

# Concord HSIP Traffic Signal Modifications

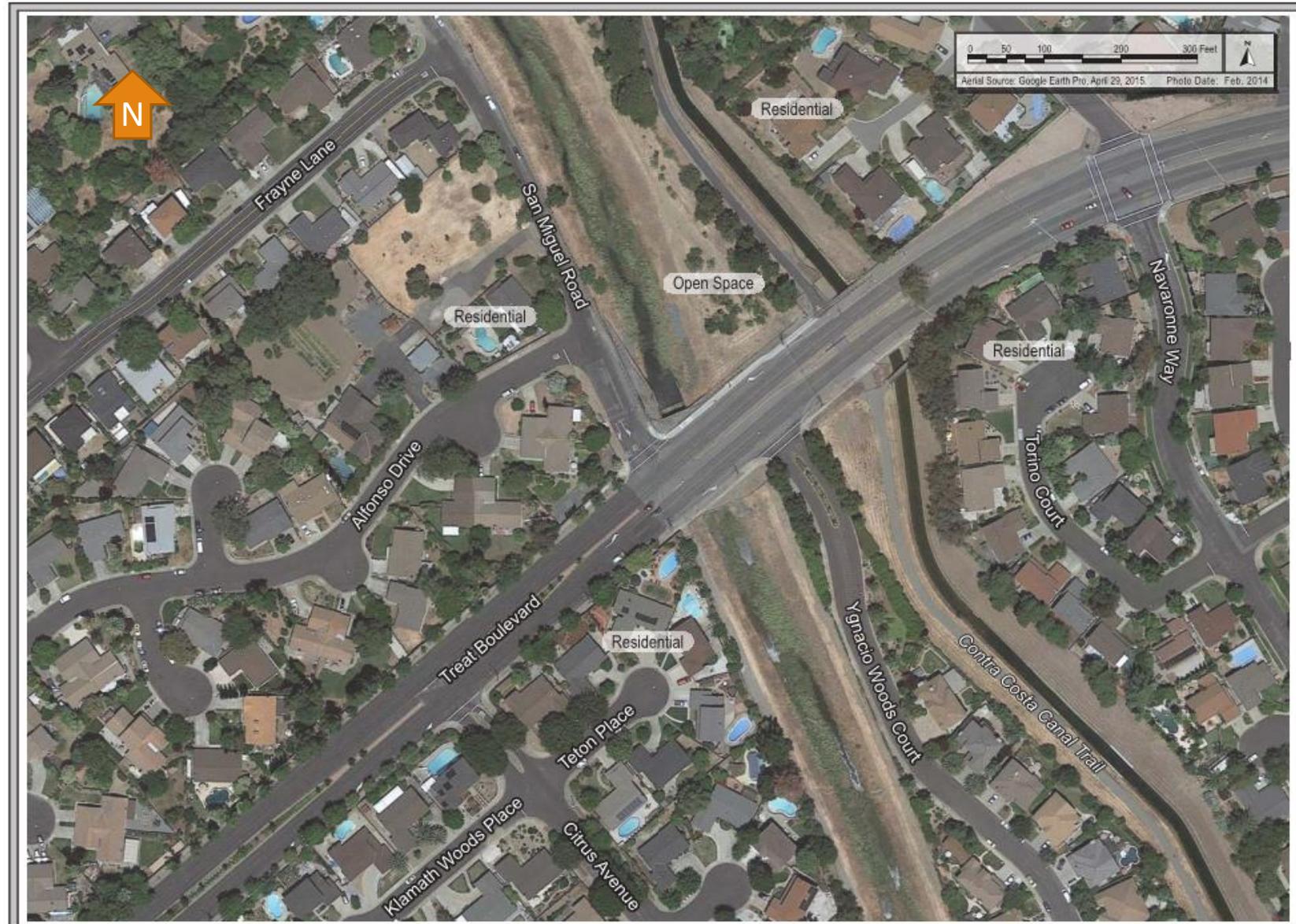
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MTC AIR QUALITY CONFORMITY TASK FORCE MEETING

MAY 28, 2015

# The Project

- Install new traffic signal at the intersection of Treat Boulevard and San Miguel Road
- Install new ADA-compliant curb ramps



TREAT BOULEVARD/SAN MIGUEL ROAD INTERSECTION SIGNALIZATION SURROUNDING LAND USES

PROJECT # (CC-110103)

# The Project

- Improve safety by reducing the number of conflicts at the existing unsignalized intersection.
- Improve pedestrian access and safety by providing new signalized crossing across Treat Boulevard.
- Construction expected 2016/17





# Traffic Demand

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## EXISTING

Treat Blvd ADT : 35,200 vpd

San Miguel Rd ADT: 3,800 vpd<sup>1</sup>

3% Trucks on Treat Blvd (City Truck Route)<sup>2</sup>

2% Trucks on San Miguel Rd<sup>2</sup>

**No change in demand expected due to project**

## FUTURE (2040) – FROM CCTA MODEL

Treat Blvd ADT : 40,500 vpd

San Miguel Rd ADT: 3,800 vpd

5.4% Trucks on Treat Blvd<sup>3</sup>

2% Trucks on San Miguel Rd<sup>3</sup>

### Notes:

1. ADT is estimated based on actual Treat Blvd ADT, and percentage of peak hour traffic on San Miguel Rd.
2. Estimated
3. Based on CCTA Travel Demand Model (2015, Fehr & Peers)

# Traffic Operations

|                    | Today (Existing Conditions) | Today (With Project) | 2040 (No Project) | 2040 (With Project) |
|--------------------|-----------------------------|----------------------|-------------------|---------------------|
| AM Peak Period LOS | B (F) <sup>1</sup>          | C                    | F(F) <sup>1</sup> | D                   |
| PM Peak Period LOS | A (F) <sup>1</sup>          | A                    | A(F) <sup>1</sup> | A                   |

Notes:

1. The intersection control is currently a side-street stop. Reported here is the intersection LOS, as well as LOS for the worst-performing approach to the intersection. LOS is determined per the *Highway Capacity Manual*, Ch.17.

# Air Quality Findings

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

- Not a new or expanded highway project
- Intersection signalization project
- Signalization will not increase traffic volume or truck percentages on the roadway

# Air Quality Findings

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

- Diesel vehicles represent two (2) percent of traffic volume on San Miguel Road and three (3) percent of traffic volume on Treat Boulevard. Treat Boulevard is identified on the City of Concord's designated truck routes system (see attached "Truck Routes" map). Truck volumes on Treat Boulevard are expected to increase to 5.4 percent of the ADT (40,500 trips) while truck volumes on San Miguel Road would remain at two percent in the 2040 horizon year.
- This intersection currently operates at LOS F during peak hours and would improve to LOS C and A with signalization. Horizon year (2040) intersection LOS would improve from LOS F to LOS D and A during the AM and PM peak hours, respectively, with signalization.
- This project does not change land use and will not lead to an increase in traffic volumes or an increase in diesel vehicle number or percentage of daily traffic volumes inside or outside of the project area.

# Air Quality Findings

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(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 PM10 or PM2.5 implementation plan as site of violation?

– No state implementation plan for PM2.5 required for the non-attainment area, therefore, the project is not identified in plan as an area of potential violation.

# Conclusions

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The proposed project includes the installation of a signal, striping, and ADA improvements.

Project is not expected to create more congestion or increase the volume of diesel-powered vehicles on the streets within the project limits or any other streets in the City of Concord. Therefore, no negative environmental or air quality impacts are anticipated as a result of this project. The project will significantly increase the safety of vehicles and multimodal users of this intersection.

Based on the project information provided in this report, we believe that it should not be considered a project of air quality concern and, therefore, should not be required to complete PM2.5 hot-spot analysis for project-level conformity determination.