

PROJECT INITIATION DOCUMENT

To Request Intersection Improvements

For Novato Boulevard at San Marin Drive/Sutro Avenue

I. Initiating Office/Initiator

The pedestrian and bicyclist safety concerns identified in this project were first brought to the City Engineer by San Marin High School ninth grade student, Ashley Leonard and her Girl Scout Project Advisor, Paul LaPerriere. In addition, the Draft Novato General Plan 2035 Update Traffic Analysis identified the intersection of Novato Boulevard and San Marin Drive/Sutro Avenue as requiring traffic mitigation. The City of Novato Engineering Division proposes to initiate a new Capital Improvement Project to improve the intersection of Novato Boulevard and San Marin Drive/Sutro Avenue.

II. Purpose and Need

PURPOSE: This project is proposed to improve traffic operations, and improve pedestrian and bicycle facilities at the intersection of Novato Blvd. at San Marin Dr./Sutro Ave.

NEED: This project is needed to 1) Provide continuous pedestrian and bicycle facilities at this high-volume, unsignalized intersection in a primarily residential neighborhood which is bordered by San Marin High School, All Saints Lutheran Church and Preschool, one half mile north of Pleasant Valley Elementary School, and within a mile of Sinaloa Middle School; and 2) Improve traffic operations from the existing Level of Service (LOS) F breakdown conditions during the PM peak hour.

III. Location

See Attachment A: Map of Intersection.

IV. Deficiency Summary

BACKGROUND AND EXISTING INTERSECTION CONTROLS

The intersection of Novato Boulevard and San Marin Drive/Sutro Avenue is currently an all-way stop controlled intersection with four legs: Novato Boulevard generally in the east-west direction, Sutro Avenue to the south, and San Marin Drive to the north. Novato Boulevard and Sutro Avenue both have one through lane in each direction in the vicinity of the intersection. San Marin Drive has two through-lanes in each direction just north of the intersection and one through-lane, one left-turn lane and one right-turn lane in the southbound direction at the intersection. There is one through-lane and one left-turn lane in each direction of Novato Boulevard at the intersection of Sutro Avenue and San Marin Drive. Sutro Avenue has one through-lane in each direction with one left-turn lane and one through-lane at the intersection.

Two crosswalks are provided at the intersection of Novato Boulevard and San Marin Drive/Sutro Avenue—one with continental-style striping across the San Marin Drive and one with traditional striping across Novato Boulevard at the west side of the intersection. Both crosswalks are striped in yellow thermoplastic due to the proximity to San Marin High School. In addition, there are asphalt pathways on both sides of Novato Blvd. north of the intersection with no frontage improvements such as curbs or storm drains in until the PG&E Stafford Lake Substation, just east of Sandy Creek Way. There are no frontage improvements along Sutro Ave. south of Novato Blvd until Michele Circle/Erica Court.

The intersection of Novato Boulevard and San Marin Drive/Sutro Avenue has been the subject of community concern since at least 2012 when a Sinaloa Middle School student was killed on Novato Boulevard a short distance west as she was crossing the street on her way home. The issue was more recently raised during the May 2017 Safe Routes to School Novato Task Force meeting. As a result, the City Engineer assigned a Traffic Engineer to evaluate the characteristics of this intersection and further west on Novato Blvd. The report outlined eight

recommendations for the City to consider. These recommendations were categorized into short-term enhancements that could be performed by city maintenance crews such as tree trimming and sign replacements, medium-range roadway striping enhancements to be installed as a part of a future pavement resurfacing project, and long-range capital project enhancements including a traffic signal or roundabout at the Novato Boulevard and San Marin Drive/Sutro Avenue intersection.

To date, trees along Novato Blvd. were removed or trimmed, retroreflective pavement markers have been replaced, traffic signs were removed/replaced as recommended, and the speed limit was lowered from 45 MPH to 40 MPH. Speed reduction markings are planned to be installed when Novato Blvd. is resurfaced under the 2019 Annual Pavement Rehabilitation project. This Project Initiation Document serves as the first step in the process of consideration of a capital project to install a roundabout or traffic signals at the intersection of Novato Boulevard and San Marin Drive/Sutro Avenue, which would be expected to reduce driver confusion, provide pedestrian crosswalk phases, increase throughput during peak hours, decrease traffic delays, and improve air quality.

See Attachment B: W-Trans Memorandum dated July 31, 2017.

TRAFFIC CIRCULATION ANALYSIS

In a General Plan Circulation Analysis completed by Zack Matley, a Principal at W-Trans on behalf of the City of Novato Planning Division, it was recommended that the intersection of San Marin/Sutro Drive be signalized or converted to a roundabout in order to accommodate existing and future peak hour traffic at LOS D or better.

See Attachment C: W-Trans Memorandum dated August 10, 2017.

PEDESTRIAN IMPROVEMENTS

In order to assess the level of school-related walking and biking trips made at this intersection during typical morning and afternoon school commute periods, pedestrian and bicycle counts were collected. These tallies occurred on Wednesday, October 3, 2018, and summarized as follows: 43 students walked and 29 students rode their bikes through this intersection between 7:00 and 8:00 a.m. during their respective morning commute *to* school; and 75 students walked and

27 students rode their bikes through this intersection when leaving school between 1:30 and 2:30 p.m. that afternoon. All walking students were observed crossing within the two marked crosswalks.

The collision history of this intersection was reviewed to determine any patterns that may indicate a safety issue. Collision rates were calculated based on records available from the Statewide Integrated Traffic Records System (SWITRS) reports. Reported crashes that occurred between May 1, 2008 and April 30, 2018 were reviewed. During this ten year period there were seven reported crashes at this intersection, with zero involving a pedestrian and one involving a bicycle, and the remaining five involving vehicles-only.

It should be noted that because there were zero reported pedestrian-involved crashes, the pedestrian-involved collision rate is zero. However, it is also of interest to understand the collision rate involving vehicles. This intersection collision rate was determined using vehicular turning movement counts obtained in November 2016. The resulting collision rate was calculated as 0.13 collisions per million vehicles entering (c/mve), which was then compared to the *average* collision rate for comparable facilities, or all-way stop-controlled intersections. As indicated in the data source, *2014 Collision Data on California State Highways*, published by California Department of Transportation (Caltrans), the average collision rate for comparable intersections is 0.21 c/mve. Thus the collision rate at this intersection is lower than the statewide average for comparable facilities, indicating a better-than-average operating condition. A summary of this information is included as Attachment D.

While the collision rates above suggest an effective use of the intersection and orderly travel patterns, the Governor's Highway Safety Association concluded in a March 2018 report that pedestrians now account for a larger proportion of traffic fatalities than they have in the past 33 years--a trend that is anticipated to continue to increase. The pedestrian volumes at this location are also relatively high due to the proximity to San Marin High School and residential neighborhoods, and half of the existing intersection lacks frontage improvements such as curb, gutter, sidewalk, and accessible curb ramps. For these reasons, pedestrian improvements should be installed along with bicycle lanes to better facilitate multi-modal transportation through this intersection.

V. Conclusion

The intersection of Novato Boulevard and San Marin Drive/Sutro Avenue has been identified in the Draft Novato General Plan 2035 Update Traffic Analysis as requiring signalized traffic controls or conversion to a roundabout to mitigate existing and future LOS F breakdown conditions during peak hours. In addition, the intersection lacks continuous pedestrian and bicycle facilities despite the demand.

The Engineering Division recommends the initiation of a new Capital Improvement Project to improve the intersection of Novato Boulevard and San Marin Drive/Sutro Avenue.