



# Twining Road Improvements Conceptual Design

*from Skier Parking Lot to Zaps Road, CN LP 50011*

HUITT-ZOLIARS

The Village of Taos Ski Valley





# Twining Road Improvements: Conceptual Engineering

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- **Project Process & Schedule**
- Location Study Procedures
  - Phase A Draft Report – Alternatives Analysis and Selection
    - Initial /Detailed Evaluation of Alternatives
    - Public Meeting/Stakeholder Input
    - Selection of Preferred Alternative
    - End of December
  - Public Meeting
    - Public Meeting No. 1 - August 11, 2020
    - Public Meeting No. 2 - November 24, 2020
    - Public Meeting No. 3 – February 23, 2021
  - Phase A/B Report
    - March 2021





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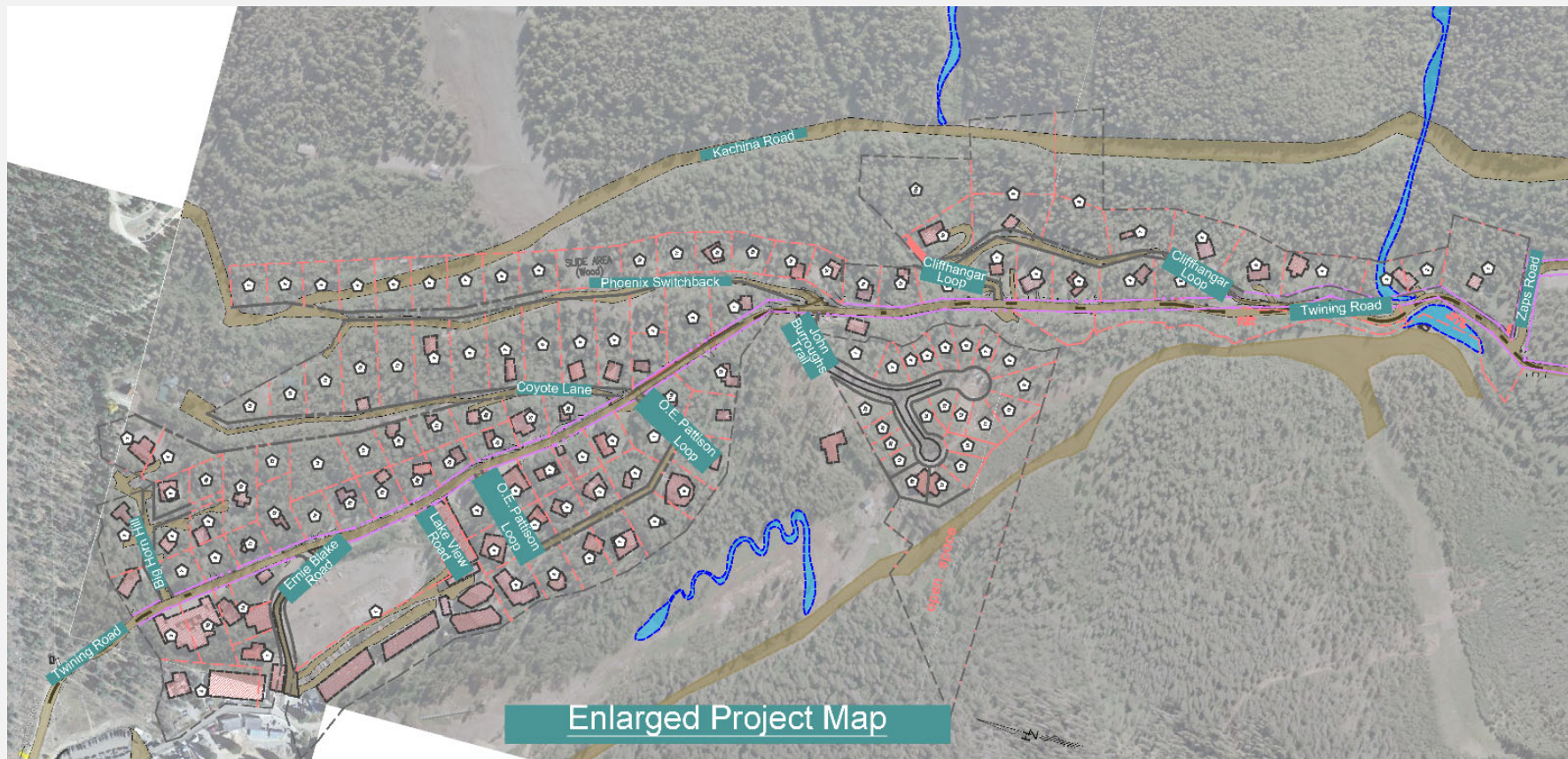
## □ Meeting Agenda

- ▣ Project Limits and Purpose
- ▣ Public Meeting #2 Questions and Responses
- ▣ Preferred Alternative
  - Grade Flattening
  - Pedestrian Facilities
  - Storm Drainage / Reduced Sediment Discharge
  - Surfacing / Dust Control
  - Improved Night Time Safety
  - Water Main Replacement
  - Safety Improvements
    - Intersection Lighting
    - Guardrail
- ▣ Questions & Comments

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## □ Project Limits





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## □ Project Purpose

### ▣ Existing Deficiencies

- Passable Roadway (Vertical Alignment)
- Pedestrian Safety & Accessibility
- Drainage System Undersized
- Existing Water Main at end of Useful Life
- Roadside Safety

### ▣ Identify Alternative Solutions

### ▣ Evaluate Alternatives



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## □ Public Comments / Concerns

### ▣ Traffic

- Speed of traffic on the road is too high.

- Speed tables have been incorporated into the Conceptual Design Plans however presents snow plowing challenges.

### ▣ Pedestrian

- Prefer sidewalk located along north side of Twining Road.

- Conceptual designs placed sidewalk along south side but location could change as part of preliminary and final design.





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## □ Public Comments / Concerns

### ■ Vertical Alignment

- The stretch between the Cliffhanger loop entries is probably one of the steepest, narrowest and potentially dangerous sections given the proximity to Lake Fork creek and precipitous drop from road to stream.
  - Conceptual designs include a milder grade in the area and guardrail.
- That section would benefit from widening and if I saw it right, there may be old right of way parallel to that road to do so into the current grade-cut.
  - Exploring this option if land is available and useable.
- I think it would be helpful to study what the mountainous European areas do with similar conditions. I am sure some ski areas have similar constraints which might offer solutions or a starting point.
  - Researched topic and most locations utilize asphalt pavement.



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## □ Public Comments / Concerns

### ▣ Utilities

- What consideration has been given to a natural gas line being incorporated into the buried utilities?
  - Franchise Utility companies are part of the Final Design Process

### ▣ Drainage

- OE Pattison Loop worse than 15-years ago due to grade alterations.
  - Twining Road proposed improvements include curb and gutter and additional storm drain inlets (plus larger storm drains).





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## □ Public Comments / Concerns

### ▣ Lighting

- Lighting improvements need not spill onto residences.
  - **Lighting designs are very low level intended only as safety improvement.**

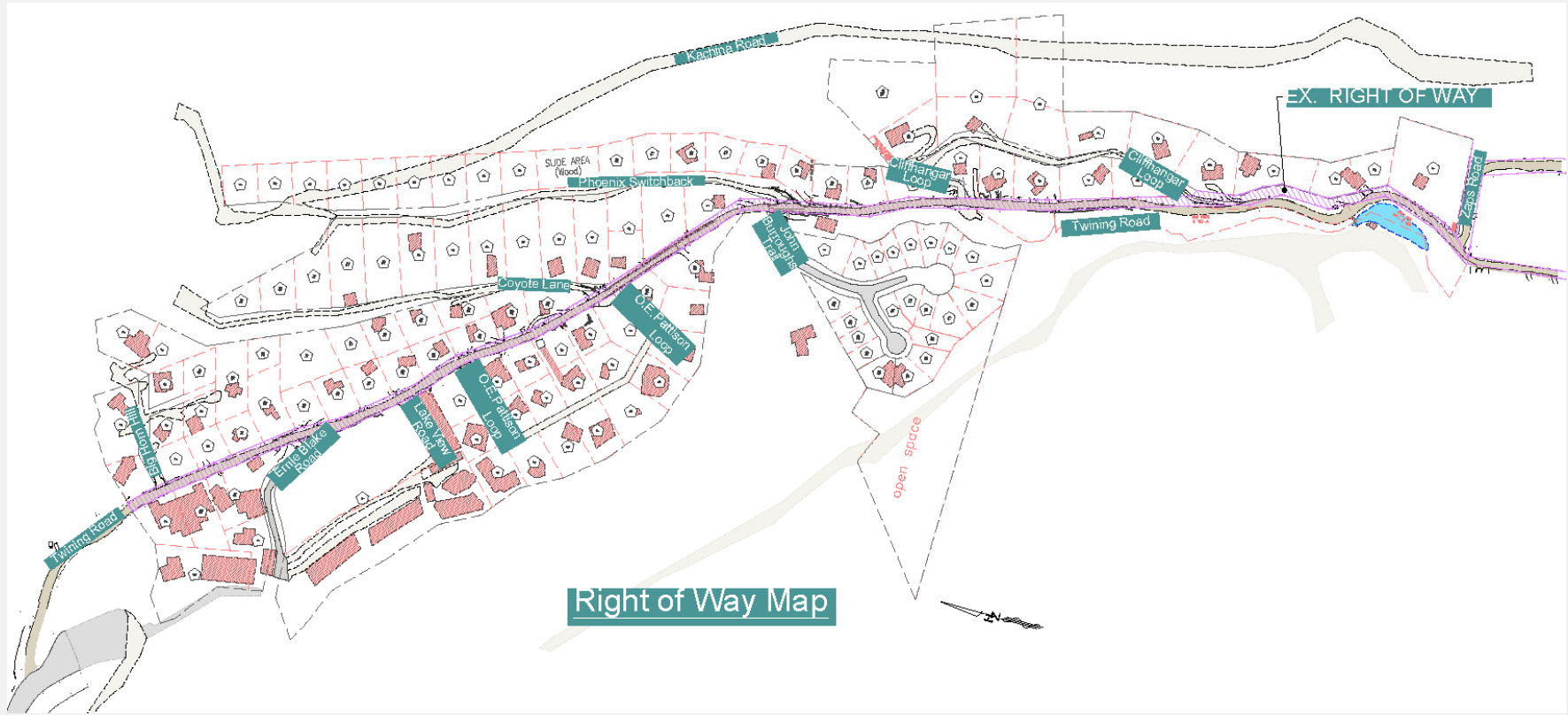
### ▣ Snow Removal

- That stretch of road regardless of final surface solution will be a problem. It is north facing, narrow and steep, once plowed the surface becomes more slick until adequate gravel is set. If oncoming traffic is met, it can be hard to stop going down and hard to start going up. Much of the gravel ends up in the drainage grates.
  - **Concur**
- A possible solution is to use a light system which allows single lane driving.? We have all seen that used on construction sites. This could be variable to apply only in winter and when conditions warrant.
  - **A solid idea and should be pursued if project funds are available.**
- The other solution which no one has mentioned is traction device weather chains, cables or auto sock. I've used all of them when the conditions seemed sketchy. They pretty much answer to all the issues especially safety but would not be popular.

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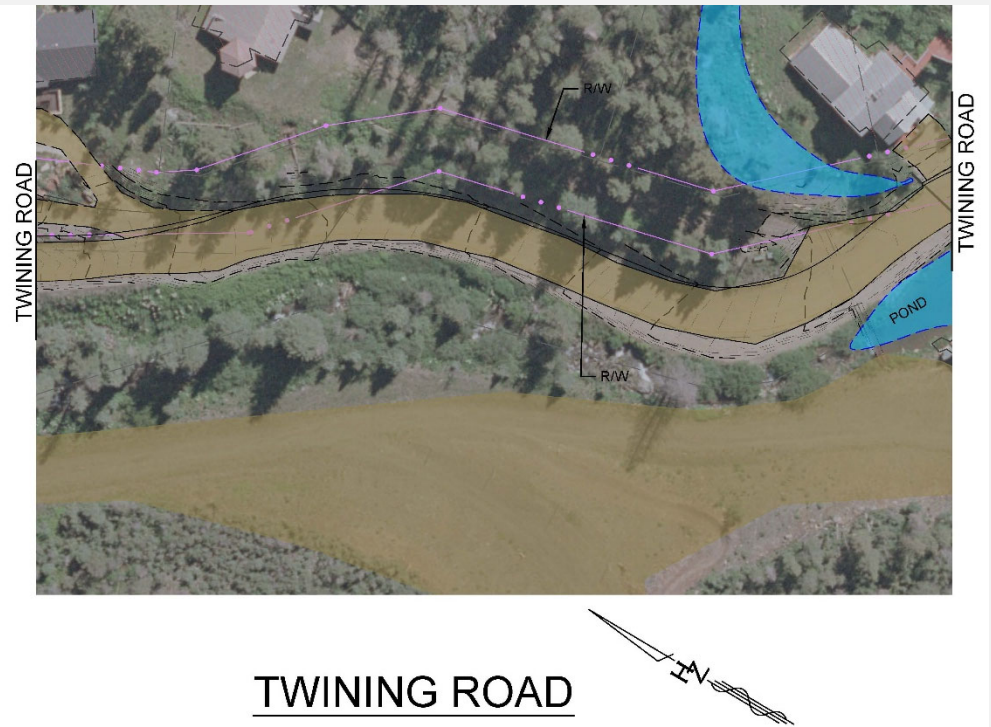
- Preferred Alternative
  - ▣ RIGHT OF WAY



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- Preferred Alternative
  - Right of Way
    - Acquire Right of Way from Forest Service Around “Beaver” Pond
    - Update – Village owns adjacent land
    - Temporary Construction Easements Vs. Acquisition of Private Land



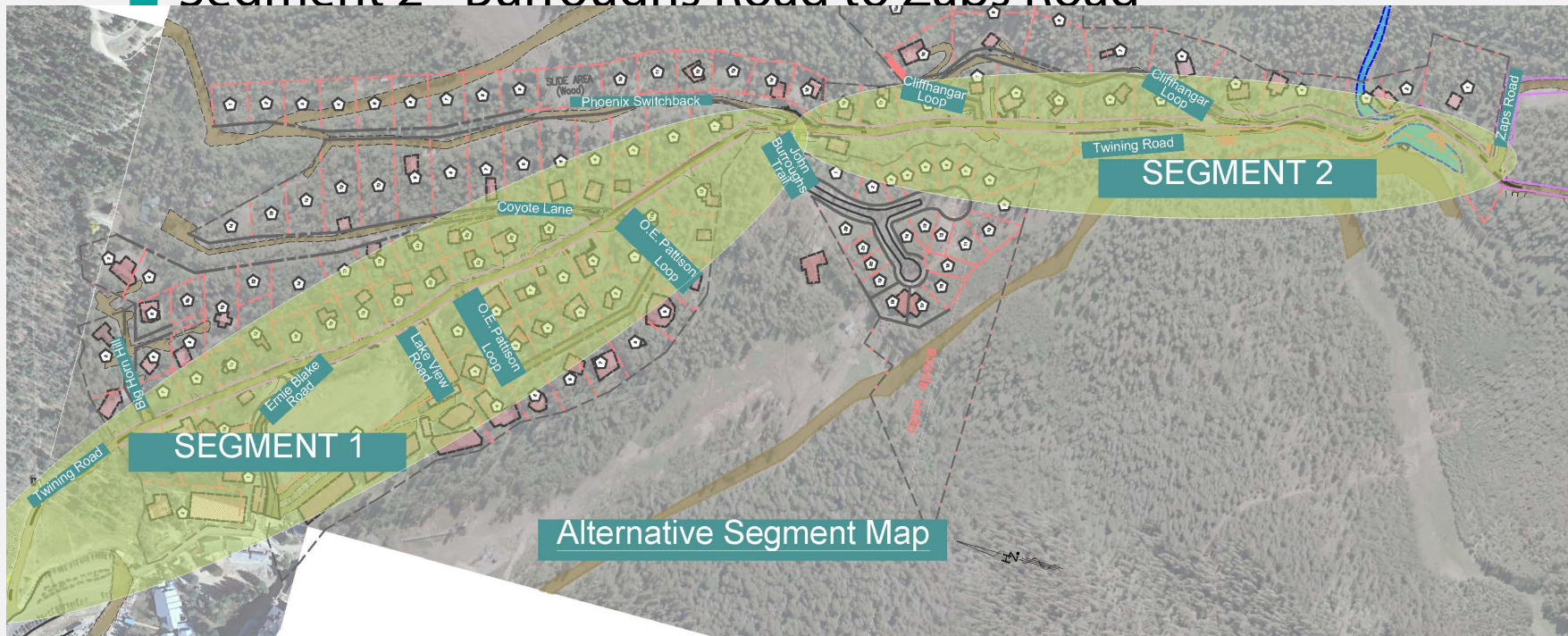


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## Preferred Alternative

- Segment 1 – Skier Parking to Burroughs Road
- Segment 2 – Burroughs Road to Zaps Road

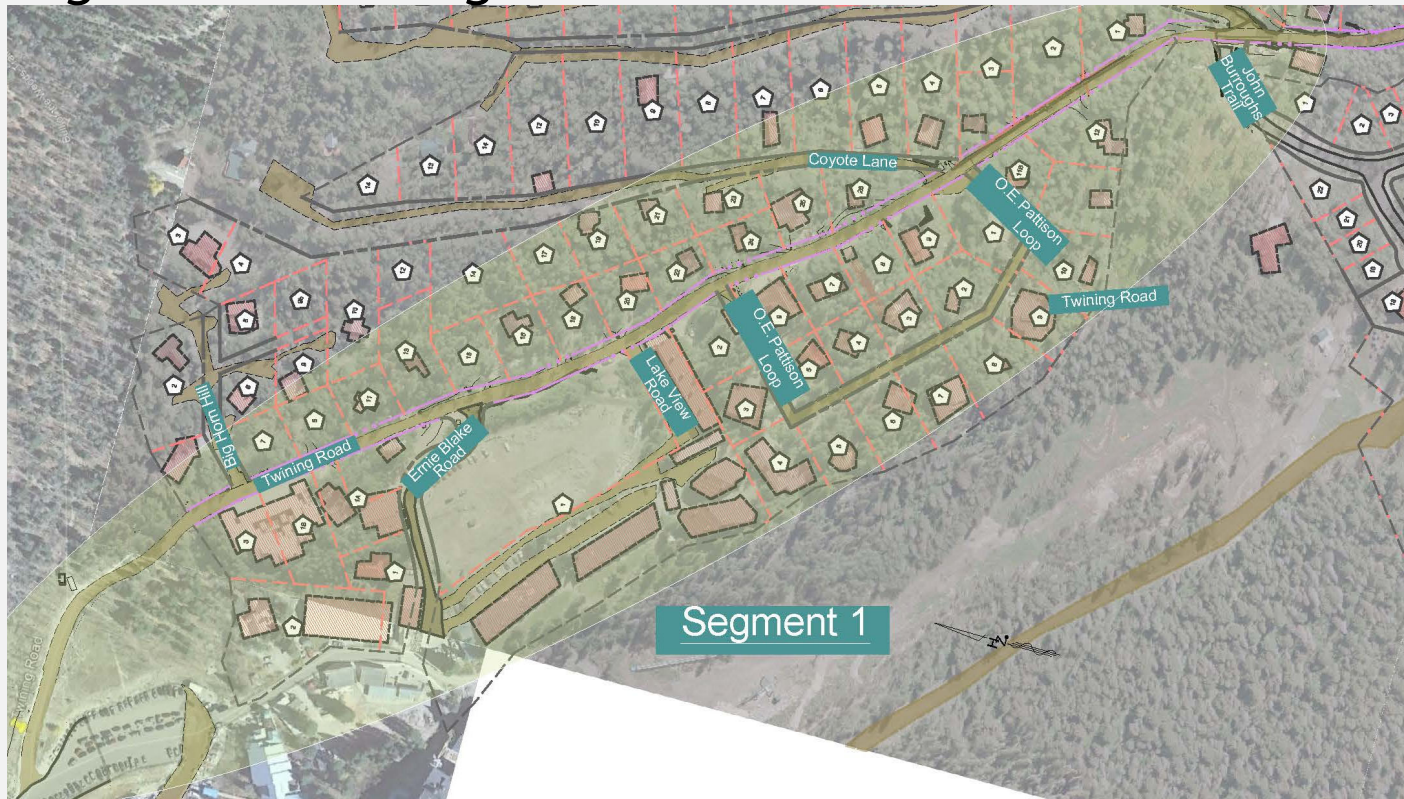




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- Preferred Alternative
  - Segment 1 – Enlargement

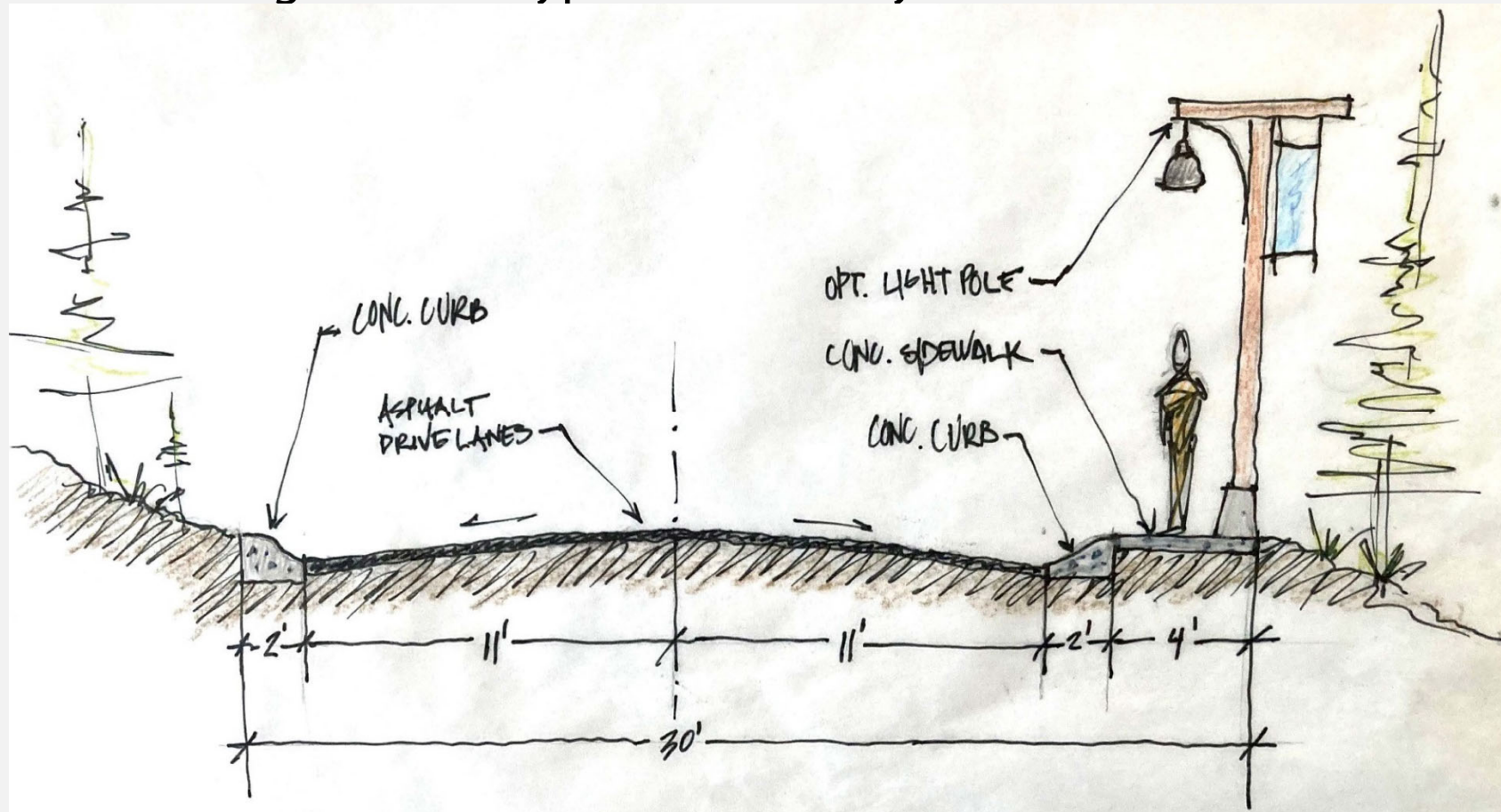


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## □ Preferred Alternative

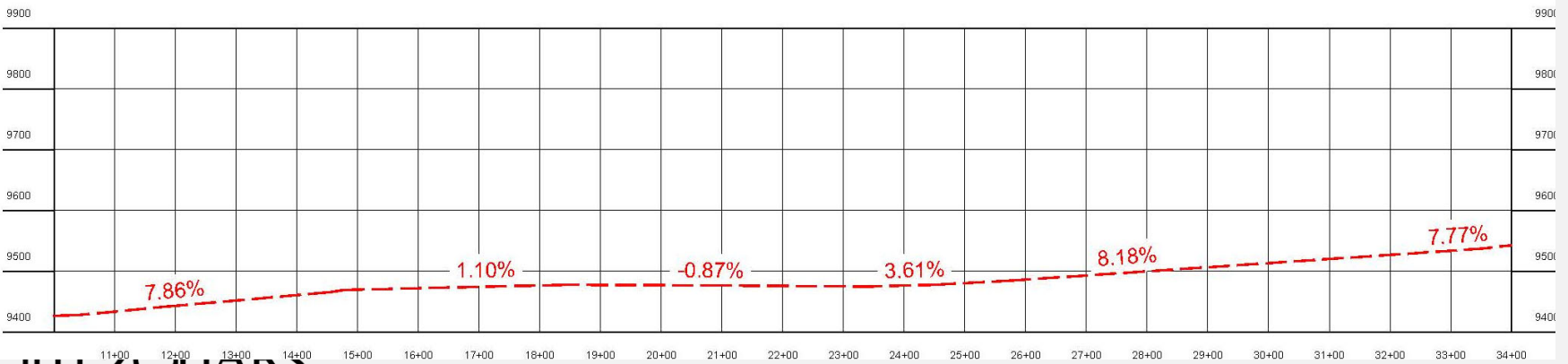
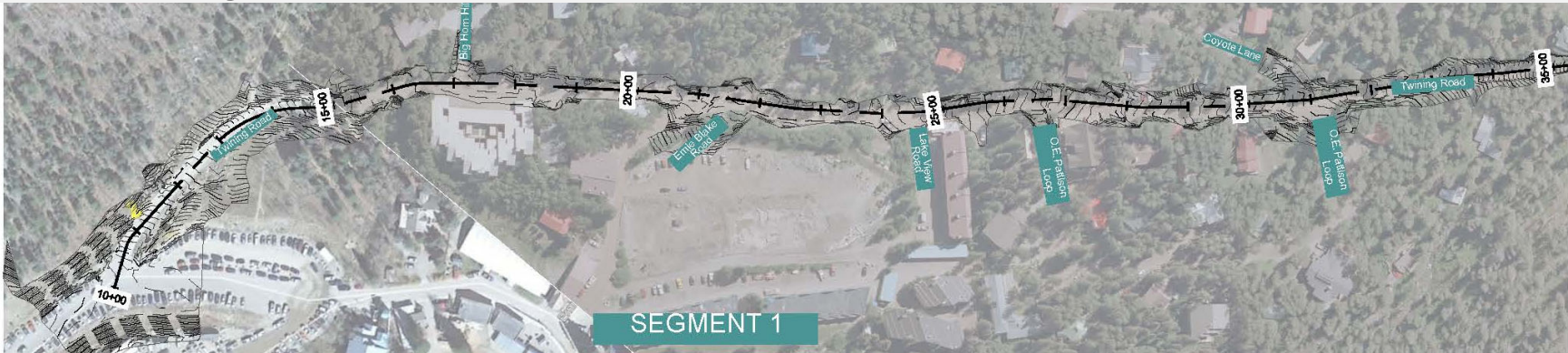
### ■ Segment 1 – Typical Section By SMPC





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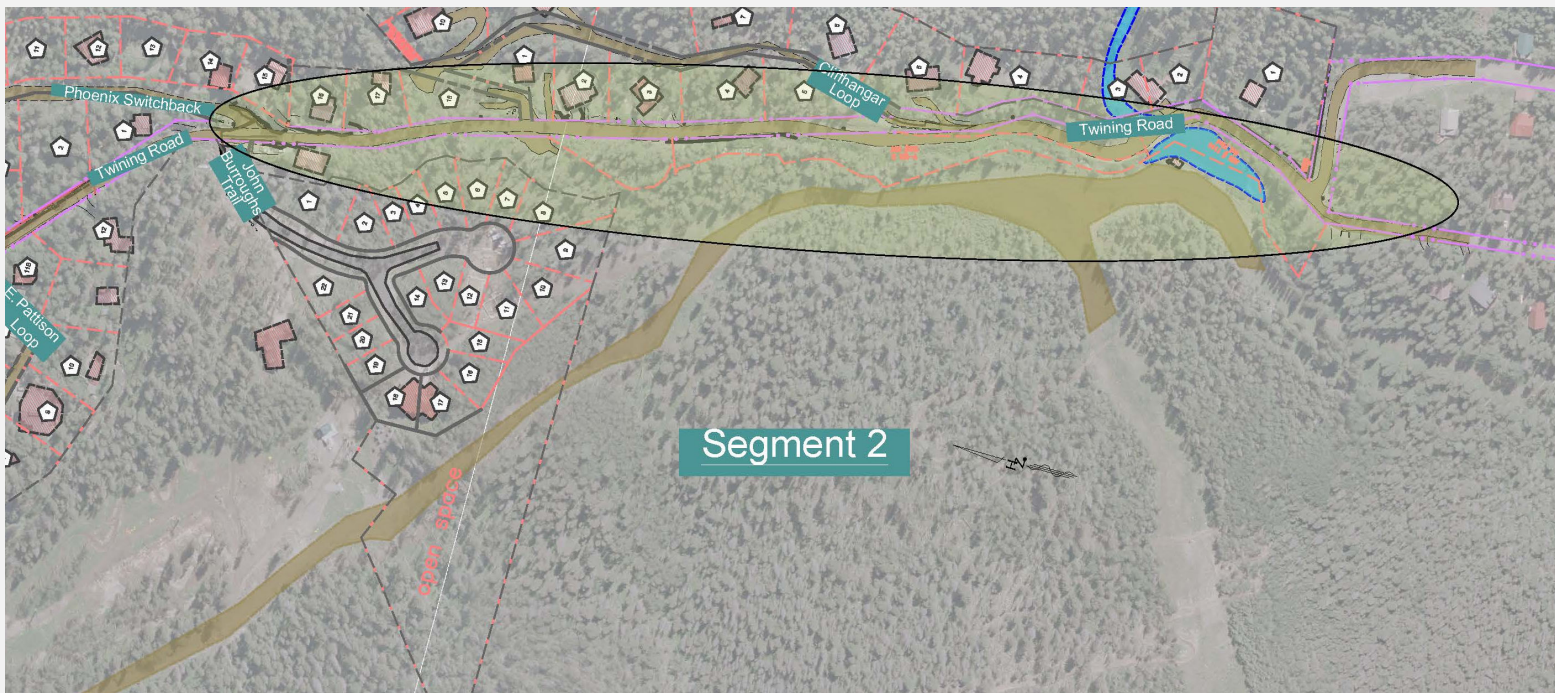
- Preferred Alternative
  - ▣ Segment 1 – Plan and Profile



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- Preferred Alternative
  - Segment 2 – Enlargement

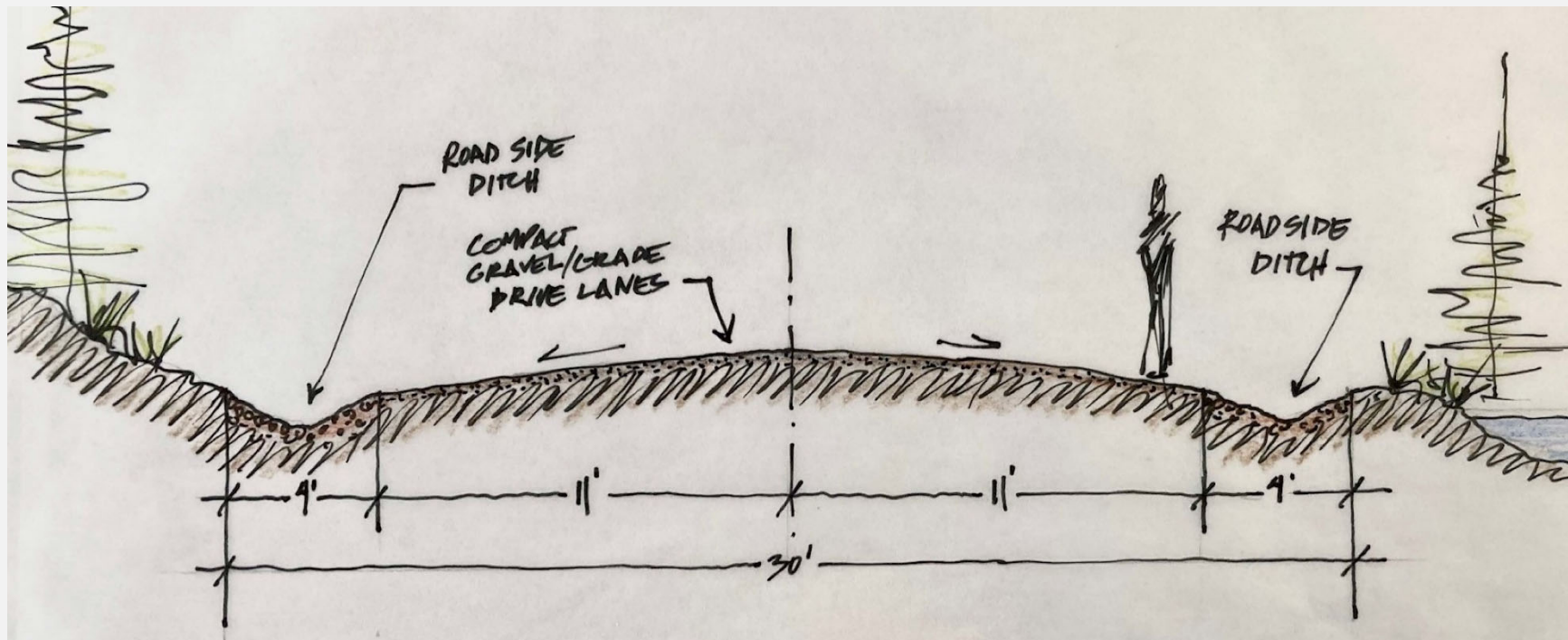




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## □ Preferred Alternative



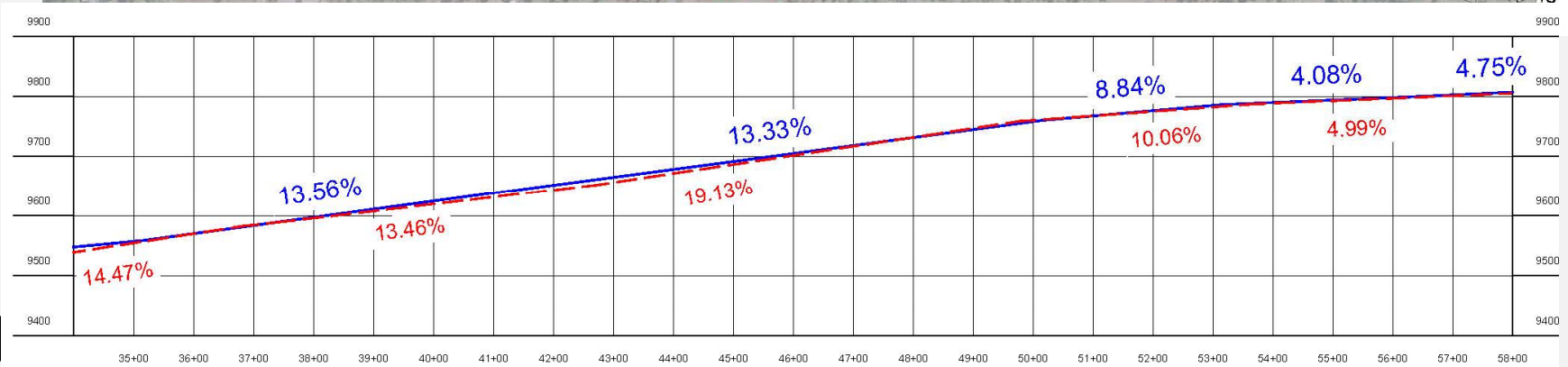
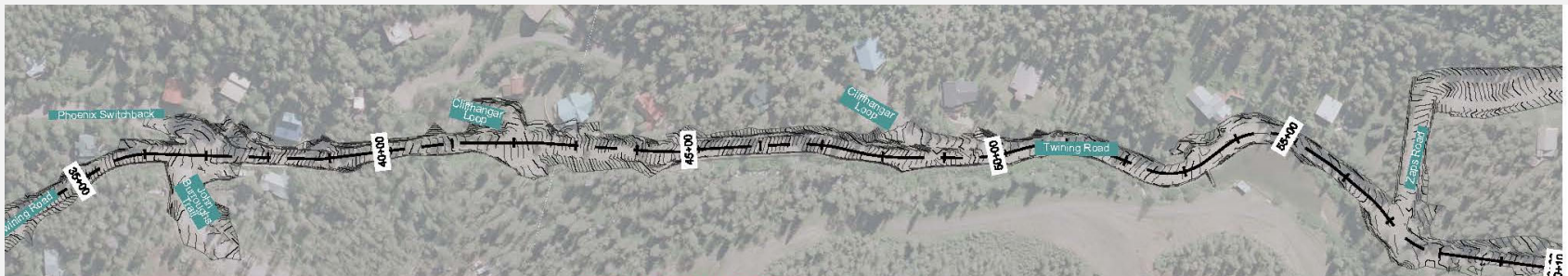


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## □ Preferred Alternative

- Surface & Drainage Improvements
- Vertical Alignment Improvements
  - Maintain Existing Drives and Major Turnouts
  - Temporary Construction Easements for Grade Tie-In



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## □ Right of Way near “Beaver” Pond - SMPC





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## □ Preferred Alternative

### ▣ Utilities

- Replace water distribution within roadway
- Dry utilities are too shallow and need to be deeper

### ▣ Drainage

- Existing drainage infrastructure in some locations is under sized
- Recommending additional inlets and storm infrastructure





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## □ Preferred Alternative

### ▣ Safety Improvements

#### ■ Lighting

- Maintain dark sky while providing Intersection Lighting with Segment 1

#### ■ Roadside

- Incorporate Guardrail in final design phase



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## □ Public Input

### ■ Submit written comments:

- Via email to Patrick Nicholson @ [pnicholson@vtsv.org](mailto:pnicholson@vtsv.org)
- Scott Eddings, Huitt-Zollars @ [seddings@huitt-zollars.com](mailto:seddings@huitt-zollars.com)

### ■ Deadline for comments

- March 3, 2021



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# Thank you!

- ❑ Questions & Comments?

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