City of Newport Beach
Bicycle Master Plan - Existing Conditions

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PREPARED BY:
Alta Planning + Design

PREPARED FOR:
City of Newport Beach

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1 Setting and Land Use

1.1 Setting

The City of Newport Beach is located on the coast of Orange County. It is bordered by Costa Mesa, Irvine, Huntington Beach, and Laguna Beach. The city has an estimated population of 84,417[1] people. The purpose of this chapter is to identify the existing bicycling conditions in Newport Beach.

Crystal Cove State Park

1.2 Land Use

Figure 1-1 presents Newport Beach's land use map. Single family residential homes account for approximately 34 percent of the city's land area while eight percent is occupied by multi-family buildings. Parks, open space, and recreational facilities account for approximately nine percent of land. Commercial and office land uses both account for approximately four percent of the city. This land use pattern makes Newport Beach a place where people can both live and work. In addition to accommodating residents, the vast amount of commercial designations, parks, open space, and recreational facilities make the city a tourist destination.

Newport Beach City Hall

Fashion Island is a regional shopping center, attracting visitors from outside of the city.

[1] *2007-2011 American Community Survey, 5-Year Estimates*

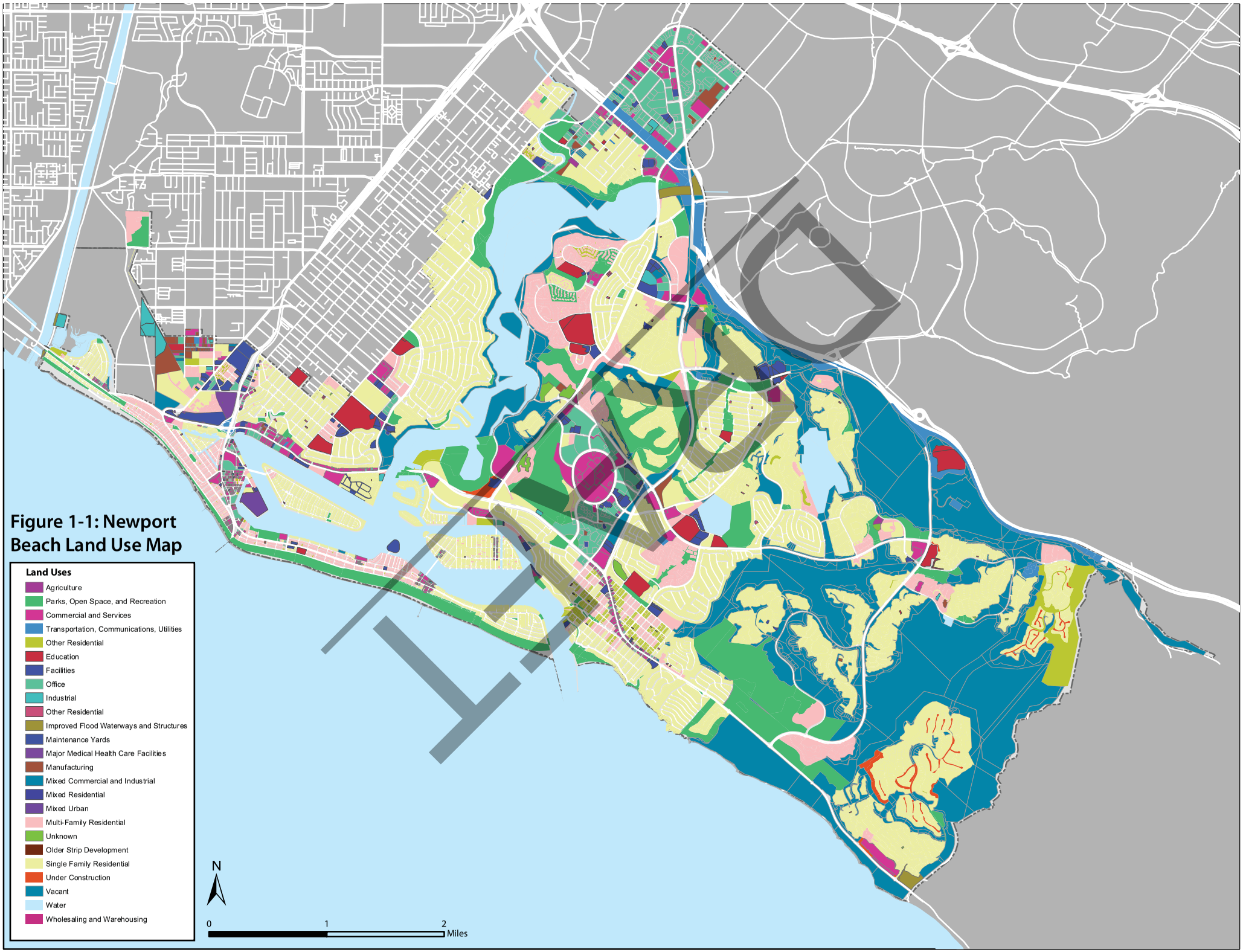


Figure 1-1: Newport Beach Land Use Map
Land Uses
Agriculture
Parks, Open Space, and Recreation
Commercial and Services
Transportation, Communications, Utilities
Other Residential
Education
Facilities
Office
Industrial
Other Residential
Improved Flood Waterways and Structures
Maintenance Yards
Major Medical Health Care Facilities
Manufacturing
Mixed Commercial and Industrial
Mixed Residential
Mixed Urban
Multi-Family Residential
Unknown
Older Strip Development
Single Family Residential
Under Construction
Vacant
Water
Wholesaling and Warehousing
N
0
1
2
Miles

2 Existing Bicycle Facilities and Programs

As defined by the League of American Bicyclists, bicycle-friendly cities demonstrate achievements in each of five categories, often referred to as the Five Es of bicycle planning. The Five Es are:

- Engineering
- Encouragement
- Education
- Enforcement
- Evaluation

Engineering includes on-street bicycle facilities, bicycle parking, signage and maintenance. Of the Five Es of bicycle planning, four are categorized as programs: encouragement, education, enforcement and evaluation. Programs are a great way to maximize use of bicycle facilities. Production of bike maps and creation of special events encourage people to ride bicycles. Education programs improve safety and awareness. Programs that enforce legal and respectful driving and bicycling make novice bicyclists feel more secure. Evaluation programs provide a method for monitoring improvements and informing future investments. Collectively the Five Es can enhance the bicycling experience in Newport Beach. Analysis of Newport Beach's existing facilities and programs within the framework of the Five Es is one way to assess the city's bicycle-friendly status.

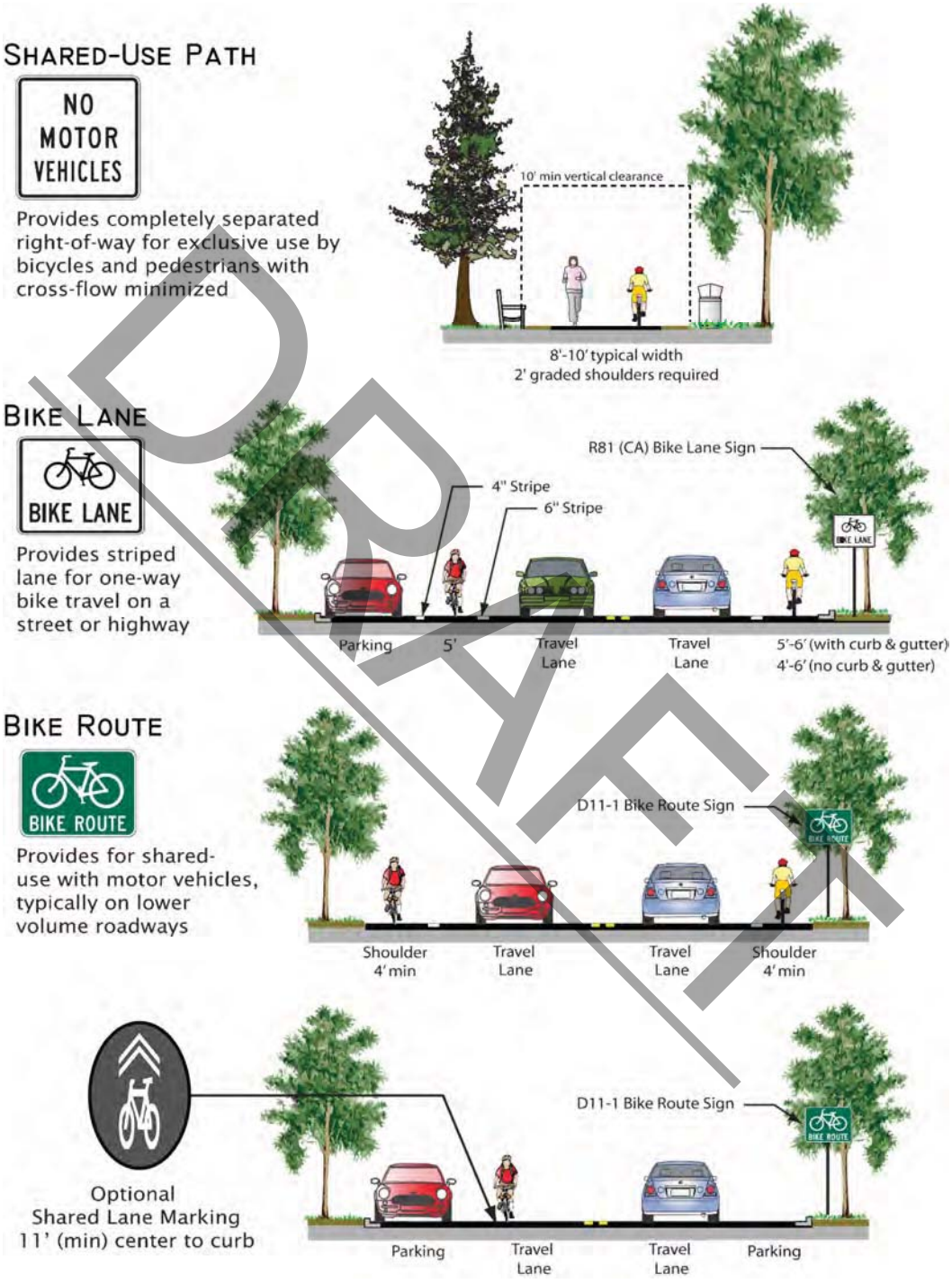
The City of Newport Beach has a growing network of bicycle paths, lanes and routes throughout the city. Programs to support bicycling have also been implemented by the City. This section presents existing facilities and programs in order to identify where new facilities are needed and what programs will better support bicycling throughout the city.

2.1 Engineering

2.1.1 Existing Bikeways

This report refers to standard bikeway definitions identified by Caltrans in Chapter 1000 of the Highway Design Manual (Caltrans HDM). Additional concepts for bikeways have been promoted and implemented throughout the United States; however, they have not been adopted for use in the Caltrans HDM. Upon preparation of the proposed network for the City, new bicycle facilities and concepts will be further discussed related to applicability and liability. The city currently has approximately 84 miles of bicycle facilities including Class I multi-use paths, Class II bike lanes, and Class III bike routes.

Figure 2-1: Caltrans Shared Bikeway Classifications



Sources: Caltrans Highway Design Manual (2013), Federal Highway Administration's MUTCD (2009), California MUTCD (2012). Graphic refined for use in Newport Beach.

Figure 2-1 illustrates the three types of standard bikeways that currently exist in the City. The existing network is fairly well-connected, providing access to popular commercial areas, destinations, and employment centers. The existing bicycle facilities enable bicyclists to not only travel within Newport Beach, but to surrounding cities as well.

Table 2-1 shows the existing mileage for each type of facility. Figure 2-2 displays the existing bicycle facilities in Newport Beach.

Table 2-1: Existing Bicycle Facilities

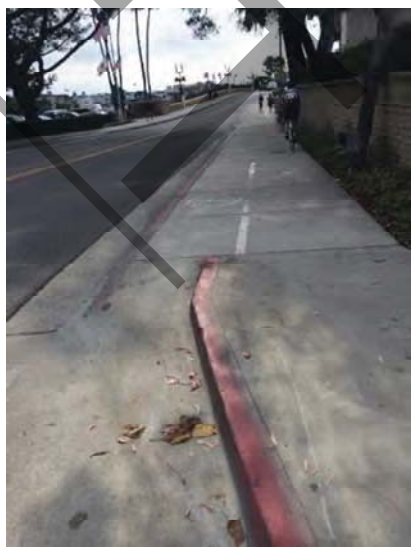
Facility Type	Mileage
Class I Multi-Use Path	35
Class II Bike Lane	40
Class III Bike Route	9
Total	*84*

Consistent with City Municipal Code Section 12.56.30 and City Council Resolution 82-148, bicycle riding is allowed on various sidewalks throughout the city such as Eastbluff Drive, Marguerite Avenue, and Coast Highway. Appendix A provides a list of locations where sidewalk riding is permitted per Municipal Code Section 12.56.30 and City Council Resolution 82-148. Additional locations allow sidewalk cycling, indicating an update to the current resolution is needed.

A few locations have unique bicycle facilities that do not match the standard bikeway definitions discussed above. The following is a list of unique bicycle treatments within the city:

1. The Marine Avenue bridge linking to Balboa Island allows bicyclists to ride on the sidewalk. Ramps are provided on the north side of the bridge to guide cyclists on/off the sidewalk. Signs are provided on the south side of the bridge reminding cyclists to not ride on the sidewalks on Balboa Island.

Striping on the south side of the Marine Avenue bridge



Ramps on the north side of the bridge

2. A Contra-Flow bike lane located on Seashore Drive between Orange Street and 32nd Street allows bicyclists to ride two-way on a street restricted to one-way southbound travel for automobiles.
3. A Contra-Flow bike lane located on Back Bay Drive between Shellmaker Road and Eastbluff Drive allows bicyclists to ride two-way on a street restricted to one-way northbound travel for automobiles.

Contra-Flow lane on 32nd Street

Contra-Flow bike lane on Back Bay Drive

4. On-street bike lanes are provided on Irvine Avenue near Newport Harbor High School and Ensign Middle School, however, on-street parking is allowed between Cliff Drive and 15th Street. On-street parking is restricted during the morning school commute approaching the school and during the afternoon school commute leaving the school to facilitate school-related bicycle travel. This bicycle lane configuration is identified in the Caltrans Highway Design Manual (HDM) where the vast majority of bicycle travel would occur during the hours of the parking prohibition.

On-street parking and bike lane on Irvine Avenue

Sharrows located along Coast Highway in Corona del Mar

5. The City has painted sharrows on a few roadways with Class III routes. Sharrows, or shared lane markings, are roadway stencils used to encourage bicycle travel and proper positioning within the lane by cyclists. Sharrows are located on Coast Highway in Corona del Mar, and along Bayside Drive between El Paseo and Carnation Avenue.

6. Bicycle lanes are provided on either side of the Via Lido Bridge and an extension to the bridge has been added on the north side serving pedestrian travel. Signage is provided directing cyclists to use the sidewalk on the north side of the Via Lido Bridge.

Signage directs cyclists and pedestrians which side of the bridge they may use

Bike lane on the west side of the Via Lido Bridge

Signage and striping on Ocean Front Trail

7. The Ocean Front Trail provides a shared-use path between 36th Street and E Street on Balboa Peninsula. A walk zone prohibits bicycling through the plaza at the base of the Newport Pier, and bicycle traffic is directed through the parking lot between 23rd Street and 21st Place. Signage and pavement markings are provided to identify a speed limit for cyclists, and to remind users that the facility is shared by multiple user types and to encourage appropriate trail etiquette.

Cyclists are directed to ride in the parking lot at the Newport Pier

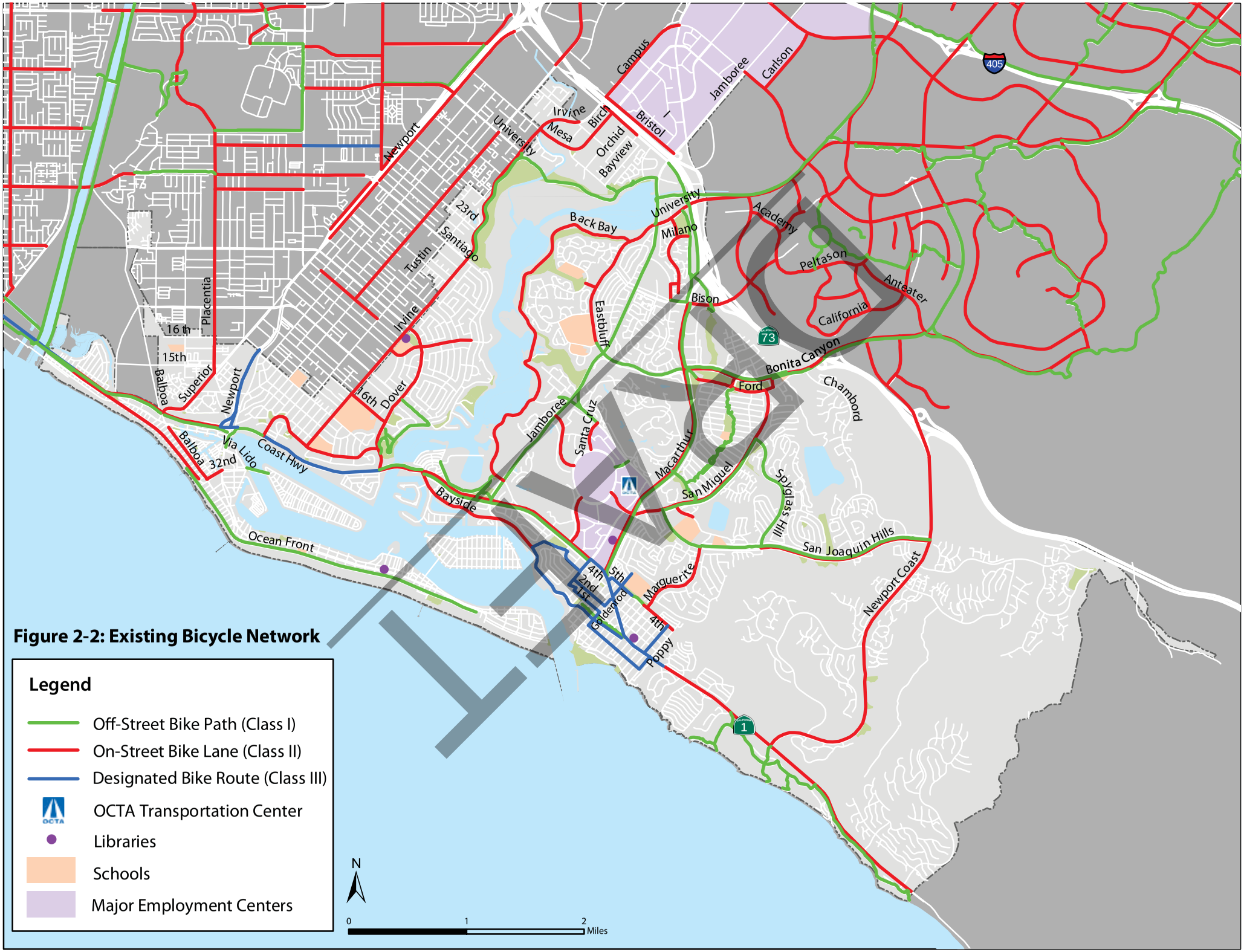


Figure 2-2: Existing Bicycle Network

Legend

- Off-Street Bike Path (Class I)
- On-Street Bike Lane (Class II)
- Designated Bike Route (Class III)
- OCTA Transportation Center
- Libraries
- Schools
- Major Employment Centers

2.1.2 Signage

The California Manual on Uniform Traffic Control Devices (CA MUTCD) and the CA HDM outline the requirements for bikeway signage. The Bike Lane Sign (R81) is required at the beginning of each designated bike lane and at each major decision point. The Bike Route Sign (D11-1) is required on Class III facilities. Multi-use paths require additional standardized signs to help manage different user groups. The City has installed CA MUTCD standard signs along the appropriate bikeways.

Caltrans Bikeway Signs

In addition to standard CA MUTCD signs, various warning, informational and regulatory signs have been installed. Signs located along the Ocean Front Trail inform trail users of bicycle cross-traffic. Advisory signs indicating to bicyclists to "Watch Downhill Speed" are located on steep downhill sections of Newport Coast Drive, Ridge Park Road, Vista Ridge Road, and San Joaquin Hills Road. Informational signs have been installed on Bayside Drive to increase awareness for use of the sharrows.

Where bicycles are allowed on sidewalks, the City has installed signage indicating to bicyclists that they are allowed to do so. Appendix A provides a list of locations where sidewalk riding is permitted.

Wayfinding signage has also been installed along popular trails such as the Back Bay Loop and the Mountains to Sea Trail.

Signage permitting bicyclists to ride on the sidewalk on Eastbluff Road

Wayfinding with logos direct bicyclists to local trails

2.1.3 Bicycle Parking

Bicycle storage can range from a simple and convenient bicycle rack to storage in a bicycle locker or cage that protects against weather, vandalism and theft. The City does not currently have an inventory of existing bicycle parking locations. Short-term bicycle racks can be found at some major destinations, including ribbon racks at the Newport Pier, along the Ocean Front Trail on the Peninsula, Fashion Island, and most parks throughout the city.

Many bicyclists resort to securing their bike to street fixtures such as trees, lights, telephone poles, and parking meters when sufficient parking facilities are not provided.

Bicycles secured to street fixtures

Short-term bicycle parking at the Pier

2.1.4 End-of-Trip Facilities

The presence and quality of trip-end facilities (e.g. showers, lockers, and changing facilities) can greatly influence a person's decision to complete a trip via bicycle. These facilities enable cyclists to change into work attire (especially after riding in wet or hot conditions). The City has incorporated trip-end facilities into new municipal buildings, such as the new Civic Center, but currently does not have an inventory of existing end-of-trip facilities.

2.1.5 Bicycle Signal Detection

Bicycle detection at actuated traffic signals permits bicyclists to trigger a green light, even when no motor vehicle is present. California Assembly Bill 1581 requires all new and replacement actuated traffic signals[2] to detect bicyclists and to provide sufficient time for a bicyclist to clear an intersection from a standing start. Caltrans Policy Directive 09-06 clarifies the requirements and permits any type of detection technology. The most common technologies are in-pavement loop detectors and video detection. More recently, microwave detection has been used to detect and differentiate between bicyclists and motor vehicles.

Current City of Newport Beach traffic signals have Bicycle Push Buttons to be actuated by a cyclist to provide the green phase. Although the bicycle signal detection technology is proven, the Bicycle Push Button locations may not be within convenient reach for cyclists.

[2] *Actuated traffic signals stay red until the signal detects a car or bicyclist that is waiting for the light to turn green.*

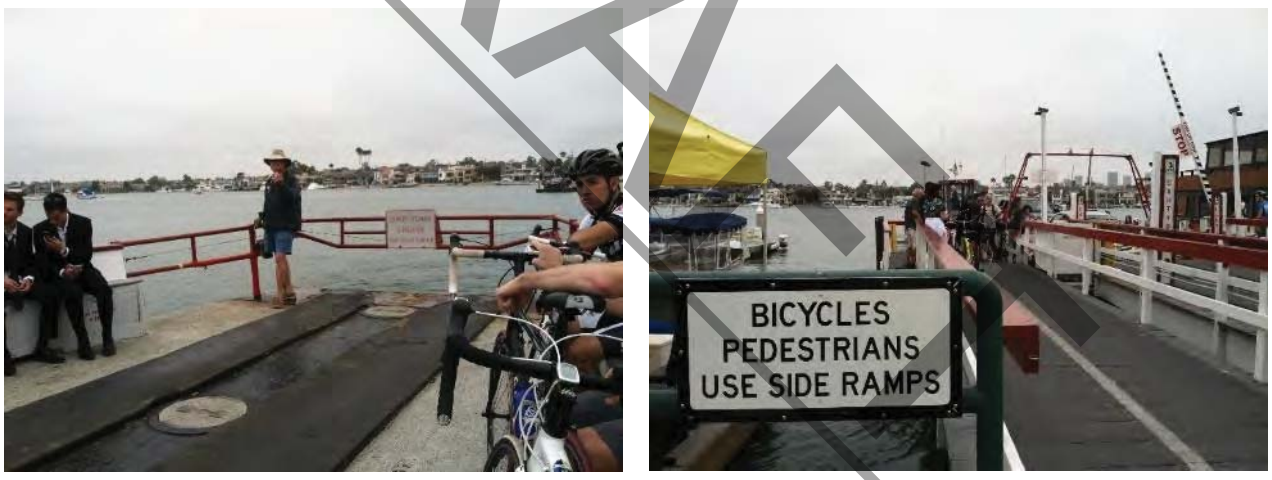
The City complies with the Caltrans Policy Directive by installing detector loops designed to detect bicycles during pavement rehabilitation and traffic signal upgrade projects. Traffic signal timing is reviewed and updated as necessary through traffic signal corridor timing projects, such as the Traffic Signal Modernization Project and the Orange County Transportation Authority (OCTA) Traffic Light Synchronization Projects.

The City is currently reviewing other bicycle-capable technologies, such as video and radar detection for future inclusion into the traffic signal system.

2.1.6 Multi-Modal Connections

Integrating bicycling into daily transit trips offers an efficient means of traveling using multiple modes of transportation. Approximately eight percent of residents use public transit to commute to work or school. Newport Beach is served by multiple Orange County Transportation Authority (OCTA) bus routes, providing access to major shopping and commercial areas, as well as the beach. The Newport Transportation Center; located at 1550 Avocado Avenue, serves as a hub for transit routes in the City of Newport Beach. All OCTA buses are equipped with bicycle racks located at the front of the vehicle that can carry two bicycles at a time. Figure 2-3 displays the transit routes and stops that serve Newport Beach.

The University of California, Irvine (UC Irvine) provides the Anteater Express shuttle service free of charge for students and faculty between the UC Irvine campus and Newport Beach. The Anteater Express Newport Beach route travels on Bison Avenue, Jamboree Road, Coast Highway, Newport Boulevard, and Balboa Boulevard. The Anteater Express shuttle service runs Monday through Friday, and the shuttles include bike racks.



Bicycles are allowed on board the Balboa Island Ferry.

In addition to bus routes, the Balboa Island Ferry runs from the Balboa Peninsula to Balboa Island. The ferry runs each day from 6:30 AM to 12:00 AM, docking about every five minutes. Bicycle are allowed onboard, providing bicyclists with easy access to Balboa Island.

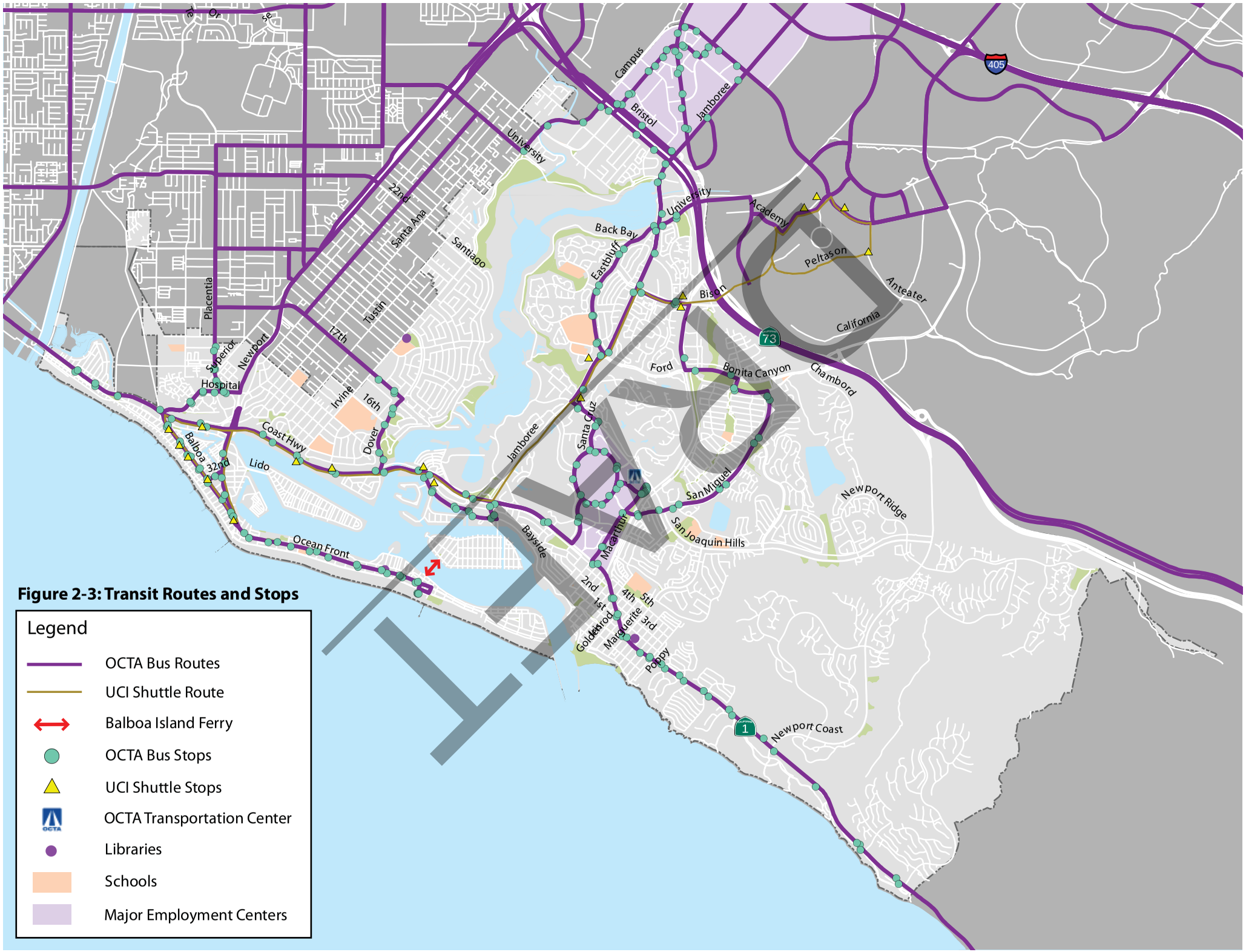


Figure 2-3: Transit Routes and Stops

Legend

- OCTA Bus Routes
- UCI Shuttle Route
- Balboa Island Ferry
- OCTA Bus Stops
- UCI Shuttle Stops
- OCTA Transportation Center
- Libraries
- Schools
- Major Employment Centers

2.1.7 Maintenance

Street maintenance programs aid in the quality and longevity of bicycle facilities. The City of Newport Beach currently has a Street Maintenance program that provides staff with guidelines to inspect, schedule, and repair City streets, alleys, and bike trails. The program provides maintenance of signs, pavement markings, curb markings, street name signs, and roadway striping. In addition to as-needed repairs, the program annually repaints all school pavement legends and inspects school regulatory and warning signs. Street sweeping occurs twice a month for 239 miles of streets and 33 miles of alleys.

The Capital Improvement Program (CIP) serves to develop and construct major public improvements and address significant maintenance items. The CIP prioritizes and allocates funding for large scale projects including roadway resurfacing, repair projects, and improvements within the city.

2.2 Education

Same Rules Same Road Campaign

The City's Same Rules Same Road program includes street light banners, Sharrow informational business cards, and a website. As part of this program, The Bike Safety website provides resources to community members for information about bicycling in Newport Beach. The website includes:

- Bicycle trails map
- Bicycle Master Plan Oversight Committee (BMPOC) information and agendas
- City Council staff reports relevant to bicycling
- Safety Guidelines for Bicyclists and Motorists brochure
- A tentative list of potential bicycle safety improvements
- California Driver Handbook sections: Sharing the Road and Traffic Lanes
- Information about the Memorial Bike Ride and the Bicycle Safety Improvement Fund

Sharrow Informational Business Card (front and back)

A copy of the Safety Guidelines for Bicyclists and Motorists brochure can be found in Appendix B.

2.3 Encouragement

Citywide Bicycle Route Map

The City created a GIS-based bicycle route map that is currently posted on the City's website. Staff is soliciting comments and questions from the public on the map, its contents, or additional bike-related information.

Memorial Bike Ride and Bicycle Safety Improvement Fund

On October 28, 2012, the City hosted the Memorial Bike Ride to pay tribute to cyclists that had recently been killed in Newport Beach. The community-raised funds raised for this ride were matched by the City at a 3 to 1 ratio and put into a special Bicycle Safety Improvement Fund.

BikeNewportBeach Neighborhood Bike Rides

In Fall 2013, BikeNewportBeach.org has organized multiple family-friendly neighborhood bike rides with help from local bike shops and the City of Newport Beach Parks and Recreation Department. The first ride was the Saturday before Halloween in Corona del Mar, while the second ride was the Wednesday before Thanksgiving, with both starting at the Civic Center. A third ride, the Harbor View Holiday Lights Ride, was organized on December 23 oriented towards viewing holiday decorations and lights in the Harbor View neighborhood.

Harbor View Holiday Lights Ride

2.4 Enforcement

Bicycle Safety Operation

The Newport Beach Police Department (NBPD) conducted a specialized Bicycle Safety Operation on March 17th and 24th, 2012. This enforcement campaign targeted vehicle, bicycle and pedestrian safety. The goal of this program is to educate bicyclists about how to safely and legally use the roads. In addition to bicyclists, this program seeks to educate motorists how to share the roadway with bicyclists and pedestrians. The NBPD also sells bicycle licenses for $2.00, available at the Police Department and at the Fire Department during normal business hours. The NBPD provides additional enforcement programs that help with bicycle and motorist safety in the city such as Driving Under the Influence (DUI) checkpoints, texting/cell phone enforcement activities, and school liaisons.

Police Department Activity in the schools includes Bike Rodeos, which are educational activities to teach school-age children safe cycling habits and minor bicycle maintenance, and assignment of an officer as a liaison to each school.

By educating roadway users about the rules, laws and safe behaviors, and enforcing them, bicycle and pedestrian collisions can be reduced. The Police may also enforce obvious violations of the City's Municipal Code in order to maintain safe operations. An Administrative Citation carries a $100 fine for a first offense in one year.

2.5 Evaluation

Bicycle Master Plan Oversight Committee

The Bicycle Master Plan Oversight Committee (BMPOC) was established in 2013, composed of seven community members appointed by the Mayor and ratified by City Council. The Chair of the Committee will be a City Council member appointed by the Mayor. The Committee will review and give input, guidance, and a public forum for the preparation of the Bicycle Master Plan. City staff from the Public Works Department, Community Development Department, and Police Department attend the BMPOC meetings. Each Committee meeting will be advertised and open to the public.

Citizens Bicycle Safety Committee

The Citizens Bicycle Safety Committee (CBSC) reviewed existing bicycle infrastructure and identified potential improvements to promote bicycling and encourage safe use of the roadways. A key accomplishment of the CBSC was the installation of sharrows on Coast Highway in Corona del Mar. Along with the sharrows, an outreach and education program was implemented to teach local cyclists about their benefits and use. The CBSC prepared the 2012 annual report, which is included in Appendix C.

Task Force on Cycling Safety

The Task Force was established in 2009, made up of six citizens, all local cyclists. Other participants included the City's traffic engineer, representatives of the Police Department, the public information officer, representatives of the Orange County Bicycle Coalition, and other members of the public. The Committee was asked to make recommendations to improve safety for bicyclists on the roads, encourage cyclists to abide by the laws, and encourage motorists to be respectful of bicyclists' rights. The Task Force created a Final Report with recommendations to the City. This report can be found in Appendix D.

Survey of Newport Beach Bicycle Rental Shops

Bicycle Safety Committee member Michael Alti conducted a survey of bicycle rental shops in Newport Beach in September, 2012. Owners and/or representatives of eight rental shops on the Peninsula were interviewed. The purpose of this survey was to determine safety measures or instructions provided by the shops, obtain demographics or statistics about customers and history of accidents, and determine their impressions of bicycle safety in Newport Beach. The conclusions and recommendations made in this survey can be found in Appendix E.

2.6 Past Bicycle-Related Expenditures

The City has completed numerous bicycle facility improvements in recent years. Table 2-2 shows the completed actions/projects from 2009-present. A more detailed list, as well as planned projects with cost estimates, can be found in Appendix F.

Table 2-2: Completed Projects/Actions 2009-2013

Title/Description	Completion Date
Ocean Front Signage Improvements	Fall 2009
Bayside Drive Sharrows	Fall 2010
Bicycle Downhill Advisory Signs	Spring 2011
Castaways Trail Improvements	Summer 2011
Fernleaf Ramp Sign Revisions	Fall 2011
Remove Raised Pavement Markers	Fall 2011
Bayside Drive Bike Ramp Improvements	Fall 2011
Bonita Canyon Drive Bike Lane Improvements	Winter 2011
Coast Highway Bike Lane Improvements	Winter 2011
Coast Highway Alternate Bike Route	Winter 2012
Newport Center Bike Lane Installation	Spring 2012
Coast Highway Bike Lane Improvement at Jamboree Road	Fall 2012
Coast Highway Corona del Mar Sharrow Project	Fall 2012
32nd Street Bike Lane Project	Spring 2013

2.7 Pending Bicycle-Related Projects

The City has programed and obtained funding for multiple bike lane projects as shown in Table 2-3.

Table 2-3: Scheduled Projects 2013-2014

Title/Description	Scheduled Date
Avocado Avenue Bike Lane Project	Winter 2013
Bayside Drive Sharrow Extension Project	Winter 2013
Jamboree Road Bike Lane Project	Summer 2014
Eastbluff Drive-Ford Road Bike Lane Project	Summer 2014
Spyglass Hill Road Bike Lane Project	Summer 2014
San Joaquin Hills Road Bike Lane Project	Summer 2014

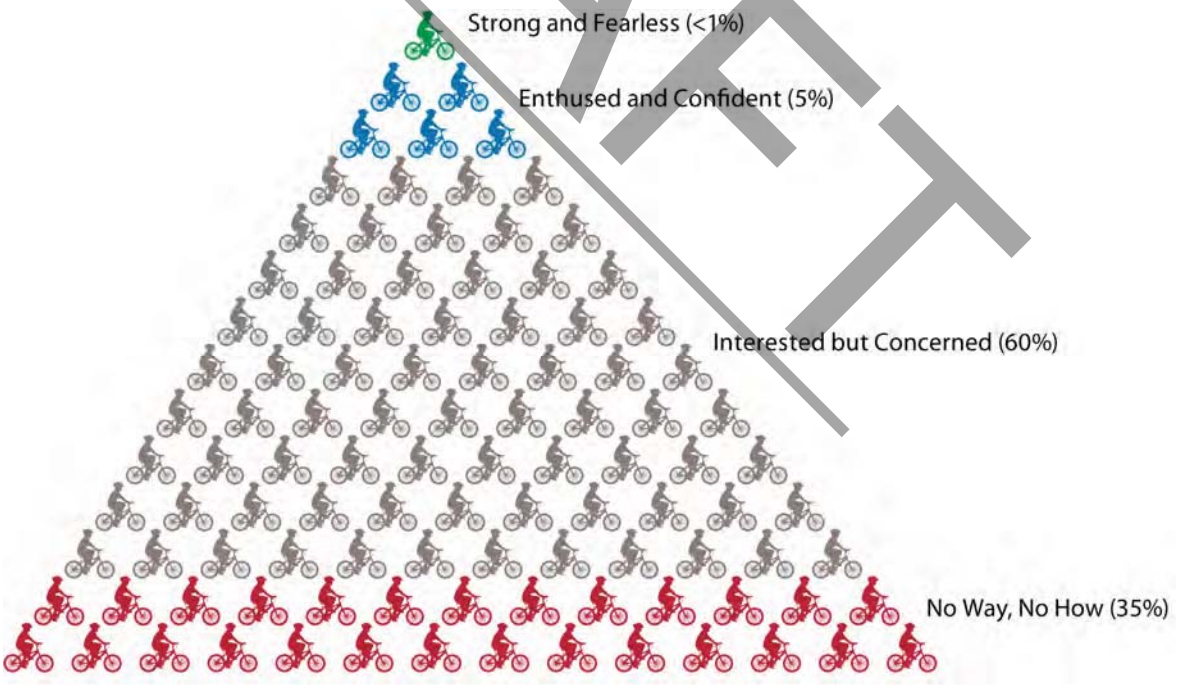
3 Needs Analysis

3.1 Types of Bicyclists

This Plan seeks to address the needs of all bicyclists and potential bicyclists and therefore it is important to understand the needs and preferences of all types of bicyclists to develop a successful plan. Bicyclists' needs and preferences vary between skill levels and their trip types. In addition, the propensity to bicycle varies from person to person, providing insight into potential increases in bicycling rates. Generally, bicycling propensity levels can be classified into four categories, displayed in Figure 3-1.

1. *Strong and Fearless* bicyclists will ride on almost any roadway despite the traffic volume, speed and lack of bikeway designation and are estimated to be less than one percent of the population.
2. *Enthused and Confident* bicyclists will ride on most roadways if traffic volumes and speeds are not high. They are confident in positioning themselves to share the roadway with motorists and are estimated to be five percent of the population.
3. *Interested but Concerned* bicyclists will ride if bicycle paths or lanes are provided on roadways with low traffic volumes and speeds. They are typically not confident cycling with motorists. Interested but Concerned bicyclists are estimated to be 60 percent of the bicyclist population and the primary target group that will bicycle more if encouraged to do so.
4. *No Way No How* are people that do not consider cycling part of their transportation or recreation options and are estimated to be 35 percent of the population.

Figure 3-1: Types of Cyclists



Source: www.portlandoregon.gov/transportation/article/264746

The needs of bicyclists also vary between trip purposes. For example, people who bicycle for performance-recreational purposes may prefer long and straight unsignalized roadways, while bicyclists who ride with their children to school may prefer direct roadways with lower vehicular volumes and speeds. This Plan considers these differences and develops a bikeway network to serve all user types. This section describes the different types of bicyclists and the respective needs for these categories of bicyclists.

- Commuters - adults who regularly bicycle between their residences and work.
- Enthusiasts - skilled adults.
- Casual / Family / Elderly riders - adults who use bicycles for running errands, recreation, tourism, exercise, or as a family activity
- School Children - children who bicycle to school.

An effective bicycle network accommodates bicyclists of all abilities. Casual bicyclists generally prefer roadways with low traffic volumes and low speeds. They also prefer paths that are physically separated from roadways. Because experienced bicyclists typically ride to destinations or to achieve a goal, they generally choose the most direct route, which may include arterial roadways with or without bike lanes. Bicyclists of all abilities and purposes ride every day in Newport Beach. Parents bicycle with their children to school, people bicycle to work in Newport Beach and the surrounding communities, community members bicycle to transit stations, and recreational bicyclists ride through the city on extended bicycle trips.

3.2 Public Outreach

During the summer and fall of 2013, the project team conducted a number of outreach activities to engage the community in identifying initial challenges, opportunities, and ideas for improving the cycling experience in Newport Beach. The following community engagement activities occurred:

Community Outreach Booths
- McFadden Plaza/Newport Pier, August 24, 2013
- East Bluff Drive Adjacent to the Back Bay Trail, October 27, 2013

Bicycle Master Plan Oversight Committee Meetings
- July 1, 2013
- September 3, 2013
- October 7, 2013
- December 2, 2013

Community Open House
- November 4, 2013

Online Survey
- September 17 to December 31, 2013

3.2.1 Community Outreach Booths

Staff set up a table and shelter in order to collect input from community members. Community members gave their input on challenges for cycling in Newport Beach and ideas that they have for improvements. More detailed lists of comments provided at these two outreach events can be found in Appendix G.

Outreach event at the Newport Pier

Newport Pier

A booth was set up on August 24, 2013 at the Pier. Coast Highway and Newport Boulevard were the most common spots mentioned as challenging for cyclists. Attendees noted narrow lanes, traffic congestion, faded bike lanes, and cyclists' behavior on the roads.

Ideas for improving conditions included installing a bike lane on Balboa Boulevard and extending the Ocean Front Trail to Huntington Beach. Allowing cyclists to ride on sidewalks on Coast Highway was noted as a potential solution to issues along that corridor. Community members also requested larger bike rides and events, and education and safety programs in schools. Enforcement for bikes, surreys, and skateboards was requested for Ocean Front Trail and Seashore Drive.

Eastbluff Drive at Back Bay Trail

A booth was set up at this location on October 27, 2013. Coast Highway was noted as challenging, due to car traffic and connectivity issues, and Coast Highway was noted specifically in Corona del Mar and north of Dover Drive where cars and bicycles merge. Respondents requested bike lanes at Eastbluff Drive at Jamboree Road, and bumps on the road to delineate cars and bicycles. Cyclist behavior was noted as being an issue, as they sometimes ride against traffic. Education programs were also requested.

3.2.2 Workshops

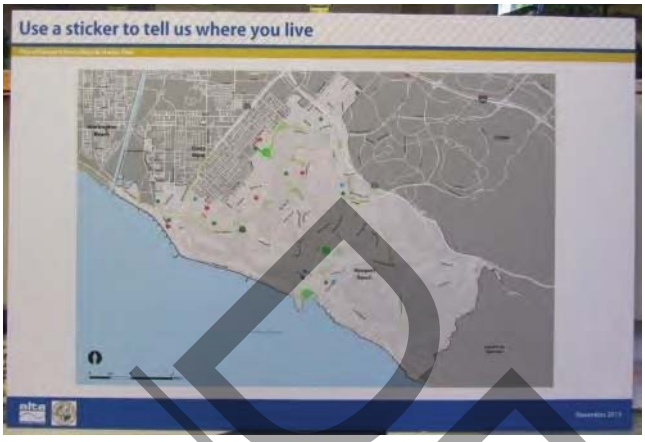
On Monday, November 4, 2013, an open house event was held at the Newport Beach Main Library. A detailed description of the workshop and public input can be found in Appendix G.

Open House guides were provided to participants, which included a list and description of each station. In addition to the Sign-in Table, seven stations were provided to provide information and to collect ideas:

1. Background Presentation
2. Mapping
3. Bicycle Facilities
4. I Would Ride More Often If…
5. Education, Encouragement, Enforcement, & Evaluation – What's Working? What Can We Do Better?
6. Survey Spot
7. Kids' Station

Sign in Table

The sign in table included a map of the city and neighboring cities where participants were asked to place a dot sticker where they live. Most residents who responded indicated that they do live within the City of Newport Beach.



Participants used stickers to show where they live

Boards used for participants to indicate their cycling skill levels

Participants were also asked to rate their riding abilities.
The image below shows that most respondents self-designated themselves as "enthused and confident".

Type of Cyclist	Strong and Fearless	Enthused and Confident	Interested but Concerned	No Way, No How
Number of Cyclists	6	16	2	0

Station 1: Background Presentation

A brief, continuous running PowerPoint presentation provided background information about the Bicycle Master Plan project.

Participants noted cycling destinations and locations for improvements

Station 2: Mapping

This station provided the opportunity for participants to identify current cycling destinations, places that they would like to bicycle to, and locations for possible improvements including wayfinding signs. Destinations included Avocado Avenue, Civic Center Drive, and parks. Participants frequently noted issues on Coast Highway, Dover Drive, Newport Boulevard, Newport Coast Drive, and Back Bay Drive. Lack of awareness of motorists as well as traffic congestion

are major concerns as well. Participants also noted improvements needed around schools, particularly Newport Coast Elementary and Newport Harbor High School.

Participants spoke with staff about their concerns for bicycling in the community

Station 4: I would ride more often if…

Participants could finish the sentence on a post-it note. Safety was the biggest issue expressed by participants. Multiple people noted a desire for wider bike lanes. Other issues noted included the need for more lighting, and more signage to indicate to roadway users that they must share the road.

Station 5: Education, Encouragement, Enforcement, & Evaluation – What's Working? What Can We Do Better?

Participants were asked to list current programs and efforts that they believe are important/helpful and to make suggestions for additional efforts.

The most popular *Education Programs* would be Bicycle Skills Courses and Youth Bicycle Safety Education. The most popular *Encouragement Programs* include Car-Free Street Events and Safe Routes to School (SR2S). The most popular *Enforcement Programs* include a Bicycle Patrol Unit and Lights On Campaign & Bicycle Light Enforcement.

Participants showed their top choices for programs with stickers

Station 6: Survey Spot

Hard copies of an online survey were available for participants to complete.

Station 7: Kids' Station

Kids were given the opportunity to create drawings about biking and bike safety. However, at this event, no children were present.

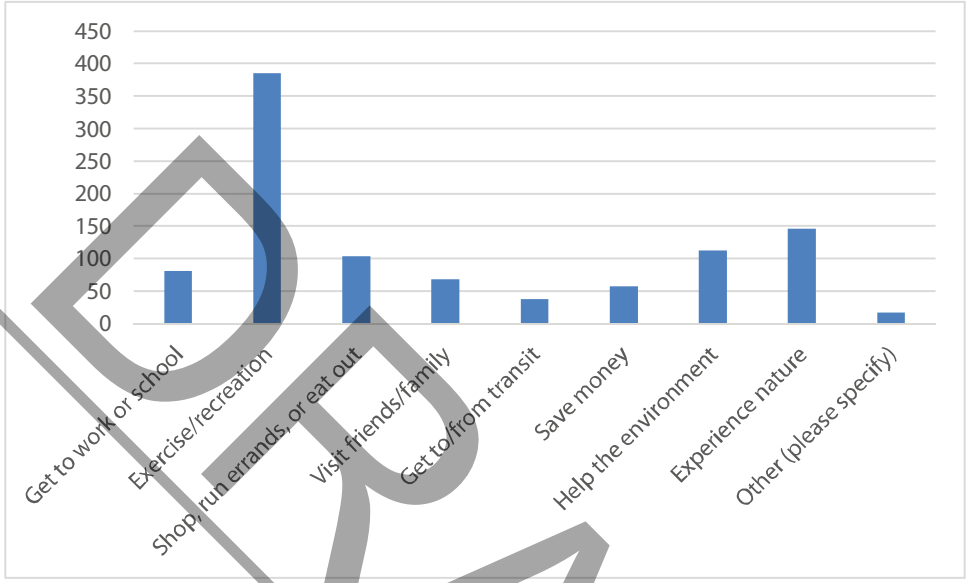
3.2.3 Surveys

An online survey was provided to community members to gather input for the creation of the Bicycle Master Plan. Between September 17, 2013 and December 31, 2013, 421 responses were counted and analyzed.

Of the 399 respondents, approximately 43 percent live outside of Newport Beach. The majority of them were over 55 years old, therefore a sizeable amount of all respondents do not work (18 percent). Most respondents have a short commute to work or school that is under two miles. Of those who commute to/from work, the majority drive alone (59 percent), though approximately the same amount of respondents have very high

majority drive alone (59 percent), though approximately the same amount of respondents have very high confidence in their bicycling abilities. Most respondents bicycle three to four times per week (37 percent), mainly on on-street bike lanes (49 percent). As shown in Figure 3-2, the main reason that people bicycle is for exercise and recreation.

Figure 3-2: Reasons for Bicycling

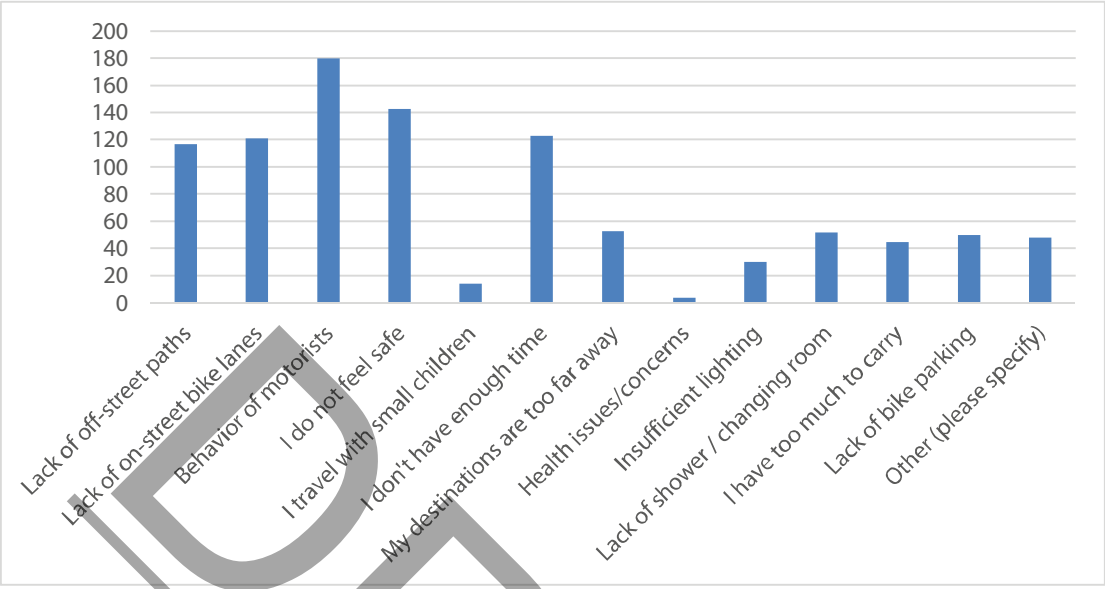


Source: Newport Beach Bicycle Master Plan – Bicycle Survey

Additional reasons entered for "Other" include socializing, training for tri-athalons, mental and physical health, and for fun.

When asked what keeps them from bicycling, respondents indicated that the top three reasons are the behavior of motorists, concerns about safety, and not having enough time. Figure 3-3 displays the results of this question.

Figure 3-3: Barriers to Bicycling



Source: Newport Beach Bicycle Master Plan – Bicycle Survey

Additional reasons for "Other" include the behavior of bicyclists and pedestrians, lack of education of both bicyclists and motorists, and the time of day as it relates to automobile traffic.

The most important considerations that respondents make when making a decision to ride a bicycle are the behavior of motorists, presence of on-street bike lanes, traffic volumes/speeds, and the presence of off-street bike paths.

Programs that respondents are the most interested in are public awareness campaigns, online information, Safe Routes to School programs for children, maps and guides, special events, and commuter incentive programs.

When asked to list any places in Newport Beach that they felt were uncomfortable for bicycling and the reasons, common themes arose. Coast Highway was the most frequently noted location where bicyclists feel unsafe or uncomfortable. Respondents feel that there are not enough bike lanes or signage on PCH, as well as traffic signals that do not detect bicycles. Drivers' behavior is frequently an issue for bicyclists, who were noted as driving too fast, not acknowledging bicyclists, distracted by cell phones, crossing into bike lanes, and making right turns without looking. PCH through Corona del Mar was specifically called out by many respondents, noting challenges due to on-street parking, lack of bike lanes, narrow road, cars entering/exiting driveways, and distracted drivers. Jamboree Road was noted many times as having high car speeds and bicyclists on the sidewalk. Participants noted they do not feel safe on the Peninsula due to parked cars and a lack of bike lanes. Multiple respondents noted groups of cyclists often disregard others by going too fast and nearly colliding with others not in their group while on the Back Bay Trail. Other frequent roadways pointed out by respondents include; Newport Coast Drive, San Joaquin Hills Road, Bayside Drive, Newport Boulevard/State Route 55, and Irvine Avenue.

Respondents were asked to list destinations in Newport Beach where they would like to bicycle to, but don't feel comfortable traveling to via bicycle. Commonly noted destinations include:

- Corona del Mar
- Shopping centers (particularly Fashion Island)
- Peninsula (specifically the beach, pier and Balboa Island)
- Schools
- Santa Ana River Trail
- Civic Center
- Other surrounding cities
- Crystal Cove State Park
- Back Bay
- Airport

3.3 Bicycle Commuter Estimates and Forecasts

3.3.1 Assumptions

The model uses the U.S. Census Bureau's *American Communities Survey* (ACS) journey-to-work data and applies a market segment approach to estimate the number of bicycling or walking trips. Elementary school and college students usually have a different bicycle/walking mode split than work commuters.

In addition, national transportation surveys, in particular the *National Household Travel Survey* (NHTS, 2009), have shown that commute trips are only a fraction of the total trips an individual takes on a given day. The model uses the NHTS findings to estimate the number of non-work, non-school trips taken by commuters to determine the number of walking or bicycling trips that occur in a day. This information can be projected out using standard trip lengths by mode and trip purpose to estimate the number of driving miles reduced by nonmotorized modes.

3.3.2 Data Used in the Model

The foundation of this analysis is the ACS 2008-2012 five-year estimate for Newport Beach. Model variables from the ACS include: total population, employed population, school enrollment (grades K-12 and college students), and travel-to-work mode split.

The 2009 NHTS provides a substantial national dataset of travel characteristics, particularly for trip characteristics of bicycling and walking trips. Data used from this survey include:

- Student mode split, grades K-12
- Trip distance by mode by trip purpose
- Ratio of walking/bicycling work trips to utilitarian trips
- Ratio of work trips to social/recreational trips
- Average trip length by trip purpose and mode

Several of these variables provide a way to estimate the number of walking and bicycling trips made for other reasons than work trips, such as shopping and running errands. NHTS 2009 data indicates that for every bicycle work trip, there are slightly more than two utilitarian bicycle trips made. Although these trips cannot be directly attached to a certain group of people (not all of the utilitarian bicycling trips are made by people who bicycle to work), these multipliers allow a high percentage of the community's walking and bicycling activity to be captured in an annual estimate.

The *Safe Routes to School Baseline Data Report* (2010) was used to determine the percent of students who walk or bicycle by the parents' estimate of distance as well as the frequency of carpooling for trip replacement.

Disclaimer

As with any modeling projection, the accuracy of the result is dependent on the accuracy of the input data and other assumptions. Effort was made to collect the best data possible for input to the model, but in many cases national data was used where local data points were unavailable. Examples of information that could improve the accuracy of this exercise include the detailed results of local Safe Routes to Schools parent and student surveys, a regional household travel survey, and a student travel survey of college students.

3.3.3 Existing Walking and Bicycling Trips

Table 3-1 shows the results of the model. Based on the model assumptions, the majority of trips are non-work utilitarian trips, which include medical/dental services, shopping/errands, family personal business, obligations, transport someone, meals, and other trips.

Table 3-1: Model Estimate of Current Walking and Bicycling Trips

	Bicycling	Walking	Source
Commute Trips			
Bicycle/walking commuters	343	815	Employed population multiplied by mode split
Weekday bicycle/walking trips	686	1,630	Number of bicycle/walking commuters multiplied by two for return trips
Walk- or bike-to-transit commuters	15	309	Number of transit commuters multiplied by transit mode split from the OCTA On-Board Survey
Weekday transit bicycle/walking commute trips	30	618	Number of transit bicycle/walking commuters multiplied by two for return trips
Weekday bicycle/walking commuters	716	2,248	Number of bicycle/walk commuters plus number of transit-bicycle/walk commuters
School Trips			
K-12 bicycle/ walking commuters	117	1,837	School children population multiplied by mode split
Weekday K-12 bicycle/ walking trips	234	3,674	Number of student bicyclists multiplied by two for return trips
College Trips			
College bicycle/ walking commuters	743	1,703	College students multiplied by mode split provided by UC Irvine.
Weekday bicycle/ walking college trips	234	3,674	Number of college student bicyclists multiplied by two for return trips
Utilitarian Trips			
Daily adult bicycle/walking commute trips	2,202	5,654	Number of bicycle/walking trips plus number of bicycle/walking college trips
Daily bicycle/walking utilitarian trips	3,449	19,875	Utilitarian bicycle/walking trips multiplied by ratio of utilitarian to work trips (NHTS). Distributes weekly trips over entire week (vs. commute trips over 5 days)
Total Current Daily Trips	**5,885**	**29,203**	

Trip Replacement

To estimate the total distance residents travel to work or school by walking and bicycling, the model isolates different walking and bicycling user groups and applies trip distance information for walking or bicycling trips by mode based on NHTS 2009. Table 3-2 shows the trip replacement factors.

Yearly factors are calculated by assuming that work and school/college trips occur five days per week, while utilitarian trips occur seven days per week. However, work and utilitarian trips occur year-round, while school and college trips are only three-quarters of the year, due to summer vacation.

Table 3-2: Current Walking and Bicycling Trip Replacement

	Bicycling	Walking	Source
Commute Trips			
Weekday vehicle trips replaced	591	21	Trips multiplied by drive alone trips to determine automobile trips replaced by bicycle trips
Weekday miles bicycled/walked	2,092	14	Number of vehicle trips reduced multiplied by average bicycle/walking work trip length (NHTS 2009)
School Trips			
Weekday vehicle trips reduced	68	1,064	Trips multiplied by drive alone trips to determine automobile trips replaced by bicycle/walking trips
Weekday miles bicycled/walked	52	817	Number of vehicle trips reduced multiplied by average trip length to/from school (SRTS 2010)
College Trips			
Weekday vehicle trips reduced	1,226	2,810	Trips multiplied by drive alone trips to determine automobile trips replaced by bicycle/walking trips
Weekday miles bicycled/walked	1,814	1,574	Number of vehicle trips reduced multiplied by average bicycle school/daycare/religious trip length (NHTS 2009)
Utilitarian Trips			
Daily vehicle trips reduced	1,817	4,665	Number of daily utilitarian trips multiplied by drive alone trips
Daily miles bicycled/walked	3,440	3,110	Number of vehicle trips reduced multiplied by average utilitarian trip length (NHTS 2009; does not include work or home trips)

Yearly Results	Bicycling	Walking	Total	Source
Yearly bicycle/walking trips	1,783,098	9,231,172	11,014,270	Assumes commuting is 5 days/week year-round, utilitarian trips year-round, and school/college trips 5 days/week and three-quarters of the year
Yearly vehicle trips reduced	1,071,043	2,467,394	3,538,437	
Yearly miles bicycled/walked	2,167,367	1,607,426	3,774,793	

3.3.4 Current Benefits

To the extent that bicycling and walking trips replace single-occupancy vehicle trips, they reduce emissions and have tangible economic impacts by reducing traffic congestion, crashes, and maintenance costs. In addition, the reduced need to own and operate a vehicle saves families money. These benefits are shown in Table 3-3.

Table 3-3: Benefits of Current Bicycling and Walking Trips

	Bicycling	Walking	
Yearly vehicle miles reduced	2,167,367	1,607,426	
Air Quality Benefits			
Reduced Hydrocarbons (pounds/year)	6,498	4,820	EPA, 2005[3]
Reduced Particulate Matter (pounds/year)	48	36	EPA, 2005
Reduced Nitrous Oxides (pounds/year)	4,539	3,367	EPA, 2005
Reduced Carbon Monoxide (pounds/year)	59,250	43,943	EPA, 2005
Reduced Carbon Dioxide (pounds/year)	1,763,166	1,307,650	EPA, 2005
Economic Benefits of Air Quality			
Particulate Matter	$4,054	$3,007	NHTSA, 2011[4]
Nitrous Oxides	$9,079	$6,733	NHTSA, 2011
Carbon Dioxide	$30,230	$22,420	NHTSA,2011

3.3.5 Potential Future Walking and Bicycling Trips

Estimating future benefits requires additional assumptions regarding Newport Beach's future population and anticipated commuting patterns in 2030. Future population predictions as determined by the Center for Demographic Research in the *Newport Beach Banning Ranch Draft EIR* were used in this model. Table 3-4 shows the projected future demographics used in the future analysis.

[3] *From EPA report 420-F-05-022 "Emission Facts: Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks." 2005.*

[4] *NHTSA Corporate Average Fuel Economy for MY 2011 Passenger Cars and Light Trucks, Table VIII-5 (http://www.nhtsa.dot.gov/ portal/site/nhtsa/ menuitem.d0b5a45b55bfbe582f57529 cdba046a0/).*

Table 3-4: Project Future Demographics

	Value	Percent of 2012 Population	Source
Population	96,982	113.7%	*Center for Demographic Research 2007, in Newport Beach Banning Ranch Draft EIR*
Employed population	78,366	91.8%	*Center for Demographic Research 2007, in Newport Beach Banning Ranch Draft EIR*
School population, K-12	19,750	20.4%	Assumes same percent as from ACS 2012 estimate
College student population	6,813	7.0%	Assumes same as 2012 ACS estimate

Bicycling mode share was increased to address the higher use potentially generated by the addition of new facilities and enhancements to the existing system.

Table 3-5: Mode Split Comparison with Neighboring Cities

	Walk	Bike	Transit	Carpool	Drive Alone
Newport Beach	**1.9%**	**0.8%**	**0.8%**	**4.0%**	**82.5%**
Santa Ana	2.2%	1.1%	7.2%	17.1%	69.8%
Costa Mesa	3.0%	2.2%	3.2%	9.8%	75.0%
Huntington Beach	1.5%	1.3%	1.2%	7.2%	82.0%
Irvine	3.8%	1.7%	1.5%	7.3%	77.8%
Orange County	2.0%	1.0%	2.9%	10.4%	77.8%
California	2.8%	1.0%	5.1%	11.7%	73.0%
United States	2.8%	0.5%	5.0%	10.2%	76.1%

Source: 2008-2012 American Community Survey 5-year Estimates

The analysis predicts that the bicycle mode split will double by 2030, due in part to bicycle network implementation and education/encouragement programs. This results in a bicycling mode split of 2%, which is the same as the current mode splits of neighboring Costa Mesa and Irvine. The results of the model are shown in Table 3-6.

Table 3-6: Future (2030) Bicycling and Walking Trips

	Bicycling	Walking	Source
Commute Trips			
Bicycle/walking commuters	1,567	1,489	Employed population multiplied by mode split
Weekday bicycle/ walking trips	3,134	2,978	Number of bicycle/walking commuters multiplied by two for return trips
School Trips			
K-12 bicycle/ walking commuters	133	2,088	School children population multiplied by mode split
Weekday K-12 bicycle/ walking trips	266	4,176	Number of student bicyclists multiplied by two for return trips
College Trips			
College bicycle/ walking commuters	743	1,703	College students multiplied by mode split provided by UC Irvine.
Weekday bicycle/ walking college trips	1,486	3,406	Number of college student bicyclists multiplied by two for return trips
Utilitarian Trips			
Daily adult bicycle/ walking commute trips	4,620	6,384	Number of bicycle/walking trips plus number of bicycle/walking college trips
Daily bicycle/walking utilitarian trips	7,236	22,441	Number of utilitarian bicycle/walking trips multiplied by bicycle/walking utilitarian trip multiplier, spread over entire week (vs. commute trips over 5 days)
Total Future Daily Trips	**12,122**	**33,001**	

3.3.6 Future Benefits

The trip replacement factors remain the same as in the model of current trips. Table 3-7 shows the air quality benefits of the future projected walking and bicycling trips.

Table 3-7: Benefits of Future Bicycling and Walking Trips

	Bicycling	Walking	
Yearly vehicle miles reduced	6,883,123	5,427,276	
Air Quality Benefits			
Reduced Hydrocarbons (pounds/year)	20,638	16,273	EPA, 2005[i5]
Reduced Particulate Matter (pounds/year)	153	121	EPA, 2005
Reduced Nitrous Oxides (pounds/year)	14,416	11,367	EPA, 2005
Reduced Carbon Monoxide (pounds/year)	188,166	148,367	EPA, 2005
Reduced Carbon Dioxide (pounds/year)	5,559,460	4,415,120	EPA, 2005
Economic Benefits of Air Quality			
Particulate Matter	$12,874	$10,151	NHTSA, 2011[6]
Nitrous Oxides	$28,832	$22,734	NHTSA, 2011
Carbon Dioxide	$96,004	$75,698	NHTSA,2011

3.4 Bicycle Counts

In order to better analyze the existing number of bicyclists in Newport Beach, it is important to understand the number of bicyclists and the patterns in which they interact with the existing bicycle network. Newport Beach's bicycle counts provide a valuable snapshot for the level of bicycling and walking that occurs. To do so, a comprehensive count of bicyclists at 11 locations in Newport Beach was performed during October 2013. The efforts included:

- Coordination with City staff to determine count locations
- Instruction and standardized count forms provided to volunteers
- One weekday morning count at each location
- One weekend mid-day at each location, with additional morning counts at four locations
- Monitoring of bicycle counts by consultant team
- Data synthesis and analysis

The data analyzed in the previous section only accounts for commute trips. By conducting its own counts, the City can account for trips taken by bicycle that are not commute trips, as well as better understand where bicycling is occurring. The bicycle counts provide baseline data for future comparison and evaluation of trends. Analysis of the counts and count location characteristics additionally provides useful information regarding the relationship between bicycle ridership levels and the bicycling environment.

3.4.1 Methodology

Bicycle counts were conducted at 11 locations, listed in Table 3-8, on Thursday, October 17th, 2013 and Saturday, October 19th, 2013. The weekday morning counts were conducted from 7:00 AM to 9:00 AM, and the weekend counts from 10:00 AM to 1:00 PM. Additional morning counts were conducted on Saturday from 7:00 to 9:00

[5] *From EPA report 420-F-05-022 "Emission Facts: Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks." 2005.*

[6] *NHTSA Corporate Average Fuel Economy for MY 2011 Passenger Cars and Light Trucks, Table VIII-5 (http://www.nhtsa.dot.gov/ portal/site/nhtsa/ menuitem.d0b5a45b55bfbe582f57529 cdba046a0/).*

AM to document early morning club riding activity at four select locations. Criteria used to select count locations include:

- Bicycle activity areas or corridors (near schools, parks, downtowns, etc.)
- Key corridors that can be used to gauge the impacts of future improvements
- Gaps and pinch points for bicyclists (potential improvement areas)
- Locations where bicycle collisions are high

Table 3-8: Bicycle Count Locations

Location #	Intersection
1	Coast Highway and Orange Street
2	Irvine Avenue and University Drive
3	Newport Boulevard and 32nd Street
4	Ocean Front and 28th Street
5	Irvine Avenue and 15th Street, adjacent Newport Harbor High School
6	Coast Highway and Bayside Drive
7	Eastbluff Drive and Back Bay Drive
8	Coast Highway and Iris Avenue
9	Bonita Canyon Drive and Chambord
10	Coast Highway and Newport Coast Drive
11	Newport Coast Drive and Ridge Park Road

Volunteer counters noted if the bicyclist was a male or female adult, or a child under 13 years old. In addition, the counters noted how many bicyclists did not wear helmets, rode on the sidewalk, or were on the wrong side of the road. Cyclists riding on the sidewalk were not counted as traveling the wrong way.

3.4.2 Results

The total number of bicyclists counted for both count days was 7,041 bicyclists as shown in Table 3-8. Table 3-10 shows the total bicyclists counted for each study period at each count location. Table 3-11 shows the calculated bicyclists per hour at each count location. While these provide an important snapshot of bicycling in Newport Beach, it does not provide a comprehensive count of all bicyclists. Instead, the data offers clues as to where and when the community is bicycling. Detailed count results by location can be found in Appendix H.

Table 3-9: Bicycle Count Results

Characteristic	Total Count
Total Bicyclists Combined	7,041
Total Bicyclists Weekday	1,078
Total Bicyclists Weekend Day	5,963
Total Female Bicyclists (combined)	1,527
Total Male Bicyclists (combined)	5,339
Total Children Under 13	175
Total Bicyclists Without Helmets	1,769
Total Bicyclists Riding on Sidewalk	1,697
Total Bicyclists on Wrong Side of Road	168

As shown in Table 3-8, 7,041 bicyclists were counted at 11 locations within the City of Newport Beach over 63 hours of data collection by local volunteers. Of the 7,041 bicyclists, male bicyclists were 76%, female bicyclists were 22%, and children under 13 were 2% of those counted.

Table 3-10: Bicycle Counts by Location

#	Location	Thursday 7-9 AM	Saturday 7-9 AM	Saturday 10 AM-1 PM
1	Coast Highway and Orange Street	158	442	1,134
2	Irvine Avenue and University Drive	67	--	103
3	Newport Boulevard and 32nd Street	57	--	249
4	Ocean Front and 28th Street	165	--	804
5	Irvine Avenue and 15th Street, adjacent Newport Harbor High School	168	--	70
6	Coast Highway and Bayside Drive	124	--	850
7	Eastbluff Drive and Back Bay Drive	159	334	713
8	Coast Highway and Iris Avenue	21	--	220
9	Bonita Canyon Drive and Chambord	85	--	68
10	Coast Highway and Newport Coast Drive	36	215	372
11	Newport Coast Drive and Ridge Park Road	38	192	197

Table 3-11: Hourly Bicycle Counts

#	Location	Thursday Morning 1-Hour Average	Saturday Morning 1-Hour Average	Saturday Mid-Day 1-Hour Average
1	Coast Highway and Orange Street	79	221	378
2	Irvine Avenue and University Drive	34	--	34
3	Newport Boulevard and 32nd Street	29	--	83
4	Ocean Front and 28th Street	83	--	268
5	Irvine Avenue and 15th Street, adjacent Newport Harbor High School	84	--	23
6	Coast Highway and Bayside Drive	62	--	283
7	Eastbluff Drive and Back Bay Drive	80	167	238
8	Coast Highway and Iris Avenue	11	--	73
9	Bonita Canyon Drive and Chambord	43	--	23
10	Coast Highway and Newport Coast Drive	18	108	124
11	Newport Coast Drive and Ridge Park Road	19	96	66

On the weekday count the location with the most bicyclists, 84 per hour, was the intersection of Irvine Avenue and 15th Street, adjacent to Newport Harbor High School (NHHS). This location had the highest number of children (56) of any location on the weekday. The high weekday and student bicycle counts at the intersection of Irvine Avenue and 15th Street included student activity arriving at school during the morning count. The location with the lowest number of bicyclists per hour on the weekday count was Coast Highway and Iris Avenue with only 11 bicyclists per hour.

On the weekend morning count the location with the most bicyclists, 221 per hour, was the intersection of Coast Highway and Orange Street. The location with the least bicyclists, 96 per hour, was Newport Coast Drive and Ridge Park Road. The intersection of Coast Highway and Orange Street also had the highest number of bicyclists, 378 per hour, on the weekend afternoon count. The intersections of Bonita Canyon Drive and Chambord, and Irvine Avenue and 15th Street, both had 23 bicyclists per hour. Counters noted that on the weekends there were many groups of bicyclists. These weekend groups are likely for recreation, as it was noted in the survey that most community members bike mainly for this purpose.

The average weekday count was 98 bicyclists, and the median weekday count was 85 bicyclists. The average weekend count was 543 bicyclists, and the median weekend count was 249 bicyclists. Figure 3-4 and Figure 3-5 display the number of bicyclists per hour at each location.

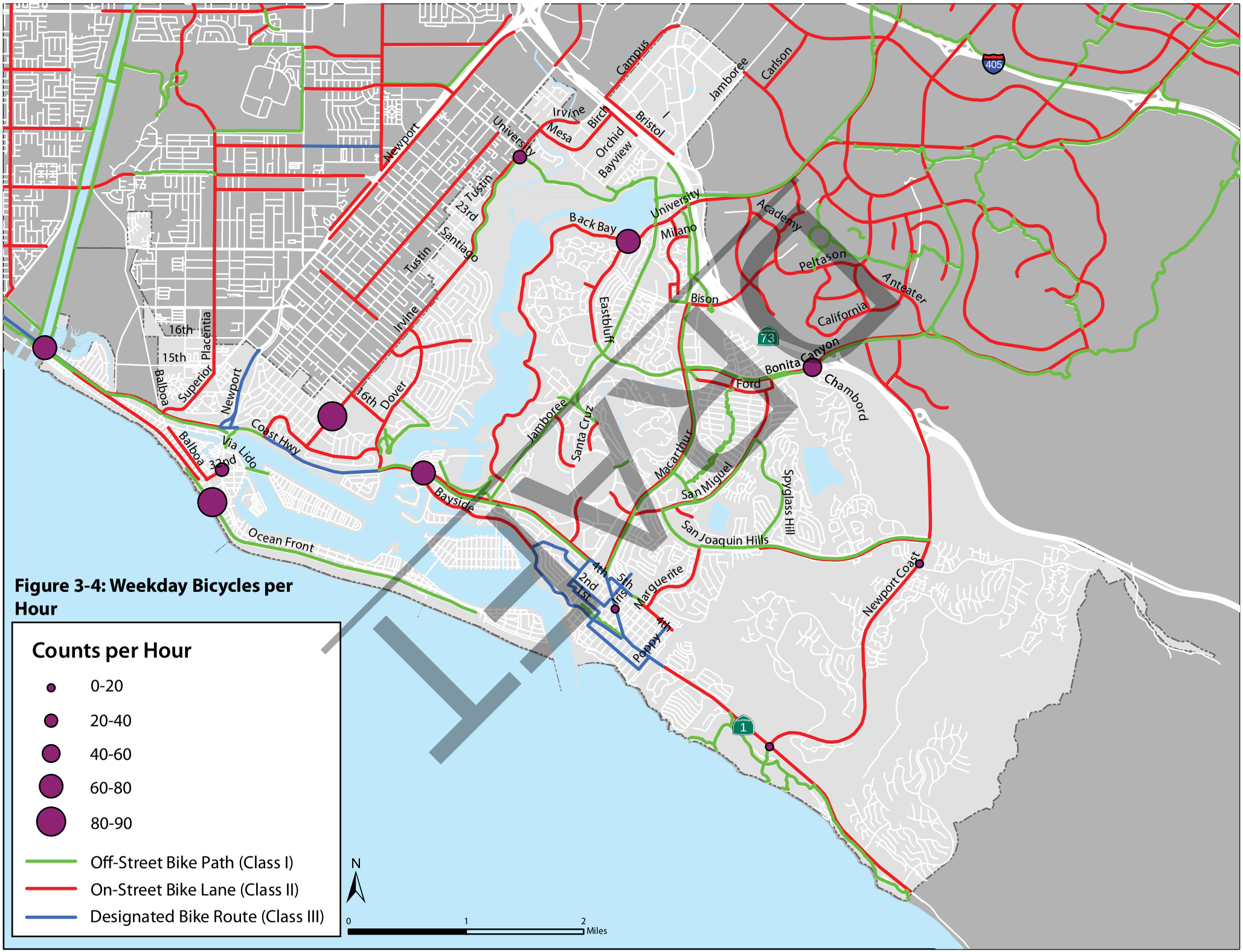


Figure 3-4: Weekday Bicycles per Hour

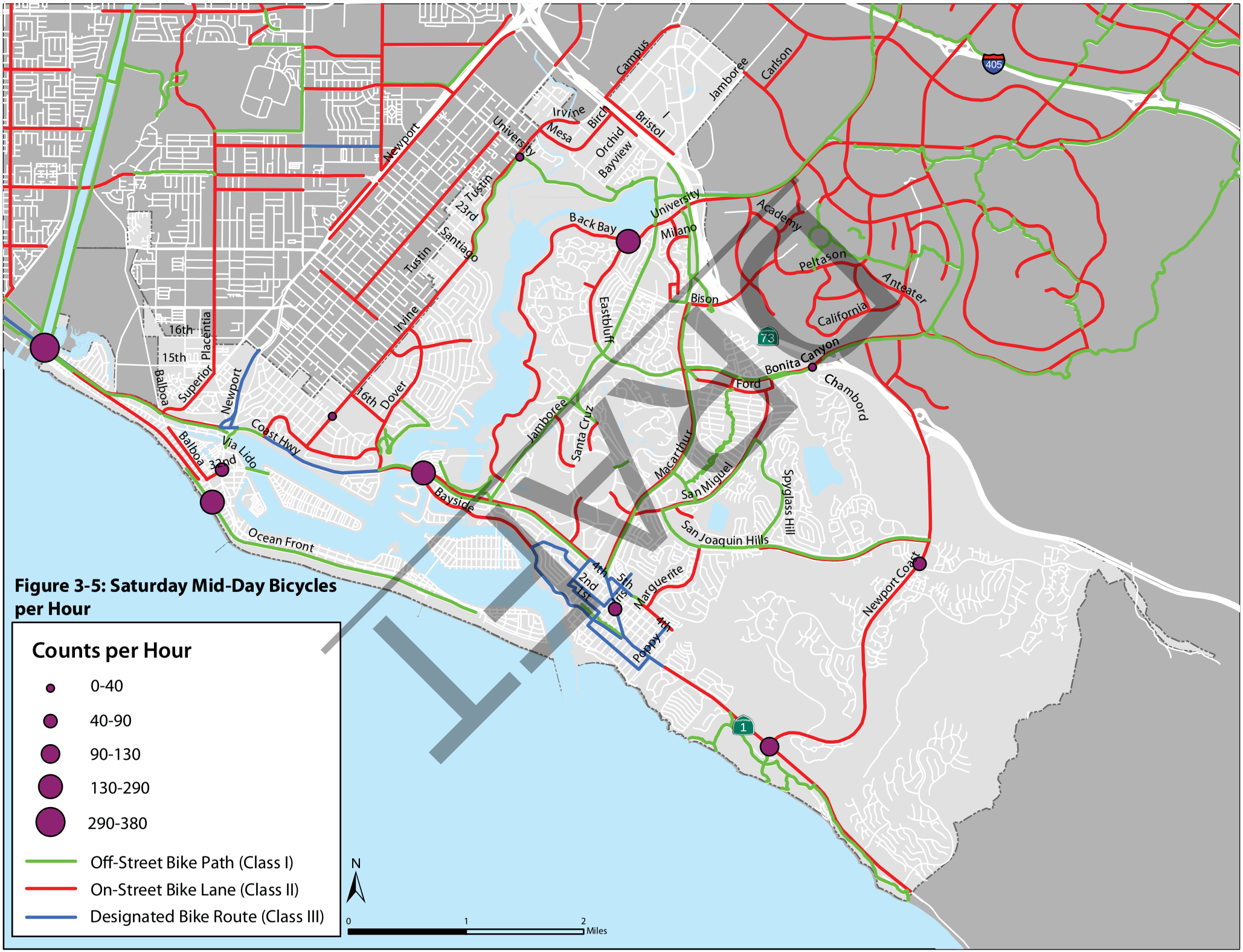


Figure 3-5: Saturday Mid-Day Bicycles per Hour

The results of the Newport Beach bicycle counts show that:

- The majority of the bicyclists counted were male adults (76%).
- Approximately three percent of the bicyclists were children under 13 years old.
- Bicycling is more common on the weekend than weekdays.
- The most popular areas for bicycling on the weekend are Coast Highway at Orange Street and Coast Highway at Bayside Drive.
- The most popular areas for bicycling during the week are Irvine Avenue at 15th Street and Ocean Front Trail at 28th Street.
- One quarter of bicyclists counted did not wear helmets, with higher percentages as the count locations nearest the beach.
- 24% of bicyclists counted were riding on the sidewalk.
- 2.4% of bicyclists counted were riding on the wrong side of the road.

Based on the count, Newport Beach's ratio of male cyclists to female is approximately 3:1. This ratio is consistent with count data and anecdotal evidence from cities throughout the country. While bike-friendly cities in Northern Europe have an even split between men and women (in some cases more women cyclists than men), in North American cities with limited bicycling infrastructure, the number of men is higher in all cases. In cities that strive to create a fully-integrated network of bike facilities such as Portland, Oregon or Montreal, the number of female cyclists has inched closer to male cyclists but continues to be approximately half of the gross number of men. The expectation in Newport Beach is that the ratio of men to women will, in time, begin to balance out as the number of traffic-tolerant female cyclists increase as bicycle infrastructure improvements are implemented.

The high percentage of bicyclists not wearing helmets suggests a potential lack of understanding relating to helmet usage or general noncompliance. Many bicyclists are casual in nature near or at the beach, and often were not wearing helmets. Many bicyclists were also counted riding on the sidewalks, which also suggests that many bicyclists are not aware of the rules of the road, although in some locations this is allowed. Location seven, Eastbluff Drive and Bayside Drive, has signage that indicates bicyclists are allowed on the sidewalks. Only 2.4 percent of bicyclists counted were riding on the wrong side of the road. These observations suggest that programs educating bicyclists on proper behavior and safety is necessary.

On the count forms, many counters made additional notes about their observations. Common observations included high vehicle speeds, distracted drivers, and large groups of cyclists.

3.5 Bicycle Collision Analysis

Safety is a major concern for current and potential bicyclists, and can influence the decision whether or not to bicycle. Potential bicyclists that do not have experience riding, especially in traffic, typically will not ride if they perceive the roadway as dangerous. People who do not ride often express frustration when drivers do not see them or do not understand that bicyclists are afforded the same rights as vehicles. Similarly, many bicyclists do not know or follow the "rules of the road." Uninformed or unlawful roadway users, as well as roadway designs, can lead to collisions.

This section reviews bicycle collisions from January 2008 to October 2013. The data shown in this section is from reported traffic collisions that have been reviewed by the Police Department. Table 3-12 presents the number of bicycle collisions in Newport Beach from 2008-2013. The most collisions occurred in 2011, and have decreased since.

Table 3-12: Bicycle-Related Collisions by Year

Year	Number of Collisions
2008	92
2009	107
2010	105
2011	113
2012	106
2013 (partial year)	99
Total	**622**

Note: 2013 bike collision data includes January-October only.

The roadways with the most collisions generally reflects the concerns of those who responded to the survey. Coast Highway had the most bicycle-related collisions from 2008-2013, and was the most mentioned as being uncomfortable for bicyclists in the survey. Table 3-13 displays the top 10 roadways with the most bicycle-related collisions based on collision data from 2008-2012 (excluding the partial year 2013 data).

Table 3-13: Highest Bicycle-Related Collision Roadways

Roadway	Number of Bike Collisions	Annual Average
Coast Highway	197	39
Newport Boulevard	51	10
Balboa Boulevard	50	10
Irvine Avenue	49	10
Jamboree Road	44	9
Bayside Drive	41	8
Dover Drive	34	7
Superior Avenue	29	6
Seashore Drive	27	5
Oceanfront Trail	23	5

Note: Based on 2008-2012 bike collision data.

Further analysis of the collision data reveals the highest percentage of bicycle-related collisions occurred on Saturdays, the second highest on Sundays. According to the survey, most bicyclists in the area bicycle for the purpose of recreation or exercise, which may be a reason that the highest percentage of bicycle-related collisions occurred on arterial roadways on the weekend. The bike counts collected illustrate the hourly averages for bicyclists are typically higher on Saturdays than weekday counts.

Table 3-14: Bicycle-Related Collisions by Day of the Week

Day of the Week	Percent of Collisions
Monday	13%
Tuesday	11%
Wednesday	14%
Thursday	11%
Friday	12%
Saturday	**21%**
Sunday	**18%**

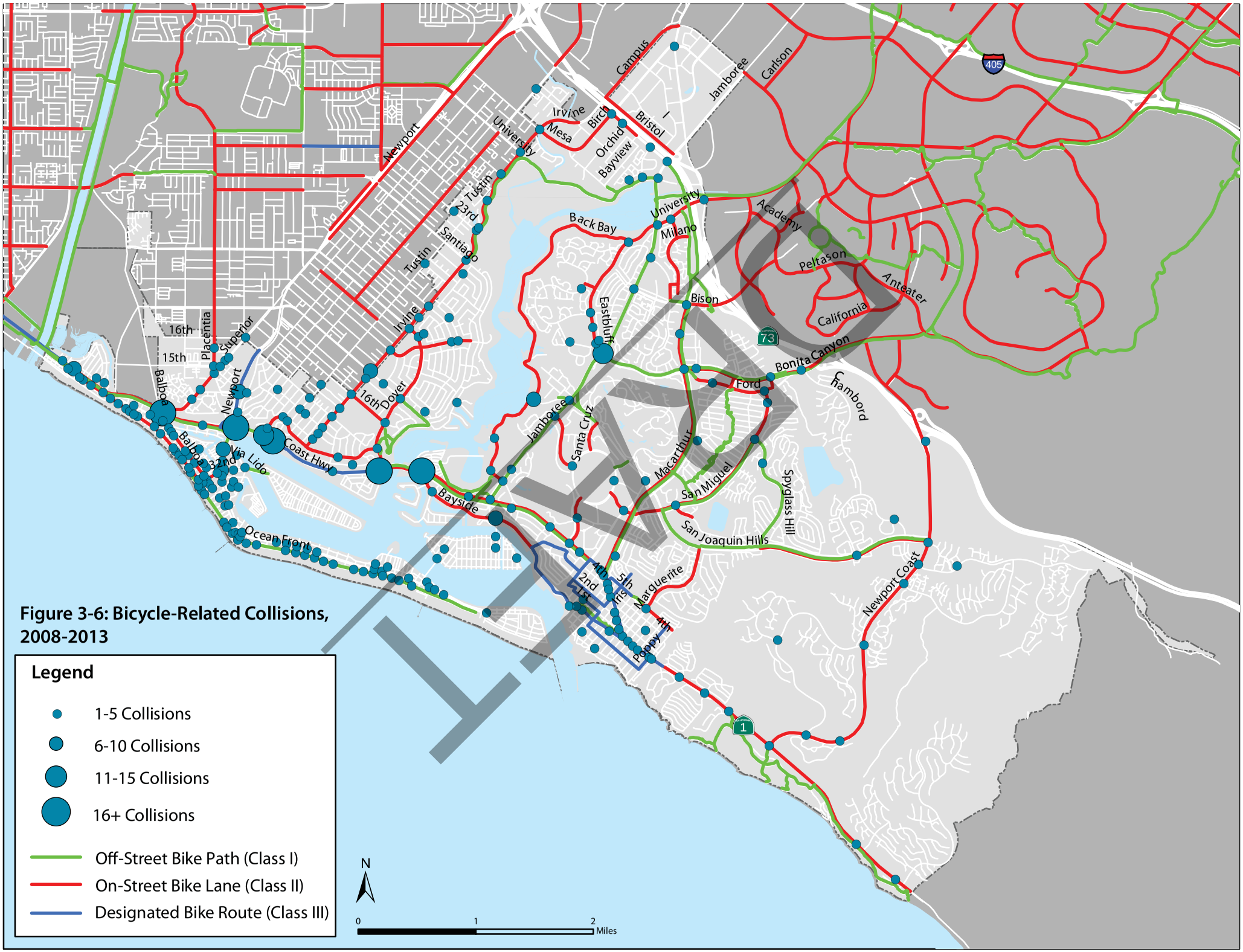


Figure 3-6: Bicycle-Related Collisions, 2008-2013

Legend

- 1-5 Collisions
- 6-10 Collisions
- 11-15 Collisions
- 16+ Collisions
- Off-Street Bike Path (Class I)
- On-Street Bike Lane (Class II)
- Designated Bike Route (Class III)

Appendix A: Locations Where Bicycles are Permitted on Sidewalks (City Council Resolution 82-148)

RESOLUTION NO. 82-148

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NEWPORT BEACH RESCINDING RESOLUTIONS NOS. 8504 AND 9241 AND STATING THE SPECIAL CIRCUMSTANCES FOR AND DESIGNATING LOCATIONS WHERE THE RIDING OF BICYCLES ON SIDEWALKS IS PERMITTED

WHEREAS, in June, 1975 and December, 1977, the City Council adopted Resolutions Nos. 8504 and 9241 designating the locations where the riding of bicycles was permitted; and

WHEREAS, Section 12.56.140 of the Newport Beach Municipal Code allows the City Council to designate, by resolution, specific sidewalks where bicycle riding is permitted; and

WHEREAS, bicycle riding on said specified sidewalks is permitted in order to:

1. Provide continuity along heavily travelled roadways having inadequate space for bicyclists; and
2. Provide for children and others too inexperienced to ride in heavily travelled roadways; and
3. Provide preferred routes to and from schools and recreation areas for children too inexperienced to ride in heavily travelled roadways; and

WHEREAS, the Citizens Advisory Bikeways Committee has recommended that additional locations be added to the presently designated areas where the riding of bicycles on sidewalks is allowed; and

WHEREAS, said locations have been reviewed and approved by the Traffic Affairs Committee and are set forth in legnth on Exhibit "A" attached hereto and incorporated herein by reference as though fully set forth at length herein.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Newport Beach that Resolutions Nos. 8504 and 9241 be and hereby are rescinded; and

BE IT FURTHER RESOLVED that the up-dated list of

locations where the riding of bicycles on sidewalks is permitted is that which is outlined on Exhibit "A" attached hereto and incorporated herein.

ADOPTED this 22nd day of November, 1982.

Jacqueline G. Heather
Mayor

ATTEST:

Wanda E Anderson
City Clerk

RSP-Bikes2

1.	Bayside Drive - southerly side	Harbor Island Drive to Marine Avenue
2.	Bayside Drive Park -	Carnation Avenue to Larkspur Avenue
3.	Bison Avenue - south side	Jamboree Road to MacArthur Boulevard
4.	Bristol Street - north side	Irvine Avenue to Jamboree Road
5.	Buffalo Hills Park	Ford Road to Harbor View Park
6.	Campus Drive - south side	Von Karman Avenue to Jamboree Road
7.	Cliff Drive - south side	Kings Place to Dover Drive
8.	Coast Highway - north side	57th Street to Newport Boulevard
9.	Coast Highway - north side	Dover Drive to Bayside Drive
10.	Coast Highway - south side	Santa Ana River to Riverside Avenue
11.	Coast Highway - south side	3,200 feet west of Dover (Sea Scout Base) to Avocado Avenue
12.	Dover Drive - east side	Cliff Drive to Coast Highway (including undercrossing at west end of Upper Bay Bridge)
13.	Dover Drive - east side	16th Street to Westcliff Drive
14.	Dover Drive - west side	Cliff Drive to Coast Highway
15.	Eastbluff Drive - west side	Back Bay Drive to Jamboree Road
16.	Eastbluff Drive - west side	Jamboree Road to northerly driveway Corona del Mar High School
17.	Ford Road - north side	Jamboree Road to MacArthur Boulevard
18.	Ford Road - south side	Jamboree Road to San Miguel Drive
19.	OASIS Park	Iris Avenue to Larkspur Avenue
20.	Harbor View Park	Buffalo Hills Park to San Miguel Drive
21.	Irvine Avenue - east side	Santiago Drive to University Drive
22.	Irvine Avenue - both sides	2,050 feet to 2,150 feet north of Mesa Drive
23.	Irvine Avenue - east side	Orchard Avenue to Bristol Street
24.	Irvine Avenue - east side	16th Street to Margaret Avenue
25.	Jamboree Road - east side	Coast Highway to Bison Avenue
26.	Jamboree Road - west side	Bayside Drive to Ford Road
27.	Jamboree Road - west side	Eastbluff Drive North to Campus Drive

28.	Lido Isle Bridge - north side	
29.	MacArthur Boulevard - west side	Bison Avenue to Ford Road
30.	MacArthur Boulevard - east side	Jamboree Road to Campus Drive
31.	Marguerite Avenue - east side	Inlet Drive to San Joaquin Hills Road
32.	Marguerite Avenue - west side	Harbor View Drive to San Joaquin Hills Road
33.	Newport Boulevard - east side	Via Lido north along southwesterly ramp to Coast Highway
34.	Newport Center Drive - west side	Coast Highway to Farallon Drive
35.	Ocean Front - south half of sidewalk	F Street to McFadden Place and westerly line Ocean Front parking lot to 36th Street
36.	Riverside Avenue - north side	Cliff Drive to 150 feet north of Avon Avenue
37.	San Diego Creek - south side	Jamboree Road to easterly City boundary
38.	San Joaquin Hills Road - north side	Jamboree Road to Big Canyon Drive (west)
39.	San Joaquin Hills Road - north side	Marguerite Avenue to 700 feet westerly
40.	San Joaquin Hills Road - south side	MacArthur Boulevard to Marguerite Avenue
41.	San Miguel Drive - west side	Port Sutton Drive to San Joaquin Hills Road
42.	San Miguel Drive - both sides	San Joaquin Hills Road to Avocado Avenue
43.	Santa Barbara Drive - south side	Jamboree Road to Newport Center Drive West
44.	Spyglass Hill Road - east side	San Joaquin Hills Road to El Capital Drive
45.	Spyglass Hill Road - west side	El Capitan Drive to San Miguel Drive
46.	Superior Avenue - east side	Coast Highway to Placentia Avenue
47.	Superior Avenue - east side	Dana Road to north City boundary
48.	Superior Avenue - west side	Coast Highway to Ticonderoga Street
49.	Von Karman Avenue - east side	MacArthur Boulevard to Campus Drive
50.	Westcliff Grove Trail	Dover Drive to Santiago Drive
51.	32nd Street - south side	Balboa Boulevard to intersection of Seashore Drive

EXHIBIT A

Appendix B: Bicycle Safety Guidelines Brochure

Same Road, Same Rules

The California Vehicle Code requires cyclists and motorists to follow the same rules of the road.

Safety Tips for Motorists

Bicyclists on public streets have the same rights and responsibilities as vehicle and motorcycle drivers. When driving, please remember to:

- Pass a cyclist as you would a slow-moving vehicle. Exercise caution and only pass when it's safe to do so.
- Don't "door" someone! Look carefully for cyclists before opening vehicle doors next to moving traffic or a bike lane, particularly in areas like Corona del Mar.
- Always check the bike lane or shoulder area for cyclists before turning (especially in Corona del Mar, Mariners Mile or along Bayside Drive). Remember: "Signal, mirror, head-check" when approaching the turn.
- Never attempt to overtake and pass a cyclist just before you make a right turn, and check the bike lane before making a left turn. A cyclist may be going faster than you think, particularly in downhill sections of the roadway.
- Use caution when approaching or passing a cyclist on exits from large streets such as Coast Highway, the 73 toll road, Mac Arthur Blvd., Jamboree Rd., and Newport Coast Drive. These are busy roads with many cyclists.
- Make a habit of expecting to encounter pedestrians and cyclists in the roadway.

Did You Know?

Motorists: Horn blasts can startle cyclists and cause an accident.

Motorists: Don't assume cyclists must always ride to the far right. The right-side "rule" varies with roadway conditions.

Motorists: It's always best to be patient when passing a cyclist and to remain behind the cyclist until you can, depending on the road conditions, safely clear the cyclist.

Cyclists: You are required to use bike lanes on roads that have bike lanes, but you may enter into the traffic lane to execute a left turn.

Motorists and Cyclists: When a traffic lane is too narrow for cars and bikes to ride safely side by side, bicyclists should ride near the center of the lane to prevent motorists from trying to pass too close within the lane.

Motorists and Cyclists: Use caution at driveways and intersections. A motorist pulling out of a parking space or turning may not see the cyclist. Bicyclists should always be alert and visible when riding on a highway.

Motorists and Cyclists: Make eye contact to acknowledge the presence of a cyclist or pedestrian and yield when appropriate.

**The California Department of Motor Vehicles provided much of the information and advice contained in this brochure.*

Safety Guidelines for Bicyclists & Motorists

City of Newport Beach
3300 Newport Blvd.
Newport Beach, CA 92663
www.newportbeachca.gov

Each year in California, more than 100 people are killed & hundreds of thousands more are injured in bicycle accidents.*

In Newport Beach, between 90 and 100 bicycle accidents occur annually (not all are due to traffic violations), and at least one person has been killed as the result of a bike accident each year since 2005. Statistics show that in a majority of all bike-related accidents in the city, the bicyclist was at fault.

The streets of Newport Beach carry thousands of motorists, bicyclists and pedestrians daily to home, work or recreational destinations. Each of these users has rights and responsibilities when using public streets. This brochure provides a brief overview of the legal obligations of bicyclists and motorists and offers safety tips to help keep you and others safe.

Under the California Vehicle Code, both motorists and bicyclists must abide by the same set of traffic laws including yielding to pedestrians in cross-walks, respecting the rules for bike lanes, and obeying all stop signs, traffic signals and speed limits. California Vehicle Code Division 11, Chapter 1, Article 4 details the laws applicable to bicycle use. Please visit www.ca.dmv.gov/ for more information.

**California Department of Motor Vehicles*

Safety Tips for Bicyclists

Always wear a helmet.
- Keep in mind that a simple fall can cause a life-threatening head injury.
- Get a helmet that fits properly and secure the strap.
- Make sure that children under the age of 18 always wear a helmet while riding. It's state law.

Maintain control of your bicycle.
- Ensure it is the right size and fit.
- Check your bike often to see that it is in good working order (brakes, chain, tires).
- Control the speed of your bike and allow ample space and time for stopping.

Ride defensively. Be visible, alert and communicate your intentions.
- Use your left arm to signal your intentions to drivers.
- Always be prepared to stop or to take evasive action.
- Be aware of vehicles at stop signs, in parking spaces and driveways that may suddenly pull out in front of you.
- Be vigilant. Vehicles that pass you may abruptly turn in front of you.

Ride with traffic.
- Travel in the same direction as traffic.
- Obey all traffic laws.
- Practice defensive riding.

Be Visible
- Wear clothing that is light or brightly colored.
- Make sure your bicycle is equipped with reflectors on the front, back, and wheel spokes.
- Add a light to your bike and use it when riding at night or when visibility is low.

Common Questions & Answers

How far to the right should I ride?
In general, ride on the right-hand side of the road, but not in the gutter. Do not ride too far to the right when a traffic lane is too narrow for a bicycle and a vehicle to be safely side-by-side, or when trying to avoid car doors opening, parked cars, or debris.

When should cyclists use the traffic lane?
If there is no shoulder or bike lane and the traffic lane is narrow, ride close to the center of the lane. You also use the center of the lane when riding at the same speed as the motor vehicles.

What about left turns?
When clear, move to the center of the outermost left turn lane so that you will be to the right when completing your turn. Yield to oncoming traffic.

Can bikes be in pedestrian crosswalks?
Walk your bike as a pedestrian. Obey signals and traffic control signs and yield to pedestrians.

Can I ride my bike on the sidewalk?
Yes, but only in certain areas. Look for the signs that say "OK for Bikes to be on Sidewalk".

Can I ride side-by-side with another cyclist?
Sometimes. Riding two abreast may be okay in bike lanes, bike paths and bike trails - where there is plenty of room.

Do all these rules apply to training or group rides?
Yes. Be very cautious in group rides where speed and competition occasionally surpass good sense. At traffic signals, the leader should slow and stop at a yellow light rather than risk having the rest of the group run a red light.

Appendix C: Citizens Bicycle Safety Committee 2012 Final Report

	TO: NEWPORT BEACH CITY COUNCIL **FROM: CITIZENS BICYCLE SAFETY COMMITTEE** **DATE: JANUARY 9, 2013**

REPORT ON 2012 COMMITTEE ACCOMPLISHMENTS

The Citizens Bicycle Safety Committee (Committee) held its first meeting on December 6, 2010, and has met monthly since then. In the creation of the Committee, the City Council set out a number of tasks for the Committee. This is the 2012 Annual Report to the Council on accomplishing those tasks.

The following are the activities prescribed:

1. **Produce an updated Web based map that would include facilities, safety information, points of interest, mileage and family friendly routes.**

    a. The draft GIS-based bicycle route map is available on the City's Web site for comment.

2. **Jointly develop and implement a plan to provide student bicycle safety outreach with the Newport Unified School District (NMUSD).**

    a. Consistent with the Committee's prior recommendations, the Newport Beach Police Department (NPBD) has been hosting bicycle rodeos at local schools.
    b. The Committee is studying the area between Newport Harbor High School and Ensign Middle School to identify ways to encourage safe bike riding to and from school.
    c. The Committee plans to invite/recruit members of the School Board to future meetings to further improve cooperation and safety.
    d. Future projects will reflect the Committee's desire to enhance bicycle safety around schools.

3. **Develop and implement programs to educate and promote safety and encourage bicycle use for health, recreation and alternative transportation.**

    a. The Committee thoroughly evaluated installing sharrows on Coast Hwy in Corona Del Mar (between MacArthur and Poppy) and recommended installation to the Council along with an outreach and education program. Sharrows were installed in Corona Del Mar in late October.

b. With support of the Committee and the Council's initiative, the City hosted a Bicycle Memorial Ride on October 28 following the tragic deaths of two residents and another serious injury. Over 1200 riders participated.
c. The City established a Bicycle Safety Improvement Fund that includes a 3 to 1 matching program. As of the date of this report, approximately $78,000 has been raised. Including the City Council approved three to one match, approximately $234,000, the Bicycle Safety Improvement Fund will totals approximately $312,000.
d. As part of its overall focus, the Committee is focusing on improvements that benefit casual riders and that create safe routes to the beach.
e. Working in conjunction with the NPBD, a new brochure on bicycle safety has been created.
f. The Committee has established a Subcommittee to address maintenance vehicles parked along Newport Coast Drive which create a safety hazard for cyclists.
g. Our regularly scheduled meetings are well attended by the general public where new information is widely disseminated. The local news media report to the broader community the latest news regarding bicycle matters. The LA Times, Daily Pilot, Corona Del Mar Today, O.C. Wheelmen, O.C. Bicycle Coalition and Charlie Gandy of Long Beach have attended our meetings.

4. Review the City's Bicycle Facilities network and provide input to City staff on maintenance.

a. As a result of the Committee's work, striping modifications have been implemented at several locations including Newport Center Drive, San Miguel Drive, Santa Barbara Avenue, Santa Cruz Drive, East Coast Highway, Bonita Canyon Drive, and Jamboree Road at East Coast Highway.
b. New bicycle signage has been installed at various locations along Coast Highway and Bonita Canyon Drive.
c. Coast Highway Alternate Bike Routes were created and signage was installed to provide alternate passage through Corona del Mar,
d. The City was awarded Orange County Transportation Authority Bicycle Corridor Improvement Grant funds. These funds will result in striping/signage improvements along Jamboree Road, San Joaquin Hills Road, Eastbluff Drive/Ford Road, and Spyglass Hill Road.
e. As a result of our regularly scheduled meetings and public comments, potholes have been filled, bumps have been leveled, raised pavement markers removed and trash/refuse removed. In addition, there is now a feature on the City's Web site for reporting road hazards.

5. Review the City's Bicycle Master Plan and provide recommendations to City Council for modifications and additions.

a. The Committee has proposed allocating additional resources to create a Bicycle Master Plan that would become a subset of the City's Circulation Element. The Master Plan would outline the City's bicycle infrastructure and program goals and include specific, measurable targets.

b. A copy of the Committee's recommendations for the Bicycle Master Plan is attached to this report as Appendix A.

6. **Review and prioritize the 18 recommended projects from the Task Force on Bicycle Safety Final report dated May 11, 2010, including potential locations for bicycle racks to promote bicycle usage.**

a. The Committee established a Focus Area Subcommittee to identify key areas in the City that warrant additional signage, striping, or other capital improvements.
b. The Focus Area Subcommittee identified the area leading from Newport Heights to the Balboa Peninsula as an area most in need of safety improvements.
c. The Focus Area Subcommittee evaluated and reported on three of the City's intersections with the highest rate of bicycle-involved incidents: Riverside Drive at Coast Highway, Newport Boulevard. at Via Lido, and Newport Boulevard at 32nd Street.
d. The Focus Area Subcommittee's Annual Report, outlining additional recommendations to the City Council, is attached to this report as Appendix B.
e. As a result of the Committee's work, striping modifications have been implemented at several locations including Newport Center Drive, San Miguel Drive, Santa Barbara Avenue, Santa Cruz Drive, East Coast Highway, Bonita Canyon Drive, and Jamboree Road at East Coast Highway..
f. City staff has obtained approval from Caltrans for striping and signage improvements along Newport Coast Road near the SR-73.
g. The Committee has determined that Corona Del Mar, Balboa Village, and Balboa Island are the three areas with the greatest need for additional bike racks.

During the past year, the Committee has accomplished a number of its goals. However, the installation of sharrows on Coast Highway in Corona Del Mar reinforces that additional safety improvements throughout the City are necessary, along with more education and outreach. The Committee needs more time to consolidate our efforts and ensure a solid foundation of bicycle awareness and safety for the future. Future projects may include installing sharrows in other parts of the City, creating a Bicycle Master Plan which is crucial for obtaining state grants, using existing and future funds for capital improvements, finalizing the City's bicycle map; working with the school district to develop safer routes to school; and soliciting input for a Complete Streets program.

Appendix A

City of Newport Beach Bicycle Master Plan

We, the City of Newport Beach Bicycle Safety Committee, see the need for a further dedication of City resources in order to create a comprehensive and focused Bicycle Master Plan. The current staff has been very responsive and helpful to the Bicycle Safety Committee in addressing Bicycle Safety Improvements. However, the current allocation of staff time (approximately 30-40% of one staff member's time) is not sufficient to meet the current needs of the bicycle safety needs of the community.

1. Overview – The City's existing General Plan Circulation Element includes a Master Plan of Bikeways and a number of policies intended to promote and enhance safe cycling throughout the City. We do not believe that these measures go far enough. The Committee therefore urges the City to allocate necessary resources (i.e., additional staff time and a budget for an outside consultant) to create a Bicycle Master Plan, which would ultimately become a subset of the existing Circulation Element or exist as a new stand-alone General Plan element. This Master Plan should outline the City's bicycle infrastructure and programs goals and include specific, measurable targets. The Master Plan of Bikeways can be intergraded into a Complete Streets Element once that program is developed by the City. Pending further discussion, one possible goal of the Master Plan would be to achieve Bicycle Friendly Community status by the League of American Bicyclists.

2. Guiding Principles – The guiding principles for the Bicycle Master Plan are very simple: (a) make cycling safer in the City of Newport Beach; and (b) encourage cycling for transportation and recreation purposes in the City of Newport Beach.

3. Guidance – The City staff or outside consultants charged with creating the Bicycle Master Plan should work closely with the City's existing Bicycle Safety Committee or a Master Plan Advisory Subcommittee thereof.

4. Master Plan Scope of Work – At a minimum, the Master Plan should include the following:

    a. Surveys - Conduct online surveys of, and convene community meetings with, the cycling public to scope Master Plan priorities and goals. To make efficient use of everyone's time, the community meeting(s) may occur during, or immediately following, a regular Bicycle Safety Committee meeting. The purpose of this outreach is to determine what it is people want the Master Plan to accomplish, and to gather their ideas on the most effective ways of achieving those goals.

    b. Funding – The Master Plan should be drafted with an eye toward funding, and specifically infrastructure funding from sources *other than* the City's General Fund (e.g., Caltrans and Measure M). Expertise in obtaining such finding

should be a prerequisite for the City staff person or outside consultant charged with drafting the Master Plan.

c. Existing Conditions – The existing conditions section of the Master Plan should include, among other things, a map showing proposed future bicycle facilities and routes along with current facilities, a description of the City's existing bicycle facilities, bicycle collision data, and expenditures for the last five years for bicycle facilities. It should also contain an audit of the City's existing bicycle facilities, noting where improvements are warranted.

d. Policies and Objectives – Like all General Plan elements, the Master Plan should include clear policies and objectives based on input from the public and the Master Plan Advisory Subcommittee. There should be an emphasis on measurable and quantifiable improvements (e.g. "Implement XX% of all recommended facility improvements by 2020.")

e. Education and Enforcement – Recognizing that cyclists are at fault in a number of accidents within the City, the Master Plan should include a section specifically discussing Education and Enforcement (e.g., in-school programs, NBPD enforcement drives, and City-sponsored bicycling skills courses.)

f. Implementation: Capital Improvement Program – In order to ensure follow-through on the recommendations made in the Master Plan, it should include a CIP section containing: (1) A consolidated list of all proposed bicycle improvement projects: (2) The priority or phasing for the implementation of each improvement; (3) The cost of each project and a cost per year for all projects to be implemented in the first five to ten years; and (4) The anticipated source(s) of funding for each project.

g. Regular Updates – In order to ensure that the content of the Master Plan does not become stale, it should build in annual review and update procedures to reflect new conditions through, for instance, regular reviews with NBPD

(Reference: *Bicycle Planning and Facility Design Best Practices*, October 2005, Sacramento Transportation & Air Quality Collaborative)

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Appedix B

Citizen's Bicycle Safety Committee
Focus Area Subcommittee 2012 Annual Report

A main task of the Citizen's Bicycle Safety Committee is to review existing bicycle infrastructure and identify improvements to promote cycling and encourage safe and responsible roadway use. To accomplish this task, the Focus Area Subcommittee was formed.

Review of bicycle-related incident records provided by the Newport Beach Police Department, showed the top three bicycle-related incident locations in the Newport Boulevard entrance to the Peninsula and within Newport Heights and mainly consist of casual cyclists. Considering this information, the Focus Area Subcommittee reviewed the locations and related the incident rate to peninsula and beach access from Newport Heights, with the Oceanfront path being the primary destination.

The following improvements are recommended by the Focus Area Subcommittee to enhance bicycle safety while promoting responsible cycling.

1. Southbound Riverside Drive – Stripe 6" Bike Lane Stripe adjacent to the parked vehicles.
2. Riverside Dr. at PCH – Add D 11-1 (Bike Route) Sign + M6-1(L) (Arrow) on the SEC Signal Pole to direct bike route users to the correct side of the street..
3. Add Bike Route Guide signs for the Bike Route under Newport Blvd. May need additional Guide Signs to reinforce the route.
4. Southbound Newport Blvd. south of PCH see if it is possible (enough room) to add a SB Bike lane as far as possible (up to 32nd St.).
5. Newport Blvd. at Via Lido – add guide signs for the Bikes to Cross Via Lido and then cross to the west side of Newport Blvd. Guide signs at the SEC Signal Pole(s).
6. Alley – Add Guide signs to direct Bikes to use the Alley as an alternative route to Newport Blvd. See if the short portion of the one-way alley can be used for two-way bike route.
7. Balboa Boulevard – add bike signage and/or sharrows between Newport Boulevard and Balboa Boulevard.
8. 32nd Street at Balboa Boulevard – remove corner parking spot by installation of red curb, restriping the westbound 32nd St. approach to relocate the bicycle lane, placing it between the through and right-turn lanes, and stripe a pathway through the intersection to either cross to Seashore Dr. or turn south to 31st St.
9. Install appropriate guide signs to direct the cyclist to the Oceanfront path.
10. PCH Westbound – add dashed Bike Lane Stripe from the Sterling Parking lot to separate bike lane from the right turn lane similar to what was done on PCH towards Newport Center.
11. PCH Eastbound - add dashed Bike Lane Stripe adjacent to the right turn lane similar to what was done on PCH towards Newport Center.

Further Staff review for roadway conditions and compliance with local, state and federal guidelines may be necessary. Additionally, some of recommended improvements are within State right of way and will require Caltrans approval.

Appendix D: Task Force on Cycling Safety Final Report 2010

TASK FORCE ON CYCLING SAFETY

FINAL REPORT

MARCH 22ND, 2010

In September, 2009, the Newport Beach City Council established the Task Force on Cycling Safety. As part of Resolution 2009-67, the committee was asked to:

- Improve safety of streets and highways for cyclists, including but not limited to additional bike lane designations and "Share the Road" signs.
- Suggest ways to encourage the cycling community to be fully respectful of autos, pedestrians and all traffic laws (including speed limits especially along Ocean Front Walk, Back Bay Drive and in Newport Coast, red lights, stop signs and their obligation to ride no more than two abreast during group rides.
- Suggest ways to encourage auto drivers to respect cyclists' rights to use roads, including education programs using existing City publications.

The Task Force was made up of six citizens, all avid cyclists (Sean Matsler, Daniel Murphy, Francis Peters, Jr., Anthony Petros, James Sweet and John Tzinberg) and three City Council members (Nancy Gardner, chair, Leslie Daigle and Don Webb). Staff support was provided by Sharon Wood, later replaced by John Kappeler, and Kim Rieff). Other participants included the city's traffic engineer, representatives of the Police Department, the public information officer, representatives of the Orange County Bicycle Coalition and various members of the public.

Meeting every other week, the group researched the California Vehicle Code (CVC), the Manual on Uniform Traffic Control Devices (MUTCD), OCTA resources, other state and regional guidelines and regulations, published research from other transportation professionals and cycling programs in other cities. Additionally, members of the committee offered their own personal and professional experience and knowledge to create the following report. The Task Force is aware of the City's finite resources, but urges that these recommendations be a priority. The Task Force also recommends a city bicycle committee be established with a mission of outreach and coordination with similar efforts throughout the state and of researching available grants for cycling programs.

1. EDUCATION AND OUTREACH

Safety for all users of the public rights of way is of paramount importance to the City of Newport Beach. Drivers need to understand the rights of cyclists, and cyclists need to

understand the importance of riding safely. This is a matter of education, and from the beginning, it was clear that there were a number of different markets to be targeted: serious cyclists, bike commuters, recreational cyclists, families, students and visitors. To reach these different audiences, a variety of media and messages will be necessary. The following tools, not in any priority, are suggested for City Council consideration:

A. Bike Map indicating the various existing bike routes within the city. This would be available at bike shops, city venues including libraries, hotels and other visitor destinations and spots where cyclists congregate as well as on line. A cell phone application (app) for iPhone and others should also be considered. Ideally, such a map would include:

1. "Family friendly" alternate routes for areas such as PCH through Corona del Mar
2. Statistics such as individual and overall route mileage
3. Color coordination with maps of other jurisdictions keying off th e County of Orange map.
4. Safety instructions and Rules of the Road (Attachment A)
5. All existing bicycle facilities connecting to and traveling through Newport Beach. This would include all Class I bike paths, Class II bike lanes and Class III Bike routes and other facilities supporting bicycle travel.
6. Significant land uses and landmarks relevant to multimodal travel.

B. Dissemination of Safety Information through media such as:

1. City's web site and e-alerts.
2. NBTV program on bike safety
3. E-mail blasts to bicycle clubs
4. PSA's at Council, Planning Commission and Parks, Beaches and Recreation Commission meetings
5. City-sponsored bike safety days

C. School Participation can be encouraged by providing information about:

1. Police Department bike safety classes for students
2. Collaboration between the City and the school district in the identification of safe routes to schools (Attachment B)
3. Encourage the school district to implement a plentiful supply of bike racks at schools.

D. Update City's Master Bike Plan to include the existing but undesignated connection over San Diego Creek from Jamboree to the bridge.

E. Update City's Bicycle Trails Map to be used as the Bike Map in Item A, including adding:

1. Newport Coast including Vista Ridge, Ridge Park and Pelican Hills Road
2. Castaways
3. Crystal Cove State Park
4. San Diego Creek to Bayside
5. Jamboree Road Bridge to Balboa Island
6. Reinforce Back Bay Loop Trail

F. Joint Meeting With Police and Bicycle Advocates to deal with the perception by cyclists that motorists are unaware of laws affecting cyclists and that law enforcement is not sensitive to cyclists. This could include:

1. Consideration of training similar to Los Angeles Police Department highlighting cycling laws, regulations and contemporary planning and engineering practices
2. Task Force recommends the City Council consider a joint meeting with the Police Department and cycling groups to discuss perspectives on law enforcement and bicycle safety.

2. ROAD IMPROVEMENTS

The Task Force identified areas where it felt that the interaction of auto traffic and bike traffic could be improved. Some are simple, some innovative, none expensive. The Task Force recommends the City Council consider implementation of the following capital improvements, again in no order of priority:

A. Improved Signage

1. More "Share the Road" signs in locations consistent with the MUTCD guidelines
2. More signs showing sanctioned and alternate bicycle routes

B. Sharrows Program –Bicyclists have the same rights as cars on roads. Sharrows, which are being used in a number of cities including Long Beach, are a way of reinforcing what is already legal by unique pavement markings (see Attachment C).

1. The Task Force recommends the City Council direct staff to develop engineering guidelines to define roadway conditions and environmental characteristics (i.e. traffic volume, adjacent land use, traffic speeds, on-street parking, etc.) that are appropriate for the implementation of sharrows in Newport Beach. Criteria should also be developed for the evaluation of any sharrow program which balances the needs of motorists and cyclists.
2. Based on the guidelines, implement a Sharrows demonstration project to be completed within one year of acceptance of the Task Force recommendations. The design of the demonstration project should consider all recognized types of sharrow markings and/or striping. Awareness should be given to the type of paint used to minimize hazards when wet.

3. If the demonstration program is deemed successful by Public Works staff and the City Council, develop a list and map of suitable locations and an implementation schedule to expand the sharrows to other appropriate streets. One particular site discussed as a potential for sharrows by the Task Force was PCH through Corona del Mar.

C. **Focus Areas** are those areas which the Task Force believes could be improved to coordinate a more efficient and shared use of the public right of way. Depending on the area, the shared use may be improved with signage, bike lanes, sharrows, striping, etc. Attachment D provides a preliminary list.

1. Complete list of Focus Areas and determine appropriate action
2. Select one of the listed free right turn lane locations along PCH as a demonstration project for an innovative striping plan. MacArthur, being within the City's jurisdiction, is recommended.

3. ENCOURAGING CYCLING

Cycling is a sustainable form of transportation. It is good exercise, can reduce vehicular congestion and emissions and is something that fits well into the Newport Beach lifestyle with its great year-round weather and relatively level topography. Several actions have been identified by the Task Force to encourage cycling:

A. Bike Racks

1. Establish a policy requiring bike racks for development of a certain size and for all public development.
2. Identify and rectify current areas of bike rack deficiency (Attachment E)
3. Insure that bike racks are well-designed and consider developing a unique design and/or color scheme for the City.
4. Consider permitting commercial signage on racks as a funding source.

B. Day without Cars

1. Consider declaring a "Day Without Cars" and work with residents and schools to highlight. Coordinate with Bike-to-Work-Week, May 17-21.

DEADLINES

The Task Force respectfully requests that for those suggestions which Council accepts, deadlines be established so that progress can be monitored.

ATTACHMENT A--SUGGESTED MAP LANGUAGE

NO MATTER WHAT YOUR MEANS OF CONVEYANCE, BE COURTEOUS TO OTHERS ON THE ROAD. OBEY ALL TRAFFIC SIGNS AND SPEED LIMITS.

BICYCLE EQUIPMENT

HELMETS
Bicycle helmets are required for anyone under 18 years of age both as riders and passengers. Helmets are strongly encouraged for every rider.

TIRES
Be sure there are adequate tread and no physical defects that might cause failure. Always carry a spare tube and air in case of a flat, and be sure that you are in a safe place when changing a flat.

SEAT
The seat should be firmly attached. A good test is to pick up the bicycle by the seat. If the seat creaks, the seatpost may be broken. Get it fixed.

CLOTHING
Wear easily visible colors like yellow and lime green. Control loose slacks with a pants clip or rubber band.

RULES OF THE ROAD

Always ride with the flow of traffic. Where there is a bicycle lane or trail, cyclists should ride in that lane.

POSITION
In general, keep to the right. Where there are parked cars, ride far enough away to avoid being hit by an opening door. On narrow roads with no shoulder or bike lane, ride closer to the center of the lane to prevent motorists from passing when there is insufficient room.

STOP SIGNS AND TRAFFIC LIGHTS
Obey all stop signs and signal lights.

HAND SIGNALS
Signal before you turn or change lanes. Check to make sure that motorists and other cyclists have seen the signal.

RIGHT TURNS
Stay in the right-hand lanes of both streets. Be careful of cars turning in front of or into you.

LEFT TURNS
Use designated left turn lanes, but never from a lane where a car to your left might proceed straight. If uncomfortable using the left-turn lane, make a pedestrian-type turn from the right lane.

SIDEWALKS
Bicycles cannot be ridden on sidewalks except where signs are posted permitting such.

The map indicates such sidewalks in (color). If you are riding on a permitted sidewalk, remember that pedestrians have the right of way.

IMPEDING FLOW

Never leave a bicycle lying on its side or parked on a sidewalk so as to impede pedestrian traffic.

PACKAGES

Don't carry packages that prevent you from keeping at least one hand on the handlebars at all times.

IN GROUPS

Don't ride too close or with your front wheel next to the rear wheel of the bike in front of you. Ride two-abreast at most, and only where there is a clear bike lane. If the road narrows or the bike lane goes away, ride single file. Make sure that the group leader crosses through signals in a manner that allows all cyclists in the group to pass without the back riders running a red light.

RIDING AT NIGHT

If you ride in the dark you are required to have a lamp that illuminates at least 300 feet in front and from the side, a red reflector visible from a distance of 500 feet, a white or yellow reflector on each pedal, shoe or ankle visible for 200 feet, and either front reflectorized tires or a white or yellow reflector on each side to the front and rear.

CELL AND EAR PHONES

Don't ride and talk. If you need to make a phone call, pull to the side of the road. Do not use ear buds that mask road noises.

FOR DRIVERS

Remember that cyclists have the same rights and responsibilities as motorists.

Share the road

Look carefully for cyclists before:

- Turning right
- Merging into bicycle lanes
- Opening your car door next to moving traffic.

Give at least a three-foot space when passing a cyclist.

ATTACHMENT B--SCHOOL RESOURCES

Safe Routes to School National Partnership, http://www.saferoutespartnership.org/

California Safe Routes to School, www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm

National Center for Safe Routes to School, www.saferoutesinfo.org

Federal Safety Routes to School Program, http://safety.fhwa.dot.gov/saferoutes/

National Highway Traffic Safety Administration, http://www.nhtsa.gov/

Safe Routes to School Guide, www.saferoutesinfo.org/guide

Pedestrian and Bicycle Information Center, www.pedbikeinfo.org

Local Assistance Procedures Manual & Local Assistance Program Guidelines, www.dot.ca.gov/hq/LocalPrograms/public.htm

ATTACHMENT C--SHARROWS

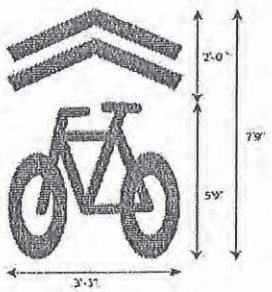
Shared Lane Markings (aka "sharrows")

Sharrows are painted pavement markings that indicate a lane or road is shared by cars and bicycles. As explained in the February, 2004 San Francisco Shared Lane Marking Study:

"Traffic curb lanes on signed/shared Class III bikeways (a.k.a. 'signed shared roadways' in other states) are often too narrow to be safely shared side-by-side by cyclists and passing motorists. On these routes, cyclists wishing to stay out of the way of drivers often ride too close to parked cars and risk being struck by a suddenly opened car door (being 'doored'). To avoid this, experienced cyclists ride further to the left and position themselves closer to the center of narrow lanes. This is permitted by the California Vehicle Code (C.V.C. 21202), but it often irritates motorists who are not aware that this is permitted. Many cities have experimented with a 'shared lane marking' as a potential solution. The marking does not connote a separated bicycle lane, but instead directs the bicyclist to travel outside the car door zone and encourage safe co-existence."

San Francisco's study had a number of goals: to improve the position of both motorists and bicyclists on roadways without bicycle lanes, reduce aggressive motorist behavior and encourage correct bicyclist riding behavior. The city also looked to sharrows to inform motorists to expect bicyclists on the roadway; to inform motorists that bicyclists may indeed legally ride further to the left in the travel lane, even if that means blocking the lane at times; to inform bicyclists how to position themselves in the lane with respect to the curb or parked cars to avoid hazards. The city found that shared lane pavement markings had a positive impact on motorist and cyclist behavior, positions, and safety. These results were complementary to a 1999 Florida study (Florida Department of Transportation, *Evaluation of the Shared-Use Arrow*).

The February, 2004 San Francisco study found that the bike-and-chevron marking (example) had a stronger impact and reduced wrong-way riding. This is the marking that the Task Force recommends:



ATTACHMENT D—FOCUS AREAS (not in any priority)

1. **PCH at Newport Coast Drive**
   FOCUS AREA: The 'free' right turn on northbound PCH onto Newport Coast presents a challenge for cyclists. Northbound cyclists wishing to continue traveling along PCH must move left as traffic accelerates onto Newport Coast. Likewise, Newport Coast traffic merging onto northbound Coast Hwy complicates cyclists moving past the intersection.
   POSSIBLE IMPROVEMENT: Add signage "Yield to Bikes:" add green colored bike lane for cyclists continuing northbound or other innovative striping for cyclists continuing northbound.
2. **PCH through Corona del Mar**
   FOCUS AREA: Narrow
   POSSIBLE IMPROVEMENT: Sharrows if warrants are met; alternate routes
3. **PCH at MacArthur**
   FOCUS AREA: The 'free' right turn on northbound Coast Hwy onto MacArthur presents a challenge for both pedestrians and cyclists. Northbound cyclists wishing to continue traveling along Coast Hwy must move left as traffic accelerates onto MacArthur. Likewise, MacArthur traffic merging onto northbound PCH complicates cyclists moving to the right lane.
   POSSIBLE IMPROVEMENT: Add signage "Yield to Bikes;" add green colored bike lane or other innovative striping for cyclists continuing northbound
4. **PCH and Jamboree**
   FOCUS AREA: Northbound cyclists wishing to continue traveling along Coast Hwy must move left as traffic accelerates onto Jamboree. Likewise, Jamboree traffic merging onto northbound Coast Hwy complicates cyclists moving past the intersection.
   POSSIBLE IMPROVEMENT: Add signage "Yield to Bikes;" add green colored bike lane or other innovative striping for cyclists continuing northbound
5. **PCH at Dover**
   FOCUS AREA: Northbound cyclists wishing to continue traveling along Coast Hwy must move left as traffic accelerates onto Dover. On the southbound side of Coast Hwy at the bus stop, the sidewalk/curb juts into the path of continuing cyclists forcing them into the traffic lane.
   POSSIBLE IMPROVEMENT: Add signage "Yield to Bikes"; add green colored bike lane or other innovative striping for cyclists continuing northbound; on the southbound side, move the sidewalk to allow uninterrupted bike path.
6. **PCH through Mariner's Mile**
   FOCUS AREA: Narrow
   POSSIBLE IMPROVEMENT: Sharrows, if warrants are met; alternate routes
7. **PCH and Newport Blvd.**
   FOCUS AREA: Cyclists wishing to continue northbound along PCH must move left as traffic turns onto Old Newport Blvd. The next challenge is auto traffic merging onto southbound Newport Blvd.

POSSIBLE IMPROVEMENT: Add signage "Yield to Bikes;" at both locations add a green colored bike lane or other innovative striping for cyclists continuing westbound

8. **PCH near Santa Ana River**
   FOCUS AREA: bicyclists traveling southbound from the SAR conflict with pedestrians trying to cross the street.
   POSSIBLE IMPROVEMENT: a curb cut to allow transfer from the sidewalk trail to the on-street bike lane before the Orange Street intersection
9. **Vista Ridge, Ridge Park**
   FOCUS AREA: drivers unaware of cyclists and their speed
   POSSIBLE IMPROVEMENT: Signs including share the road and watch downhill speed, add bike lanes.
10. **Bayside from Carnation to El Paseo Dr**
    FOCUS AREA: Narrow
    POSSIBLE IMPROVEMENT: Share the Road sign
11. **Bayside between PCH and Jamboree/Marine**
    FOCUS AREA: cyclists enjoy a newly painted bike lane that ends as the road narrows. Access to the bike path on the sidewalk is prevented due to the curb.
    POSSIBLE IMPROVEMENT: Cut the curb to allow easy access to the sidewalk bike path. Also, extend red curb paint to prevent parked cars from encroaching on this new curb cut. Consider this as a potential area for sharrows.
12. **Bayside Drive and trail near Dunes entrance**
    FOCUS AREA: visibility of vehicles exiting Dunes
    POSSIBLE IMPROVEMENT: Bike Crossing sign, trim landscaping
13. **Back Bay Drive/PCH/Bayside**
    FOCUS AREA: Coming off the bike trail and transferring to heavy-traffic roads.
    POSSIBLE IMPROVEMENT: Add signs at Bayside and Coast Hwy directing cyclists heading to the beach to travel along Bayside to Balboa Island and the ferry.
14. **Back Bay Drive near Park Newport**
    FOCUS AREA: visibility
    POSSIBLE IMPROVEMENT: warning signs, striping.
15. **Dover south of 16th Street and Cliff, between 15th and 16th**
    FOCUS AREA: narrowing of bike lane
    POSSIBLE IMPROVEMENT: revise edge striping
16. **W Balboa Blvd, between 23rd and 21st Streets**
    FOCUS AREA: Southbound cyclists on Balboa Blvd. must quickly cross two traffic lanes to continue their progression on Balboa Blvd
    POSSIBLE IMPROVEMENT: Add Share the Road sign
17. **Bayside Drive at Dunes Entrance**
    FOCUS AREA: Left hand turn from northbound bike trail on to westbound N. Bayside Drive presents a conflict with eastbound N. Bayside Drive autos
    POSSIBLE IMPROVEMENT: signage (for cyclists and motorists), speed bumps, striping/street paint, and a parking red zone on the south frontage of N. Bayside

Drive.

18. **Superior Ave approaching PCH**
    FOCUS AREA: Bike lane is interrupted, leaving cyclists uncertain as to their position
    POSSIBLE IMPROVEMENT: Dotted line to indicate correct lanes for the various directions.

The Task Force recognizes and fully understands that each of the Focus Areas and possible improvement will need further research and study by professional traffic engineers to determine the feasibility thereof.

ATTACHMENT E--BIKE RACKS

AREAS LACKING BIKE RACKS OR NEEDING ADDITIONAL RACKS

- The Wedge
- Big Corona
- Most city parks
- Newport Pier
- 15th St. and Boardwalk
- 28th St. and Boardwalk
- Orange and PCH
- Seashore Dr. at 57th St.
- Corona del Mar and Balboa Island business districts

TYPES OF BIKE RACKS

The most common types of bike racks such as the wavy ribbon style are relatively inexpensive but are often viewed as inefficient and difficult to use. For examples of different ideas and suggestions on how and where to use them, the following are helpful:

Vancouver's Bike Rack Planning Booklet, http://www.bv.com.au/bike-parking/43450/

http://www.commercialappeal.com/news/2009/apr/11/functional-art/

http://www.ameribike.com/catalog/racks/rack-intro.html

www.labikeplan.org

Appendix E: Rental Shop Survey Report 2012

Memo

To: Mayor Gardner and Newport Beach Bicycle Safety Committee

From: Committee Member Michael Alti

Cc: Brad Sommers

Date: 09/27/2012

Re: Survey of Newport Beach Bicycle Rental Shops

Conclusions and Recommendations.

- Almost all rental shops in Newport Beach are located on the Balboa Peninsula. Renters tend to ride along the bicycle path on the Oceanfront, which decreases their exposure to automobile traffic and possible collisions with automobiles.
- All rental shops surveyed reported no history of bicycle/automobile collisions, and any other prior accidents were not serious.
- The rental shops and their customers do not appear to pose any major bicycle safety issues.
- Providing renters with very simple safety instructions may help overall safety and improve the perception that motorists have of cyclists. However, since most renters stay along the bicycle path away from cars, the impact would be minimal.
- Additional police enforcement of the stops signs where the bike path and Palm Street intersect is needed.

Background. Newport Beach has at least a dozen bicycle rental shops. Nearly all rental shops are located on the Balboa Peninsula, clustered around both the Newport Pier and the Balboa Pier/Fun Zone. Given their location on or next to the bicycle path along the Oceanfront, these rental shops typically rent out only beach cruisers, tandem bikes, and surreys. Bike Religion, located on Riverside Drive, is an exception, and it serves a completely different clientele, renting out high end road bikes.

Survey. During the past week, I interviewed owners and/or representatives of 8 of the rental shops on the Peninsula. The purpose of the survey was to (1) determine safety measures or instructions provided by the shops, (2) obtain demographics or

statistics about customers of these shops and any history of accidents, (3) determine their impressions of bicycle safety in Newport Beach.

Statistics and Demographics. None of the bike rental shops maintained any hard statistics about their customer base. For the most part, customers were from Europe, other parts of America including the East Coast, and other parts of California. Local residents from Newport Beach did not appear to comprise a significant portion of renters. The owner of Newport Cruisers, located at 2233 W. Balboa, estimated that at least 30% of her renters are from the Inland Empire. None of the shops reported any prior accidents involving bicycles and automobiles. Most of the shops in fact reported no prior accident history, and any accidents that were mentioned (such as a rider falling off their bike) were not serious.

Safety Instructions and Measures.

- General Directions. As most renters are not from Newport Beach and are not that familiar with the area, most rental shops advise their customers to stick to the bicycle path along the Oceanfront and avoid other parts of Newport Beach such as Coast Hwy. Some of the shops provide a free tourist map with an overview of the Peninsula and explain that the bicycle path extends through Huntington Beach. Essentially, most renters stay along the Oceanfront, which means that the possibility of collision with an automobile is minimal (with exceptions such as through the parking lot near the Newport Pier).

- Helmets. All of the rental shops interviewed provide a free helmet to customers (generally optional to adults, and mandatory to those under 18 as required by law). None of the shops charge an additional fee for a helmet.

- Instructions. Most shops do not provide any formal or written set of instructions. Some shops generally instruct renters not to ride on the sidewalk and to use common sense.

- Waiver Forms. Some of the shops did not require signing any waiver forms. Most waiver forms I reviewed did discuss helmets and generally abiding by the law. Specific safety instructions, such as not to ride on the sidewalk, were not provided in writing. Some of the waiver forms did state that surreys are not allowed on the boardwalk, sidewalks, and piers per City ordinance.

Additional Remarks.

- Palm Street. Several of the representatives of the shops located near the Balboa Pier/Fun Zone remarked that many bicyclists (and many motorists) do not adhere to the stop signs along the bike path at Palm Street. Some observed having seen accidents (and near accidents) at this location. The Police Department should consider additional enforcement at this location.

Appendix F: Bicycle Facility Improvement Project Summary

BICYCLE FACILITY IMPROVEMENT PROJECT SUMMARY
November 26, 2013

PLANNED PROJECTS		
TITLE/DESCRIPTION	**ESTIMATED COMPLETION DATE**	**ESTIMATED PROJECT COST**
Newport Blvd Modification - Via Lido to 30th St		
This proposed project would widen Newport Boulevard by adding one additional northbound through lane from 30th Street to 32nd Street and one additional southbound through lane from Via Lido to 32nd Street. The project will also extend the existing on-street bicycle lanes from Via Lido to 32nd Street, connecting with the recently installed bike lanes on 32nd Street; construct new landscape medians and street lighting and modify existing traffic signals. Consulting services will be used for the design of this project.	FY 15/16	$2.5-5.3M
West Coast Hwy at Old Newport Blvd (Arches Interchange) Modification		
This proposed project involves widening the westbound side of West Coast Highway at Old Newport Boulevard to accommodate a third through lane, a right turn pocket and a bicycle lane. Old Newport Boulevard might be realigned to maximize the right turn pocket storage length and improve roadway geometrics. Lane striping and the addition of an on-street eastbound bicycle lane through the interchange will also be evaluated as part of the project. Consulting services will be used for the design of this project.	FY 15/16	$1.9M
On-Street Bike Lanes on Jamboree Rd, San Joaquin Hills Rd and Spyglass Hill Rd		
This project will install striped on-street bike lanes along Jamboree Road, San Joaquin Hills Road and Spyglass Hill Road. Staff has applied for, and received approval for grant funding through the Bicycle Corridor Improvement Grant Program (BCI) for this project. Local, State and Federal project plan approval are required. Consulting services will be used for the design of this project.	FY 13/14	$215,000 (Grant Funded w/ 13% City Match)
On-Street Bike Lanes on Eastbluff Drive/Ford Road		
This project will widen the south side of Eastbluff Drive at Jamboree Road and modify the roadway striping to install an on-street bike lane on Eastbluff Drive and Ford Road from Vista Del Oro to MacArthur Boulevard. This project is incorporated into the Bicycle Corridor Improvement Grant Program (BCI). Construction cost is estimated at $270,000. Staff has applied for, and received approval for grant funding through the Bicycle Corridor Improvement Grant Program (BCI) for this project. Local, State and Federal project plan approval are required. Consulting services will be used for the design of this project.	FY 13/14	$270,000 (Grant Funded w/ 13% City Match)

PLANNED PROJECTS (Continued)		
TITLE/DESCRIPTION	**ESTIMATED COMPLETION DATE**	**ESTIMATED PROJECT COST**
Newport Heights/Peninsula Bicycle Improvements		
This project is in the conceptual phase, considering installation of bicycle route related warning and regulatory signage, as well as roadway striping and markings along bike routes from Newport Heights to the Balboa Peninsula, including Cliff Drive, Riverside Avenue, Coast Highway, Newport Boulevard. The recently installed bike lanes on 32nd Street were previously part of this project.	FY 13/14	TBD
Newport Coast Bicycle Warning Signs		
This project will install standard bicycle warning signs on Ridge Park Road and Vista Ridge Road to inform motorists of possible bicycle activity.	FY 13/14	$1,200
Peninsula Point Bike Improvements		
This project is in the conceptual phase, considering the installation of bicycle markings and signage to Balboa Boulevard between Main Street and G Street.	FY 13/14	$5,000
Avocado Ave and Basyide Dr Bike Facility Improvements		
This project is incorporated into the FY 13/14 pavement rehabilitation project and will install bike lanes on Avocado Avenue from Coast Highway to San Miguel Drive. This project will also reinstall Sharrows on Bayside Drive and extend markings from El Paseo Drive to Marguerite Avenue.	FY 13/14	TBD
City-Wide Bicycle Route Map		
A draft GIS-based bicycle route map using City resources has been prepared. The map is currently posted on the City website and staff is soliciting comments/questions. This item may require additional resource allocation from the GIS Division. Consulting services may be necessary to publish hard copies of the map. This project has been incorporated into the Bicycle Master Plan Project.	TBD	TBD
Newport Coast Drive Improvements		
This project is in the conceptual phase, considering additional signage, striping and roadway improvements, and maintenance pull-outs to enhance vehicle, pedestrian and bicycle interaction on Newport Coast Drive from Coast Hwy to San Joaquin Hills Road. This item may require additional resource allocation from the Municipal Operations Department.	TBD	TBD

PLANNED PROJECTS (Continued)		
TITLE/DESCRIPTION	**ESTIMATED COMPLETION DATE**	**ESTIMATED PROJECT COST**
Comprehensive City-wide Bicycle Master Plan		
This project will develop a comprehensive, city-wide bicycle master plan with the goal of promoting safe and responsible cycling within the City through development of a comprehensive plan for outreach and education, identification of infrastructure needs and proposed improvement projects, creation of a city-wide bicycle network to accommodate all levels of cycling, connection to the regional trail systems, and identification of future funding sources. Use of a consulting firm that specializes in the development of transportation master plans is recommended with Staff oversight. This item may require additional resource allocation from the Community Development Department. The process is envisioned to take 8-12 months and have a substantial public outreach component.	Fall 2014	$135,000
OCTA Update to the Supervisorial Districts 1 and 2 Regional Commuter Bikeways Strategic Plan		
This OCTA led project will review and update the Regional Commuter Bikeway Strategic Plans in Supervisorial Districts 1 and 2, including the City of Newport Beach. This is a collaborative effort including all agencies and related stakeholders within Districts 1 and 2. Public Works and Community Development Staff will actively participate in this effort with the goal of promoting safe and responsible bicycling for all users, improving bicycle facilities, education and outreach, and increasing cycling awareness within Newport Beach.	FY 14/15	TBD
Coast Hwy (Route 1) County-wide Corridor Improvement Master Plan		
Initiated by the City of Newport Beach, the Coast Hwy County-wide Corridor Improvement Master Plan includes all Orange County agencies that have sections of Coast Hwy (Route 1), including Caltrans and OCTA. The goal of the project is to review Coast Hwy facility within Orange County to improve multi-modal (vehicle, bicycle and pedestrian) flow of local and regional traffic, while reducing impacts to local agencies by identifying the needs of the corridor, facility improvements, and funding sources to complete improvement projects.	TBD	TBD

COMPLETED ACTIONS/PROJECTS	
TITLE/DESCRIPTION	**COMPLETION DATE**
Newport Coast Dr Sign and Striping Improvements	
This project modified the existing bike lane striping and install related warning and regulatory signs on Newport Coast Drive at the Southbound SR-73 on and off ramps to improve the vehicle/cyclist merge and crossing at this location. The project was completed through a Caltrans Encroachment Permit. Additionally, bike lane striping and signage was installed to the Newport Coast Drive right turn pockets from San Joaquin Hills Road to Ridge Park Drive. This project also installed school zone signage and markings around Newport Coast Elementary School, including adding high-visibility striping at the Newport Coast Drive/Ridge Park Road crosswalks.	Summer 2013
32nd St Bike Lane Project	
This project installed bike lanes on 32nd Street between Newport Boulevard and Balboa Boulevard through reallocation of right-of-way to incorporate bicycle lanes. This project also extended the Seashore bike path from 34th Street to Balboa Boulevard.	Summer 2013
Citizens Bicycle Safety Committee – Public Works Staff Support (to date)	
This action is Public Works time allocated to the Citizen's Bicycle Safety Committee to date, including staff time to prepare meeting items, agendas, handouts, meeting minutes, meeting logistics, preparation for response to committee requests, preparation of reports and presentations, and coordination of other City Staff. This item accounts for approximately 400 hours of Public Works Staff time for the two completed years of committee meetings/work. This item excludes the larger projects already listed in this document.	Winter 2013
Ocean Front Signage Improvements	
Installed warning and regulatory signage along the Oceanfront trail to better inform oceanfront travelers of various bicycle cross-traffic, and to enhance the oceanfront experience.	Fall 2009
Bayside Dr Sharrows	
This project installed Sharrow pavement markings and "SHARE THE ROAD" signs on Bayside Drive from El Paseo to Carnation (through the curves). *Note - These Sharrow Lane markings will be ungraded as part of the repaving of Bayside Drive in 2013.*	Fall 2010
Bicycle Downhill Advisory Signs	
Installed "WATCH DOWNHILL SPEED" bicycle advisory signs on Ridge Park Road, Vista Ridge Road, and San Joaquin Hills Road in the steep downhill sections.	Spring 2011

COMPLETED ACTIONS/PROJECTS (Continued)	
TITLE/DESCRIPTION	**COMPLETION DATE**
Castaways Trail Improvements	
Revised multi-use trail striping to better serve all users and installed signage to encourage shared use of the trail.	Summer 2011
Fernleaf Ramp Sign Revisions	
Project removed bicycle prohibition signs and installed bicycle advisory signs on the Fernleaf Ramp.	Fall 2011
Remove Raised Pavement Markers	
Project removed raised pavement markers identified as a hazard to cyclists on Bayside Drive and the Corona Del Mar State Beach Ramp.	Fall 2011
Bayside Dr Bike Ramp Improvements	
Project installed a bike ramp, signage and red curb to enable cyclists to access the Class 1 bike trail along the south side of Bayside Drive between Harbor Island Drive and Marine Avenue.	Fall 2011
Bonita Canyon Dr Bike Lane Improvements	
Project installed bike lanes, enhanced bike lane striping at intersections and turn lanes, and installed related warning and regulatory signage between MacArthur Boulevard and SR-73.	Winter 2011
Coast Hwy Bike Lane Improvements	
Project installed missing sections of bike lanes, enhanced bike lane striping at intersections and turn lanes, and installed bicycle-related warning and regulatory signage from Dahlia Avenue through the Newport Center Drive intersection.	Winter 2011
Coast Hwy Bike Alternate Bike Route	
Established an alternate bike route to Coast Highway from Avocado Avenue to Poppy Avenue (north and south of the Coast Highway) through the installation of bike route signs. Also included bike route signage for CDM State Beach.	Winter 2012
Newport Center Bike Lane Installation	
Created bike lanes in Newport Center as part of a pavement rehabilitation project. Bike lanes were added along Newport Center Drive, Santa Barbara Avenue, San Miguel Drive, and Santa Cruz Drive.	Spring 2012
Coast Hwy Bike Lane Improvement at Jamboree Rd	
Extend the existing westbound Coast Hwy bike lane to the intersection by signing and striping improvements to the right-turn lane and median modifications. This improvement was incorporated to the intersection Traffic Signal Rehabilitation Project.	Fall 2012

Appendix G: Outreach Event Summaries

Newport Beach Bicycle Master Plan
Community Open House Summary

Monday, November 4, 2013 | 4:30 to 7:30 pm
Newport Beach Main Library| Friends Room

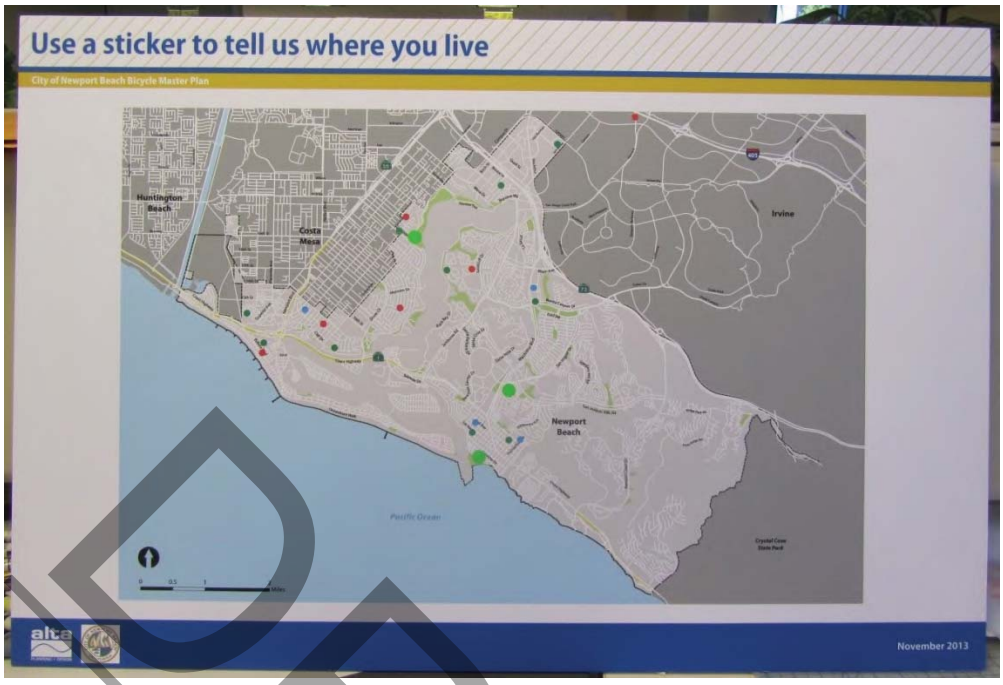
On Monday, November 4, 2013, an open house event was held at the Newport Beach Central Library to reach out to the community and collect input on improving bicycling in the City.

Open House guides were provided to participants, which included a list and description of each station. In addition to the Sign-in Table, seven stations were provided to provide information and to collect ideas:

1. Background Presentation
2. Mapping
3. Bicycle Facilities
4. I Would Ride More Often If…
5. Education, Encouragement, Enforcement, & Evaluation – What's Working? What Can We Do Better?
6. Survey Spot
7. Kids' Station

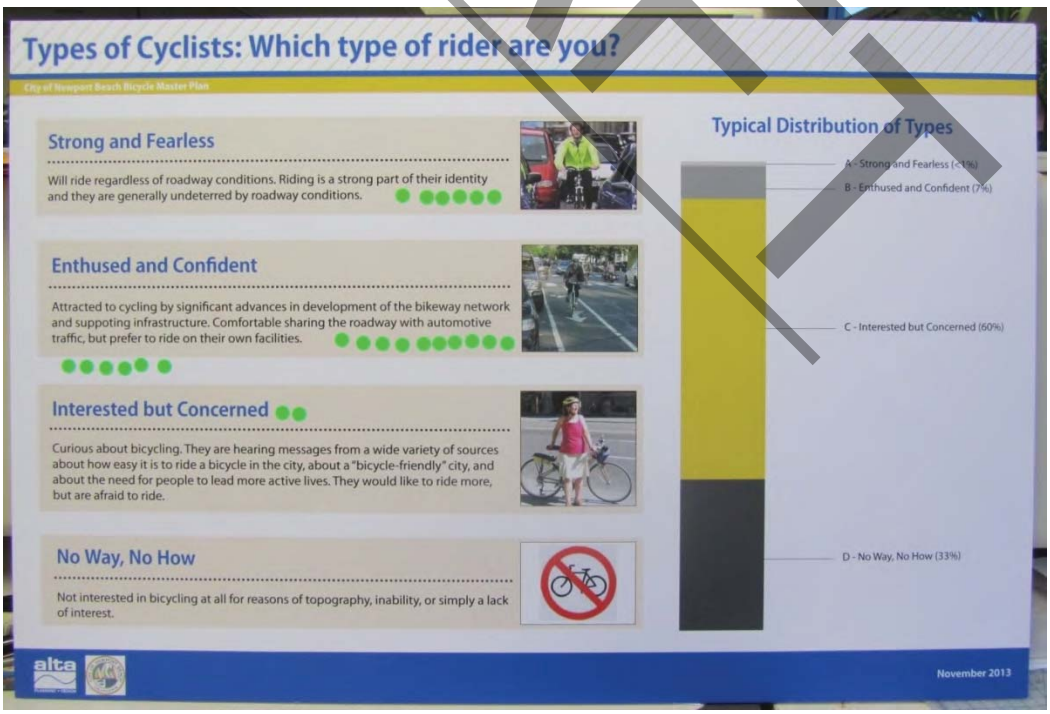
Sign in Table

The sign in table included a map of the City and neighboring cities where participant were asked to place a dot sticker where they live. Most residents who responded indicated that they do live within the City of Newport Beach.



Participants were also asked to rate their riding abilities. The image below shows that most respondents self-designated themselves as "enthused and confident".

Type of Cyclist	Strong and Fearless	Enthused and Confident	Interested but Concerned	No Way, No How
Number of Cyclists	6	16	2	0



Station 1: Background Presentation

A brief, continuous running PowerPoint presentation provided background information about the Bicycle Master Plan project.

Station 2: Mapping

This station provided the opportunity for participants to identify current cycling destinations, places that they'd like to bicycle to, and locations for possible improvements including wayfinding signs.

Destinations/Issues:

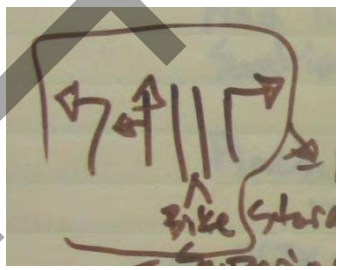
Destinations

- Avocado, Civic Center, and Park

Needs

- Serve elect, assist bikes for disabled/elderly slow speed ebikes?

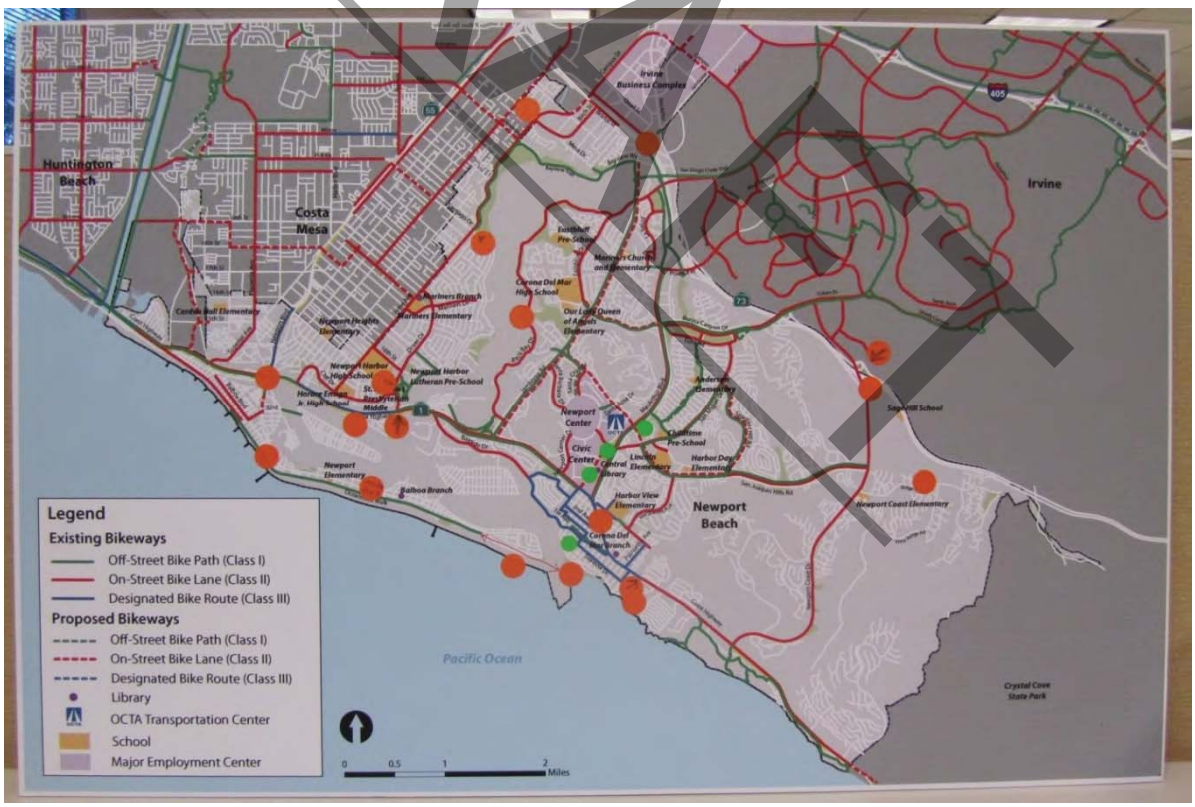
Challenge



- Dover/C.H. Intersection (triple left) SW over bridge is narrow
- SR 73 NB Loop On-Ramp/NCD is difficult to cross for cyclists
- Newport/Vis Lido signal – cars crossing when ped signal is on, poor driver compliance Via Lido Right turn
- Marguerite/San Joaquin Hills Road – need bike storage lane for NBTH cyclists
- Superior between Placentia and 17th, no bike lane and poor road pavement
- Elect, bike ordinance issues – speed and horsepower not for hills
- Ocean – motorists getting out of cars not looking for bikes at lookout point
- Mesa Dr. – needs improvements
- Coast Highway in Mariners Mile
- Ebikes ordinances support 3 or 4 wheels?

Issues

- Mariners Mile SW riding – how to access seashore bike path and ocean front walk
- Newport Heights to Peninsula – how best to access the beach
- Surfers on bikes Riverside to Beach C.H. SW (southside) to dd City Hall to 32nd to Seashore.
- Add link - Constellation to Bayview Trail near Santiago/Irvine Ave.
- Pinch on Dover Drive north of C.H. – northbound
- NCD Northbound difficult @ SR 73 Ramps
    1. Dedicated lane going SB to SR 73
    2. Lanes going to NB SR 73
    3. Ridge Park car/bike etiquette
- Jamboree & MacArthur intersection and Jamboree between MacArthur & Bayside
- Near Newport Coast Elementary – allow riding on sidewalk for children
- Coast Highway bike lanes outside of right turn lane
- Back Bay Drive – bikes going northbound on left side of road need signage and markings
- Why no bike lane on Culver Drive (Irvine) along new segment at UCI?
- Coast Highway – remove median and relocate roadway
- Irvine Avenue at Monte Vista Ave – Back Bay High School on northwest corner - LOTS of pedestrian and cyclist crossing speeding traffic to access back bay trails. Need crosswalk with flashing lights.

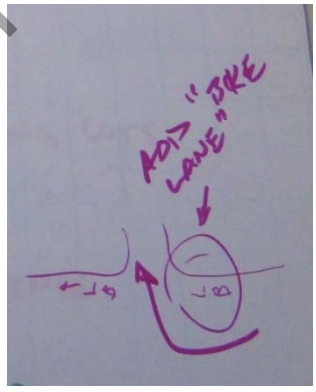


Station 3: Bicycle Facilities

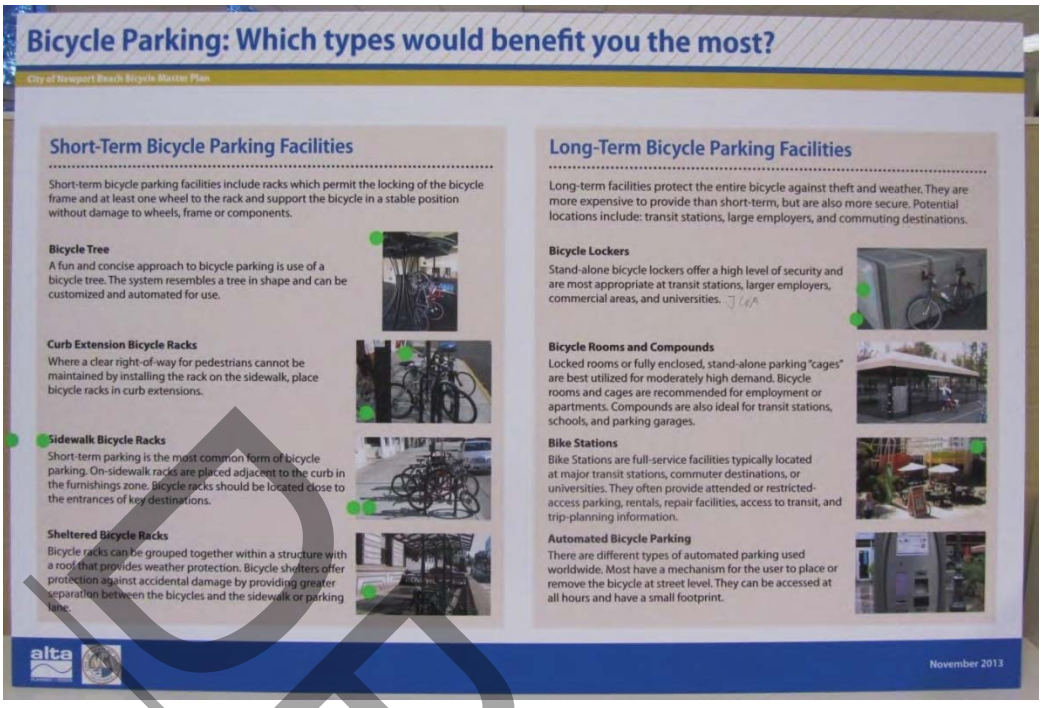
At this station, participants could view display boards that illustrated different types of bicycle facilities and suggest locations in Newport Beach where they feel types of facilities may be appropriate. Participants were asked to place a dot sticker next to each facility type that they are interested in, and provide comments about potential locations.

The following list was compiled during the event:

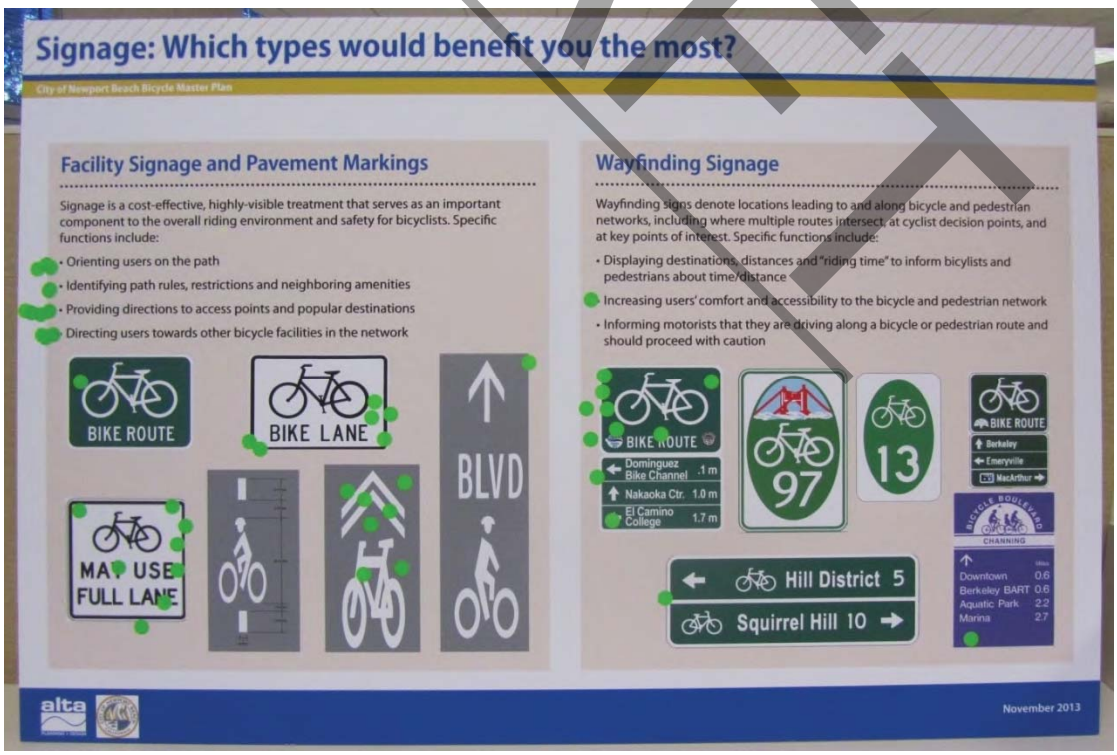
- Encourage diversion of trips… include parking facilities at local businesses (i.e., Albertson's).
- Lockers at JWA
- Understanding of cyclists with in private parking lots
- Extend boardwalk to the wedge
- Use pavement markings to add to safety
- Beach – no good parking – not secure.
- Safety at crossing Via Lido.
- Bike safety outreach for schools – safety assembly
- Signage – multi yield vehicles – ped/bike
- MacArthur – x-ing free right at San Joachin Hills (yield)
    - "Share the road"
    - "yield to the bike"
    - "watch for bikes" (right turning vehicles)
- Add additional "Bike Lane" pavement markers add closer to corner at I/5
- Add bots-dots along bike lane (or pavement groves)
    - Lane drift alert system
    - Especially on right hand curve
- Signage for caution – bike lane narrows
- E-bike charging stations/parking
- E-bike share
- Shower facilities at workplaces, etc.
- AAA for bikes
- Lighted bike paths
- Sign showing 3 ft rule
- Cycle track good
- Use colored asphalt for bike, define space for cars
- Different signs for different users
- Bike lane easy to understand
- Put in newspaper – education.
    - Re: Share the road
- PM with bike helmets are good!
- Don't like green paint for sharrows
- Need better parking for bikes at library



- Add more short term bike parking at commercial centers
- Bike shelter looks good – easy to find
- Bike station is good meeting point – makes biking fun
- Cell phones and GPS are distractions having P.M. in street helps remind drivers of bikes
- Like physical barrier or something between bike and traffic
- Remove “no bikes” signs from parking lots – allow access
- Bike sign with # does not make sense
- Parklets for bike parking
- Use medians for bike facility
    - Re-purpose median R/W
- San Miguel, MacArthur, Jamboree, San Joaquin, Corona del Mar (Aro-Poppy), Balboa Blvd
- Permit parking to support parking changes
- Implement traffic calming
- PED – remove concrete sidewalks for DG hardscaping/soft edge – Padua in Claremont (on way to Baldy)
- Form paths where people want to go
- Diversity in plant colors along roads
- Bike Share at la Citibike
- Make P.M. instructive to cars to show bike desire lines
- Signs at right turns – watch for bikes in between right-turn land and thru lane.

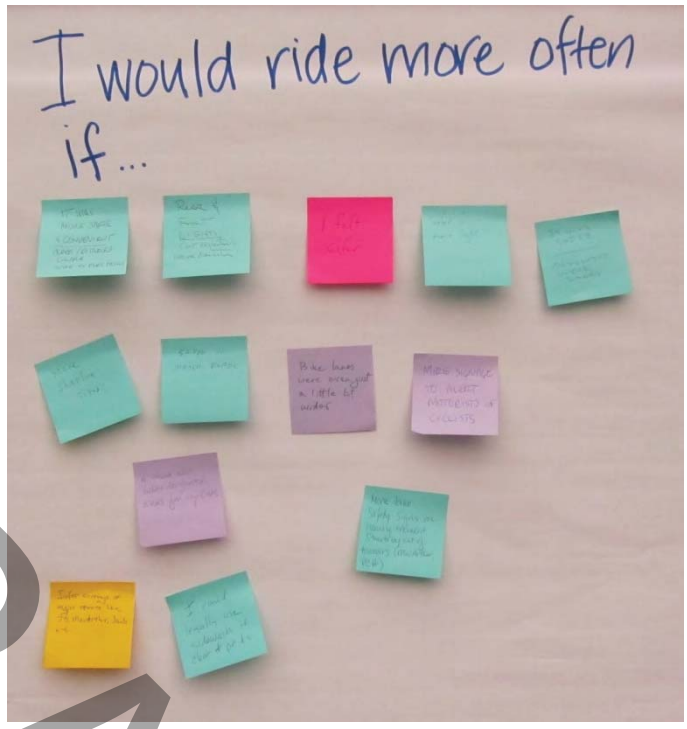


Short Term Bicycle Parking Facilities	Number of Dots	Long Term Bicycle Parking Facilities	Number of Dots
Bicycle Tree	1	*Bicycle Lockers*	2
Curb Extension Bicycle Racks	2	*Bicycle Rooms and Compounds*	0
Sidewalk Bicycle Racks	3	*Bike Stations*	1
Sheltered Bicycle Racks	1	*Automated Bicycle Parking*	0



Station 4: I would ride more often if…

Participants could finish the sentence on a post-it note. Comments are provided verbatim.



- It was more safe and convenient
    - Older/disabled couple bike on electric
- Rear and front lights (not reflective) were mandatory!
- I felt safer
- Safer and more light
- It was safer – designated wider lanes
- More shareline signs
- Safer on major roads
- Bike lanes were even just a little bit wider
- More signage to alert motorists of cyclists
- Real bike travel/ways existed not narrow stripes
- If there was better designated areas for cyclists
- Safer crossings at major streets like 73, MacArthur, Jamboree, etc..
- I could legally use sidewalks if clear of peds
- More bike safety signs on heavily traveled streets by out of towners (MacArthur, PCH)

Station 5: Education, Encouragement, Enforcement, & Evaluation – What's Working? What Can We Do Better?

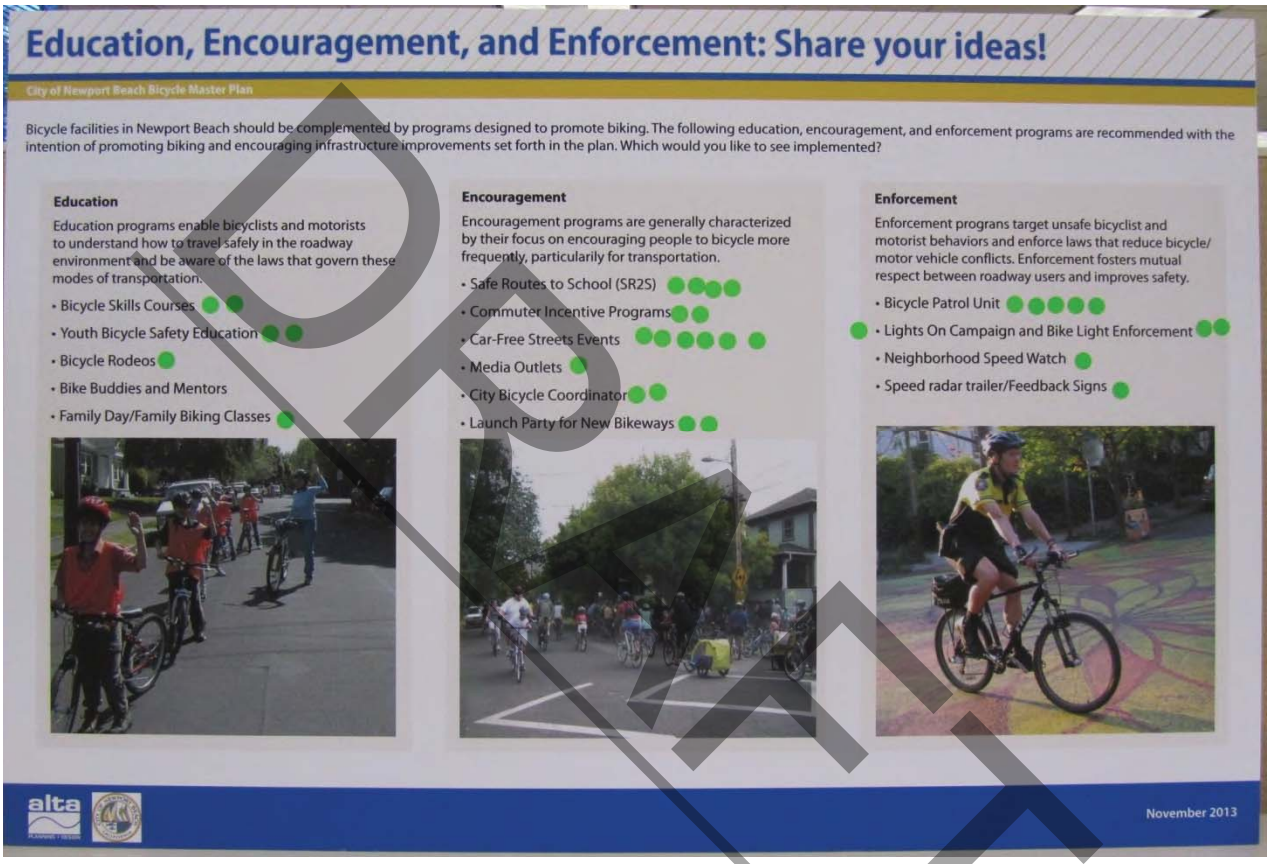
Participants were asked to list current programs and efforts that they believe are important/helpful and to make suggestions for additional efforts.

Program Ideas:

- More DMV questions on driver exam especially first license – young and/or new resident.
- Improved-integrated streetscapes and retail partnerships, i.e. CDM Village.
- Better enforcement against distracted drivers
- Paths/programs facilities/encouragement for seniors

and limited mobility, i.e. via senior center programs and CDM village “tours”.

- Harassment law to cite motorists (Like Los Angeles)
- Better enforcement against distracted drivers
- Provide lights to people who need them – partner with businesses
- Teach drivers about 3-foot law
- Brighter designated road colors for cycling
- Bike awareness advertising



The board above shows that the most popular *Education Programs* would be Bicycle Skills Courses and Youth Bicycle Safety Education. The most popular *Encouragement Programs* include Car-Free Street Events and Safe Routes to School (SR2S). The most popular *Enforcement Programs* include a Bicycle Patrol Unit and Lights On Campaign & Bicycle Light Enforcement.

Station 6: Survey Spot

Hard copies of an online survey were available for participants to complete.

Surveys completed in hard copy format were entered into the electronic version of the survey at http://www.surveymonkey.com/s/NBbikeplan.

Station 7: Kids' Station

Kids were given the opportunity to create drawings about biking and bike safety. However, at this event, no children were present.

Newport Beach Bicycle Master Plan

Outreach Booth – Eastbluff Drive and Back Bay Drive

October 27, 2013

Post It Note Comments

- People riding against traffic
- PCH – tough with cars
- Eastbluff – want bike lanes @ Jamboree
- PCH in Corona del Mar – Traffic and Corona del Mar
- Education @ the high schools
- Pamphlet on share the road handed out by car dealerships to buyers
- Bumps to delineate bike lane from car lane
- MacArthur past San Miguel northbound road full of rocks
- Back Bay pavement quality
- Connect to San Diego Creek going north – continuous off street is good!
- PCH in front of Sterling – pinch point with merging cars going on the bridge
- PCH Mariners Miles connect to SART
- South Bay Bridge on Back Bay loop
- Dover – Going north after bridge, conflict with cars merging. Challenge area.
- End of Back Bay loop off-street not on PCH
- Corona del Mar – PCH south of MacArthur, challenging area

Newport Beach Bicycle Master Plan

Outreach Booth – McFadden Plaza

August 24, 2013

Post-It Note Comments

Challenges:

- PCH from northbound Newport
- PCH
- Bayside- narrow lane from Balboa west
- Via Lido and Newport Blvd.
- Riverside and PCH
- Lido Bridge- congestion
- Newport Blvd. in front of Pavillions- lines not visible
- Cyclist behavior- running stop signs
- 32nd/Balba crossing harder after road diet

Ideas:

- Extend path from Oceanfront to Huntington Beach and Wedge
- Bike lane on Balboa Blvd.
- Allowing bicycling on sidewalks when cyclist is careful (PCH especially)
- Larger bike rides/events
- Education/safety programs in schools
- Enforcement on Oceanfront and seashore re: electric bikes, surreys, skateboards

Appendix H: Bicycle Count Tables

Weekday Bicycle Count Results (Thursday October 17, 2013 from 7:00 AM to 9:00 AM)

Count Location	Male	Female	Children <13	No Helmet	Sidewalk	Wrong Way
1- Coast Highway and Orange Street	137	21	0	45	63	1
2- Irvine Avenue and University Drive	56	8	3	38	4	7
3- Newport Boulevard and 32nd Street	43	8	6	46	22	4
4- Ocean Front Trail and 28th Street	95	46	24	99	0	0
5- Irvine Avenue and 15th Street	80	32	56	15	14	10
6- Coast Highway and Bayside Drive	113	11	0	15	19	1
7- Eastbluff Drive and Back Bay Drive	127	31	1	9	74	12
8- Coast Highway and Iris Avenue	12	9	0	4	2	0
9- Bonita Canyon Drive and Chambord	82	3	0	0	2	0
10- Coast Highway and Newport Coast Drive	34	2	0	0	2	1
11-Newport Coast Drive and Ridge Park Road	33	1	4	0	0	2

Weekend Bicycle Count Results (Saturday October 19, 2013 from 10:00 AM to 1:00 PM)

Count Location	Male	Female	Children <13	No Helmet	Sidewalk	Wrong Way
1- Coast Highway and Orange Street	855	273	6	364	799	22
2- Irvine Avenue and University Drive	64	20	19	19	11	0
3- Newport Boulevard and 32nd Street	165	81	3	188	75	37
4- Ocean Front Trail and 28th Street	508	260	36	689	0	36
5- Irvine Avenue and 15th Street	44	20	6	42	21	6
6- Coast Highway and Bayside Drive	682	168	0	83	56	6
7- Eastbluff Drive and Back Bay Drive	434	278	1	73	322	7
8- Coast Highway and Iris Avenue	187	31	2	18	7	1
9- Bonita Canyon Drive and Chambord	56	9	3	2	5	0
10- Coast Highway and Newport Coast Drive	321	51	0	11	5	1
11-Newport Coast Drive and Ridge Park Road	180	16	1	3	10	0

Weekend Bicycle Count Results (Saturday October 19, 2013 from 7:00 AM to 9:00 AM)

Count Location	Male	Female	Children <13	No Helmet	Sidewalk	Wrong Way
1- Coast Highway and Orange Street	389	51	2	2	60	4
7- Eastbluff Drive and Back Bay Drive	284	48	2	0	117	5
10- Coast Highway and Newport Coast Drive	191	24	0	3	0	2
11-Newport Coast Drive and Ridge Park Road	167	25	0	1	7	3