

# STATE ROUTE 174 SAFETY IMPROVEMENT PROJECT



September 18, 2019

# Board of Supervisors Resolution 17-522

1. Type III class of action determination and should instead be classified as a Type I class of action requiring an Environmental Impact Study (EIS) and Noise Study.
2. Data used to justify the project was inflated by a limited data set between years 2010-2013.
3. Reassess and revise the preferred alternative for the project by actively engaging in the local community.
4. Caltrans re-asses this project and its scope of work.
5. Design could drastically alter a rural, Scenic Highway.
6. Set a precedent for other roads.
7. Only one FHWA safety countermeasure was being used.



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# 1. Type III class of action determination and should instead be classified as a Type I class of action requiring an Environmental Impact Study (EIS) and Noise Study.

- Under Title 23, Part 772, Code of Federal Regulations, section 772.7A Type I projects is defined as:
  - The construction of a highway on a new location (major road changes), or physical alteration of an existing highway where there is either:
    - Substantial horizontal alteration.
    - Halves the distance between the traffic noise source and the closest **receptor (residence)** between the existing condition to the future build condition, or
    - Substantial vertical alteration.
    - Removes shielding thereby exposing the line-of-sight between the receptor and the traffic noise source.
    - Altering either the vertical alignment of the highway or the topography between the highway traffic noise source and the receptor;
- Caltrans Environmental team is made up of experts from multiple disciplines in the physical sciences. They are experts in their field with various degrees and certifications which qualify them to interpret these codes and perform appropriate environmental studies as required by laws and regulations.



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# 1. Type III class of action determination and should instead be classified as a Type I class of action requiring an Environmental Impact Study (EIS) and Noise Study. (cont.)

- Not constructing a new highway
- Minor realignment of the existing highway.
  - Horizontal alignment and vertical profile is unchanged on 60% of the alignment.
  - Average horizontal alignment change is 10 feet.
  - Vertical alignment average is less than 4 feet.
- Horizontal alteration does not shift the roadway closer to homes by halving the distance.
- An analysis was performed at parcel 36722.
- 25 foot closer from 580' to 555' – 4.3% closer.
- Department discussed the potential impact with our noise study specialist:
  - Any increase in noise would not be audible to a normal healthy human ear.
  - The level of increase is so small because we are not increasing the amount of traffic or speed.
- Vegetation removal generally does not qualify a project as Type 1 because there is rarely vegetative density between the roadway and a receptor so that the vegetative cover would provide acoustic shielding.



## 2. Data used to justify the project was inflated by a limited data set between years 2010-2013.

The Department followed the State Highway Safety Improvement Program (State HSIP) guidelines.

- The HSIP guidelines applied statewide
- *To accomplish this goal, high collision concentration locations are systematically investigated to determine if measures can be taken to improve safety.”*
- *“Use the latest three-year collision data available if there is a minimum of 25 collisions.*
- *If there are less than 25 collisions in three years:*
  - *Use four-year collision data.*
- *If there are less than 25 collisions in four years:*
  - *Use five-year collision data without regard to the number of collisions.*
- *Any exception must have the Headquarters Office of Performance approval.”*
- The Department does not initiate projects beyond 5 years of data.



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### 3. Reassess and revise the preferred alternative for the project by actively engaging in the local community.

#### ➤ Before Project Approval and Environmental Document (PA&ED):

- May 2015 - Public Open House meeting
- June 2016 - Public Open House meeting

#### ➤ After the PA&ED phase:

- May 2017 - Public Open House
- June 2017 – Letter from Nevada County BOS,
- July 2017 – Sent response letter to BOS
- August 2017 – Caltrans and the Save 174 group met with Assemblyman Brian Dahle
  - Direction from Mr. Dahle was to move forward with the project and find a compromise solution
  - Two comments from Mr. Dahle:
    1. If the project saves even one life, then it is worth it; both groups need to work together and come to a compromise
    2. A compromise will mean that in the end, neither of you will be happy



### 3. Reassess and revise the preferred alternative for the project by actively engaging in the local community. (cont.)

#### Caltrans and Save 174 Collaboration

- Oct 2017 – Nevada County Board of Supervisors meeting *“Re-evaluate”*
- Dec 2017 – Caltrans/Save 174 subcommittee meeting *“No way!”*
- Jan 2018 – Caltrans/Save 174 subcommittee meeting *“Much better, but...”*
- Feb 2018 – Save 174 Design Recommendation Letter *“Like/Don’t Like”*
- Apr 2018 – Caltrans Response *“Yes/No”*
- Apr 2018 – Save 174 Response *“OK, but two concerns...”*
- Apr 2018 – Caltrans/Reg King meeting *“Yes/No”*
- Jul 2018 – Caltrans/Save 174 subcommittee meeting *“OK, don’t go away.”*



### 3. Reassess and revise the preferred alternative for the project by actively engaging in the local community. (cont.)

- August 2018 – Caltrans attended the Save 174 group meeting where design revisions were presented by the Save 174 subcommittee to the Save 174 group. Caltrans was present for questions and answers, if necessary.
  
- September 2018 – Nevada County BOS Meeting
  - Caltrans presented the revised project design
  - Significantly reduced the overall impacts
  - Board of Supervisors thanked Caltrans for working on a compromise,
  - Approved Resolution authorizing release and quitclaim of parcels to the State of California for the project.



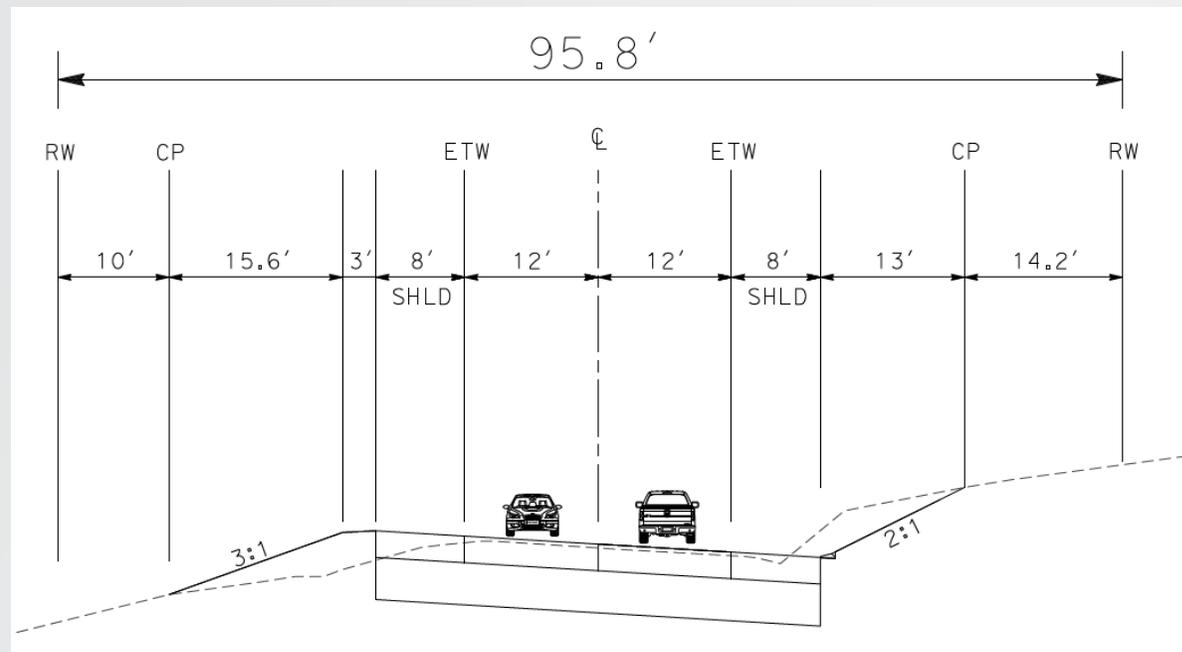
## 4. Caltrans re-assess this project and its scope of work.

- Results from collaboration with the Save 174 subcommittee for nearly 1 year .
  - Maintained a 45-mph highway by:
    - 12 Horizontal Curves – 6 are 45mph or less
    - 19 Vertical Curves – 7 less than Standard
    - Shoulder Backing reduced from 4-feet to 2-feet
  - Eliminated maintenance access/ support area.
  - Shoulder meets class III bike facility and provides 3-foot lateral clearance from vehicles (per AB1371).

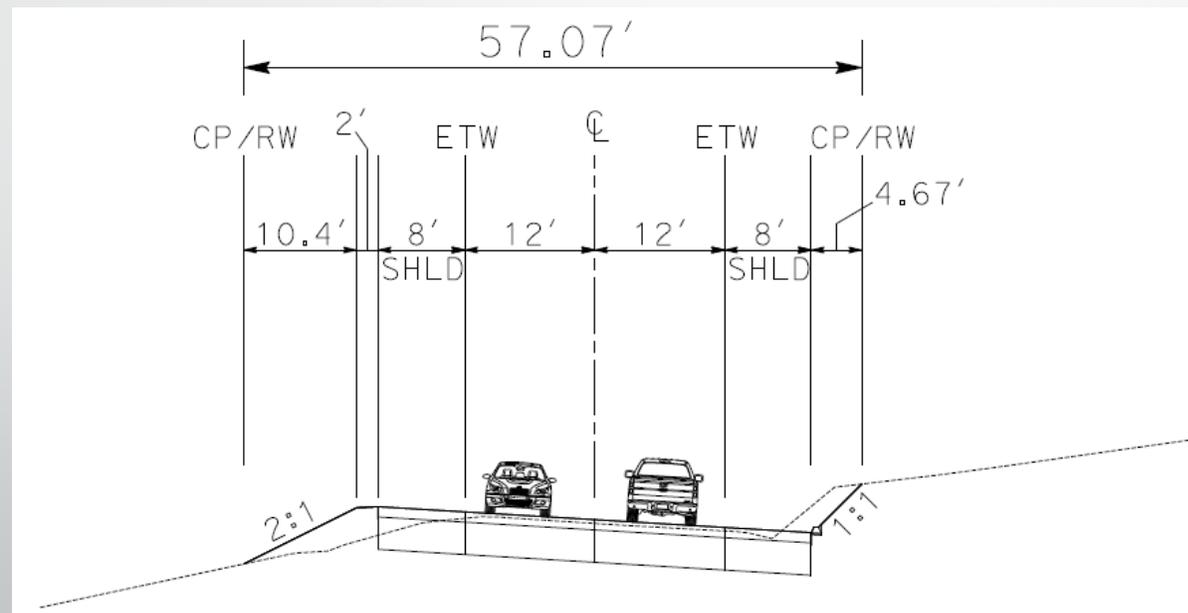
	<u>Before Community Engagement</u>	<u>After Community Engagement</u>
Slopes:	2:1 Cut/ 4:1 Fill	1:1 Cut/ 2:1 Fill
Clear Recovery Zone:	20' from ETW	No CRZ beyond cut/fill limits
Right of Way Limits:	Catch Point +10'	Catch Point
Total Width:	120'-150'	50'-80'
# of Parcels (not incl. TCE):	49	32
Total Parcel Area:	<b>14.7 acres</b>	<b>3.6 acres</b>
Tree Removal:	<b>1,700 trees</b>	<b>550 trees</b>



## Before Community Engagement



## After Community Engagement



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# Impacts and Benefits



Current



Adaptive

Sta 205+75

Approx. 1000' North of Greenhorn Access Road



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## 5. Design could drastically alter a rural Scenic Highway.

While beautiful, Highway 174 is not a designated State Scenic Highway.

- A Visual Impact Analysis and Environmental Document including Visual/Aesthetics section of CEQA were completed.
- The Aesthetics section of the Initial Study/Mitigated Negative Declaration mentions *“less than significant impacts from Visual/Aesthetics pursuant to CEQA are anticipated.”*

CEQA Checklist states ***“No Impact” and “Less than Significant Impact” are based on the initial project scope, field reviews, and the Visual Impact Assessment (VIA).***

- *With design modifications the footprint was further reduced from Environmental Document assessment. Footprint reduced from 14.7 acres to 3.6 acres.*



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## 6. Set a precedent for other roads.

- No. The scope of work is dictated by the purpose and need for that particular project.
- A geometric design for one road segment may or may not apply to other segments.
- This project initiated by a set of collisions on segment of Highway 174.
- Incremental approach to achieve a reduction in collisions while lessening impacts.
  - Vertical and Horizontal curves modified to only 45 mph standard
  - Side slopes steepened from vehicle recovery standard
  - Shoulder backing distance reduced
  - Clear recovery area reduced
  - Maintenance access/ support area eliminated
  - Application of FHWA safety counter measures
  - Rumble strips eliminated per working engagement with Save 174 group.



## 7. Only one FHWA Safety Countermeasure was being used.

### ➤ FHWA safety countermeasures

- Safety Edge-Shoulder Backing
- Enhanced delineation
- Enhanced signing
- Increased Pavement Friction.
- 8-foot shoulders.
- Corrected horizontal and vertical curves.
- Radar Speed Feedback Signs.
- Remove obstacles from clear recovery area, or within proposed right of way if less than 20 feet from edge of travel way.
- Rumble strips eliminated per working engagement with Save 174 group.



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# Remaining Detail Design Issues from Save 174 Group

1. Apply flexibility in 40' paved section in safer portions  
*\*Such as narrowing shoulders from 8' to 5'*
2. Survey Heritage Oaks / groves and Sentinel Trees in ROW and within 30-feet (min) of ROW
3. Prepare Landscape Plan for graded / denuded ROW & TCE areas
4. Install traffic calming measures to slow traffic speeds
5. Construct paved shoulders to bicycle lane standards
6. Work w/property owners to address specific concerns
7. Why Caltrans has misrepresented the scope of the project (Carville letter to CTC)



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# 1. Apply flexibility in 40-foot paved section in safer portions.

**\*Such as narrowing shoulders from 8 feet to 5 feet.**

- Consistent shoulder width throughout a roadway is a necessary safety feature.
- Clear recovery area now relies heavily on the 8-foot shoulders
  - Provides a space for errant vehicles to recover and return to the roadway.
  - Parking for disabled vehicles away from mainline traffic
  - Without a 20' clear recovery zone, the shoulder becomes the most important safety feature
- Pedestrians can walk further away from live traffic
- Bicyclists have additional spacing between themselves and traffic
- Increases corner sight distance for drivers
- Improved sight distance from secondary roads or driveways,
  - Enables better decisions about entering the traffic flow.
- A 40' paved section provides a much better evacuation route in times of emergency and natural disaster



# 1. Apply flexibility in 40-foot paved section in safer portions.

**\*Such as narrowing shoulders from 8 feet to 5 feet. (cont.)**

- CHP an area to stage from for enforcement purposes.
- Service vehicles, such as the school buses or public transport (if available), U.S. Postal Service, refuse service, etc.,
- Area to pull onto the shoulders to provide their services,
  - Reducing potential delay
  - Reducing the potential for collisions
- Escape area for drivers when vehicles cross over the centerline and entering the opposing lane of traffic.
- Less than 8 feet, then standard slopes (recoverable and traversable) would be required to provide a clear recovery area



## 2. Survey Heritage Oaks / Groves and Sentinel Trees in right-of-way and within 30 feet (minimum) of right-of-way

- Trees have been surveyed in accordance with the standards and policies of Caltrans and State/Federal Law.
- California Fish and Wildlife Services (CF&WS) reviewed the environmental document and had no comments on trees being removed.
- Most portions of SR 174 within the project limits are framed with large Ponderosa Pines and understory that line the highway and develop the visual resource for the area.



### 3. Prepare Landscape Plan for graded / denuded right-of-way and Temporary Construction Easement areas.

- Restricted tree replanting opportunities.
  - Steepened side slope 1:1 cut and 2:1 fill
  - Reduction of the 10' to 0' clearance from end of slope to the property line
  - Erosion control plans instead of Landscape plans
  - Erosion control applied to areas to help support natural tree re-seeding
- Will not replant trees located within the clear recovery zone as detailed in the FHWA safety countermeasures.
- Erosion Control Best Manage Practices applied to the new slopes and clear recover area.
- Landscape plans would add little value given the narrow area of right of way remaining outside the shoulder.



## 4. Install traffic calming measures to slow traffic speeds.

- Horizontal and vertical curves designed for 45 mph speed.
- CHP areas to stage from for enforcement purposes.
  - Highly effective traffic calming method.
- Radar speed feedback signs to each direction of travel.
- Color contrast the shoulder by means of color treatment.
- CHP pull outs.



## 5. Construct paved shoulders to bicycle lane standards.

- Yes, shoulders meet the bicycle lane standards.
- The 8-foot shoulder able to accommodate bicycles as well as pedestrians.
- 8-foot shoulder allows even wider vehicles to provide the required 3-foot lateral space without crossing centerline into the opposing lane of traffic (AB 1371).



## 6. Work with property owners to address specific concerns.

- Yes, Caltrans has met multiple times with property owners to discuss their concerns and will continue to meet to address any specific concerns.
- We re-evaluated the need for lighting at the Greenhorn and Highway 174 intersection and as a result, we removed the lighting from the project scope.
- Property owners who have not yet signed contracts can discuss any concerns regarding specific trees or other features they do not want disturbed with the Right of Way agent. The Right of Way agent will bring these concerns to the construction staff, who will review their requests and accommodate where possible.



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## 7. Why has Caltrans misrepresented the scope of the project.

- The Save 174 Group believed the Type III class of action determination should instead be classified as a Type I.
- Under Title 23, Part 772, Code of Federal Regulations, section 772.7A Type I projects is defined as:
  - The construction of a highway on a new location (major road changes), or physical alteration of an existing highway where there is either:
    - Substantial horizontal alteration.
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    - altering either the vertical alignment of the highway or the topography between the highway traffic noise source and the receptor;



## 7. Why has Caltrans misrepresented the scope of the project. (cont.)

- Not constructing a new highway
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  - Horizontal alignment and vertical profile is unchanged on 60% of the alignment.
  - Average horizontal alignment change is 25 feet.
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- Horizontal alteration does not shift the roadway closer to homes by halving the distance.
- Vegetation removal generally does not qualify a project as Type 1 because there is rarely vegetative density between the roadway and a receptor so that the vegetative cover would provide acoustic shielding.
- What motivation would Caltrans have to misrepresent the scope of the project or the purpose and need for the project?



# What's Next . . .

- Continue to work with property owners and community
- Project Advertisement Fall 2019
- Project Award Winter 2020
- Start Construction Summer 2020



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District

