Agenda Item X
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Study recommends paid parking on PCH

By Melissa Caskey on August 22, 2013 in Transportation

PCH — A report solicited by the city of Malibu suggests officials explore installing paid parking slots along Pacific Coast Highway to discourage drivers from parking along Malibu's main traffic artery.

The move could encourage drivers to park in off-street beach lots, according to the report as part of Malibu's ongoing PCH Safety Study.

The 65-page report, prepared by the Irvine-based consultant firm LSA Associates, highlights 80 "potential safety issues" and prioritizes the most urgent improvements needed to better safeguard the 21-mile stretch of Caltrans-controlled PCH within the city of Malibu. It also recommends creating a bike line through the entirety of PCH in Malibu and making bus stops wheelchair accessible.

With drivers naturally attracted to free parking along the busy highway, researchers found a majority of motorists "slowing while searching for a space, making sudden turns, making unexpected stops, backing into parallel parking spaces and eventually re-entering traffic from the shoulder."

Those erratic maneuvers, all in the name of free parking, create a major hazard for pedestrians and bikers competing to use the shoulder, according to the study. The best means for Malibu to mitigate this threat to safety is by coordinating with state agencies to explore a more equal distribution of parking costs between on-street spots and off-street beach lots.

“Public access does not necessarily mean free access,” the report states, alluding to potential concerns that could be brought by the California Coastal Commission, the state’s largest advocate of free public access to Malibu’s pristine beaches.

“Addressing the disparity in parking pricing could take the form of adjusting the cost down in off-street parking lots at times when they are underutilized. It could also take the form of adjusting the cost up for on-street parking in areas where public off-street parking is available,” according to the study.

Parking in a Zuma Beach lot during the summer typically costs motorists around $10.

While the city of Malibu has a bike lane project in the works for west Malibu, the PCH analysis recommends citywide eastbound and westbound bike lanes be created to mitigate the number of bikers fighting to share lanes with cars in 45-to-55 mph zones.

The study cites a surge in the number of annual bike collisions in recent years. In the first six months of 2012, nine collisions occurred. Between 1996 and 1998, an average of four bike collisions per year occurred. Four bikers have died in collisions in the last 10 years, according to the report.

Widening PCH to create room for a bike lane is possible throughout much of Malibu. However, in areas not wide enough to accommodate four traffic lanes, along with a bike lane and a median or center striping, it suggested that Caltrans and the city of Malibu consider painting arrows signifying shared bike and vehicle lanes.

Many bus stops in Malibu are impossible for wheelchair users to access, the study found, while others are difficult even for “able-bodied” people to get to.

Several are located away from major intersections or on islands without nearby crosswalks where bus riders often have no choice but to cross vehicle traffic on PCH.

As an example, at Bonsall Drive, the bus stop is located on a traffic island where no safe pedestrian path is provided, the study says.

LSA suggests the city review each bus stop between Topanga Canyon Boulevard and Trancas Canyon Road if it wishes to improve accessibility, especially for those protected under the Americans with Disabilities Act.

To view the report in its entirety and submit public comment, visit malibucity.org/DocumentCenter/View/4922.

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II. CORRIDORWIDE SAFETY ASSESSMENT REPORT

PACIFIC COAST HIGHWAY SAFETY STUDY

MALIBU, CALIFORNIA

The preparation of this report has been financed in part through grant[s] from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

LSA

February 2013

INTRODUCTION

Pacific Coast Highway (PCH or State Route 1 [SR-1]) is the sole east-west artery in the City of Malibu (City). PCH serves as a major thoroughfare serving local and daily commuters as well as recreational traffic for a distance of approximately 21 miles (mi) through the City. Along this route, the posted speed limit is between 45 and 55 miles per hour (mph). Generally, its four lanes are constrained by the Pacific Ocean and the Santa Monica Mountains into a tight cross-section. These constraints, as well as vertical and horizontal curves, leave little right-of-way (ROW) for sidewalks or bicycle paths. Most commercial and recreational activity in town is accessed directly from PCH. PCH is a constrained mobility corridor that accommodates several modes serving a diverse array of adjoining land uses. Motorists use it for commuting and recreation, bicyclists for sport and entertainment, and pedestrians for exercise, coastal access, and connection to transit. Because PCH is a State Highway, it is controlled and maintained by the California Department of Transportation (Caltrans).

The LSA Associates, Inc. (LSA) Team is preparing a safety study with recommendations for the 21 mi corridor of PCH through the City. Ultimately, the City will have an identification of key mobility safety issues, recommendations to address these issues, a funding plan for the recommendations, and a Project Study Report (PSR) for up to five discrete projects. This overall work program has been broken into discrete tasks. The first component of the PCH Safety Study, the Existing Condition Report, described PCH's existing mobility and safety setting based on information obtained from the City, research, and observations. Traffic-turning movement data were collected for a.m. and p.m. peak periods at 28 intersections along PCH. Pedestrian and bicycle data were collected at 12 intersections. Daily traffic volumes were collected at six locations. Transit usage data was provided by the Los Angeles County Metropolitan Transportation Authority. Land use and land policy data was collated from the U.S. Census, the City Local Coastal Program (LCP), the City General Plan, and other policy documents. Collision statistics were gathered from previous reports prepared for the PCH corridor, the Statewide Integrated Traffic Records System (SWITRS), the Transportation Injury Mapping System (TIMS), and Los Angeles County Sheriff's Department Collision Summary Reports.

While PCH is a four-lane divided roadway without a bicycle lane throughout the corridor, different topography and adjacent land uses create different roadway character along the route. To facilitate analysis and discussion of PCH, the project corridor has been divided into the following three study areas:

- **Study Area 1:** Topanga Canyon to Cross Creek Road
- **Study Area 2:** Cross Creek Road to Busch Drive
- **Study Area 3:** Busch Drive to Western City Limits

The objective of this second task is to assess safety along the project corridor based on the existing conditions. This second component flows from the Existing Condition Report, defining safety concerns and identifying potential safety issues. The list of potential problems for each study area and key conflict areas identified in this report will, in turn, form the base for subsequent components of the PCH Safety Study. Subsequent effort still to come includes the Alternatives Analysis, Funding Plan, and Final Report. This Corridorwide Safety Assessment Report focuses on identifying potential safety issues in support of these subsequent efforts.

The layout of this report is similar to the Existing Conditions Report wherein the safety issues are identified and sequentially described for the three study areas. As public outreach is a large component of this project and a portion of the safety issues were raised by the community, maintaining the previous layout makes it easier for a reader to find the geographic location that (s)he is interested in and review the safety issues associated with the location. For subsequent efforts (Alternatives Analysis, Funding Plan, and Final Report) the layout will be changed to fit the purpose of those reports. These reports will be presented in a way that aligns the safety issues and their alternative solutions to maximize eligibility for funding.

The Alternatives Analysis will build on the safety issues identified at specific locations and identify themes that occur throughout the corridor and could possibly be addressed with corridorwide solutions. These themes may include roadway geometry, pedestrian access, bicycle issues, parking issues, warning signs, driveway and access issues, or others. Safety issues that are location specific could still be addressed with location-specific solutions. To help facilitate the evolution of the process, the Corridorwide Safety Assessment paid specific attention to patterns that began to emerge.

The Funding Plan will identify resources that could be utilized to implement the potential solutions discussed in the Alternatives Analysis. At this time, the LSA Team believes that categorizing the themes and individual location potential safety issues based on the four categories used in the State's Strategic Highway Safety Plan (SHSP) presents the most efficient path to acquiring funding. These four categories are: Enforcement, Engineering, Education, and Emergency Services. The Corridorwide Safety Assessment considered which of these categories apply to the potential safety issues raised in preparation for future components of the PCH Safety Study.

Safety is subjective, variable, and context-sensitive. The perception of a 'safe environment' varies from person to person. The interpretation of safety changes with new technical studies, new court decisions (law), and new technology. Due to the ever-changing perception of safety, it is a challenge to assess the existing infrastructure and develop and prioritize a list of safety issues. Additionally, safety assessments are not conducted from a singular source or manual but are derived from several sources that provide guidance in identifying safety issues.

Several local, State, and federal design standards and thresholds were used to assess the safety issues along the study corridor. For areas related to vehicle travel, technical reference materials such as the *Manual on Uniform Traffic Control Devices* (MUTCD), *American Association of State Highway and Transportation Officials; A Policy on Geometric Design of Highways and Streets* (AASHTO Design Manual), Caltrans *Highway Design Manual* (HDM), and the Transportation Research Board's (TRB) *Access Management Manual* were used. For bicycle-related issues, the National Association of City Transportation Officials (NACTO) Design Manual, AASHTO Design Manual, and California MUTCD were used. For pedestrian facilities, the California MUTCD, AASHTO Design Manual, and Caltrans HDM were referenced. The transit infrastructure was assessed based on the American with Disabilities Act (ADA) Standards for Accessible Design.

These resources provide suggestions for standard application, but are not strict mandates. Context and engineering judgment are essential during the application of any of these manuals. The physical constraints of PCH and its role as both a State Highway and Malibu's main street make it all the more imperative to seek input from the many users of the roadway and systematically seek the best fit of standards for the unique situation.

DEFINITIONS

Most of the terms used in this document are meant to convey their common meaning. However, the use of some terms is nuanced. In order to avoid confusion, these terms are defined below.

- **Collision:** Contact resulting in damage to person or property.
- **Crosswalk:** Painted markings on the pavement indicating pedestrian crossings.
- **Excessive Speed:** Speeds in excess of the predominant flow of traffic.
- **Fog Line:** Solid white line on the right side of the travel lanes.
- **Jaywalking:** Crossing of a roadway outside of a crosswalk, whether permitted or not.
- **Northbound:** PCH traverses Malibu in an east-west direction. As a State Highway, however, PCH is a north-south roadway. Vehicles traveling west through Malibu are traveling northbound on the State Highway.
- **Shoulder:** Paved portion of the roadway outside of the fog lines.
- **Sight Distance:** A length of road surface that a driver can see with an acceptable level of clarity **.**
- **Unsafe Speed:** Speed that is inappropriate for the situation, even if that speed is below the posted speed limit.

COMPREHENSIVE LIST OF SAFETY ISSUES

The Existing Condition report describes the current setting on PCH to include: land use, roadway infrastructure, traffic volume, levels of service, typical vehicle speeds, transit usage, bicycle infrastructure and volume, pedestrian infrastructure and volume, and recent collision data. That data collection phase also included meetings with stakeholders and opportunities for the community to contribute to the understanding of how the roadway operates. The Existing Condition report compiled these facts and contributions from stakeholders and the community. This first phase of the PCH Safety Study described the setting along the corridor whether or not elements of that setting were a potential safety issue. This second phase is a refinement of the setting, narrowing the conversation to describe areas of concern. Based on the analysis and the contribution of the community and stakeholders, LSA compiled a list of 80 potential safety issues. This list consists of issues identified by LSA as a result of observation and data analyzed and also concerns raised by roadway users through the public participation process.

The list is the primary component of this second phase of the PCH Safety Study. This is an attempt to comprehensively enumerate the majority of the potential safety issues. Not all of the potential issues are significant safety issues. Some may simply be capital improvement projects. Not all of the safety issues have actionable solutions. Still fewer safety issues will have funding sources available to implement the solution. The continued refinement of the potential safety issues into a list of suggested projects will be the subject of the next three phases of the PCH Safety Study. The list is presented in a matrix at the end of this section. This section provides a summary, by geographic location, of some of the more significant issues along PCH as reported in the comprehensive list.

Throughout the corridor, eight potential safety issues were repeated frequently. The first issue is the conflict between travel modes that occurs because of competing desires for use of the shoulder. In

areas without sidewalks or bike lanes, both pedestrians and bicycles seek to use the shoulder to stay out of the vehicle travel lanes. However, bus stops are also located along the shoulder, and buses pull in to fully occupy the shoulder to avoid blocking a vehicle travel lane. Passenger cars also utilize on-street parking in the shoulder. In addition, the shoulder area is used to service adjacent residences for trash collection, utilities, and construction. These are significant demands for the same narrow piece of public right of way. Without rationalizing its use and augmenting it where possible, the first-come-first-served system results in conflict between these varying groups.

Another issue is the use of nonstandard and varying signing and striping throughout the corridor. Signs posted along PCH give motorists inconsistent warnings related to upcoming intersections, crosswalks, and curves that require slowing. Inconsistencies encompass style, type, placement, and spacing of signs. A motorist looking for one type of sign might be caught off guard when approaching another hazard. Nighttime reflectivity standards have also been recently updated, and it is likely that many signs along the corridor are not consistent with the new standards. Again, this is a potential issue if a gap exists between the expectations of the motorists and the conditions on the roadway.

Inconsistent development of the adjacent land is another potential issue. In some areas of the City, access is taken directly from PCH for residential driveways. In other areas, residential access is concentrated along a single collector road. Near the pier, commercial driveways connecting directly onto PCH are common. The inconsistent manner in which access is taken results in changes to roadway friction that can result in alternating areas of high and low predominant travel speeds. When motorists are conditioned to high predominant travel speeds and enter an area of low predominant travel speeds without an indication of the change, conflict with other vehicles is possible.

Parking is also a potential issue throughout the corridor. In Malibu, it is common that off-street parking is paid parking, particularly near the beach. However, on-street parking along PCH is free. Because of this difference in price, demand for parking on PCH is higher than demand for parking in parking lots closer to recreational attractions. Parking maneuvers are not a common characteristic of state highways or regional roadways. The volume of parking maneuvers on PCH in Malibu also exceeds expectations for a typical city's main road, where parking demand is usually accommodated by off-street parking lots. Parking maneuvers involve motorists slowing while searching for a space, making sudden turns, making unexpected stops, backing into parallel parking spaces, and eventually reentering traffic from the shoulder. Parking maneuvers negatively impact pedestrians and bicycles that are competing for use of the shoulder. Parking maneuvers also negatively impact vehicle operation because they increase friction in the right-hand lane and the potential for collisions. The disparity in pricing focuses the impacts of parking heavily on PCH.

In a related topic, valet services are active on PCH. Restaurants located along PCH may find that their parking demand exceeds the capacity of their off-street parking lots. In these circumstances, either patrons or restaurant valet employees would use public on-street parking on PCH. Under ideal circumstances, where valet operations are standard, professional valet attendants may be safer when entering and exiting on-street parking spaces due to their familiarity with the procedure. Under current conditions, however, procedures are not consistent across operators, and operations may not consider the safety of motorists and the operators. When speed is a higher priority than safety, sudden stopping, premature turns, and risky pedestrian behavior are possibilities.
Conflict between vehicles and pedestrians is common throughout the corridor. As previously mentioned, there is a conflict between vehicle and pedestrian use of the shoulder. As also previously mentioned, indication of upcoming crosswalks is not uniform throughout the corridor. In addition to

these conditions, conflict between vehicles and pedestrians is possible because transit users are pedestrians at the beginning and end of their transit trip. Bus stops were installed in Malibu prior to the ADA. Some had been Greyhound bus stops that were incorporated into the existing transit system. While many bus riders are traveling to destinations on the south side of the roadway, many bus stops on the north side of the roadway have no pedestrian connection to the south side of the roadway. Bus patrons have little choice but to cross PCH outside of a crosswalk. The bus stops themselves, on either side of the roadway, are difficult to access. These bus stops are not consistent with ADA but can be challenging to get to for able-bodied patrons. Bus stops not located near intersections have no paved walking path other than the roadway. In at least one area, the bus stop is located on a traffic island where no safe pedestrian path is provided to access it. Since 2010, two pedestrian fatalities occurred while the pedestrian was crossing outside of a crosswalk.

The corridor may be popular with cyclists on weekends, but the roadway is not currently designed to be bicycle friendly. Since 2010, 16 cyclists have been injured and 1 has been killed on PCH. In some areas, roadwork has encroached on the shoulder and leaves no space for bicycles other than the vehicle travel lanes. As much of a potential issue, and throughout the corridor, conditions on the shoulder present a bicycle safety hazard. Rocks and other debris left on the shoulder can force bicycles into vehicle travel lanes to avoid them. Even when debris is cleared, dangers remain for cyclists. Degraded pavement quality poses hazards to bicycles and can be harder to see than debris. The most common type of pavement degrading observed along PCH is asphalt spreading, which results in cracks. These cracks can catch bicycle tires. Even when the cracks are filled with new tar, the patch can have a lip that could kick a bicycle tire to the side.

Another issue common throughout the corridor is the driver behavior that impacts safety. The most common type of collision in the corridor is rear-end. This could be partly attributed to parking maneuvers, as discussed previously, but also suggests the potential that driver distraction is a possibility and that speeds are higher than the conditions can safely accommodate. Travel speed is an issue because stopping distance increases rapidly as speed increases. At 45 mph, stopping distance is 360 feet (ft); at 50 mph, stopping distance is 430 ft; at 55 mph, stopping distance is 500 ft; and at 60 mph, stopping distance is 580 ft.[1] LSA conducted floating vehicle speed surveys, where a vehicle traveling on the roadway determines the prevailing speed. Those surveys determined that traffic generally travels at 5 mph over the posted speed limit. To verify these observations, LSA also collected automated speed surveys at five locations along PCH. These automated surveys also found that prevailing speeds are generally 5 mph over the posted speed limit. However, near the Malibu pier (a 45 mph zone), the prevailing speed was 53 mph, and west of Decker Canyon Road (a 55 mph zone), the prevailing speed was 65 mph. Although not necessarily frequent, vehicles exceeding 10 mph over the posted speed limit were recorded by the automated speed surveys. LSA reviewed this data by time of day. The percentage of vehicles exceeding the posted speed limit by 10 mph or greater is displayed in Table A for the five areas surveyed along PCH. As Table A shows, driver behavior could be a safety concern, especially near Malibu Pier and west of Decker Canyon Road.

In addition to the global issues described above, the matrix provided lists location-specific issues. Some highlights from the matrix are described below.

[1] California Department of Transportation, *Highway Design Manual,* Table 201.1

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III. ALTERNATIVES ANALYSIS

PACIFIC COAST HIGHWAY SAFETY STUDY

MALIBU, CALIFORNIA

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LSA

July 2013

INTRODUCTION

Pacific Coast Highway (PCH or State Route 1 [SR-1]) is the sole east-west artery in the City of Malibu (City). PCH serves as a major thoroughfare serving local and daily commuters as well as recreational traffic for a distance of approximately 21 miles (mi) through the City. Along this route, the posted speed limit is between 45 and 55 miles per hour (mph). Generally, its four lanes are constrained by the Pacific Ocean and the Santa Monica Mountains into a tight cross-section. Along much of PCH, private development lines one or both sides of the street. These constraints, as well as vertical and horizontal curves, create a tight cross section for the four lanes of vehicular traffic and leave little right-of-way (ROW) for sidewalks or bicycle lanes. Most commercial and recreational activity in town is accessed directly from PCH. PCH is a constrained mobility corridor that accommodates several modes and serves a diverse array of adjoining land uses. Motorists use it for commuting and recreation, bicyclists for sport and entertainment, and pedestrians for exercise, coastal access, and connection to transit. Because PCH is a State Highway, it is controlled and maintained by the California Department of Transportation (Caltrans).

The LSA Associates, Inc. (LSA) Team is preparing a safety study with recommendations for the 21 mi corridor of PCH through the City. The first component of the PCH Safety Study, the Existing Condition Report (February 2013), described PCH's existing mobility and safety setting based on information obtained from the City, the public, research, and observations. Traffic-turning movement data were collected for a.m. and p.m. peak periods at 28 intersections along PCH. Pedestrian and bicycle data were collected at 12 intersections. Daily traffic volumes were collected at 6 locations. Transit usage data were provided by the Los Angeles County Metropolitan Transportation Authority (Metro). Land use and land policy data were collected from the United States (U.S.) Census, the City Local Coastal Program (LCP), the City General Plan, and other policy documents. Collision statistics were gathered from previous reports prepared for the PCH corridor, the Statewide Integrated Traffic Records System (SWITRS), the Transportation Injury Mapping System (TIMS), and Los Angeles County Sheriff's Department Collision Summary Reports.

The second component of the PCH Safety Study, the Corridorwide Safety Assessment (May 2013), analyzed safety along the project corridor based on the existing conditions, defining safety concerns and identifying potential safety issues. The list of potential problems for each study area and key conflict areas identified in that report form the basis of this Alternatives Analysis. Subsequent effort still to come includes the Funding Plan and Final Report. This Alternatives Analysis focuses on describing potential policies, actions, or projects that could address the safety issues previously identified. Feedback from the Project Steering Committee, the public, and the Funding Plan will lead to final recommendations in the final report.

While PCH is a four-lane divided roadway throughout the corridor, different topography and adjacent land uses create a diversified roadway character along the route. To facilitate analysis and discussion of PCH, the project corridor has been divided into the following three study areas:

- **Study Area 1:** Topanga Canyon to Cross Creek Road
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Safety is subjective, variable, and context sensitive. The perception of a "safe environment" varies from person to person. The interpretation of "safety" changes with new technical studies, new court decisions (law), and new technology. Due to the ever-changing perception of safety, it is a challenge

to assess the existing infrastructure and safety issues and develop a list of policies, actions, and projects that will create a safer environment. In addition, safety assessments are not conducted from a single source or manual, but are derived instead from several sources that provide guidance in identifying safety issues.

Several local, State, and federal design standards and thresholds were used to determine potential policies, actions, or projects along the study corridor. For areas related to vehicle travel, technical reference materials such as the Federal Highway Administration (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD), American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets ("Green Book")*, Caltrans *Highway Design Manual* (HDM), and Transportation Research Board (TRB) *Access Management Manual* were used. For bicycle-related issues, the National Association of City Transportation Officials (NACTO) Design Manual, AASHTO Green Book, and Caltrans *California Manual on Uniform Traffic Control Devices* (California MUTCD) were used. For pedestrian facilities, the California MUTCD, AASHTO Green Book, and Caltrans HDM were referenced. The transit infrastructure was assessed based on the American with Disabilities Act (ADA) Standards for Accessible Design.

These resources provide suggestions for standard application, but are not strict mandates. Context and engineering judgment are essential during the application of any of these sources. The physical constraints of PCH and its role as both a State Highway and the City's main street make it all the more imperative to seek input from the many users of the roadway and systematically seek the best fit of standards for the unique situation.

REPORT STRUCTURE

The Corridorwide Safety Assessment Report identified about 80 potential safety issues from observation and public input and provided insight on the reason or possible causes for the situations. As the Safety Assessment progressed, it became evident that two categories of issues exist: corridorwide and location specific. Corridorwide issues persist throughout the 21 miles of PCH, which could be due to physical limitations (e.g., conflict for use of the shoulder), physical conditions (e.g., inconsistent signing and traffic control through the corridor), or motorist behavior (e.g., aggressive driving and excessive speed in all segments of PCH). Remedies for these issues are holistic in terms of the area to be covered, the resources expended, and the planning and engineering efforts undertaken.

Location-specific issues occur at discrete points as a result of particular conditions, activities, or behaviors. The built environment could be a contributing factor as evidenced near East Rambla Vista, where the street and a shopping center share access to PCH. Visitor activity, such as that observed at Paradise Cove, may create safety concerns at a specific location. Corridorwide issues, such as pedestrians crossing the roadway, may be concentrated at specific locations near restaurants, thereby creating a location-specific issue.

Addressing corridorwide issues will also address many of the location-specific safety issues. This Alternatives Analysis examines those 80 issues more closely in order to: (1) identify the type of safety issue; (2) recommend potential solutions; (3) identify the agency or entity responsible for implementing the solution; (4) qualitatively analyze the obstacles or constraints of implementation; and (5) identify the next steps or studies needed for implementation.

Once the TCDI is complete and the comprehensive signing/striping implementation plan is complete, the City/Caltrans can select critical elements to implement on a regularly scheduled basis consistent with available or anticipated funding. This is one overlay recommendation for the corridorwide issue that was identified in the Corridorwide Safety Assessment. More targeted recommendations are made in later sections.

Strategy B: Initiate planning, design, and implementation of uniform and updated traffic control beginning with a TCDI.

Access to Adjacent Development

In some areas of the City, access is taken directly from PCH for residential driveways. In some areas, on-site turnaround is possible, thereby allowing vehicles to enter traffic traveling forward. In other areas, residential vehicles must back into the travel lane. Backing into the travel lane presents a challenge to motorists and a danger to bicycles and pedestrians who might not be visible to the backing vehicle. Near the pier, commercial driveways onto PCH are common. On-street parallel parking is sometimes permitted up to the apron of the driveway. California MUTCD Section 3B-19 suggests a 6-foot (ft) parking restriction on either side of a driveway and a 20 ft parking restriction on either side of an intersection. Without adequate parking restrictions, sight distance from driveways is impaired, which increases the opportunity for conflict between vehicles. Applying consistent standards for parking restriction would be part of the TCDI discussed above. Parking policy in general could be addressed in the upcoming City/Caltrans Parking Management Plan.

Strategy C: Review commercial access and City intersections to provide adequate sight distance by restricting or reconfiguring parking as appropriate.

One of the parking policies that could be considered for limited applications when considering reconfiguration is back-in angled parking. In *Main Streets: Flexibility in Design and Operations*, Caltrans states that angled parking can be forward (nose-in) or reverse (back-in). Back-in angled parking requires vehicles to travel in reverse when initially parking, similar to parallel parking, but offers advantages for vehicles re-entering traffic (compared to nose-in parking), the primary advantage of which is that facing forward to re-enter traffic provides greater visibility of oncoming vehicles, bicycles, and pedestrians.

Parking Cost Redistribution of Impacts

In the City, it is common that off-street parking is paid parking, particularly near the beach (i.e., Zuma Beach, El Matador, La Piedra, El Pescador, and Nicholas Canyon). However, on-street parking along PCH is free. Because of this difference in price, demand for parking on PCH is higher than demand for parking in parking lots closer to recreational attractions. The resulting on-street parking maneuvers involve motorists slowing while searching for a space, making sudden turns, making unexpected stops, backing into parallel parking spaces, and eventually reentering traffic from the shoulder. Parking maneuvers negatively impact pedestrians and bicycles that are competing for use of the shoulder. Parking maneuvers also negatively impact vehicle operation because they increase friction in the right-hand lane and the potential for collisions. As mentioned above, on-street parking up to the curb return of driveways decreases sight distance from the driveways and increases opportunities for conflict. The disparity in parking pricing focuses the impacts of parking heavily on PCH.

Addressing the disparity in parking pricing could take the form of adjusting the cost down in off-street parking lots at times when they are underutilized. It could also take the form of adjusting the cost up for on-street parking in areas where public off-street parking is available. Public access does not necessarily mean free access. Pricing policy for on-street parking could be addressed in the upcoming City/Caltrans Parking Management Plan. The City could also encourage the County and State operators of off-street beach parking to re-examine their pricing policy to avoid underutilizing their parking lots.

Strategy D: ***Coordinate parking pricing with State (Caltrans, Coastal Commission) and County (Department of Beaches and Harbors) agencies to create equity and discourage unsafe parking and pedestrian activities.***

Valet Operations

Valet services are active on PCH where restaurants find that their parking demand exceeds the capacity of their off-street parking lots. In these circumstances, either patrons or restaurant valet employees would use public on-street parking on PCH. Under current conditions, procedures are not consistent across operators, and may lead to safety concerns such as sudden stopping, premature turns, and risky pedestrian behavior. The City should adopt standards for valet operations to be included in future Conditional Use Permits (CUPs). The standards could address: (a) whether valet operators can use parking on the opposite side of PCH, (b) reflectivity standards of valet operator clothing when operating at night, and (c) conditions leading to a review of the CUP (e.g., interference with traffic on PCH).

Strategy E: ***Review valet parking standards in westside Los Angeles communities and adopt best practices.***

Vehicle/Pedestrian Conflict

Conflict between vehicles and pedestrians occurs when pedestrians walk along the shoulder to and from bus stops, walk along the shoulder after parking, and when pedestrians cross the roadway at unmarked and marked mid-block locations as well as signalized intersections. The bus stops themselves are difficult to access. These bus stops are not consistent with ADA but can be challenging to get to for able-bodied patrons. Bus stops not located near intersections (e.g., at Moonshadows) have no paved walking path other than the roadway. At Bonsall Drive, the bus stop is located on a traffic island where no safe pedestrian path is provided. A comprehensive review of bus stops, which are located between Topanga Canyon Boulevard and Trancas Canyon Road, should be undertaken to determine how to provide ADA accessibility to these locations. This project would provide a co-benefit to other pedestrians walking along PCH.

Strategy F: ***Initiate planning, design, and implementation of Metro-consistent ADA accessibility to bus stops.***

Pedestrians cross PCH for several reasons. Many bus stops on the north side of the roadway have no pedestrian connection (marked or unmarked) to the south side of the roadway. Bus patrons have little choice but to cross PCH outside of a crosswalk. Some residents live on the south side of PCH but limited parking requires them to park on the north side of PCH. Visitors will also cross the roadway if