Circle One-Way Frontage Road; Via Las Cumbres Small Interchange			
<ul style="list-style-type: none"><li>+ Eliminates hook ramps in EB and WB directions improving mainline operations at conflict points</li><li>+ Decreases the number of on-ramps and off-ramps from 2 to 1 in each direction, which improves highway operations by reducing the number of merge, diverge, and weave points</li><li>+ Performance of intersections is acceptable; Hotel Circle frontage road operates within capacity</li></ul>		<ul style="list-style-type: none"><li>- Creates some out-of-direction travel on Hotel Circle, but this is mitigated by new u-turn overcrossings and overall improvements in traffic flow</li><li>- Potential for weaving conflicts with close proximity of the proposed westbound slip ramp to the I-8/I-5 interchange.</li><li>- Close proximity of eastbound on-ramp to SR 163 interchange.</li></ul>	

**Table 3-15: Mission Center (Alternatives A and B – Pros/Cons)**

Pros		Cons	
Alternative A: Construct Flyover to I-8 EB; Construct Straight Ramp to I-8 WB			
+	Reduces traffic for 2 key movements on Mission Center: 1. Southbound left at Cam Del Rio N (access to I-8 WB) 2. Southbound left at I-8 EB on-ramp	-	Restriction of Camino Del Rio North to a one-way street west of Mission Center degrades local circulation and could increase congestion at intersection of Mission Center/Camino De La Reina.
			High cost of flyover from SB Mission Center to I-8 EB Out-of-direction travel for access from Camino Del Rio South to I-8 EB New two-way road through the Westfield parking lot will require right-of-way acquisition New two-way road through the Westfield parking lot will require a new signal at Camino De La Reina, creating intersection spacing issues The new westbound I-8 ramp to northbound SR 163 would likely require a barrier because of the proximity to SR 163; potential traffic issues with westbound I-8 traffic.
Alternative B: Construct Straight Ramps to/from I-8 WB; Eliminate Hook Ramps to/from I-8 WB			
+	Brings all intersections to acceptable levels, except Mission Center/Camino Del Rio South (#18)	-	Restriction of Camino Del Rio North to one-way traffic west of Mission Center reduces access to local properties
			Creates additional intersection with spacing issues

**Table 3-16: Texas Street/Qualcomm Way (Alternatives A and B – Pros/Cons)**

Pros		Cons	
Alternative A: "T-up" Loop Ramps; Realign Camino De La Reina			
<ul style="list-style-type: none"><li>+ "T-ing up" of ramps improves bike/ped safety</li><li>+ Improves intersection operations at Qualcomm/Camino Del Rio North (#8)</li></ul>		<ul style="list-style-type: none"><li>- Realignment of Camino De La Reina could encroach into the San Diego River and create environmental impacts.</li><li>- Intersection spacing and signalization remain an issue on north side of interchange.</li><li>- Diamond design reduces overall intersection capacity.</li></ul>	
Alternative B: Construct Diamond Ramps (North); "T-up" Loop Ramps (South)			
<ul style="list-style-type: none"><li>+ "T-ing up" of ramps improves bike/pedestrian safety</li><li>+ Improves intersection spacing and operations along Texas/Qualcomm</li><li>+ Removal of existing loop ramps would free up right-of-way and could create opportunities for new development near the interchange.</li></ul>		<ul style="list-style-type: none"><li>- Elimination of access to Qualcomm Way from Camino Del Rio North could force traffic through intersections along Camino Del Este and Camino De La Reina, and reduces access to local properties.</li><li>- Diamond design reduces overall intersection capacity.</li></ul>	

**Table 3-17: Fairmount Avenue (Alternatives A and B – Pros/Cons)**

Pros		Cons	
Alternative A: RTP Widening of Fairmount Ave North of I-8			
+ Widening of Fairmount Avenue north of I-8 improves capacity and traffic operations through the interchange			
Alternative B: Construct I-15/I-8 Bypass; Realign I-8 Off-Ramp at Camino Del Rio South			
+ Widening of Fairmount Avenue north of I-8 improves capacity and traffic operations through the interchange		- High construction cost	
+ Consolidation of intersections at Fairmount/I-8 EB off/Camino Del Rio South into one signalized intersection improves operations			
+ Eliminates weave conflict on I-15 to I-8 EB ramps			
+ New bike/pedestrian bridge/ improves bike/pedestrian access			

**Table 3-18: College Avenue (Alternatives A and B – Pros/Cons)**

Pros		Cons	
Alternative A: “T-up” All Ramps			
<ul style="list-style-type: none"><li>+ “T-ing up” of ramps enhances bike/pedestrian safety</li><li>+ Widening of College from 4 to 6 lanes improves capacity and intersection performance</li></ul>			
Alternative B: “T-up” All Ramps; Construct Flyover On-Ramp to I-8 WB			
<ul style="list-style-type: none"><li>+ “T-ing up” of ramps enhances bike/ped safety</li><li>+ Widening of College from 4 to 6 lanes improves capacity and intersection performance</li><li>+ Flyover reduces NBR turn volumes at intersection of College/I-8 WB ramps, which improves conditions for bike/pedestrian traffic</li></ul>		<ul style="list-style-type: none"><li>- Flyover attracts higher volumes on College Ave south of Alvarado Rd (approx. 5000 increase from Alt A)</li><li>- High construction costs, esp. flyover</li><li>- Flyover introduces new merge point on I-8 WB close to the Waring Rd exit.</li></ul>	

### 3.3.5 Preliminary Cost Estimates

This section contains rough-order of magnitude (ROM) cost estimates for the major transit and freeway and improvements planned under Alternatives A and B. While the future no build deficiency and alternatives evaluation relied upon the 2050 RTP/SCS Series 12 Growth Forecast, the Regional Plan cost information was used for comparative purposes in this section as it provided the most current cost information from the region’s most recently adopted plan.

#### 3.3.5.1 Transit Improvement Costs

Preliminary ROM transit costs can be divided into two categories: (1) the capital cost of building the physical infrastructure and purchase transit vehicles; and (2) the operations and maintenance (O&M) cost of running the transit service, including fuel, staffing and basic upkeep.

##### 3.3.5.1.1 Capital Cost of New Routes

Table 3-19 shows the estimated capital cost of the new transit services planned in each improvement alternative.

**Figure 7-5: I-5 and I-8 Connection**

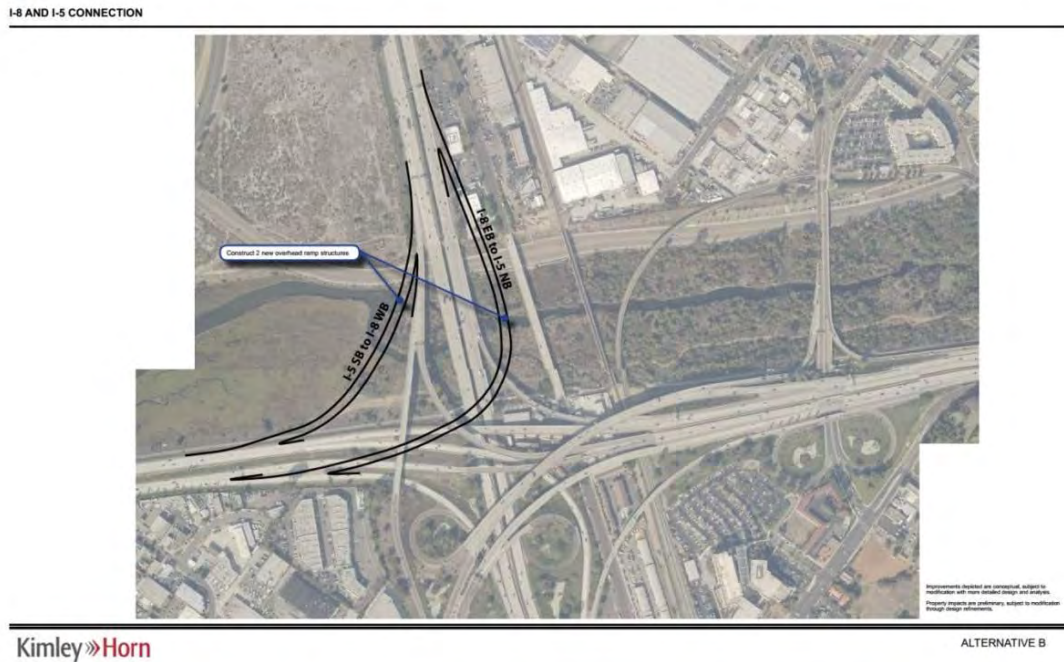


Figure 7-6 depicts the Pacific Highway, Taylor Street, and Congress Street at the Old Town Transit Center roadway, and intersection active transportation project concept including access to regional bicycle and pedestrian path facilities to the west and east of this location. The active transportation project concept's goal was to enhance bicycle and pedestrian facilities connecting with regional facilities. Based on the benefits of connecting to regional facilities, it is recommended that this project concept be considered in the next Regional Bike Plan update – other Active Transportation planning such as Safe Routes to Transit.



**Figure 7-6: Old Town Transit Center Roadway Facilities**

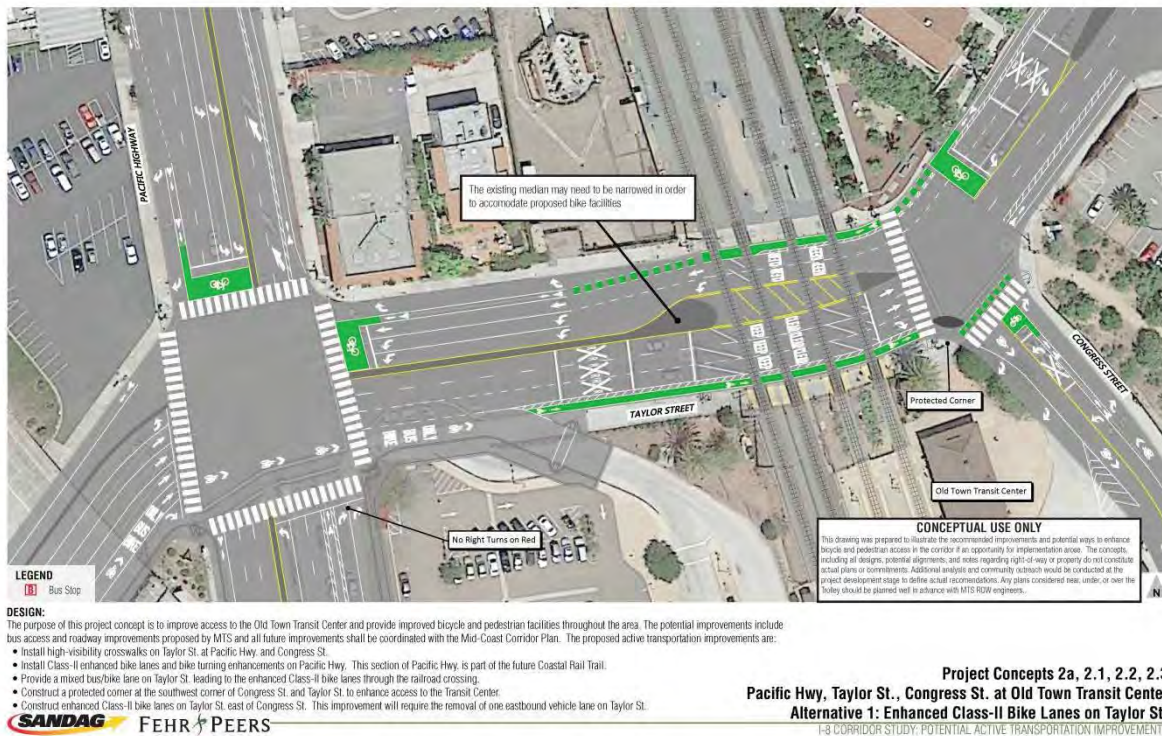


Figure 7-7 depicts the Morena Boulevard roadway project concept including active transportation conflict and safety improvements. As highlighted in Table 3-13 and the project concept, the roadway project concept's goal was to reduce conflicts between active transportation and vehicular modes while improving vehicular mobility.

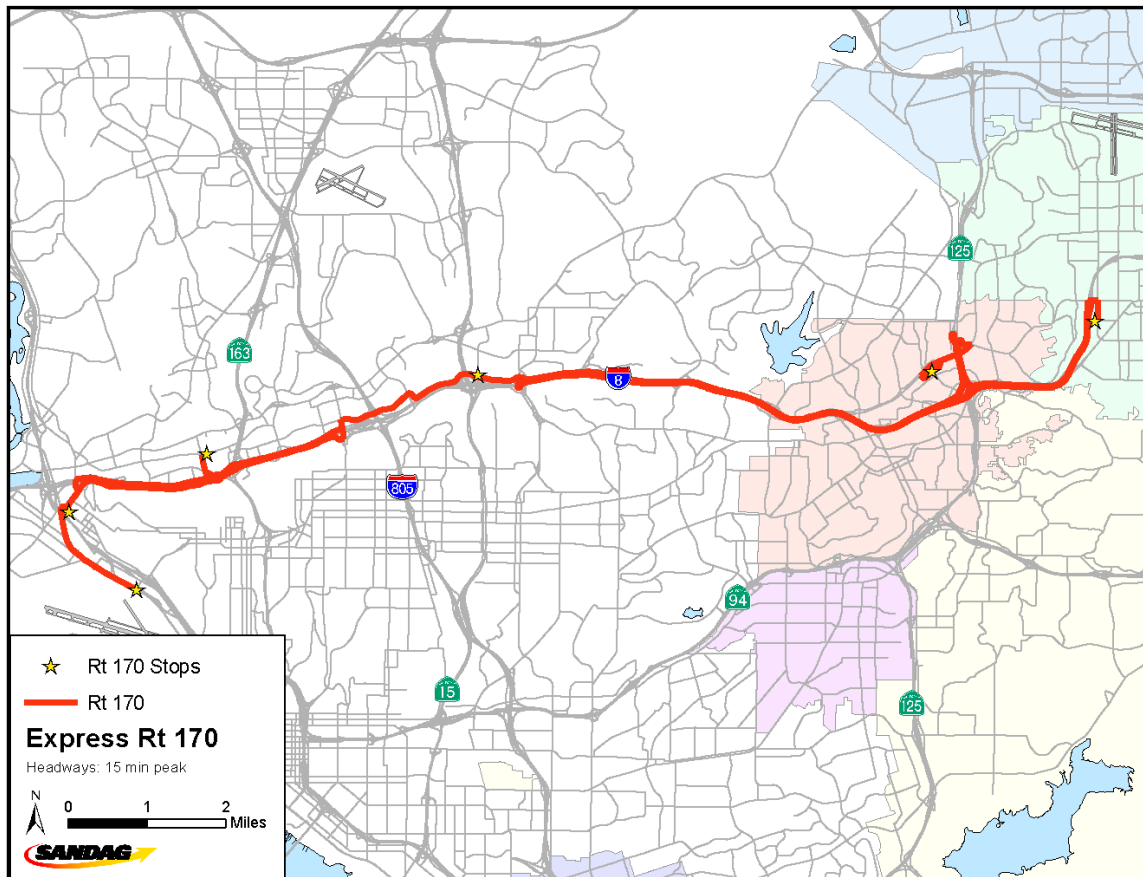
Modeled results did show benefits; however, direct travel demand impacts to segments west and east of this location from this project concept were not completely determinable and detailed analysis of the close spacing of proposed intersections was not fully performed. The project merits further analysis within the ATDM Plan to provide input for alternatives development for project implementation. This project concept is recommended to be considered in the next Regional Plan update.

**Figure B-5: Alternative A Concept (College Ave)**



**B-2: Alternative B Concepts**

**Figure B-6: Alternative B Concept (I-8 Express Bus – Route 170)**





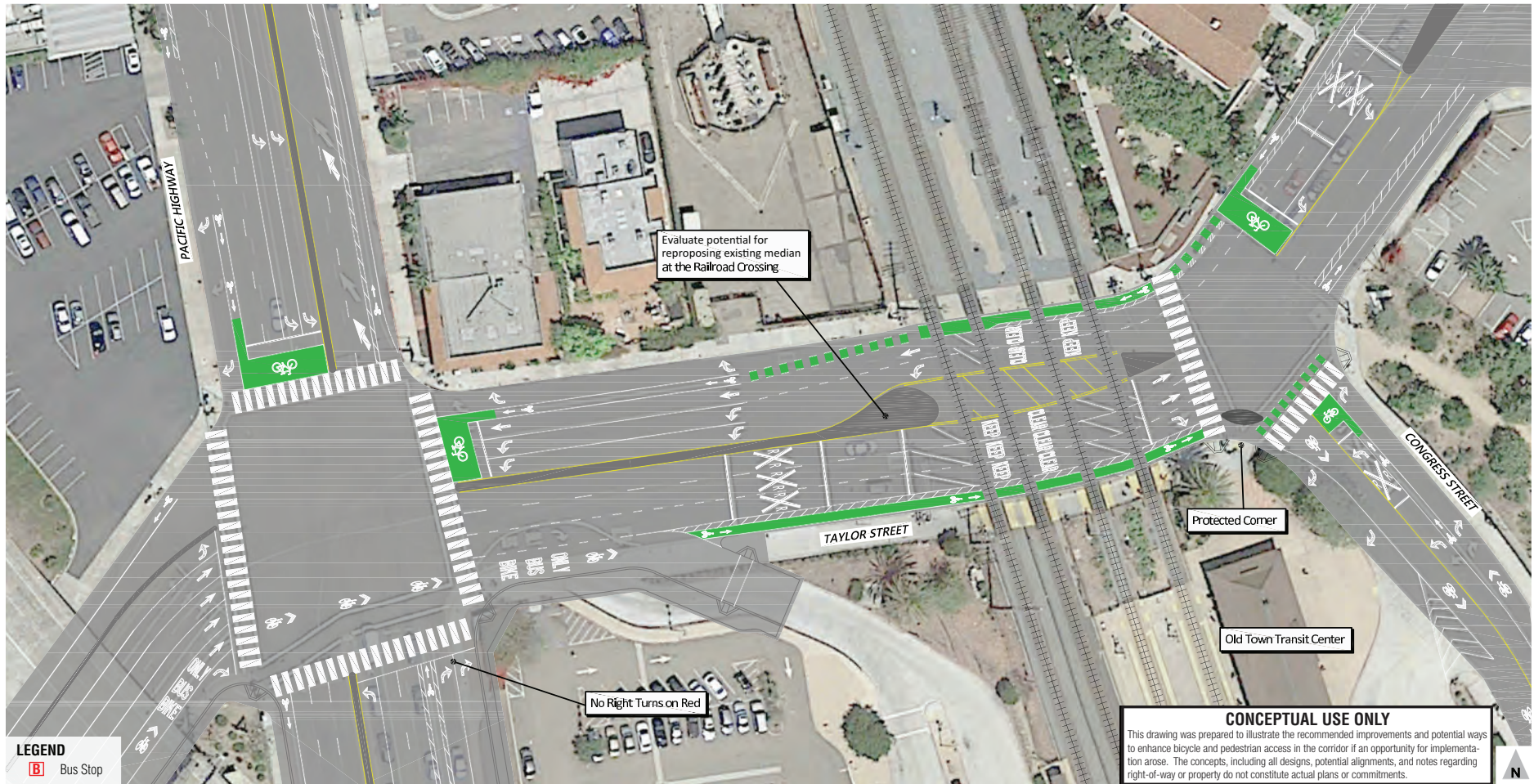
# Old Town Focus Area: High Priority Projects







## Projects 2a, 2.1, 2.2, 2.3: Pacific Hwy, Taylor St., Congress St., at Old Town Transit Center Alternative 1: Enhanced Class-II Bike Lanes on Taylor St.



### DESIGN:

The purpose of this project concept is to improve access to the Old Town Transit Center and provide improved bicycle and pedestrian facilities throughout the area. The potential improvements include bus access and roadway improvements proposed by MTS and all future improvements shall be coordinated with the Mid-Coast Corridor Plan. The proposed active transportation improvements are:

- Install high-visibility crosswalks on Taylor St. at Pacific Hwy. and Congress St.
- Install Class-II enhanced bike lanes and bike turning enhancements on Pacific Hwy. This section of Pacific Hwy. is part of the future Coastal Rail Trail.
- Provide a mixed bus/bike lane on Taylor St. leading to the enhanced Class-II bike lanes through the railroad crossing.
- Construct a protected corner at the southwest corner of Congress St. and Taylor St. to enhance access to the Transit Center.
- Construct enhanced Class-II bike lanes on Taylor St. east of Congress St. This improvement will require the removal of one eastbound vehicle lane on Taylor St.



### Project Concepts 2a, 2.1, 2.2, 2.3 Pacific Hwy, Taylor St., Congress St. at Old Town Transit Center Alternative 1: Enhanced Class-II Bike Lanes on Taylor St.

I-8 CORRIDOR STUDY: POTENTIAL ACTIVE TRANSPORTATION IMPROVEMENTS





## Projects 2a, 2.1, 2.2, 2.3: Pacific Hwy, Taylor St., Congress St., at Old Town Transit Center Alternative 2: Two-Way Cycletrack on Taylor St.



### NOTES:

The purpose of this project concept is to improve access to the Old Town Transit Center and provide improved bicycle and pedestrian facilities throughout the area. The potential concept includes bus access and roadway improvements proposed by MTS and all future improvements shall be coordinated with the Mid-Coast Corridor Plan. The proposed active transportation improvements are:

- Install high-visibility crosswalks on Taylor St. at Pacific Hwy. and Congress St.
- Install Class I enhanced bike lanes and bike turning enhancements on Pacific Hwy.
- On Taylor St. between Congress St. and Pacific Hwy.: Construct an enhanced Class-II bike lane on the north side and a two-way cycle track on the south side. The two-way cycletracks are intended to accommodate the existing two-way bicycle traffic which is frequently observed along the transit station frontage.
- Construct a protected corner at the southwest corner of Congress St. and Taylor St. to enhance access to the Transit Center.

**SANDAG** **FEHR** **PEERS**

**Project Concepts 2a, 2.1, 2.2, 2.3**  
**Pacific Hwy, Taylor St., Congress St. at Old Town Transit Center**  
**Alternative 2: Two-Way Cycletrack on Taylor St.**

I-8 CORRIDOR STUDY: POTENTIAL ACTIVE TRANSPORTATION IMPROVEMENTS



**Table 3-1: City of San Diego Planned Roadway Capacity Improvements<sup>5</sup>**

<b>Roadway</b>	<b>1st Cross Street</b>	<b>2nd Cross Street</b>	<b>2050 RTP Planned Improvement</b>
<b>West Point Loma Boulevard</b>	Nimitz Boulevard	Bacon Street	Widen from 2 to 4 lanes. Construct raised median.
<b>Nimitz Boulevard</b>	Sunset Cliffs Boulevard	West Point Loma Boulevard	Widen from 3 to 6 lanes
<b>Famosa Boulevard</b>	Nimitz Boulevard	Valeta Street	Widen from 2 to 4 lanes. Construct raised median.
	Valeta Street	West Point Loma Boulevard	Construct 4-lane road (no median)
<b>West Mission Bay Drive</b>	Sea World Drive	I-8	Widen from 4 to 6 lanes. Create raised/fixed median. (Bridge replacement)
<b>Sea World Drive</b>	Sea World Way	Friars Road	Widen from 4 to 6 lanes
	Friars Road	Pacific Highway	Widen from 4 to 6 lanes
	Pacific Highway	I-5	Widen from 4 to 6 lanes
<b>Hancock Street</b>	Sports Arena Boulevard	Kurtz Street	Widen from 2 to 4 lanes. Preserve CLTCL.
	Kurtz Street	Rosecrans Street	Widen from 2 to 3 lanes. Preserve one-way.
<b>Kurtz Street</b>	Hancock Street	Rosecrans Street	Widen from 2 to 3 lanes. Preserve one-way.
<b>Kemper Street</b>	Sports Arena Boulevard	Kurtz Street	Construct 4-lane road (no median)
<b>Pacific Highway</b>	I-5	I-8	Widen from 2 to 4 lanes
	Washington Avenue	Rosecrans Street	Construct HOV facility
<b>Taylor Street</b>	Juan Street	Morena Boulevard	Widen from 5 to 6 lanes
<b>Jackson Street</b>	Presidio Drive	Mason Street	Widen from 2 to 4 lanes
<b>Mason Street</b>	Juan Street	Jackson Street	Widen from 4 to 6 lanes
<b>Hotel Circle South</b>	I-8 Ramp/Taylor Street	SR 163	Widen from 2 to 3/4 lanes. Construct new segment and intersection at Via Las Cumbres
<b>Hotel Circle North</b>	I-8 Ramp/Taylor	Hanalei Road	Widen from 2 to 4 lanes
	Via Las Cumbres	Hanalei East	Widen from 2 to 3 lanes
<b>Via Las Cumbres</b>	Linda Vista Road	Friars Road	Widen from 3 to 4 lanes
	Friars Road	Hotel Circle South	Construct 4-lane road
<b>Camino de La Reina</b>	Friars Road	Fashion Valley Road	Construct 4-lane road
	Fashion Valley Road	Ave Del Rio/Hazard Center Road	Widen from 2 to 4 lanes
<b>Hazard Center Road</b>	Ave Del Rio/Camina de La Reina	West of Mission Center Road	Construct 4-lane road
<b>Hanalei Road</b>	Hotel Circle North/Via Las Cumbres	Hotel Circle North @ SR 163	Construct 4-lane road. Construct raised median.

<sup>5</sup> These planned roadway capacity improvements are based on Plans which were in place prior to beginning of the study.

**Table 3-1: City of San Diego Planned Roadway Capacity Improvements (Cont'd.)**

<b>Roadway</b>	<b>1st Cross Street</b>	<b>2nd Cross Street</b>	<b>2050 RTP Planned Improvement</b>
<b>Hanalei East</b>	Hanalei	Hotel Circle North	Construct 2-lane road
<b>Friars Road</b>	Colusa Street	Fashion Valley Road	Widen from 4 to 6 lanes
	Avenida de las Tiendas	Ulric St/SR 163	Widen from 5 to 7 lanes
	SR 163 Southbound	Mission Center Road	Widen from 6 to 8 lanes
	Eastbound Off/Westbound On to Qualcomm Way	Rio Bonito Way	Widen from 6 to 8 lanes
	I-15	I-15 NB Ramps	Widen from 6 to 8 lanes
<b>Mission Center Road</b>	Friars Road	Civita Boulevard	Widen from 4 to 6 lanes
<b>Auto Circle</b>	I-8	I-8	Widen from 4 to 6 lanes
<b>Stadium Way</b>	Mission Center Road	Qualcomm Way	Construct 6-lane road (raised median)
<b>Murray Ridge Road</b>	Stadium Way	Mission Center Road	Construct 4-lane road (raised median)
<b>Camino del Rio North</b>	East of Mission Center Road	Camino Del Este	Widen from 3 to 4 lanes
	Camino Del Este	Qualcomm Way	Widen from 2 to 4 lanes
	Mission City Parkway	Rancho Mission Road	Widen from 2 to 4 lanes
<b>Camino del Rio South</b>	Western Terminus	Auto Circle Drive	Widen from 2 to 4 lanes
	Auto Circle Drive	Qualcomm Way	Widen from 2 to 4 lanes
	Qualcomm Way	Mission City Parkway	Widen from 2 to 3/4 lanes
	I-15	Fairmount Avenue	Widen from 2 to 4 lanes
<b>Fenton Parkway</b>	Rio San Diego Drive	Camino Del Rio North	Construct 2/4 lane road with SD River crossing
<b>Fairmount Avenue</b>	Montezuma Road	El Cajon Boulevard	Widen from 4 to 6 lanes
	Mission Gorge Road	I-8	Widen from 4 to 6 lanes
<b>Zion Avenue</b>	Mission Gorge Road	Waring Road	Widen from 2 to 4 lanes
<b>College Avenue</b>	I-8	Montezuma Road	Widen from 4 to 6 lanes. Construct raised median.
<b>70th Street</b>	I-8	I-8	Widen from 5 to 6 lanes
	El Cajon Boulevard	Colony	Widen from 2 to 6 lanes
	Colony	University Avenue	Widen from 2 to 4 lanes

### 3.2.2 Improvement Alternatives

The development of improvement alternatives began with a broad list of potential improvements including input from the Peninsula Community Planning Board and other stakeholders. From this universe of options, the Project Study Team (PST) collaboratively screened down the improvements into a smaller list of viable projects. The screening was based on an assessment of the costs, benefits, and overall feasibility of the projects including previous studies and analysis.

**Table 3-5: Projected 2050 Transit Ridership<sup>8</sup>**

Line	Description	Mode	2050 No-Build	Improvement Alternatives (with % change from 2050 No-Build)					
					2050 Alt A	2050 Alt B1		2050 Alt B2	
530	San Diego Trolley Green Line (Downtown-Santee)	LRT	45,098	56,400	+25%	45,178	0%	43,950	-3%
560	San Diego Trolley Brown Line (Downtown-SDSU)	LRT	31,185	30,621	-2%	31,081	0%	30,983	-1%
170	I-8 Express Bus	Express Bus	—	—	—	68	—	—	—
630	Friars Rd BRT/Rapid Bus	BRT	—	—	—	—	—	5,003	—
1	Hillcrest-Grossmont TC via El Cajon Bl	Local Bus	8,404	8,398	0%	8,395	0%	8,412	0%
6	Fashion Valley-North Park via Mission Valley	Local Bus	6,726	6,358	-5%	6,783	+1%	6,582	-2%
8	Old Town-Pacific Beach via Mission Beach	Local Bus	3,844	3,830	0%	3,730	-3%	3,306	-14%
9	Old Town-Pacific Beach via SeaWorld/Ingraham	Local Bus	5,221	5,459	+5%	5,399	+3%	4,578	-12%
10	Old Town-University and College via University Av	Local Bus	5,361	5,395	+1%	5,356	0%	5,346	0%
		BRT	15,715	15,660	0%	15,711	0%	15,461	-2%
11	SDSU-Skyline Hills via Adams/Downtown/National	Local Bus	7,995	8,025	0%	7,977	0%	7,981	0%
		BRT	7,639	7,644	0%	7,609	0%	7,588	-1%
13	24th St Trolley-Kaiser Hospital via Euclid/Grantville	Local Bus	8,316	8,302	0%	8,224	-1%	8,188	-2%
14	Grantville-Lake Murray Bl via Kaiser Hospital/SDSU	Local Bus	6,282	6,306	0%	6,223	-1%	5,704	-9%
15	SDSU-Downtown (Limited Stops) via El Cajon Bl	Local Bus	3,864	3,916	+1%	3,846	0%	3,841	-1%
18	Grantville-Camino del Rio	Local Bus	414	256	-38%	413	0%	408	-1%
30	Downtown-UTC/VAMC via Old Town/PB/La Jolla	BRT	9,709	9,692	0%	9,641	-1%	9,428	-3%
35	Old Town-Ocean Beach via Midway/Cable	Local Bus	5,898	5,915	0%	5,963	+1%	5,976	+1%
88	Old Town-Fashion Valley via Hotel Circle	Local Bus	423	471	+11%	499	+18%	483	+14%
928	Fashion Valley-Kearny Mesa via Serra Mesa	Local Bus	1,929	1,917	-1%	1,959	+2%	1,794	-7%
20	Downtown-Del Lago Station via Fashion Valley	Express Bus	1,346	1,404	+4%	1,378	+2%	1,541	+14%
120	Downtown-Kearny Mesa TC (via Fashion Valley)	BRT	7,160	7,238	+1%	7,120	-1%	7,441	+4%
<b>Study Routes Unlinked Boardings</b>			<b>182,529</b>	<b>193,207</b>	<b>+5.85%</b>	<b>182,553</b>	<b>+0.01%</b>	<b>183,994</b>	<b>+0.80%</b>
<b>Transit System Unlinked Boardings</b>			<b>866,571</b>	<b>870,816</b>	<b>+0.49%</b>	<b>865,510</b>	<b>-0.12%</b>	<b>865,031</b>	<b>-0.18%</b>
<b>Transit System Linked Trips</b>			<b>399,723</b>	<b>400,788</b>	<b>+0.27%</b>	<b>399,181</b>	<b>-0.14%</b>	<b>399,617</b>	<b>-0.03%</b>

<sup>8</sup> Source: SANDAG Series 12 Regional Transportation Model, these numbers are subject to change based upon further studies and/or analysis.



# Old Town Focus Area: High Priority Projects

## Approved & Fully Funded Projects



2.A Congress St. Class-II bicycle facility between Taylor St. and San Diego Ave.

## High Priority Projects



2.1 Rosecrans St. enhanced Class-II bike lanes from Sports Arena Blvd. to Taylor St. (Old Town Transit Center)



2.2 Coastal Rail Trail: Cycle track facilities on Pacific Highway from Fiesta Island Rd. to Santa Fe Depot Station in Downtown San Diego



2.3 Taylor St. between Pacific Hwy. and Hotel Circle: Construct sidewalks and Class-II bike lanes (where gaps in facilities exists) with connection to Fashion Valley



2.4 Morena Blvd. Class-II bike lanes between W Morena Blvd. and Taylor St. (Close gaps in existing discontinuous facility)



2.5 Gaines St. / Napa St. - new high visibility crosswalk



2.6 Old Town Transit Station Access Improvements



2.7 Morena / Linda Vista Transit Station Access Improvements

## I-8 Corridor Study: Recommended Active Transportation Improvements

Project Description:		Project Selection Rationale:		Project Details:		Concept Plan
<b>1</b>	<b>I-8 Western Terminus</b>					
<b>High Priority Projects</b>						
1.1	W Point Loma Blvd. west of Sunset Cliffs Blvd.: Improve Class-III signing and striping	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects</li> <li>• Ease of implementation, signing and striping within existing ROW</li> </ul>		This project is limited to a Class-III due to existing ROW and roadway width constraints.		✓
1.2	W. Point Loma / Nimitz Blvd.: Install crosswalks improvements at the intersection including stop signs at free right turns	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects</li> <li>• Improve access across Sunset Cliffs Blvd to Robb Field and Ocean Beach Bike paths</li> </ul>				✓
1.3	Sunset Cliffs Blvd. / Nimitz Blvd. / I-8: Reconfigure interchange	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects</li> <li>• Improve bicycle and pedestrian access to Ocean Beach Bike path and Robb Field</li> <li>• <b>SANDAG EAP Project #25, 26A (exceeding \$200m cap)</b></li> </ul>		Improvements may include enhanced crosswalk improvements at the intersections or reconfiguration of the interchange including a grade separated class-I multi-use trail (fly-over)		✓
1.4	W Point Loma Blvd. & Sports Arena Blvd.: Enhanced Class-II bike lanes between Sunset Cliffs Blvd. and Rosecrans St.	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, provides connection from Old Town to Sunset Cliffs Blvd and the Ocean Beach Bike Path</li> <li>• Ease of implementation, signing and striping within existing ROW</li> </ul>		This project could include a combination of enhanced Class-II or Class-IV depending on roadway width and ROW constraints		
<b>2</b>	<b>Old Town</b>					
<b>Approved &amp; Fully Funded Projects</b>						
2.A	Congress St. Class-II bicycle facility between Taylor St. and San Diego Ave.	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects including the Old Town transit center and the proposed Uptown Regional Bikeway project</li> <li>• <b>SANDAG EAP project #3: Uptown Bikeway (within \$200m cap)</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		This project will establish a connection to the Uptown Regional Bikeways project with extended connections to Uptown, North Park, University Heights, Balboa Park and Downtown.		✓
<b>High Priority Projects</b>						
2.1	Rosecrans St. enhanced Class-II bike lanes from Sports Arena Blvd. to Taylor St. (Old Town Transit Center)	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, provides westerly connection from Old Town Transit center to Sports Arena Blvd.</li> <li>• Ease of Implementation, signing and striping within existing ROW</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		This project includes constrained ROW at the Taylor St. rail crossing and will require additional feasibility analysis to determine the appropriate facility type at this location.		✓



## I-8 Corridor Study: Recommended Active Transportation Improvements

ID	Project Description:	Project Selection Rationale:	Project Details:	Concept Plan
2.2	Coastal Rail Trail: Cycle track facilities on Pacific Highway from Fiesta Island Rd. to Santa Fe Depot Station in Downtown San Diego	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects and critical north/south regional active transportation corridor</li> <li><b>SANDAG EAP project #48B, #48C (exceeding \$200m cap)</b></li> <li><b>Safe Routes to Transit Project</b></li> </ul>	<p>This project includes the southernmost segment of the 44-mile Coastal Rail Trail extending from Oceanside to downtown San Diego. This section of the trail would begin as two one-way cycle tracks at Fiesta Island Road and East Mission Bay Drive where it would extend east over I-5 and southward along Pacific Highway to West Broadway. There would be a Class-II bike lane for southbound users along Pacific Highway between Enterprise Street and Tripoli Avenue and along Barnett Avenue from Midway Drive to Pacific Highway.</p> <p>This project will extend to Project 3.1 within the Fashion Valley Focus area.</p>	✓
2.3	Taylor St. between Pacific Hwy. and Hotel Circle: Construct sidewalks and Class-II bike lanes (where gaps in facilities exists) with connection to Fashion Valley	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects, provides connection from Old Town to the Fashion Valley focus area</li> <li>Ease of Implementation, signing and striping within existing ROW</li> <li><b>Safe Routes to Transit Project</b></li> </ul>		
2.4	Morena Blvd. Class- II bike lanes between W Morena Blvd. and Taylor St. (Close gaps in existing discontinuous facility)	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects, provides connection from Old Town across the San Diego River to the Morena / Linda Vista neighborhood</li> <li>Improve access for bicyclist to the Linda Vista Transit Station</li> <li><b>City of San Diego High Priority Bicycle Project #15</b></li> <li><b>Safe Routes to Transit Project</b></li> </ul>		
2.5	Gaines St. / Napa St. - new high visibility crosswalk	<ul style="list-style-type: none"> <li>Improve pedestrian access to the Morena/Linda Vista transit station</li> <li><b>Safe Routes to Transit Project</b></li> </ul>		
2.6	Old Town Transit Station Access Improvements	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li> <li><b>Safe Routes to Transit Project</b></li> </ul>	<ul style="list-style-type: none"> <li>Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li> <li>Additional bicycle amenities and storage</li> <li>Additional pedestrian scale lighting and wayfinding directing patrons to transit connection, the SDRT, and USD</li> <li>Install pedestrian crossing gates at the Taylor St. rail crossing</li> </ul>	✓
2.7	Morena / Linda Vista Transit Station Access Improvements	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li> <li><b>Safe Routes to Transit Project</b></li> </ul>	<ul style="list-style-type: none"> <li>Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li> <li>Add warning signage (for motorists and bicyclists) at parking lot driveways</li> <li>Install sidewalks at existing informal paths connecting Morena / Linda Vista Station parking lot and Friars Rd. / Morena Blvd.</li> </ul>	

I-8 Corridor Study: Recommended Active Transportation Improvements			
ID	Project Description:	Project Selection Rationale:	Project Details:
3	<b>Fashion Valley</b>		
<b>Approved &amp; Fully Funded Projects</b>			
3.A	Bachman Pl to Hotel Circle Dr.: Uptown Bikeway Project including connection via Bachman Pl. to Hotel Circle, SDRT, and Fashion Valley Transit Station	<ul style="list-style-type: none"> <li>Connectivity between multiple destinations within the Fashion Valley Transit Station / Hotel Circle area to the proposed Uptown Bikeway project</li> <li><b>SANDAG EAP Project #3: Uptown Bikeway (within \$200m cap)</b></li> <li><b>Safe Routes to Transit Project</b></li> </ul>	This project will establish a connection from Mission Valley to the Uptown Regional Bike Corridor and provide extended access to Uptown, North Park, Balboa Park, and Downtown.
3.B	Mission Center Rd. – HAWK crossing at Mission Center Rd / SDRT (South)	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects, provides connection from SDRT to Mission Center Transit Station</li> <li><b>Approved and fully funded project (SD CIP)</b></li> <li><b>Safe Routes to Transit Project</b></li> </ul>	
<b>High Priority Projects</b>			
3.1	Taylor St: Sidewalks and Class-II bike lanes between the I-8 eastbound ramps and Hotel Circle	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects, provides link in gap in the existing active transportation network between Fashion Valley and Old Town (via Taylor St.)</li> <li><b>Safe Routes to Transit Project</b></li> </ul>	This project will provide sidewalks and class-II bike lanes where gaps in these facilities exists. Improve the MTS bus stop at the south side of the intersection of Taylor St. and Hotel Circle to include amenities such as a bus stop shelter and seating.
3.2	Hotel Circle North: Class-I bike path connection with SD River Trail through easement at Riverwalk Golf Course	<ul style="list-style-type: none"> <li>Connectivity between Hotel Circle bike facility and San Diego River Trail</li> <li><b>City of San Diego High Priority Bicycle Project #19</b></li> <li><b>Safe Routes to Transit Project</b></li> </ul>	
3.3	Sefton Field to Friars Rd. Class-I path and bridge to connect Sefton Field and Hotel Circle to Mission Valley YMCA and Friars Rd.	<ul style="list-style-type: none"> <li>Connectivity between multiple destinations that are currently separated by the San Diego River including the Sefton Field park, Mission Valley YMCA, and the Morena/Linda Vista transit station</li> <li><b>SANDAG EAP Project #31H (exceeding \$200m cap)</b></li> <li><b>City of San Diego High Priority Bicycle Project #44</b></li> <li><b>Safe Routes to Transit Project</b></li> </ul>	

I-8 Corridor Study: Recommended Active Transportation Improvements			
ID	Project Description:	Project Selection Rationale:	Project Details:
3.4	San Diego River Trail: New Class-I Trail - Riverwalk and Fashion Valley Transit Station	<ul style="list-style-type: none"> <li>• Critical east-west connection throughout the project study area</li> <li>• Class-I trail provides a low stress facility for pedestrians and bicyclists</li> <li>• Connectivity between Fashion Valley and Old Town focus areas</li> <li>• Connectivity between Fashion Valley and Old Town focus areas</li> <li>• <b>SANDAG Regional Bicycle Plan project</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	<p>The improvements to the existing trail will include striping, signage, and fencing as needed in order to formalize the trail and discourage cars from parking on the trail near the shopping center/transit station.</p>
3.5	Hotel Circle North and Hotel Circle South: Enhanced Class-II bike lanes (cyletrack) and improved bus stop amenities	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects including the Fashion Valley Rd trail, Taylor St bike lanes</li> <li>• <b>City of San Diego High Priority Bicycle Project #19</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	✓
3.6	Fashion Valley Rd.: Add Class-I bike path in easement along edge of golf course and enhanced Class-II bike lanes on Fashion Valley Rd.	<ul style="list-style-type: none"> <li>• Implementation feasibility, project is within available ROW</li> <li>• Provides a low stress facility for pedestrians and bicyclists off of Fashion Valley Rd.</li> <li>• <b>City of San Diego High Priority Bicycle Project #19</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	
3.7	Friars Rd. cycletracks (option for one-way or two-way) between Napa St. and Fashion Valley Rd.	<ul style="list-style-type: none"> <li>• Connectivity between residential, commercial, and retail destinations along Friars Rd.</li> <li>• Access from Morena / Linda Vista Station</li> <li>• Provides additional connection to the San Diego River Trail</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	<p>This project may include one-way cycle tracks along both sides of Friars Rd. or a two-way cycle track along a single side depending upon available ROW.</p>
3.8	Friars Rd. enhanced class-II bike lanes between Fashion Valley Rd. and Avenida De Las Tiendas	<ul style="list-style-type: none"> <li>• Connectivity with adjacent project on Friars Rd. and Fashion Valley Retail Center</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	✓

## I-8 Corridor Study: Recommended Active Transportation Improvements

ID	Project Description:	Project Selection Rationale:	Project Details:	Concept Plan
3.9	Hazard Center Transit Station Access Improvements	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li> <li><b>Safe Routes to Transit Project</b></li> </ul>	<ul style="list-style-type: none"> <li>Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li> <li>Add pedestrian gates at rail crossing south of Hazard Center Dr. / Hazard Center Station Driveways</li> <li>Additional pedestrian scale lighting</li> <li>Provide enhanced bike/ped connectivity and improved wayfinding between the Hazard Center Transit Station and the SDRT</li> </ul>	
3.10	Fashion Valley Transit Station Access Improvements	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li> <li><b>Safe Routes to Transit Project</b></li> </ul>	<ul style="list-style-type: none"> <li>Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li> <li>Provide additional bicycle amenities such as: lockers, showers, and changing rooms</li> <li>Additional pedestrian scale lighting</li> <li>Provide additional pedestrian wayfinding signs and complete the formal pathway connection to the Riverwalk (SDRT)</li> </ul>	
3.12	Mission Valley Center Transit Station Access Improvements	<ul style="list-style-type: none"> <li>Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li> <li><b>Safe Routes to Transit Project</b></li> </ul>	<ul style="list-style-type: none"> <li>Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li> <li>Provide additional pedestrian scale lighting and pedestrian wayfinding signs around the Mission Valley transit station directing patrons to Mission Valley Mall and the San Diego River Trail</li> </ul>	

I-8 Corridor Study: Recommended Active Transportation Improvements			
ID	Project Description:	Project Selection Rationale:	Project Details:
4	Texas / Qualcomm		Concept Plan
Approved & Fully Funded Projects			
4.A	Camino del Este pedestrian signal (at-grade crossing) at north San Diego River Trail alignment	<ul style="list-style-type: none"> <li>• Connectivity with San Diego River Trail</li> <li>• Improved safety for pedestrians and bicyclists across congested arterial roadways</li> <li>• <b>SANDAG EAP project #31D (within \$200m cap)</b></li> <li>• <b>Approved and fully funded project (SD CIP)</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	
4.B	Camino del Este pedestrian signal (at-grade crossing) at south San Diego River Trail alignment		
4.C	Qualcomm Way pedestrian signal (at-grade crossing) at north San Diego River Trail alignment	<ul style="list-style-type: none"> <li>• Connectivity with San Diego River Trail</li> <li>• Improved safety for pedestrians and bicyclists across congested arterial roadways</li> <li>• <b>SANDAG EAP project #31D (within \$200m cap)</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	
4.D	Qualcomm Way pedestrian signal (at-grade crossing) at south San Diego River Trail alignment		
4.E	San Diego River Trail (North Alignment): Close gaps in the existing class-I trail between I-805 and Fenton Pkwy.	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, address gap in the existing San Diego River trail, improved access to Fenton transit station</li> <li>• Provides low stress (Class-I) facility for pedestrians and bicyclists</li> <li>• <b>SANDAG EAP Project #31C (within \$200m cap)</b></li> <li>• <b>City of San Diego High Priority Bicycle Project #66</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	
4.F	San Diego River Trail (North) East of Fenton Pkwy.: Close gap in Class-I trail from Fenton Pkwy to I-15 via southern edge of Qualcomm Stadium parking lot	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, address gap in the existing San Diego River trail, improved access to Fenton Parkway transit station, Qualcomm Stadium and Transit Station</li> <li>• Provides low stress (Class-I) facility for pedestrians and bicyclists</li> <li>• <b>SANDAG EAP Project #31A (within \$200m cap)</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	



## I-8 Corridor Study: Recommended Active Transportation Improvements

ID	Project Description:	Project Selection Rationale:	Project Details:	Concept Plan
4	<b>Texas / Qualcomm (cont.)</b>			
<b>High Priority Projects</b>				
4.1	Qualcomm Way / Texas St.: enhanced class-II bike lanes, sidewalks, and pedestrian crossing improvements as needed between Camino Del Rio North and Camino Del Rio South (I-8 overpass)	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, provides between the San Diego River Trail, over I-8, to Camino Del Rio South</li> <li>• <b>City of San Diego High Priority Bicycle Project #5</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		
4.2	San Diego River Trail (South): Close gaps in the existing Class-I trail east of Qualcomm Way and provide connection to Qualcomm Stadium at Mission City Pkwy.	<ul style="list-style-type: none"> <li>• Connectivity with southern San Diego River Trail</li> <li>• Provides low stress (Class-I) facility for pedestrians and bicyclists</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		
4.3	Fenton Pkwy to Mission City Pkwy: Class-I ped/bike bridge over the San Diego River within Connection to Mission City Pkwy.	<ul style="list-style-type: none"> <li>• Connectivity between Fenton Parkway transit station over the San Diego River to Mission City Pkwy.</li> <li>• Provide connection between Fenton Parkway transit station and surrounding residential / commercial uses to office / employment centers south of the San Diego River</li> <li>• Provides low stress (Class-I) facility for pedestrians and bicyclists</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	✓	
4.4	Enhance Murphy Canyon Class-I path at the east side of Qualcomm Stadium parking lot	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, provides critical link between the San Diego River trail and the Murphy Canyon trail</li> <li>• Provides low stress (Class-I) facility for pedestrians and bicyclists</li> <li>• Ease of implementation, within existing ROW at Qualcomm Stadium parking</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		
4.5	Rio Vista Transit Station Access Improvements	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	<ul style="list-style-type: none"> <li>• Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li> <li>• Additional pedestrian scale lighting and wayfinding</li> </ul>	
4.6	Fenton Parkway Transit Station Access Improvements	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	<ul style="list-style-type: none"> <li>• Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li> <li>• Additional pedestrian scale lighting and wayfinding directing patrons to Mission Valley Library, the town center, and Ikea.</li> <li>• Widen walkway between the station and the Mission Valley Apartments.</li> </ul>	

## I-8 Corridor Study: Recommended Active Transportation Improvements

ID	Project Description:	Project Selection Rationale:	Project Details:	Concept Plan
<b>5</b>	<b>Grantville</b>			
<b>Approved &amp; Fully Funded Projects</b>				
5.A	I-15 Commuter Bike Facility - Class-I trail connection between Adams Ave to Camino Del Rio S	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects and provides north/south connection between Texas/Qualcomm, Grantville, and Mid-City neighborhood</li> <li>• <b>Approved and fully funded project</b></li> <li>• <b>SANDAG EAP project #54 (within \$200m cap)</b></li> <li>• <b>City of San Diego High Priority Bicycle Project #49</b></li> </ul>	This project will provide a safe and direct bike route connecting the Mid-City area with Mission Valley. This facility will include a 12-ft wide paved and striped pathway with lighting. It will be separated from the freeway shoulder by a concrete barrier. There will be locations where wider paved sections will be provided to accommodate resting or passing cyclists.	
<b>High Priority Projects</b>				
5.1	Qualcomm Stadium: Improve existing discontinuous Class-I bike facility between Qualcomm Stadium, under I-15 to Rancho Mission Rd and Camino Del Rio North.	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, addresses gap in San Diego River trail and provides key link between Texas/Qualcomm and Grantville focus area</li> <li>• Provides connection between the San Diego River Trail and Mission San Diego Transit Station</li> <li>• Ease of implementation, signing and striping within existing ROW</li> <li>• <b>SANDAG EAP project #31E, #31F (exceeding \$200m cap)</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		
5.2	San Diego River Trail: Complete planned Class-I trail east of I-15	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects with links to Qualcomm Stadium, the Grantville transit station, and Kaiser medical facilities</li> <li>• Provides low stress (Class-I) facility for pedestrians and cyclist</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		
5.3	I-8 Flyover between Camino Del Rio S and Camino Del Rio N: Class-I bicycle/pedestrian bridge connection over I-8 to the I-15 Bikeway and SDRT	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, addresses gap in San Diego River trail and the proposed I-15 Mid-City Bikeway Project</li> <li>• <b>SANDAG EAP project #35 (exceeding \$200m cap)</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	This project will provide a connection between the San Diego River trail and the I-15 Commuter Bike path (#5A).	
5.4	Twain Ave. Class-III bike route between Fairmont Ave. and Mission George Rd.	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects including the San Diego River Trail to the west, Kaiser medical facilities, and residential neighborhoods to the east</li> <li>• Ease of implementation, signing and striping within existing ROW</li> </ul>		✓
5.5	Fairmont Ave. Class-III bike route between Twain Ave. and Mission Gorge Rd.	<ul style="list-style-type: none"> <li>• Connectivity between adjacent projects, provides link between San Diego River, the Grantville Transit Station, Montezuma Rd Class I trail</li> <li>• Ease of implementation, signing and striping within existing ROW</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		✓

I-8 Corridor Study: Recommended Active Transportation Improvements				
ID	Project Description:	Project Selection Rationale:	Project Details:	Concept Plan
5.5a	Mission Gorge Rd. enhanced Class-II bike lanes between Twain Ave. and Fairmount Ave.	<ul style="list-style-type: none"> <li>• Connectivity between adjacent projects, provides link between San Diego River, the Grantville Transit Station, Montezuma Rd Class I trail</li> <li>• Signing and striping within existing ROW</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		✓
5.6	Grantville Transit Station to east leg of the intersection of Fairmount Ave. / Mission Gorge Rd.: Enhanced Class-II bike lanes along new roadway alignment	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, provides connection between from the Grantville Transit Station to the Fairmount Corridor and the San Diego River Trail</li> <li>• Project identified in the Navajo Community Plan</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		
5.7	Fairmount Ave. / I-8 interchange: Add/Enhance crosswalks at intersections and provide Class-II bike lanes as needed to improve traffic & bike/ped access through interchange	<ul style="list-style-type: none"> <li>• Provides access to existing low stress (Class-I) facility for pedestrians and bicyclists</li> <li>• Connectivity with adjacent projects, provides connection between the Fairmont Corridor, Montezuma Trail, and the City Heights neighborhood</li> <li>• <b>SANDAG EAP project #12A (exceeding \$200m cap)</b></li> <li>• <b>City of San Diego High Priority Bicycle Project #23</b></li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>		✓
5.8	Montezuma Trail: enhanced Class-II bicycle facilities on Montezuma Rd., provide improved wayfinding, and sidewalk enhancements	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects, provides link between Grantville and the SDSU focus area</li> <li>• Ease of implementation, signing and striping within existing ROW</li> <li>• <b>City of San Diego High Priority Bicycle Project #23</b></li> </ul>		✓
5.9	Mission San Diego Transit Station Access Improvements	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	<ul style="list-style-type: none"> <li>• Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li> <li>• Additional pedestrian-scale lighting along Ward Rd/ Mission Diego Transit Station</li> <li>• Provide wayfinding directing transit patrons to Qualcomm Stadium, the San Diego River Trail, and the Murphy Canyon Trail</li> <li>• Install high visibility crossing (with curb extensions on the east side) at Rancho Mission Rd near the Ward Rd /Mission San Diego bus stop to allow bus stop patrons to access the other side of the street, the gym, and transit station</li> </ul>	
5.10	Grantville Transit Station Access Improvements	<ul style="list-style-type: none"> <li>• Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li> <li>• <b>Safe Routes to Transit Project</b></li> </ul>	<ul style="list-style-type: none"> <li>• Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li> <li>• Provide pedestrian scale lighting and wayfinding signs with directions to the San Diego River Trail, and Qualcomm Stadium.</li> </ul>	

I-8 Corridor Study: Recommended Active Transportation Improvements			
ID	Project Description:	Project Selection Rationale:	Project Details:
6	San Diego State University (SDSU)		
High Priority Projects			
6.1	Montezuma Trail: Class-II bike facility and sidewalk improvements on Montezuma Rd. from west focus area limits to El Cajon Blvd.	<ul style="list-style-type: none"><li>• Connectivity with adjacent projects, provides key link between Grantville and along SDSU frontage on Montezuma Rd</li><li>• Ease of implementation, signing and striping within existing ROW</li></ul>	
6.2	54th St. and Montezuma Rd.: New high visibility crosswalk at the intersection to provide access to Hardy Elementary School.	<ul style="list-style-type: none"><li>• Ease of implementation</li><li>• Enhanced safety for students accessing the Hardy Elementary School</li><li>• Safe Routes to School Project</li></ul>	
6.3	College Ave. between Montezuma Rd. and the SDSU pedestrian bridge: Widen sidewalks, add street trees, constructed Class-II bike lanes with painted advance stop lines	<ul style="list-style-type: none"><li>• Connectivity with adjacent projects, provides link between Montezuma Rd bike lanes and SDSU with further connections north of College Ave.</li><li>• Ease of implementation, project approved by SDSU</li></ul>	
6.4	College Ave. between Montezuma Rd. and El Cajon Blvd.: Install Class-II bike lanes	<ul style="list-style-type: none"><li>• Connectivity with adjacent projects and connection between SDSU and the residential neighborhoods</li></ul>	
6.5	SDSU connection to neighborhood north of I-8: Explore options for a pedestrian and bike connection between the campus and the neighborhood north of I-8	<ul style="list-style-type: none"><li>• Connectivity with adjacent projects and connection north of I-8 to residential neighborhoods</li></ul>	<ul style="list-style-type: none"><li>• Potential options may include ped/bike bridge over I-8, use of existing tunnels underneath I-8, or Class-II bike lanes on College Ave. / I-8 overcrossing</li></ul> ✓
6.6	SDSU Transit Station Access Improvements	<ul style="list-style-type: none"><li>• Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li><li>• <b>Safe Routes to Transit Project</b></li></ul>	<ul style="list-style-type: none"><li>• Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li><li>• Additional wayfinding from College Ave / Montezuma Rd to the transit station</li></ul>
6.7	Alvarado Medical Center Transit Station Access Improvements	<ul style="list-style-type: none"><li>• Connectivity with adjacent projects and improved pedestrian and bicycle access to the Transit Station</li><li>• <b>Safe Routes to Transit Project</b></li></ul>	<ul style="list-style-type: none"><li>• Restripe / enhance existing crosswalks within 1/2 mile radius of the station</li><li>• Additional pedestrian-scale lighting along Alvarado Rd and Reservoir Dr</li><li>• Pedestrian bridge across I-8 from the transit station to the north side of I-8</li></ul> ✓

## **Interstate 5 ITC Ramps RSR-PSD Alternatives Attachments**















# **Mid-Coast Corridor Transportation Impacts and Mitigation Report Attachments**

# MID-COAST CORRIDOR TRANSIT PROJECT

## FACT SHEET

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MID-COAST CORRIDOR

**TransNet**

### The Project

The Mid-Coast Corridor Transit Project will extend the Trolley Blue Line service from the Santa Fe Depot in Downtown San Diego north to the University City community, serving major activity centers such as Old Town, the University of California, San Diego (UCSD), and Westfield UTC. The proposed project would be funded in partnership by SANDAG and the Federal Transit Administration (FTA).

The Trolley extension route – known as the Locally Preferred Alternative (LPA) – was approved by the SANDAG Board in July 2010. It begins just north of the Old Town Transit Center and travels in existing railroad right-of-way and alongside Interstate 5 to serve UCSD and University City. The extension will serve nine new stations: Tecolote Road, Clairemont Drive, Balboa Avenue, Nobel Drive, VA Medical Center, Pepper Canyon (serving UCSD west campus), Voigt Drive (serving UCSD east campus), Executive Drive, and the terminus station at the Westfield UTC transit center.

### The Need

Freeways and arterials in the Mid-Coast corridor are generally congested, and traffic congestion is projected to increase as the region grows. By 2030, population in the corridor is forecast to increase 19 percent and employment is expected to increase by 12 percent. The University City area has developed as a major employment and high-density residential area, similar to Downtown San Diego. University City is San Diego's

second downtown, and UCSD is one of the region's largest trip generators; however, neither is served directly by regional transit services.

The Mid-Coast Trolley extension will provide an effective alternative to congested freeways and roadways for travelers, improve public transit services, and enhance travel options by connecting the corridor with areas served by the existing Trolley system.

### Project Costs

The current project budget is \$1.7 billion, exclusive of financing costs. The project budget will be updated for inclusion in the project's environmental document, called the Supplemental Environmental Impact Statement/Subsequent Environmental Impact Report (SEIS/SEIR). It will be updated again during preliminary engineering, prior to entering final design in the FTA New Starts process.

### Project Status

In May 2014, the SANDAG Board of Directors adopted updates to the project. SANDAG staff are currently working on responding to comments submitted on the Draft Supplemental Environmental Impact Statement/Subsequent Environmental Impact Report (SEIS/SEIR) and the supplement to this document that evaluated impacts to San Diego fairy shrimp, a federally listed endangered species. Comments and responses will be included in the Final SEIS/SEIR, which is anticipated to be released in late 2014.

*(Continued on reverse)*



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## Funding Status

The Mid-Coast Trolley extension has been identified as a high-priority project by SANDAG and is part of the *TransNet* Early Action Program. *TransNet* will provide a 50 percent local match to federal funding, which SANDAG is seeking through the New Starts program. *TransNet* also will provide operating funds for the Mid-Coast Trolley extension through the year 2048.

## Summary

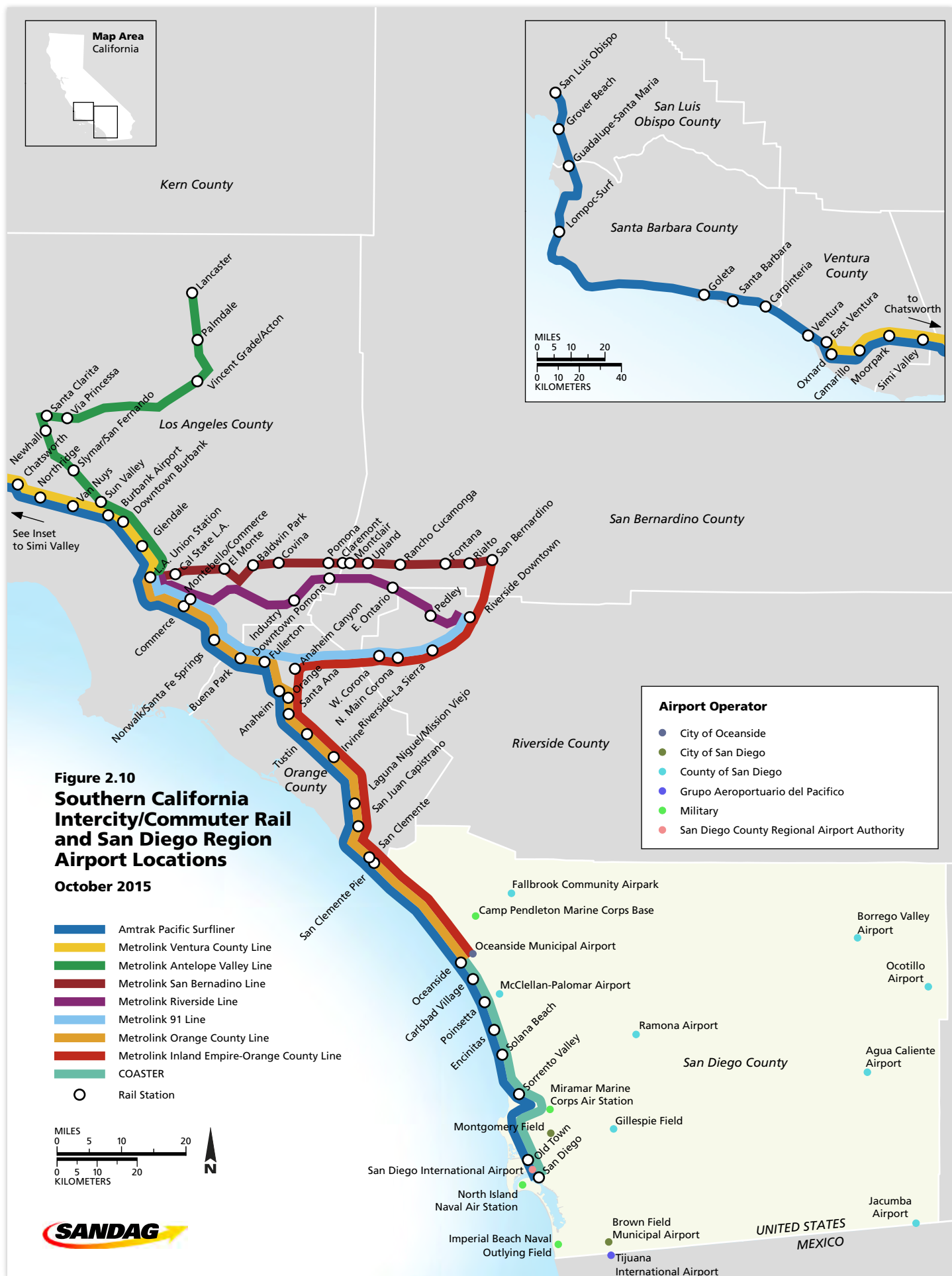
The Mid-Coast Corridor Transit Project is the agency's highest priority transit project. It will improve access to growing employment, education, and residential areas. A Trolley extension is particularly well-suited to the corridor because:

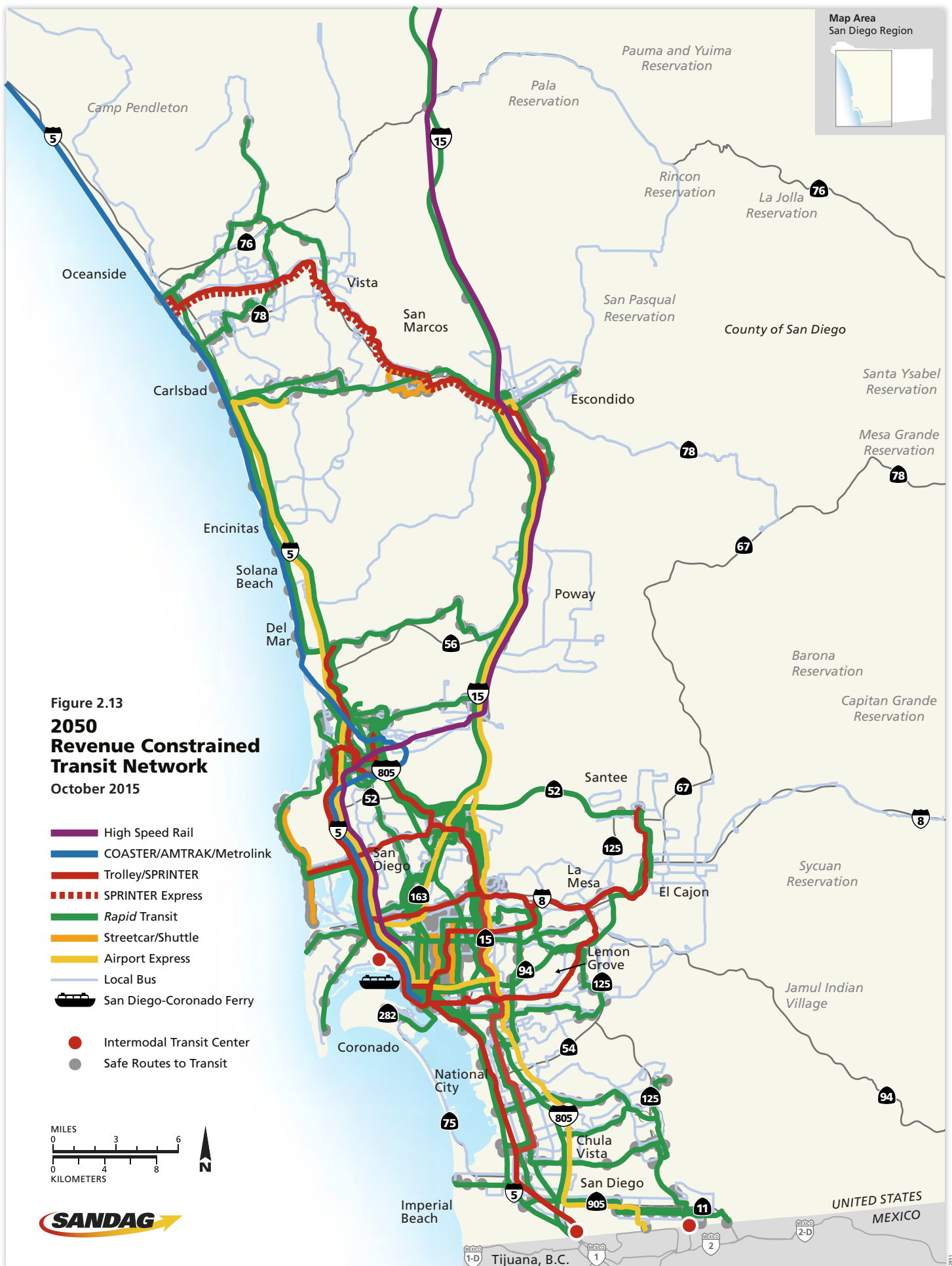
- » It connects with the existing regional rail system at the Old Town Transit Center and Downtown San Diego at Santa Fe Depot, providing a vast improvement to mobility within the region.
- » As an extension of the existing Trolley Blue Line, it will offer a one-seat (no transfer) ride from the international border and communities south of Downtown San Diego all the way to University City.
- » It will connect residents of the corridor with major activity centers such as UCSD, UTC, Old Town, and Downtown San Diego.

## For More Information

Visit [sandag.org/midcoast](http://sandag.org/midcoast).

## San Diego Forward: The Regional Plan













**Table A.2**  
**Phased Revenue Constrained Projects**

*Transit Facilities*

Year Built By	Service	Route	Description	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	COASTER	398	Double tracking (20-minute peak frequencies and 120-minute off-peak frequencies)	\$445	\$445
2020	Trolley	510	Mid-Coast Trolley Extension	\$1,753	\$1,753
2020	Rapid	225	South Bay <i>Rapid</i> (Otay Mesa to Downtown) and Otay Mesa ITC (formerly Route 628)	\$206	\$206
2020	Rapid	905	Extension of Iris Trolley Station to Otay Mesa Port of Entry (POE) route with new service to Otay Mesa East POE and Imperial Beach	\$2	\$2
2020	Shuttle	448/449	San Marcos Shuttle <sup>1</sup>	\$0	\$0
2020	Airport Express	--	Airport Express Routes <sup>2</sup>	\$52	\$62
2020	Transit Lanes	SR 15 from I-805 to I-8	Addition of two Transit Lanes for routes 235, 280/290, 653, and Airport Express Route to the cross border facility in Otay Mesa	\$56	\$56
2020	Other	--	Other Improvements (Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, Park and Ride, transit center expansions)	\$632	\$680
2020	--	--	Local Bus Routes - 15 minutes in key corridors	--	--
2035	COASTER	398	Double tracking (20-minute peak frequencies and 60-minute off-peak frequencies, grade separations at Leucadia Blvd, stations/platforms at Convention Center/Gaslamp Quarter and Del Mar Fairgrounds, and extension to Camp Pendleton)	\$900	\$1,357
2035	SPRINTER	399	SPRINTER efficiency improvements (20-minute frequencies by 2025); double tracking Oceanside to Escondido for 10-minute frequencies and six rail grade separations at El Camino Real, Melrose Dr, Vista Village Dr/Main St, North Dr, Civic Center, Auto Pkwy and Mission Ave	\$946	\$1,339
2035	Trolley	510	Phase I - Blue Line Frequency Enhancements and rail grade separations at 28th St, 32nd St, E St, H St, Palomar St, and Blue/Orange Track Connection at 12th/Imperial	\$205	\$292
2035	Trolley	520	Orange Line Frequency Enhancements and four rail grade separations at Euclid Ave, Broadway/Lemon Grove Ave, Allison Ave/University Ave, Severin Dr	\$267	\$402
2035	Trolley	561	UTC to COASTER Connection (extension of Route 510)	\$343	\$602
2035	Trolley	562	Phase I - San Ysidro to Kearny Mesa via Chula Vista via Highland Ave/4th Ave, National City, Southeast San Diego, Mid-City, and Mission Valley	\$2,333	\$4,028
2035	Rapid	2	North Park to Downtown San Diego via 30th St, Golden Hill	\$39	\$52
2035	Rapid	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	\$87	\$117
2035	Rapid	11	Spring Valley to SDSU via Southeast San Diego, Downtown, Hillcrest, Mid-City	\$113	\$173

**Table A.2 (continued)**  
**Phased Revenue Constrained Projects**

*Transit Facilities (continued)*

Year Built By	Service	Route	Description	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	<i>Rapid</i>	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	\$49	\$76
2035	<i>Rapid</i>	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	\$105	\$161
2035	<i>Rapid</i>	41	Fashion Valley to UTC/UC San Diego via Linda Vista and Clairemont	\$55	\$96
2035	<i>Rapid</i>	90	El Cajon Transit Center to San Diego International Airport ITC via SR 94, City College (peak only)	\$20	\$27
2035	<i>Rapid</i>	120	Kearny Mesa to Downtown via Mission Valley	\$78	\$104
2035	<i>Rapid</i>	473	Phase I - Solana Beach to UTC/UC San Diego via Hwy 101 Coastal Communities, Carmel Valley	\$43	\$66
2035	<i>Rapid</i>	550	SDSU to Palomar Station via East San Diego, Southeast San Diego, National City	\$59	\$78
2035	<i>Rapid</i>	635	Eastlake to Palomar Trolley via Main St Corridor	\$56	\$98
2035	<i>Rapid</i>	638	Iris Trolley Station to Otay Mesa via Otay, Airway Dr, SR 905 Corridor	\$38	\$67
2035	<i>Rapid</i>	640A/ 640B	Route 640A: I-5 - San Ysidro to Old Town Transit Center via City College; 640B: I-5 Iris Trolley/Palomar to Kearny Mesa via Chula Vista, National City and City College	\$153	\$206
2035	<i>Rapid</i>	688/ 689/ 690	Route 688: San Ysidro to Sorrento Mesa via I-805/I-15/SR 52 Corridors (Peak Only); Route 689: Otay Mesa Port of Entry (POE) to UTC/Torrey Pines via Otay Ranch/Millennia, I-805 Corridor (Peak Only); Route 690: Mid-City to Sorrento Mesa via I-805 Corridor (Peak Only)	\$458	\$653
2035	<i>Rapid</i>	709	H St Trolley Station to Millennia via H St Corridor, Southwestern College	\$37	\$49
2035	<i>Rapid</i>	910	Coronado to Downtown via Coronado Bridge	\$26	\$39
2035	<i>Rapid</i>	SR 163 DARs	Kearny Mesa to Downtown via SR 163. Stations at Sharp/Children's Hospital, University Ave, and Fashion Valley Transit Center	\$150	\$196
2035	Streetcar	553	Downtown San Diego: Little Italy to East Village <sup>3</sup>	\$14	\$21
2035	Streetcar	554	Hillcrest/Balboa Park/Downtown San Diego Loop <sup>3</sup>	\$29	\$38
2035	Streetcar	555	30th St to Downtown San Diego via North Park/ Golden Hill <sup>3</sup>	\$26	\$45
2035	ITC	--	San Diego International Airport ITC and I-5 Direct Connector Ramps	\$170	\$223
2035	ITC	--	Phase I - San Ysidro ITC	\$95	\$143
2035	Other	--	Other Improvements (Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, Park and Ride, transit center expansions)	\$2,519	\$3,742

Table A.2 (continued)

## Phased Revenue Constrained Projects

## Transit Facilities (continued)

Year Built By	Service	Route	Description	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	--	--	Local Bus Routes - 10 minutes in key corridors	--	--
2050	COASTER	398	Double tracking (completes double tracking; includes Del Mar Tunnel) plus 2 grade separations	\$1,365	\$3,372
2050	SPRINTER	399	Branch Extension to Westfield North County	\$176	\$437
2050	SPRINTER	588	SPRINTER Express	\$244	\$492
2050	Trolley	510	Phase II - Blue Line rail grade separations at Taylor St and Ash St	\$226	\$449
2050	Trolley	520	Orange Line Frequency Enhancements	\$0	\$0
2050	Trolley	530	Green Line Frequency Enhancements	\$0	\$0
2050	Trolley	560	SDSU to Downtown via El Cajon Blvd/Mid-City (transition of Mid-City <i>Rapid</i> to Trolley)	\$2,390	\$5,005
2050	Trolley	562	Phase II - Kearny Mesa to Carmel Valley	\$633	\$1,443
2050	Trolley	563	Pacific Beach to El Cajon Transit Center	\$1,299	\$2,937
2050	<i>Rapid</i>	103	Solana Beach to Sabre Springs <i>Rapid</i> station via Carmel Valley	\$67	\$135
2050	<i>Rapid</i>	440	Carlsbad to Escondido Transit Center via Palomar Airport Rd	\$51	\$104
2050	<i>Rapid</i>	471	Downtown Escondido to East Escondido	\$32	\$80
2050	<i>Rapid</i>	473	Phase II - Oceanside to Solana Beach via Hwy 101 Coastal Communities	\$87	\$176
2050	<i>Rapid</i>	474	Oceanside to Vista via Mission Ave/Santa Fe Rd Corridor	\$50	\$127
2050	<i>Rapid</i>	477	Camp Pendleton to Carlsbad Village via College Blvd, Plaza Camino Real	\$80	\$161
2050	<i>Rapid</i>	235	Temecula (peak only) Extension of Escondido to Downtown <i>Rapid</i> (formerly Route 610)	\$98	\$198
2050	<i>Rapid</i>	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	\$39	\$79
2050	<i>Rapid</i>	637	North Park to 32nd St Trolley Station via Golden Hill	\$33	\$66
2050	<i>Rapid</i>	650	Chula Vista to Palomar Airport Rd Business Park via I-805/I-5 (peak only)	\$82	\$166
2050	<i>Rapid</i>	653	Mid-City to Palomar Airport Rd via Kearny Mesa/I-805/I-5	\$10	\$21
2050	<i>Rapid</i>	870	El Cajon to UTC via Santee, SR 52, I-805	\$7	\$17
2050	<i>Rapid</i>	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	\$12	\$29
2050	Streetcar	565	Mission Beach to La Jolla via Pacific Beach <sup>3</sup>	\$25	\$50
2050	ITC	--	Phase II - San Ysidro ITC	\$23	\$46
2050	Other	--	Other Improvements (Vehicles, transit system rehabilitation, maintenance facilities, ITS, regulatory compliance, Park and Ride, transit center expansions)	\$3,266	\$7,341
<b>Subtotal</b>				<b>\$22,854</b>	<b>\$40,625</b>



**Table A.2 (continued)**  
**Phased Revenue Constrained Projects**

*Managed Lanes/Toll Lanes*

Year Built By	Freeway	From	To	Existing*	With Improvements	Transit Route	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	I-5	Manchester Ave	SR 78	8F	8F+2ML	650, 653	\$701	\$789
2020	SR 11/ Otay Mesa East Port of Entry (POE)	SR 125	Mexico	--	4T+POE	905	\$832	\$876
2020	I-805	SR 52	Carroll Canyon Rd	8F	8F+2ML	650, 653, 688, 689, 690, 870, 890	\$255	\$255
2035	I-5	SR 905	SR 54	8F	8F+2ML	640	\$308	\$416
2035	I-5	SR 54	SR 15	8F	10F+2ML	640	\$343	\$464
2035	I-5	La Jolla Village Dr	I-5/805 Merge	8F/14F	8F/14F+2ML		\$206	\$249
2035	I-5	I-5/I-805 Merge	SR 56	8F/14F+ 2ML	8F/14F+4ML	650, 653	\$91	\$137
2035	I-5	SR 56	Manchester Ave	8F+2ML	8F+4ML	650, 653	\$455	\$686
2035	I-5	Manchester Ave	SR 78	8F+2ML	8F+4ML	650, 653	\$1,076	\$1,863
2035	I-5	SR 78	Vandegrift Blvd	8F	8F+2ML		\$76	\$100
2035	SR 15	SR 94	I-805	6F	6F+2ML	235, 610	\$30	\$52
2035	I-15	I-8	SR 163	8F	8F+2ML	235, 610, 653, 690	\$56	\$73
2035	SR 78	I-5	I-15	6F	6F+2ML		\$1,192	\$1,720
2035	SR 94	I-5	I-805	8F	8F+2ML	90, 225, 235, 610,	\$535	\$703
2035	SR 241	Orange County	I-5	--	6T		\$479	\$598
2035	I-805	SR 905	Palomar St	8F	8F+2ML	688	\$343	\$595
2035	I-805	SR 54	SR 94	8F+2ML	8F+4ML	225, 650, 688, 689	\$704	\$1,096
2035	I-805	SR 94	SR 15	8F	8F+2ML	225, 650, 688, 689	\$172	\$226
2035	I-805	SR 163	SR 52	8F	8F+2ML	650, 688, 689, 690	\$229	\$346
2035	I-805	SR 52	Carroll Canyon Rd	8F+2ML	8F+4ML	30, 650, 653, 688, 689, 690, 870, 890	\$394	\$562
2050	I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2ML		\$556	\$1,378

**Table A.2 (continued)**  
**Phased Revenue Constrained Projects**

*Managed Lanes/Toll Lanes (continued)*

Year Built By	Freeway	From	To	Existing*	With Improvements	Transit Route	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	I-5	SR 78	Vandegrift Blvd	8F+2ML	8F+4ML		\$606	\$1,205
2050	I-5	Vandegrift Blvd	Orange County	8F	8F+4T		\$1,812	\$4,496
2050	SR 15	I-5	SR 94	6F	8F+2ML		\$136	\$338
2050	I-15	Viaduct	--	8F	8F+2ML	235, 610, 653, 690	\$842	\$2,092
2050	I-15	SR 78	Riverside County	8F	8F+4T	610	\$1,029	\$2,554
2050	SR 52	I-805	I-15	6F	6F+2ML	653, 870, 890	\$91	\$181
2050	SR 52	I-15	SR 125	4F/6F	4F/6F+2ML(R)	870, 890	\$298	\$662
2050	SR 54	I-5	SR 125	6F	6F+2ML		\$111	\$276
2050	SR 94	I-805	SR 125	8F	8F+2ML	90	\$369	\$775
2050	SR 125	SR 54	SR 94	6F	6F+2ML		\$76	\$188
2050	SR 125	SR 94	I-8	8F	10F+2ML	90	\$293	\$695
2050	I-805	SR 94	SR 15	8F+2ML	8F+4ML	225, 650, 688, 690	\$61	\$121
2050	I-805	SR 15	SR 163	8F/10F	8F/10F+4ML	650, 688, 689, 690	\$1,152	\$2,292
2050	I-805	SR 163	SR 52	8F+2ML	8F+4ML	650, 688, 689, 690	\$322	\$640
<b>Subtotal</b>							<b>\$16,231</b>	<b>\$29,699</b>

*Highway Projects*

Year Built By	Freeway	From	To	Existing*	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	SR 76	Mission	I-15	2C	4C	\$305	\$305
2035	SR 52	Mast Blvd	SR 125	4F	6F	\$76	\$131
2035	SR 67	Mapleview St	Gold Bar Ln	2C	4C	\$60	\$79
2050	I-8	2nd St	Los Coches	4F/6F	6F	\$35	\$88
2050	SR 52	I-5	I-805	4F	6F	\$111	\$276
2050	SR 56	I-5	I-15	4F	6F	\$141	\$351
2050	SR 67	Gold Bar Ln	Dye Rd	2C/4C	4C	\$576	\$1,339
2050	SR 94	SR 125	Avocado Blvd	4F	6F	\$111	\$221
2050	SR 94	Jamacha	Steele Canyon Rd	2C/4C	4C	\$40	\$100

Table A.2 (continued)

**Phased Revenue Constrained Projects***Highway Projects (continued)*

Year Built By	Freeway	From	To	Existing*	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	SR 94	Avocado Blvd	Jamacha	4C	6C	\$91	\$225
2050	SR 125	SR 905	San Miguel Rd	4T	8F	\$323	\$661
2050	SR 125	San Miguel Rd	SR 54	4F	8F	\$177	\$438
<b>Subtotal</b>						<b>\$2,046</b>	<b>\$4,214</b>

*Operational Improvements*

Year Built By	Freeway	From	To	Existing*	With Improvements	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	I-5	I-15	I-8	8F	8F+Operational	\$1,177	\$2,919
2050	I-8	I-5	SR 125	8F/10F	8F/10F+Operational	\$667	\$1,654
2050	I-8	SR 125	2nd St	6F/8F	6F/8F+Operational	\$167	\$413
2050	SR 76	I-15	Couser Canyon	2C/4C	4C/6C+Operational	\$131	\$261
<b>Subtotal</b>						<b>\$2,142</b>	<b>\$5,247</b>

*Managed Lanes Connectors*

Year Built By	Freeway	Intersecting Freeway	Movement	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	I-5	SR 78	South to East and West to North, North to East and West to South	\$253	\$332
2035	I-5	I-805	North to North and South to South	\$51	\$66
2035	I-15	SR 78	East to South and North to West	\$106	\$139
2035	SR 15	SR 94	South to West and East to North	\$71	\$122
2035	SR 15	I-805	North to North and South to South	\$81	\$106
2035	I-805	SR 94	North to West and East to South	\$101	\$133
2050	I-15	SR 52	West to North and South to East	\$130	\$326
2050	I-805	SR 52	West to North and South to East	\$91	\$181
<b>Subtotal</b>				<b>\$884</b>	<b>\$1,405</b>

Table A.2 (continued)

**Phased Revenue Constrained Projects***Freeway Connectors*

Year Built By	Freeway	Intersecting Freeway	Movement	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	SR 11/ SR 905	SR 125	EB SR 905 and WB SR 11 to NB SR 125, NB SR 905 to NB SR 125	\$26	\$28
2035	I-5	SR 56	West to North and South to East	\$273	\$411
2035	I-5	SR 78	South to East and West to South	\$273	\$358
2035	SR 94	SR 125	South to East	\$69	\$88
2035	SR 94	SR 125	West to North	\$81	\$122
2035	SR 11/ SR 905	SR 125	SB 125 to WB SR 905, SB SR 125 to EB SR 11, SB SR 125 to SB SR 905	\$74	\$90
2050	I-15	SR 56	North to West	\$101	\$265
<b>Subtotal</b>				<b>\$897</b>	<b>\$1,362</b>

*Active Transportation Projects<sup>4</sup>*

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	Uptown - Fashion Valley to Downtown San Diego	San Diego	Const.	\$23.0	\$27.2
2020	Uptown - Old Town to Hillcrest	San Diego	Const.	\$18.0	\$21.3
2020	Uptown - Hillcrest to Balboa Park	San Diego	Const.	\$3.0	\$3.5
2020	North Park - Mid-City - Hillcrest to Kensington	San Diego	Const.	\$6.0	\$7.1
2020	North Park - Mid-City - Hillcrest to City Heights (Hillcrest-El Cajon Corridor)	San Diego	Const.	\$6.0	\$7.1
2020	North Park - Mid-City - City Heights	San Diego	Const.	\$3.0	\$3.5
2020	North Park - Mid-City - Hillcrest to City Heights (City Heights - Old Town Corridor)	San Diego	Const.	\$5.0	\$5.9
2020	North Park - Mid-City - City Heights to Rolando	San Diego	Const.	\$4.0	\$4.7
2020	San Diego River Trail - Qualcomm Stadium	San Diego	Const.	\$0.8	\$0.9
2020	Coastal Rail Trail San Diego - Rose Creek	San Diego	Const.	\$21.0	\$24.8
2020	Bayshore Bikeway - Main St to Palomar	Chula Vista/ Imperial Beach	Const.	\$3.0	\$3.5
2020	Coastal Rail Trail Encinitas - Chesterfield to G St	Encinitas	Const.	\$7.0	\$8.3
2020	Coastal Rail Trail Encinitas - Chesterfield to Solana Beach	Encinitas	Eng.	\$0.1	\$0.1
2020	Inland Rail Trail (combination of four projects)	San Marcos, Vista, Co. of San Diego	Const.	\$33.0	\$39.0
2020	Coastal Rail Trail Oceanside - Wisconsin to Oceanside Blvd	Oceanside	Const.	\$0.2	\$0.2
2020	Plaza Bonita Bike Path	National City	Const.	\$0.4	\$0.5

Table A.2 (continued)

**Phased Revenue Constrained Projects***Active Transportation Projects (continued)*

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2020	Bayshore Bikeway - National City Marina to 32nd St	San Diego/ National City	Const.	\$2.0	\$2.4
2020	I-15 Mid-City - Adams Ave to Camino Del Rio S	San Diego	Const.	\$9.0	\$10.6
2020	Pershing and El Prado - North Park to Downtown San Diego	San Diego	Const.	\$7.0	\$8.3
2020	Pershing and El Prado - Cross-Park	San Diego	Const.	\$0.6	\$0.7
2020	San Ysidro to Imperial Beach - Bayshore Bikeway Connection (Border Access)	Imperial Beach/ San Diego	ROW	\$2.0	\$2.4
2020	San Ysidro to Imperial Beach - Bayshore Bikeway Connection (Imperial Beach Connector)	Imperial Beach/ San Diego	ROW	\$0.9	\$1.1
2020	Terrace Dr/Central Ave - Adams to Wightman	San Diego	Const.	\$1.0	\$1.2
2020	San Diego River Trail – I-805 to Fenton	San Diego	Const.	\$2.0	\$2.4
2020	San Diego River Trail - Short gap connections	San Diego	Const.	\$1.0	\$1.2
2020	Coastal Rail Trail Encinitas - Leucadia to G St	Encinitas	Const.	\$5.0	\$5.9
2020	San Ysidro to Imperial Beach - Bayshore Bikeway Connection	Imperial Beach/ San Diego	Const.	\$6.0	\$7.1
2020	Other Active Transportation Programs and Projects <sup>5</sup>	Various	Various	\$368.3	\$387.5
2035	Bayshore Bikeway - Barrio Logan	San Diego	ROW	\$5.0	\$8.9
2035	San Diego River Trail - Father Junipero Serra Trail to Santee	Santee	ROW	\$3.0	\$5.4
2035	Downtown to Southeast connections - East Village	San Diego	ROW	\$0.8	\$1.4
2035	Downtown to Southeast connections - Downtown San Diego to Encanto	San Diego	ROW	\$3.0	\$5.4
2035	Downtown to Southeast connections - Downtown San Diego to Golden Hill	San Diego	ROW	\$3.0	\$5.4
2035	Coastal Rail Trail San Diego - UTC	San Diego	ROW	\$0.8	\$1.4
2035	Coastal Rail Trail San Diego - Rose Canyon	San Diego	ROW	\$3.0	\$5.4
2035	Coastal Rail Trail San Diego - Pac Hwy (W Washington St to Laurel St)	San Diego	Const.	\$4.0	\$7.2
2035	Coastal Rail Trail San Diego - Pac Hwy (Laurel St to Santa Fe Depot)	San Diego	Const.	\$8.0	\$14.3
2035	Coastal Rail Trail San Diego - Encinitas Chesterfield to Solana Beach	Encinitas	Const.	\$0.1	\$0.2
2035	Coastal Rail Trail San Diego – Pac Hwy (Taylor St to W Washington St)	San Diego	Const.	\$4.0	\$7.2
2035	Coastal Rail Trail San Diego- Pac Hwy (Fiesta Island Rd to Taylor St)	San Diego	Const.	\$7.0	\$12.5
2035	San Diego River Trail - Father Junipero Serra Trail to Santee	Santee	Const.	\$7.0	\$12.5



**Table A.2 (continued)**

**Phased Revenue Constrained Projects**

*Active Transportation Projects (continued)*

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	Bayshore Bikeway - Barrio Logan	San Diego	Const.	\$14.0	\$25.1
2035	Downtown to Southeast connections	San Diego	Const.	\$17.0	\$30.4
2035	Coastal Rail Trail San Diego - UTC	San Diego	Const.	\$3.0	\$5.4
2035	City Heights /Encanto/Lemon Grove	Lemon Grove/ San Diego	Const.	\$7.0	\$12.5
2035	City Heights/Fairmount Corridor	San Diego	Const.	\$12.0	\$21.5
2035	Rolando to Grossmont/La Mesa	La Mesa/ El Cajon/ San Diego	Const.	\$2.0	\$3.6
2035	La Mesa/Lemon Grove/El Cajon connections	Lemon Grove/ La Mesa	Const.	\$6.0	\$10.7
2035	Coastal Rail Trail - Rose Canyon	San Diego	Const.	\$9.0	\$16.1
2035	San Diego River Trail - Qualcomm Stadium to Ward Rd	San Diego	Const.	\$2.0	\$3.6
2035	San Diego River Trail - Rancho Mission Rd to Camino Del Rio North	San Diego	Const.	\$0.3	\$0.5
2035	Coastal Rail Trail San Diego - Rose Creek Mission Bay Connection	San Diego	Const.	\$4.0	\$7.2
2035	Coastal Rail Trail Carlsbad - Reach 4 Cannon to Palomar Airport Rd	Carlsbad	Const.	\$5.0	\$8.9
2035	Coastal Rail Trail Carlsbad - Reach 5 Palomar Airport Rd to Poinsettia Station	Carlsbad	Const.	\$3.0	\$5.4
2035	Coastal Rail Trail Encinitas - Carlsbad to Leucadia	Encinitas	Const.	\$7.0	\$12.5
2035	Coastal Rail Trail Del Mar	Del Mar	Const.	\$0.4	\$0.7
2035	Coastal Rail Trail San Diego - Del Mar to Sorrento via Carmel Valley	Del Mar/ San Diego	Const.	\$0.4	\$0.7
2035	Coastal Rail Trail San Diego - Carmel Valley to Roselle via Sorrento	San Diego	Const.	\$0.9	\$1.6
2035	Coastal Rail Trail San Diego - Roselle Canyon	San Diego	Const.	\$5.0	\$8.9
2035	Chula Vista/National City connections	Chula Vista/ National City	Const.	\$11.0	\$19.7
2035	Pacific Beach to Mission Beach	San Diego	Const.	\$10.0	\$17.9
2035	Ocean Beach to Mission Bay	San Diego	Const.	\$24.0	\$43.0
2035	San Diego River Trail - Bridge connection (Sefton Field to Mission Valley YMCA)	San Diego	Const.	\$7.0	\$12.5
2035	San Diego River Trail - Mast Park to Lakeside baseball park	Santee	Const.	\$10.0	\$17.9
2035	I-8 Flyover - Camino del Rio S to Camino del Rio N	San Diego	Const.	\$10.0	\$17.9
2035	Coastal Rail Trail Oceanside - Broadway to Eaton	Oceanside	Const.	\$0.4	\$0.7
2035	El Cajon - Santee connections	El Cajon/ La Mesa/ Santee	Const.	\$12.0	\$21.5

Table A.2 (continued)

**Phased Revenue Constrained Projects***Active Transportation Projects (continued)*

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2035	San Diego River Trail - Father Junipero Serra Trail to West Hills Pkwy	San Diego	Const.	\$3.0	\$5.4
2035	Inland Rail Trail Oceanside	Oceanside	Const.	\$19.0	\$34.0
2035	Coastal Rail Trail Carlsbad - Reach 3 Tamarack to Cannon	Carlsbad	Const.	\$5.0	\$8.9
2035	Clairemont Dr (Mission Bay to Burgener)	San Diego	Const.	\$8.0	\$14.3
2035	Harbor Dr (Downtown to Ocean Beach)	San Diego	Const.	\$7.0	\$12.5
2035	Mira Mesa Bike Blvd	San Diego	Const.	\$4.0	\$7.2
2035	Sweetwater River Bikeway Ramps	National City	Const.	\$9.0	\$16.1
2035	Coastal Rail Trail Oceanside - Alta Loma Marsh bridge	Oceanside	Const.	\$5.0	\$8.9
2035	Coastal Rail Trail San Diego - Mission Bay (Clairemont to Tecolote)	San Diego	Const.	\$3.0	\$5.4
2035	Bayshore Bikeway Coronado - Golf course adjacent	Coronado	Const.	\$3.0	\$5.4
2035	Other Active Transportation Programs and Projects <sup>5</sup>	Various	Various	\$857.3	\$1,184.4
2050	San Luis Rey River Trail	Oceanside, Unincorporated	Const.	\$37.0	\$100.2
2050	Encinitas-San Marcos Corridor – Double Peak Dr to San Marcos Blvd	San Marcos	Const.	\$12.0	\$32.5
2050	Escondido Creek Bikeway – Quince St to Broadway	Escondido	Const.	\$2.0	\$5.4
2050	Escondido Creek Bikeway – Escondido Creek to Washington Ave	Escondido	Const.	\$1.0	\$2.7
2050	Escondido Creek Bikeway – 9th Ave to Escondido Creek	Escondido	Const.	\$1.0	\$2.7
2050	Escondido Creek Bikeway – El Norte Pkwy to northern bikeway terminus	Escondido	Const.	\$6.0	\$16.2
2050	Encinitas to San Marcos Corridor – Leucadia Blvd to El Camino Real	Carlsbad, Encinitas	Const.	\$2.0	\$5.4
2050	I-15 Bikeway – Via Rancho Pkwy to Lost Oak Ln	Escondido	Const.	\$4.0	\$10.8
2050	I-15 Bikeway – Rancho Bernardo Community Park to Lake Hodges Bridge	San Diego	Const.	\$3.0	\$8.1
2050	I-15 Bikeway – Camino del Norte to Aguamiel Rd	San Diego	Const.	\$13.0	\$35.2
2050	I-15 Bikeway – Poway Rd interchange to Carmel Mountain Rd	San Diego	Const.	\$17.0	\$46.0
2050	SR 56 Bikeway – Azuaga St to Rancho Penasquitos Blvd	San Diego	Const.	\$2.0	\$5.4
2050	I-15 Bikeway – Murphy Canyon Rd to Affinity Ct	San Diego	Const.	\$40.0	\$108.3
2050	SR 56 Bikeway – El Camino Real to Caminito Pointe	San Diego	Const.	\$2.0	\$5.4
2050	SR 52 Bikeway – I-5 to Santo Rd	San Diego	Const.	\$30.0	\$81.2
2050	SR 52 Bikeway – SR 52/Mast Dr to San Diego River Trail	San Diego	Const.	\$2.0	\$5.4
2050	I-8 Corridor – San Diego River Trail to Riverside Dr	Unincorporated	Const.	\$2.0	\$5.4

Table A.2 (continued)

**Phased Revenue Constrained Projects***Active Transportation Projects (continued)*

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	I-805 Connector – Bonita Rd to Floyd Ave	Chula Vista, Unincorporated	Const.	\$6.0	\$16.2
2050	SR 125 Connector – Bonita Rd to U.S.-Mexico Border	Chula Vista, San Diego	Const.	\$39.0	\$105.6
2050	SR 905 Connector – E Beyer Blvd to U.S.-Mexico Border	San Diego, Unincorporated	Const.	\$34.0	\$92.1
2050	El Camino Real Bike Lanes – Douglas Dr to Mesa Dr	Oceanside	Const.	\$1.0	\$2.7
2050	Vista Way Connector from Arcadia	Vista, Unincorporated	Const.	\$2.1	\$5.4
2050	I-15 Bikeway – W Country Club Ln to Nutmeg St	Escondido	Const.	\$0.6	\$1.4
2050	El Camino Real Bike Lanes – Marron Rd to SR 78 off ramp	Carlsbad	Const.	\$0.3	\$0.5
2050	Carlsbad to San Marcos Corridor – Paseo del Norte to Avenida Encinas	Carlsbad	Const.	\$0.4	\$0.8
2050	Encinitas to San Marcos Corridor – Kristen Ct to Ecke Ranch Rd	Encinitas	Const.	\$0.4	\$0.8
2050	Encinitas to San Marcos Corridor – Encinitas Blvd/ I-5 Interchange	Encinitas	Const.	\$0.2	\$0.3
2050	Mira Mesa Corridor – Reagan Rd to Parkdale Ave	San Diego	Const.	\$0.4	\$0.8
2050	Mira Mesa Corridor – Scranton Rd to I-805	San Diego	Const.	\$0.4	\$0.8
2050	Mira Mesa Corridor – Sorrento Valley Rd to Sorrento Valley Blvd	San Diego	Const.	\$0.8	\$1.9
2050	Mid-County Bikeway – I-5/Via de la Valle Interchange	San Diego	Const.	\$0.3	\$0.5
2050	Mid-County Bikeway – Rancho Santa Fe segment	San Diego, Unincorporated	Const.	\$3.0	\$8.1
2050	El Camino Real Bike Lanes – Manchester Ave to Tennis Club Dr	Encinitas	Const.	\$0.5	\$1.1
2050	Mid-County Bikeway – Manchester Ave/I-5 Interchange to San Elijo Ave	Encinitas	Const.	\$0.8	\$1.9
2050	Central Coast Corridor – Van Nuys St to San Rafael Pl	San Diego	Const.	\$1.0	\$2.7
2050	Clairemont – Centre-City Corridor – Coastal Rail Trail to Genesee Ave	San Diego	Const.	\$2.0	\$5.4
2050	SR 125 Corridor – Mission Gorge Rd to Glen Vista Way	Santee	Const.	\$0.3	\$0.5
2050	SR 125 Corridor – Prospect Ave to Weld Blvd	Santee, El Cajon	Const.	\$0.8	\$1.9
2050	I-8 Corridor – Lakeside Ave to SR 67	Unincorporated	Const.	\$0.5	\$1.1
2050	I-8 Corridor – Willows Rd to SR 79	Unincorporated	Const.	\$5.0	\$13.5
2050	E County Northern Loop – N Marshall Ave to El Cajon Blvd	El Cajon	Const.	\$0.3	\$0.8
2050	E County Northern Loop – Washington Ave to Dewitt Ct	El Cajon	Const.	\$1.0	\$2.7
2050	E County Northern Loop – SR 94 onramp to Del Rio Rd	Unincorporated	Const.	\$0.2	\$0.3

Table A.2 (continued)

**Phased Revenue Constrained Projects***Active Transportation Projects (continued)*

Year Built By	Project	Jurisdiction(s)	Project Phase	Capital Cost (\$2014); millions	Capital Cost (\$YOE); millions
2050	E County Southern Loop – Pointe Pkwy to Omega St	Unincorporated	Const.	\$0.8	\$2.2
2050	SR 125 Corridor – SR 94 to S of Avocado St	Unincorporated	Const.	\$1.1	\$2.7
2050	Centre City – La Mesa Corridor – Gateside Rd to Campo Rd	La Mesa, Unincorporated	Const.	\$0.4	\$0.8
2050	Bay to Ranch Bikeway – River Ash Dr to Paseo Ranchero	Chula Vista	Const.	\$0.5	\$1.4
2050	Mid-County Bikeway – San Elijo Ave to 101 Terminus	Encinitas	Const.	\$1.0	\$2.7
2050	Central Coast Corridor – Van Nuys St	San Diego	Const.	\$0.2	\$0.3
2050	E County Northern Loop – El Cajon Blvd to Washington Ave	El Cajon	Const.	\$1.0	\$2.7
2050	E County Northern Loop – Calavo Dr to Sweetwater Springs Blvd	Unincorporated	Const.	\$0.7	\$1.9
2050	Central Coast Corridor – Torrey Pines Rd to Nautilus St	San Diego	Const.	\$6.0	\$16.2
2050	Central Coast Corridor – Via Del Norte to Van Nuys St	San Diego	Const.	\$5.0	\$13.5
2050	Kearny Mesa to Beaches Corridor – Ingraham St from Garnet Ave to Pacific Beach Dr	San Diego	Const.	\$2.0	\$5.4
2050	Kearny Mesa to Beaches Corridor – Clairemont Dr to Genesee Ave	San Diego	Const.	\$10.0	\$27.1
2050	Kearny Mesa to Beaches Corridor – Genesee Ave to Linda Vista Dr	San Diego	Const.	\$6.0	\$16.2
2050	Bay to Ranch Bikeway – E J St from 2nd Ave to Paseo Del Rey	Chula Vista	Const.	\$12.0	\$32.5
2050	Chula Vista Greenbelt – Bay Blvd to Oleander Ave	Chula Vista	Const.	\$17.0	\$46.0
2050	Other Active Transportation Programs and Projects <sup>5</sup>	Various	Various	\$815.3	\$1,678.4
<b>Subtotal</b>				<b>\$2,849</b>	<b>\$4,901</b>
<b>TOTAL</b>				<b>\$47,903</b>	<b>\$87,453</b>

\* Based on facility configuration at time of project construction.

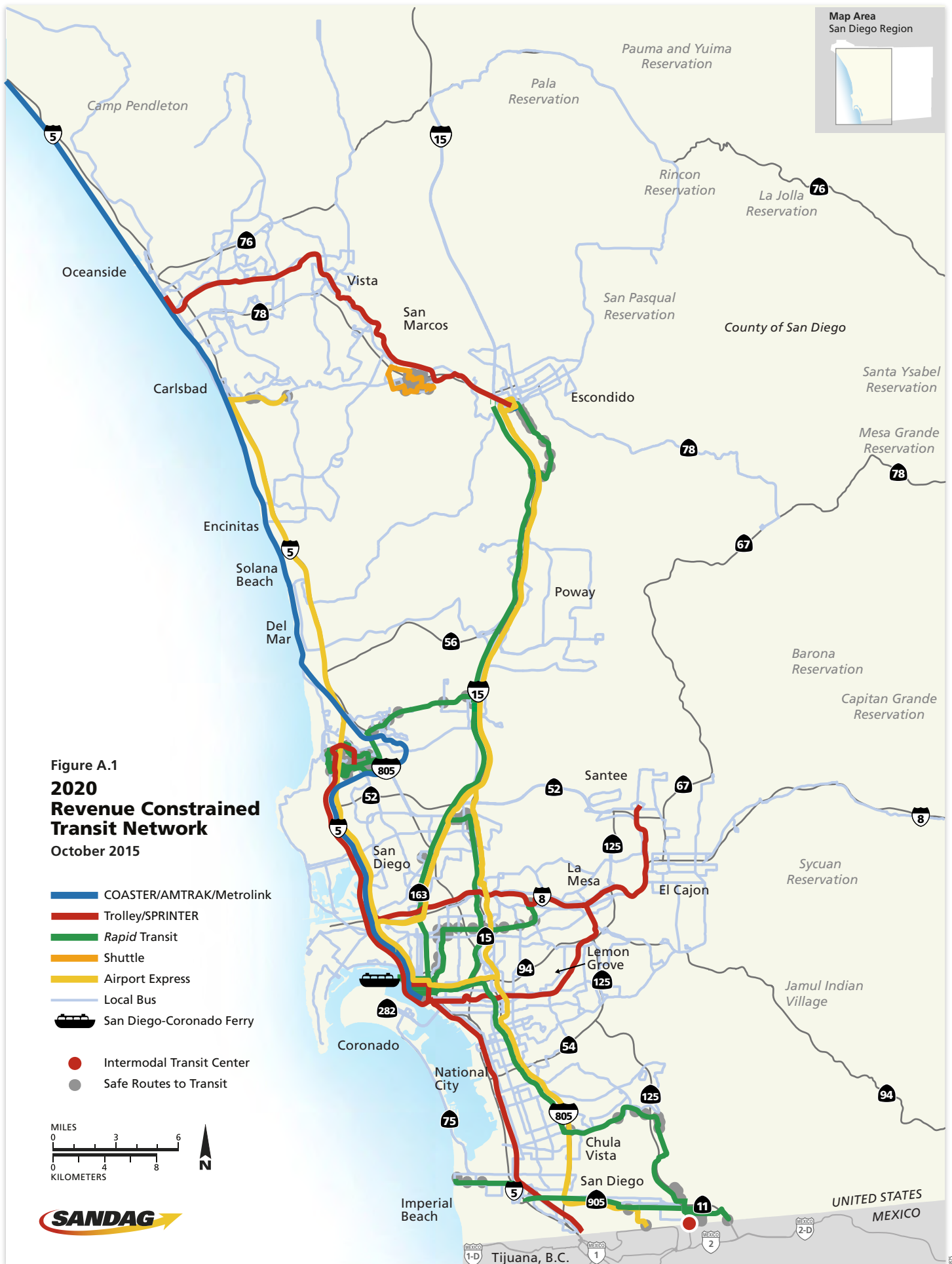
<sup>1</sup> Capital cost to be funded by the City of San Marcos.

<sup>2</sup> Implementation of these services is dependent upon funding from aviation and other private sources.

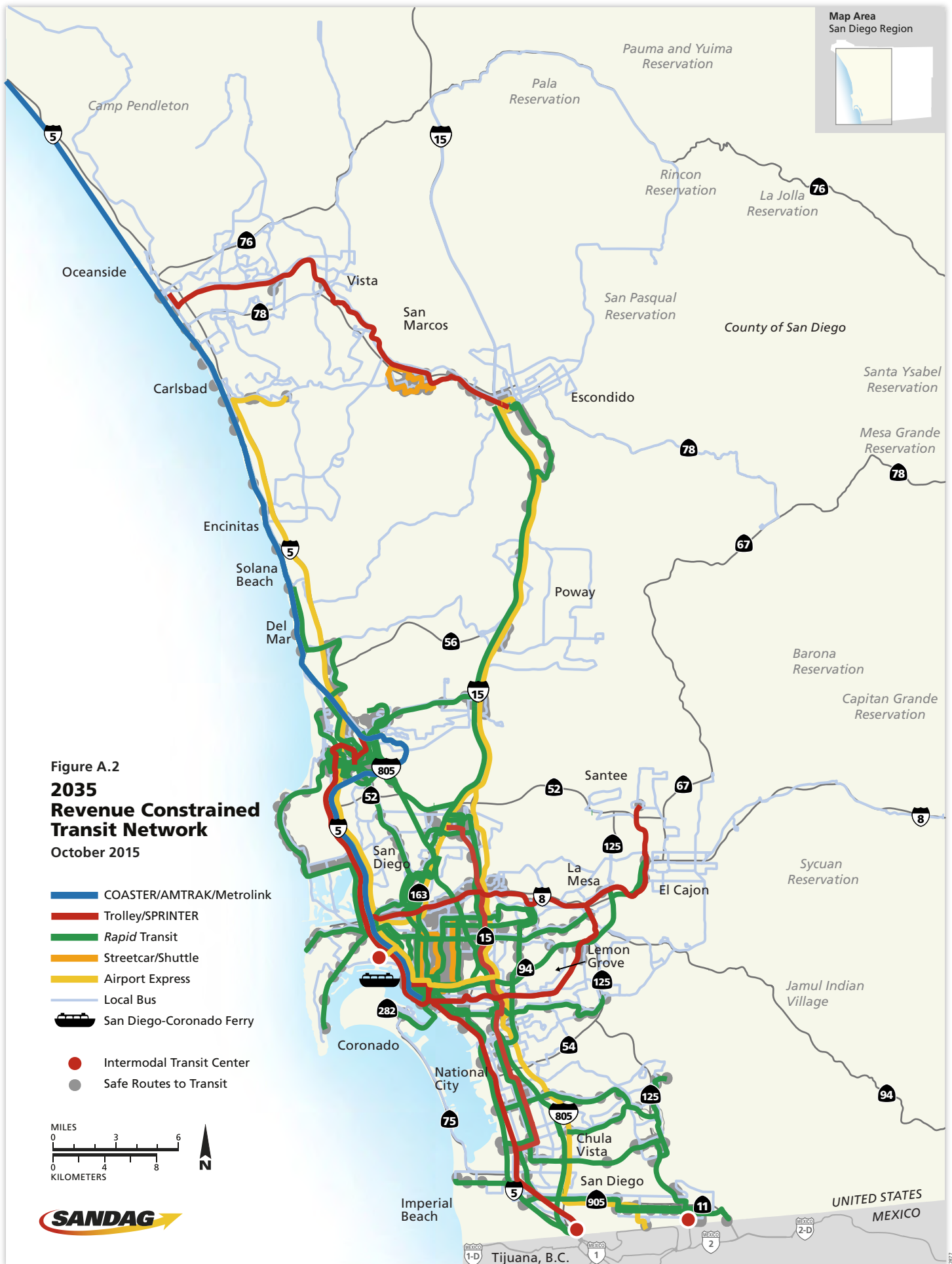
<sup>3</sup> Streetcar cost is representative of 10 percent of the total capital cost.

<sup>4</sup> Figure A.9 includes Regional Bicycle Network segments built by others; such segments are not included in Table A.2.

<sup>5</sup> Includes Safe Routes to Transit projects at new transit station areas, local bike projects, local pedestrian/safety/traffic calming projects, regional bicycle and pedestrian programs and Regional Safe Routes to School implementation.













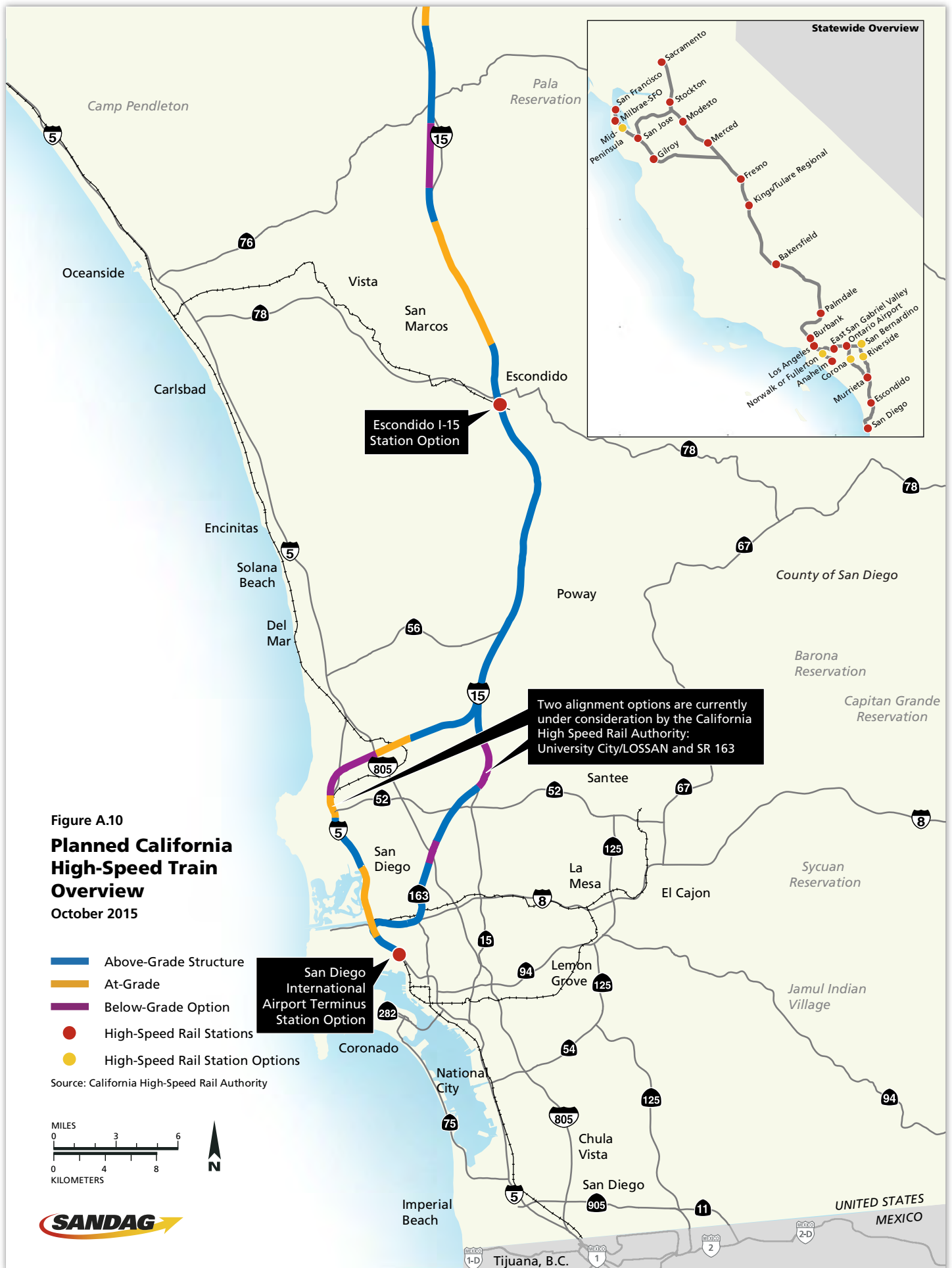






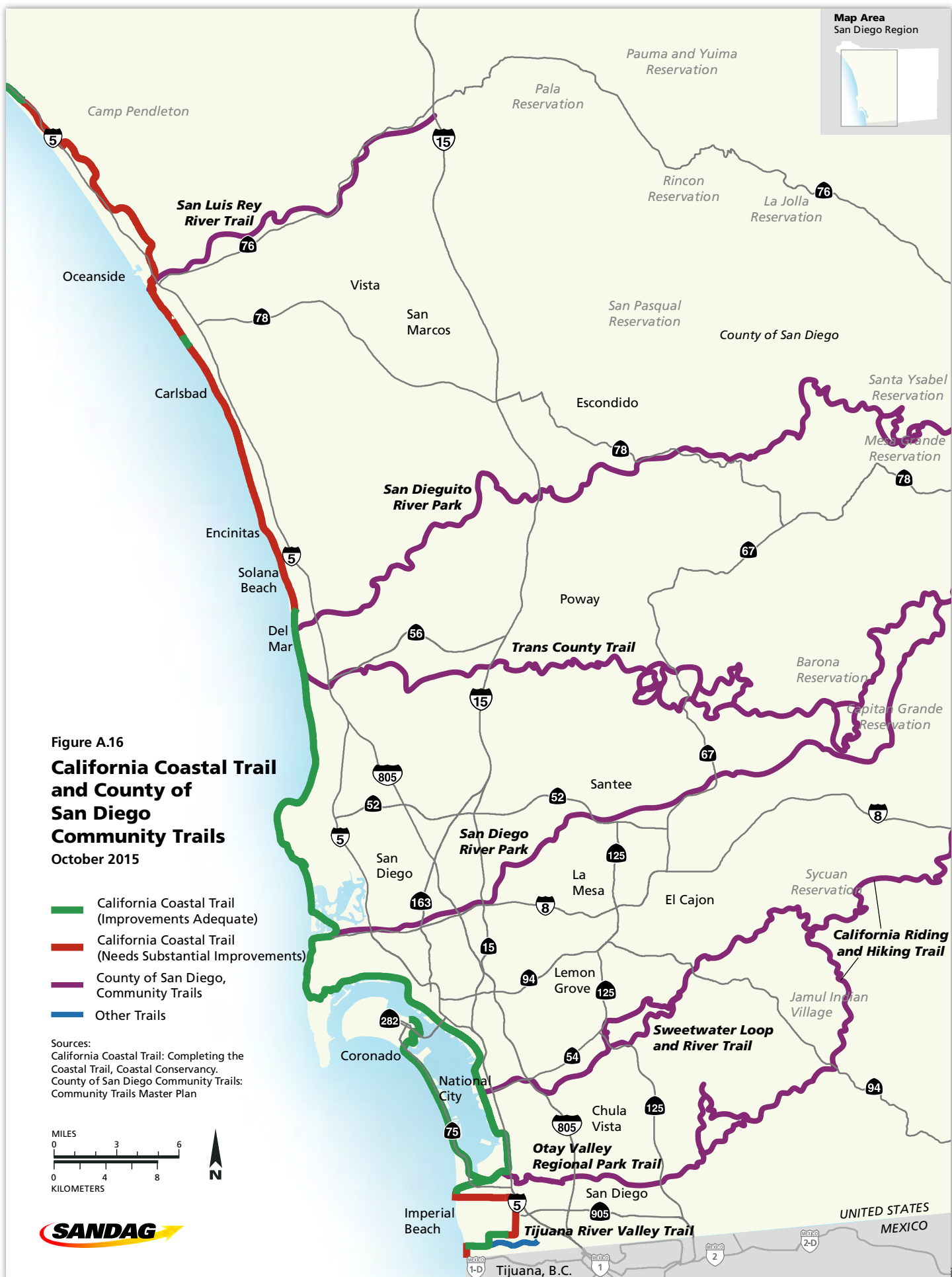












## APPENDIX C

### LIST OF CUMULATIVE PROJECTS



## SAN DIEGO INTERNATIONAL AIRPORT – AIRPORT DEVELOPMENT PLAN CUMULATIVE PROJECTS LIST

Please provide the following information about your agency's pending projects for consideration in the Airport Development Plan EIR  
cumulative impacts analysis (use as many sheets as needed)



Agency Name: Civic San Diego

Project Name/Location	Brief Project Description	Name of Any Approved Land Use Plan that Includes the Proposed Project (i.e., master plan, general plan, community plan, redevelopment plan, etc.)	Project Status (i.e., proposed, approved, under construction)	Construction Start and Duration	Date of Operation	Type of Environmental Review Completed/Anticipated (i.e., EIR, negative declaration, previous environmental document)
1919 Pacific Highway East side between Cedar and Grape	110 Apartments	CDD/CDP 2015-46 533-213-06 & 18	Under Construction	04/2017	12/2018	Completed
Bayside Fire Station Southeast Corner Pacific Highway/Cedar	Fire Station	CCDP 2010-27 533-321-01, & 02	Under Construction	04/2016	12/2017	
Intercontinental Hotel (Lane Field South) Broadway/Pacific Highway/C/ Harbor	400-room Hotel		Under Construction	05/2016	11/2018	Completed
Kettner Lofts East side Kettner between Hawthorn and Ivy	133 Apartments 10K Retail	SDP 2014-15 533-124-01, 02, 04, 10 & 11	Under Construction	05/2016	05/2018	Completed
Pacific Gate Pacific Highway/Broadway/E-Rail Corridor	232 Condominiums 16K Retail	CDP 2012-23 533-531-03	Under Construction	12/2014	11/2017	Completed
Savina SW corner Kettner/Ash	285 Condominiums 12K Retail	CDP 2011-14 533-392-03, 05, 07	03/2016	05/2019		

Return forms to: Ted Anastas, AICP, Manager Airport Planning, [tanastas@san.org](mailto:tanastas@san.org)  
\* Please provide an electronic copy of the environmental document for the proposed project or a link to where it can be downloaded. For pending environmental reviews, please provide information on status, including anticipated completion/certification date



## SAN DIEGO INTERNATIONAL AIRPORT – AIRPORT DEVELOPMENT PLAN CUMULATIVE PROJECTS LIST

Please provide the following information about your agency's pending projects for consideration in the Airport Development Plan EIR  
cumulative impacts analysis (use as many sheets as needed)



Project Name/Location	Brief Project Description	Name of Any Approved Land Use Plan that Includes the Proposed Project (i.e., master plan, general plan, community plan, redevelopment plan, etc.)	Project Status (i.e., proposed, approved, under construction)	Construction Start and Duration	Date of Operation	Type of Environmental Review Completed/Anticipated (i.e., EIR, negative declaration, previous environmental document)*
Manchester Pacific Gateway (Navy Broadway Complex) Broadway/Harbor/Pacific Highway	125M Office 350K Navy Office 1390 Hotel Rooms 160K Retail		Pending Completion of Building Plans	?	?	Completed by Navy
Pacific & Broadway Parcel 1 NE corner Pacific Highway/Broadway	306 Condominiums 15K Retail	CDP 2014-71 533-124-01, 02, 04, 10 & 11	Pending Completion of Building Plans	?	?	Completed
VICI/AMO India/Date/Columbia	VICI (North Side) <ul style="list-style-type: none"><li>94 Apartments</li><li>14K Retail</li></ul> AMO (South Side) <ul style="list-style-type: none"><li>28 Apartments</li><li>3K Retail</li></ul>	CCDP 2013-10(A) 533-233-09 thru 12 and 533-351-08	Under Construction	11/2014	09/2017	Completed
915 Grape Street SW corner of Grape/California	70 Apartments 1K Retail	CDP 2014-33 533-213-02 thru 04 & 19	Demolition Completed	12/2017	06/2019	Completed
Laurel Pacific Valero SE corner Pacific Highway/Laurel	4K Gas Station	CCDP/CCDP/CDP/CUP 2016-30 533-021-01	Pending Completion of Building Plans	?	?	Completed

Return forms to: Ted Anasis, AICP, Manager Airport Planning, [tanasis@san.org](mailto:tanasis@san.org)

\* Please provide an electronic copy of the environmental document for the proposed project or a link to where it can be downloaded. For pending environmental reviews, please provide information on status, including anticipated completion/certification date



## SAN DIEGO INTERNATIONAL AIRPORT – AIRPORT DEVELOPMENT PLAN CUMULATIVE PROJECTS LIST

Please provide the following information about your agency's pending projects for consideration in the Airport Development Plan EIR cumulative impacts analysis (use as many sheets as needed)



Agency Name: City of San Diego

Project Name/Location	Brief Project Description	Name of Any Approved Land Use Plan that Includes the Proposed Project (i.e., master plan, general plan, community plan, redevelopment plan, etc.)	Project Status (i.e., proposed, approved, under construction)	Construction Start and Duration	Date of Operation	Type of Environmental Review Completed/Anticipated (i.e., EIR, negative declaration, previous environmental document)
Liberty Station Hotels North Harbor at Kincaide Street	Would build 650 rooms in three different hotels and a supporting restaurant.	Liberty Station Precise Plan	Under Construction	?	?	Completed
Uptown Community Plan Update	Assume growth consistent with SANDAG Forecasts.	Uptown Community Plan Update	Approved Community Plan	Varies	Varies	Individual project review will be required.
Midway Community Plan Update	Assume growth consistent with SANDAG Forecasts.		Proposed Community Plan with anticipated approval in Spring 2018			
Old Town Community Plan Update	Assume growth consistent with SANDAG Forecasts.					

Return forms to: Ted Anasis, AICP, Manager Airport Planning, [tanasis@san.org](mailto:tanasis@san.org)

\* Please provide an electronic copy of the environmental document for the proposed project or a link to where it can be downloaded. For pending environmental reviews, please provide information on status, including anticipated completion/certification date





**SAN DIEGO INTERNATIONAL AIRPORT – AIRPORT DEVELOPMENT PLAN  
CUMULATIVE PROJECTS LIST**

Please provide the following information about your agency's pending projects for consideration in the Airport Development Plan EIR  
cumulative impacts analysis (use as many sheets as needed)



Project Name/Location	Brief Project Description	Name of Any Approved Land Use Plan that Includes the Proposed Project (i.e., master plan, general plan, community plan, redevelopment plan, etc.)	Project Status (i.e., proposed, approved, under construction)	Construction Start and Duration	Date of Operation	Type of Environmental Review Completed/Anticipated (i.e., EIR, negative declaration, previous environmental document)*

Return forms to: Ted Anasis, AICP, Manager Airport Planning, [tanasis@san.org](mailto:tanasis@san.org)  
\* Please provide an electronic copy of the environmental document for the proposed project or a link to where it can be downloaded. For pending environmental reviews, please provide information on status, including anticipated completion/certification date



VIA EMAIL TO: [tanasis@san.org](mailto:tanasis@san.org)

September 7, 2017

San Diego County Regional Airport Authority  
Attention: Ted Anasis  
San Diego International Airport  
3225 North Harbor Drive, 3<sup>rd</sup> Floor  
San Diego, CA 92101

**Subject: San Diego Unified Port District's Port Master Plan Update – Potential Program-Level Development Ranges for Shelter Island, Harbor Island and Embarcadero Planning Districts**

Dear Mr. Anasis,

The purpose of this letter is to provide the forecasted development information that was presented by the San Diego Unified Port District (District) during the last Harbor Drive Mobility Committee Policy Group meeting held on August 31, 2017.

As you are aware, the District is currently involved in a multi-year "Integrated Planning" process leading to an update of its Port Master Plan with its own corresponding Environmental Impact Report (EIR). This process includes updates to land and water use designations and new Baywide and Planning District goals and policies for land and water use, mobility, natural resources, resiliency and safety, coastal access and recreation, and economic development. The Port Master Plan Update (PMPU) will include development growth scenarios for District tidelands projected to occur over the next 30 years. This projected development growth should be considered in the cumulative impacts analysis for the San Diego County Regional Airport Authority's (SDCRAA) Airport Development Plan EIR.

The development ranges noted below, as well as depicted in the attached table, reflect the information that was conveyed by Commissioner Castellanos during the meeting. Note that these development ranges are not yet contained within an approved land use plan, but are being considered for inclusion in the PMPU and EIR presently underway and are reasonably foreseeable based on this stage of the PMPU process. The PMPU Draft EIR is anticipated to be circulated for public review in fall 2018, with certification of the PMPU by the California Coastal Commission estimated for late 2019.

**PMPU Potential Program-level Development Ranges (0-10 years):**

- Harbor Island – Potential growth within the District's Harbor Island Planning District may include the following:
  - 750-1,500 hotel rooms
  - 40,000-140,000 sf of retail, restaurants, services, and aquaculture/bluetech uses
  - 15%-20% (150-200 slips) increase in vessel berthing
  - Final access points to East Harbor Island off of North Harbor Drive have not yet been determined, although it is likely that future development will continue to utilize the two existing intersections at Liberator Way and Harbor Island Drive
  - Note that the potential development within this 0-10 year phase is less than what was contemplated in the Notice of Preparation for the "Harbor Island East Basin Industrial Subarea Redevelopment and Port Master Plan Amendment" issued in August 2015

September 7, 2017

Mr. Ted Anasis

Re: San Diego Unified Port District's Port Master Plan Update – Potential Program-Level Development Ranges for Shelter Island, Harbor Island and Embarcadero Planning Districts

- Embarcadero – Potential growth and/or major projects within the District's Embarcadero Planning District may include the following:

*North Embarcadero Sub-District*

- 450-550 hotel rooms
- 8,500-17,000 sf of retail, restaurants and services
- 10-15 acres of additional public space areas, including potential realignments of portions of Harbor Drive between Laurel Street and G Street that may involve roadway width reductions
- 600,000-1,000,000 additional cruise passengers per year

*Central Embarcadero Sub-District*

- 400-500 hotel rooms
- 150,000-215,000 sf of retail, restaurants, services, and aquaculture uses – including a major attraction and/or event center
- 22%-31% (25-35 slips) increase in vessel berthing

*South Embarcadero Sub-District*

- 550-650 hotel rooms
- 24,000-26,000 sf of retail, restaurants and services
- 960,000 sf of convention center exhibit area, meeting rooms, ballrooms and support spaces
- 3%-5% (16-23 slips) increase in vessel berthing

**PMPU Potential Program-level Development Ranges (10+ years):**

- Shelter Island – Potential growth within the Port's Shelter Island Planning District may include the following:
  - 1,000-2,000 hotel rooms
  - 50,000-240,000 sf of retail, restaurants and services
  - 40,000-50,000 sf of commercial fishing, marine sales and services, and aquaculture/bluetech uses
  - 15%-20% (430-575) increase in vessel berthing slips
- Harbor Island – Potential growth within the Port's Harbor Island Planning District may include the following:
  - 1,100-2,200 additional hotel rooms
  - 60,000-210,000 sf of additional retail, restaurants, services, and aquaculture/bluetech uses
  - 15%-20% (150-200 slips) increase in vessel berthing
  - Final access points to East Harbor Island off of North Harbor Drive have not yet been determined, although it is likely that future development will continue to utilize the two existing intersections at Liberator Way and Harbor Island Drive
  - Note that the potential development within this 10+ year phase is less than what was contemplated in the Notice of Preparation for the "Harbor Island East Basin Industrial Subarea Redevelopment and Port Master Plan Amendment" issued in August 2015

September 7, 2017

Mr. Ted Anasis

Re: San Diego Unified Port District's Port Master Plan Update – Potential Program-Level Development Ranges for Shelter Island, Harbor Island and Embarcadero Planning Districts

*North Embarcadero Sub-District*

- o 950-1,150 hotel rooms
- o 1,650-33,000 sf of retail, restaurants and services

*Central Embarcadero Sub-District*

- o 800-1,000 hotel rooms
- o 300,000-435,000 sf of retail, restaurants, services, and aquaculture uses – including a major attraction and/or event center
- o 35%-50% (50-75 slips) increase in vessel berthing

*South Embarcadero Sub-District*

- o 1,150-1,350 hotel rooms
- o 3,000-6,000 sf of retail, restaurants and services
- o 6%-9% (34-47 slips) increase in vessel berthing

Please note that the development ranges provided above are in-line with preliminary PMPU "program-level" growth assumptions that are still under refinement; they do not reflect detailed "project-level" information. It is also assumed that supporting infrastructure and associated public improvements will be included as necessary to align with future development scenarios.

District staff looks forward to our meeting next week to discuss the scope of work for the collaborative mobility study to be led by the District, as well as responding to any other information needs you may have. Through coordination and collaboration, our agencies can ensure our respective baseline and cumulative impact analyses are utilizing the most accurate and up-to-date project information and planned infrastructure improvements on or adjacent to District tidelands.

If you have any questions regarding these comments, please contact me at (619) 686-6469 or via email at [lnishihi@portofsandiego.org](mailto:lnishihi@portofsandiego.org).

Sincerely,



Lesley Nishihira  
Director, Planning  
Planning and Green Port

cc: Randa Coniglio, President/CEO  
Jason Giffen, Assistant Vice President, Planning and Green Port  
Job Nelson, Assistant Vice President, External Relations  
Stephen Shafer, Program Manager, Government and Civic Relations  
Rebecca Harrington, Senior Deputy General Counsel  
Steve Cook, Chen Ryan Associates, District Consultant  
Mike Kulis, Director, Inter-Governmental Relations, SDCRAA  
Dave Sorenson, Kimley-Horn, SDCRAA Consultant

Attachment(s):

A. Port Master Plan Update Potential Program-Level Development Ranges

# Attachment A

## Port Master Plan Update: Potential Program-Level Development Ranges

		Hotels (Rooms)		Retail, Restaurant, Commercial Fishing, Marine Sales & Service, Bluetech/ Aquaculture (Sq Ft)		Conv Center Space (Sq Ft)	Slips (Count)		Cruise (# AnnualPassengers)		Large-Scale Public Space (Acres)		
		Low	High	Low	High		Low	High	Low	High	Low	High	
PD1 - Shelter Island													
	0-10 years	-	-	-	-	-	-	-	-	-	-	-	
	10+ years	1,000	2,000	90,000	290,000	-	430	575	-	-	-	-	
30-Yr Buildout		1,000	2,000	90,000	290,000	-	430	575	-	-	-	-	
PD2 - Harbor Island													
	0-10 years	750	1,500	40,000	140,000	-	150	200	-	-	-	-	
	10+ years	1,100	2,200	60,000	210,000	-	150	200	-	-	-	-	
30-Yr Buildout		1,850	3,700	100,000	350,000	-	300	400	-	-	-	-	
PD3 - Embarcadero													
North Embarcadero Sub-District													
	0-10 years	450	550	8,500	17,000	-	-	-	600,000	1,000,000	10	15	
	10+ years	950	1,150	16,500	33,000	-	-	-					
	Buildout	1,400	1,700	25,000	50,000	-	-	-	600,000	1,000,000	10	15	
Central Embarcadero Sub-District													
	0-10 years	400	500	150,000	215,000	-	25	35	-	-	-	-	
	10+ years	800	1,000	300,000	435,000	-	50	75	-	-	-	-	
	Buildout	1,200	1,500	450,000	650,000	-	75	110	-	-	-	-	
South Embarcadero Sub-District													
	0-10 years	550	650	24,000	26,000	960,000	16	23	-	-	-	-	
	10+ years	1,150	1,350	3,000	6,000	-	34	47	-	-	-	-	
	Buildout	1,700	2,000	27,000	32,000	960,000	50	70	-	-	-	-	
PD3 - Embarcadero Totals													
	0-10 years	1,400	1,700	182,500	258,000	960,000	41	58	600,000	1,000,000	10	15	
	10+ years	2,900	3,500	319,500	474,000	-	84	122	-	-	-	-	
30-Yr Buildout		4,300	5,200	502,000	732,000	960,000	125	180	600,000	1,000,000	10	15	
PD1, 2, & 3 Totals													
	0-10 years	2,150	3,200	222,500	398,000	960,000	191	258	600,000	1,000,000	10	15	
	10+ years	5,000	7,700	469,500	974,000	-	664	897	-	-	-	-	
30-Yr Buildout		7,150	10,900	692,000	1,372,000	960,000	855	1,155	600,000	1,000,000	10	15	