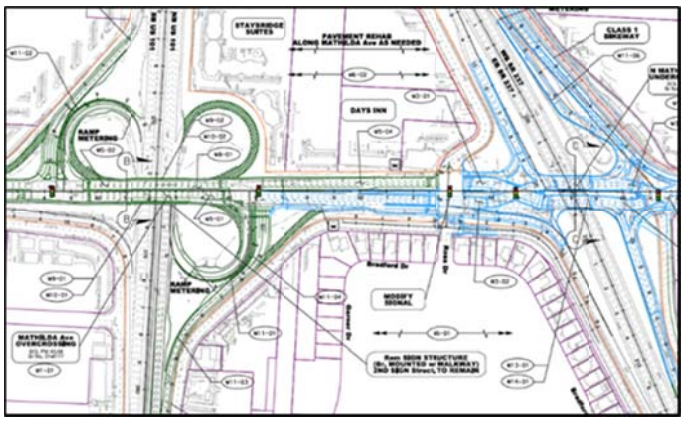
# MATHILDA AVENUE IMPROVEMENTS AT SR 237 AND US 101 PROJECT



The Mathilda Avenue Improvements at SR 237 and US 101 Project proposed to improve Mathilda Avenue in the City of Sunnyvale from Almanor Avenue to Innovation Way, including on- and off-ramp improvements at the SR 237 and US 101 interchanges. In accordance with guidance from Caltrans, Baseline performed an Initial Site Assessment (ISA) and Preliminary Geological Assessment (PGA) for the project site. The purpose of the ISA was to identify and evaluate the level of risk associated with the potential disturbance of hazardous materials in soil, groundwater, and building materials during project construction and operation activities. The purpose of the PGA was to describe existing geological, seismic, and mineral resource conditions in the project vicinity, and evaluate related hazards that could impact proposed construction activities and operations.

The ISA included review and evaluation of the physical setting, historical land uses, environmental records, and previous environmental investigations, as well as a site reconnaissance. The ISA determined that soils at the project site may have been impacted by aerially-deposited lead, inorganic and organochlorine pesticides, and naturally-occurring asbestos, and metals from stormwater runoff. The ISA also determined that groundwater beneath the project site could be impacted by a regional chlorinated solvent plume and two petroleum hydrocarbon plumes from former underground storage tank sites. Based on the findings of the ISA, Baseline recommended performing a Preliminary Site Investigation to pre-characterize soils for offsite disposal and reuse, and to evaluate the chemical quality of soils for construction worker health and safety.

The PGA included review of documents, databases, maps, and geospatial data from Caltrans, the United States Geological Survey, the United States Department of Agriculture, and the California Geological Survey to describe existing conditions and identify known or potential geohazards in the project vicinity. The PGA identified potentially significant project impacts associated with soil erosion, expansive soils, corrosive soils, seismic shaking, and liquefaction. These hazards could affect the structural integrity of project structures, such as new pavement, retaining walls, overhead sign foundations, and utility relocations, as well as traffic operations. Based on the findings of the PGA, Baseline recommended performing a site-specific geotechnical investigation to evaluate the geologic and seismic hazards and to provide detailed design measures that comply with Caltrans' standards for construction.

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