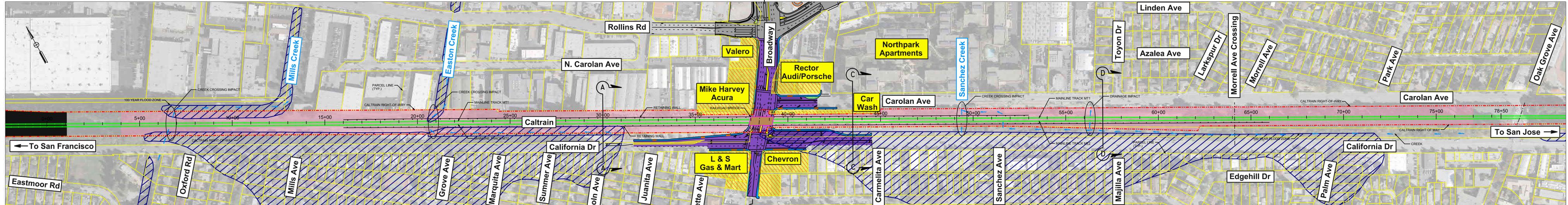
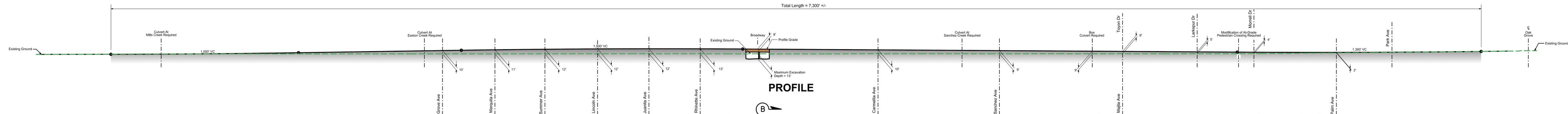


ATTACHMENT B

EXHIBIT BOARDS



LEGEND:

- Track
- Potential Retaining Wall
- Caltrain Right-of-Way
- Potential Right-of-Way Issues
- US 101 / Broadway Improvements
- Structure for Railroad
- Limits of Roadway Modifications
- Median / Curbed Island
- Sidewalk
- Driveway Access Issues
- Railroad Operations Conflict
- Limits of Railroad Modifications
- 100 Year Flood Zone

Pros:	Cons:	Significant Constraints:
<ol style="list-style-type: none"> 1. Minor impact to Caltrain alignment and no impact to Milbrae Caltrain station 2. No impact to existing Oak Grove at-grade crossing 3. No direct impact to the Rollins Rd intersection 4. Broadway station can be reconstructed in the same location 5. No fatal flaws in any aspect 	<ol style="list-style-type: none"> 1. Significant impact to existing utilities 2. Impact to driveway and adjacent business properties 3. Profile adjustment needed for California Dr and Carolan Ave 4. Temporary station constructability issue 5. High groundwater will require local pumping plant at Broadway 	<ol style="list-style-type: none"> 1. None

Broadway Grade Separation Study

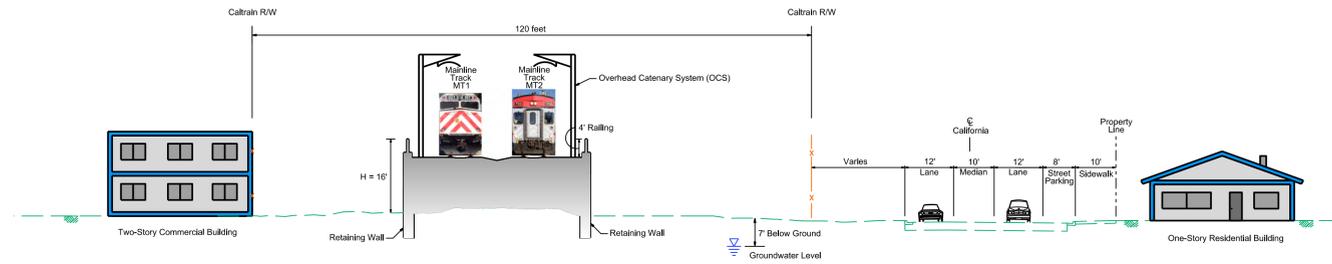


Hybrid Alternative A
Rail Partially Elevated
Roadway Partially Depressed

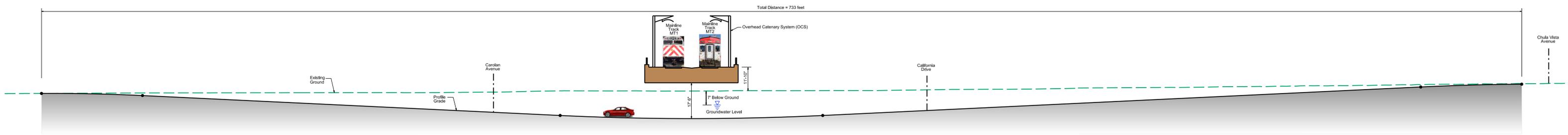


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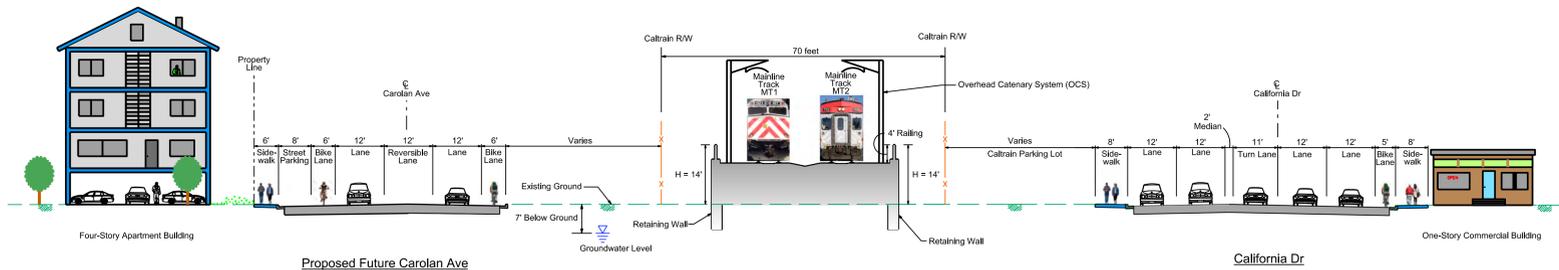




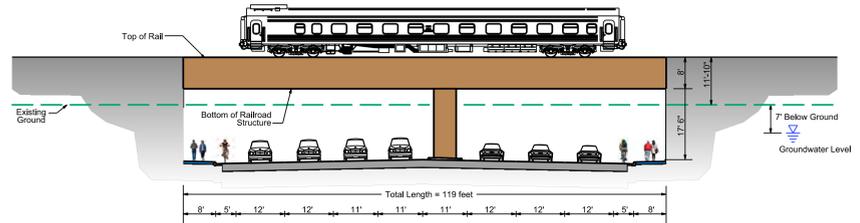
CROSS SECTION A-A AT LINCOLN
LOOKING SOUTH TOWARDS BURLINGAME



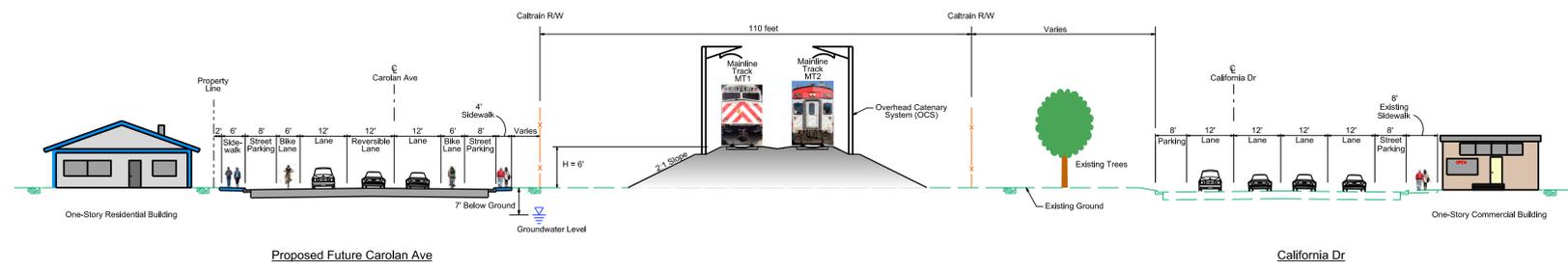
CROSS SECTION B-B AT BROADWAY
LOOKING SOUTH TOWARDS BURLINGAME



CROSS SECTION C-C AT
NORTH PARK APARTMENTS
LOOKING SOUTH TOWARDS BURLINGAME STATION



CROSS SECTION AT BROADWAY
LOOKING EAST



CROSS SECTION D-D AT
CAROLAN AVE AND TOYON DR INTERSECTION
LOOKING SOUTH TOWARDS BURLINGAME STATION

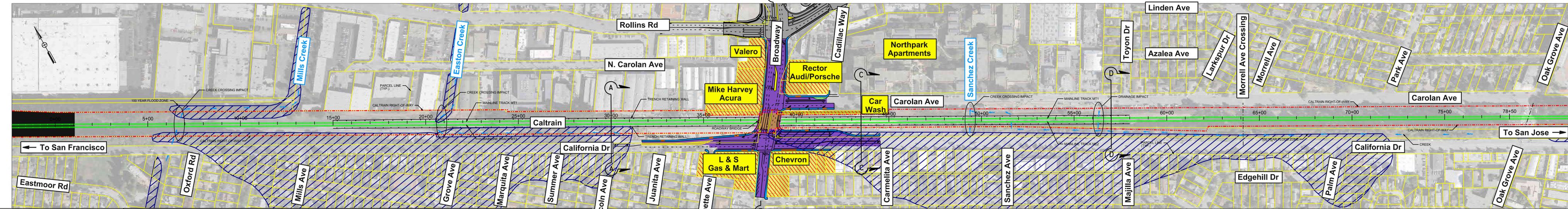
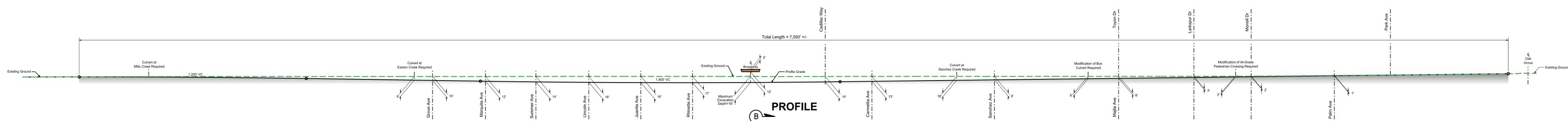
Broadway Grade Separation Study

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0ft 16 32ft

Hybrid Alternative A
Rail Partially Elevated
Roadway Partially Depressed





LEGEND:

- Track
- Potential Retaining Wall
- Caltrain Right-of-Way
- Potential Right-of-Way Issues
- US 101 / Broadway Improvements
- Structure for Roadway
- Limits of Roadway Modifications
- Median / Curbed Island
- Sidewalk
- Driveway Access Issues
- Railroad Operations Conflict
- Limits of Railroad Modifications
- 100 Year Flood Zone

- Pros:**
1. No impact to Oak Grove at-grade crossing
 2. No impact to Milbrae or Burlingame Caltrain stations
 3. No fatal flaws in any aspect
- Cons:**
1. Significant impact to existing utilities
 2. Impact to driveway and adjacent business properties
 3. Profile adjustment needed for California Dr and Carolan Ave
 4. Impact to Rollins Rd intersection
 5. Traffic impacts during construction
 6. Temporary station constructability issue
- Significant Constraints:**
1. High groundwater will require significant pumping plants along entire railroad trench.
 2. High maintenance required.

Broadway Grade Separation Study

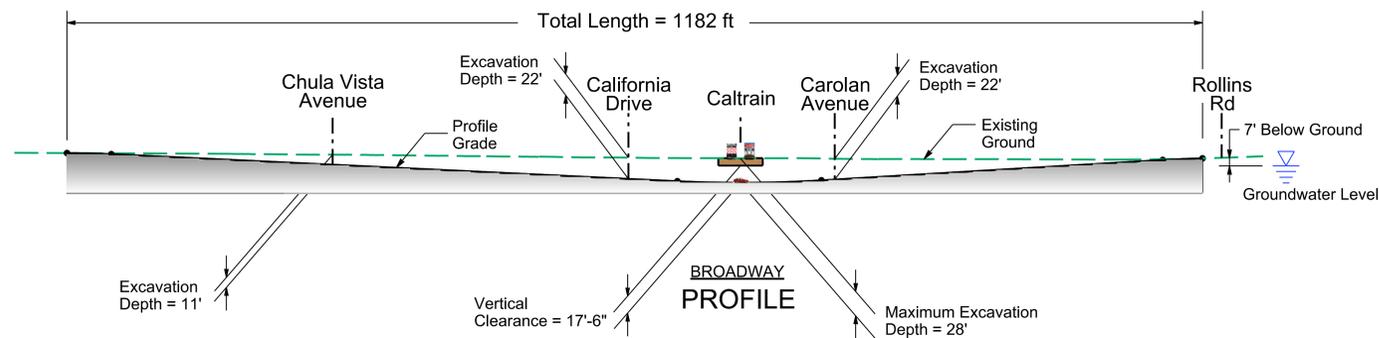


Hybrid Alternative B
 Rail Partially Depressed
 Roadway Partially Elevated

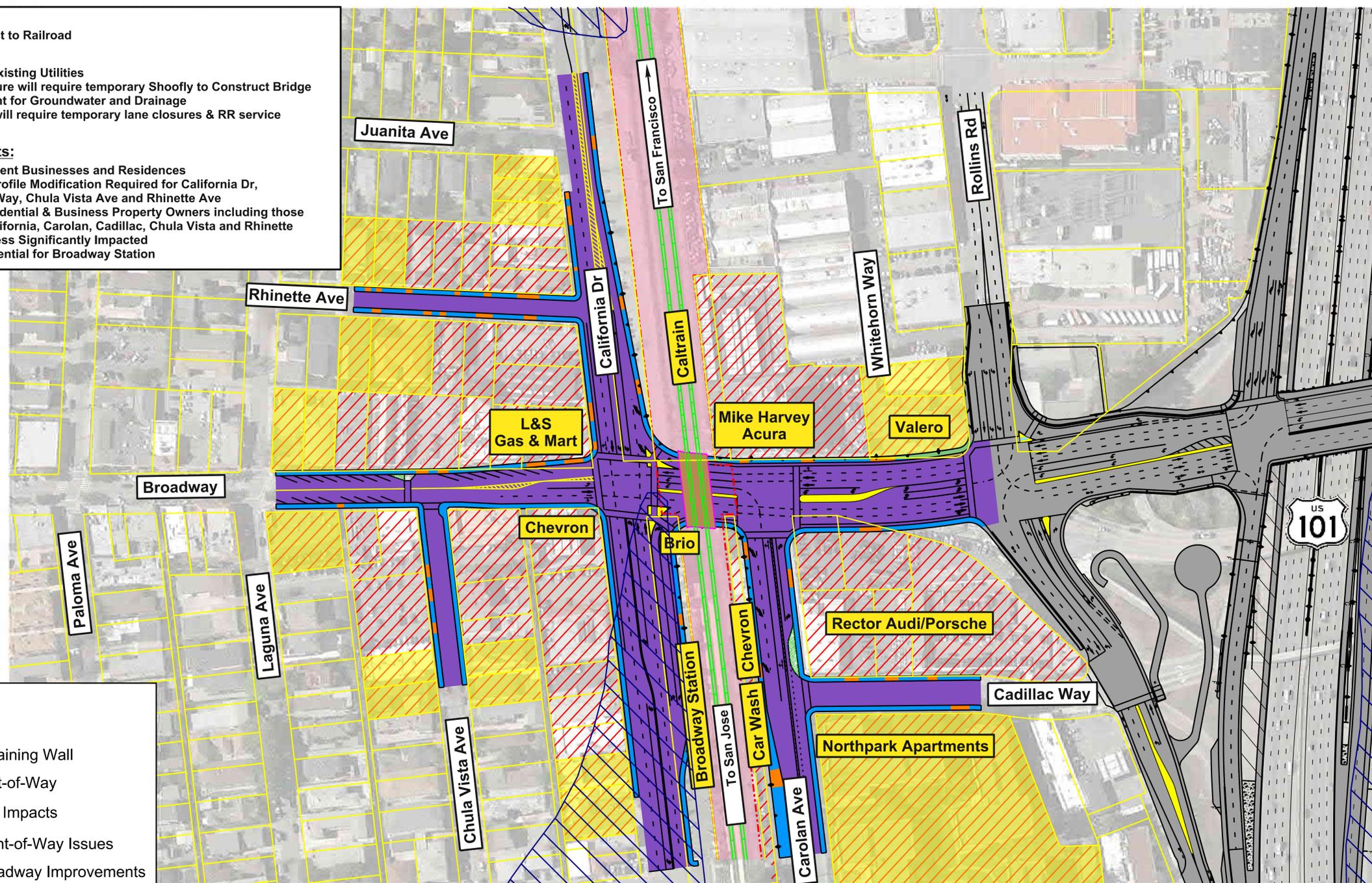


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- Pros:**
1. Low to Moderate Impact to Railroad
- Cons:**
1. Significant Impact to Existing Utilities
 2. Railroad Bridge Structure will require temporary Shoofly to Construct Bridge
 3. Requires Pumping Plant for Groundwater and Drainage
 4. Construction Staging will require temporary lane closures & RR service disruption
- Significant Constraints:**
1. Severe Impact to Adjacent Businesses and Residences
 2. Significant Roadway Profile Modification Required for California Dr, Carolan Ave, Cadillac Way, Chula Vista Ave and Rhinette Ave
 3. Severe Impacts to Residential & Business Property Owners including those fronting Broadway, California, Carolan, Cadillac, Chula Vista and Rhinette
 4. Broadway Station Access Significantly Impacted
 5. Eliminates Parking potential for Broadway Station



- LEGEND:**
- Track
 - Potential Retaining Wall
 - Caltrain Right-of-Way
 - Right-of-Way Impacts
 - Potential Right-of-Way Issues
 - US 101 / Broadway Improvements
 - Structure for Railroad
 - Limits of Roadway Modifications
 - Median / Curbed Island
 - Sidewalk
 - Driveway Access Issues
 - Limits of Railroad Modifications
 - 100 Year Flood Zone

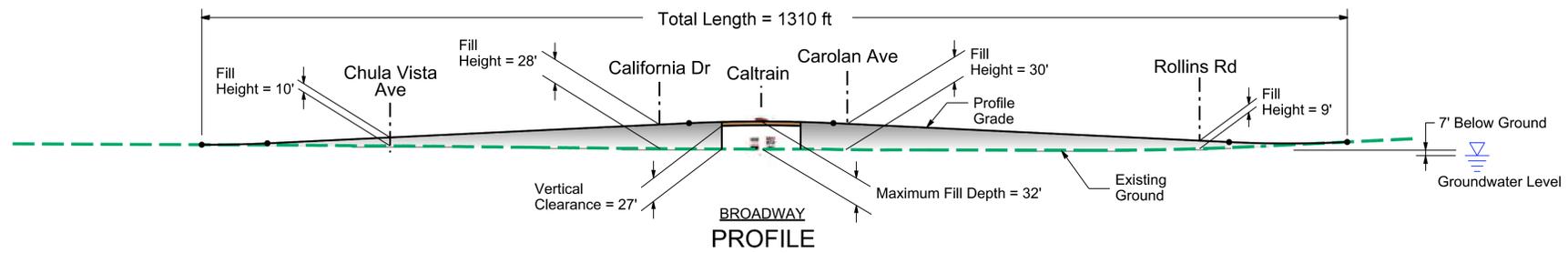
Broadway Grade Separation Study

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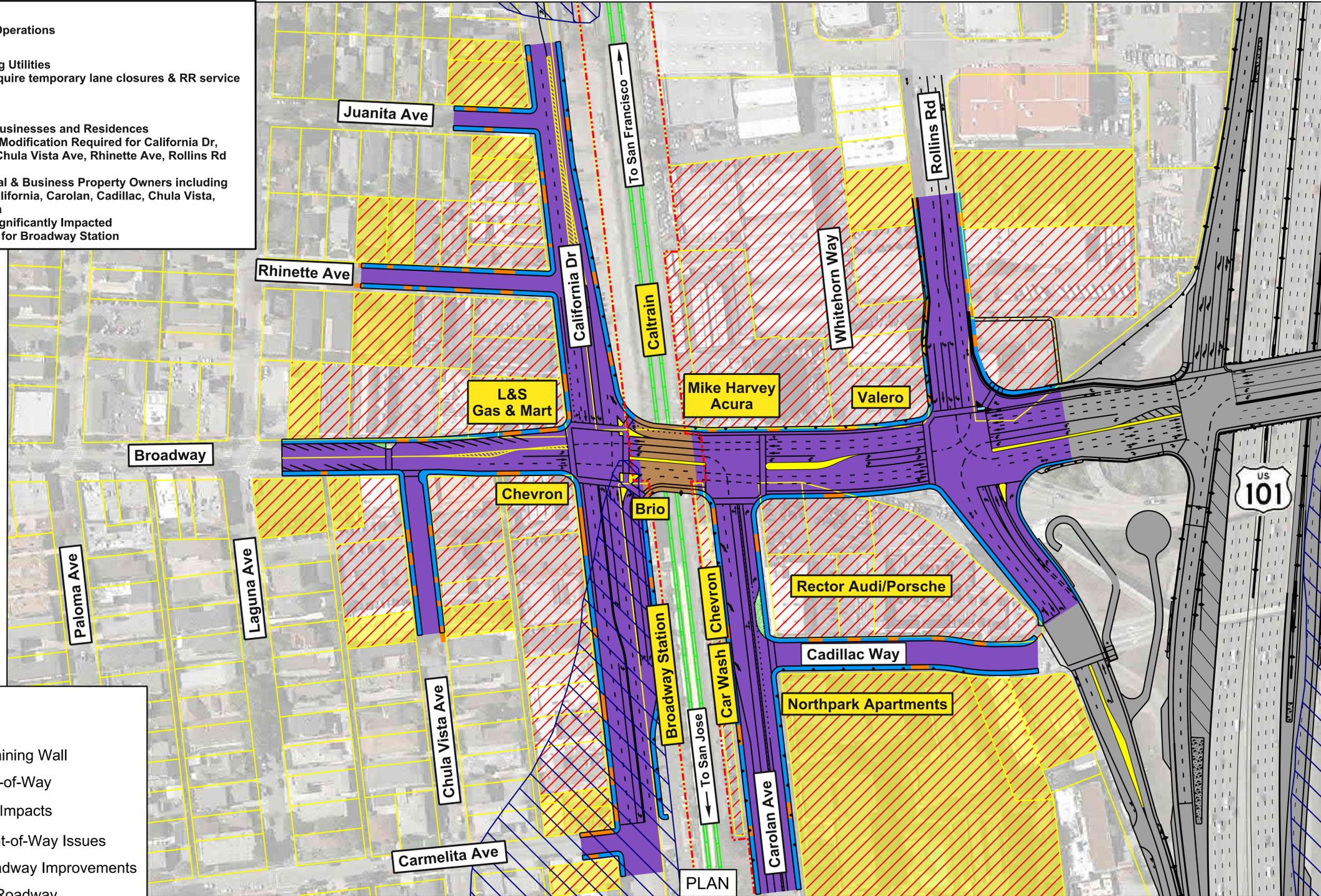


Alternative C
Rail At-Grade
Roadway Depressed





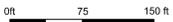
- Pros:**
1. Minimal Impact to Railroad Operations
- Cons:**
1. Significant Impact to Existing Utilities
 2. Construction Staging will require temporary lane closures & RR service disruption
- Significant Constraints:**
1. Severe Impact to Adjacent Businesses and Residences
 2. Significant Roadway Profile Modification Required for California Dr, Carolanne Ave, Cadillac Way, Chula Vista Ave, Rhinette Ave, Rollins Rd and Juanita Ave
 3. Severe Impacts to Residential & Business Property Owners including those fronting Broadway, California, Carolanne, Cadillac, Chula Vista, Rhinette, Rollins and Juanita
 4. Broadway Station Access Significantly Impacted
 5. Eliminates Parking potential for Broadway Station



- LEGEND:**
- Track
 - Potential Retaining Wall
 - Caltrain Right-of-Way
 - Right-of-Way Impacts
 - Potential Right-of-Way Issues
 - US 101 / Broadway Improvements
 - Structure for Roadway
 - Limits of Roadway Modifications
 - Median / Curbed Island
 - Sidewalk
 - Driveway Access Issues
 - Limits of Railroad Modifications
 - 100 Year Flood Zone

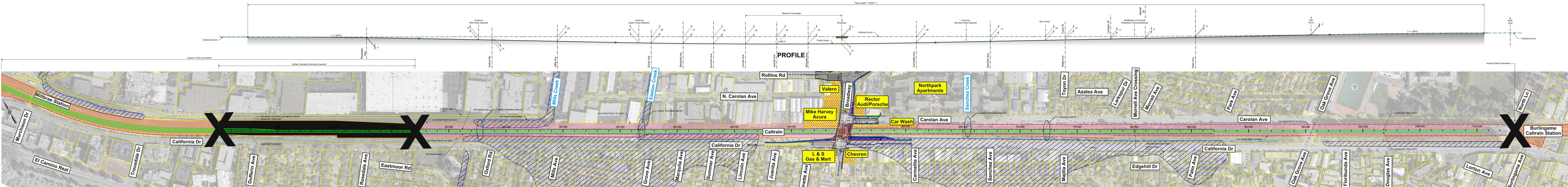
Broadway Grade Separation Study

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Alternative D
Rail At-Grade
Roadway Elevated



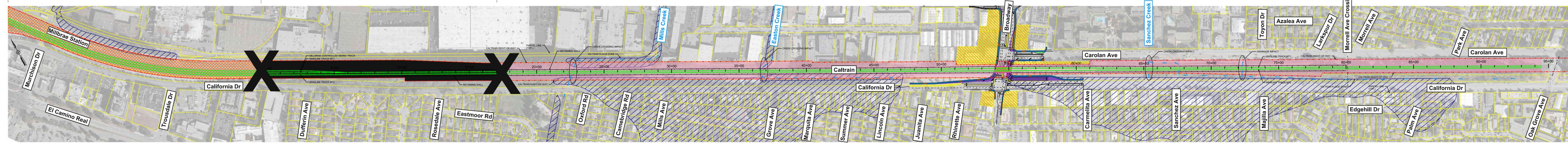
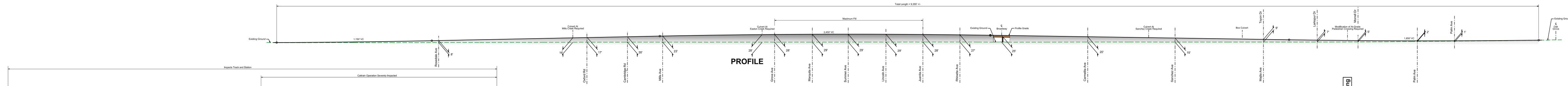


LEGEND:	Pros:	Cons:	Significant Constraints:
Track	1. None	1. Impact to driveways and adjacent properties	1. Significant impact to existing utilities
Potential Retaining Wall		2. Complex construction	2. Impact to Millbrae and Burlingame station tracks
Caltrain Right-of-Way		3. Temporary closure of Broadway	3. Temporary closure of Broadway
Potential Right-of-Way Issues		4. Significant impact to drainage facilities	4. Significant impact to drainage facilities
Right-of-Way Impacts		5. Excavation well below groundwater table	5. Excavation well below groundwater table
US 101 / Broadway Improvements		6. Eliminates Broadway Station parking Lot	6. Eliminates Broadway Station parking Lot
Structure for Railroad			
Limits of Roadway Modifications			
Median / Curbed Island			
Sidewalk			
Driveway Access Issues			
Existing Stations			
Railroad Operations Conflict			
Limits of Railroad Modifications			
100 Year Flood Zone			

Broadway Grade Separation Study

Alternative E
Rail Depressed /
Roadway At-Grade

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September 16, 2019



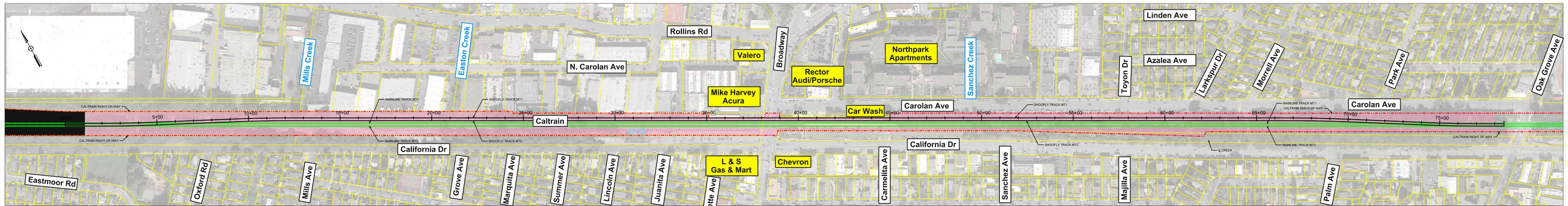
PLAN

LEGEND:	Pros:	Cons:	Significant Constraints:
Track	1. None	1. Impact to driveway and adjacent business properties 2. Complex construction 3. Eliminates Broadway Station Parking Lot	1. Significant impact to existing utilities 2. Impact to Milbrae station and Burlingame Station track 3. Impact to Caltrain operations 4. Require Caltrain closure to construct
Potential Retaining Wall			
Caltrain Right-of-Way			
Potential Right-of-Way Issues			
US 101 / Broadway Improvements			
Structure for Railroad			
Limits of Roadway Modifications			
Median / Curbed Island			
Sidewalk			
Driveway Access Issues			
Existing Stations			
Railroad Operations Conflict			
Limits of Railroad Modifications			
100 Year Flood Zone			

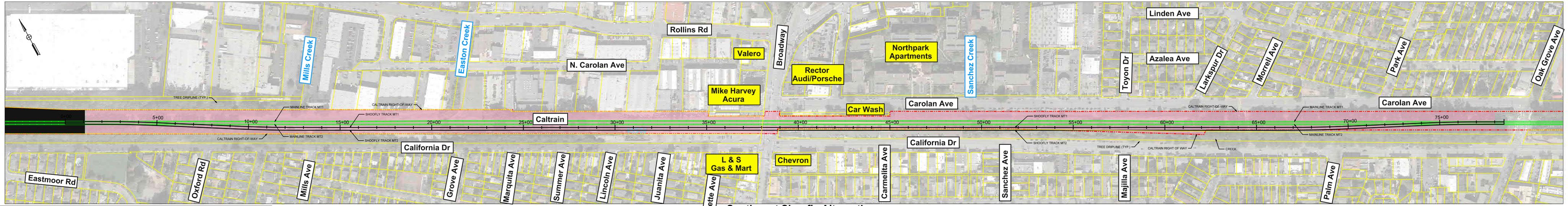
Broadway Grade Separation Study

Alternative F
Rail Elevated
Roadway At-Grade

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Northeast Shoofly Alternative



Southwest Shoofly Alternative

LEGEND:

- Track
- Caltrain Right-of-Way
- Railroad Operations Conflict
- Potential Caltrain Electrification Substation
- Limits of Railroad Modifications

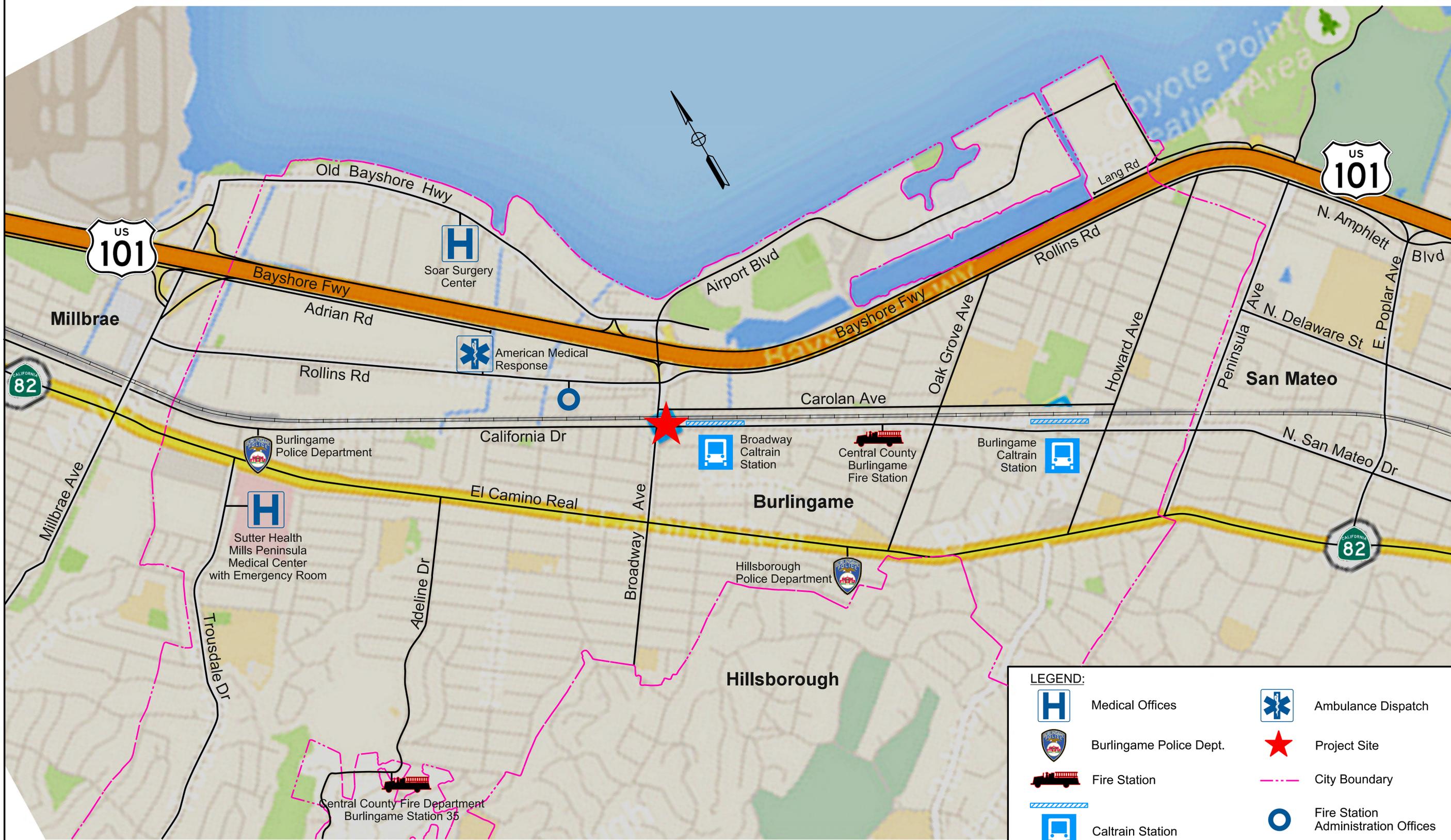
Broadway Grade Separation Study

Shoofly Alternatives
Plan



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LEGEND:

	Medical Offices		Ambulance Dispatch
	Burlingame Police Dept.		Project Site
	Fire Station		City Boundary
	Caltrain Station		Fire Station Administration Offices

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September 16, 2015

Emergency Access Routes Exhibit



San Bruno Avenue, San Bruno



Brittan Avenue, San Carlos



Holly Street, San Carlos

UNDERPASS (ROADWAY UNDER RAILROAD) EXAMPLES



Shellmound Street, Emeryville

OVERHEAD (ROADWAY OVER RAILROAD) EXAMPLE



Ralston Avenue, Belmont

UNDERPASS (ROADWAY UNDER RAILROAD) EXAMPLES



42nd Avenue, San Mateo

Broadway Grade Separation Study

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**Grade Separation
Project Examples**



Users

Alternatives F → A	F	E	D	C	B	A
Safety	Blue	Blue	Blue	Blue	Blue	Blue
Community Connectivity	Blue	Blue	Blue	Blue	Blue	Blue
Pedestrian & Bike Access	Blue	Blue	Blue	Blue	Blue	Blue
Fuel Use	Blue	Blue	Blue	Blue	Blue	Blue
Reliability	Blue	Blue	Blue	Blue	Blue	Blue
Traffic Delays (During Construction)	Yellow	Orange	Black	Black	Orange	Orange
Traffic Delays (After Construction)	Blue	Blue	Blue	Blue	Blue	Blue

Environmental

Alternatives F → A	F	E	D	C	B	A
Greenhouse Gas Emissions	Blue	Blue	Blue	Blue	Blue	Blue
Criteria Air Pollutants	Blue	Blue	Blue	Blue	Blue	Blue
Noise	Red	Yellow	Yellow	White	Yellow	Orange
Groundwater	Orange	Black	White	Orange	Red	Orange
Eucalyptus Tree Removal	Red	Red	White	White	White	White
Historic Structures	Orange	Red	Yellow	Yellow	White	White
Aesthetics	Red	Yellow	Red	White	Yellow	Yellow

Local & Right-of-Way

Alternatives F → A	F	E	D	C	B	A
Parcels with Potential R/W Issues	1	1	23	21	19	15
Parcels with R/W Impacts	7	7	39	32	0	0
Traffic in Local Neighborhoods	Blue	Blue	Blue	Blue	Blue	Blue
Business Disruption (During Construction)	Red	Red	Black	Black	Red	Red
Resident Disruption (During Construction)	Yellow	Yellow	Black	Black	Yellow	Yellow
Existing Utility Infrastructure	Orange	Red	Yellow	Red	Orange	Orange
Flooding & Groundwater Issues	Yellow	Red	White	Orange	Yellow	Yellow

Railroad Operations

Alternatives F → A	F	E	D	C	B	A
Service Outage During Construction	Red	Red	White	White	Yellow	Yellow
Burlingame Station Closure	Red	Orange	White	White	White	White
Caltrain Operational Impacts	Black	Black	White	White	Yellow	Yellow
Long Term Maintenance	Yellow	Red	White	Yellow	Orange	Orange
Accommodates Broadway Station	Black	Black	White	White	White	White
Caltrain Electrification	Red	Red	Yellow	Yellow	Orange	Orange
Accommodates HSR	Red	Red	White	White	White	White
Existing Pedestrian Xing at Morrell	Red	Red	White	White	White	White
Potential for Other Pedestrian Xings	Red	Red	White	White	Orange	Orange

Significant Improvement

No Improvement

Minimal Impact

Moderate Impact

Severe Impact

Fatal Flaw

Broadway Grade Separation Study

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Impact Matrices

