

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

Community Development Agency
Transportation Division

Matthew Smeltzer, P.E.
Deputy Director,
Engineering

Jon Balzer, P.E.
Senior Civil Engineer

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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
- Questions & Open Discussion

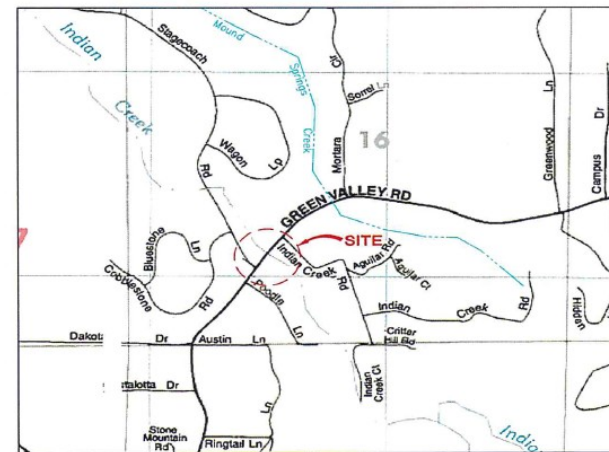
Highway Bridge Program (HBP) Overview

- 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
NOT TO SCALE

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

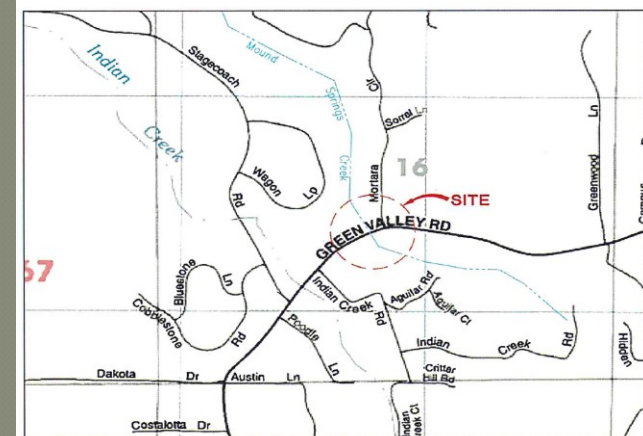
✓ **Approved for Bridge Replacement**



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



LOCATION MAP

NOT TO SCALE

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

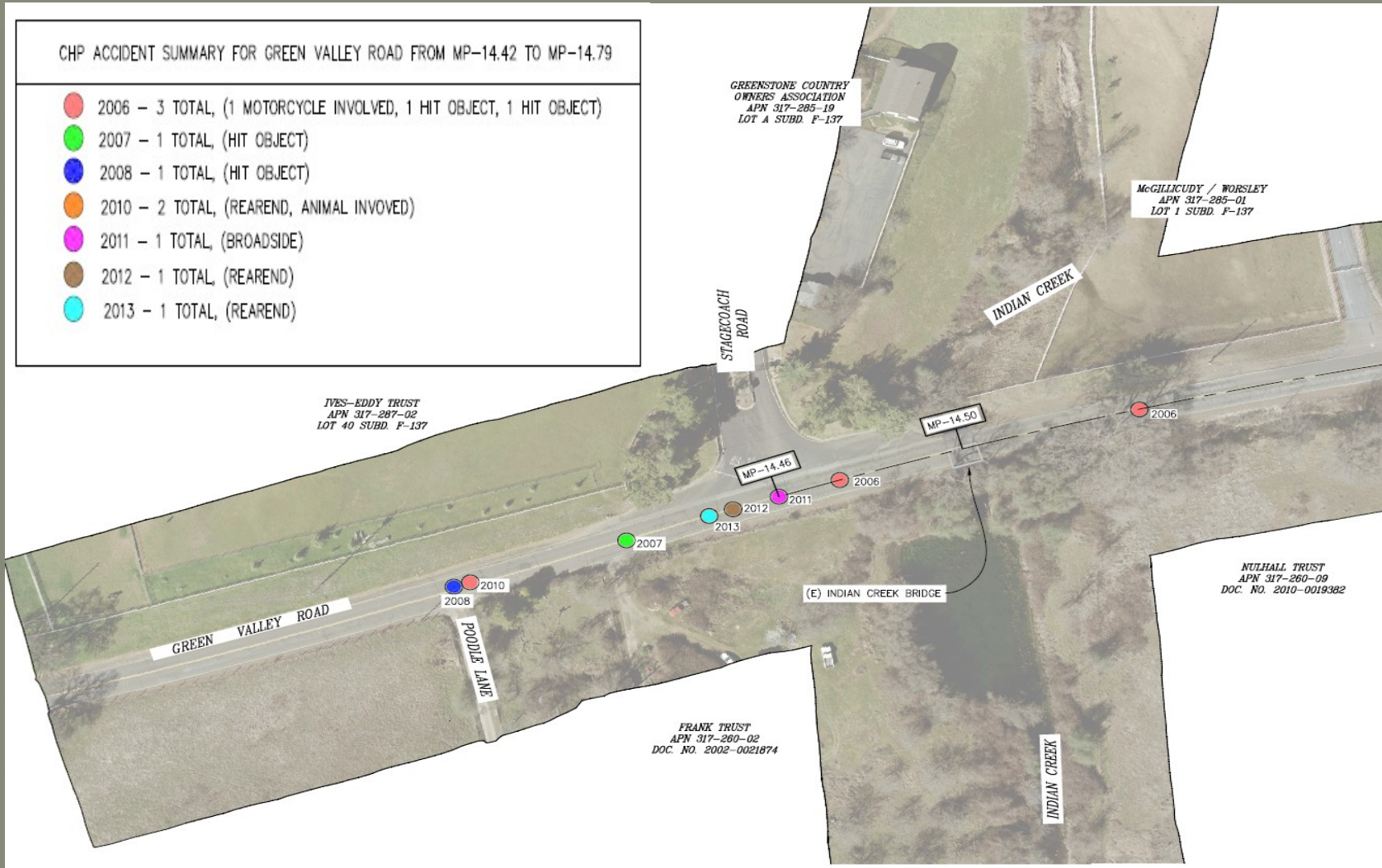
Green Valley Road - Safety Considerations



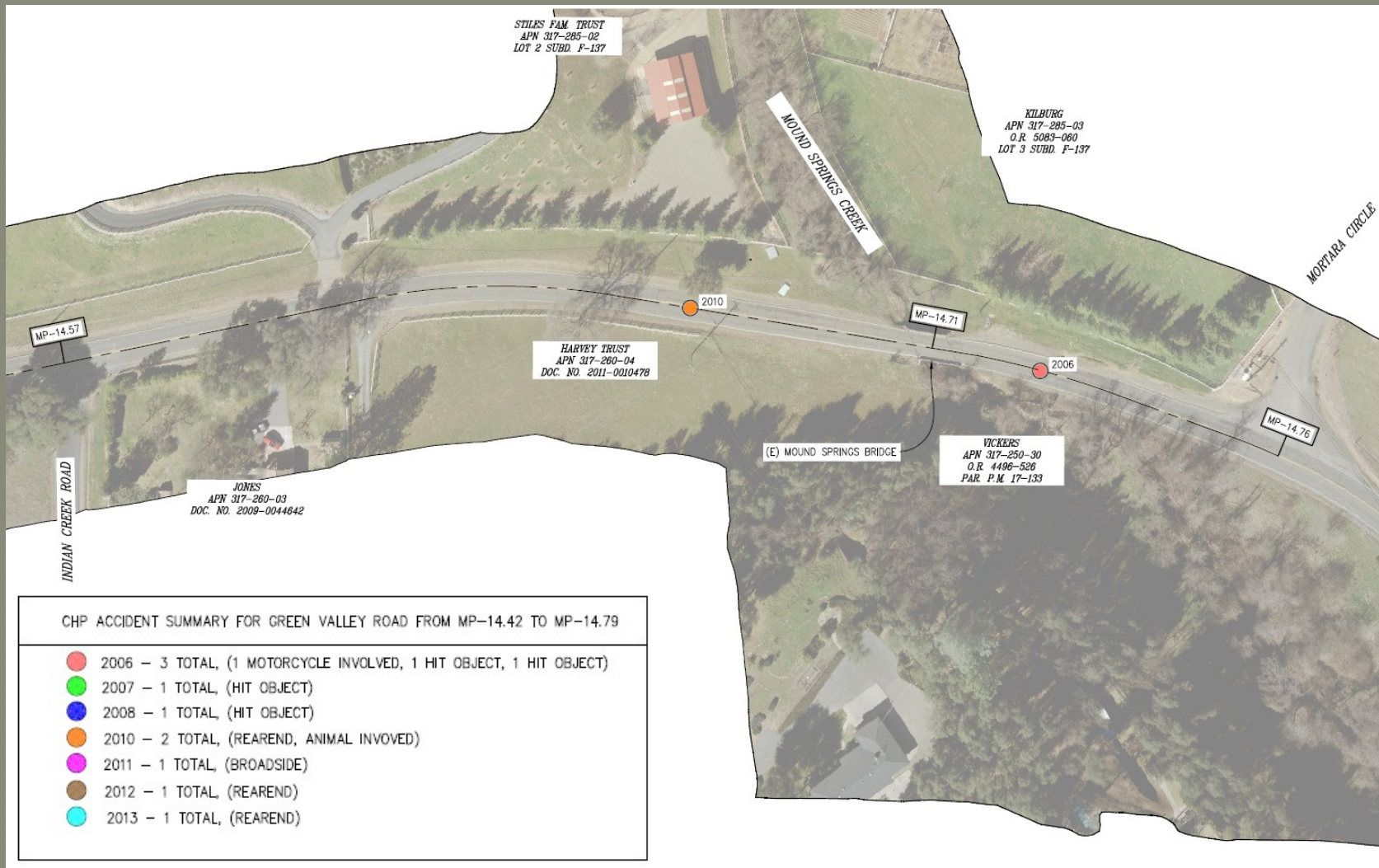
Green Valley Road - Safety Considerations

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)



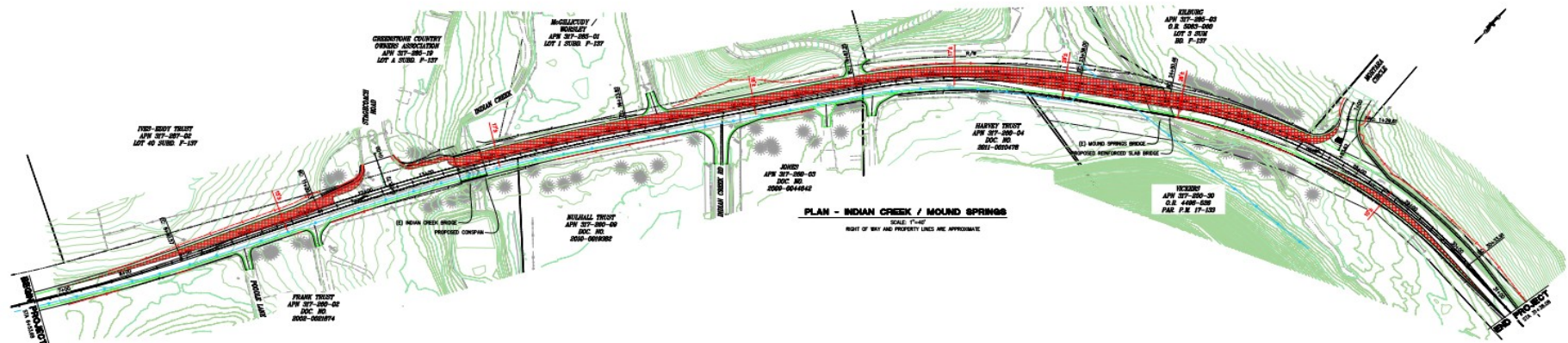
Green Valley Road - Safety Considerations



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)

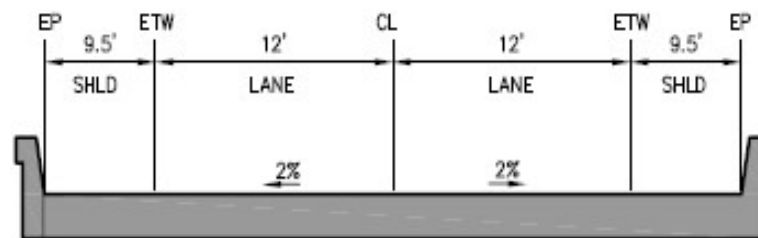
Future Ultimate 3-Lane Option = \$1.5 Million

Total Ultimate 3-Lane Option = \$1.5 Million

PRELIMINARY

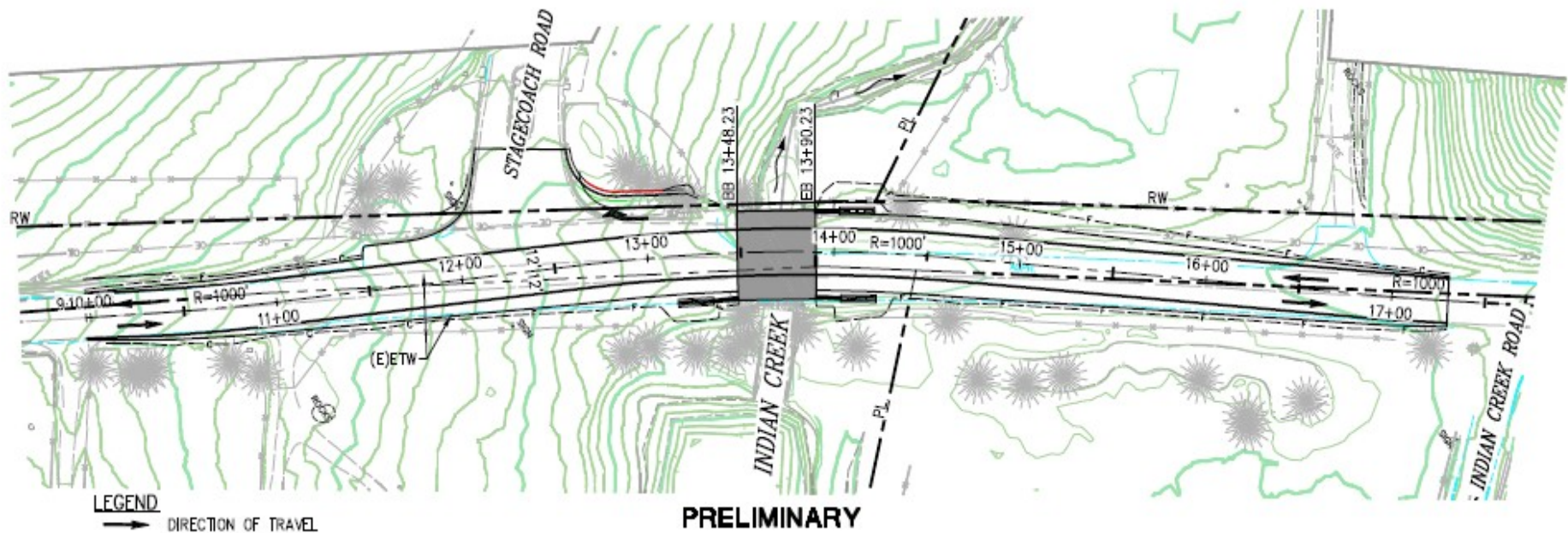
Alternative A: 2-Lane "Hourglass"

Green Valley Road at Indian Creek Bridge Replacement



PROPOSED BRIDGE SECTION

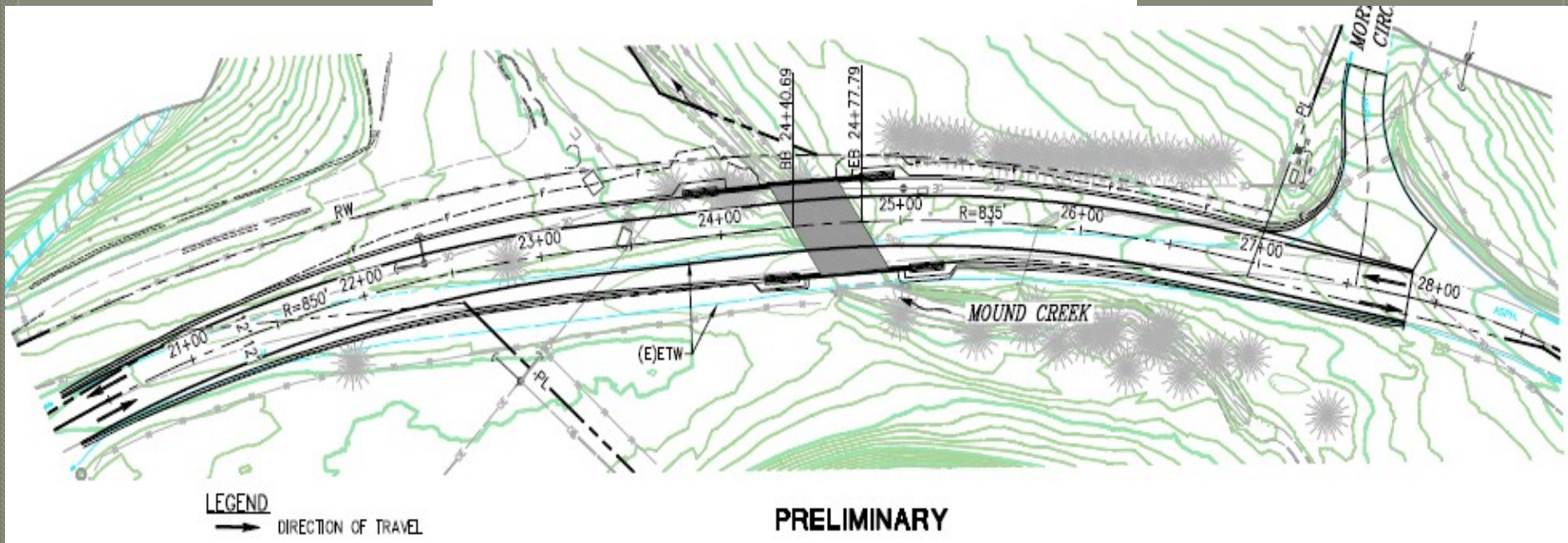
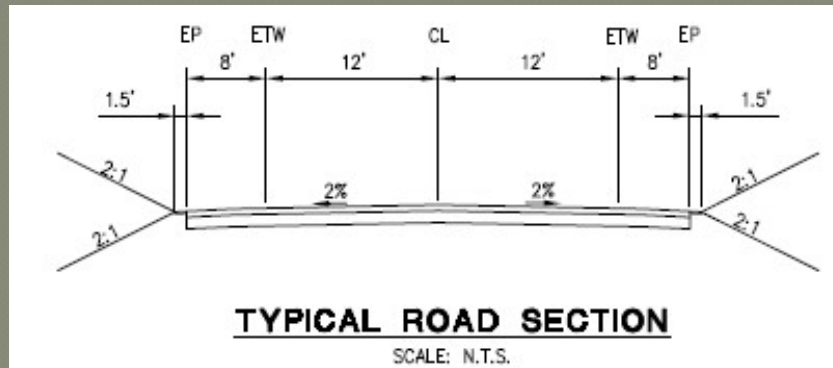
SCALE: N.T.S.



PRELIMINARY

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)

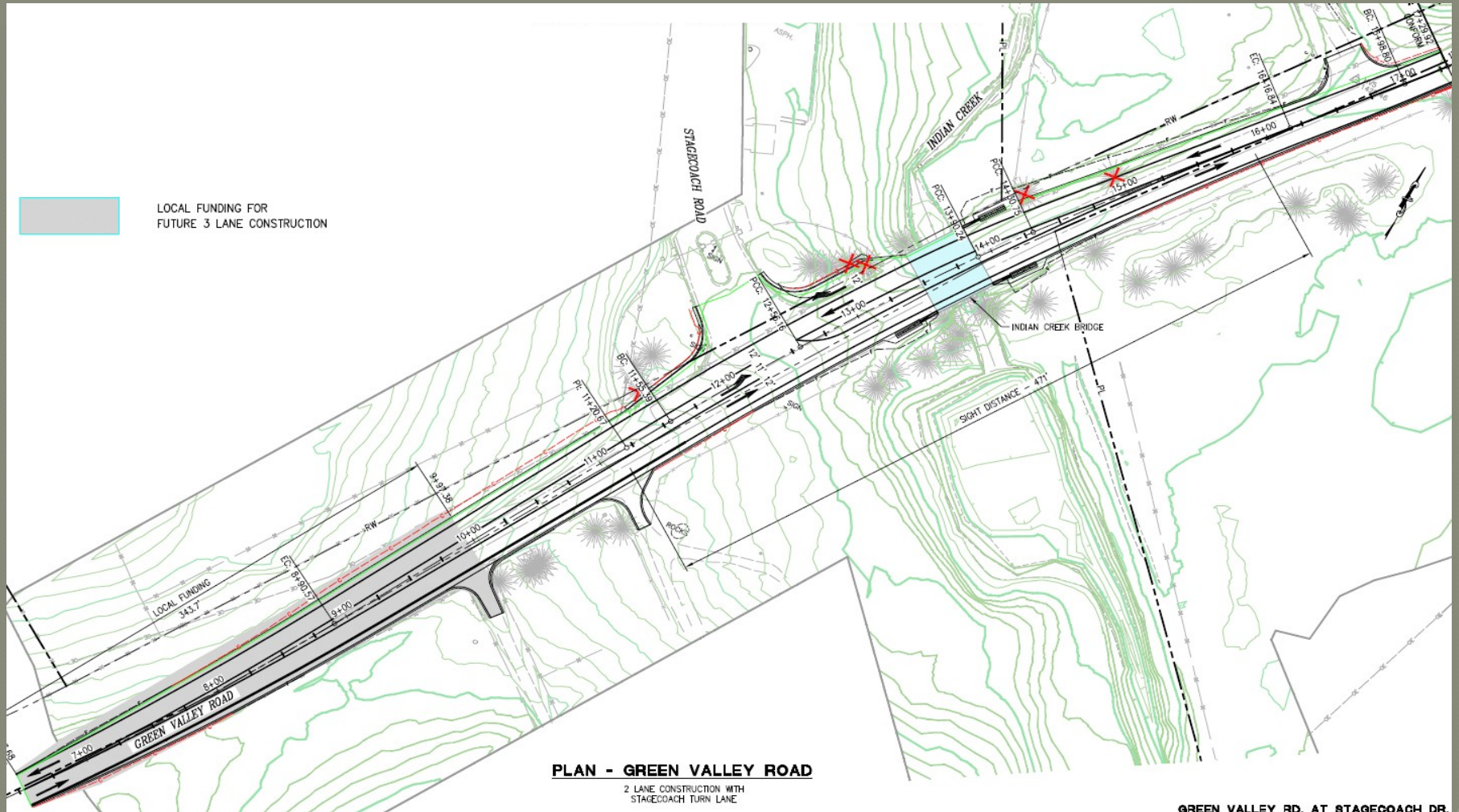
Included Additional Roadway Improvements = \$300k (RSTP)

Future Ultimate 3-Lane Option = \$1 Million

Total Ultimate 3-Lane Option = \$1.3 Million

PRELIMINARY

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



PRELIMINARY

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)

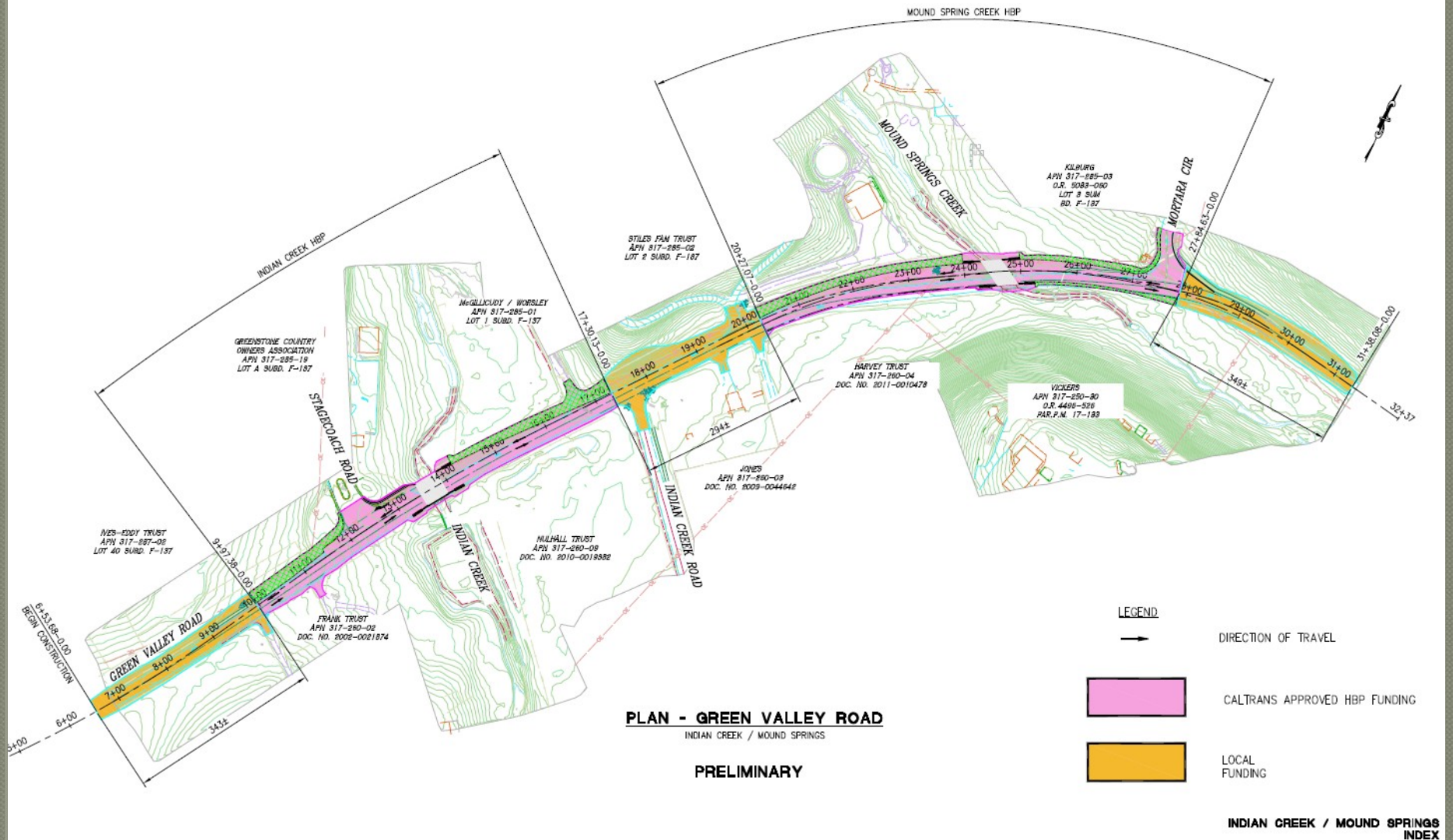
PRELIMINARY

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

Future Ultimate 3-Lane Option = \$0

Total Ultimate 3-Lane Option = \$950k

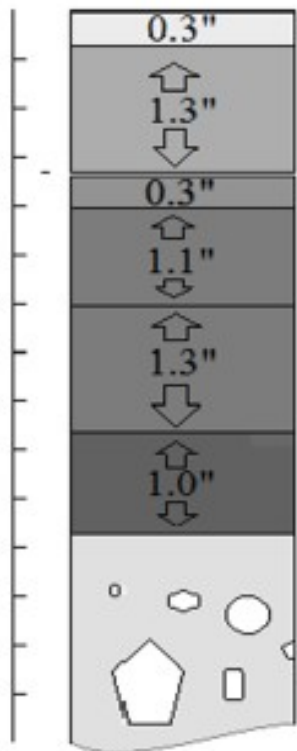
Alternative C: "3-Lane"



Alternative C: "3-Lane"

Maintenance Considerations:

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



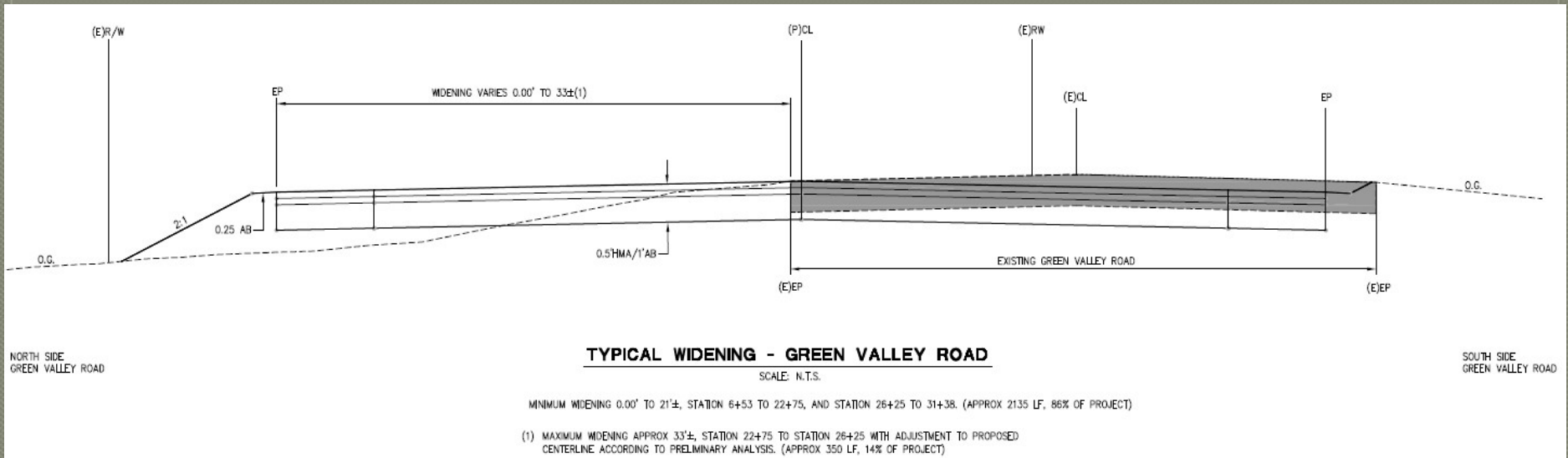
Core #4
St: 18+63
Westbound Lane
Core Section:
0.30" Chip Seal
1.3" HMA
Break in Core
0.3 Slurry?
1.1" HMA
1.3" HMA
1.0" Oiled Soil?

5.3" = Height of Core #4

No AB Under Core



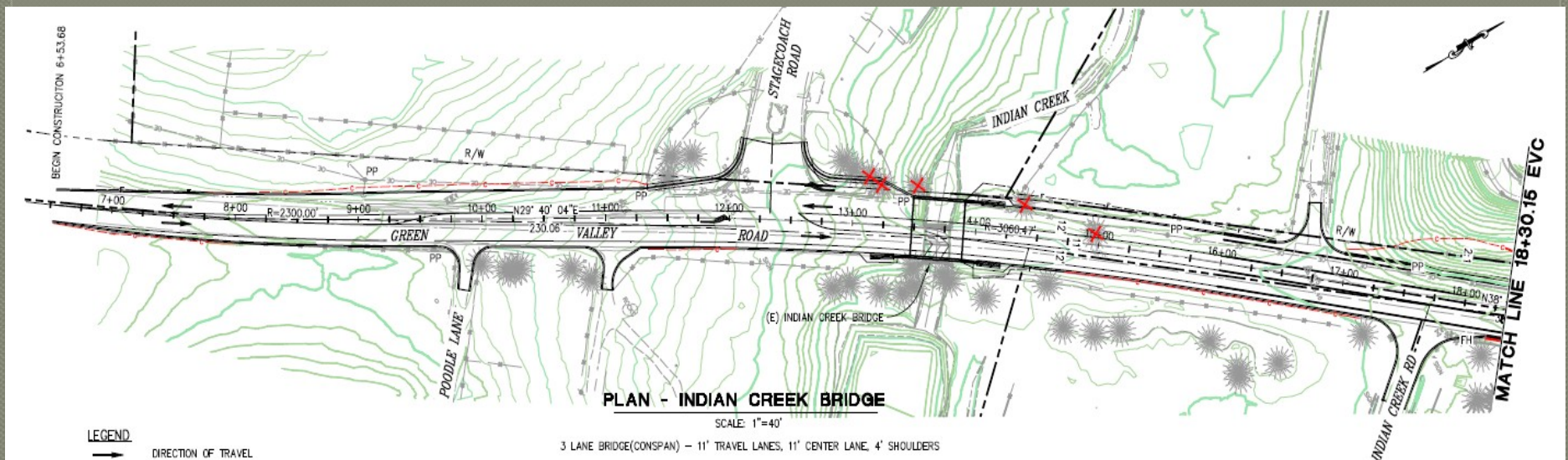
Alternative C: "3-Lane"



PRELIMINARY

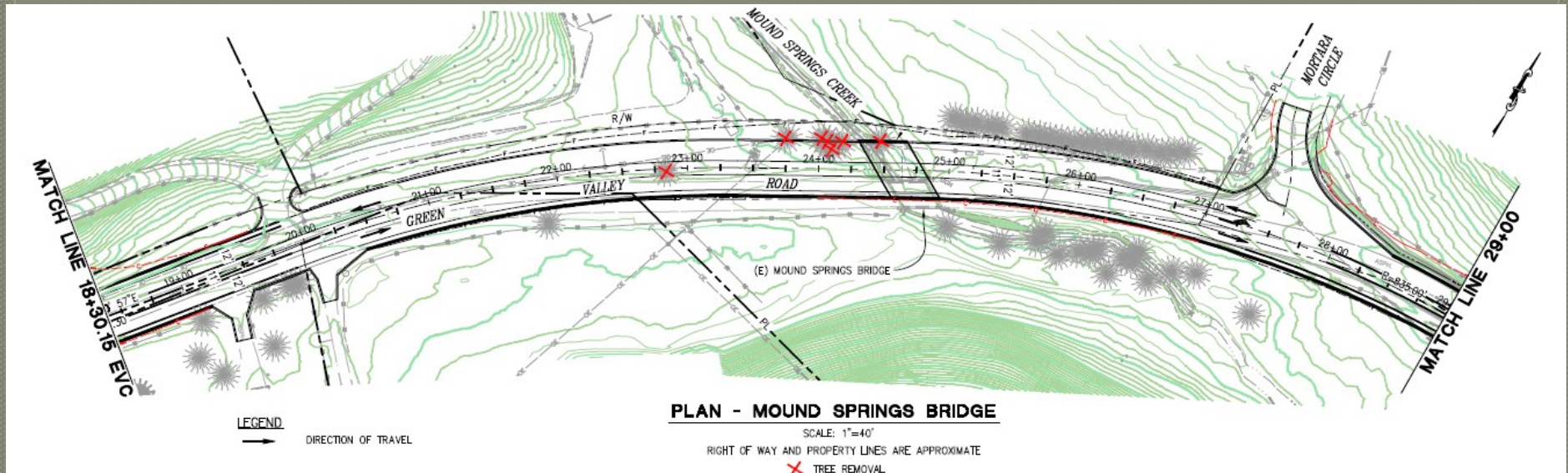
Alternative C: "3-Lane"

Green Valley Road at Indian Creek Bridge Replacement



Alternative C: "3-Lane"

Green Valley Road at Mounds Springs Creek Bridge Replacement



PRELIMINARY

Alternative C: “3-Lane”

Stagecoach Road Intersection



EXISTING



PROPOSED

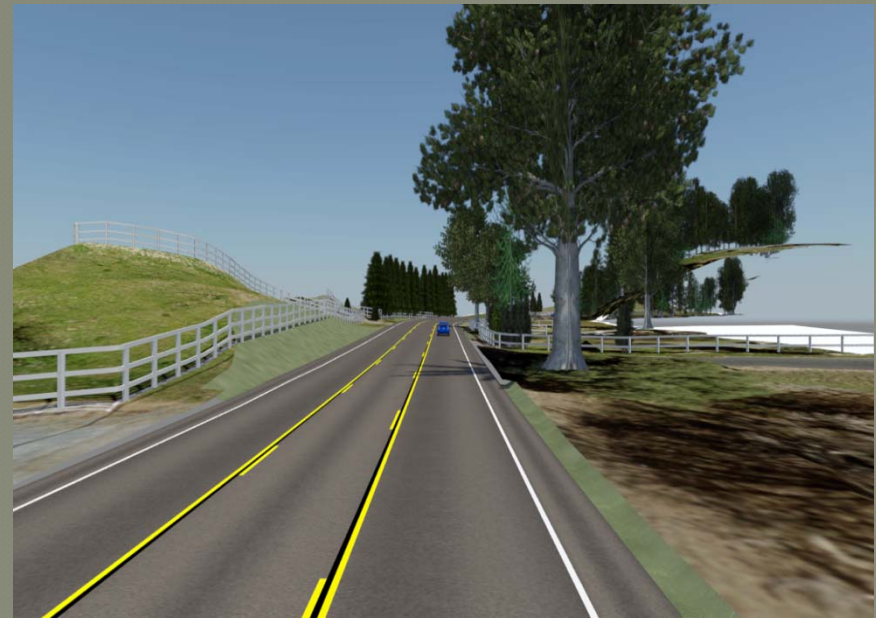
PRELIMINARY

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 & Questions



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