

BUCKHORN GRADE ENTERPRISE LIONS CLUB

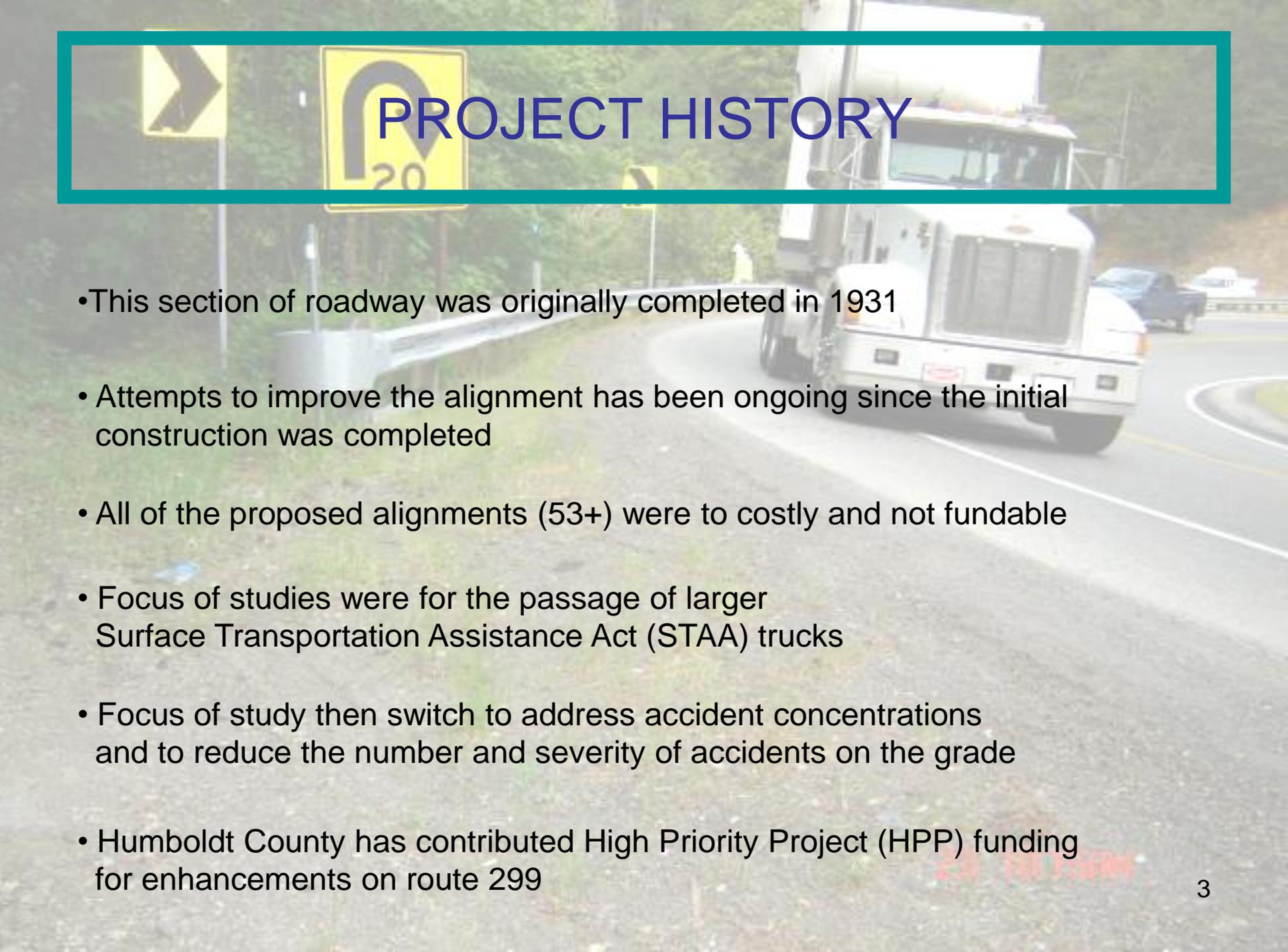
August 8, 2012



BUCKHORN GRADE UPDATE

- Purpose: Share strategy to reconstruct State Route 299 From Shasta /Trinity County Border To Crystal Creek Road.

PROJECT HISTORY
OVERVIEW OF CORRIDOR
CURRENT PROJECTS
FUTURE PROJECTS
WHAT WILL THIS COST ?



PROJECT HISTORY

- This section of roadway was originally completed in 1931
- Attempts to improve the alignment has been ongoing since the initial construction was completed
- All of the proposed alignments (53+) were too costly and not fundable
- Focus of studies were for the passage of larger Surface Transportation Assistance Act (STAA) trucks
- Focus of study then switch to address accident concentrations and to reduce the number and severity of accidents on the grade
- Humboldt County has contributed High Priority Project (HPP) funding for enhancements on route 299



EXISTING ALIGNMENT

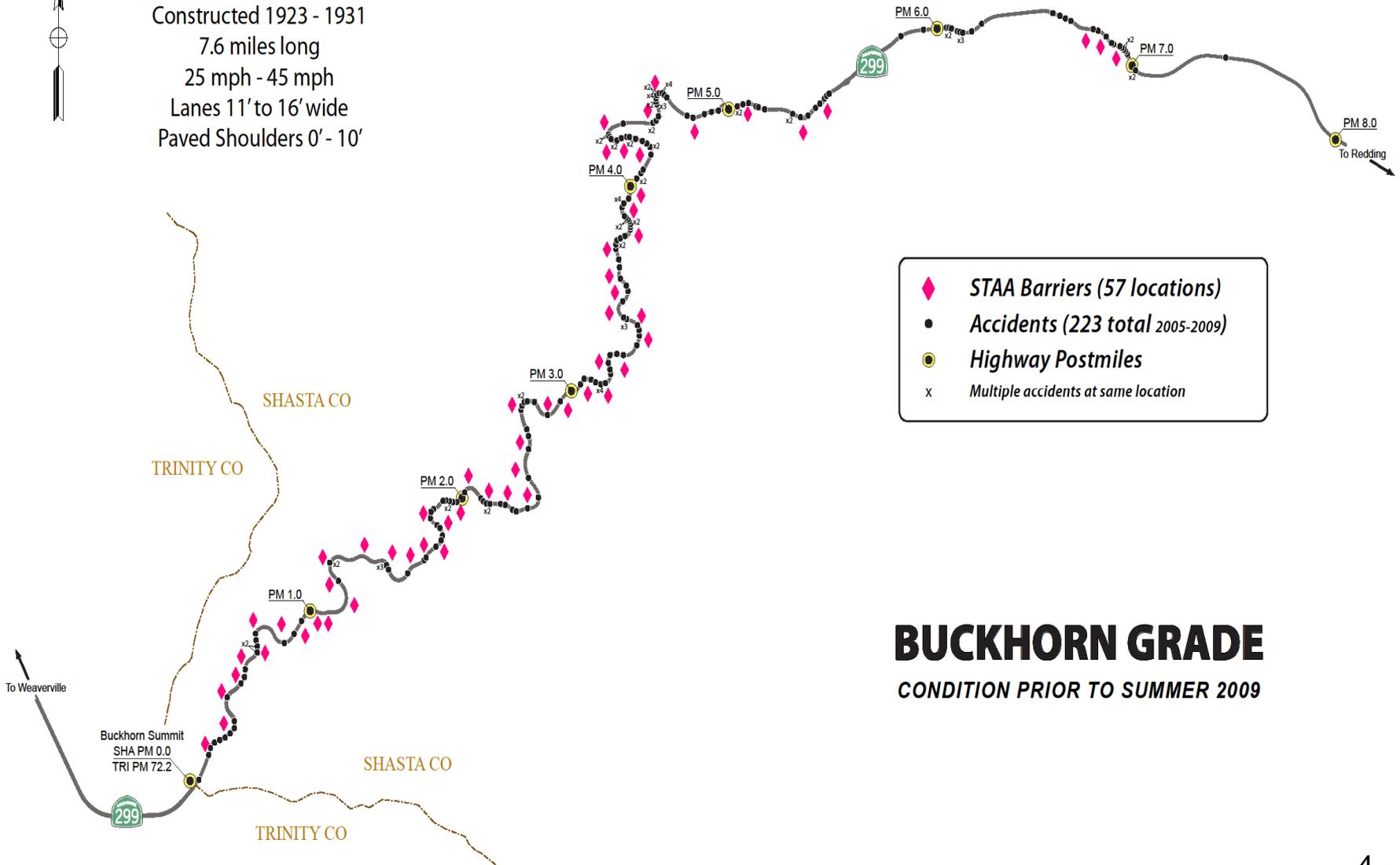
Constructed 1923 - 1931

7.6 miles long

25 mph - 45 mph

Lanes 11' to 16' wide

Paved Shoulders 0' - 10'



- ◆ STAA Barriers (57 locations)
- Accidents (223 total 2005-2009)
- Highway Postmiles
- x Multiple accidents at same location

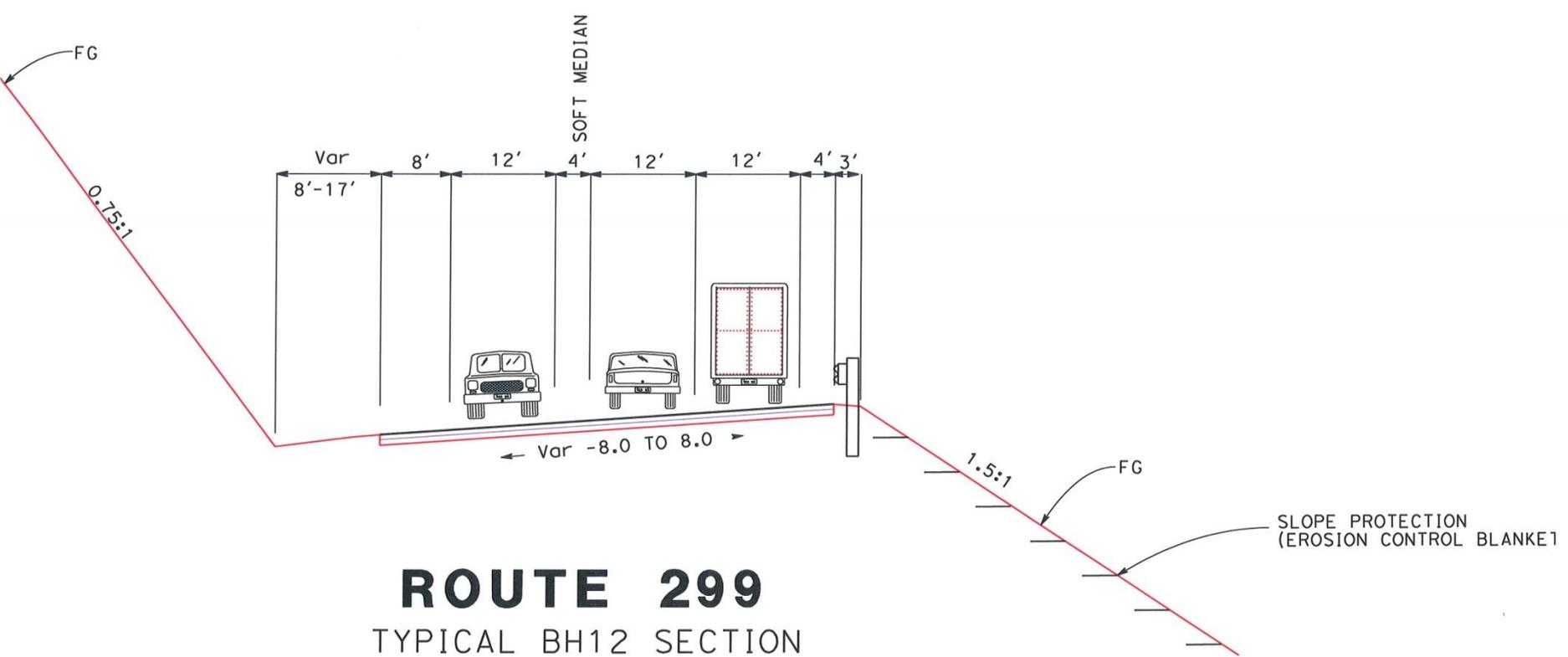
BUCKHORN GRADE

CONDITION PRIOR TO SUMMER 2009

OVERVIEW OF CORRIDOR IMPROVEMENTS

Characteristics of new alignment

- Higher design speed
- Fewer curves
- Curve banking will meet current design standards
- Continuous truck lane for the last four miles uphill
- Truck lane for downhill passing at the base of the hill
- Standard recovery zone
- 4 to 8 foot shoulders
- Paved area to provide chain-on and chain-off



ROUTE 299
TYPICAL BH12 SECTION

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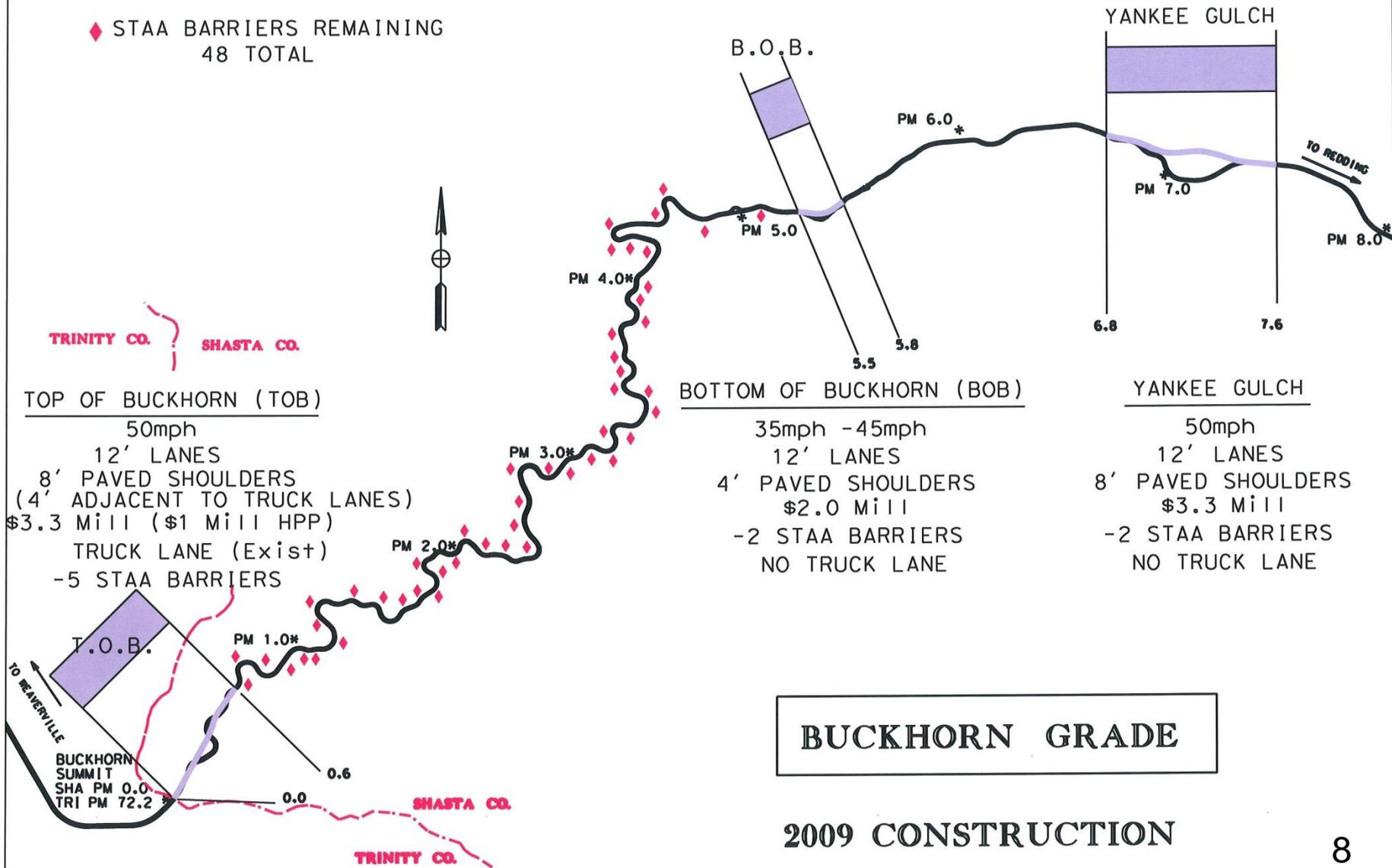
SHOPP Safety Projects

- ❖ There have been three Safety Projects completed on the grade
- ❖ Total construction capital invested to date \$10.7 million
- ❖ The goal of the Safety program is to reduce the number and severity of accidents within the project limits
- ❖ Humboldt County has contributed \$1 million of their \$5.9 million High Priority Project (HPP) funding to augment the project. \$4.9 million in HPP funding remains available.
- ❖ There are two more Safety projects currently in the Design phase

Projects Completed to Date

LEGEND

-  SAFETY PROJECT ALIGNMENT
-  EXISTING ALIGNMENT
-  STAA BARRIERS REMAINING
48 TOTAL



CURRENT PROJECTS

MIDDLE OF BUCKHORN

- This Safety project is underway and being constructed by Mercer Fraser of Eureka
- The contractor is currently on schedule for completion in 2013
- Estimate of 710,000 cubic yards of excavation

TWIN GULCHES

- This Safety project is currently being advertised
- Bid Opening in late September 2012
- Scheduled completion November 2014
- Estimate of 610,000 cubic yards of excavation

2012/04/30

LEGEND

-  COMPLETED SAFETY PROJECT ALIGNMENT
-  PROGRAMMED SAFETY PROJECT ALIGNMENT
-  EXISTING ALIGNMENT

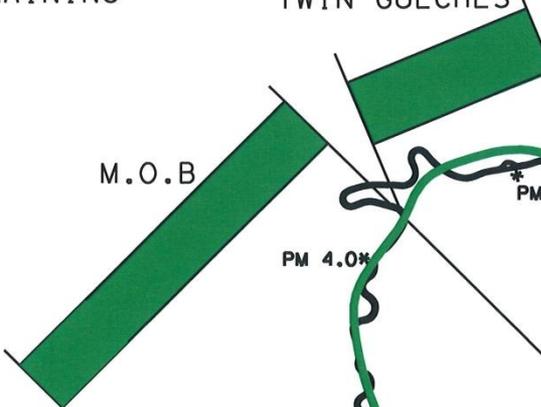
 STAA BARRIERS REMAINING
22 TOTAL

TWIN GULCHES

35mph -45mph
12' LANES
8' PAVED SHOULDERS (4' ADJ TO TRUCK LNS)
\$11.0 Mill

1,903' OF NEW TRUCK LANE
-8 STAA BARRIERS
2013 CONSTRUCTION

TWIN GULCHES



M.O.B

TRINITY CO.

SHASTA CO.

PM 4.0*

PM 5.0*

PM 7.0*

PM 8.0*

MIDDLE OF BUCKHORN (M.O.B.)

30mph -40mph

12' LANES

8' PAVED SHOULDERS
(4' ADJACENT TO TRUCK LANES)
\$13.5 Mill

3,301' OF NEW TRUCK LANE

-18 STAA BARRIERS
2011 CONSTRUCTION

PM 3.0*

PM 2.0*

PM 1.0*

BUCKHORN
SUMMIT
SHA PM 0.0
TRI PM 72.2

SHASTA CO.

TRINITY CO.

BUCKHORN GRADE

PROGRAMMED PROJECTS

FUTURE PROJECT

UPPER BUCKHORN

- There are two locations to this project
- Rocky material from the bottom of the hill will be excavated and used to armor plate the fills at the top location in order to minimize fill slope erosion
- Planned Bid Opening September 2014
- Planned Completion November 2017
- Estimated 1,400,000 cubic yards

07/13/2012

Operational Improvements

- ❖ Upper Buckhorn will have two locations
- ❖ This will be the final project to improve the grade
- ❖ Construction cost estimated at \$25 million
- ❖ When complete, all of the STAA truck limitations will be eliminated in Shasta County

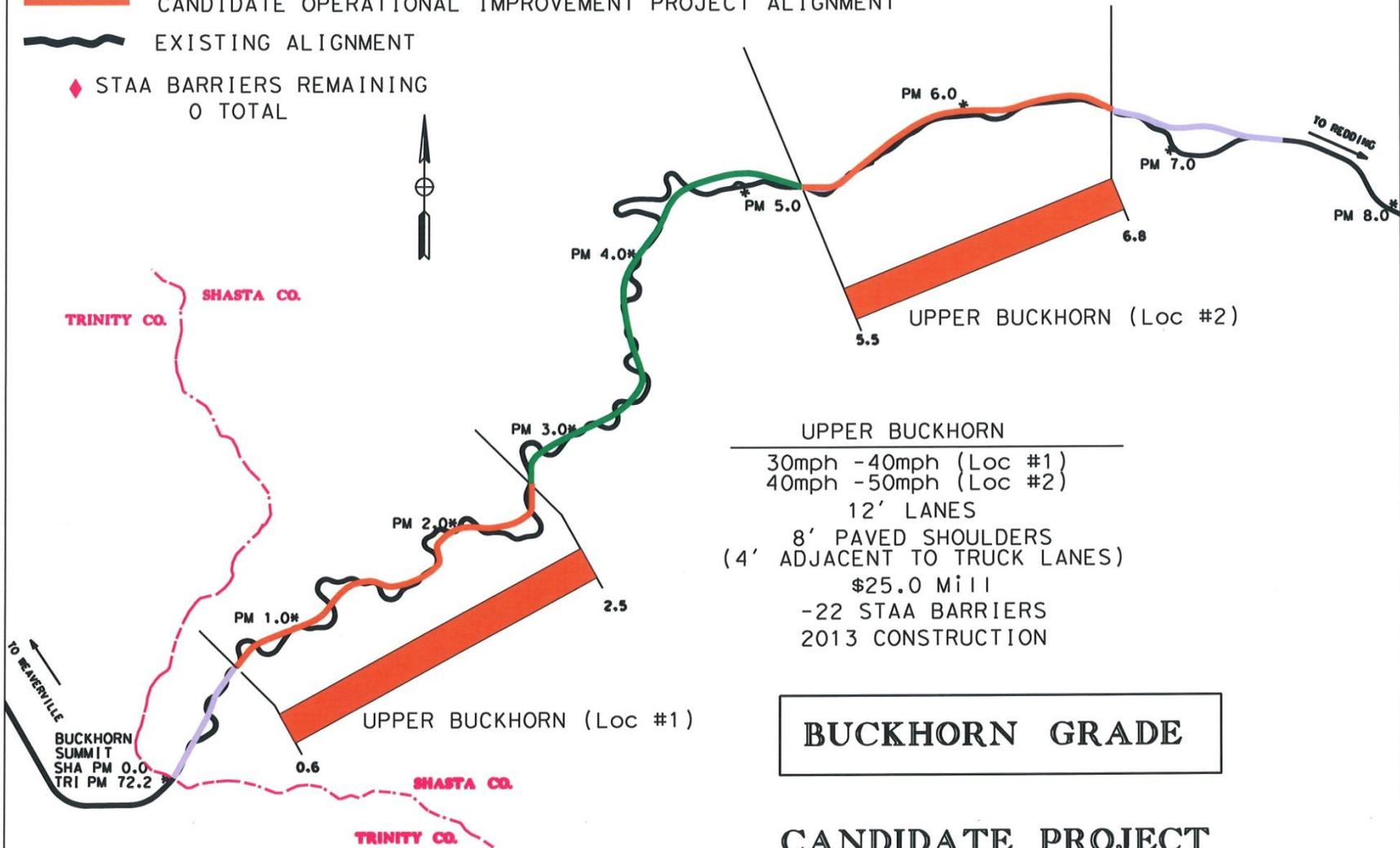
LEGEND

- COMPLETED SAFETY PROJECT ALIGNMENT
- PROGRAMMED SAFETY PROJECT ALIGNMENT
- CANDIDATE OPERATIONAL IMPROVEMENT PROJECT ALIGNMENT
- ~ EXISTING ALIGNMENT

◆ STAA BARRIERS REMAINING
0 TOTAL



TRUCK LANES
 T.O.B. PM 0.2-0.4
 M.O.B. PM 2.7-4.0
 TWIN PM 4.3-5.0
 UPPER TBD +/-2,000'



UPPER BUCKHORN
 30mph -40mph (Loc #1)
 40mph -50mph (Loc #2)
 12' LANES
 8' PAVED SHOULDERS
 (4' ADJACENT TO TRUCK LANES)
 \$25.0 Mill
 -22 STAA BARRIERS
 2013 CONSTRUCTION

BUCKHORN GRADE

CANDIDATE PROJECT

ESTIMATED FINAL CAPITAL COST

BUCKHORN GRADE PROJECTS

Name	Postmiles		Status	Programmed Safety Index Dollars		HPP Supplement (Million)	Const Years	Preliminary Estimate (Million)	Comments
	Start	Stop		Expended	Programmed				
Top of Buckhorn	0.0	0.6	Project Complete	\$3.2		\$1.0	2008/2009	\$ 3.2	HPP for alignment enhancement
Buckhorn Closure	0.2	7.1	In design bids scheduled to open September 2014		\$25		2015/2017	\$ 25.0	Operational improvement
Middle of Buckhorn	2.5	4.3	Bids opened, Mercer Frasier Low bidder		\$10.5		2011/2013	\$ 12.0	Project approved 8/10/11
Twin Gulches	4.3	5.5	Bids Open September 2012		\$9.7	\$1.5	2013/2014	\$ 13.0	\$1.5 HPP for culvert extension and passing lane
Bottom of Buckhorn	5.4	5.8	Project Complete	\$2.8			2009	\$ 2.8	
Yankee Gulch	7.0	7.6	Project Complete	\$3.8			2009	\$ 3.8	HPP was planned but returned due to low bids
Totals (millions)				\$9.8	\$45.2	\$2.5		\$59.8	

Notes: 6/26/12 update Bid opening for Twin, removed HPP supplement for Closure, update Twin Estimate,



QUESTIONS ?

07/31/2012