

STATE ROUTE 12 / 113 Intersection Improvement

MTC Air Quality Conformity Task Force Meeting on May 26, 2016



**CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 4
111 Grand Avenue, Oakland, CA 94623**

PROJECT LOCATION



Vicinity Map



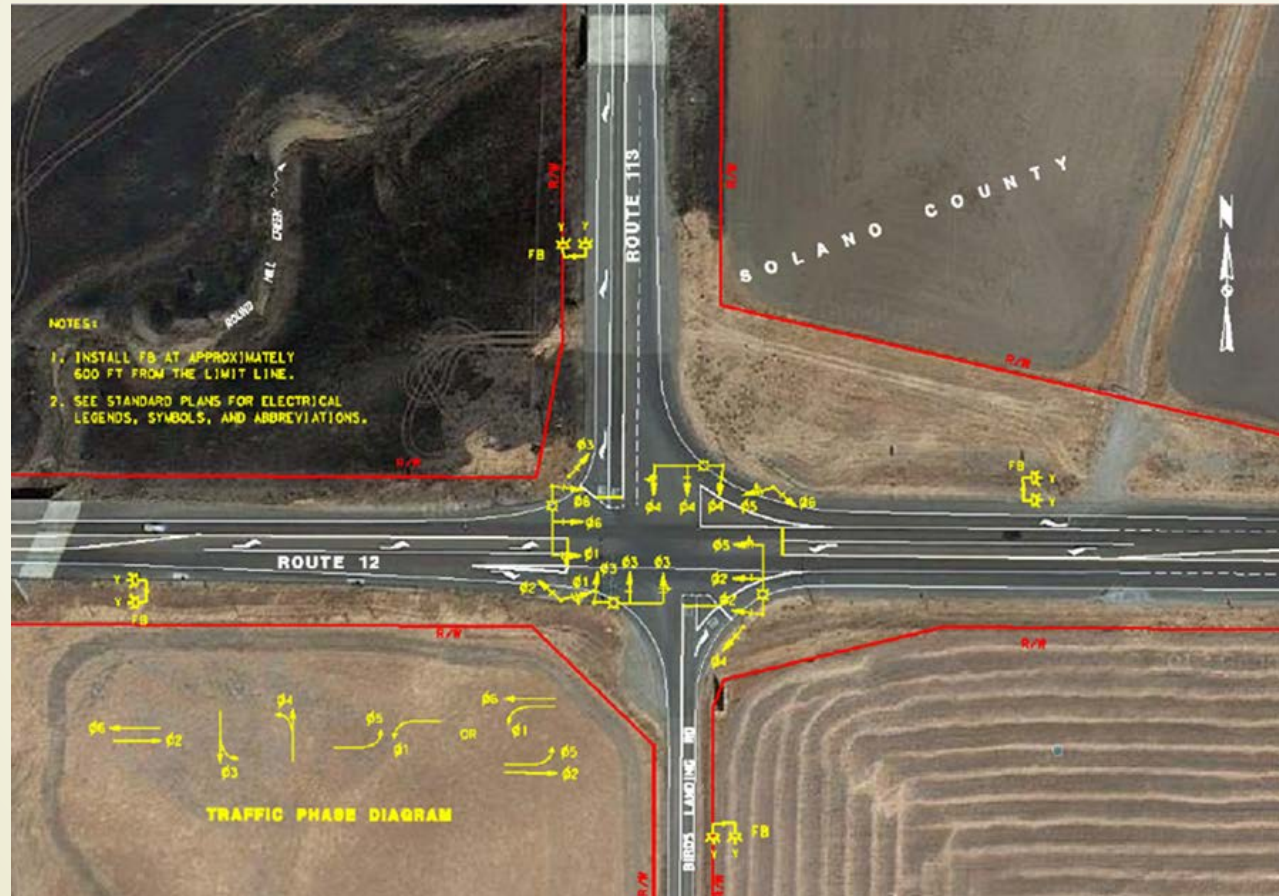
Site Map

PROPOSED INTERSECTION IMPROVEMENTS



Alternative 1: Conceptual Roundabout Layout

PROPOSED INTERSECTION IMPROVEMENTS



Alternative 2: Conceptual Traffic Signal Layout

LAND USE



Land Use Diagram

Legend

--- Municipal Service Areas

General Plan Land Use Designations

Natural Resource Designations

- Water Bodies and Courses
- Park and Recreation
- Marsh

Agricultural Designations

- Watershed
- Agriculture

Public Designations

- Public/Quasi-Public

Residential Designations

- Rural Residential
- Traditional Community - Residential
- Traditional Community - Mixed Use
- Urban Residential

Commercial Designations

- Neighborhood Commercial
- Neighborhood Agricultural/Tourist Center
- Commercial Recreation
- Service Commercial
- Highway Commercial
- Urban Commercial

Industrial Designations

- General Industrial
- Limited Industrial
- Water Dependent Industrial
- Urban Industrial

Special Purpose Areas

- Joint Study Area
- Specific Project Area
- Urban Project Area

Overlays

- Vacaville-Fairfield-Solano Greenbelt
- Travis Reserve Area
- Agricultural Reserve Overlay
- Tri-City/County Cooperative Planning Area
- Resource Conservation Overlay



PURPOSE AND NEED

- ▶ **Purpose:** The purpose of this project is to improve safety at the intersection of Route 12 and Route 113 in Solano County.
- ▶ **Need:** This project is needed to reduce the number or severity of collisions at the intersection of State Route 12 and 113. A signal warrant study that was performed by the District 4 Office of Traffic Safety indicates that Warrants 1 (eight-hour vehicular volume), 2 (four-hour vehicular volume), 3 (peak hour), and 7 (crash experience) are met.



PROJECT DESCRIPTION

- ▶ There are two proposed improvements at the intersection of SR 12 with SR 113 and Birds Landing Road in Solano County, namely; 1) Roundabout, and 2) Signalized Intersection.
- ▶ This is a Safety Improvement Project in the Collision Reduction Category under the State Highway Operation and Protection Program (SHOPP).
- ▶ Area surrounding the project is either open space or agricultural land. The intersection is approximately 1 mile from the nearest receptor and 4.5 miles from the residential community in Rio Vista.
- ▶ There will be no change to traffic lanes of SR 12, SR 113 and Birds Landing Road.
- ▶ The roundabout will improve traffic safety by eliminating crossing conflicts in SR 12, SR 113 and Birds Landing Road.

OPENING YEAR (2019)

Opening Year (2019)									
YEAR / ROAD SEGMENT	NO BUILD			ROUNDBOUT			SIGNALIZED INTERSECTION		
	AADT	TRUCKS		AADT	TRUCKS		AADT	TRUCKS	
		%	#		%	#		%	#
SR 12	14,600	11.03%	1,610	14,600	11.03%	1,610	14,600	11.03%	1,610
SR 113	1,800	7.15%	129	1,800	7.15%	129	1,800	7.15%	129
Birds Landing Road	120	7.15%	9	120	7.15%	9	120	7.15%	9

DESIGN YEAR (2040)

Design Year (2040)									
YEAR / ROAD SEGMENT	NO BUILD			ROUNDBOUT			SIGNALIZED INTERSECTION		
	AADT	TRUCKS		AADT	TRUCKS		AADT	TRUCKS	
		%	#		%	#		%	#
SR 12	19,000	11.03%	2,096	19,000	11.03%	2,096	19,000	11.03%	2,096
SR 113	1,900	7.15%	136	1,900	7.15%	136	1,900	7.15%	136
Birds Landing Road	150	7.15%	11	150	7.15%	11	150	7.15%	11

PROJECT SCHEDULE

Current Programming Dates	Preliminary Engineering/ Environmental	Engineering	Right of Way	Construction
Start	May 2015	July 2016	January 2018	September 2018
End	January 2017	May 2018	April 2018	September 2019



CONCLUSIONS

- ▶ The SR 12/113 Intersection Improvement Project would improve traffic safety at the project location. This is a Safety Improvements Project in the Collision Reduction Category of the SHOPP program.
- ▶ The intersection has low truck volumes.
- ▶ The project would not increase traffic volumes or percentage of diesel vehicles in the area.
- ▶ Based on the project information provided, this project should not be considered a project of air quality concern and, therefore, a PM_{2.5} hot-spot analysis for project-level conformity determination is not necessary.