

CROW CANYON ROAD Corridor Improvements and TRAFFIC CONTROL OPTIONS

**Presented to
Castro Valley Municipal Advisory Council
June 21, 2021
by
Public Works Agency**



Public Works Agency
— Alameda County —

Crow Canyon Road Corridor Improvements

Three Phased Project Implementation

Phase - I	Phase - II	Phase - III
Safety Improvements with Bike Lane & Resurfacing	Storm Damage Repair	Full Depth Reclamation Pavement Reconstruction
East Castro Valley Blvd to County Line	Mile Marker 6.0 to 6.25	From MM 5.25 to County Line

CROW CANYON ROAD CORRIDOR IMPROVEMENTS

PHASE II: STORM DAMAGE REPAIR

- Retaining Walls @ MM 6.00 to 6.25
- Guardrails

PHASE III: ROADWAY RECONSTRUCTION

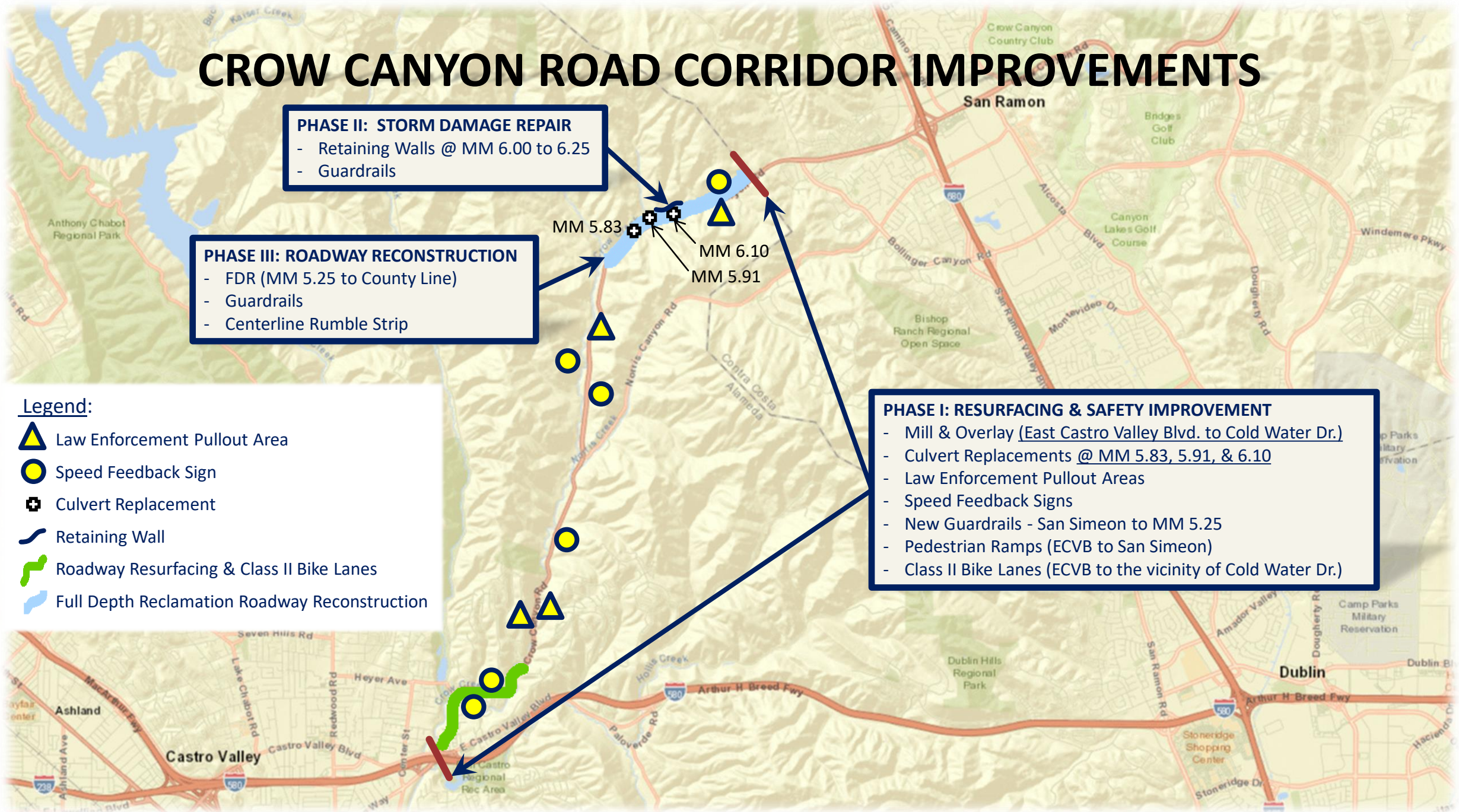
- FDR (MM 5.25 to County Line)
- Guardrails
- Centerline Rumble Strip

PHASE I: RESURFACING & SAFETY IMPROVEMENT

- Mill & Overlay (East Castro Valley Blvd. to Cold Water Dr.)
- Culvert Replacements @ MM 5.83, 5.91, & 6.10
- Law Enforcement Pullout Areas
- Speed Feedback Signs
- New Guardrails - San Simeon to MM 5.25
- Pedestrian Ramps (ECVB to San Simeon)
- Class II Bike Lanes (ECVB to the vicinity of Cold Water Dr.)

Legend:

-  Law Enforcement Pullout Area
-  Speed Feedback Sign
-  Culvert Replacement
-  Retaining Wall
-  Roadway Resurfacing & Class II Bike Lanes
-  Full Depth Reclamation Roadway Reconstruction

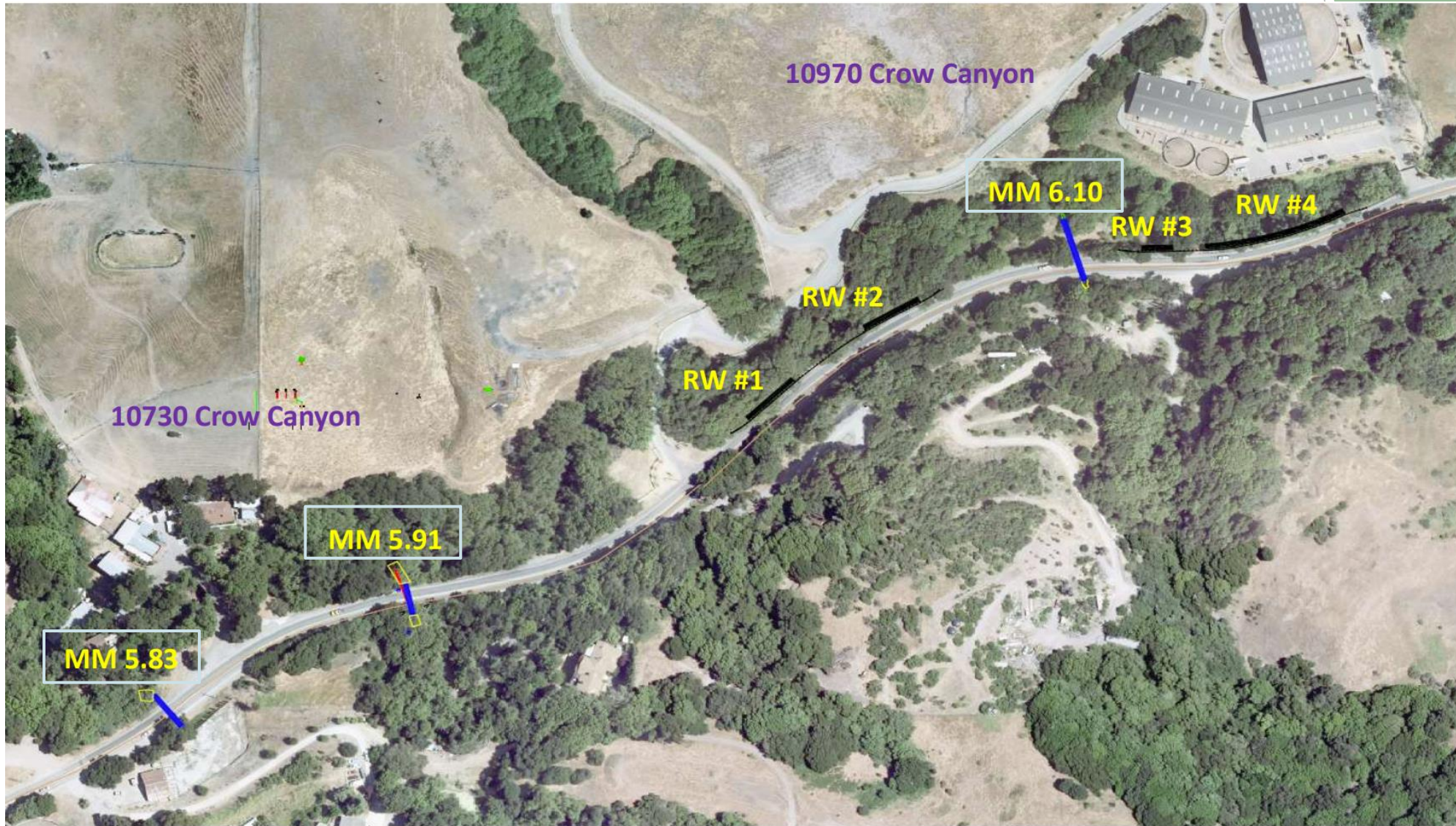


PHASE - I

Crow Canyon Road Safety Improvements From East Castro Valley Blvd to County Line

- Replace Failing Culverts at MM 5.83; MM 5.91 & MM 6.10
- Resurface Road from ECVB to Cold Water Drive
- Install Class II Buffered Bike Lanes from ECVB to Cold Water Drive
- Install Driver Feedback Signs
- Law Enforcement & Emergency Pullouts
- Install Guardrails
- Expected Construction Start – January 2021
- Expected Construction Duration 30 Weeks
- No Extended Road Closure Required





Culvert Replacements at MM 5.83, MM 5.91, MM 6.10



Crow Canyon Road Safety Improvements

Crow Canyon Road Safety Improvements

Speed feedback Signs



Guardrail Installation



Class II Buffered Bike Lane



PHASE - II

Crow Canyon Road Storm Damage Repair

MM 6.0 to MM 6.25

- Install Retaining Wall
- Install Guardrail and Fence
- Restore Road Shoulder
- Expected Construction Start – April 2022
- Expected Construction Duration - Varies
- Extended Road Closure Required



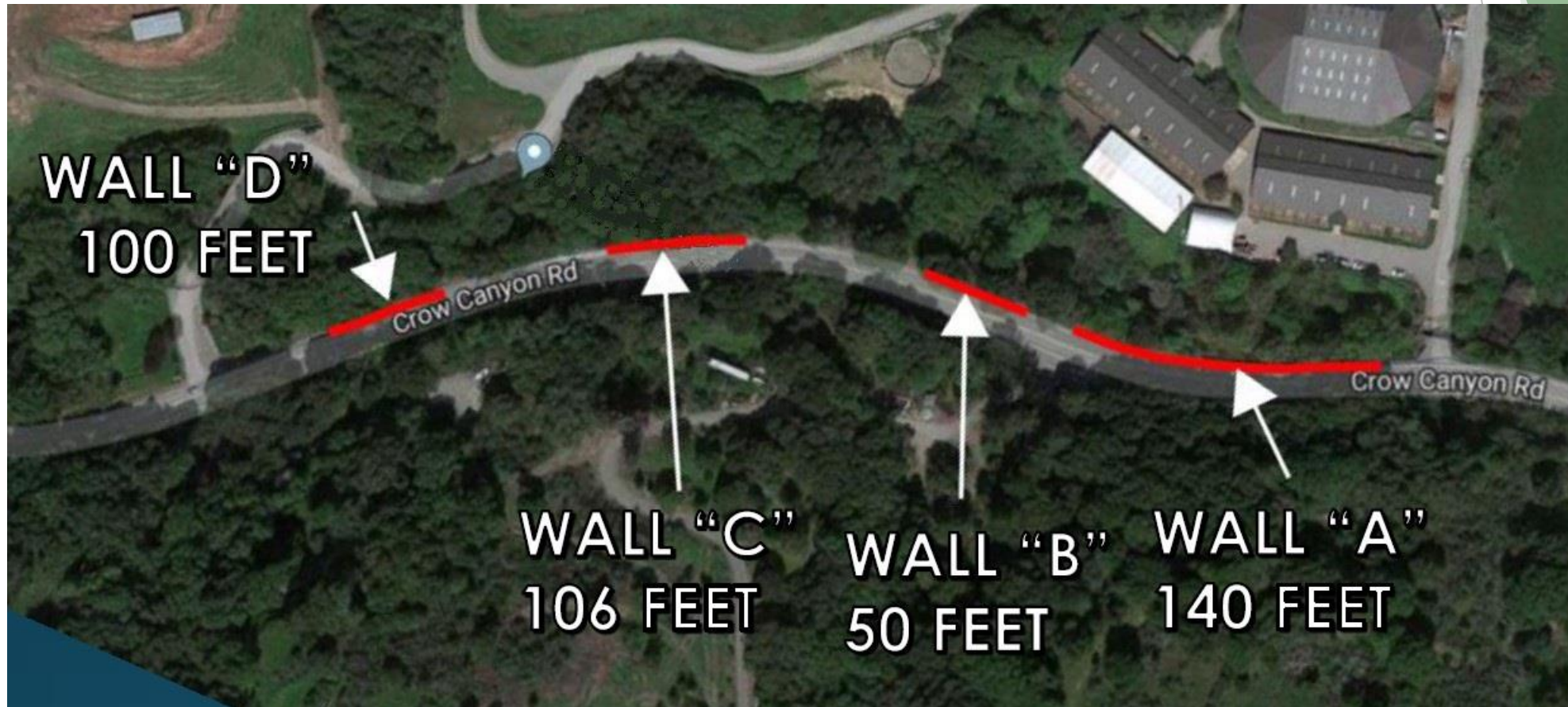
Damaged Roadway Embankment



Crow Canyon Road Storm Damage Repair

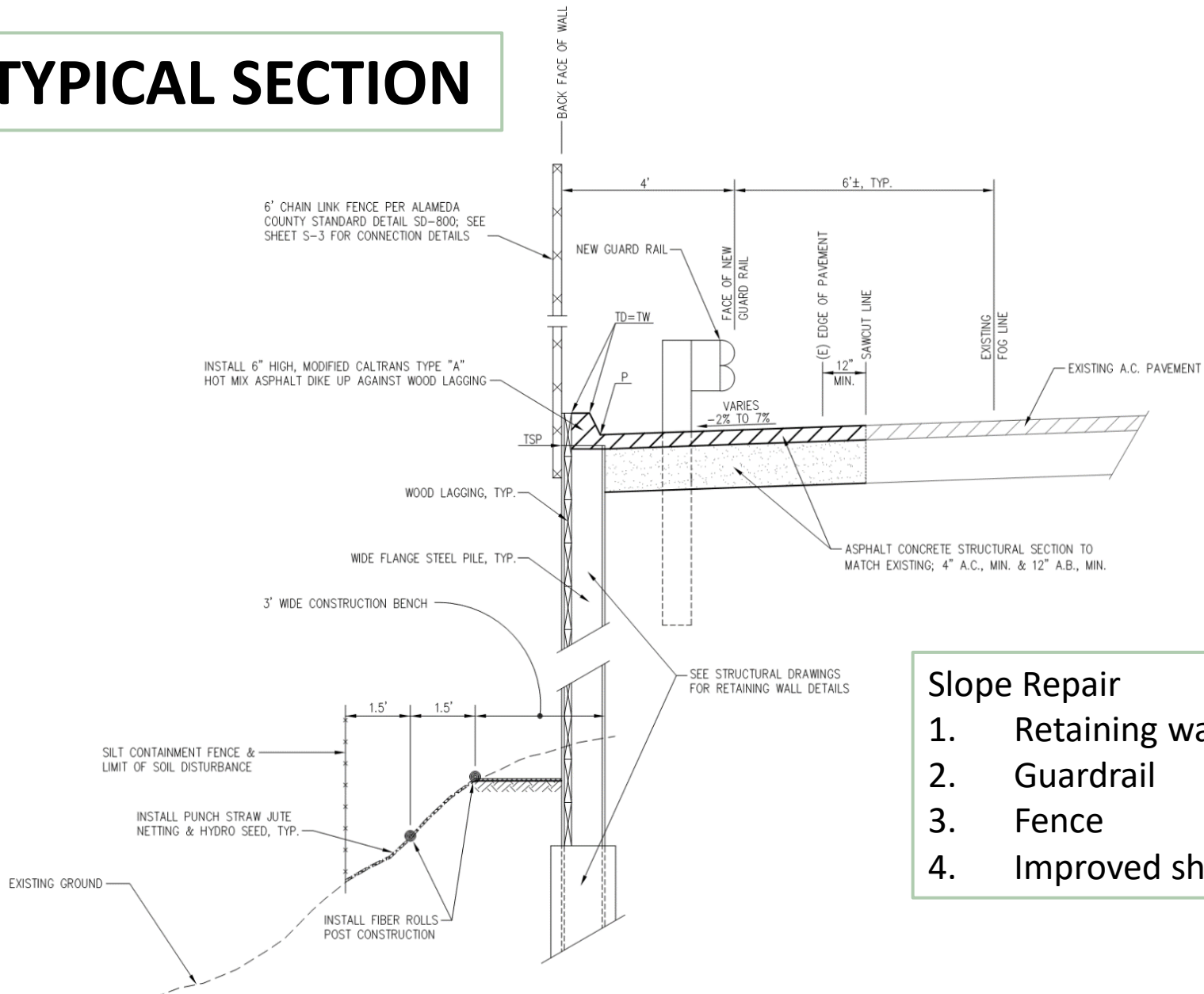
LOCATION MAP

Retaining Walls from MM 6.0 – MM 6.25



Crow Canyon Road Storm Damage Repair

TYPICAL SECTION



- Slope Repair**
1. Retaining wall
 2. Guardrail
 3. Fence
 4. Improved shoulder

Crow Canyon Road Storm Damage Repair

Crow Canyon Road Storm Damage Repair Traffic Control Options

<u>Option 1</u> Two-way Traffic, One Lane Closure within Construction Limit	<ul style="list-style-type: none">• Two-way traffic with <u>Portable Traffic Signals</u>• Construction Duration: Approximately 26 weeks
<u>Option 2</u> One Direction Closure	<ul style="list-style-type: none">• One-way, Eastbound only• Westbound closed at Bollinger Canyon Road• Construction Duration: Approximately 26 weeks
<u>Option 3</u> Full closure	<ul style="list-style-type: none">• Construction Duration: Approximately 24 weeks

Storm Damage Repair Traffic Control Options

	Option 1	Option 2	Option 3
Evaluation Criteria	Single Lane – Temporary Traffic Signal Control	EB Traffic Only – Close WB direction	Full Closure
Safety for Road Users	✗	✓	✓
Business Access	✓	✓	✗
Construction Duration	✓	✓	✓
Unpredictable Backups	✗	✓	✓
Community Impact	✓	✗	✗

- Legend:
- ✗ Most Impact
 - ✗ More Impact
 - ✓ Less Impact
 - ✓ Least Impact

PHASE – III

Crow Canyon Road Pavement Reconstruction

Full Depth Reclamation (FDR) From MM 5.25 to County Line

- Full Depth Reclamation Pavement Reconstruction
- Expected Construction Start – Oct 2022
- Expected Duration – Varies based on closure
- Full road closure may be required
- Closure from MM 5.25 to Bollinger Canyon Road



Full Depth Reclamation

Full Depth Reclamation (FDR) is a pavement rehabilitation technique in which the full flexible pavement section and a predetermined portion of the underlying materials are uniformly pulverized and blended together to produce a homogeneous stabilized base course.

Advantages:

- Recycles existing asphalt and base materials
- Costs approximately 20% to 30% less than traditional reconstruction
- Shorter construction duration





Failing base and pavement condition

- Wide and heavy equipment
- Road too narrow for FDR operation

Crow Canyon Road Pavement Reconstruction

FDR Pavement Reconstruction

Traffic Control Options

Closure Options	Closure Directions	Duration **No Weekend Work**	Duration ** Weekend Work**
1. Full Closure	Close Both Directions	16 Days	12 Days
2. One Directional Closure*	Close in the Direction of FDR	30 Days	20 Days

* Intermittent full closure may be required

SUMMARY

	PHASE – I Safety Improvements	PHASE – II Storm Damage Repair	PHASE – III Pavement Reconstruction
Project Limit	CVB to Cold Water Dr.	MM 6.0 to 6.25	MM 5.25 to County Line
Construction Begins	January 2022	April 2022	October 2022
Duration	30 weeks	Varies	Varies
Extended Closure	No	Yes (partial closure)	Yes (may require full closure)

PENDING ISSUES:

- Caltrans approval to advertise
- Environmental Clearance

- ✓ Emergency vehicle (Fire, Police, Ambulance) access to be provided at all times
- ✓ Full Closure Option – May accommodate (non-frequent) business deliveries during road closures if notified and scheduled in advance (before project advertisement)

SUMMARY OF CROW CANYON ROAD CORRIDOR IMPROVEMENTS

PHASE II: STORM DAMAGE REPAIR

- Retaining Walls @ MM 6.00 to 6.25
- Guardrails

PHASE III: ROADWAY RECONSTRUCTION

- FDR (MM 5.25 to County Line)
- Guardrails
- Centerline Rumble Strip

PHASE IV: GUARDRAILS (Planned)

Guardrails (San Simeon Place to Norris Canyon Road)

COMPLETED:

- Resurfacing (Cold Water Dr to MM 5.25)
- Culvert Replacement @ MM 2.26, MM 3.20, MM 4.50, MM 4.55, MM 6.35, & MM 6.71
- Speed Feedback Signs @ MM 1.66, MM 4.42, #6560, and #8018
- Upgraded School Zone Signs and Crossings (Manter Rd, Cull Canyon Rd, and Greenridge Rd)
- Speed Limit Reduced from MM 4.42 to County Line
- Signal at Norris Canyon Rd

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- Law Enforcement Pullout Areas
- Speed Feedback Signs
- New Guardrails - San Simeon to MM 5.25
- Pedestrian Ramps (ECVB to San Simeon)
- Class II Bike Lanes (ECVB to the vicinity of Cold Water Dr.)

Legend:

- Law Enforcement Pullout Area
- Proposed Speed Feedback Sign
- Installed Speed Feedback Sign
- Culvert Replacement
- Retaining Wall
- Roadway Resurfacing & Class II Bike Lanes
- Full Depth Reclamation Roadway Reconstruction





QUESTIONS & FEEDBACK