

# Transportation Commission

November 18, 2015

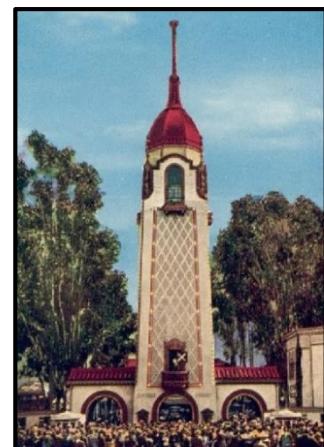
Item 5B - Action

## Recommend City Council Approval of the Central Avenue Concept Including Safety and Other Street Improvements

### BACKGROUND

The Central Avenue recommended concept for the 1.7 mile study area between Main Street/Pacific Avenue and Sherman Street/Encinal Avenue improves safety for all street users including people who walk, bicycle or drive. The Central Avenue concept achieves key community goals, including:

- Allows for a **safer street** within a neighborhood heavily concentrated with schools, and includes a center turn lane, which the Federal Highway Administration (FHWA) deems has substantial safety benefits when reducing travel lanes from four lanes to three lanes.
- Installs a **continuous bikeway** for 95 percent of the 1.7 mile study area compared to only 12 percent currently. Bikeways are recommended along the study area except near some parts of Webster Street and Eighth Street intersections to minimize delays for motorists.
- Makes it **easier and safer for people to walk** across Central Avenue with curb extensions, rectangular rapid fire beacons (see inset photo) and high visibility, ladder crosswalks at key intersections.
- **Improves the streetscape** with maintained and improved street trees, a gateway treatment at Webster Street and improved water quality treatment within the streets.
- Improves bicycle and pedestrian access along the **San Francisco Bay Trail** on both Central Avenue in the west end to east of Fifth Street and on Boat Ramp Road.
- **Minimizes motorist delay** with end-to-end travel time for the study area during peak congestion expected to increase up to 1.2 minutes today and up to 1.6 minutes in 2035 assuming that all the new citywide development including Alameda Point is built as planned. During off-peak times, no additional travel time is expected.
- Provides a **net gain of 40 on-street parking** along the study area with the highest gain in the west end by Alameda Point, on Boat Ramp Road and on the west side of Fourth Street. The parking spaces near Webster Street would not change.



This Central Avenue concept is the culmination of an extensive community based planning process that began in 1991 with the City's General Plan and continues to this day as follows:

- The City Council approved the [City Design Element of the General Plan](#) (1991) with policies maximizing access to the shoreline, which includes Central Avenue to “enhance the meeting of land and water.”
- The City Council approved the [Transportation Element of the General Plan](#) (2009), which lists Central Avenue as a transit priority street, a bicycle priority street and a truck route, in school and recreation zones and as an island arterial. The Transportation Element established objectives supporting streets that function better for all users such as:
  - Consider the transportation needs of individuals with limited mobility options (4.1.5).
  - Plan, develop and implement a transportation system that enhances the livability of our residential neighborhoods (4.2.2).
  - Plan, develop and implement a transportation system that protects and enhances air and water quality, protects and enhances views and access to the water, and minimizes noise impacts on residential areas (4.2.3).
  - Enhance opportunities for pedestrian access and movement by developing, promoting, and maintaining pedestrian networks and environments (4.3.2).
  - Promote and encourage bicycling as a mode of transportation (4.3.3).
  - Assess the impacts on all transportation modes (including auto, transit, bike and pedestrian) when considering mobility and transportation improvements (4.3.5).
  - Coordinate and integrate the planning and development of transportation system facilities to meet the needs of users of all transportation modes (4.3.6).
- The City Council approved the [Pedestrian Plan](#) (2009) that prioritized the Central Avenue improvements as medium-priority pedestrian projects.
- The City Council approved the [Bicycle Plan Update](#) (2010) that prioritized the Central Avenue bikeway project as a high-priority project.
- The Alameda County Transportation Commission (2012) included the project in the [Countywide Bicycle and Pedestrian Plans](#) as part of the Bicycle Vision Network.
- Consistent with these abovementioned plans and policies, City staff secured a grant from Caltrans in 2013 to develop a concept proposal to improve Central Avenue between Pacific Avenue/Main Street and Sherman Street/Encinal Avenue (Figure 1). The concept focuses on school, transit, truck and jobs access, two five-legged intersections, bikeway treatments and a reduction of travel lanes.

**Figure 1: Central Avenue Concept Proposal Location**



After City Council approval of the grant application in May 2013 and the consultant team – Placeworks with Kittelson as a sub-consultant – in November 2014, the City/consultant team engaged in a community process to develop a safety improvement concept for the Central Avenue study area. Exhibit 1 shows a compilation and summary of community comments received during the entire planning process. The concept was updated throughout the process to respond to comments from community members and stakeholders. A summary of the outreach effort and participation is as follows:

- **Community workshops:** There were a total of about 200 community members who participated in one or more of the three community workshops:
  - April 14 (Overview): 73 sign-ins
  - June 4 (Preferred Options): 79 sign-ins
  - September 17 (Preferred Concept): 85 sign-ins
- **Transportation Commission:** The majority of the 27 speakers on the Central Avenue agenda item in May were in favor of the preferred options.
- **Open Forum (<http://alamedaca.gov/public-works/open-forum>):** The City used an on-line forum allowing community members to post and read comments, and to respond to the following surveys:
  - **Goals:** Attracted about 80 respondents and 306 visitors.
  - **Revised Goals:** Attracted about 126 respondents and 474 visitors.
  - **Preferred Concepts:** Attracted about 120 respondents and 489 visitors. The majority of respondents were favorable about a two-way separated bikeway in the west end, and the bike lane concept between Fourth Street and Sherman Street had mixed support.
- **List Serv:** The Central Avenue concept list serv totals about 330 emails.
- **Web Page:** <http://alamedaca.gov/public-works/central-avenue-complete-street>
- **Outreach Materials:** Included press releases, flyers, project web page, email list servs, neighborhood barricades and three letters to properties within 300 feet radius of the project.

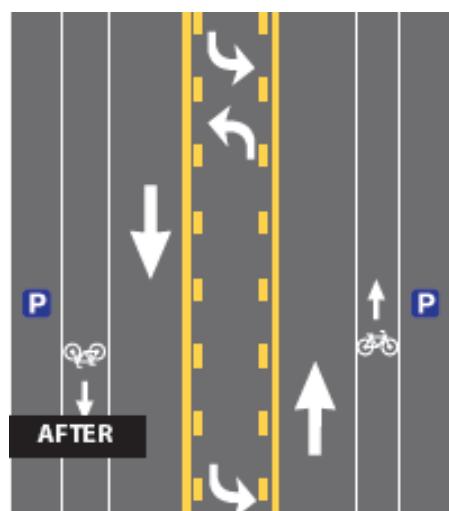
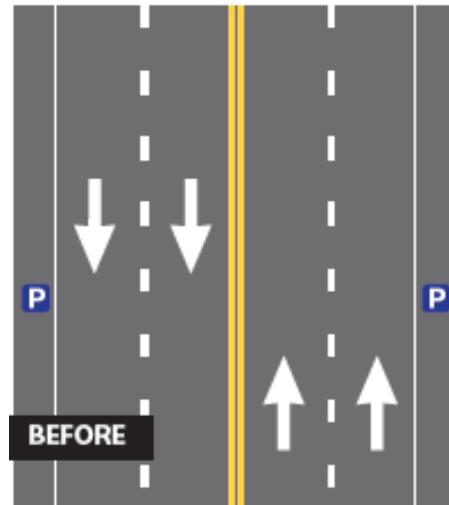
- **Advisory Committee:** Met three times and individually with key stakeholders, which included representatives from the Alameda Police Department, Alameda Unified School District, Paden School, Encinal High School, Bike Walk Alameda, West Alameda Business Association, AC Transit, Association of Bay Area Governments for the SF Bay Trail and Caltrans.
- **City Council Meeting:** Recommended Concept (expected early 2016).

One of the main goals of this planning effort is to **improve safety** along the Central Avenue study area. According to the FHWA's [Separated Bike Lane Planning and Design Guide](#), bikeways that are physically "separated" from motor vehicle travel provide more protection for bicyclists. According to the FHWA's [informational guide](#), streets with motor vehicle travel lane reductions from four lanes to three lanes have multiple safety benefits for people driving, walking and riding bikes, such as they (see photo inset):

- Decrease vehicle travel lanes for pedestrians to cross;
- Allow for better visibility of pedestrians waiting or attempting to cross the street;
- Improve circulation for bicyclists when a bikeway is added;
- Reduce rear-end, sideswipe and left-turn collisions by at least 19 percent through the use of a center two-way left-turn lane;
- Improve speed limit compliance by three to five miles per hour, which reduces the severity of collisions; and
- Improve travel flow since through vehicles are separated from left turning vehicles.

FHWA also has issued a [case studies](#) document, which provides example corridors that are similar to the Central Avenue study area with the following project results:

- **Santa Monica – Ocean Park Blvd:** Features include schools, neighborhood commercial district, 1.1 mile study area and 23,000 vehicles per day; Results: 65 percent reduction in collisions, and 60 percent reduction in injury collisions.
- **Seattle, Washington – Stone Way:** Features include numerous bus routes, schools and parks, 0.9 mile study area and 13,000 vehicles per day; Results: More than 80 percent reduction in top speeders, 14 percent reduction in collisions, 33 percent reduction in injury collisions, 80 percent reduction in pedestrian collisions, 35 percent increase in bicyclists and no motorist diversions.
- **Reno, Nevada – Multiple Corridors:** Features include 1.4 miles and 9,900 vehicles per day for California Avenue, 1.0 mile and 16,000 vehicles per day for Wells Avenue; Results: Reduction in collisions between 31 percent to 46 percent.



## DISCUSSION

The purpose of this concept proposal effort is to make Central Avenue safer and more convenient and comfortable for all street users – people who walk, bike, drive and take transit in a neighborhood heavily concentrated with schools. There are nine schools either along the corridor or within the surrounding neighborhood. Each corridor has its own unique needs, demands and existing conditions that are better understood through community outreach and listening to Alamedans as is currently occurring for the Central Avenue corridor between Pacific Avenue/Main Street and Sherman Street/Encinal Avenue. In general, the focus is on **safe travel** for Alamedans who want to bicycle, walk and take transit as well as drive autos, buses or trucks while minimizing motor vehicle delay.

### **Existing Conditions**

Exhibit 2 provides a memo of existing conditions, and was uploaded to the project web page on September 4, 2015. A summary of the street segments, adjacent land uses and reported injuries from collisions is shown below.

#### *Streets*

Sidewalks and on-street parking exist on both sides of the street for most of the study area. No bikeways exist except for a path between Boat Ramp Road and Main Street, which totals 0.20 miles or almost 12 percent of the study area. The San Francisco Bay Trail alignment is between Main Street and east of Fifth Street by Crown Drive where a trailhead exists, which totals 0.75 miles. Boat Ramp Road also is designated as part of the SF Bay Trail, and is 0.32 miles long. In the west end, there are two motor vehicle travel lanes with 9,300 vehicles per day and speeds ranging between 30 and 31 miles per hour. East of Third Street, four motor vehicle travel lanes exist totaling 7,600 vehicles per day and speeds ranging between 32 and 33 miles per hour. AC Transit Lines 20, W, 631 and 661 run along various segments of Central Avenue. Central Avenue is designated as State Highway 61 between Webster Street and Sherman Street, and is a designated truck route with truck volumes representing one to four percent of all motorist volumes.

#### *Schools and Other Land Uses*

There are a total of nine schools in the west end totaling an estimated enrollment of 4,500 students. Six out of nine of these schools have a citywide catchment area meaning that most of these schools have students enrolled from all over Alameda, which has caused an increase in congestion since these new charter and magnet schools have formed. There also is an increase in demand for the ferry service, which has a ferry terminal on Main Street in the west end and a potential future ferry terminal in the Sea Plane Lagoon at the terminus of Ralph Apuzzato Memorial Parkway. Site A in Alameda Point is in the process of being developed with construction expected in 2017.

#### *Collisions*

The Central Avenue study area has a disproportionate number of injuries from collisions compared to other streets in the city, which is one of the main reasons that the staff/consulting team is recommending safety improvements such as the reduction of a motor vehicle travel lane. According to the Statewide Integrated Traffic Records System, there were 89 reported injuries

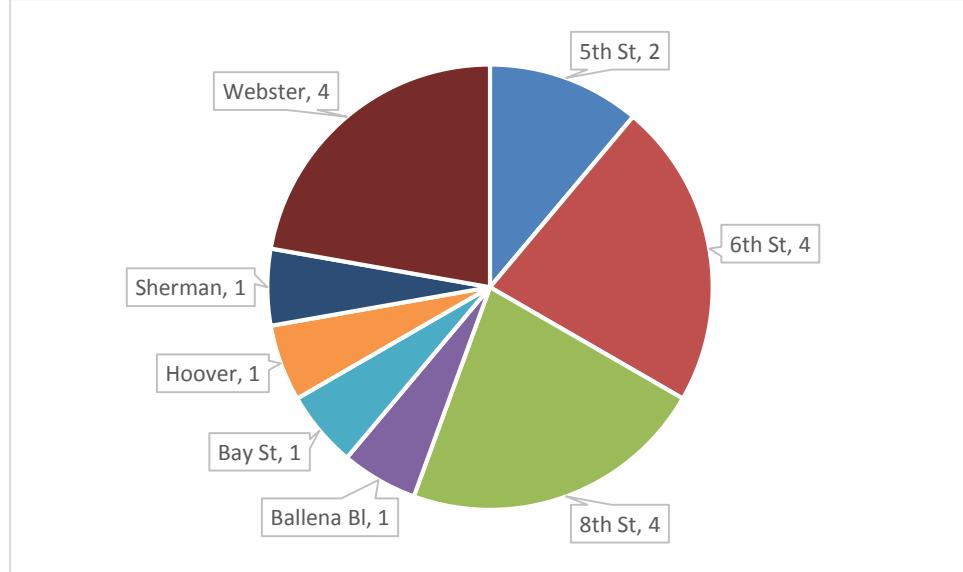
from collisions along the Central Avenue study area between 2003 and 2014. The study area represents only 1.4 percent of the street mileage citywide yet 4.1 percent of the injuries that occurred citywide during this ten year period. Walking and bicycling injuries represent 20 percent and 25 percent of injuries along the study area, which is a disproportionate amount compared to citywide proportions at 16 percent for both walking and bicycling injuries when considering all injuries throughout the City over the past ten years. These data most likely represent only the more severe collisions, since people involved in minor collisions tend not to report them to law enforcement. The number of collisions at a given location should be looked at in the context of the total number of bicyclists, motorists or pedestrians that typically travel through that location.

Table 1 shows that the injuries from collisions were dispersed throughout the study area with the two highest injury intersections being Webster Street and Eighth Street. Sixth Street, Eighth Street and Webster Street had the most pedestrian-involved injuries over the past ten years (Figure 2). Third Street adjacent to the heavily trafficked Encinal High School had the most bicyclist-involved injuries totaling seven in the past ten years (Figure 3) making the case for a separated bikeway, a westbound bike lane and a traffic signal adjacent to Encinal High School. For motorist injuries from collisions, the intersections with the highest motorist-involved only injuries were Webster Street, Eighth Street, Ninth Street and St. Charles Street (Figure 4).

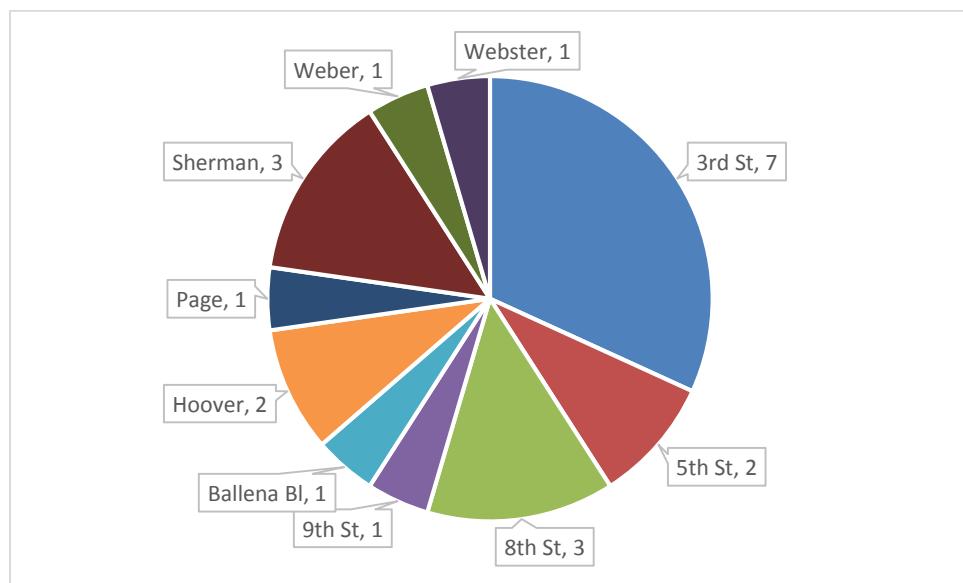
**Table 1: Central Avenue Study Area Injuries from Collisions (2004 to 2013)**

	Walking	Bicyclist	Motorist	Total	%
<b>3rd St</b>	0	7	1	8	9%
<b>5th St</b>	2	2	3	7	8%
6th St	4	0	0	4	4%
<b>8th St</b>	4	3	7	14	16%
<b>9th St</b>	0	1	7	8	9%
Ballena Bl	1	1	0	2	2%
Bay St	1	0	3	4	4%
Burbank	0	0	1	1	1%
Caroline	0	0	1	1	1%
Hoover	1	2	0	3	3%
Lincoln	0	0	1	1	1%
McKay	0	0	2	2	2%
Main	0	0	2	2	2%
Page	0	1	2	3	3%
<b>Sherman</b>	1	3	5	9	10%
<b>St. Charles</b>	0	0	6	6	7%
Weber	0	1	1	2	2%
<b>Webster</b>	4	1	7	12	13%
<b>Total</b>	18	22	49	89	100%
	20%	25%	55%		

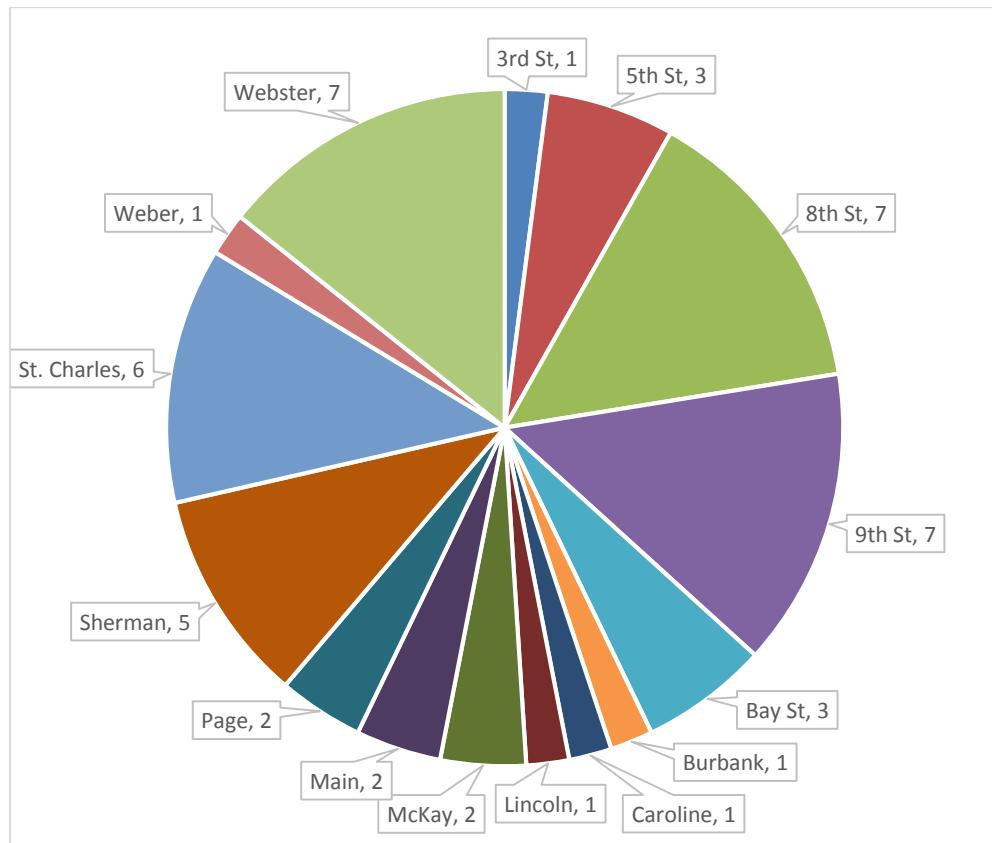
**Figure 2: Number of Pedestrian Injuries by Intersection (2004-2013)**



**Figure 3: Number of Bicyclist Injuries by Intersection (2004-2013)**



**Figure 4: Number of Motorist Only Injuries by Intersection (2004-2013)**



## Goals

During the outreach for the concept proposal, participants ranked the below project goals in priority order. The results are not statistically significant in that staff received fewer than 150 responses. Nevertheless, staff used the results as a general gauge to help direct the concept recommendations.

1. Encourage bicycling and walking.
2. Improve safety.
3. Improve the streetscape.
4. Traffic calming.
5. Encourage transit use.
6. Revitalize West Alameda.
7. Improve public access to the San Francisco Bay.
8. Minimize disruptions to motorists.
9. Improve truck access.

## Safety Improvement Recommendation Components

The staff/consultant team used community input, existing City policies and FHWA and other best practice documents to determine the recommended safety improvements for this Central Avenue study area, which are shown below. Exhibit 3 provides a more in depth summary of the recommended safety improvements. Exhibit 4 shows the recommended concept drawings.

- a) ***East End Section: Bike Lanes/Center Turn Lane:*** The staff/consultant team recommends a motor vehicle travel lane reduction from four lanes to three lanes with bike lanes and a center lane between Sherman Street/Encinal Avenue and Paden School west of Fifth Street (Figure 5). The concept would minimize motor vehicle travel delay by recommending sharing motor travel lanes between motorists and bicyclists by Webster Street and Eighth Street and by installing a traffic signal at Fifth Street in the long term.

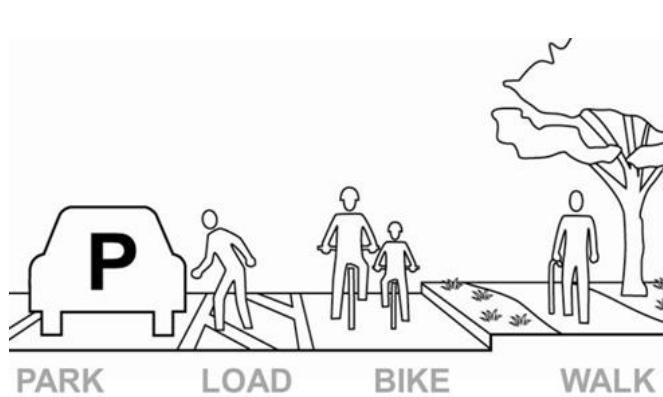
**Figure 5: Class II Bike Lanes between Sherman Street and Paden School**



- b) ***West End Section: Bike Lane/Separated Bikeway/Center Turn Lane:*** The staff/consulting team recommends extending the westbound bike lane, which is on the north side of the street, through this west end section and also installing a two-way separated bikeway on the south side of the street starting at Paden School and continuing it in front of Encinal High School until Main Street on the west side of the street by Alameda Point (Figure 6), which provides a protected bikeway for students traveling by bicycle to/from the two main schools in the study area . For bicyclists headed westbound, they could travel on the bike lane until Paden School where they could choose to continue along the bike lane or to enter into the two-way separated bikeway on the south side of the street using a recommended mid-block crossing in front of Paden School. Bicyclists traveling eastbound would start in the two-way separated bikeway on the west side of Main Street, and then would continue in a Class II bike lane starting at Paden School. This recommendation also would require a reduction of motor vehicle travel lanes between Paden School and Third Street. To minimize motor vehicle delay and to improve safety, the staff/consulting team recommends installing a traffic signal at Third Street/Taylor Avenue. To minimize conflicts between bicyclists using the two-way bikeway and motorists, the concept recommends narrowing the four driveways at Encinal High School

and having a bike signal phase at the existing Fourth Street signal and the proposed signal at Third Street/Taylor Avenue. A two-way separated bikeway and walkway also would be installed on Boat Ramp Road.

**Figure 6: Two-way Separated Bikeway and Westbound Bike Lane**



- c) **Traffic Signals:** Traffic signals are recommended to be installed at the following **two intersections**: Third Street/Taylor Avenue and Fifth Street in the long term to minimize motor vehicle delay and to improve safety.
- d) **Rectangular Rapid Fire Beacons:** These beacons flash using a strobe light when activated either by a push button or pad by pedestrians and bicyclists, and are recommended to be installed at the following **five locations**: Lincoln Avenue in front of Encinal High School, the new mid-block crossing in front of Paden School, the new marked crosswalk at the SF Bay Trail entrance east of Fifth Street, Page Street near Washington Park and Caroline Street.
- e) **Marked Crosswalks:** A total of **nine** marked crosswalks are recommended at the following locations: east side of Third Street intersection, across Taylor Avenue, mid-block in front of Paden School, east side of the Fifth Street intersection, mid-block at the SF Bay Trail entrance east of Fifth Street, St. Charles intersection (three additional ones), and the west side of the Bay Street intersection. A marked crosswalk would be eliminated on the west side of the Caroline Street intersection to consolidate pedestrian movements to the east side where the beacons are being recommended.
- f) **Curb Extensions:** Curb extensions are recommended at the following **14 intersections**: east side of Lincoln Avenue (two), Third Street/Taylor Avenue (four), Fourth Street (two), the mid-block crossing in front of Paden School (two), Fifth Street (one), the mid-block crossing in front of the San Francisco Bay Trail entrance (two), Sixth Street (two), Page Street (two), Eighth Street (one), Burbank Street (one), Ninth Street (three), Caroline Street (two), St. Charles Street (two) and Sherman Street/Encinal Avenue (three).
- g) **Parking Space Changes:** The study area would experience **a net gain of 40** on-street parking spaces. A summary of the recommendation is as follows:
  - The parking spaces near **Webster Street** would not change.

- An estimated 14 parking spaces would be eliminated to “daylight” the following intersections for **improved visibility**: in front of Paden School (two parking spaces), east side of Fifth Street intersection (two parking spaces), mid-block crossing at the SF Bay Trail entrance (two parking spaces), southeast of Eighth Street (one parking space), east side of Caroline Street (two parking spaces), southwest and northeast corners of St. Charles Street (two parking spaces) and east side of Sherman Street (three parking spaces).
  - In the **west end**, a net gain of 49 on-street parking spaces would occur. A total of 56 on-street parking spaces would be added including six parking spaces on the west side of Central Avenue south of Main Street, two on the southeast corner of this intersection and 48 parking spaces on Boat Ramp Road between Central Avenue and West Hornet Road. At Encinal High School, a total of seven on-street parking spaces would be lost to provide improved visibility at the four driveways.
  - At the **Fourth Street intersection**, eight parking spaces would be reallocated from the south side of the street to the north side of the street east of this intersection. On the west side, seven parking spaces would be added on the north side of the street and two would be removed on either side of the south side driveway.
- h) **Accessible On-street Parking Spaces:** To better accommodate individuals with disabilities, staff recommends providing accessible on-street parking spaces at regular intervals along the corridor per state and federal guidelines for placement even though it is not currently required. Potential locations for accessible on-street parking include near Encinal High School, Paden School, Webster Street (two spaces), Washington Park and Weber Street.
- i) **Sidewalk Improvements:** The recommendation would ensure that all curb ramps are accessible and that a continuous path of travel exists along the sidewalks.
- j) **Streetscape Improvements:** The concept would maintain and improve tree canopies, would install a gateway treatment at Webster Street and storm water management with rain garden curb extensions, where appropriate.
- k) **Transit Improvements:** Enhanced bus stops are recommended including the construction of a southbound bus island and a northbound bus loading area on Central Avenue at Main Street/Pacific Avenue. The bus loading area in front of Encinal High School and at Eighth Street in the westbound direction would be improved.
- l) **Utility Improvements:** Staff is coordinating sewer and storm water utility improvements to occur before potential street improvements. Underground overhead utility lines could be considered and thereby eliminate some of the utility poles on the street.
- m) **Street Reconfiguration - West End:** Staff recommends moving the street further west into Alameda Point and away from the residents along Central Avenue, which also would provide more bikeway and on-street parking options in this street segment as well as removing the intersection offset at Main Street/Pacific Avenue.
- n) **Pavement Resurfacing:** Staff will prioritize pavement resurfacing to occur after sidewalk and utility improvements, and will consider drainage improvements with the resurfacing.
- o) **San Francisco Bay Trail Gap Closure:** The staff/consulting team considered extending the SF Bay Trail east behind Encinal High School. Due to limited space behind Encinal High School, staff will not be pursuing this Bay Trail extension because it is considered too costly

and disruptive to Encinal High School. Instead, the staff/consulting team recommends improving Boat Ramp Road as the continued way for Bay Trail access. The recommendation is for a two-way separated bikeway, on-street parking and sidewalks on Boat Ramp Road.

- p) **Truck Access:** The concept accommodates trucks with the design of curb radii to work for delivery trucks that regularly travel on these side streets in the study area. Staff will continue to work with adjacent property owners on adding potential loading zones, if needed. The travel lane widths of 10 to 11 feet are consistent with the National Association of City Transportation Officials (NACTO) for bus and truck routes because wider travel lane widths are associated with higher vehicle speeds.

### **Impacts to Motor Vehicle Travel**

The motor vehicle travel lane reduction recommendation would reconfigure the street similar to the mid-section of Broadway, Atlantic Avenue and Fernside Blvd. (Table 1). The Central Avenue study area is well under the 20,000 vehicle per day threshold that FHWA uses as an upper limit for feasible motor vehicle travel lane reduction projects even when considering build-out of the City and Alameda Point at a maximum of 16,000 vehicles per day.

**Table 1: Comparison of Traffic Volumes**

<b>Street Name</b>	<b>Vehicles/Day</b>
Atlantic Avenue (Buena Vista to Constitution Way)	10,956
Broadway (Santa Clara Avenue to Otis Drive)	10,552
Fernside Blvd (Tilden Way to High Street)	8,550
Central Avenue (Main Street to Webster Street)	9,327
Central Avenue (Webster Street to Sherman Street)	7,600
Central Avenue: Future (average)	12,000
Central Avenue: Future (maximum)	16,000

This recommendation would have minimal impacts on motor vehicle travel time, and preserves the heaviest motor vehicle movements, which are morning westbound towards the tubes and afternoon eastbound return trips to Alameda. The end-to-end travel time for the study area during peak congestion is expected to increase up to 1.2 minutes today and up to 1.6 minutes in 2035 assuming that all the new citywide development including Alameda Point is built as planned (Tables 2 and 3). During off-peak times, no additional travel time is expected. Note that this future build-out analysis is considered conservative because not all the development could occur. Conservatively, the travel demand model also assumes the current mode split without reductions to motor vehicle travel after the implementation of improved bikeways and transportation demand management strategies by the developments.

**Table 2: Existing Year Peak Hour End-to-End Travel Time Comparison**

Time Period / Direction	Existing Lane Configuration	Three Lanes	Recommendation
Weekday AM Peak (7 to 9 a.m.)			
Eastbound	6.9 minutes	7.6 minutes	7.9 minutes
Westbound	6.8 minutes	15.2 minutes	8.0 minutes
Weekday PM Peak (4 to 6 p.m.)			
Eastbound	6.5 minutes	10.8 minutes	7.7 minutes
Westbound	7.0 minutes	8.6 minutes	8.2 minutes

**Table 3: Year 2035 Peak Hour End-to-End Travel Time Comparison**

Time Period / Direction	Existing Lane Configuration	Three Lanes	Recommendation
Weekday AM Peak (7 to 9 a.m.)			
Eastbound	8.4 minutes	9.4 minutes	8.7 minutes
Westbound	8.9 minutes	22.4 minutes	10.5 minutes
Weekday PM Peak (4 to 6 p.m.)			
Eastbound	9.1 minutes	20.0 minutes	9.7 minutes
Westbound	10.7 minutes	14.5 minutes	10.7 minutes

## **Alternatives Considered**

The staff/consultant team considered various concept ideas, and presented the preferred options to the Transportation Commission in May 2015 and to participants of the second community workshop in June 2015. These concept ideas included:

***Do nothing different – leave as is – status quo:*** A do nothing approach does not improve safety per FHWA guidance in a neighborhood heavily concentrated with schools, and is inconsistent with the goals in the Transportation Element and the projects in the existing planning documents.

***Santa Clara Avenue:*** This street would not provide a cross island bikeway as Central Avenue would in that Central Avenue already is a designated bikeway from the east end to the study area at Sherman Street/Encinal Avenue. Santa Clara Avenue serves as the island's main bus trunk line with Transbay Line O and local Line 51A running every few minutes during the peak periods. It is advantageous to move bicyclists from Santa Clara Avenue to Central Avenue to reduce bus/bicyclist conflicts. Santa Clara Avenue narrows in the west end, and is unable to accommodate bike lanes or a designated space for bicyclists.

***Sharrows:*** Sharrows are shared lane markings in the street similar to Oak Street in front of the library, which are installed to provide a visual cue to motorists about the presence of bicyclists and to share the road. The advantage of sharrows is that the street configuration remains the same without any impacts to motor vehicle delay. The disadvantage of sharrows is that the safety benefits from a center turn lane are not captured, and bicyclists and motorists continue to share the travel space making conflicts more likely. Sharrows only are recommended on the approaches of Webster Street to minimize motor vehicle delay and to maintain on-street parking.

***Buffered bike lanes/Two-way Separated Bikeways/One-way Separated Bikeways for the Entire Length of the Corridor:*** The advantage of this option is that these bikeways provide more protection for bicyclists, and are considered best practice bikeways in that they are physically "separated" from motor vehicle travel. The disadvantage is that for the majority of the study area either two motor vehicle travel lanes or one motor vehicle travel lane along with on-street parking on one side of the street would need to be removed to install these best practice bikeways. Separated bikeways, which are between the curb and on-street parking, would require on-street parking removal for 20 feet on either side of driveways according to the FHWA's [Separated Bike Lane Planning and Design Guide](#). The separated bikeway option for the entire length of the corridor is not recommended east of Paden School because of the frequency of driveways and intersections and thus frequent parking removal, and would require either a two lane street or the elimination of parking on one side of the street in and around the existing Webster Street business district.

***Education/Enforcement:*** Some community members stated that no changes to the street infrastructure are needed and that the City should focus on educating community members on safe driving and bicycling and on increasing enforcement along the Central Avenue study area. The countywide transportation sales tax - Measure B/BB - funds a Safe Routes to School program in Alameda, and most schools participate in it. The City is looking at ways to increase funding of

this program. As for enforcement, the City has a limited number of Police officers who are assigned to the Traffic Unit. In summary, we are providing education and enforcement yet still more needs to be done to improve safety.

### BUDGET CONSIDERATIONS/FISCAL IMPACT

There is no impact to the General Fund. This corridor concept proposal is funded by Caltrans through a Community-based Transportation Planning grant totaling \$232,000. The local match is paid for by the Alameda County Transportation Commission through Measure B - Alameda County's transportation sales tax - totaling \$25,800. Currently, there is no funding to implement the plan once approved.

### ENVIRONMENTAL REVIEW

In accordance with the California Environmental Quality Act (CEQA), this project is Categorically Exempt under the CEQA Guidelines Section 15301(c) – Existing Facilities (Minor alterations to existing facilities including bicycle facilities) and Section 15304(h) - Minor Alterations to Land and the creation of bicycle lanes on existing public rights of way). The project is also statutorily exempt subject to Public Resources Code Section 21080.20.5 (restriping of streets and highways for bike lanes in an urbanized area that is consistent with a bike plan). No further environmental review is required.

### RECOMMENDATION

Recommend City Council Approval of the Central Avenue Concept Including Safety and Other Street Improvements

Respectfully submitted,  
Gail Payne, Public Works

### Exhibits

1. Staff Responses and Compilation of Community Comments
2. Existing Conditions Memo (September 4, 2015)
3. Recommended Concept Summary Memo
4. Recommended Concept Drawings
5. PowerPoint for Transportation Commission Meeting (November 18, 2015)