

## Application of Criteria for a Project of Air Quality Concern

**Project Title: I-280 / Wolfe Road Interchange Improvements Project**  
**Summary for Air Quality Conformity**  
**Task Force Meeting: October 24, 2019**

---

### Description

The I-280/Wolfe Road Interchange Improvements Project (Project) proposes to modify the existing full-service interchange located at Interstate 280 (I-280) and Wolfe Road in Cupertino, CA. The project would eliminate collector distributors and convert loops to merge onto I-280 as separate on-ramps. Existing and proposed project interchanges would remain as Partial Cloverleaf (Type L-9) and would not include changes to the I-280 mainline.

### Background

Caltrans, in collaboration with Santa Clara Valley Transportation Authority (VTA) and the City of Cupertino, is proposing this project to improve local street traffic operations and promote multimodal use at the interchange.

### Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

*(i) New or expanded highway projects with significant number/increase in diesel vehicles?*

- Not a new or expanded highway project
- Interchange replacement—no additional lanes on I-280
- No change in traffic volume or truck percentages on I-280

*(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?*

- Diesel vehicles represent approximately 4.9% of intersection traffic volume
- Intersections at LOS E or F improve, and delays decrease (2045)
- No project changes to land use that would affect diesel traffic percentage

*(iii) New bus and rail terminals and transfer points?—Not Applicable*

*(iv) Expanded bus and rail terminals and transfer points?—Not Applicable*

*(v) Affects areas identified in PM<sub>10</sub> or PM<sub>2.5</sub> implementation plan as site of violation?*

As indicated in the attached Draft Air Quality Report, the Project would not result in any exceedances of either the PM<sub>10</sub> or PM<sub>2.5</sub> standards.

|  |   |                           |  |              |
|--|---|---------------------------|--|--------------|
| <b>RTIP ID#</b> 17-07-0026   |   |                           |  |              |
| <b>TIP ID#</b> SCL 190011  |   |                           |  |              |
| <b>Air Quality Conformity Task Force Consideration Date</b><br>October 24, 2019  |   |                           |  |              |
| <b>Project Description</b> <i>(clearly describe project)</i>   |   |                           |  |              |
| <p>The Project would modify the existing I-280/Wolfe Road Interchange by constructing the following improvements:</p> <ul style="list-style-type: none"> <li>• Widen (Alternative A) or Replace (Alternative B) the existing Wolfe Road bridge structure over I-280 from two lanes in each direction to three through lanes and one right turn lane in each direction.</li> <li>• Modify, realign, and square up all on- and off-ramps to better accommodate bicyclists and pedestrians.</li> <li>• Replace existing HOV preferential on all on-ramps.</li> <li>• Replace existing sound walls along the north side of I-280 affected by the project.</li> <li>• Add Class II or IV bicycle lanes and 10-foot sidewalks along both NB and SB Wolfe Road.</li> <li>• Provide a bike/ped connection from Wolfe Road to Perimeter Road and/or the planned Junipero Serra Trail.</li> <li>• Place retaining walls and fill on the existing Perimeter Road undercrossing to accommodate grade changes.</li> </ul> |   |                           |  |              |
| <b>Type of Project:</b><br>Roadway – Interchange Improvements  |   |                           |  |              |
| <b>County</b>  | <i>Narrative Location/Route &amp; Postmiles</i>                   |                           |  |              |
| SCL  | I-280 at Wolfe Road in the City of Cupertino/SCL-280 (PM8.1/8.6). |                           |  |              |
|  | <b>Caltrans Projects – EA#</b> 1K300                              |                           |  |              |
| <b>Lead Agency:</b> Caltrans   |   |                           |  |              |
| <i>Contact Person</i>  | <i>Phone#</i>   | <i>Fax#</i>               | <i>Email</i>                                   |              |
| Lani Lee Ho  | (408) 321-5927  |                           | lani.ho@vta.org                                |              |
| <b>Federal Action for which Project-Level PM Conformity is Needed</b> <i>(check appropriate box)</i>   |   |                           |  |              |
| <i>Categorical Exclusion (NEPA)</i>  | X <b>EA or Draft EIS</b>  | <b>FONSI or Final EIS</b> | <b>PS&amp;E or Construction</b>                | <i>Other</i> |
| <b>Scheduled Date of Federal Action:</b> TBD   |   |                           |  |              |
| <b>NEPA Delegation – Project Type</b> <i>(check appropriate box)</i>   |   |                           |  |              |
|  | <b>Section 326 – Categorical Exclusion</b>                        | X                         | <b>Section 327 – Non-Categorical Exclusion</b> |              |
| <b>Current Programming Dates</b> <i>(as appropriate)</i>   |   |                           |  |              |
|  | <b>PE/Environmental</b>   | <b>ENG</b>                | <b>ROW</b>                                     | <b>CON</b>   |
| <b>Start</b>   | 2017  | 2020                      | 2020   | 2022         |
| <b>End</b>   | 2020  | 2022                      | 2022   | 2024         |

**Project Purpose and Need (Summary):** *(please be brief)*

**Purpose**

The purpose of the Project is to improve traffic operations and facilities for multimodal<sup>1</sup> forms of transportation, including bicycle, pedestrian, and high occupancy vehicle uses, at the Interstate 280 (I-280)/Wolfe Road Interchange in the City of Cupertino.

**Need**

Wolfe Road is a key connector between job locations and housing, commercial, and retail developments. The existing interchange at I-280 is congested with significant delays, which are projected to worsen due to planned growth in the area. Sidewalks and bike lanes are narrow and cross high-speed, at-grade ramp connections, which discourages use by pedestrians and bicyclists. The interchange configuration is not consistent with Caltrans' Complete Streets design guidelines or the Cupertino General Plan vision for a walkable, bikeable community.

***Surrounding Land Use/Traffic Generators (especially effect on diesel traffic)***

The project area is developed with a mixture of retail, commercial, and residential uses. The newly constructed Apple Campus 2, the planned renovation of Vallco Shopping Mall, and the planned Hamptons Redevelopment, are also in the project area.

**Brief summary of assumptions and methodology used for conducting analysis**

The Traffic Operations Analysis Report (TOAR) summarizes the results of the Opening Year 2025 and Design Year 2045 AM and PM peak hour traffic analysis. Traffic results are based on the City of Cupertino's General Plan using VTA's Regional Model. The CT-EMFAC (version 6) model was used to compute operational emissions.

**Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

See attached summary tables; TOAR, Section 6; Air Quality Report, Appendix E.

**RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

See attached summary tables; TOAR, Section 7; Air Quality Report, Appendix E.

**Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

See attached summary tables; TOAR, Section 6; Air Quality Report, Appendix E.

**RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

See attached summary tables; TOAR, Section 7; Air Quality Report, Appendix E.

**Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses**

Not applicable.

**RTP Horizon Year / Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses**

Not applicable.

**Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)**

The Project is limited to operational improvements at the I-280/Wolfe Road interchange and is not anticipated to result in any redistribution of traffic.

**Comments/Explanation/Details (please be brief)**

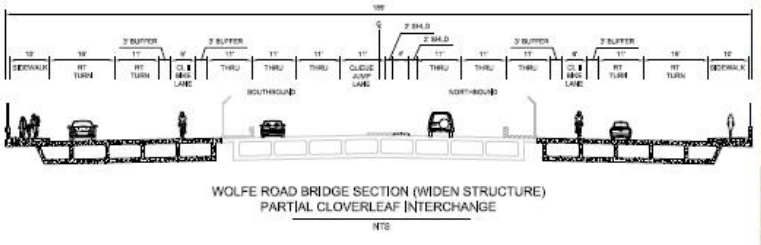
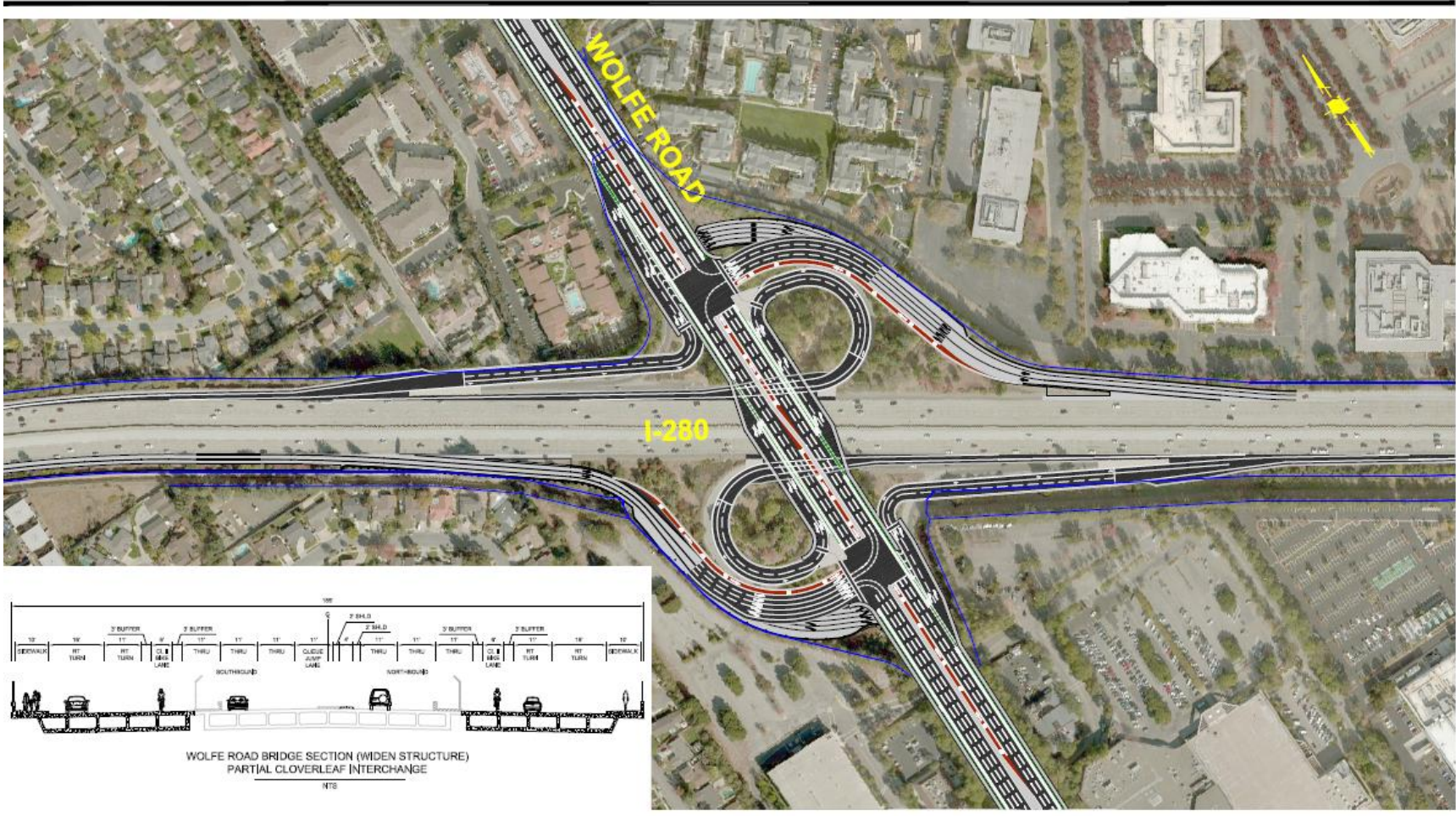
The Project modifies an existing interchange and does not create additional lanes on I-280. Therefore, the Project is not a new or expanded highway project and does not result in a significant increase in diesel vehicles.

Attachments:

- Figure 1 – Map of Project Limits and Surrounding Area
- Figure 2 – Map of Alternative A: Partial Cloverleaf Interchange (Widen Structure)
- Figure 3 – Map of Alternative B: Partial Cloverleaf Interchange (Replace Structure)
- Summary Tables of ADT and Truck %
- [Final TOAR \(March 2019\) – Link to download](#)
- [Draft Air Quality Report \(August 2019\) – Link to download](#)



Figure 1 – Map of Project Limits and Surrounding Area

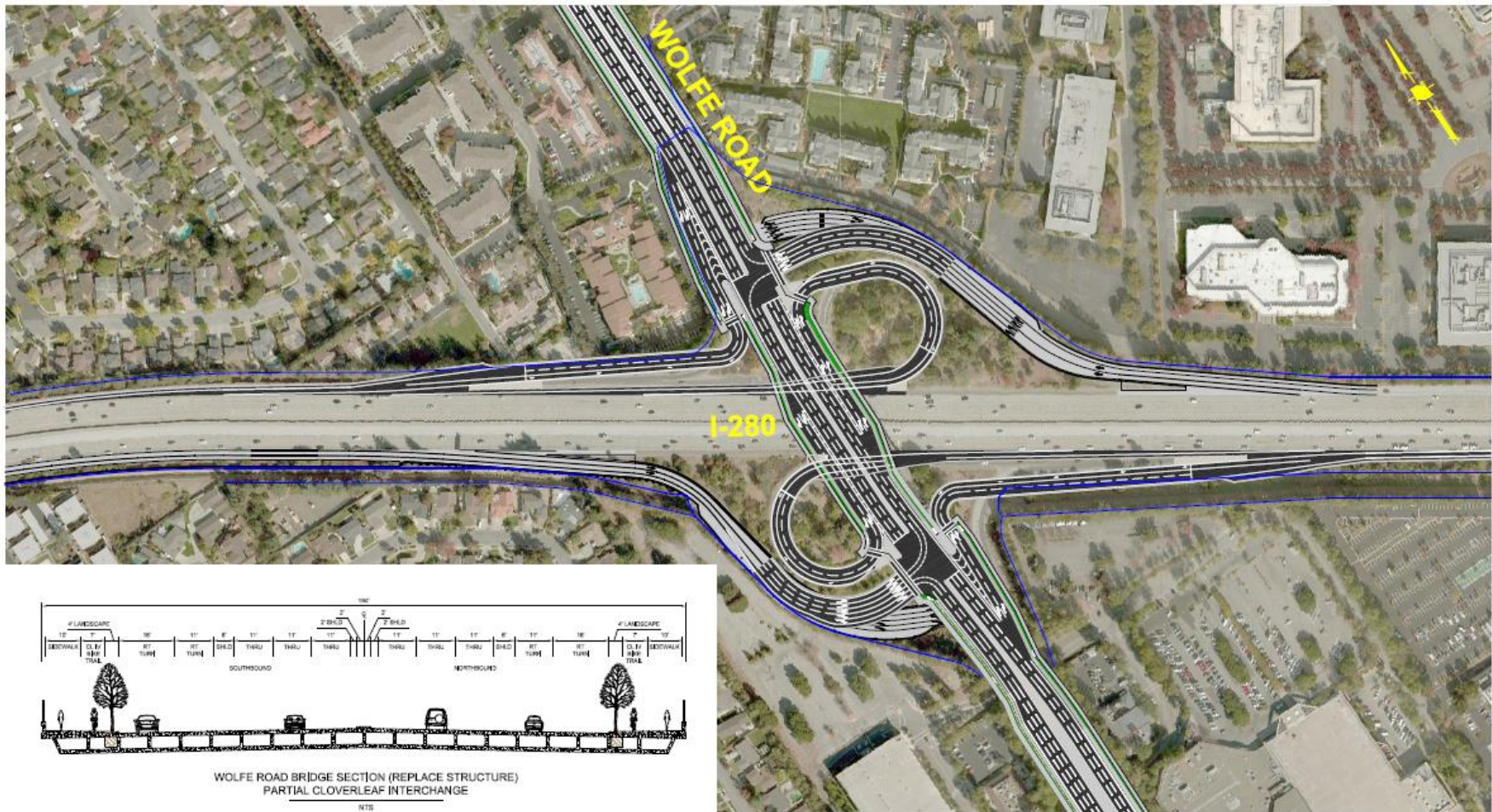


PARTIAL CLOVERLEAF INTERCHANGE (WIDEN STRUCTURE)

Scale: 1" = 100'  
 Drawn: A/J/Reviewed: W/JW  
 10/16/16 4:03:00 06-16-2016



Figure 2 – Map of Alternative A: Partial Cloverleaf Interchange (Widen Structure)



PARTIAL CLOVERLEAF INTERCHANGE (REPLACE STRUCTURE)

Scale: 1" = 100'  
 Drawn: A/J Reviewed: W/W  
 Inter: 05/13/00 08/10/01



Figure 3 – Map of Alternative B: Partial Cloverleaf Interchange (Replace Structure)

## Summary Tables

No Build, Build 1, and Build 2 Alternatives

| Loc ID | Segment Name               | Existing Count (2017) |              | Opening Year (2025) |               | Design Year (2045) |               |
|--------|----------------------------|-----------------------|--------------|---------------------|---------------|--------------------|---------------|
|        |                            | Existing Peak Total   | Existing ADT | Peak Total          | Estimated ADT | Peak Total         | Estimated ADT |
| 1      | NB Wolfe to I-280 SB       | 1,142                 | 8,507        | 1,210               | 9,020         | 1,800              | 13,410        |
| 2      | NB Wolfe to I-280 NB       | 965                   | 6,343        | 1,180               | 7,760         | 1,780              | 11,710        |
| 3      | NB I-280 Off Ramp to Wolfe | 2,006                 | 15,065       | 3,070               | 23,050        | 3,510              | 26,360        |
| 4      | SB Wolfe to I-280 NB       | 1,010                 | 6,077        | 1,450               | 8,720         | 1,660              | 9,990         |
| 5      | SB Wolfe to I-280 SB       | 872                   | 7,170        | 1,420               | 11,680        | 1,580              | 12,990        |
| 6      | SB I-280 Off Ramp to Wolfe | 1,515                 | 9,904        | 2,250               | 14,710        | 2,670              | 17,450        |
| 7      | NB Wolfe crossing Bridge   | 3,000                 | 19,235       | 4,980               | 31,930        | 6,210              | 39,810        |
| 8      | SB Wolfe crossing Bridge   | 3,085                 | 19,499       | 5,040               | 31,850        | 6,130              | 38,740        |

AM Peak (8:00AM-9:00AM), PM Peak (5:00PM-6:00PM)

| Build Alternatives |            |                 |                     |                   |
|--------------------|------------|-----------------|---------------------|-------------------|
| Scenario           | Truck Type | % of Truck Type | Diesel VMT Fraction | % of Diesel Truck |
| Existing<br>2017   | Truck 1    | 2.3             | 0.471               | 1.1               |
|                    | Truck 2    | 3.3             | 0.946               | 3.1               |
| Opening<br>2025    | Truck 1    | 1.9             | 0.591               | 1.1               |
|                    | Truck 2    | 3.7             | 0.945               | 3.5               |
| Design<br>2045     | Truck 1    | 1.6             | 0.676               | 1.1               |
|                    | Truck 2    | 4               | 0.948               | 3.8               |

Truck 1 = light heavy-duty

Truck 2 = medium and heavy-duty trucks