

## Ruffin Road Improvement Questions

### Buffers

What is a buffer? Are there any nearby examples?

Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. There are many examples of buffered bike lanes throughout the City. Examples of buffered bike lanes within your community are on Aero Drive between Ruffin Road to Murphy Canyon Road and on Sandrock Road between Gramercy Drive to Aero Drive.

Do buffered lanes require maintenance? If so, what would be the maintenance schedule?

Yes, buffered lanes require maintenance just like regular bike lanes. The schedule is the same for regular bike lanes and buffered bike lanes.

Would a wider bike lane be safer than a narrower bike lane with a buffer?

A wider bike lane with no buffer is often times perceived as a parking lane by motorist. The buffer is perceived as a barrier between the bike lane and the vehicle travel lane more so than just the single white line that separates a bike lane from the vehicle travel lane. The buffer acts as a visual message to encourage motorists to maintain a safe distance away from bicyclists.

### Bicycle Lanes

If bicycle lanes are available, what are the rules about bicyclists riding outside of bicycle lanes in traffic lanes (e.g. is there a certain minimum speed? do they have to pull over if they are holding up traffic)?

Whenever a bicycle lane has been established on a roadway, any person operating a bicycle upon the roadway at a speed **LESS** than the normal speed of traffic moving in the same direction at that time shall ride within the bicycle lane. (CVC 21208)

What is the definition of holding up traffic (i.e. one car? two cars? etc.)?

When there are five or more cars following behind, per CVC 21656.

Are bicycle lanes "legally" a lane? Bicycle lanes are legally defined in the Streets and Highways Code Section 890.4 as Class II Bikeways... "which provide restricted right-of-way designated for the exclusive or semiexclusive use of bicycles...".

If a bicycle needs to move out of a bicycle lane (for example, to avoid debris or a defect in the road surface), are bicyclists required to signal?

A bicyclist may leave a Bike Lane when avoiding debris or a defect in the roadway but must signal in doing so (CVC 21208).

Can cars drive in bicycle lanes (for example, to make a right turn)?

California Vehicle Code 21209: (a) No person shall drive a motor vehicle in a bicycle lane established on a roadway pursuant to Section 21207 except as follows:

(1) To park where parking is permitted.

(2) To enter or leave the roadway.

(3) To prepare for a turn within a distance of 200 feet from the intersection.

(b) This section does not prohibit the use of a motorized bicycle in a bicycle lane, pursuant to Section 21207.5, at a speed no greater than is reasonable or prudent, having due regard for visibility, traffic conditions, and the condition of the roadway surface of the bicycle lane, and in a manner which does not endanger the safety of bicyclists.

Are there any statistics about the differences in accidents of lanes with sharrows versus dedicated bicycle lanes or lanes without sharrows?

Bicycle lanes have been cited as being the recommended design when they can be accommodated on the street cross-section. In lieu of bicycle lanes, sharrow markings can provide a bicyclist with an improvement in safety by alerting motorists of the increased presence of bicycles in the vehicle travel lane. Where sharrows have been installed on a previously unmarked roadway, bicycle traffic has been noted to increase and use of the adjacent sidewalk by bicyclists has been significantly reduced. Also, bicyclists have been noted to increase their distance from parked vehicles when sharrows are in use. (see attach Study: Route Infrastructure and the Risk of Injuries to Bicyclists)

## Traffic Study

Sandrock Road was recently changed from a 4 lane road to a 2 lane road. How does the amount of traffic on Ruffin Road compare to the amount of traffic on Sandrock Road?

Current daily weekday traffic volume on Ruffin Road is 10,500 vehicles. Current daily weekday traffic volume on Sandrock Road is 9,900 vehicles. These counts were obtained in October, 2014.

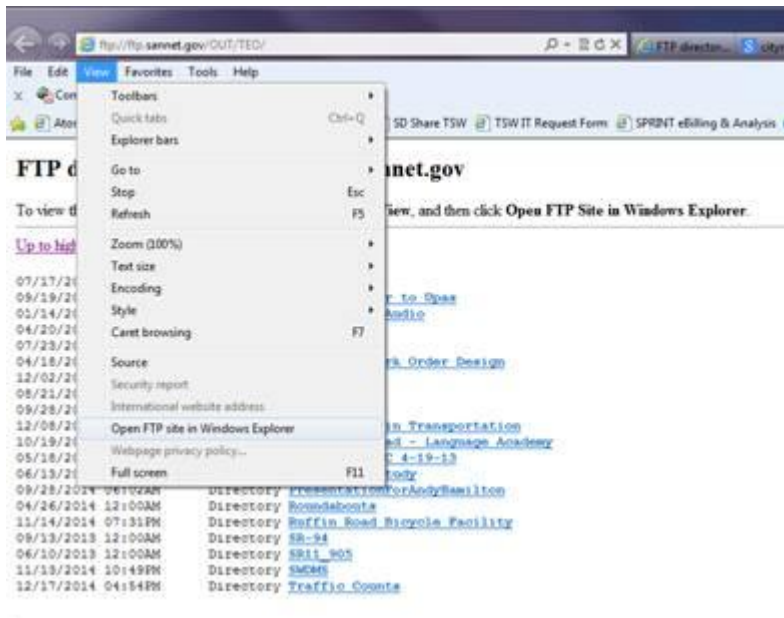
Where can I find a copy of the Ruffin Road traffic study?

The Ruffin Road Traffic Study can be review at:

<ftp://ftp.sannet.gov/OUT/TEO/>

Click on **Ruffin Road Bicycle Facility**

To view this FTP site in Windows Explorer: click **View**, and then click **Open FTP Site in Windows Explorer**.



Did this study include the proposed development at the corner of Gramercy and Ruffin Road?

No, the project was under consideration at the time that we conducted our study. Our Development Services Department informs us that this project was approved in 2003 or 2004 and that construction is just beginning now. It is our understanding that the project consists of 160 residential condominiums and 50 commercial condominiums. However, no traffic study has been submitted to the city by the developer nor has the developer been asked to submit one. Based on trip generation data published by the Institute of Transportation Engineers (ITE) the proposed development could generate approximately 1,500 vehicle trips on a daily weekday basis.

Heat Signature Study (which indicated that there were a lot of bicyclists on Ruffin Road)

Is the heat signature different for a motorcyclist than it is for a bicyclist?

The website for the Heat Signature Study tracks bicycle and jogging/running activity. Data is input from users of the system.

Is the heat signature different for a motorcyclist than a car?

See Above

Where do I find a copy of this report?

The link to the website is: <http://labs.strava.com/heatmap/#13/-117.23164/32.83024/blue/bike>

## Diagonal Parking

The diagonal parking listed in the alternatives requires back in parking. Where can I see some examples of this back in diagonal parking?

Euclid Avenue between El Cajon Blvd. to Monroe Street. Installed in November 2013.  
E Mission Bay Drive @ Hilton Hotel.

Currently Ruffin Road has parallel parking. Statistically is there any difference in parking accidents between diagonal and parallel parking?

Euclid Avenue was changed from parallel parking to back-in diagonal parking. Since the installation of the Back-in Diagonal Parking on Euclid Avenue, there have been only one "hit a parked car" accident. Before the changes, there have been three accidents in 2012: One accident involved a pedestrian and the other two accidents was a side swipe and hit a park car.

What road configuration would allow for head on diagonal parking?

Alternative 7 could accommodate head-in angled parking.

## 2 Lane Road

Ruffin Road is used as a route for Qualcomm Stadium events. If Ruffin Road were reduced to 2 lanes, could the center lane be used for traffic control?

Yes. Event traffic control conditions supersede traffic control devices such as lane lines, markings and signals but it requires a Traffic Control Permit and authorized personnel to control the special use conditions.

There are 1,000+ multi-family housing units located on Ruffin Road. Are there any examples in San Diego where a road with as many housing units was converted from a 4 lane road to a 2 lane road? The traffic counts used in the study account for traffic generated by the existing land uses, including the number of dwelling units along Ruffin Road.

The following are Road Diet projects that we have done recently: Sandrock Road Road Diet Project converted 5 lanes to 3 lanes with bike lanes and parking. Madison Avenue Road Diet Project converted 3 lanes to 2 lanes with bike lanes and parking. 4<sup>th</sup>/5<sup>th</sup> Avenue Road Diet Project converted 3 lanes to 2 lanes with bike lanes parking.

What is the effect on safety of converting a 4 lane road to a 2 lane road?

- Improved visibility
- Reduced vehicle speeds (traffic calming)
- Improved accessibility
- Walkability (reduces crossing distances)
- Accident reduction

If Ruffin Road were converted to two lanes, is it possible to extend the red zones at the intersections and driveways to increase visibility?

Yes if sight distance conditions need to be improved in order to provide safer ingress/egress

What is the approval process for:

Alternatives that include diagonal parking?

1. Petition by 75% of fronting property owners
2. Verification of signatures
3. Community Planning Group Action Item
4. Council Resolution

Alternatives that include buffers?

For the Lane Diet alternatives, there is no required approval process..

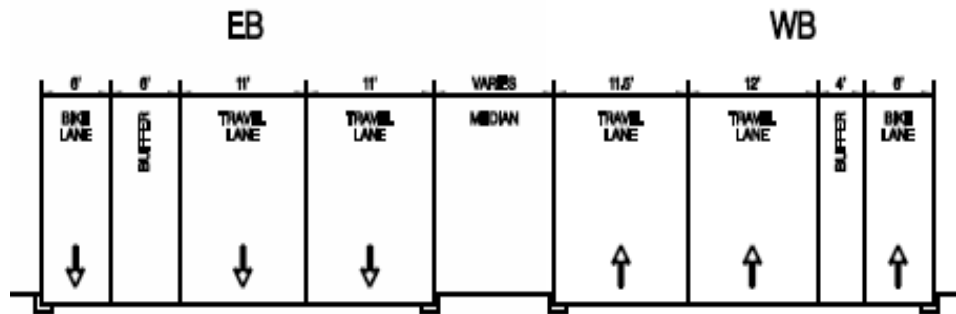
Alternatives for one lane?

For Road Diet alternatives, there is no required approval process but community support is sought.

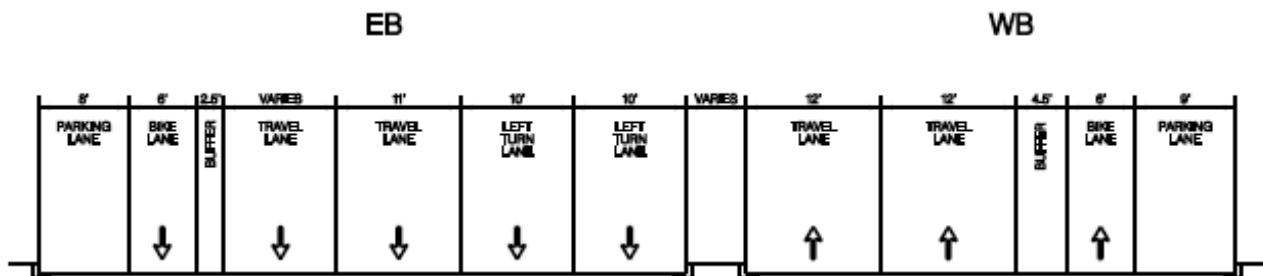
Questions from the meeting.

Do you know if Aero Drive have a 6 ft bike lane 2 foot buffer and 10 feet travel lane?  
The following are the profiles for the buffered bike lane on Aero Drive.

Aero Drive between Ruffin Road to West Canyon:



Aero Drive between West Canyon Drive to Daley Center Road/Ruffin Road



Aero Drive between Ruffin Road to Murphy Canyon Road

