

GREEN VALLEY ROAD AT INDIAN CREEK CREEK & MOUND SPRINGS CREEK BRIDGE REPLACEMENT PROJECTS

Community Development Agency
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Green Valley Road at
Indian Creek Bridge



Green Valley Road at
Mound Springs Creek
Bridge

Presentation Overview

- Federal Highway Administration (FHWA) Highway Bridge Program Overview
- Project Overview
- Project Features
- Schedule
- Concluding Remarks

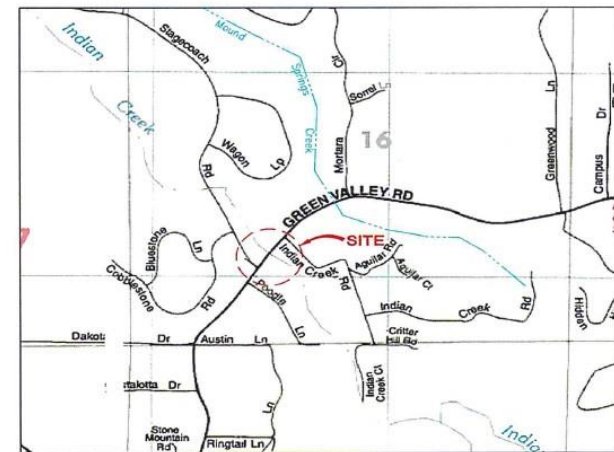
Highway Bridge Program (HBP) Overview

- Safety program that provides federal-aid to local agencies to replace or rehabilitate deficient locally owned public highway bridges
- Program authorized by FHWA & administered by State DOT's (CA – Caltrans)
- Up to 100% reimbursement for reconstruction or replacement of bridges on public roads off federal aid highways
- 11.47% local match required for “on-system” bridges
- Eligible Project Costs - Preliminary Engineering, Right-of-Way and Construction

Green Valley Road at Indian Creek Bridge

Background

- Bridge built in 1935
- Narrow two lane (28.2 feet wide)
- SR = 68.1
- Included in County's Capital Improvement Program



LOCATION MAP

16-0467 Revised A 4 of 30
BOS Rcvd 7-19-16

Green Valley Road at Indian Creek Bridge

EXISTING BRIDGE FACTS

- Built in 1935
- Widened in 1975
- Functionally obsolete
- Substandard barriers/railings
- Deficient hydraulics
- Substandard approach roadway & geometrics
- Poor site distance at adjacent roadways
- Concrete is spalling on abutments

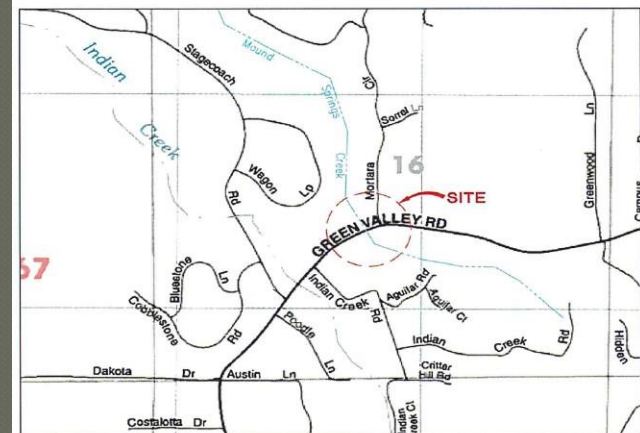
✓ **Approved for Bridge Replacement**



Green Valley Road at Mound Springs Creek Bridge

Background

- Bridge built in 1935
- Narrow two lane (22.3 feet wide)
- SR = 68.1
- Included in County's Capital Improvement Program



Green Valley Road at Mound Springs Creek Bridge

EXISTING BRIDGE FACTS

- Built in 1935
- Functionally obsolete
- Substandard barriers/railings
- Concrete is spalling in various locations
- Deficient hydraulics
- Substandard approach roadway & geometrics
- Poor site distance at adjacent roadways

✓ **Approved for Bridge Replacement**



Green Valley Road - Safety Considerations

Background

- Average Daily Traffic (ADT) = 4200
- Speed range = 40 to 55 mph
- Poor site distance
- Accident Report History (Rear Ends, Broad Sides)
- Accident Rate (3-year, Project Limits) = 1.11
Accidents per Million Vehicle Miles

Green Valley Road - Safety Considerations



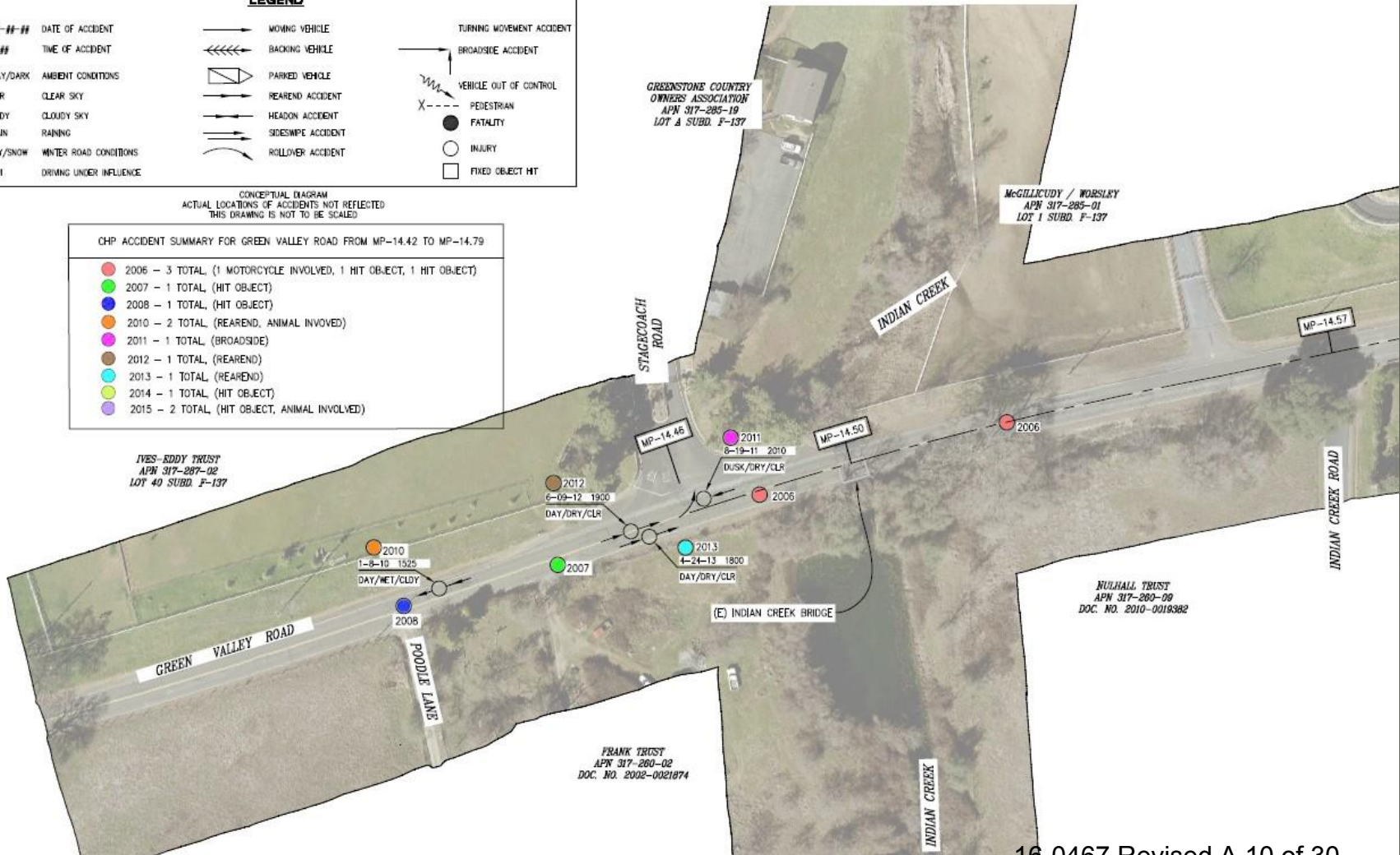
Green Valley Road - Safety Considerations

LEGEND					
##-##	DATE OF ACCIDENT		MOVING VEHICLE		TURNING MOVEMENT ACCIDENT
###	TIME OF ACCIDENT		BACKING VEHICLE		BROADSIDE ACCIDENT
DAY/DARK	AMBIENT CONDITIONS		PARKED VEHICLE		VEHICLE OUT OF CONTROL
CLR	CLEAR SKY		REAREND ACCIDENT	X- - - -	PEDESTRIAN
CLDY	CLOUDY SKY		HEADON ACCIDENT	●	FATALITY
RAIN	RAINING		SIDESWPE ACCIDENT	○	INJURY
ICY/SNOW	WINTER ROAD CONDITIONS		ROLLOVER ACCIDENT	□	FIXED OBJECT HIT
DUI	DRIVING UNDER INFLUENCE				

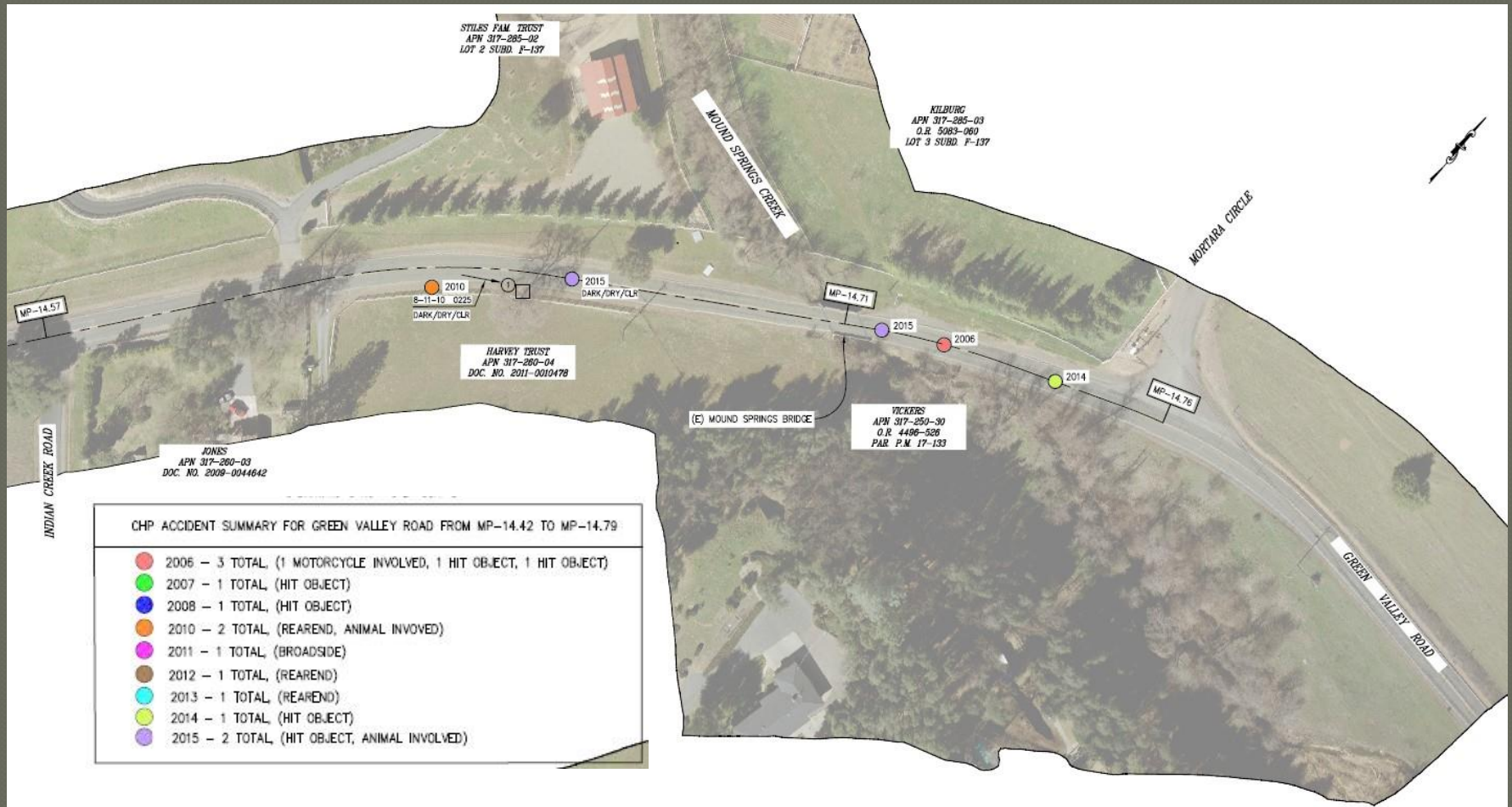
CONCEPTUAL DIAGRAM
ACTUAL LOCATIONS OF ACCIDENTS NOT REFLECTED
THIS DRAWING IS NOT TO BE SCALED

CHP ACCIDENT SUMMARY FOR GREEN VALLEY ROAD FROM MP-14.42 TO MP-14.79

- 2006 - 3 TOTAL, (1 MOTORCYCLE INVOLVED, 1 HIT OBJECT, 1 HIT OBJECT)
- 2007 - 1 TOTAL, (HIT OBJECT)
- 2008 - 1 TOTAL, (HIT OBJECT)
- 2010 - 2 TOTAL, (REAREND, ANIMAL INVOLVED)
- 2011 - 1 TOTAL, (BROADSIDE)
- 2012 - 1 TOTAL, (REAREND)
- 2013 - 1 TOTAL, (REAREND)
- 2014 - 1 TOTAL, (HIT OBJECT)
- 2015 - 2 TOTAL, (HIT OBJECT, ANIMAL INVOLVED)



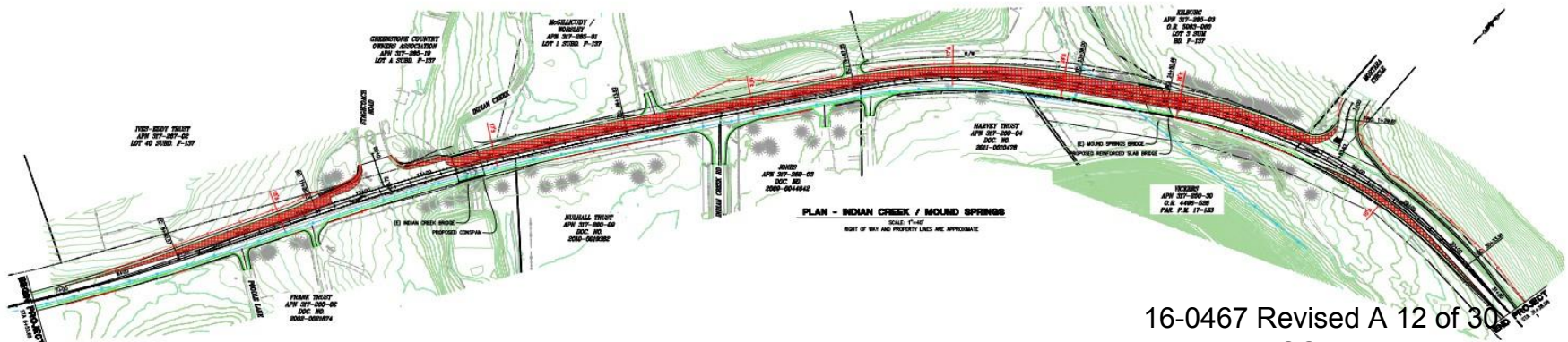
Green Valley Road - Safety Considerations



Project Overview

Summary (Goals)

- Improved Driver Safety – Turn Pockets, Line of Sight, etc.
- Bridge Improvements – Barrier Rail, Widths, Hydraulics, etc.
- Maintain Traffic (2-lanes) throughout Construction
- Minimum Impacts to Environment & Landscape
- Accelerated Construction Practices
- Maintain Rural Integrity of Roadway



Proposed Alternatives

- **Alternative A: 2-Lane “Hourglass”**
 - No additional Turn Pockets (Hourglass Between Bridges)
- **Alternative B: “Lt-Turn at Stagecoach” (with Tapers)**
 - Additional Lt-Turn at Stagecoach Rd (Hourglass Between Bridges)
- **Alternative C: “3-Lane”**
 - Additional Turn Lane through roadway corridor

Alternative A: 2-Lane “Hourglass”

Overview:

- No additional Turn Pockets (Hourglass Between Bridges)
- Increased Maintenance Costs and Future Costs

Total “A” = \$8.1 Million

11.5% Local (RSTP, TIM), 88.5% (HBP)

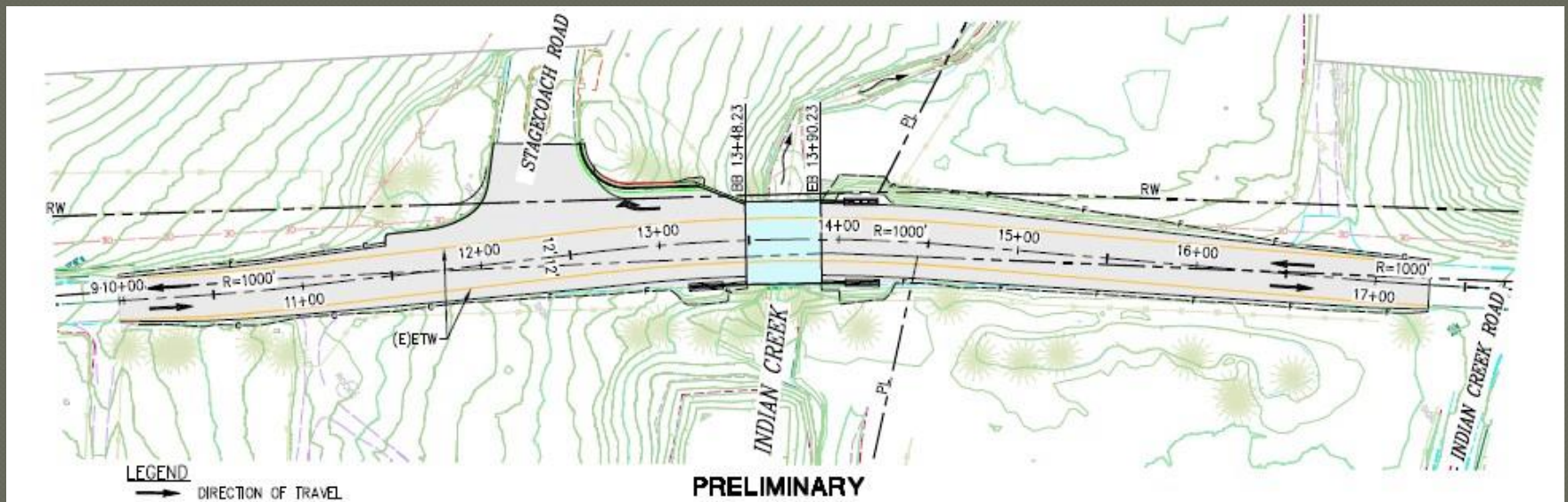
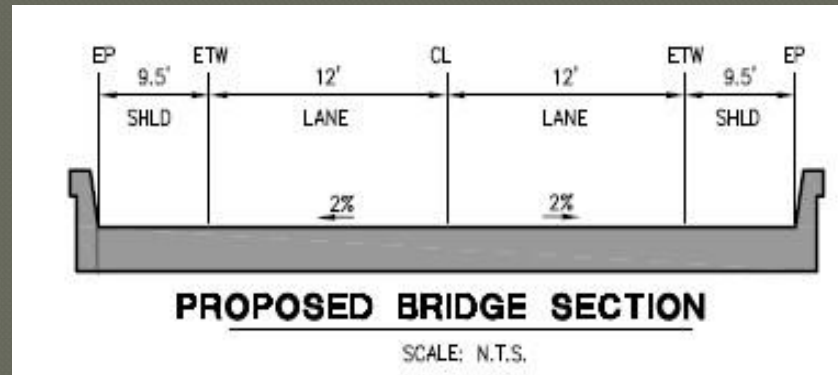
Included Additional Roadway Improvements = \$0 (Local)

Future Ultimate 3-Lane Option = \$1.5 Million

Total Ultimate 3-Lane Option = \$1.5 Million

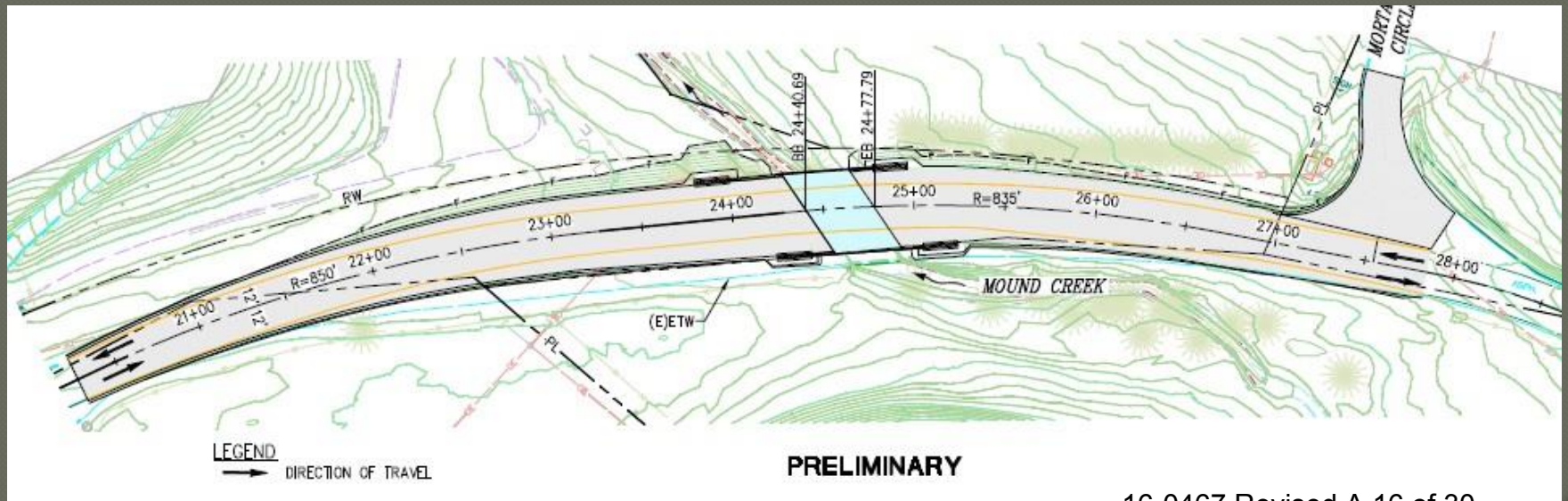
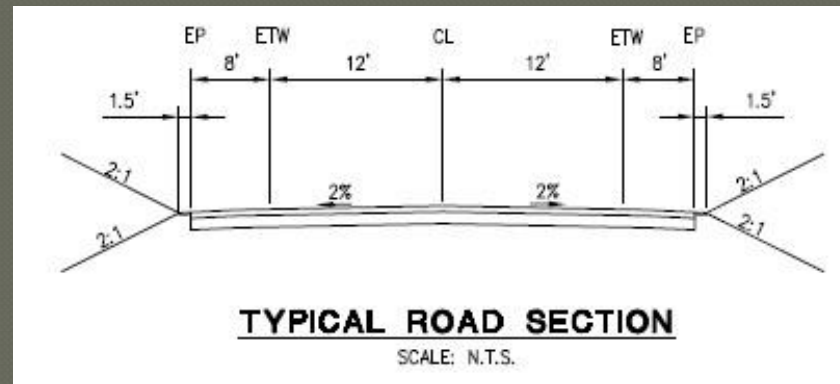
Alternative A: 2-Lane "Hourglass"

Green Valley Road at Indian Creek Bridge Replacement



Alternative A: 2-Lane "Hourglass"

Green Valley Road at Mound Springs Creek Bridge Replacement



Alternative B: “Stagecoach Lt-Turn” (with Tapers)

Overview:

- Additional Lt-Turn Pocket at Stagecoach Rd (Hourglass Between Bridges)
- Does not address adjacent roadway geometrics or future needs

Total “B” = \$8.4 Million

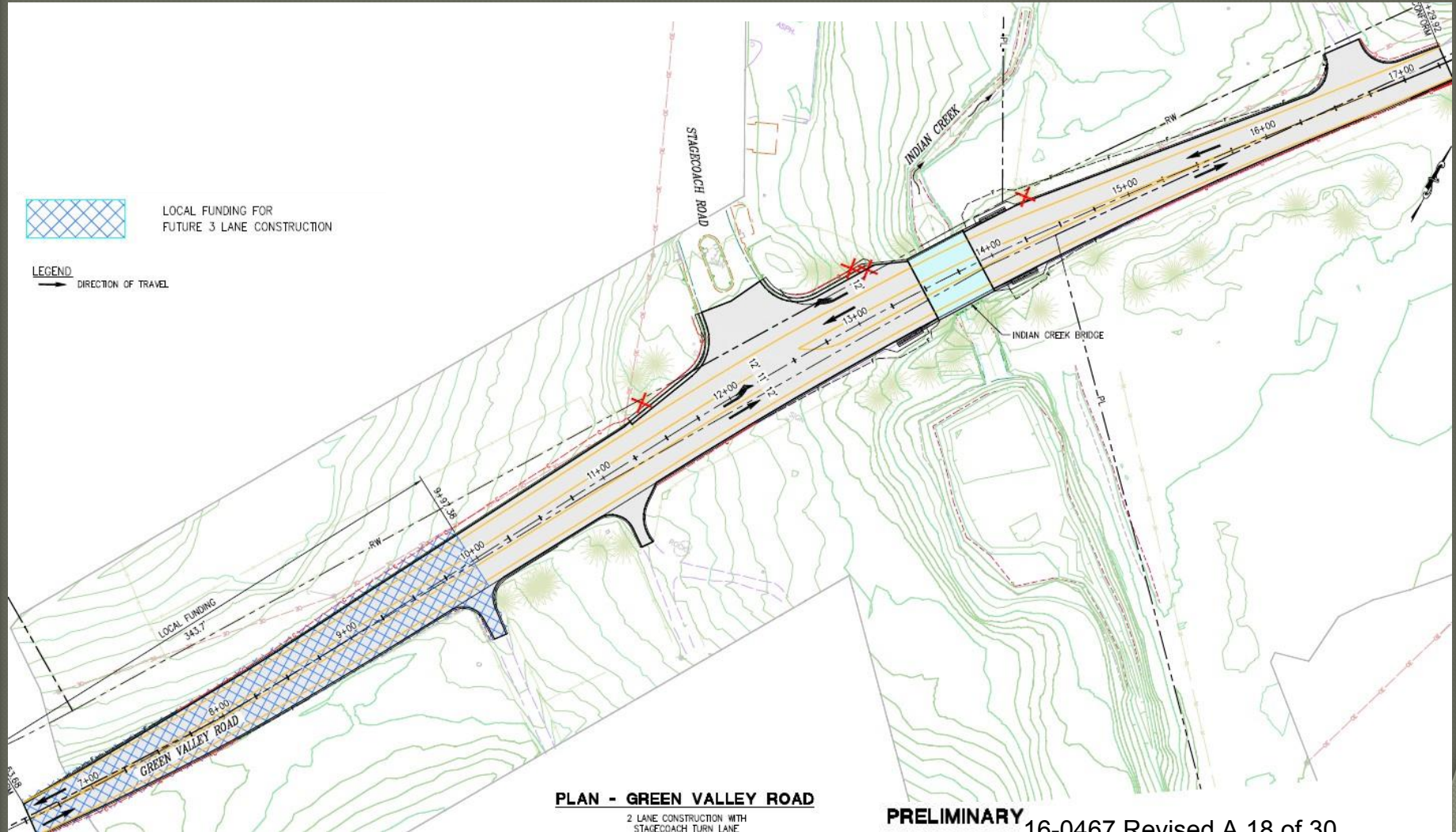
14.7% Local (RSTP, TIM), 85.3% (HBP)

Included Additional Roadway Improvements = \$300k (RSTP)

Future Ultimate 3-Lane Option = \$1 Million

Total Ultimate 3-Lane Option = \$1.3 Million

Alternative B: "Stagecoach Lt-Turn" (with Tapers)



Alternative C: “3-Lane”

Overview:

- Additional Turn Lane through Corridor
- Improves Driver Safety (Line of Sight)
- Basis for Potential “Future Uses” (i.e. Bike Lanes)
- Reduces Maintenance Costs
- Publically Supported

Total “C” = \$9 Million

20.8% Local (RSTP, TIM), 79.2% (HBP)

Included Additional Roadway Improvements = \$950k (RSTP)

Future Ultimate 3-Lane Option = \$0

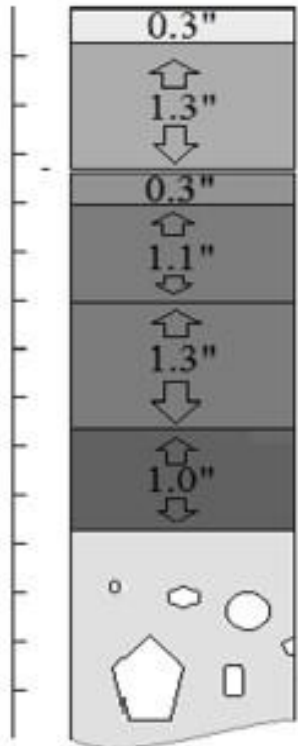
Total Ultimate 3-Lane Option =

\$950k

Alternative C: "3-Lane"

Maintenance Considerations:

- Minimum Existing Section Between Bridges (and at East End)
- No AB Below Existing Roadway



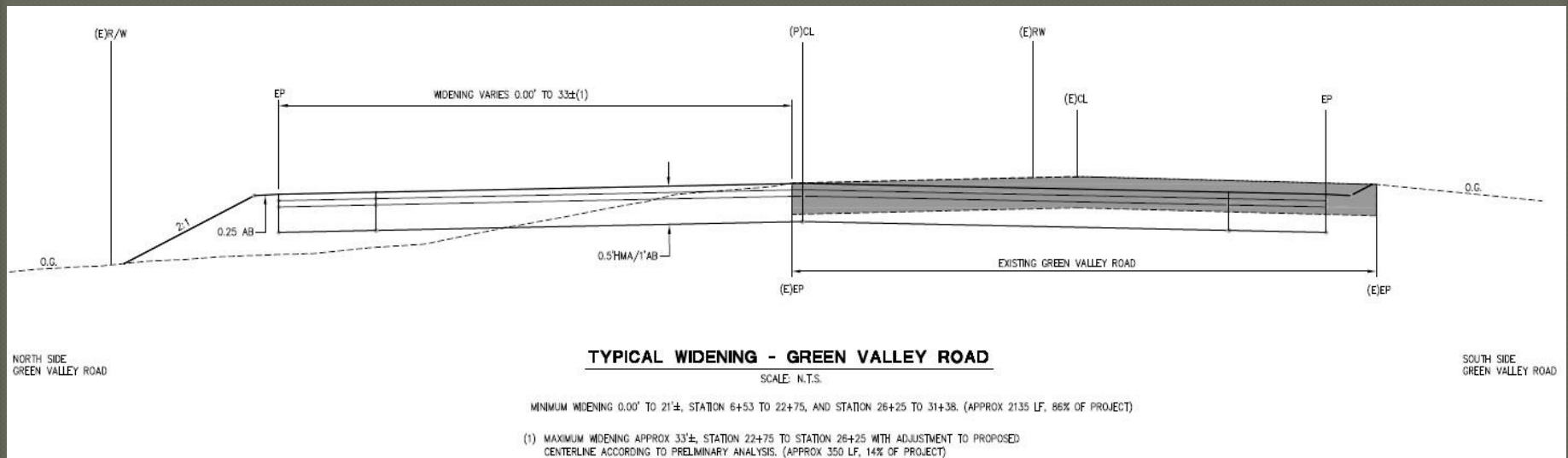
Core #4
St: 18+63
Westbound Lane
Core Section:
0.30" Chip Seal
1.3" HMA
Break in Core
0.3 Slurry?
1.1" HMA
1.3" HMA
1.0" Oiled Soil?

5.3" = Height of Core #4

No AB Under Core



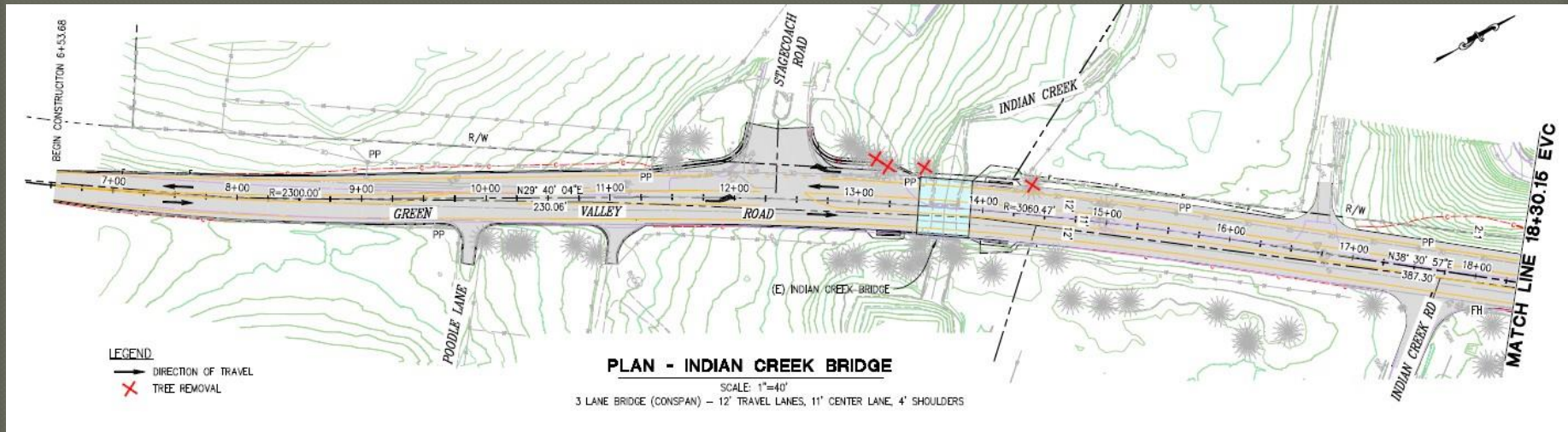
Alternative C: "3-Lane"



PRELIMINARY

Alternative C: "3-Lane"

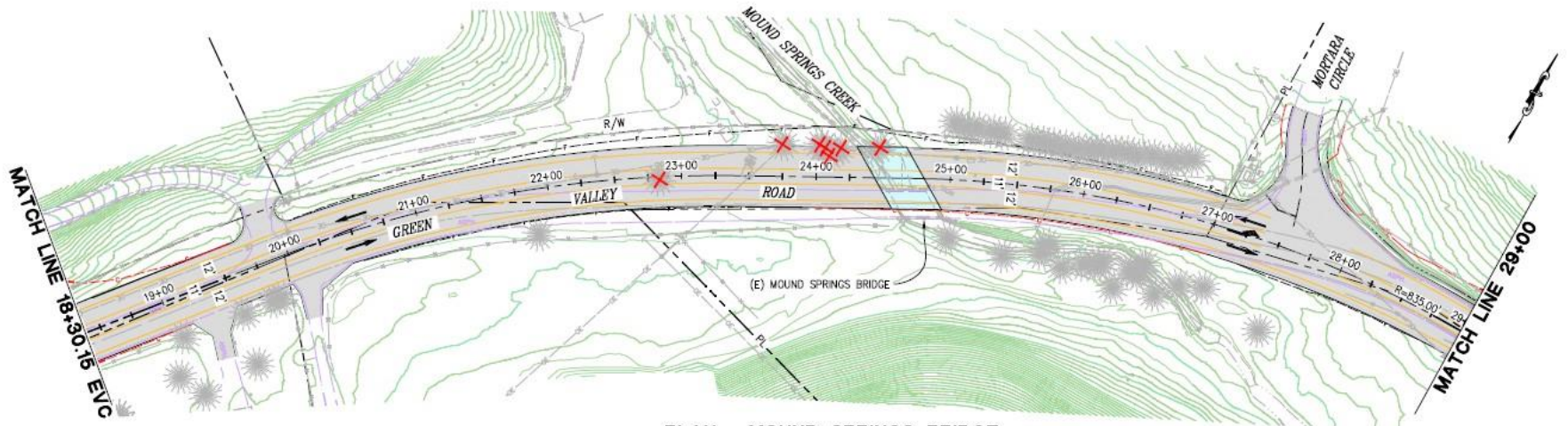
Green Valley Road at Indian Creek Bridge Replacement



PRELIMINARY

Alternative C: "3-Lane"

Green Valley Road at Mounds Springs Creek Bridge Replacement

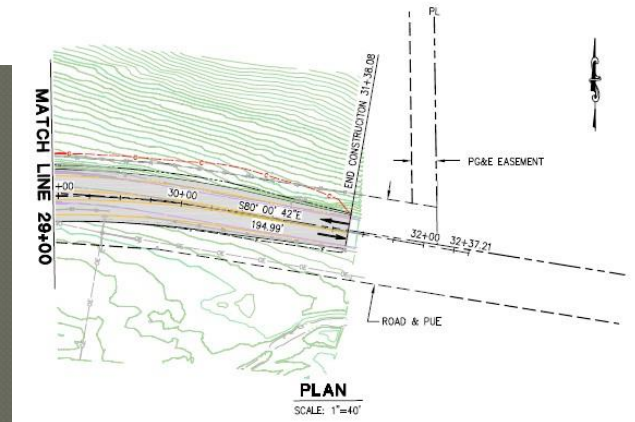


LEGEND
→ DIRECTION OF TRAVEL

PLAN - MOUND SPRINGS BRIDGE

SCALE: 1"=40'
RIGHT OF WAY AND PROPERTY LINES ARE APPROXIMATE
X TREE REMOVAL

PRELIMINARY



PLAN
SCALE: 1"=40'

Alternative C: “3-Lane”

Stagecoach Road Intersection



EXISTING



PROPOSED

PRELIMINARY

Alternative C: “3-Lane”

East of Indian Creek Bridge



EXISTING



PROPOSED

PRELIMINARY

Alternative C: “3-Lane”

Mound Springs Creek Bridge



EXISTING



PROPOSED

PRELIMINARY

Alternative C: “3-Lane”

Mortara Circle Intersection



EXISTING



PROPOSED

PRELIMINARY

Next Steps

- **Environmental Studies** (2016 - 2018)
- **Geotechnical Studies** (2016)
- **Right of Way** (2018 - 2020)
- **Utility Relocations** (2018 – 2020)
- **Design** (2015 – 2020)
- **Construction** (2021)

Closing Remarks



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