



What improvements does the project include?

The project includes various measures to enhance roadway safety, including:

- Replacing damaged or non-standard guardrails with new metal beam guardrails
- Installing “rumble strips” along the centerline of the road
- Upgrading existing signs and roadway markings to improve warning sign visibility, including new chevrons, advanced curve warnings, new reflectors, object markers and enhanced safety lighting
- Where feasible, grading and paving areas to allow safe areas for law enforcement and emergency response vehicles
- Applying a high-friction surface treatment to the existing roadway
- Constructing minor roadside drainage features, such as new berms, “V” ditches and gutter flares, and minor grading to direct stormwater runoff away from the road

The project does not include widening of the road. Select locations of the roadway are being graded/paved, primarily around curves, blind spots, or accelerated downhill areas.

Where is the project area?

Located within the Trabuco Canyon region of unincorporated Orange County, the safety improvements will occur along Live Oak Canyon Road and Trabuco Canyon Road, between the Santiago Canyon Road/El Toro Road intersection and the City of Rancho Santa Margarita city limit near the east end of Trabuco Canyon Road.

Why is this project needed?

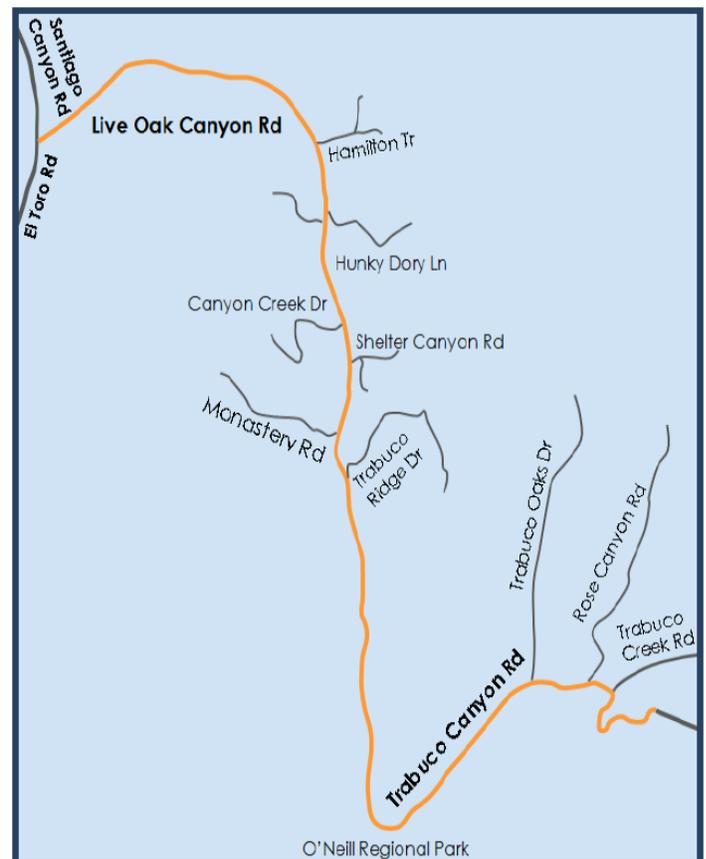
The project is designed to enhance vehicle safety along the roadway. The safety measures are being implemented to minimize the risk of vehicular accidents and also reduce the effects of an accident if one does occur. The most common type of incident on Live Oak Canyon Road and Trabuco Canyon Road is roadway departure, which lead to collisions with objects adjacent to the roadway. The County is implementing safety improvement measures in an effort to reduce the number of incidents.

Will there be any improvements to help traffic enforcement?

Yes. Law enforcement is one component of the overall approach to roadway safety. Select areas of roadway shoulder will be paved to accommodate safe space for law enforcement and emergency response vehicles.

What is a high-friction surface treatment?

High-friction surface treatment is a safety measure installed as a thin overlay to the existing roadway. The surface treatment is proven to be effective in all weather conditions. The surface treatment has been applied to roads throughout California in an effort to reduce roadway departure incidents. It has the same lifespan as the asphalt concrete used for a typical roadway



Will the high-friction surface treatment encourage more speeding?

Although we cannot control driver behavior, high-friction surface treatment itself does not encourage speeding. The surface treatment has a similar effect as driving with a new set of tires, such as reducing skidding, particularly during wet weather conditions. The geometry, curvature, and alignment of the roadway remain unchanged, so driver comfort will not increase compared to the existing road. Drivers are expected to maintain the same posted speed as the pre-project condition.

Please refer to the Federal Highway Administration (FHWA) Q&A regarding high-friction surface treatments, which is also available here:

https://www.fhwa.dot.gov/innovation/everydaycounts/edc-2/pdfs/fhwa-cai-14-019_faqs_hfst_mar2014_508.pdf

Will the high-friction surface treatment increase roadway noise?

The noise impact of the surface treatment is minimal beyond existing roadway conditions. Any increase in sound will be undetectable by the human ear. Please refer to the FWHA Q&A for more details.

Will any trees be removed as part of this project?

No. This project does not include tree removal. Unrelated to this project, pest/disease infested tree removal was performed prior to this project.

Will bike lanes be included in this project?

No, Class I and/or Class II bike lanes are not included in the project. Constructing Class I or Class II bike lanes would require widening the roadway and would have significant environmental impacts.

How many vehicles travel on Live Oak Canyon Road and Trabuco Canyon Road each day, on average?

Trabuco Canyon Road

Live Oak Canyon to Trabuco Oaks Drive = 2,800

Trabuco Oaks Drive to Rose Canyon Road = 3,700

Live Oak Canyon Road

El Toro/Santiago Canyon Road intersection to Hamilton Trail = 3,000

Hamilton Trail to O' Neill Regional Park entrance = 3,600

When is the project expected to start and finish? When are the working hours?

Pre-construction preparations:	Late August 2018
Construction:	Starting September 2018
Project completion:	Anticipated for April 2019
Work hours:	Monday – Friday, 8:30 a.m. – 4:30 p.m.

The schedule is subject to change depending on weather, working conditions and other factors.

Will residents living within the improvement area be restricted from getting to/leaving their homes?

In general, residents will have uninterrupted access to their homes during construction. However, access may be impeded for only a few hours when applying the surface treatment directly in front of driveways. In this situation, we will coordinate with the resident before any interruption and will always provide access in emergency situations.

Will there be lane closures? Will there be full road closures?

There will be single lane closures in the area where current work is occurring (a lane closure will not include the entire length of the project). The lane closures will only occur during project work hours, with flag personnel on-site to control traffic flow moving in one direction at a time. Road users should expect brief traffic delays due to traffic control while safety improvements are performed.

Closures are not anticipated during nighttime hours or on weekends. Please observe all project safety signs, barriers and personnel.

Will the lane closures apply only to vehicles or will pedestrians and cyclists also follow traffic control measures?

Traffic control and lane closures will apply to all roadway users, including pedestrians and cyclists. Cyclists may share the road with other vehicles. Pedestrian access and/or detours will be provided.

How are the improvements being funded?

The project is primarily federally funded by the Highway Safety Improvement Program (HSIP). The remaining portion will be funded by County of Orange road funds. The total construction cost is approximately \$3M.